June 26, 2001
ADDENDUM NO. 1
ANOKA COUNTY PROJECT S.P. 02-617-17 et all

The Bidders shall make the following changes, modifications and additions to the pages, paragraphs and sheets of the "Proposal for Highway Construction" and drawings for Project 02-617-17 and take same into full consideration in their bid prices.

1. Proposal Corrections:

a) Schedule of Prices:

Page 2 — Item No. 2211.503 with a description Aggregate Base (CV) Class 5, a unit measure by CY and a quantity of 1020 **is hereby deleted.** This aggregate base is incidental to the items for temporary widening, concrete walk, bituminous driveways and bituminous trail as described in the special provisions.

2. Plan Corrections:

Sheet 3 — Item No. 2211.503 with a description Aggregate Base (CV) Class 5, a unit measure by CY and a quantity of 1020 **is hereby deleted.** This aggregate base is incidental to the items for temporary widening, concrete walk, bituminous driveways and bituminous trail as described in the special provisions.

Sheet 13 — Tabulation H, Note 3, second sentence: "*See separate aggregate base Cl.5 pay item*" **is hereby deleted.**

Instructions to Bidders:

1. Strike out the item listed above from Page 2 of the Schedule of Prices. A new page will not be issued.
2. Take note of the plan sheet revisions stated above. New plan sheets will not be issued for bidding purposes.
3. Note receipt of Addendum No. 1 on Form 2953C (End Sheet for Proposal for Highway Construction)

I hereby certify that this addendum was prepared by me or under my direct supervision and that I am duly registered as a Professional Engineer under the Laws of the Sate of Minnesota.

Lyndon A. Robjent, P.E. Reg. No. 25066 — Date 6/26/01

END OF ADDENDUM No. 1

ANOKA COUNTY HIGHWAY DEPARTMENT

C.S.A.H. 17 (LEXINGTON AVENUE)

CONSTRUCTION PLAN FOR GRADING, STORM SEWER, BITUMINOUS PAVING, CONCRETE CURB & GUTTER, TRAIL, TRAFFIC SIGNALS

S.P. 02-617-17

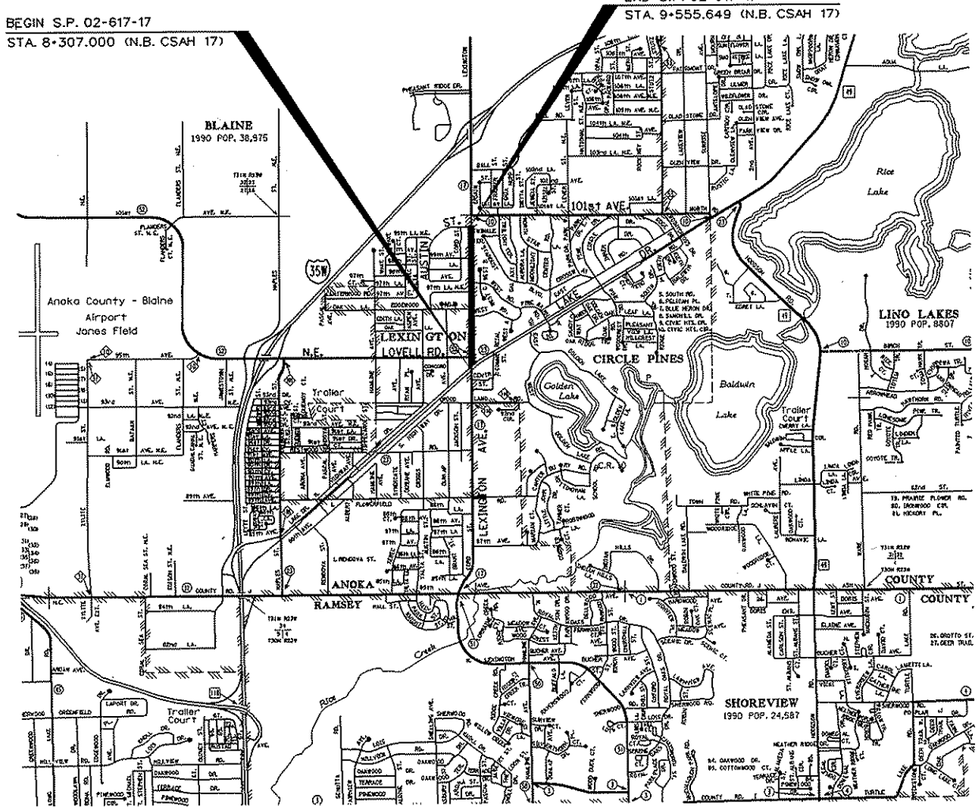
LOCATED ON ANOKA C.S.A.H. 17 (LEXINGTON AVE.)

FROM C.S.A.H. 23 (LAKE DR.) **TO** AUSTIN ST.

GROSS LENGTH	1248.649 METERS
BRIDGES-LENGTH	0.000 METERS
EXCEPTIONS-LENGTH	0.000 METERS
NET LENGTH	1248.649 METERS

BEGIN S.P. 02-617-17
STA. 8+307.000 (N.B. CSAH 17)

END S.P. 02-617-17
STA. 9+555.649 (N.B. CSAH 17)

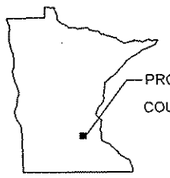


SEE GENERAL LAYOUT FOR TRAFFIC SIGNAL LOCATIONS

SCALES

PLAN	10	
PROFILE	10 HORIZ.	1 VERT.
INDEX MAP	1000	
GENERAL LAYOUT	100	
X-SECTION	2 HORIZ.	2 VERT.

ALL DIMENSIONS ARE IN METERS UNLESS NOTED OTHERWISE



PROJECT LOCATION
COUNTY ANOKA
METRO DIVISION

minnesota metric

PLAN REVISIONS		
DATE	SHEET NO.	APPROVED BY
6-26-01	3,13	LAR

⚠6

DESIGN DESIGNATION		C.S.A.H. 17
FUNCTIONAL CLASSIFICATION		HIGH DENSITY ARTERIAL
NO. OF TRAFFIC LANES		4
NO. OF PARKING LANES		0
STRUCTURAL DESIGN		10 TON
R-VALUE		50
DESIGN SPEED	STA. 8+307 TO STA. 9+556	65 Km/h
STOPPING SIGHT DISTANCE BASED ON:		
HEIGHT OF EYE		1070mm
HEIGHT OF OBJECT		150mm
ADT (CURRENT YEAR) (2001)		10650
ADT (FUTURE YEAR) (2021)		15800
ΣN18		1950000
HCADT		

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
DRY RUN
DRAINAGE DITCH
DRAIN TILE
CULVERT
DROP INLET
GUARD RAIL
BARBED WIRE FENCE
WOVEN WIRE FENCE
CHAIN LINK FENCE
RAILROAD SNOW 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
B-BRICK ST-STUCCO
IRON PIPE OR ROD
MONUMENT (STONE, CONCRETE, OR METAL)
WOODEN HUB
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 COMMUNICATION CABLE
BURIED TELEPHONE CABLE
BURIED ELECTRIC CABLE
AERIAL TELEPHONE CABLE
SEWER, (SANITARY)
SEWER, (STORM)
SEWER MANHOLE
HANDHOLE
CATCH BASIN

NAME: 2842.COV DATE: Apr. 30, 2001

MINN. PROJ. NO. ACSTPX 0201(242)

GOVERNING SPECIFICATIONS

THE 1995 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION" (METRIC) SHALL GOVERN.

ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, INCLUDING THE FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS, DATED JANUARY, 1998.

INDEX

THIS PLAN CONTAINS 91 SHEETS.

SHEETS 9, 18, 22, 25-27, 32-34, 39, 40, 43, 48-51, 54-59, 64-67, 70, 74-79, 82-87, 90, 97-99, 106, 110-117, 119-155, 180-183, ARE NOT INCLUDED IN THIS PLAN.

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. Matthew D. Zimmerman
Reg. No. 21364 Date 5/11/2001

SRF CONSULTING GROUP, INC.

ANOKA COUNTY HIGHWAY ENGINEER — DATE 5/1/01

CITY OF BLAINE — DATE 5/1/01

CITY OF CIRCLE PINES — DATE 5/1/01

CITY OF LEXINGTON — DATE 5/1/01

METRO ASSISTANT DIVISION ENGINEER - STATE AID: REVIEWED FOR COMPLIANCE WITH STATE AID RULES/POLICY — DATE 5/24/01

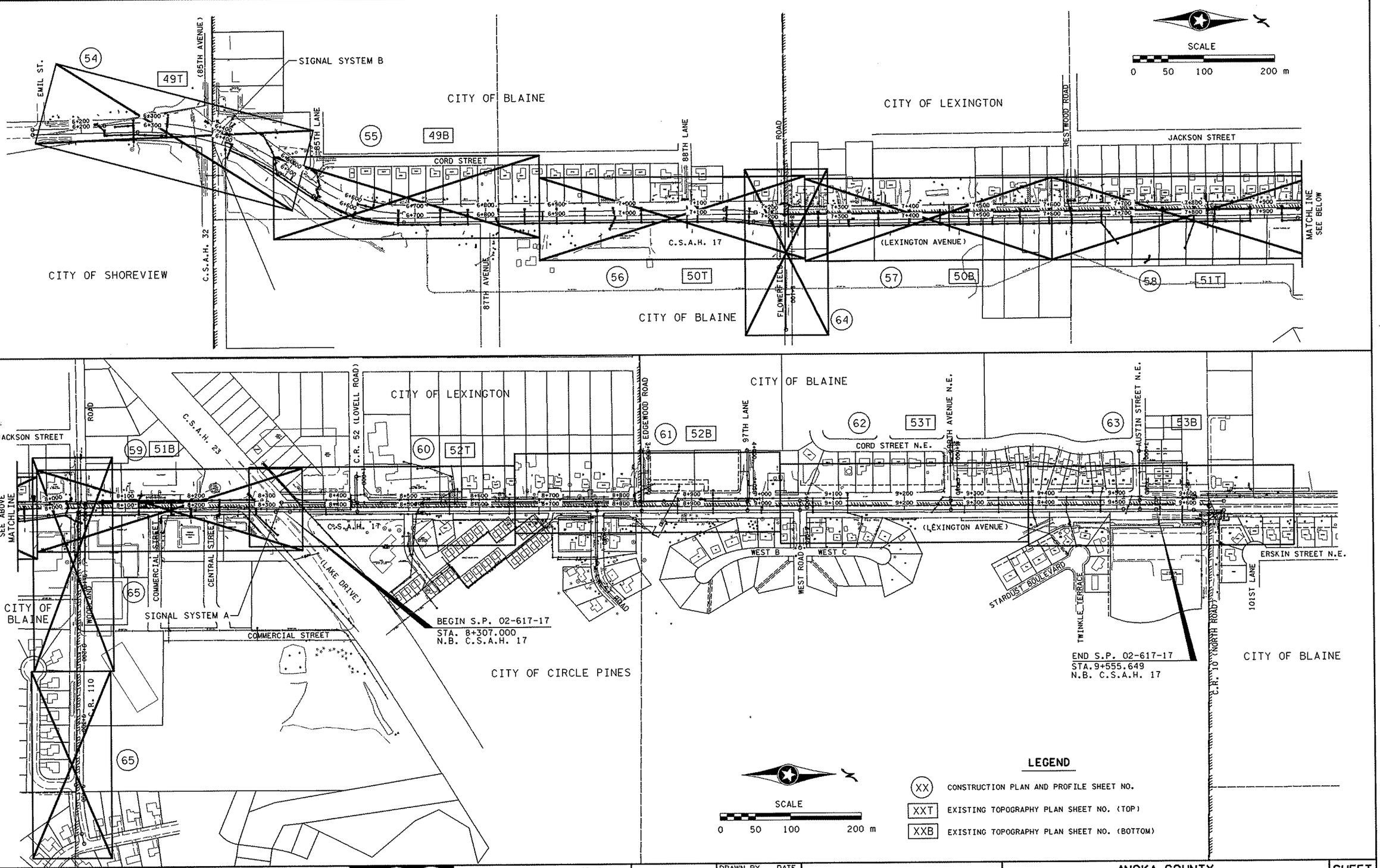
STATE AID ENGINEER: APPROVED FOR STATE AND FEDERAL AID FUNDING — DATE 5/24/01

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.

ENGR. .....
Reg. No. ..... Date .....

S.P. 02-617-17 ANOKA CO. (C.S.A.H. 17)
S.A.P. 106-020-14 CITY OF BLAINE (LEXINGTON AVE.)

SHEET NO. 1 OF 183 SHEETS



NO	DATE	BY	CKD	APPR	REVISION
1	7-31-00	VGG	BRW	MDH	REVISED PER FEDERAL AID STANDARDS
2	11-16-00	VGG	BRW	MDH	C.R. 110 S.A.P. NO. REVISION

NAME: 2842.GLA DATE: Apr. 27, 2001

minnesota metric

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.

Date 5-1-2001 Reg. No. 21364

STATE AID PROJECT NO. S.A.P. 106-020-14

FED. AID PROJECT NO. S.P. 02-617-17

DRAWN BY S. MARTINS DATE 11-98
DESIGNED BY M. HANSEN 11-98
CHECKED BY M. HANSEN 2-99
COMM. NO. 0972842

SRF CONSULTING GROUP, INC.

ANOKA COUNTY
GENERAL LAYOUT
C.S.A.H. 17 RECONSTRUCTION

SHEET 2 OF 183

DESIGN FILE: n:\civil\047\2842\PlanNorthLKDF\2842.glo
PRF FILE: n:\civil\all\047\2842\PlanNorthLK0r\2842.prf
PLOTTER: HP DesignJet 755CM
PLOT SCALE: 1 = 283000
PLOT DATE/TIME: 05/02/2001 15:28:01

STATEMENT OF ESTIMATED QUANTITIES

TAB	NOTES	ITEM NO.	ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	ANOKA COUNTY SP 02-617-17 LEXINGTON AVE QUANTITY	ANOKA COUNTY SP 02-617-17 DRAINAGE QUANTITY	BLAINE SAP 106-020-14 LEXINGTON AVE QUANTITY	BLAINE NON-PART LEXINGTON AVE QUANTITY	CIRCLE PINES NON-PART LEXINGTON AVE QUANTITY	LEXINGTON NON-PART LEXINGTON AVE QUANTITY
		2013.602	CELLULAR MOBILE TELEPHONE	EACH	2	2					
		2015.601	COMPUTER EQUIPMENT	LUMP SUM	1	1					
		2021.501	MOBILIZATION	LUMP SUM	1	1					
	4	2031.501	FIELD OFFICE TYPE D	EACH	1	1					
		2041.610	TRAINEES	HOUR	750	750					
A		2101.501	CLEARING	ha	0.90	0.90					
A		2101.502	CLEARING	TREE	78	78					
A		2101.506	GRUBBING	ha	0.90	0.90					
A		2101.507	GRUBBING	TREE	74	74					
C		2102.502	PAVEMENT MARKING REMOVAL	m	3675	3675					
M		2104.501	REMOVE WATER MAIN	m	31	31					
B		2104.501	REMOVE PIPE SEWERS	m	137.0	137.0					
C		2104.501	REMOVE CONCRETE CURB AND GUTTER	m	1288	1288					
J		2104.501	REMOVE FENCE	m	30.6	30.6					
C	5	2104.503	REMOVE BITUMINOUS PAVEMENT	m2	14631	14631					
F		2104.503	REMOVE BITUMINOUS DRIVEWAY PAVEMENT	m2	1280.0	1280.0					
E		2104.503	REMOVE WOOD RETAINING WALL	m2	19.5	19.5					
E		2104.503	REMOVE CONCRETE RETAINING WALL	m2	9	9					
F		2104.503	REMOVE CONCRETE PAVEMENT	m2	150.5	150.5					
C		2104.503	REMOVE CONCRETE MEDIAN	m2	240	240					
B		2104.509	REMOVE DRAINAGE STRUCTURE	EACH	10	10					
M		2104.509	REMOVE HYDRANT	EACH	2						2
B		2104.509	REMOVE PIPE APRON	EACH	6	6					
C		2104.511	SAWING CONCRETE PAVEMENT	m	3	3					
C		2104.513	SAWING BITUMINOUS PAVEMENT	m	167	167					
J		2104.521	SALVAGE CHAIN LINK FENCE	m	69.6	69.6					
J		2104.521	SALVAGE WOODEN FENCE	m	22.6	22.6					
J		2104.521	SALVAGE WOOD RAIL FENCE	m	6.0	6.0					
E		2104.521	SALVAGE TIMBER PLANTER BOX	m	21.1	21.1					
K		2104.523	SALVAGE WOOD BOLLARD	EACH	9	9					
T	1	2104.523	SALVAGE SIGN TYPE C	EACH	28	28					
T	1	2104.523	SALVAGE SIGN TYPE D	EACH	2	2					
T	1	2104.523	SALVAGE SIGN TYPE SPECIAL	EACH	3	3					
M		2104.523	SALVAGE HYDRANT	EACH	3	3					
H		2104.604	SALVAGE PAVEMENT SECTION	m2	2591	2591					
R		2105.501	COMMON EXCAVATION	m3	(P) 30144	30144					
R		2105.505	MUCK EXCAVATION	m3	700	700					
H	25	2105.543	STABILIZING AGGREGATE	t	6400	6400					
R	2	2105.607	SPECIAL EXCAVATION	m3	12733	12733					
F		2118.501	AGGREGATE SURFACING CLASS 5	t	116	116					
	3	2130.501	WATER	m3	760	760					
H	23	2211.503	AGGREGATE BASE (CV) CLASS 5	m3	(P) 5399	5399					
~~H~~	~~18~~	~~2211.503~~	~~AGGREGATE BASE (CV) CLASS 5~~	~~m3~~	~~1030~~	~~564~~		~~170~~		~~389~~	
C		2232.501	MILL BITUMINOUS SURFACE (40 mm)	m2	3215	3215					
H		2331.603	SAWED / SEALED JOINT	m	2700	2700					
F	14	2350.604	TYPE LV 4 BITUMINOUS MIXTURE FOR DRIVEWAYS	m2	839.5	839.5					
H	12	2350.609	TYPE LV 3 BITUMINOUS MIXTURE FOR TEMPORARY PAVEMENT	t	560	560					
H	21	2350.609	TYPE MV 3 WEARING COURSE MIXTURE	t	2814	2814					
H	17	2350.609	TYPE MV 3 NON-WEARING COURSE MIXTURE	t	2590	2590					
H	17	2350.609	TYPE LV 3 NON-WEARING COURSE MIXTURE	t	4559	4559					
H		2357.502	BITUMINOUS MATERIAL FOR TACK COAT	L	10657	10657					
E		2411.603	INSTALL TIMBER PLANTER BOX	m	21.1	21.1					
E		2411.604	CONCRETE BLOCK RETAINING WALL	m2	115	115					
Q		2501.515	375mm RC PIPE APRON	EACH	1		1				
Q		2501.515	600mm RC PIPE APRON	EACH	3		3				
Q		2501.602	TRASH GUARD FOR 375mm PIPE APRON	EACH	1		1				
Q		2503.541	300 mm RC PIPE SEWER DESIGN 3006	m	482.0		482.0				
Q		2503.541	300 mm RC PIPE SEWER DESIGN 3006 CLASS III	m	41.0		41.0				

NO	DATE	BY	CKD	APPR	REVISION
8	6-26-01	LAR			REVISED ITEM 2211.503
7	5-31-01	BRW	BRW	MDH	REVISED SALVAGE SIGN QUANTITIES
6	3-23-01	SJP	BRW	MDH	REVISED PER ANOKA COUNTY COMMENTS
1	8-08-00	VGG	BRW	MDH	REVISED PER FEDERAL AID STANDARDS
2	11-16-00	VGG	BRW	MDH	REVISED PER FEDERAL AID COMMENTS
3	11-16-00	VGG	BRW	MDH	C.R. 110 S.A.P. NO. REVISION
4	2-05-01	ELB	BRW	MDH	REVISED PER ANOKA COUNTY COMMENTS
5	2-20-01	BRW	BRW	MDH	REVISED PER MNDOT AND ANOKA COUNTY COMMENTS

NAME: 2842.EQA DATE: May. 31, 2001 TIME: 13:12:46

minnesota metric

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.
Date 6-7-2001 Reg. No. 21364

STATE AID PROJECT NO. S.A.P. 106-020-14

FED. AID PROJECT NO. S.P. 02-617-17

DRAWN BY V. GRAF DATE 1-99
DESIGNED BY B. WESTBY 1-99
CHECKED BY M. HANSEN 1-99
COMM. NO. 0972842

SRF CONSULTING GROUP, INC.

ANOKA COUNTY
STATEMENT OF ESTIMATED QUANTITIES
C.S.A.H. 17 RECONSTRUCTION

DESIGN FILE: N:\CIVIL\047\2842\PlanNorthLKD=\2842.eqa
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PLOTTER: HP5SIMX
PLOT SCALE: 2.567000
PLOT DATE/TIME: 06/07/2001 14:18:27

STATEMENT OF ESTIMATED QUANTITIES

TAB	NOTES	ITEM NO.	ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	ANOKA COUNTY SP 02-617-17 LEXINGTON AVE QUANTITY	ANOKA COUNTY SP 02-617-17 DRAINAGE QUANTITY	BLAINE SAP 106-020-14 LEXINGTON AVE QUANTITY	BLAINE NON-PART LEXINGTON AVE QUANTITY	CIRCLE PINES NON-PART LEXINGTON AVE QUANTITY	LEXINGTON NON-PART LEXINGTON AVE QUANTITY
Q		2503.541	375 mm RC PIPE SEWER DESIGN 3006	m	241.4		241.4				
Q		2503.541	375 mm RC PIPE SEWER DESIGN 3006 CLASS III	m	22.2		22.2				
Q		2503.541	450 mm RC PIPE SEWER DESIGN 3006	m	138.0		138.0				
Q		2503.541	525 mm RC PIPE SEWER DESIGN 3006	m	197.0		197.0				
Q		2503.541	525 mm RC PIPE SEWER DESIGN 3006 CLASS III	m	44.1		44.1				
Q		2503.541	600 mm RC PIPE SEWER DESIGN 3006	m	49.2		49.2				
Q		2503.541	600 mm RC PIPE SEWER DESIGN 3006 CLASS III	m	51.0		51.0				
Q		2503.541	600 mm RC PIPE SEWER DESIGN 3006 CLASS IV	m	184.7		184.7				
L		2503.602	REPAIR SANITARY SEWER	EACH	1						1
M		2503.604	50mm INSULATION	m2	1028	1028					3
M	20	2504.602	HYDRANT	EACH	3						
M		2504.602	ADJUST HYDRANT	EACH	1	1					
M		2504.602	ADJUST VALVE BOX	EACH	14	14					
M		2504.602	INSTALL HYDRANT	EACH	3	3					
M		2504.602	RELOCATE CURB STOP AND BOX	EACH	8	8					
M		2504.603	150 mm WATERMAIN DUCT. IRON CL 52	m	62	36					26
M		2504.608	WATERMAIN FITTINGS	kg	588	400					188
Q		2506.501	CONST DRAINAGE STRUCTURE DESIGN F	m	38.13		38.13				
Q		2506.501	CONST DRAINAGE STRUCTURE DESIGN G	m	26.81		26.81				
Q		2506.501	CONST DRAINAGE STRUCTURE DESIGN 1200 mm 4020	m	0.93		0.93				
Q		2506.501	CONST DRAINAGE STRUCTURE DESIGN 1350 mm 4020	m	5.76		5.76				
Q		2506.501	CONST DRAINAGE STRUCTURE DESIGN 1500 mm 4020	m	8.48		8.48				
Q		2506.502	CONST DRAINAGE STRUCTURE DESIGN SPECIAL 1	EACH	1		1				
P		2506.516	CASTING ASSEMBLY	EACH	59		59				
L, Q	19	2506.522	ADJUST FRAME AND RING CASTING	EACH	8	8					
L		2506.603	RECONSTRUCT SANITARY MANHOLES	m	1.6	1.6					
Q	13	2511.501	RANDOM RIP RAP CLASS III	m3	20.4		20.4				
G		2521.501	100 mm CONCRETE WALK	m2	1697	1697					
G	15	2521.501	150 mm CONCRETE WALK	m2	17	17					
G	10	2521.511	50 mm BITUMINOUS WALK	m2	4586			1703		2883	
G		2531.501	CONCRETE CURB AND GUTTER DESIGN B612	m	1480	1480					
G		2531.501	CONCRETE CURB AND GUTTER DESIGN B618	m	2674	1337		448		614	275
G	22	2531.501	CONCRETE CURB AND GUTTER DESIGN SURMOUNTABLE	m	162	162					
F		2531.507	150 mm CONCRETE DRIVEWAY PAVEMENT	m2	171.9	100.8				71.1	
F		2531.507	200 mm CONCRETE DRIVEWAY PAVEMENT	m2	75.1			16.1		59.0	
K		2554.602	INSTALL WOOD BOLLARD	EACH	9	9					
J	24	2557.501	WIRE FENCE DESIGN 1.5V-9322	m	81.6	81.6					
		2557.602	RELOCATE MAILBOX	EACH	8	8					
J		2557.603	INSTALL CHAIN LINK FENCE	m	69.6	69.6					
J		2557.603	INSTALL WOODEN FENCE	m	22.6	22.6					
J		2557.603	INSTALL WOOD RAIL FENCE	m	6.0	6.0					
		2563.601	TRAFFIC CONTROL STAGE 1	LUMP SUM	1	1					
		2563.601	TRAFFIC CONTROL STAGE 2	LUMP SUM	1	1					
		2563.601	TRAFFIC CONTROL STAGE 3	LUMP SUM	1	1					
S	11	2564.531	SIGN PANELS TYPE C	m2	49.2	49.2					
T		2564.537	INSTALL SIGN TYPE C	EACH	11	11					
T		2564.537	INSTALL SIGN TYPE D	EACH	1	1					
T		2564.537	INSTALL SIGN TYPE SPECIAL	EACH	3	3					
D	16	2564.602	PAVEMENT MESSAGE (LEFT ARROW) PAINT	EACH	18	18					
D	16	2564.602	PAVEMENT MESSAGE (RIGHT ARROW) PAINT	EACH	18	18					
D	16	2564.602	PAVEMENT MESSAGE (RIGHT-THRU ARROW) PAINT	EACH	2	2					
D	16	2564.603	100 mm SOLID LINE WHITE PAINT	m	844	844					
D	6, 16	2564.603	100 mm BROKEN LINE WHITE PAINT	m	4544	4544					
D	16	2564.603	300 mm SOLID LINE WHITE PAINT (CROSSWALK)	m	382	382					
D	16	2564.603	600 mm SOLID WHITE PAINT (STOP LINE)	m	88	88					
D	16	2564.603	100 mm SOLID LINE YELLOW PAINT	m	4422	4422					
D	6, 16	2564.603	100 mm BROKEN LINE YELLOW PAINT	m	1512	1512					
D	16	2564.604	ZEBRA CROSSWALK WHITE PAINT	m2	310	310					
		2565.616	REVISE SIGNAL SYSTEM	SYSTEM	1	1					

NO	DATE	BY	CKD	APPR	REVISION
6	3-23-01	SJP	BRW	MDH	REVISED PER ANOKA COUNTY COMMENTS
1	8-08-00	VGG	BRW	MDH	REVISED PER FEDERAL AID STANDARDS
2	11-16-00	VGG	BRW	MDH	REVISED PER FEDERAL AID COMMENTS
3	11-16-00	VGG	BRW	MDH	C.R. 110 S.A.P. NO. REVISION
4	2-05-01	ELB	BRW	MDH	REVISED PER ANOKA COUNTY COMMENTS
5	2-20-01	BRW	BRW	MDH	REVISED PER MNDOT AND ANOKA COUNTY COMMENTS

NAME: 2842.EQB DATE: Apr. 27, 2001

minnesota metric

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.

Date 5-1-2001 Reg. No. 21364

STATE AID PROJECT NO. S.A.P. 106-020-14

FED. AID PROJECT NO. S.P. 02-617-17

DRAWN BY V. GRAF DATE 1-99
DESIGNED BY B. WESTBY 1-99
CHECKED BY M. HANSEN 1-99
COMM. NO. 0972842

SRF CONSULTING GROUP, INC.

ANOKA COUNTY
STATEMENT OF ESTIMATED QUANTITIES
C.S.A.H. 17 RECONSTRUCTION

SHEET 4 OF 183

DESIGN FILE: h:\civil\047\2842\PlanNorthLkDr\2842.eqb
PRF FILE: h:\civil\047\2842\PlanNorthLkDr\2842.prf
PLOTTER: MS-HP5SI MX
PLOT SCALE: 2.455000
PLOT DATE/TIME: 05/02/2001 15:28:46

STATEMENT OF ESTIMATED QUANTITIES

TAB	NOTES	ITEM NO.	ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	ANOKA COUNTY SP 02-617-17 LEXINGTON AVE QUANTITY	ANOKA COUNTY SP 02-617-17 DRAINAGE QUANTITY	BLAINE SAP 106-020-14 LEXINGTON AVE QUANTITY	BLAINE NON-PART LEXINGTON AVE QUANTITY	CIRCLE PINES NON-PART LEXINGTON AVE QUANTITY	LEXINGTON NON-PART LEXINGTON AVE QUANTITY
U	9	2573.603	SILT FENCE, TYPE MACHINE SLICED	m	1390	1390					
U		2575.501	SEEDING	ha	0.56	0.56					
U		2575.502	SEED MIXTURE 20A	kg	18.0	18.0					
U		2575.502	SEED MIXTURE 90A	kg	10.0	10.0					
U		2575.505	SODDING TYPE LAWN	m2	7700	7700					
U		2575.505	SODDING TYPE SALT RESISTANT	m2	8570	8570					
Q, U		2575.505	SODDING TYPE EROSION	m2	7	7					
U	8,9	2575.523	EROSION CONTROL BLANKET (STRAW 2S)	m2	5600	5600					
U		2575.532	COMMERCIAL FERT ANALYSIS 10-10-10	kg	313.6	313.6					
D	7	2581.501	REMOVABLE PREFORMED PLASTIC MARKING	m	6560	6560					

NOTES:

1 SEE SIGNING AND STRIPING PLAN SHEETS.
2 QUANTITY CONSISTS OF POND A.
3 FOR DUST CONTROL.
4 QUANTITY CONSISTS OF FURNISHING AND INSTALLING THREE (3) TELEPHONES, THREE (3) TELEPHONE SERVICE LINES, AND AN ANSWERING MACHINE IN THE SPACE RENTED BY ANOKA COUNTY AT THE CITY OF LEXINGTON OFFICE BUILDING AT LOVELL ROAD AND CSAH 17.
5 THICKNESS RANGES FROM 75 mm TO 250 mm.
6 LENGTH INCLUDES GAP.
7 FOR TRAFFIC CONTROL PURPOSES DURING CONSTRUCTION.
8 TO BE USED WHERE NECESSARY WHEN DIRECTED BY THE ENGINEER.
9 INCLUDES MAINTENANCE.
10 CONSTRUCTION OF BITUMINOUS PEDESTRIAN CURB RAMPS SHALL BE INCIDENTAL TO CONSTRUCTION OF BITUMINOUS WALK.
11 SEE SIGN DETAILS. QUANTITY INCLUDES DELINEATORS X4-2.
12 TEMPORARY 90 mm BITUMINOUS PAVEMENT FOR STAGE 1 OF TRAFFIC CONTROL. ALL EMBANKMENT MATERIALS REQUIRED FOR TEMPORARY PAVEMENT CONSTRUCTION SHALL BE INCIDENTAL TO TEMPORARY BITUMINOUS PAVEMENT CONSTRUCTION.
13 THE REQUIRED GRANULAR FILTER MATERIAL AND/OR FILTER FABRIC SHALL BE CONSIDERED INCIDENTAL.
14 QUANTITY CONSISTS OF BITUMINOUS SURFACED DRIVES. QUANTITY COMPUTATIONS ASSUME 100 mm AVERAGE PAVEMENT THICKNESS @ 0.0023 t/m2/mm. ALL AGGREGATE BASE CLASS 5 AND EMBANKMENT MATERIALS REQUIRED FOR DRIVEWAY CONSTRUCTION SHALL BE INCIDENTAL TO BITUMINOUS DRIVEWAY CONSTRUCTION.
15 QUANTITY FOR CONCRETE APPROACH NOSES ON MEDIANS.
16 QUANTITIES REFLECT TWICE THE PLAN QUANTITY DUE TO WINTER SUSPENSION STRIPING.
17 QUANTITY BASED ON PLAN THICKNESS PLUS 6 mm.
18 INCLUDES 389 m3 UNDER TEMPORARY PAVEMENT AND 172 m3 UNDER CONCRETE MEDIAN WALK FOR ANOKA COUNTY, SP 02-617-17, AS WELL AS 170 m3 AND 289 m3 UNDER BITUMINOUS WALKS IN THE CITIES OF BLAINE AND CIRCLE PINES RESPECTIVELY.
19 INCLUDES 1 EA. FOR DRAINAGE STRUCTURE UNDER SP 02-617-17.
20 PAID FOR WITH LOCAL FUNDS ONLY.
21 ALL PAVEMENT SURFACES ON THIS PROJECT ARE EXEMPT FROM PROFILOGRAPH TESTING. SEE TABLE 2350-12 OF THE SPECIAL PROVISIONS FOR PROFILOGRAPH EXCLUSIONS.
22 CONSTRUCT CURB AND GUTTER PER MNDOT STANDARD PLATE M7102.
23 INCLUDES 467 m3 OF MATERIAL OBTAINED FROM RECLAMATION OF TEMPORARY PAVEMENT SECTION. ASSUMES 25% MATERIAL LOSS DURING RECLAMATION.
24 FURNISH AND INSTALL BLACK VINYL COATED CHAIN LINK FENCE.
25 FOR SUBGRADE STABILIZATION USE AS DIRECTED BY THE ENGINEER.
(P) PLAN QUANTITY.

NO	DATE	BY	CKD	APPR	REVISION
6	3-23-01	SJP	BRW	MDH	REVISED PER ANOKA COUNTY COMMENTS
1	8-08-00	VGG	BRW	MDH	REVISED PER FEDERAL AID STANDARDS
2	11-16-00	VGG	BRW	MDH	REVISED PER FEDERAL AID COMMENTS
3	11-16-00	VGG	BRW	MDH	C.R. 110 S.A.P. NO. REVISION
4	2-05-01	ELB	BRW	MDH	REVISED PER ANOKA COUNTY COMMENTS
5	2-20-01	BRW	BRW	MDH	REVISED PER MNDOT AND ANOKA COUNTY COMMENTS

NAME: 2842.EQC DATE: Feb. 05, 2001 TIME: 13:26:26

minnesota metric

I hereby certify that this plan, specification or report was prepared by me or under my direct supervison and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.
Date 6-7-2001 Reg. No. 21364

STATE AID PROJECT NO.	DRAWN BY V. GRAF DATE 1-99
S.A.P. 02-617-05	DESIGNED BY B. WESTBY 1-99
S.A.P. 62-651-39	CHECKED BY M. HANSEN 1-99
S.A.P. 106-020-14	COMM. NO. 0972842
CO. PROJECT NO. C.P. 99-07-110	
FED. AID PROJECT NO. S.P. 02-617-17	

SRF CONSULTING GROUP, INC.

ANOKA COUNTY
STATEMENT OF ESTIMATED QUANTITIES
C.S.A.H. 17 RECONSTRUCTION

SHEET 5 OF 183

DESIGN FILE: N:\CIVIL\047\2842\2842.EQC
PREFERENCE: I:\CIVIL\047\2842\PRF NORTHLAND.EQC.PRF
PLOTTER: MS-HPSSMX
PLOT SCALE: 101.010000
PLOT DATE/TIME: 06/07/2001 14:18:58

CONSTRUCTION /SOILS NOTES

1 SELECTED GRADING MATERIAL ON THIS PROJECT SHALL CONSIST OF ALL SOILS ENCOUNTERED WITH THE EXCEPTION OF SLOPE DRESSING, DEBRIS, ORGANIC MATERIAL, MUCK AND OTHER UNSUITABLE MATERIAL.

2 ITEMS REFERRED TO AS INCIDENTAL ON THIS PROJECT SHALL BE CONSIDERED INCIDENTAL WITH NO DIRECT COMPENSATION MADE THEREFORE.

3 SELECT GRANULAR MATERIAL SHALL MEET THE REQUIREMENTS OF SPEC. 3149.2B2. ACCORDING TO SOIL BORING INFORMATION, IT IS ANTICIPATED THAT ON-SITE SELECTED GRADING MATERIAL WILL MEET THE SELECT GRANULAR MATERIAL SPECIFICATIONS. IT MAY BE NECESSARY TO INCORPORATE STABILIZING AGGREGATE.

4 BITUMINOUS AND CONCRETE SURFACING REMOVED BY CONSTRUCTION SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL EITHER BE RECYCLED OR DISPOSED OF OFF THE PROJECT, IN ACCORDANCE WITH THE PROVISIONS OF SPEC. 2104.3C3 AND 2105 WITH NO DIRECT COMPENSATION MADE THEREFORE WITH THE EXCEPTION OF THE PAY ITEM "SALVAGE PAVEMENT SECTION".

5 UNSUITABLE MATERIALS SHALL BE PLACED IN EMBANKMENTS OUTSIDE OF A 1V:1-1/2H SLOPE EXTENDING DOWN AND OUTWARD FROM THE GRADING PI OR THE BACK OF CURB. PLACEMENT OF UNSUITABLE MATERIALS WITHIN RESIDENTIAL LOT EMBANKMENTS SHALL BE DIRECTED BY THE ENGINEER IN THE FIELD.

6 COMPACTION OF THE GRADING ITEMS OF THIS PROJECT SHALL BE BY THE "SPECIFIED DENSITY METHOD", EXCEPT WHEN WITHIN 1 m OF THE WATER TABLE, THEN BY THE "QUALITY COMPACTION METHOD".

7 COMPACTION OF THE AGGREGATE BASE ITEMS OF THIS PROJECT SHALL BE BY THE "SPECIFIED DENSITY METHOD" EXCEPT WHEN THE CONTRACTOR ELECTS TO USE RECYCLED MATERIALS FOR THE AGGREGATE BASE ITEMS, THEN THE "QUALITY COMPACTION METHOD" SHALL BE UTILIZED.

8 TEST ROLLING SHALL NOT BE REQUIRED.

9 STABILIZING AGGREGATE SHALL BE INCORPORATED INTO THE SUBGRADE TO ACHIEVE SATISFACTORY SURFACE STABILITY AT LOCATIONS DEEMED NECESSARY BY THE ENGINEER, IN ACCORDANCE WITH THE PROVISIONS OF SPEC. 2105.3G. GRANULAR MATERIAL WHICH IS EITHER ON SITE OR FURNISHED BY THE CONTRACTOR SHALL BE STABILIZED, IF NECESSARY. WHERE STABILIZING AGGREGATE IS DEEMED NECESSARY, IT SHALL BE APPLIED AT A RATE OF APPROXIMATELY 470 KILOGRAMS PER SQUARE METER.

10 WHERE WIDENING ADJACENT TO EXISTING PAVEMENT, CUT VERTICALLY TO THE BOTTOM OF THE AGGREGATE BASE AND THEN AT A 1V:1/2H SLOPE TO THE BOTTOM OF THE RECOMMENDED SUBGRADE EXCAVATION (AS SHOWN ON THE TYPICAL SECTIONS AND THE CROSS SECTIONS). BACKFILL PROMPTLY TO AVOID UNDERMINING THE EXISTING PAVEMENT.

11 PROVIDE 1V:20H LONGITUDINAL TAPERS BETWEEN CHANGES IN SUBGRADE AND SUBCUT DEPTHS.

12 USE TACK COAT BETWEEN ALL BITUMINOUS MIXTURES PRIOR TO PLACING BITUMINOUS MIXTURES AND PRIOR TO PLACING ANY BITUMINOUS MIXTURES ON EXISTING CONCRETE OR BITUMINOUS SURFACES. THE BITUMINOUS TACK COAT MATERIAL SHALL BE APPLIED AT UNIFORM RATE OF 0.23 L/m2 BETWEEN BITUMINOUS LAYERS. THE APPLICATION RATES ARE FOR UNDILUTED EMULSION (AS SUPPLIED FROM THE REFINERY); ASPHALT EMULSION MAY BE FURTHER DILUTED IN THE FIELD IN ACCORDANCE WITH SPEC. 2357.

13 STRIP AND REUSE AS SLOPE DRESSING ALL EXISTING TOPSOIL, WHERE PRESENT, IN AREAS TO BE DISTURBED BY CONSTRUCTION. TOPSOIL STRIPPING IS CONSIDERED TO BE COMMON EXCAVATION.

14 PLACE A MINIMUM OF 100 MILLIMETERS OF SLOPE DRESSING ON ALL AREAS SCHEDULED FOR PERMANENT TURF ESTABLISHMENT. ALL EXCESS TOPSOIL SHALL BE USED AS SLOPE DRESSING BY PROVIDING A THICKNESS GREATER THAN 100 mm. TOPSOIL BORROW TO BE USED AT THE DISCRETION OF THE ENGINEER IN THE FIELD.

15 SEEDING AND SODDING REQUIREMENTS ON THIS PROJECT SHALL BE AS FOLLOWS:

a. SEED MIXTURES 20A AND 90A SHALL BE APPLIED AT A RATE OF 50 KILOGRAMS PER HECTARE.
b. COMMERCIAL FERTILIZER ANALYSIS 10-10-10 SHALL BE APPLIED AT A RATE OF 560 KILOGRAMS PER HECTARE IN AREAS TO BE SEEDED. FERTILIZER USED IN AREAS TO BE SODDED SHALL BE CONSIDERED INCIDENTAL.
c. SOD ALL MAINTAINED LAWNS DISTURBED BY CONSTRUCTION.
d. ALL SOD UTILIZED WITHIN THE PROJECT LIMITS SHALL MEET THE REQUIREMENTS OF SPEC. 3878.2A (LAWN AND SOD).

16 DITCH BOTTOMS, TOE OF FILL, CUT RUNOUTS AND THE TOP EDGE OF THE BACKSLOPES SHALL BE ROUNDED REGARDLESS OF THE SECTION USED ON THE CROSS SECTION SHEETS.

17 COMMON BORROW MATERIAL SHALL HAVE A MINIMUM R-VALUE OF 50. BORROW MATERIAL PLACED WITHIN THE UPPER 1.2 m OF THE EMBANKMENT BELOW THE GRADING GRADE SHALL BE GRANULAR MATERIAL.

18 THE EXISTING CSAH 17 BITUMINOUS PAVEMENT THICKNESS VARIES FROM 75 mm TO 250 mm. AGGREGATE BASE THICKNESS IS APPROXIMATELY 150 mm. CONTRACTOR SHALL INVESTIGATE AND MAKE OWN DETERMINATION OF PAVEMENT DEPTH.

19 GRADING GRADE ON THIS PROJECT SHALL BE DEFINED AS THE BOTTOM OF THE AGGREGATE BASE AS SHOWN IN THE PAVEMENT DETAILS.

20 DISPOSITION OF EXCESS EXCAVATED MATERIAL SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF 2105.3D WITH NO DIRECT COMPENSATION THEREFORE.

21 ALL SILT FENCING AS SHOWN IN THE PLANS SHALL BE IN PLACE PRIOR TO THE COMMENCEMENT OF GRADING OPERATIONS.

22 SLOTTED SILT FENCE SHALL BE INSTALLED ALONG DITCH RUNS FOR EROSION CONTROL AS DIRECTED BY THE ENGINEER IN THE FIELD.

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

STANDARD PLATES

PLATE NO.	DESCRIPTION
M 3000 L	REINFORCED CONCRETE PIPE
M 3006 G	GASKET JOINT FOR R.C. PIPE
M 3007 C	SHEAR REINFORCEMENT FOR PRECAST DRAINAGE STRUCTURES
M 3100 G	CONCRETE APRON FOR REINFORCED CONCRETE PIPE
M 3133 C	RIPRAP AT RCP OUTLETS
M 3145 E	CONCRETE PIPE TIES
M 4005 L	MANHOLE OR CATCH BASIN
M 4006 L	MANHOLE OR CATCH BASIN
M 4010 H	CONC. SHORT CONE & ADJUSTING RING
M 4011 E	PRECAST CONCRETE BASE
M 4018 A	MH OR CB REDUCER CONE SECTION
M 4020 H	MANHOLE OR CATCH BASIN COVER
M 4026 A	CONCRETE ENCASED CONCRETE ADJUSTING RINGS
M 4101 D	RING CASTING FOR MANHOLE OR CATCH BASIN
M 4110 F	COVER CASTING FOR MANHOLE
M 4126 F	CATCH BASIN FRAME CASTING
M 4143 E	STOOL GRATE & CONCRETE FRAME
M 4149 C	GRATE CASTING FOR CATCH BASIN
M 4161 F	CURB BOX CASTING FOR CATCH BASIN
M 4180 J	MANHOLE OR CATCH BASIN STEP
M 7035 K	CONCRETE WALK & CURB RETURNS AT ENTRANCES
M 7036 D	PEDESTRIAN CURB RAMP
M 7100 G	CONCRETE CURB & GUTTER
M 7102 I	CONCRETE CURB & GUTTER
M 7111 J	INSTALLATION OF CATCH BASIN CASTINGS
M 7113 A	CONCRETE APPROACH NOSE DETAIL
M 8000 I	STANDARD BARRICADES
M 8337 A	TEMPORARY PORTABLE PRECAST CONCRETE BARRIER
M 9102 D	TURF ESTABLISHMENT AREAS (AT PIPE CULVERT ENDS)
M 9322 J	CHAIN LINK FENCE

BASIS OF ESTIMATED QUANTITIES

STABILIZING AGGREGATE UNIT WEIGHT = 470 kg/m2

BITUMINOUS MIXTURE UNIT WEIGHT = 0.0023 t\m2\mm

SEED MIXTURE 20A AND 90A APPLICATION RATE = 50 kg/ha

FERTILIZER 10-10-10 (SEEDED) APPLICATION RATE = 560 kg/ha

TACK COAT APPLICATION RATE = 0.23 L/m2

NO	DATE	BY	CKD	APPR	REVISION
1	8-08-00	VGG	BRW	MDH	REVISED PER FEDERAL AID STANDARDS
2	11-16-00	VGG	BRW	MDH	C.R. 110 S.A.P. NO. REVISION
3	2-05-01	ELB	BRW	MDH	REVISED PER ANOKA COUNTY COMMENTS

NAME: 2842.CSN DATE: Apr. 27, 2001

minnesota metric

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.
Date: 5-1-2001 Reg. No. 21364

STATE AID PROJECT NO. S.A.P. 106-020-14

FED. AID PROJECT NO. S.P. 02-617-17

DRAWN BY V. GRAF DATE 1-99
DESIGNED BY A. DeBRUIN 1-99
CHECKED BY M. HANSEN 1-99
COMM. NO. 0972842

SRF CONSULTING GROUP, INC.

ANOKA COUNTY
CONSTRUCTION/SOILS NOTES, STANDARD PLATES
C.S.A.H. 17 RECONSTRUCTION

SHEET 6 OF 183

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ROTATION: 0.0000000
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PLOT DATE/TIME: 05/02/2001 15:29:27

R EARTHWORK TABULATION

STATION	EXCAVATION			EMBANKMENT			
	COMMON	TOPSOIL STRIPPING	COMPACTION SUBCUT EXCAVATION	COMPACTION SUBCUT BACKFILL	SELECTED GRADING	SELECT GRANULAR	SLOPE DRESSING
	(m3)	(m3)	(m3)	(m3)	(m3)	(m3)	(m3)
CSAH 17 (LEXINGTON AVE) NORTH OF CSAH 23 - ANOKA COUNTY							
8+436.5							
8+460.0	337	33	161	161	0	0	14
8+480.0	291	29	137	137	0	0	11
8+500.0	308	24	137	137	0	0	11
8+520.0	294	29	137	137	7	11	12
8+540.0	264	39	137	137	14	39	22
8+547.5	106	18	51	51	3	23	9
8+560.0	194	35	86	86	5	44	16
8+567.3	110	14	50	50	6	27	9
8+580.0	212	15	87	87	10	46	11
8+600.0	359	35	137	137	16	72	21
8+610.5	170	18	72	72	8	33	11
8+620.0	143	15	65	65	7	24	12
8+640.0	303	45	137	137	16	65	28
8+660.0	307	47	137	137	15	63	21
8+664.0	62	7	27	27	3	9	4
8+671.0	107	10	48	48	6	25	7
8+680.0	137	18	62	62	8	43	9
8+700.0	355	27	137	137	10	83	16
8+720.0	442	27	137	137	7	54	19
8+740.0	429	54	137	137	14	31	24
8+756.8	280	32	121	121	9	16	14
8+760.0	49	6	26	26	1	2	2
8+766.1	91	13	73	73	0	1	4
8+780.0	170	27	153	153	4	11	11
8+783.5	36	6	24	24	2	6	3
8+790.0	67	11	44	44	4	10	5
8+796.5	71	15	44	44	3	9	6
8+800.0	39	10	24	24	15	16	2
8+820.0	202	68	131	131	240	227	22
8+829.4	98	27	77	77	152	144	16
8+840.0	87	32	85	85	144	167	20
8+860.0	151	68	111	111	126	286	34
8+880.0	216	56	111	111	32	186	48
8+900.0	275	53	128	128	21	98	44
8+920.0	411	49	138	138	14	36	18
8+940.0	483	47	137	137	7	0	17
8+960.0	524	48	137	137	0	0	15
8+978.4	727	32	193	193	0	0	9
9+000.0	779	37	214	214	0	0	12
9+020.0	461	48	114	114	0	0	16
9+023.0	74	5	17	17	0	0	2
9+040.0	385	32	105	105	3	4	11
9+052.6	294	24	127	127	4	7	6
9+060.0	187	15	79	79	3	5	4
9+080.0	423	54	139	139	10	29	16
9+082.3	44	5	14	14	1	5	2

R EARTHWORK TABULATION

STATION	EXCAVATION			EMBANKMENT			
	COMMON	TOPSOIL STRIPPING	COMPACTION SUBCUT EXCAVATION	COMPACTION SUBCUT BACKFILL	SELECTED GRADING	SELECT GRANULAR	SLOPE DRESSING
	(m3)	(m3)	(m3)	(m3)	(m3)	(m3)	(m3)
9+100.0	312	35	106	106	11	39	13
9+120.0	273	52	117	117	12	53	16
9+140.0	248	50	114	114	12	55	15
9+160.0	285	50	119	119	9	31	15
9+180.0	344	54	131	131	4	11	17
9+200.0	427	58	138	138	3	8	21
9+220.0	463	58	138	138	4	8	20
9+240.0	446	55	138	138	4	7	18
9+260.0	533	53	153	153	1	3	15
9+265.9	217	11	66	66	0	0	4
9+280.0	451	25	144	144	0	0	10
9+300.0	446	50	121	121	0	0	17
9+320.0	481	53	116	116	0	0	21
9+340.0	508	56	116	116	1	2	24
9+360.0	517	62	115	115	4	5	29
9+380.0	509	62	115	115	9	26	29
9+400.0	354	73	108	108	270	75	39
9+420.0	204	75	86	86	428	295	47
9+440.0	163	68	68	68	346	548	40
9+460.0	141	73	64	64	389	598	40
9+480.0	152	73	66	66	348	603	40
9+500.0	168	74	76	76	264	604	40
9+520.0	164	69	94	94	237	497	34
9+532.8	141	34	102	102	143	233	16
9+540.0	63	20	63	63	86	115	8
SUBTOTAL	19564	2702	7319	7319	3535	5773	1234
POND A	12733	559	0	0	0	0	559
TOTAL	32297	3261	7319	7319	3535	5773	1793

NO	DATE	BY	CKD	APPR	REVISION
1	8-08-00	VGG	BRW	MDH	REVISED PER FEDERAL AID STANDARDS
2	11-16-00	VGG	BRW	MDH	C.R. 110 S.A.P. NO. REVISION
3	2-20-01	BRW	BRW	MDH	DELETED SUBGRADE EXCAVATION PER ANOKA COUNTY COMMENTS

NAME: 2842.ETA DATE: Nov. 16, 2000

minnesota metric

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.
Date 5-1-2001 Reg. No. 21364

STATE AID PROJECT NO. S.A.P. 106-020-14

FED. AID PROJECT NO. S.P. 02-617-17

DRAWN BY V. GRAF DATE 1-99
DESIGNED BY B. WESTBY 1-99
CHECKED BY M. HANSEN 1-99
COMM. NO. 0972842

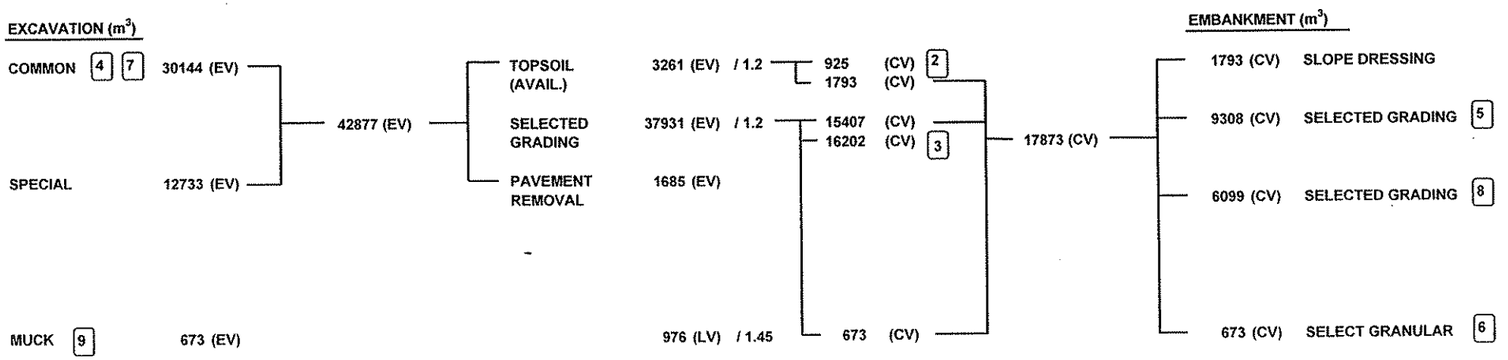
SRF CONSULTING GROUP, INC.

ANOKA COUNTY
EARTHWORK TABULATION
C.S.A.H. 17 RECONSTRUCTION

SHEET 7 OF 183

DESIGN FILE: h:\civil\1047\2842\PlanMrMLK0r\2842.eta
REF FILES: (h:\MPLS\1047\2842\PlanMrMLK0r\2842.prf
PLOT STYLE: HP650C.TBL
PLOT SCALE: 2.567000
PLOT DATE/TIME: 05/02/2001 15:29:52

[1] EARTHWORK BALANCE



NOTES: SEE CONSTRUCTION/SOIL NOTES FOR MATERIAL DEFINITIONS AND ADDITIONAL INFORMATION.

[1] 120% SHRINKAGE FACTOR USED FROM EXCAVATED VOLUME (EV) TO COMPACTED VOLUME (CV), EXCEPT FOR TOPSOIL AND MUCK.
145% SHRINKAGE FACTOR USED FROM LOOSE VOLUME (LV) TO COMPACTED VOLUME (CV), EXCEPT FOR TOPSOIL. SHRINKAGE FACTORS ARE ASSUMED VALUES, USED ONLY FOR THE PURPOSE OF ESTIMATED QUANTITIES. IT SHALL BE UNDERSTOOD THAT NO WARRANTY IS MADE OR IMPLIED AS TO THE ACCURACY, SUFFICIENCY, OR RELIABILITY OF THE SHRINKAGE FACTOR.

[2] EXCESS TOPSOIL.

[3] EXCESS MATERIAL.

[4] INCLUDES 599 m^3 FOR STAGE 1 AND 3261 m3 FOR TOPSOIL STRIPPING.

[5] INCLUDES 1125 m^3 FOR STAGE 1.

[6] ON-SITE MATERIAL FOR STAGE 2 MUCK EXCAVATION BACKFILL.

[7] INCLUDES 7319 m^3 FOR COMPACTION SUBCUT EXCAVATION.

[8] COMPACTION SUBCUT BACKFILL MATERIAL.

[9] MUCK EXCAVATION FOR STAGE 2 (STA. 8+640 TO STA. 8+680 LT AND STA. 8+820 TO STA. 9+555 LT).

NO	DATE	BY	CKD	APPR	REVISION
1	8-08-00	VGG	BRW	MDH	REVISED PER FEDERAL AID STANDARDS
2	11-16-00	VGG	BRW	MDH	C.R. 110 S.A.P. NO. REVISION
3	2-05-01	EL8	BRW	MDH	REVISED PER ANOKA COUNTY COMMENTS
4	2-20-01	BRW	BRW	MDH	DELETED SUBGRADE EXCAVATION PER ANOKA COUNTY COMMENTS
5	3-23-01	SJP	BRW	MDH	ADDED TOPSOIL STRIPPING TO COMMON EXCAVATION

NAME: 2842.ETB DATE: Apr. 27, 2001

minnesota metric

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.
Date 5-1-2001 Reg. No. 21364

STATE AID PROJECT NO. S.A.P. 106-020-14
FED. AID PROJECT NO. S.P. 02-617-17

DRAWN BY V. GRAF DATE 1-99
DESIGNED BY B. WESTBY 1-99
CHECKED BY M. HANSEN 1-99
COMM. NO. 0972842

SRF CONSULTING GROUP, INC.

ANOKA COUNTY
EARTHWORK TABULATION
C.S.A.H. 17 RECONSTRUCTION

SHEET 8 OF 183

DESIGN FILE: n:\civil\047\2842\PlanNorthLKDF\2842.etb
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PLOTTER: HP-DESIGNJET 755CM
PLOTSCALE: 2.567000
PLOT DATE/TIME: 05/02/2001 15:30:11

A — CLEARING & GRUBBING

STATION	TO STATION	OFFSET LEFT	OFFSET RIGHT	CLEARING TREE	CLEARING hectare	GRUBBING TREE	GRUBBING hectare	NOTES / REMARKS
NB CSAH 17								
8+389			7	1		1		DECIDUOUS
8+391			8					(2) DECIDUOUS
8+439		24		1		1		DECIDUOUS
8+462		17		1		1		DECIDUOUS
8+467		17		1		1		DECIDUOUS
8+481		18		1		1		DECIDUOUS
8+487		18		1		1		DECIDUOUS
8+496		19		1		1		DECIDUOUS
8+505		15		1		1		DECIDUOUS
8+506		18		1		1		DECIDUOUS
8+508		16		1		1		DECIDUOUS
8+512		17		1		1		DECIDUOUS
8+516		20		1		1		CONIFEROUS
8+528		18		1		1		DECIDUOUS
8+534		16		1		1		DECIDUOUS
8+537			13					(2) DECIDUOUS
8+538		24		1		1		CONIFEROUS
8+546		23		1		1		DECIDUOUS
8+550		24		1		1		DECIDUOUS
8+551		17		1		1		DECIDUOUS
8+554		18		1		1		DECIDUOUS
8+562		23		1		1		DECIDUOUS
8+576		18		2		2		DECIDUOUS
8+576		15 - 32						HEDGES
8+583	8+601	14 - 17						HEDGES
8+585		18		1		1		DECIDUOUS
8+598			3					(2) DECIDUOUS
8+602			3					(2) DECIDUOUS
8+606		18		1		1		DECIDUOUS
8+613			3					(2) DECIDUOUS
8+619		16		1		1		DECIDUOUS
8+623			3					(2) DECIDUOUS
8+622		20		1		1		DECIDUOUS
8+624		17		1		1		CONIFEROUS
8+628		18		1		1		CONIFEROUS
8+628			4					(2) DECIDUOUS
8+629		24		2		1		DECIDUOUS
8+635			4					(2) DECIDUOUS
8+636		13 - 25						HEDGES
8+636		15		1		1		DECIDUOUS
8+638		21		1		1		CONIFEROUS
8+643		24		1		1		DECIDUOUS
8+644		16		1		1		DECIDUOUS
8+651		16		1		1		DECIDUOUS
8+653			4					(2) DECIDUOUS
8+655		18		1		1		DECIDUOUS
8+656			4					(2) DECIDUOUS
8+658		17						SHRUB
8+660		16						SHRUB
8+661			3					(2) DECIDUOUS
8+666			6					(2) DECIDUOUS
8+677		19		1		1		DECIDUOUS
8+678		24		1		1		DECIDUOUS
8+691		20		1		1		CONIFEROUS
8+695		17		4		1		DECIDUOUS
8+705		22		1		1		DECIDUOUS
8+706		16		1		1		DECIDUOUS
8+708		21		1		1		DECIDUOUS
8+708		15		1		1		DECIDUOUS
8+710		15		1		1		DECIDUOUS
8+711		18		1		1		DECIDUOUS
8+712	8+727	15		12		12		DECIDUOUS
8+715		18		1		1		DECIDUOUS

A — CLEARING & GRUBBING

STATION	TO STATION	OFFSET LEFT	OFFSET RIGHT	CLEARING TREE	CLEARING hectare	GRUBBING TREE	GRUBBING hectare	NOTES / REMARKS
8+716		25		1		1		DECIDUOUS
8+718		23		1		1		DECIDUOUS
8+720		18		1		1		DECIDUOUS
8+725		20		1		1		DECIDUOUS
8+741		21		1		1		DECIDUOUS
8+728	8+755	15						HEDGES
8+754		16 - 25						HEDGES
8+759	8+778	16						HEDGES
8+760		17 - 25						HEDGES
8+763		21		1		1		DECIDUOUS
8+732			10					(2) DECIDUOUS
8+737			10					(2) DECIDUOUS
8+747			10					(2) DECIDUOUS
8+754			9					(2) CONIFEROUS
8+787	8+789	16 - 21						LANDSCAPING
8+788		24		1		1		CONIFEROUS
8+796		23						SHRUB
8+797		17		1		1		DECIDUOUS
8+812		25		1		1		DECIDUOUS
8+816	8+819	17 - 20						LANDSCAPING
8+820		17						SHRUB
8+820		22		1		1		CONIFEROUS
8+820		26		1		1		CONIFEROUS
8+821			7					(2) DECIDUOUS
8+835			6					(2) DECIDUOUS
8+845			10					(2) DECIDUOUS
8+863			6					(2) DECIDUOUS
8+891			6					(2) DECIDUOUS
8+898			6					(2) CONIFEROUS
8+901			12					(2) CONIFEROUS
8+907			8					(2) CONIFEROUS
8+910			14					(2) CONIFEROUS
8+843	8+913	14 - 76			0.42		0.42	
8+823	8+833		12 - 22					(2)
8+918	8+965	14 - 76			0.30		0.30	
8+934			11					(2) DECIDUOUS
8+937			6					(2) DECIDUOUS
8+939			7					(2) DECIDUOUS
8+942			8					(2) DECIDUOUS
8+944			7					(2) DECIDUOUS
8+949			6					(2) DECIDUOUS
8+953			10					(2) DECIDUOUS
8+962			5					(2) DECIDUOUS
8+963			8					(2) DECIDUOUS
8+964			6					(2) DECIDUOUS
8+971			8					(2) DECIDUOUS
8+973			8					(2) DECIDUOUS
8+982			7					(2) DECIDUOUS
8+982			9					(2) DECIDUOUS
8+987			8					(2) DECIDUOUS
8+990			9					(2) DECIDUOUS
8+990			5					(2) DECIDUOUS
8+991			9					(2) DECIDUOUS
8+991	8+996	19 - 23			0.02		0.02	
8+991			8					(2) DECIDUOUS
8+993			9					(2) DECIDUOUS
8+993			5					(2) DECIDUOUS
8+996			9					(2) DECIDUOUS
9+000			9					(2) DECIDUOUS
9+001			9					(2) DECIDUOUS
9+005			9					(2) DECIDUOUS
9+009			9					(2) DECIDUOUS
9+013			10					(2) DECIDUOUS
9+017			8					(2) DECIDUOUS

NO	DATE	BY	CKD	APPR	REVISION
1	8-08-00	VGG	BRW	MDH	REVISED PER FEDERAL AID STANDARDS
2	11-16-00	VGG	BRW	MDH	C.R. 110 S.A.P. NO. REVISION
3	11-16-00	VGG	BRW	MDH	REVISED PER FEDERAL AID COMMENTS

NAME: 2842.TBB DATE: Apr. 27, 2001

minnesota metric

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.
Date 5-1-2001 Reg. No. 21364

STATE AID PROJECT NO. S.A.P. 106-020-14

FED. AID PROJECT NO. S.P. 02-617-17

DRAWN BY V. GRAF DATE 1-99
DESIGNED BY A. DeBRUIN 1-99
CHECKED BY M. HANSEN 1-99
COMM. NO. 0972842

SRF CONSULTING GROUP, INC.

ANOKA COUNTY
TABULATIONS
C.S.A.H. 17 RECONSTRUCTION

SHEET 10 OF 183

DESIGN FILE: N:\Civil\047\2842\PlanNorth\KDR\2842.tDD
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PLOTTER: MS-HP55 1MX
PLOT SCALE: 101.010000
PLOT DATE/TIME: 05/02/2001 15:31:04

A — CLEARING & GRUBBING

STATION	TO STATION	OFFSET LEFT	OFFSET RIGHT	CLEARING TREE	CLEARING hectare	GRUBBING TREE	GRUBBING hectare	NOTES / REMARKS
9+019			7					(2) DECIDUOUS
9+036	9+157	19 - 25			0.06		0.06	
9+036			5					(2) DECIDUOUS
9+042			4					(2) DECIDUOUS
9+043			10					(2) DECIDUOUS
9+043			9					(2) DECIDUOUS
9+066			5					(2) DECIDUOUS
9+074			6					(2) DECIDUOUS
9+078			6					(2) DECIDUOUS
9+226	9+257	16 - 25			0.02		0.02	
9+088			12					(2) DECIDUOUS
9+275	9+323	14 - 26			0.04		0.04	
9+344	9+358	21 - 23			0.02		0.02	
9+090	9+405		2.0 - 24.0					(2)
9+368		21		1		1		DECIDUOUS
9+409		23		1		1		DECIDUOUS
9+432			21					(2) DECIDUOUS
9+432			14					(2) DECIDUOUS
9+550	9+555	16 - 26			0.02		0.02	
9+555	9+555		20 - 22					(2)
WEST ROAD (SOUTH)				3		3		
PROJECT TOTALS:				78	0.90	74	0.90	(1)

NOTES: TREES WITHIN THE CONSTRUCTION LIMITS WILL BE DESIGNATED FOR REMOVAL BY THE ENGINEER.
ALL TREES TO BE TRANSPLANTED WILL BE TRANSPLANTED BY OTHERS.
REMOVAL OF MISCELLANEOUS SHRUBS AND LANDSCAPING SHALL BE CONSIDERED INCIDENTAL.

(1) CSAH 17 NORTH OF CSAH 23 ELIGIBLE FOR FEDERAL AID FUNDING.
(2) CLEARING AND GRUBBING TO BE COMPLETED BY OTHERS BEFORE CONSTRUCTION.
TOTAL QUANTITIES DO NOT INCLUDE CLEARING AND GRUBBING BY OTHERS.

B — DRAINAGE REMOVALS

STATION TO STATION	OFFSET LEFT (m)	OFFSET RIGHT (m)	REMOVE DRAINAGE STRUCTURE (EACH)	REMOVE PIPE APRON (EACH)	REMOVE PIPE SEWERS (m)	NOTES / REMARKS
NB CSAH 17						
8+364	17		1			CB
8+364		4	1			CB
8+383	17		1			CB
8+415	23			1		APRON
8+415 8+417	23				2.0	
8+436	24		1			CB
8+511		3	1			MH
8+511		1-3			11.0	12" RCP
8+519	12		1			CB
8+521	12		1			CB
8+522		1	1			CB
8+519 8+521	12				2.0	15" RCP
8+527		5		1		12" RCP
8+522 8+527		1-4			5.0	12" RCP
8+541		6		1		12"
8+541 8+548		6			7.0	12"
8+548		6		1		12"
8+521 8+547	12-14				26.0	
8+547	14		1			
8+547 8+548	14-20				6.0	
8+548	20		1			
8+547 8+558	20-26				13.0	
8+911 8+921	15				10.0	6"
8+966	16			1		15" CMP
8+966 8+994	16				28.0	15"
8+994	16			1		15" CMP
9+519 9+546	17				27.0	15"
PROJECT TOTALS:			10	6	137.0	

NOTES: (1) CSAH 17 NORTH OF CSAH 23 ELIGIBLE FOR FEDERAL AID FUNDING.

C — MISCELLANEOUS REMOVALS, MILL AND SAWING

NOTES	LOCATION	PAVEMENT MARKING REMOVAL (m)	REMOVE CONCRETE CURB & GUTTER (m)	REMOVE CONCRETE MEDIAN (m2)	REMOVE BITUMINOUS PAVEMENT (1) (m2)	SAWING BITUMINOUS PAVEMENT (2) (m)	SAWING CONCRETE PAVEMENT (3) (m)	MILL BITUMINOUS SURFACE (40 mm) (m2)
(4)	ANOKA COUNTY	3675	1288	240	14631	167	3	3215
	(CSAH 23 TO STA 9+555)							
	PROJECT TOTALS:	3675	1288	240	14631	167	3	3215

NOTES: (1) DRIVEWAYS NOT INCLUDED. SEE DRIVEWAY CONSTRUCTION TABULATION.
(2) DRIVEWAYS AND MAINLINE INCLUDED.
(3) DRIVEWAYS ONLY.
(4) CSAH 17 NORTH OF CSAH 23 ELIGIBLE FOR FEDERAL AID FUNDING.

NO	DATE	BY	CKD	APPR	REVISION
1	8-08-00	VGG	BRW	MDH	REVISED PER FEDERAL AID STANDARDS
2	11-16-00	VGG	BRW	MDH	C.R. 110 S.A.P. NO. REVISION
3	11-16-00	VGG	BRW	MDH	REVISED PER FEDERAL AID COMMENTS

NAME: 2842.TBC DATE: Apr. 27, 2001

minnesota metric

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Date 5-1-2001 Reg. No. 21364

STATE AID PROJECT NO. S.A.P. 106-020-14
FED. AID PROJECT NO. S.P. 02-617-17

DRAWN BY V. GRAF DATE 1-99
DESIGNED BY A. DeBRUIN 1-99
CHECKED BY M. HANSEN 1-99
COMM. NO. 0972842

SRF CONSULTING GROUP, INC.

ANOKA COUNTY
TABULATIONS
C.S.A.H. 17 RECONSTRUCTION

SHEET 11 OF 183

DESIGN FILE: N:\Civil\047\2842\Plan\Plan\NLKDF\2842.tbc
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D PAVEMENT MARKINGS

ALIGNMENT	PAVEMENT MESSAGE (1)			SOLID LINE (1)				BROKEN LINE (1)		REMOVABLE PREFORMED PLASTIC MARKING	ZEBRA CROSSWALK MARKING (1)
					CROSSWALK	STOP LINE					
	LEFT ARROW	RIGHT ARROW	THRU ARROW	100 mm WHITE	300 mm WHITE	600 mm WHITE	100 mm YELLOW	100 mm WHITE	100mm YELLOW		
	(EACH)	(EACH)	(EACH)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m2)
ANOKA COUNTY (2)											
CSAH 17 - CSAH 23 TO STA. 9+555	18	18	2	844	382	88	4422	4544	1512	6560	310
PROJECT TOTALS:	18	18	2	844	382	88	4422	4544	1512	6560	310

NOTES: ALL STRIPING AND MESSAGES SHALL BE PAINT.
(1) QUANTITIES REFLECT TWICE THE PLAN QUANTITY DUE TO WINTER SUSPENSION STRIPING.
(2) CSAH 17 NORTH OF CSAH 23 ELIGIBLE FOR FEDERAL AID FUNDING.

E RETAINING WALL & PLANTER BOX CONSTRUCTION

ALIGNMENT	STATION TO STATION	OFFSET		ADDRESS	REMOVE	SALVAGE	INSTALL	FURNISH & INSTALL CONCRETE BLOCK WALL	NOTES / REMARKS
		LT	RT		(m2)	(m)	(m)	(m2)	
NB CSAH 17	8+704.0 8+754.0	18.2		9532, 9546				80.0	WALL E, MAX. HT. = 1.6 m
SB CSAH 17	8+755.0	1.5 - 16.5		9546	15.0				TIMBER WALL
SB CSAH 17	8+780.0	5-12		9560		7.0	7.0		(1) TIMBER PLANTER BOX & ROCKS
NB CSAH 17	8+785.5 8+797.2		10.2					13.0	WALL A, MAX. HT. = 0.9 m
SB CSAH 17	8+786.3 8+788.4	2.8 - 8.5		9560		14.1	14.1		(1) TIMBER PLANTER BOX
NB CSAH 17	8+793.1 8+795.6		8.8 - 10.5	1	4.5				TIMBER WALL
NB CSAH 17	8+959.3 8+979.2		10.2					22.0	WALL B, MAX. HT. = 1.0 m
NB CSAH 17	9+409.1 9+411.7		9-21		9.0				CONCRETE WALL
PROJECT TOTALS:								115.0	(2)

NOTES: (1) INSTALL SALVAGED ITEMS TO LOCATIONS DESIRED BY THE OWNER.
(2) CSAH 17 NORTH OF CSAH 23 ELIGIBLE FOR FEDERAL AID FUNDING.

F DRIVEWAY CONSTRUCTION

NOTES	ALIGNMENT	STATION	ADDRESS	LT	RT	EXISTING SURFACING	REMOVE CONCRETE PAVEMENT	REMOVE BITUMINOUS DRIVEWAY PAVEMENT	CONCRETE DRIVEWAY APRON (6)	DRIVEWAY WIDTH (7)	AGGREGATE SURFACING CL. 5 (1)	BITUMINOUS MIXTURE FOR DRIVEWAYS (2)	CONCRETE DRIVEWAY PAVEMENT
							(m2)	(m2)	(m2)	(m)	(t)	(m2)	(m2)
(8)	NB CSAH 17	8+427.7			X	BITUMINOUS		92.0	31.0	10.0		90.3	
(8)	NB CSAH 17	8+500.0			X	BITUMINOUS		272.0	28.0	9.0		207.9	
	NB CSAH 17	8+547.5	9507		X	BITUMINOUS		74.0		4.9		74.3	
	NB CSAH 17	8+567.3	4175	X		BITUMINOUS		130.0		6.8		76.1	
	NB CSAH 17	8+580.0	9480	X		BITUMINOUS		130.0					
	NB CSAH 17	8+580.0	9480	X		CONCRETE	150.5			5.0			100.8
	NB CSAH 17	8+610.5	9500	X		AGGREGATE				4.9	18.0	17.2	
	NB CSAH 17	8+664.0	9508	X		AGGREGATE				4.9	3.0	17.0	
	NB CSAH 17	8+671.0	9516	X		AGGREGATE				5.0	2.0	16.8	
	NB CSAH 17	8+700.0	9532	X		AGGREGATE				4.9	12.0	18.9	
	NB CSAH 17	8+700.0			X	BITUMINOUS		220.0	19.9	6.3		162.8	
	NB CSAH 17	8+756.8	9546	X		AGGREGATE				4.9	15.0	18.5	
(3)	NB CSAH 17	8+783.5	9560	X		BITUMINOUS		104.0		6.3		42.0	
	WEST ROAD	2+026.0	2		X	BITUMINOUS		16.0	16.3	4.9		25.7	
	WEST ROAD	2+026.0	1	X		BITUMINOUS		155.0	18.4	5.8		35.7	
(4)	NB CSAH 17	8+013.0	9564	X		BITUMINOUS		87.0					
(4)	NB CSAH 17	8+915.1		X		AGGREGATE							
(8)	NB CSAH 17	9+023.0	GAS SUBSTATION	X		AGGREGATE			16.1	4.9	9.0	17.2	
(5)	NB CSAH 17	9+082.3	96		X	AGGREGATE			16.5	4.9	57.0	19.1	
(9)	PROJECT TOTALS:						150.5	1280.0	146.2		116.0	839.5	100.8

NOTES: BITUMINOUS DRIVE APRONS SHALL EXTEND 3 m FROM FACE OF CURB AND SHALL BE CONSTRUCTED TO THE DIMENSIONS SHOWN ON STD PL M7035.
(1) AGGREGATE DRIVE SURFACING SHALL BE 175 mm THICK.
(2) BITUMINOUS DRIVEWAY PAVEMENT SHALL MATCH EXISTING THICKNESS BUT SHALL BE A MINIMUM OF 50 mm THICK.
(3) BEGIN DRIVEWAY PROFILE AT FACE OF CURB.
(4) CLOSE DRIVEWAY.
(5) REALIGN DRIVE TO WEST ROAD.
(6) NON-PARTICIPATING COST. PAID FOR BY CITY.
(7) MATCH INPLACE DRIVEWAY WIDTH. MINIMUM WIDTH OF NEW CONSTRUCTION SHALL BE 4.9 m.
(8) CONSTRUCT COMMERCIAL DRIVEWAY APRON WITH 200 mm CONCRETE DRIVEWAY PAVEMENT.
(9) CSAH 17 NORTH OF CSAH 23 ELIGIBLE FOR FEDERAL AID FUNDING.

NO	DATE	BY	CKD	APPR	REVISION
6	3-23-01	SJP	BRW	MDH	REVISED PER ANOKA COUNTY COMMENTS
1	8-08-00	VGG	BRW	MDH	REVISED PER FEDERAL AID STANDARDS
2	11-16-00	VGG	BRW	MDH	C.R. 110 S.A.P. NO. REVISION
3	11-16-00	VGG	BRW	MDH	REVISED PER FEDERAL AID COMMENTS
4	2-05-01	ELB	BRW	MDH	REVISED TAB C MILL QUANTITY
5	2-20-01	BRW	BRW	MDH	REVISED TAB F PER ANOKA COUNTY COMMENTS

NAME: 2842.TBD DATE: Apr. 27, 2001

minnesota metric

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Date 5-1-2001 Reg. No. 21364

STATE AID PROJECT NO. S.A.P. 106-020-14
FED. AID PROJECT NO. S.P. 02-617-17

DRAWN BY V. GRAF DATE 1-99
DESIGNED BY A. DeBRUIN 1-99
CHECKED BY M. HANSEN 1-99
COMM. NO. 0972842

SRF CONSULTING GROUP, INC.

ANOKA COUNTY
TABULATIONS
C.S.A.H. 17 RECONSTRUCTION

SHEET 12 OF 183

DESIGN FILE: N:\civil\047\2842\PlanNorthLkOr\2842.tbd
PRF FILE: N:\civil\047\2842\PlanNorthLkOr\2842.prf
PLOTTER: MS-HPSS1MX
PLOT SCALE: 1:1.000000
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G — WALK and CURB & GUTTER CONSTRUCTION

NOTES	LOCATION	100 mm CONCRETE WALK (m2)	150 mm CONCRETE WALK (m2)	2.4 m WIDTH 50 mm BITUMINOUS WALK (1) (m2)	B612 C & G (2) (m)	B618 C & G (2) (m)	SURMOUNT-ABLE C & G (m)
	ANOKA COUNTY -						
	CSAH 17 - CSAH 23 TO STA. 9+555	1697	17		1480	1337	
	CITY OF BLAINE			1703		448	
	CITY OF CIRCLE PINES			2883		614	
	CITY OF LEXINGTON					275	
	EDGEWOOD RD						12
	WEST RD (SOUTH)						35
	WEST RD (NORTH)						25
	97th LANE						55
	99th AVE						25
	AUSTIN ST						10
(3)	PROJECT TOTALS:	1697	17	4586	1480	2674	162

NOTES: (1) CONSTRUCTION OF BITUMINOUS PEDESTRIAN CURB RAMPS SHALL BE INCIDENTAL TO CONSTRUCTION OF BITUMINOUS WALK.
(2) B618 C&G SHALL BE PAID FOR USING 50% CITY AND 50% COUNTY FUNDING SPLIT. B612 C&G SHALL BE PAID FOR USING 100% COUNTY FUNDING.
(3) CSAH 17 NORTH OF CSAH 23 ELIGIBLE FOR FEDERAL AID FUNDING.

H — BITUMINOUS PAVEMENT CONSTRUCTION

NOTES	LOCATION	40 mm WEAR COURSE MVWE35035B (t)	40 mm NON-WEAR COURSE MVNW35035B (1) (t)	75 mm NON-WEAR COURSE LVNW35030B (1) (t)	AGGREGATE BASE (CV) CLASS 5 (2) (m3)	AGGREGATE BASE (CV) CLASS 5 (3) (m3)	STABILIZING AGGREGATE (4) (t)	SAWED \ SEALED JOINT (5) (m)	BITUMINOUS MATERIAL FOR TACK COAT (L)	90 mm WEAR COURSE LVWE35030B (6) (t)	SALVAGE PAVEMENT SECTION (7) (m2)
	ANOKA COUNTY										
(8)	CSAH 17 - CSAH 23 TO STA. 9+555	2814	2590	4559	5399	561	6400	2700	10657	560	2591
	CITY OF BLAINE					170					
	CITY OF CIRCLE PINES					289					
	PROJECT TOTALS:	2814	2590	4559	5399	1020	6400	2700	10657	560	2591

NOTES: (1) QUANTITY BASED ON PLAN THICKNESS PLUS 6 mm.
(2) TO BE PAID FOR UNDER AGGREGATE BASE CL. 5 PLAN QUANTITY PAY ITEM. INCLUDES 467 m3 MATERIAL FROM TEMPORARY PAVEMENT RECLAMATION (ASSUMES 25% LOSSES).
(3) THE FOLLOWING QUANTITIES SHALL NOT BE PAID FOR UNDER AGGREGATE BASE CL. 5 PLAN QUANTITY PAY ITEM. ~~SEE SEPARATE AGGREGATE BASE CL. 5 PAY ITEM.~~ (8)
- 389 m3 ANOKA COUNTY UNDER TEMPORARY PAVEMENT.
- 172 m3 ANOKA COUNTY UNDER CONCRETE MEDIAN WALK.
- 170 m3 CITY OF BLAINE AND 289 m3 CITY OF CIRCLE PINES UNDER BITUMINOUS WALKS.
(4) ASSUMES ONE-HALF OF PROJECT WILL REQUIRE STABILIZING AGGREGATE.
(5) ASSUMES AVERAGE PAVEMENT WIDTH OF 21.6 m WITH 10 m SPACING BETWEEN JOINTS.
(6) TEMPORARY PAVEMENT TO BE USED DURING STAGE 1 OF TRAFFIC CONTROL.
(7) SALVAGE TEMPORARY PAVEMENT SECTION (90mm BIT. PAVEMENT & 150mm AGGR. BASE) BY RECLAMATION FOR USE AS AGGR. BASE CL. 5 IN THE PERMANENT PAVEMENT SECTION.
(8) CSAH 17 NORTH OF CSAH 23 ELIGIBLE FOR FEDERAL AID FUNDING.

NO	DATE	BY	CKD	APPR	REVISION
1	8-08-00	VGG	BRW	MDH	REVISED PER FEDERAL AID STANDARDS
2	11-16-00	VGG	BRW	MDH	C.R. 110 S.A.P. NO. REVISION
3	11-16-00	VGG	BRW	MDH	REVISED PER FEDERAL AID COMMENTS
4	2-05-01	ELB	BRW	MDH	REVISED TAB H PER ANOKA COUNTY COMMENTS
8	6-26-01			LAR	REVISED NOTE 3

NAME: 2842.TBE DATE: Apr. 27, 2001

minnesota metric

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.
Date 5-1-2001 Reg. No. 21364

STATE AID PROJECT NO. S.A.P. 106-020-14
FED. AID PROJECT NO. S.P. 02-617-17

DRAWN BY V. GRAF DATE 1-99
DESIGNED BY A. DeBRUIN 1-99
CHECKED BY M. HANSEN 1-99
COMM. NO. 0972842

SRF CONSULTING GROUP, INC.

ANOKA COUNTY
TABULATIONS
C.S.A.H. 17 RECONSTRUCTION

SHEET 13 OF 183

DESIGN FILE: n:\civil\047\2842\Plan\rTNL\0n2842.tbe
PRO FILE: PWDW\UM047\2842\Plan\rTNL\0P\2842.prf
PLOT SCALE= 100.000 '/ IN.
PLOT SCALE= 101.010000
PLOT DATE/TIME= 05/02/2001 15:32:02

J — FENCE CONSTRUCTION

ALIGNMENT	STATION TO STATION	OFFSET LEFT (m)	OFFSET RIGHT (m)	LEAVE IN PLACE	REMOVE (m)	SALVAGE (m)	INSTALL (m)	F&I WIRE FENCE DES. 1.5V-9322 (m)	NOTES / REMARKS
SB CSAH 17	8+575.0	5.5 - 14.5			6.0	3.0	3.0		CHAIN LINK FENCE
SB CSAH 17	8+605.6	1.8 - 13.0			8.2	3.0	3.0		CHAIN LINK FENCE
SB CSAH 17	8+617.8 TO 8+634.3	1.6 - 2.0				16.5	16.5		CHAIN LINK FENCE
SB CSAH 17	8+816.0 TO 8+819.6	3.3 - 7.6				6.0	6.0		WOOD RAIL FENCE
NB CSAH 17	8+704.0 8+754.0	18.8						50.0	(1), RETAINING WALL E
NB CSAH 17	8+711.5		9.5 - 13.0		2.5	1.0	1.0		CHAIN LINK FENCE
NB CSAH 17	8+711.5 TO 8+729.4		9.5			18.0	18.0		CHAIN LINK FENCE
NB CSAH 17	8+729.4		9.5 - 12.0		2.5				CHAIN LINK FENCE
NB CSAH 17	8+785.5 TO 8+797.2		9.6					11.7	(1), RETAINING WALL A
NB CSAH 17	8+959.3 TO 8+979.2		10.8					19.9	(1), RETAINING WALL B
NB CSAH 17	8+962.4 TO 9+016.0		10.6 - 12.5	X					CHAIN LINK FENCE
SB CSAH 17	9+007.5 TO 9+030.6	9.3 - 11.5			4.6	23.1	23.1		CHAIN LINK (GAS SUBSTATION)
NB CSAH 17	9+022.4 TO 9+043.1		10.7	X					WOODEN FENCE
NB CSAH 17	9+089.1		7.4 - 11.0		3.6				CHAIN LINK FENCE
NB CSAH 17	9+089.1 TO 9+111.7		7.4			22.6	22.6		WOODEN FENCE
NB CSAH 17	9+111.7		7.4 - 10.6		3.2				WOODEN FENCE
SB CSAH 17	9+107.7 TO 9+117.0	11.5		X					CHAIN LINK FENCE
SB CSAH 17	9+117.0 TO 9+123.0	11.5		X					CHAIN LINK FENCE
SB CSAH 17	9+123.0 TO 9+204.5	11.5		X					CHAIN LINK FENCE
NB CSAH 17	9+111.7 TO 9+137.0		10.6 - 11.6	X					CHAIN LINK FENCE
NB CSAH 17	9+137.0 TO 9+140.0		11.6 - 13.8	X					CHAIN LINK FENCE
NB CSAH 17	9+144.3 TO 9+171.2	–	11.3	X					WOODEN FENCE
SB CSAH 17	9+592.8	12.6 - 17.6				5.0	5.0		CHAIN LINK FENCE
NB CSAH 17	9+406.5 TO 9+436.2		22.0 - 30.5	X					WOOD RAIL FENCE
PROJECT TOTALS:					30.6	98.2	98.2	81.6	(2)

NOTES: F & I CHAIN LINK FENCE INCLUDES THE REQUIRED ELECTRICAL GROUNDS, BRACE ASSEMBLIES, AND METAL POST EXTENSIONS.
(1) SEE CONCRETE BLOCK RETAINING WALL DETAIL FOR FENCE CONSTRUCTION INFORMATION.
(2) CSAH 17 NORTH OF CSAH 23 ELIGIBLE FOR FEDERAL AID FUNDING.

K — TRAFFIC BARRIER (GUARDRAIL)

ALIGNMENT	STATION TO STATION	LOCATION (m)	SALVAGE WOOD BOLLARD (EACH)	INSTALL WOOD BOLLARD (EACH)	REMARK
NB CSAH 17	8+433.0	11.5 RT. - 16.5 RT.	2	2	
NB CSAH 17	8+689.5 TO 8+703.8	6.0 RT. - 16.5 RT.	7	7	
PROJECT TOTALS:			9	9	

L — SANITARY SEWER CONSTRUCTION

ALIGNMENT	STATION	OFFSET LT	OFFSET RT	OWNER	PROPOSED RIM ELEV.	ADJUST FRAME & RING CASTING (EACH)	RECONSTRUCT SANITARY MANHOLES (m)	REPAIR SANITARY SEWER (1) (EACH)	NOTES / REMARKS
SB CSAH 17	8+346.076		3.1	LEXINGTON		1			
SB CSAH 17	8+427.229		3.1	LEXINGTON		1			
SB CSAH 17	8+495.932		3.0	LEXINGTON	276.856	1			
SB CSAH 17	8+565.236		3.1	LEXINGTON	276.862	1			
SB CSAH 17	8+683.000		1.8	LEXINGTON				1	ROOT BLOCKAGE
NB CSAH 17	8+692.000		23.0	CIRCLE PINES		1			
SB CSAH 17	8+697.165		3.0	LEXINGTON	277.772	1			
NB CSAH 17	8+766.000		16.0	CIRCLE PINES		1			
SB CSAH 17	8+793.176		3.0	LEXINGTON	277.757		1.60		
EDGEWOOD RD	3+031.709		0.0	BLAINE					LEAVE AS IS
97th LANE	4+035.355		0.1	BLAINE	276.567	1			
PROJECT TOTALS:						8	1.60	1	(2)

NOTES: (1) NOT ELIGIBLE FOR FEDERAL OR STATE AID FUNDING.
(2) CSAH 17 NORTH OF CSAH 23 ELIGIBLE FOR FEDERAL AID FUNDING.

NO	DATE	BY	CKD	APPR	REVISION
1	11-16-00	VGG	BRW	MDH	C.R. 110 S.A.P. NO. REVISION
2	2-05-01	ELB	BRW	MDH	REVISED TAB J PER ANOKA COUNTY COMMENTS

NAME: 2842.TBF DATE: Apr. 27, 2001

minnesota metric

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.
Date 5-1-2001 Reg. No. 21364

STATE AID PROJECT NO. S.A.P. 106-020-14
FED. AID PROJECT NO. S.P. 02-617-17

DRAWN BY V. GRAF DATE 1-99
DESIGNED BY A. DeBRUIN 1-99
CHECKED BY M. HANSEN 1-99
COMM. NO. 0972842

SRF CONSULTING GROUP, INC.

ANOKA COUNTY
TABULATIONS
C.S.A.H. 17 RECONSTRUCTION

SHEET 14 OF 183

DESIGN FILE: N:\CIVIL\DATA\2842\PLAN\GTTBLK01\2842.tbf
PROFILE: MS-HPGIS.MX
PLOTTER: HP-HPGIS
PLOT SCALE= 101.010000
PLOT DATE/TIME= 05/02/2001 15:32:08

M

WATERMAIN CONSTRUCTION

ALIGNMENT	STATION TO STATION	OFFSET LT	OFFSET RT	OWNER	F & I DIP WM (CL 52) 150 mm (m)	F & I 50 mm INSULATION BOARD (m2)	REMOVE HYDRANT (EACH)	F & I HYDRANT (EACH)	SALVAGE HYDRANT (EACH)	INSTALL HYDRANT (EACH)	RELOCATE CURB STOP & BOX (EACH)	ADJUST HYDRANT (EACH)	ADJUST VALVE BOX (EACH)	WATERMAIN FITTINGS (kg)	REMOVE WATERMAIN (m)	NOTES
SB CSAH 17	8+412.0	13.8		LEXINGTON	8			1						40		(1)
SB CSAH 17	8+415.0	7.1		LEXINGTON			1									(2)
SB CSAH 17	8+416.7	0.1		LEXINGTON												VALVE BOX LEAVE AS IS
SB CSAH 17	8+424.7	3.5		LEXINGTON												VALVE BOX LEAVE AS IS
SB CSAH 17	8+438.0	0.1		LEXINGTON									1			
NB CSAH 17	8+491.1		36.0	CIRCLE PINES												HYDRANT LEAVE AS IS
SB CSAH 17	8+540.0 TO 8+760.0		1.2	LEXINGTON		528										
SB CSAH 17	8+589.0	4.0		LEXINGTON							1					
SB CSAH 17	8+628.0	3.9		LEXINGTON							1					
SB CSAH 17	8+636.0	7.0		LEXINGTON	7			1						40		(1)
SB CSAH 17	8+641.5	4.0		LEXINGTON		–					1					
NB CSAH 17	8+683.0		13.5	CIRCLE PINES									1			
SB CSAH 17	8+684.8	3.4		LEXINGTON							1					
NB CSAH 17	8+692.7		14.4	CIRCLE PINES								1				
NB CSAH 17	8+694.0		15.5	CIRCLE PINES									1			
SB CSAH 17	8+714.8	2.6		LEXINGTON							1					
SB CSAH 17	8+748.0	5.2		LEXINGTON							1					
NB CSAH 17	8+753.5		9.5	CIRCLE PINES	5					1				40		(1)
NB CSAH 17	8+758.5		9.5	CIRCLE PINES					1							
NB CSAH 17	8+757.8		7.2	CIRCLE PINES									1			
NB CSAH 17	8+761.2		9.5	CIRCLE PINES									1			
NB CSAH 17	8+766.7		9.8	CIRCLE PINES									1			
SB CSAH 17	8+775.0	6.0		LEXINGTON							1					
NB CSAH 17	8+776.0		7.2	CIRCLE PINES									1			
NB CSAH 17	8+776.9		6.2	CIRCLE PINES									1			
SB CSAH 17	8+797.0	4.8		LEXINGTON							1					
SB CSAH 17	8+819.5	0.4		LEXINGTON									1			
SB CSAH 17	8+820.5	2.0		LEXINGTON			1									(2)
SB CSAH 17	8+820.5	12.5		LEXINGTON	11			1						108		(1) LEAD 0.6 m ABOVE STORM
SB CSAH 17	8+827.3	0.7		LEXINGTON									1			
SB CSAH 17	8+833.0	10.8		BLAINE									1			
EDGEWOOD RD	3+036.7	10.0		BLAINE												VALVE BOX LEAVE AS IS
SB CSAH 17	8+834.5	11.8		BLAINE									1			
SB CSAH 17	8+836.0	12.0		BLAINE					1							
SB CSAH 17	8+838.0	12.0		BLAINE	2					1				40		(1)
SB CSAH 17	8+882.0 TO 8+981.0		0.1	BLAINE		476								140	15	INSULATE WATERMAIN
SB CSAH 17	8+867.0 TO 8+882.0	0.7		BLAINE	15	12								140	16	LOWER WATERMAIN UNDER STORM SEWER
SB CSAH 17	8+973.0 TO 8+981.0	0.7-8.5		BLAINE	12	12										LOWER WATERMAIN UNDER STORM SEWER
SB CSAH 17	8+980.5	11.0		BLAINE									1			
SB CSAH 17	8+983.5	12.0		BLAINE									1			
SB CSAH 17	8+984.3	12.0		BLAINE					1							
SB CSAH 17	8+986.3	12.0		BLAINE	2					1				40		(1)
97th LANE	4+030.0		10.0	BLAINE												VALVE BOX LEAVE AS IS
PROJECT TOTALS:					62	1028	2	3	3	3	8	1	14	588	31	(3)

NOTES: (1) F & I 6" GATE VALVE - INCIDENTAL
(2) AFTER REMOVING HYDRANT CONTACT THE CITY OF LEXINGTON UTILITIES DEPARTMENT. CITY FORCES TO PICK UP HYDRANT FOR SPARE PARTS.
(3) CSAH 17 NORTH OF CSAH 23 ELIGIBLE FOR FEDERAL AID FUNDING.

NO	DATE	BY	CKD	APPR	REVISION
1	11-16-00	VGG	BRW	MDH	C.R. 110 S.A.P. NO. REVISION
2	11-16-00	VGG	BRW	MDH	REVISED PER FEDERAL AID COMMENTS
3	2-05-01	ELB	BRW	MDH	REVISED TAB U PER ANOKA COUNTY COMMENTS
4	3-23-01	SJP	BRW	MDH	REVISED TAB T PER ANOKA COUNTY COMMENTS

NAME: 2842.TBG DATE: Apr. 27, 2001

minnesota metric

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.
Date 5-1-2001 Reg. No. 21364

STATE AID PROJECT NO. S.A.P. 106-020-14
FED. AID PROJECT NO. S.P. 02-617-17

DRAWN BY V. GRAF 1-99
DESIGNED BY A. DeBRUIN 1-99
CHECKED BY M. HANSEN 1-99
COMM. NO. 0972842

SRF CONSULTING GROUP, INC.

ANOKA COUNTY
TABULATIONS
C.S.A.H. 17 RECONSTRUCTION

SHEET 15 OF 183

DESIGN FILE: n:\civil\047\2842\Plan\mr4tlk01\2842.tbg
PROFILE: n:\civil\047\2842\Plan\mr4tlk01\2842.prf
PLOTTER: MS-HP55 HX
PLOT SCALE: 101.010000
PLOT DATE/TIME: 05/02/2001 15:32:30

T — SALVAGE AND INSTALL SIGNS

ALIGNMENT	STATION	OFFSET (m)		SALVAGE SIGN TYPE C (1)	SALVAGE SIGN TYPE D (2)	SALVAGE SIGN TYPE SPECIAL	INSTALL SIGN TYPE C	INSTALL SIGN TYPE D	INSTALL SIGN TYPE SPECIAL	NOTES
		LT	RT	(EACH)	(EACH)	(EACH)	(EACH)	(EACH)	(EACH)	
NB CSAH 17	8+329	24		1			1			
NB CSAH 17	8+437	35		1			1			
NB CSAH 17	8+442	21		1			1			
NB CSAH 17	8+444		13			1			1	(3)
NB CSAH 17	8+507		14			1			1	(3)
NB CSAH 17	8+745	18		1			1			
NB CSAH 17	8+759		11	1			1			
NB CSAH 17	8+788	26				1			1	(3)
NB CSAH 17	8+813	19			1			1		
NB CSAH 17	8+836	24		1			1			
NB CSAH 17	8+985	24		1			1			
NB CSAH 17	9+045		11	1			1			
NB CSAH 17	9+273	24		1			1			
NB CSAH 17	9+494	19		1			1			
NB CSAH 17	9+539	24		1			1			
PROJECT TOTALS:				28	2	3	11	1	3	(4)

NOTES: LOCATIONS LISTED IN THIS TABULATION ARE APPROXIMATE. SEE SIGNING AND STRIPING PLANS FOR PLAN LOCATIONS OF INSTALLED SIGNS.

SALVAGED SIGNS SHALL BE INSTALLED PRIOR TO TURF ESTABLISHMENT.

(1) TOTAL QUANTITY INCLUDES 17 SIGNS TO BE RETURNED TO ANOKA COUNTY FOR REFURBISHING. SEE EXISTING TOPOGRAPHY PLANS FOR SALVAGED SIGN LOCATIONS.

(2) TOTAL QUANTITY INCLUDES 1 SIGN TO BE RETURNED TO ANOKA COUNTY FOR REFURBISHING. SEE EXISTING TOPOGRAPHY PLANS FOR SALVAGED SIGN LOCATIONS.

(3) CONSULT OWNER OF PRIVATE SIGN PRIOR TO SIGN INSTALLATION.

(4) CSAH 17 NORTH OF CSAH 23 ELIGIBLE FOR FEDERAL AID FUNDING.

U — TURF ESTABLISHMENT / EROSION CONTROL

NOTES	LOCATION	SEEDING (ha)	SEED MIXTURE 20A MIX (kg)	SEED MIXTURE 90A MIX (kg)	MACHINE SLICED SILT FENCE (m)	EROSION CONTROL BLANKET (STRAW 2S) (m2)	SODDING TYPE EROSION (m2)	SODDING TYPE SALT RESISTANT (m2)	SODDING TYPE LAWN (m2)	COMM. FERT. ANALYSIS 10-10-10 (kg)
	ANOKA COUNTY									
	CSAH 17 - CSAH 23 TO STA. 9+555				1380		7	8570	7700	
	POND A	0.56	18.0	10.0	10	5600				313.6
(1)	PROJECT TOTALS:	0.56	18.0	10.0	1390	5600	7	8570	7700	313.6

NOTES: QUANTITIES ARE BASED ON 110 % OF THE COMPUTED AREA.

SODDING TYPE EROSION INCLUDES SOD AT PIPE APRONS IDENTIFIED IN DRAINAGE TABULATION.

EROSION CONTROL BLANKET (STRAW 2S) TO BE PLACED ON ALL POND SEEDING AREAS.

(1) CSAH 17 NORTH OF CSAH 23 ELIGIBLE FOR FEDERAL AID FUNDING.

NO	DATE	BY	CKD	APPR	REVISION
1	11-16-00	VGG	BRW	MDH	C.R. 110 S.A.P. NO. REVISION
2	11-16-00	VGG	BRW	MDH	REVISED PER FEDERAL AID COMMENTS
3	5-31-01	BRW	BRW	MDH	REVISED TAB T SALVAGE SIGN QUANTITY TOTALS AND NOTES

NAME: 2842.TBH DATE: May. 31, 2001 TIME: 13:18:55

minnesota metric

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.

Date 5-31-2001 Reg. No. 21364

STATE AID PROJECT NO. S.A.P. 106-020-14

FED. AID PROJECT NO. S.P. 02-617-17

		DATE
DRAWN BY	V. GRAF	1-99
DESIGNED BY	A. DeBRUIN	1-99
CHECKED BY	M. HANSEN	1-99

COMM. NO. 0972842

SRF CONSULTING GROUP, INC.

ANOKA COUNTY

TABULATIONS

C.S.A.H. 17 RECONSTRUCTION

SHEET 16 OF 183

DESIGN FILE: N:\civil\047\2842\PlanNorthLKO\2842.tbh
REF FILES: N:\civil\047\2842\Prf NorthLKO\TBH.prf
PLOTTER: MS-HPSSIMX
PLOT SCALE: 2.561000
PLOT DATE/TIME: 05/31/2001 13:20:22

PRIVATE UTILITIES

STATION TO STATION NB CSAH 17	OFFSET LEFT (m)	OFFSET RIGHT (m)	IN PLACE UTILITY	LEAVE AS IS	ADJUST AND/OR RELOCATE UTILITY	UTILITY OWNER	REMARK
8+436 8+678	15		TELE		X	QWEST	BURIED LINE
8+436 8+771	14		GAS		X	CITY OF LEXINGTON	LINE
8+436 9+555		0-1	TELE		X	QWEST	BURIED LINE
8+436 8+841		6-0	ELEC		X		BURIED LINE
8+471	14-24		GAS		X	CITY OF LEXINGTON	LINE
8+472	17		ELEC		X	XCEL ENERGY	POWER POLE
8+474		6	ELEC		X	XCEL ENERGY	POWER POLE
8+474		6-11	ELEC		X		BURIED LINE
8+501 8+660	0-1		GAS		X	CITY OF CIRCLE PINES	LINE
8+501		0-20	GAS		X	CITY OF CIRCLE PINES	LINE
8+549 8+552	24-15		TV		X	AT&T BROADBAND	BURIED LINE
8+551	24-0		TV		X	AT&T BROADBAND	BURIED LINE
8+551		0-3	TV		X	AT&T BROADBAND	BURIED LINE
8+551		3	ELEC		X	XCEL ENERGY	POWER POLE
8+552	15		TV		X	AT&T BROADBAND	PEDESTAL
8+552	15		ELEC		X		LIGHT
8+552		2	ELEC		X	XCEL ENERGY	POWER POLE
8+586		0	TELE		X	QWEST	MANHOLE
8+586	15-0		TELE		X	QWEST	BURIED LINE
8+620		10	ELEC		X	XCEL ENERGY	POWER POLE
8+628	18		GAS		X	CITY OF CIRCLE PINES	MANHOLE
8+630		2	GAS		X	CITY OF CIRCLE PINES	POWER POLE
8+633 8+648		11-0	GAS		X	CITY OF CIRCLE PINES	LINE
8+639 8+640	0-1		GAS		X	CITY OF CIRCLE PINES	LINE
8+659		8	ELEC		X	XCEL ENERGY	POWER POLE
8+660 8+888		0-7	GAS		X	CITY OF CIRCLE PINES	LINE
8+663 8+704		2-23	GAS		X	CITY OF CIRCLE PINES	LINE
8+678	14		TELE		X	QWEST	PEDESTAL
8+706		3	ELEC		X	XCEL ENERGY	POWER POLE
8+753		2	GAS		X	CITY OF CIRCLE PINES	VALVE
8+757		11	ELEC		X	XCEL ENERGY	POWER POLE
8+760	15		TELE		X	QWEST	PEDESTAL
8+770		2-32	GAS		X	CITY OF CIRCLE PINES	LINE
8+770		10	GAS		X	CITY OF CIRCLE PINES	VALVE
8+776		4	ELEC		X		LIGHT
8+786		2	ELEC		X	XCEL ENERGY	POWER POLE
8+788	9		ELEC		X		LIGHT
8+819	14		TELE		X	QWEST	PEDESTAL
8+822	17-0		TELE		X	QWEST	BURIED LINE
8+822		0-7	TELE		X	QWEST	BURIED LINE
8+822		7	TELE		X	QWEST	PEDESTAL
8+836 9+555	39-20		GAS		X	CITY OF BLAINE	LINE
8+837	63-0		TV		X	AT&T BROADBAND	BURIED LINE
8+837		0-2	TV		X	AT&T BROADBAND	BURIED LINE
8+837		2	ELEC		X	XCEL ENERGY	POWER POLE
8+841	30-0		ELEC		X	CONNEXUS ENERGY	BURIED LINE
8+842 9+271	40-11		ELEC		X	CONNEXUS ENERGY	BURIED LINE
8+842	30-17		ELEC		X	CONNEXUS ENERGY	BURIED LINE
8+842	30		ELEC		X	CONNEXUS ENERGY	PEDESTAL
8+890		2	ELEC		X	XCEL ENERGY	POWER POLE
8+891 9+018		7-0	GAS		X	CITY OF CIRCLE PINES	BURIED LINE
8+892 9+051		2-27	GAS		X	CITY OF CIRCLE PINES	BURIED LINE
8+907	30-10		ELEC		X	CONNEXUS ENERGY	BURIED LINE
8+907 8+968	13-21		ELEC		X	CONNEXUS ENERGY	BURIED LINE
8+968 8+973	24-59		ELEC		X	CONNEXUS ENERGY	BURIED LINE
8+971	22		ELEC		X		LIGHT
8+972	0-59		TV		X	AT&T BROADBAND	BURIED LINE
8+972		0-3	TV		X	AT&T BROADBAND	BURIED LINE
8+973		3	ELEC		X	XCEL ENERGY	POWER POLE
8+987	14		TELE		X	QWEST	PEDESTAL
9+018	0-24		GAS		X	CITY OF CIRCLE PINES	LINE
9+059		0	TELE		X	QWEST	MANHOLE
9+059	0-21		TELE		X	QWEST	BURIED LINE
9+059		5	ELEC		X		LIGHT
9+063		3	ELEC		X	XCEL ENERGY	POWER POLE
9+142		3	ELEC		X	XCEL ENERGY	POWER POLE
9+226	0-22		TELE		X	QWEST	BURIED LINE

PRIVATE UTILITIES

STATION TO STATION NB CSAH 17	OFFSET LEFT (m)	OFFSET RIGHT (m)	IN PLACE UTILITY	LEAVE AS IS	ADJUST AND/OR RELOCATE UTILITY	UTILITY OWNER	REMARK
9+226		3	ELEC		X	XCEL ENERGY	POWER POLE
9+257 9+543	10-24		ELEC		X	CONNEXUS ENERGY	BURIED LINE
9+273	29		ELEC		X		LIGHT
9+299	23		TV		X	AT&T BROADBAND	PEDESTAL
9+299 9+313	23		TV		X	AT&T BROADBAND	BURIED LINE
9+310		4	ELEC		X	XCEL ENERGY	POWER POLE
9+389 9+504	26-28		TV		X	AT&T BROADBAND	BURIED LINE
9+391	26		TELE		X	QWEST	PEDESTAL
9+391	26-0		TELE		X	QWEST	BURIED LINE
9+391 9+555		0-2	TELE		X	QWEST	BURIED LINE
9+394		4	ELEC		X	XCEL ENERGY	POWER POLE
9+465	26		TV		X	AT&T BROADBAND	PEDESTAL
9+500	28		TV		X	AT&T BROADBAND	PEDESTAL
9+524 9+543	28		TV		X	AT&T BROADBAND	BURIED LINE
9+540	23		ELEC		X		LIGHT
9+541	25		ELEC		X	CONNEXUS ENERGY	PEDESTAL
9+541 9+555	13-26		ELEC		X	CONNEXUS ENERGY	BURIED LINE
9+543 9+555	26		TV		X	AT&T BROADBAND	BURIED LINE

NOTES: THE REMARKS COLUMN IS BASED UPON THE BEST INFORMATION AVAILABLE AND MAY NOT REFLECT ACTUAL EFFECTS ON THE UTILITIES BY CONSTRUCTION. AN ACTUAL DETERMINATION AS TO EFFECTS WILL BE MADE IN THE FIELD DURING CONSTRUCTION.

ALL UTILITIES MAY NOT BE SHOWN. UTILITIES ARE SHOWN AT APPROXIMATE LOCATIONS. THE CONTRACTOR SHALL DETERMINE THE ACTUAL LOCATION OF ALL UTILITIES IN THE FIELD.

ALL UTILITIES WORK SHOWN ON THESE SHEETS SHALL BE DONE BY OTHERS UNLESS NOTED OTHERWISE.

UTILITY COMPANY INFORMATION
CIRCLE PINES UTILITIES
ATTN: TROY DAHLIN
200 CIVIC HEIGHTS CIRCLE
CIRCLE PINES, MN 55014
PHONE 763-784-5898
CONNEXUS ENERGY
ATTN: CARY TRACY
14601 RAMSEY BOULEVARD
RAMSEY, MN 55303
PHONE 763-323-2765
AT&T BROADBAND
ATTN: KEVIN STROP
934 WOODHILL DRIVE
ROSEVILLE, MN 55113
PHONE 651-493-5148
MCES
ATTN: JOHN PETTIS
3565 KENNEBEC DRIVE
EAGAN, MN 55122
PHONE 651-602-4532
MINNEGASCO
ATTN: STEVE GUHANICK
700 LINDEN AVENUE WEST, PO BOX 1165
MINNEAPOLIS, MN 55440
PHONE 612-321-5421

UTILITY COMPANY INFORMATION
NORTHERN NATURAL GAS
ATTN: DIANNE STAHNKE
6579 420th STREET
NORTH BRANCH, MN 55056
PHONE 651-982-2121
XCEL ENERGY
ATTN: JEFF LIEN
1700 EAST COUNTY ROAD E
WHITE BEAR LAKE, MN 55110
PHONE 651-779-3181
QWEST
ATTN: JOHN MUNSON
425 MONROE STREET
ANOKA, MN 55303
PHONE 763-712-5006
WILLIAMS PIPELINE
ATTN: DON JENSEN
2728 PATTON ROAD
SAINT PAUL, MN 55113
PHONE 651-635-4272

NO	DATE	BY	CKD	APPR	REVISION
1	11-16-00	VGG	BRW	MDH	C.R. 110 S.A.P. NO. REVISION

NAME: 2842.TBI DATE: Apr. 27, 2001

minnesota metric

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.
Date 5-1-2001 Reg. No. 21364

STATE AID PROJECT NO. S.A.P. 106-020-14

FED. AID PROJECT NO. S.P. 02-617-17

DRAWN BY V. GRAF DATE 1-99
DESIGNED BY A. DeBRUIN 1-99
CHECKED BY M. HANSEN 1-99
COMM. NO. 0972842

SRF CONSULTING GROUP, INC.

ANOKA COUNTY
PRIVATE UTILITY TABULATION
C.S.A.H. 17 RECONSTRUCTION

SHEET 17 OF 183

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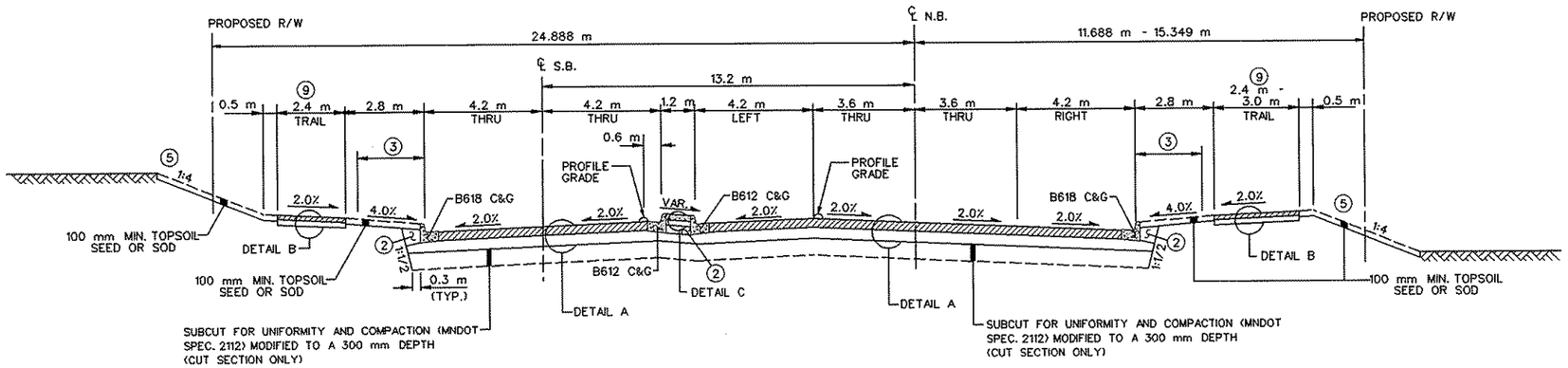
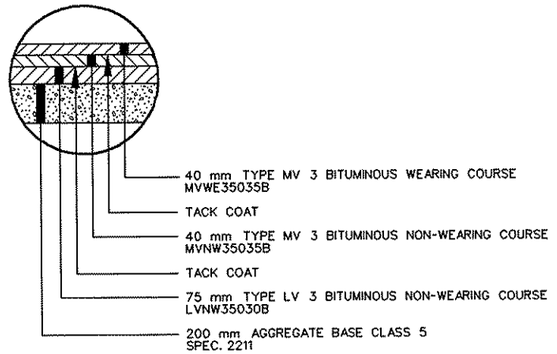
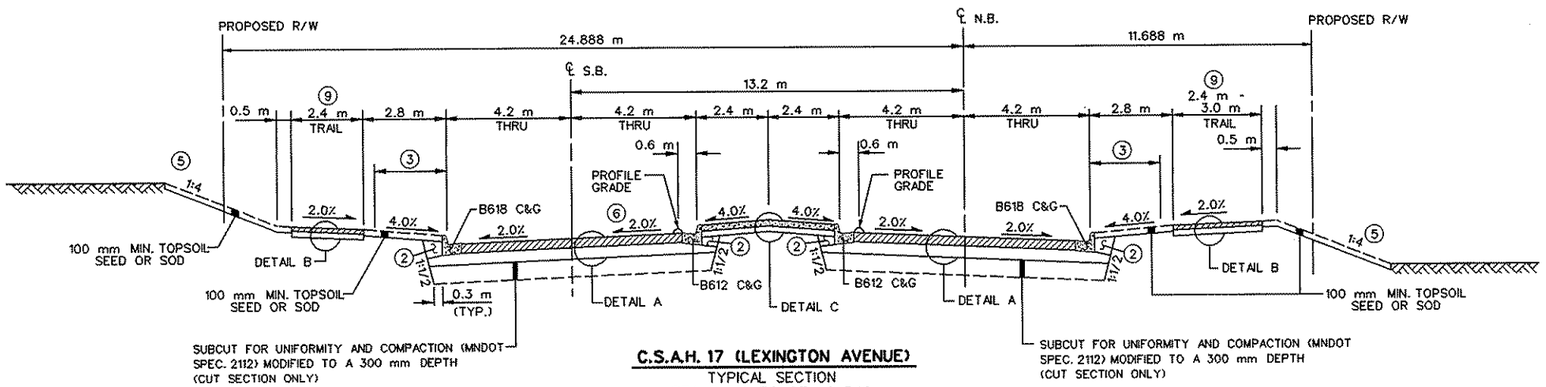


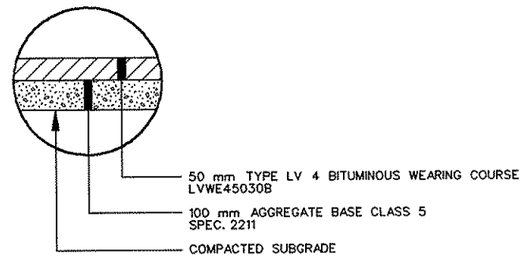
C.S.A.H. 17 (LEXINGTON AVENUE)
TYPICAL SECTION WITH TURN LANES



DETAIL A



C.S.A.H. 17 (LEXINGTON AVENUE)
TYPICAL SECTION
STA. 8+819 TO STA. 9+548



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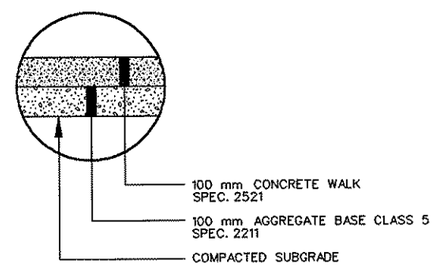

DETAIL C

NOTES:

(2) BACKFILL WITH SUITABLE GRADING MATERIAL.

(3) 0.5m OBSTACLE FREE CLEAR ZONE FROM FACE OF CURB.

(5) SEE CROSS SECTIONS FOR LOCATIONS OF VARIABLE SLOPES.

(6) SEE CONSTRUCTION PLANS FOR SUPERELEVATION TRANSITIONS.

(9) SEE CONSTRUCTION PLANS FOR TRAIL LOCATION AND WIDTH. PROPOSED TRAIL SHALL BE 2.4 m WIDE WITHIN THE CITY OF CIRCLE PINES. PROPOSED TRAIL IN THE CITY OF BLAINE SHALL BE 2.4 m WIDE ON THE WEST SIDE OF C.S.A.H. 17 AND 3.0 m WIDE ON THE EAST SIDE OF C.S.A.H. 17. THERE SHALL BE NO PROPOSED TRAIL WITHIN THE CITY OF LEXINGTON.

NO	DATE	BY	CKD	APPR	REVISION
1	7-31-00	VGG	BRW	MDH	REVISED PER FEDERAL AID STANDARDS
2	11-16-00	VGG	BRW	MDH	C.R. 110 S.A.P. NO. REVISION
3	11-16-00	VGG	BRW	MDH	REVISED PER FEDERAL AID COMMENTS
4	2-02-01	ELB	BRW	MDH	REVISED MIX DESIGNATION PER ANOKA COUNTY COMMENTS
5	2-20-01	BRW	BRW	MDH	DELETED SUBGRADE EXCAVATION PER ANOKA COUNTY COMMENTS

NAME: 2842.TSA DATE: May. 08, 2001

minnesota metric

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.
Date 5-1-2001 Reg. No. 21364

STATE AID PROJECT NO. S.A.P. 106-020-14
FED. AID PROJECT NO. S.P. 02-617-17

DRAWN BY V. GRAF DATE 1-99
DESIGNED BY B. WESTBY 1-99
CHECKED BY M. HANSEN 1-99
COMM. NO. 0972842

SRF CONSULTING GROUP, INC.

ANOKA COUNTY
TYPICAL SECTIONS
C.S.A.H. 17 RECONSTRUCTION

SHEET 19 OF 183

DESIGN FILE: N:\Civil\047\2842\PlanNorth\LKDr\2842-16A
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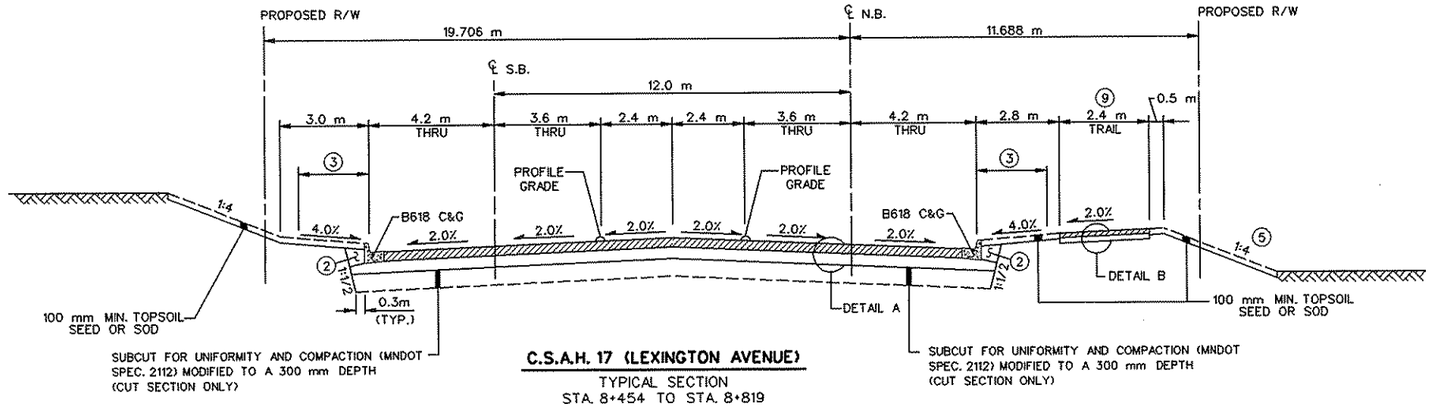
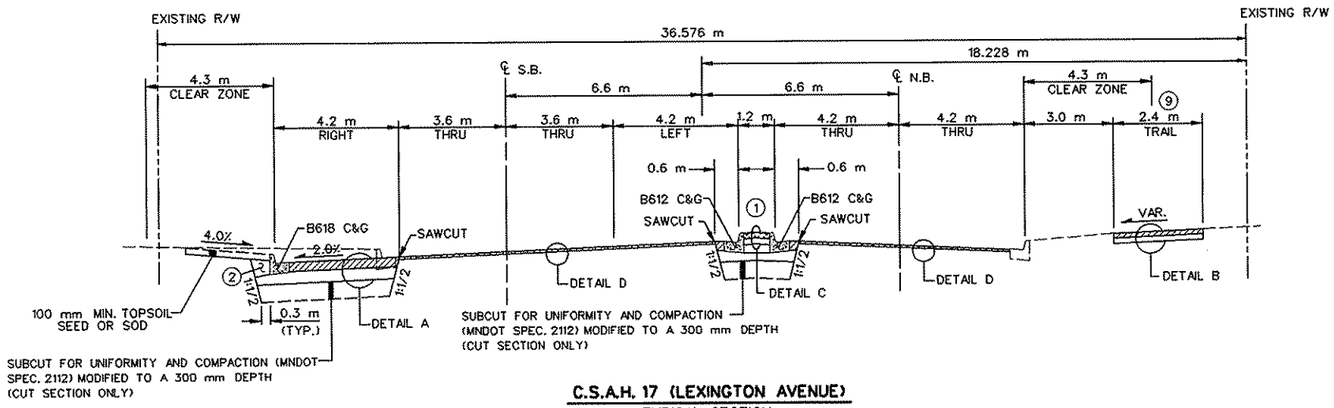


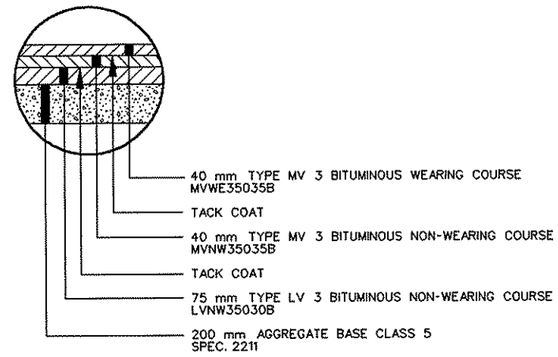
C.S.A.H. 17 (LEXINGTON AVENUE)
TYPICAL SECTION
STA. 8+454 TO STA. 8+819



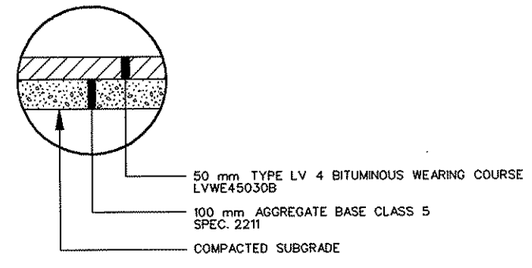
C.S.A.H. 17 (LEXINGTON AVENUE)
TYPICAL SECTION
STA. 8+339 TO STA. 8+454

NOTES:

1. REMOVE EXISTING MEDIAN.
2. BACKFILL WITH SUITABLE GRADING MATERIAL.
3. 0.5 m OBSTACLE FREE CLEAR ZONE FROM FACE OF CURB.
5. SEE CROSS SECTIONS FOR LOCATIONS OF VARIABLE SLOPES.
9. SEE CONSTRUCTION PLANS FOR TRAIL LOCATION AND WIDTH. PROPOSED TRAIL SHALL BE 2.4 m WIDE WITHIN THE CITY OF CIRCLE PINES. PROPOSED TRAIL IN THE CITY OF BLAINE SHALL BE 2.4 m WIDE ON THE WEST SIDE OF C.S.A.H. 17 AND 3.0 m WIDE ON THE EAST SIDE OF C.S.A.H. 17. THERE SHALL BE NO PROPOSED TRAIL WITHIN THE CITY OF LEXINGTON.



DETAIL A



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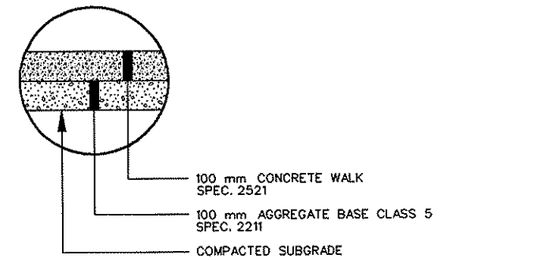

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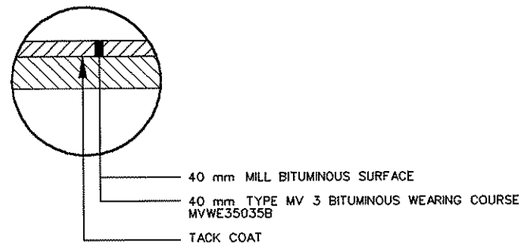

DETAIL D

NO	DATE	BY	CKD	APPR	REVISION
1	7-31-00	VGG	BRW	MDH	REVISED PER FEDERAL AID STANDARDS
2	11-16-00	VGG	BRW	MDH	C.R. 110 S.A.P. NO. REVISION
3	11-16-00	VGG	BRW	MDH	REVISED PER FEDERAL AID COMMENTS
4	2-05-01	ELB	BRW	MDH	REVISED MIX DESIGNATION PER ANOKA COUNTY COMMENTS
5	2-20-01	BRW	BRW	MDH	DELETED SUBGRADE EXCAVATION PER ANOKA COUNTY COMMENTS

NAME: 2842.TSB DATE: Apr. 27, 2001

minnesota metric

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.
Date 5-1-2001 Reg. No. 21364

STATE AID PROJECT NO. S.A.P. 106-020-14
FED. AID PROJECT NO. S.P. 02-617-17

DRAWN BY V. GRAF DATE 1-99
DESIGNED BY B. WESTBY 1-99
CHECKED BY M. HANSEN 1-99
COMM. NO. 0972842

SRF CONSULTING GROUP, INC.

ANOKA COUNTY
TYPICAL SECTIONS
C.S.A.H. 17 RECONSTRUCTION

SHEET 20 OF 183

DESIGN FILE: h:\civil\047\2842\PlanNorthLkDr\2842.TSB
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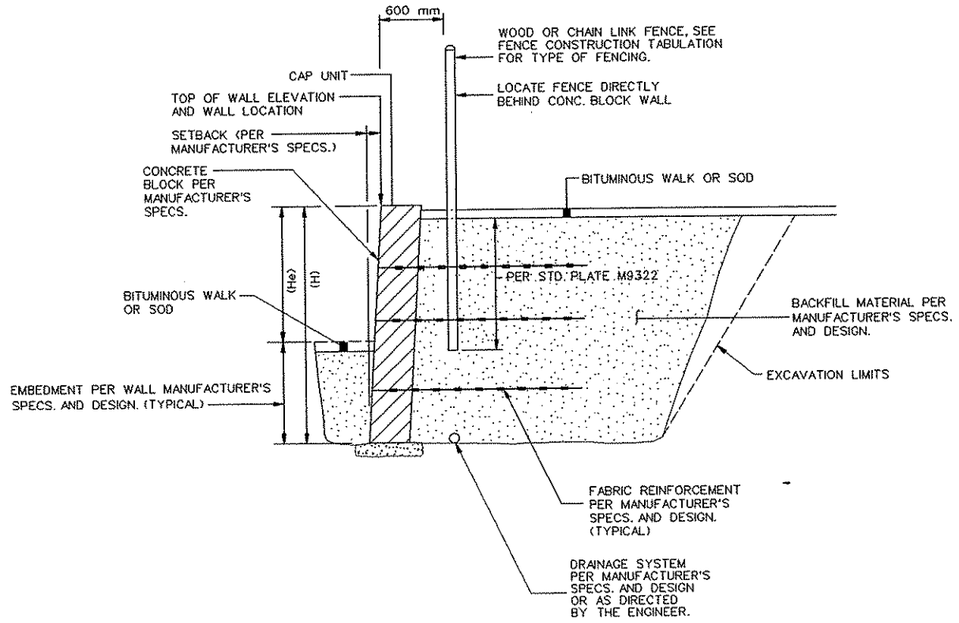
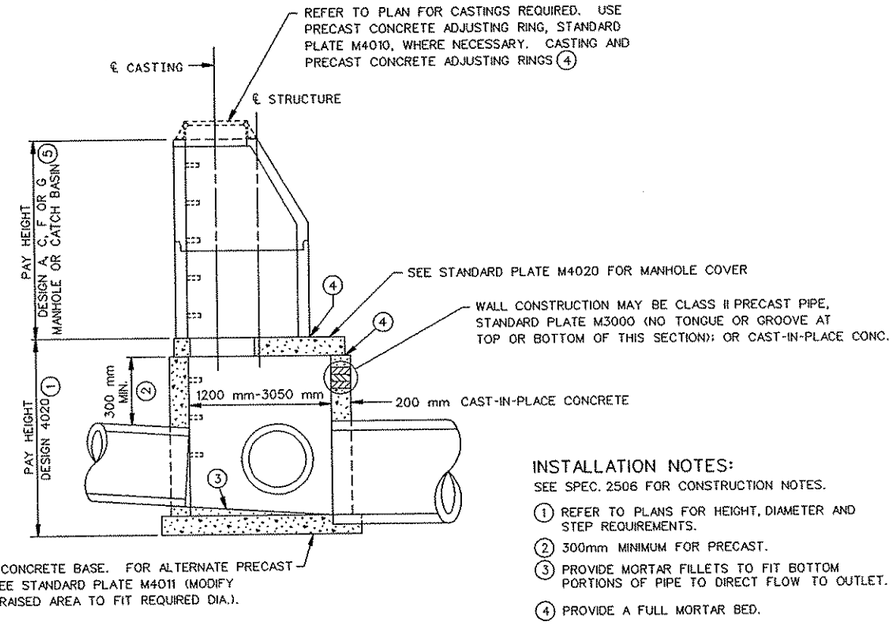


CONCRETE BLOCK RETAINING WALL DETAIL



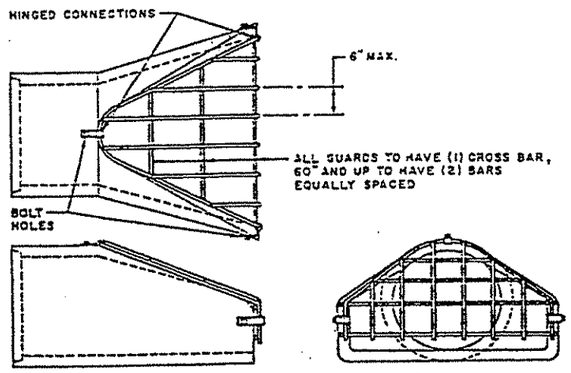
INSTALLATION NOTES:

SEE SPEC. 2506 FOR CONSTRUCTION NOTES.

1. REFER TO PLANS FOR HEIGHT, DIAMETER AND STEP REQUIREMENTS.
2. 300mm MINIMUM FOR PRECAST.
3. PROVIDE MORTAR FILLETS TO FIT BOTTOM PORTIONS OF PIPE TO DIRECT FLOW TO OUTLET.
4. PROVIDE A FULL MORTAR BED.
5. 4.57 m MAXIMUM. REFER TO PLANS FOR DESIGN HEIGHTS AND STEP REQUIREMENTS.

DRAINAGE STRUCTURE TYPE 4020

INSTALLATION DETAILS



Hot dip galvanized per Mn/DOT 3392 or ASTM-A153.

TRASH GUARD FOR FLARED ENDS

BAR SIZES			
HEAVY DESIGN			
	PIPE SIZE	HOLE DIA. SIZE	BOLT	BAR SIZE
ROUND	300mm-450mm	18mm	M16	20mm
	525mm-1200mm	24mm	M22	25mm
BOLT LG.=PIPE WALL THK + 64mm				

NO	DATE	BY	CKD	APPR	REVISION
1	7-31-00	VGG	BRW	MDH	REVISED PER FEDERAL AID STANDARDS
2	11-16-00	VGG	BRW	MDH	C.R. 110 S.A.P. NO. REVISION

NAME: 2842.DEB DATE: Apr. 27, 2001

minnesota metric

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Date 5-1-2001 Reg. No. 21364

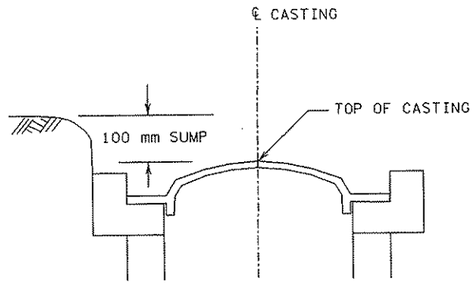
STATE AID PROJECT NO. S.A.P. 106-020-14
FED. AID PROJECT NO. S.P. 02-617-17

DRAWN BY V. GRAF DATE 12-96
DESIGNED BY M. HANSEN 12-96
CHECKED BY D. DEMERS 1-97
COMM. NO. 0962842

SRF CONSULTING GROUP, INC.

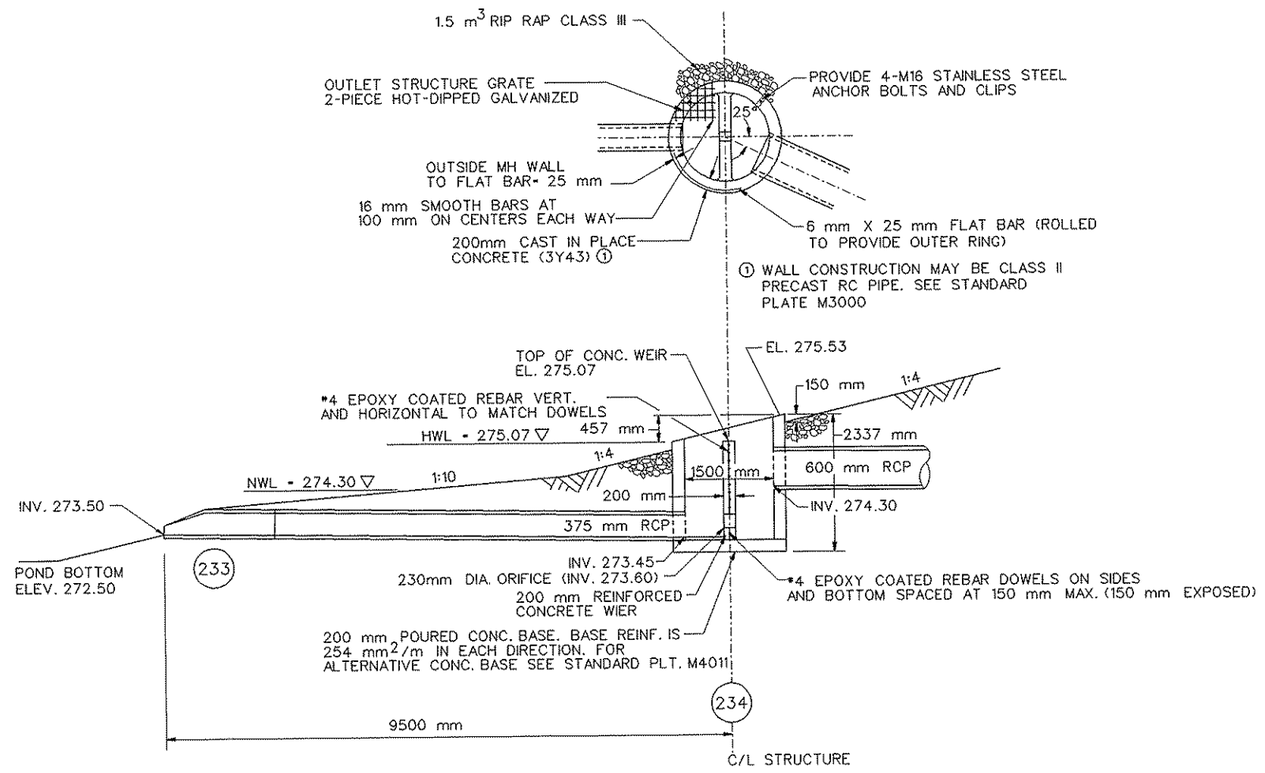
ANOKA COUNTY
DETAILS
C.S.A.H. 17 RECONSTRUCTION

SHEET 21 OF 183



CASTING ASSEMBLY M-11

STAKING DETAIL



POND A OUTLET STRUCTURE

(DRAINAGE STRUCTURE DESIGN SPECIAL 1)

NO	DATE	BY	CKD	APPR	REVISION
1	7-28-00	VGG	BRW	MDH	REVISED PER FEDERAL AID STANDARDS
2	11-16-00	VGG	BRW	MDH	C.R. 110 S.A.P. NO. REVISION

NAME: 2842.DEE DATE: Apr. 27, 2001

minnesota metric

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Date 5-1-2001 Reg. No. 21364

STATE AID PROJECT NO. S.A.P. 106-020-14

FED. AID PROJECT NO. S.P. 02-617-17

DRAWN BY V. GRAF	DATE 07-00
DESIGNED BY B. WESTBY	04-99
CHECKED BY M. HANSEN	08-00
COMM. NO. 0962842	

SRF CONSULTING GROUP, INC.

ANOKA COUNTY

DETAILS

C.S.A.H. 17 RECONSTRUCTION

SHEET 22A OF 183

W TRAFFIC SIGN TABULATION

SIGN LEGEND	SIGN DESIGNATION	SIGN SIZE	SIGN COLOR	QUANTITY		
				STAGE I	STAGE II	STAGE III
END ROAD WORK	G20-2A	48"X24"	BLACK ON ORANGE	2	2	2
STOP	R1-1	30"X30"	WHITE ON RED	22	17	10
YIELD	R1-2	36"X36"X36"	RED ON WHITE	1	0	0
ALL WAY	R1-4	18"X6"	WHITE ON RED	14	14	10
DO NOT PASS	R4-1	24"X30"	BLACK ON WHITE	4	3	0
	R4-7	24"X30"	BLACK ON WHITE	7	7	2
RIGHT TURN LANE	R3-X1	30"X30"	BLACK ON WHITE	0	2	0
LEFT TURN LANE	R3-X2	30"X30"	BLACK ON WHITE	1	0	1
SIDEWALK CLOSED	R11-X1	30"X18"	BLACK ON WHITE	2	0	0
	W1-3R	48"X48"	BLACK ON ORANGE	0	1	0
	W1-6	48"X24"	BLACK ON ORANGE	2	3	3
	W1-7	48"X24"	BLACK ON ORANGE	3	5	0
	W3-1a	36"X36"	BLACK, RED, WHITE ON YELLOW	7	7	3
	W4-2R	48"X48"	BLACK ON ORANGE	1	0	0
	W4-2L	48"X48"	BLACK ON ORANGE	0	1	1
	W6-3	48"X48"	BLACK ON ORANGE	5	5	0
ROAD WORK AHEAD	W20-1	48"X48"	BLACK ON ORANGE	17	15	6
MERGE	W20-X3	48"X48"	BLACK ON ORANGE	0	1	1
MERGE	W20-X3	48"X48"	BLACK ON ORANGE	1	0	0
LEFT LANE ENDS	W9-1L	48"X48"	BLACK ON ORANGE	0	2	0
LEFT LANE CLOSED	W21-X5L	48"X48"	BLACK ON ORANGE	0	0	1
RIGHT LANE CLOSED	W21-X5R	48"X48"	BLACK ON ORANGE	2	0	0

W TRAFFIC SIGN TABULATION

SIGN LEGEND	SIGN DESIGNATION	SIGN SIZE	SIGN COLOR	QUANTITY		
				STAGE I	STAGE II	STAGE III
DO NOT ENTER	R5-1	30"X30"	RED ON WHITE	0	2	0
	TPRM		WHITE OR YELLOW	730	510	400

SEE TRAFFIC SIGN TABULATION AND GENERAL NOTES FOR GENERAL TRAFFIC CONTROL NOTES.

LEGEND

- REFLECTORIZED DRUMS (USED FOR CHANNELIZATION)
- REFLECTORIZED DRUM WITH STANDARD SIGN
- TYPE "A" LOW INTENSITY WARNING FLASHER
- STANDARD SIGN (POST OR STAND MOUNTED)
- TYPE 3 BARRICADE - REFLECTORIZED BOTH SIDES (2.4m WIDE UNLESS NOTED OTHERWISE)
- TRAFFIC LOCATION AND DIRECTION
- —(1)— 100mm DOUBLE SOLID LINE YELLOW (PAINT)
- —(2)— 100mm BROKEN LINE WHITE (REMOVABLE POLY PREFORM)
- —(3)— 100mm SOLID LINE WHITE (REMOVABLE POLY PREFORM)
- —(4)— 100mm SOLID LINE YELLOW (REMOVABLE POLY PREFORM)
- —(5)— 100mm SOLID LINE WHITE PAINT

- STAGE I TEMPORARY PAVEMENT WIDENING
- CONSTRUCTION AREA
- CONSTRUCTION UNDER TRAFFIC

GENERAL TRAFFIC CONTROL NOTES:

1. ALL TRAFFIC CONTROL DEVICES, TEMPORARY LANE CLOSURE ARRANGEMENTS AND PROCEDURES, ETC. SHALL CONFORM TO REQUIREMENTS OF THE MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES INCLUDING THE FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS DATED JANUARY 1998.
2. PAVEMENT MARKINGS SHALL BE PAINT OR REMOVABLE POLYMER PREFORMED. THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN, AND REMOVE ALL PAVEMENT MARKINGS TO THE SATISFACTION OF THE ENGINEER. REMOVABLE PREFORMED PAVEMENT MARKINGS SHALL BE PAID FOR SEPARATELY FROM THE LUMP SUM FOR TRAFFIC CONTROL UNDER THE APPROPRIATE CONTRACT ITEMS INDICATED ON THE PROPOSAL.
3. ALL TRAFFIC THRU LANES SHALL BE A MINIMUM OF 3.6 METERS IN WIDTH UNLESS NOTED OTHERWISE.
4. REFLECTORIZED DRUMS USED FOR CHANNELIZATION SHALL TYPICALLY HAVE 3 METER SPACING IN INTERSECTION AREAS, 8 METER SPACING IN TAPERS, CORNERS AND RADII, AND 15 METER SPACING IN TANGENTS. DRUMS SPACED AT 8 METER INTERVALS SHALL BE SUPPLEMENTED WITH DOWN ARROWS ON EVERY OTHER DRUM. DRUM LOCATIONS AND SPACINGS SHOWN ON THIS PLAN ARE APPROXIMATE AND ARE SUBJECT TO REVISION BY THE ENGINEER.
5. THE LOCATIONS AND QUANTITIES OF TRAFFIC CONTROL DEVICES SHOWN ON THESE PLANS ARE APPROXIMATE AND ARE SUBJECT TO REVISION BY THE ENGINEER.
6. ANY TEMPORARY PORTABLE TRAFFIC BARRIER USED ON THIS PROJECT SHALL HAVE BARRIER DELINEATORS SPACED AT 15.24 METERS. THE DELINEATORS SHALL HAVE A MINIMUM OF 0.0155 SQUARE METERS (24 SQ. INCHES.)
7. THE CONTRACTOR SHALL MAINTAIN A 0.6 METER MINIMUM CLEAR DISTANCE BETWEEN THE EDGE OF THE TRAVEL LANE AND THE NEAREST EDGE OF ANY ADJACENT TRAFFIC CONTROL DEVICES (DRUMS, BARRICADES, BARRIERS, ETC.)
8. CONTRACTOR SHALL MAINTAIN ACCESS TO ALL DRIVEWAYS AT ALL TIMES TO THE SATISFACTION OF THE ENGINEER.
9. THE CONTRACTOR SHALL PROVIDE CHANNELIZING DEVICES (AND SIGNING IF NECESSARY) AT ALL PRIVATE ENTRANCE LOCATIONS WHERE NEEDED TO SAFELY GUIDE TRAFFIC TO AND FROM THE TRAVEL CORRIDOR, TO THE SATISFACTION OF THE ENGINEER.
10. THE CONTRACTOR SHALL REMOVE, SALVAGE, OR COVER AS APPROPRIATE, ALL EXISTING SIGNING WHICH CONFLICTS WITH THIS TRAFFIC CONTROL PLAN TO THE SATISFACTION OF THE ENGINEER. THE CONTRACTOR SHALL RESTORE ALL APPROPRIATE ORIGINAL SIGNING WHEN AND AS DIRECTED BY THE ENGINEER.
11. THE CONTRACTOR SHALL REMOVE ALL EXISTING PAVEMENT MARKINGS WHICH CONFLICT WITH THESE TRAFFIC CONTROL PLANS TO THE SATISFACTION OF THE ENGINEER. THE CONTRACTOR SHALL RESTORE ALL APPROPRIATE ORIGINAL PAVEMENT MARKINGS WHEN AND AS DIRECTED BY THE ENGINEER.
12. THESE TRAFFIC CONTROL LAYOUTS DO NOT SHOW ALL INPLACE SIGNING. CONTRACTOR SHALL RELOCATE ALL APPROPRIATE INPLACE SIGNING TO MAINTAIN PROPER SIGN VISIBILITY DURING CONSTRUCTION AS DEEMED NECESSARY BY THE ENGINEER.
13. THE CONTRACTOR SHALL PROVIDE QUALIFIED FLAGGERS WITH TWO-WAY RADIOS AT ALL TIMES WHEN CONTRACTOR OPERATIONS REQUIRE ONE-LANE-TWO-WAY OPERATION OR WHEN, IN THE OPINION OF THE ENGINEER, ONE-LANE TWO-WAY OPERATIONS IS APPROPRIATE DUE TO SAFETY CONCERNS FROM OPEN EXCAVATIONS, ADJACENT EQUIPMENT, ETC..
14. THE CONTRACTOR SHALL NOT PLACE PAINTED TEMPORARY PAVEMENT MARKINGS ON PERMANENT FINAL SURFACING (OR ON OTHER SURFACING WHICH WILL NOT ULTIMATELY BE REPLACED OR COVERED BY PLANNED CONSTRUCTION), UNLESS THE TEMPORARY MARKINGS ARE IN THE SAME LOCATION AS THE PERMANENT MARKINGS.
15. 1:3 MAXIMUM TEMPORARY CONSTRUCTION EDGE SLOPES SHALL BE MAINTAINED AT ALL TIMES EXCEPT WHEN EXCAVATION WORK TEMPORARILY MANDATES STEEPER EDGE SLOPES. WHEN STEEPER EDGE SLOPES ARE NECESSARY (AS APPROVED BY THE ENGINEER).
16. THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN AND REMOVE, AS APPROPRIATE, ALL SIGNS, PAVEMENT MARKINGS AND DEVICES SHOWN ON THESE PLANS TO THE SATISFACTION OF THE ENGINEER.
17. STORM SEWER LATERALS, MISCELLANEOUS SANITARY SEWER, AND WATERMAIN CROSSINGS SHALL BE CONSTRUCTED UNDER TRAFFIC AS REQUIRED. PROVIDE TEMPORARY PAVEMENT AS REQUIRED.
18. TEMPORARY PAVEMENT SHALL CONSIST OF 90 mm BITUMINOUS WEAR COURSE AND 150 mm OF AGGREGATE BASE CLASS 5.
19. TRAFFIC AT SIGNALIZED INTERSECTIONS SHALL BE CONTROLLED BY THE EXISTING SIGNAL FOR AS LONG AS SAFELY POSSIBLE. THE ENGINEER SHALL DETERMINE WHEN SIGNAL OPERATIONS WILL BE SHUT DOWN AND REPLACED BY ALL-WAY STOP CONDITIONS.
20. ALL TRAFFIC CONTROL DEVICES SHALL HAVE RETROREFLECTIVE SHEETING.
21. ALL LANE MARKINGS THROUGH TRANSITION AREAS AND TAPERS SHALL BE SUPPLEMENTED WITH TEMPORARY RAISED PAVEMENT MARKERS (TRPM'S). TRPM'S SHALL BE THE SAME COLOR AS THE PAVEMENT MARKING BEING SUPPLEMENTED AND SHALL BE SPACED @ 3 METER INTERVALS.
22. ACHD SHALL REQUEST MN/DOT TO AUTHORIZE A TEMPORARY CONSTRUCTION ZONE SPEED LIMIT WITHIN THE CONSTRUCTION LIMITS OF THIS PROJECT. IF AUTHORIZED, WORK ZONE SPEED LIMIT SIGNS SHALL BE PLACED AT ALL MAJOR INTERSECTIONS WITH ADDITIONAL SIGNS BEING PLACED AT ½ MILE INTERVALS. ADVANCE SPEED ZONE SIGNING SHALL BE IN ACCORDANCE WITH MN/DOT'S A GUIDE TO ESTABLISHING SPEED LIMITS IN HIGHWAY WORK ZONES.

NO	DATE	BY	CKD	APPR	REVISION
1	7-31-00	VGG	BRW	MDH	REVISED PER FEDERAL AID STANDARDS
2	11-16-00	VGG	BRW	MDH	C.R. 110 S.A.P. NO. REVISION
3	03-07-01	SJP	BRW	MDH	REVISED PER ANOKA CO. COMMENTS

NAME: TCN 410.PLN DATE: May. 08, 2001

minnesota metric

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.
Date 5-1-2001 Reg. No. 21364

STATE AID PROJECT NO. S.A.P. 108-020-14
FED. AID PROJECT NO. S.P. 02-617-17

DRAWN BY V. GRAF 1-99
DESIGNED BY A. DeBRUIN 1-99
CHECKED BY M. HANSEN 1-99
COMM. NO. 0962842

SRF CONSULTING GROUP, INC.

ANOKA COUNTY
TRAFFIC CONTROL SIGN TABULATION AND GENERAL NOTES
C.S.A.H. 17 RECONSTRUCTION

SHEET 23 OF 183

DESIGN FILE: N:\Civil\008\2410\Plan\Ncr\TNL\KBR\TCN-410.PLN
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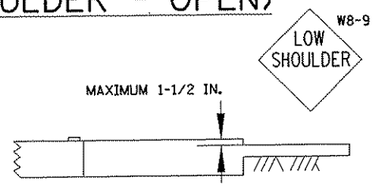
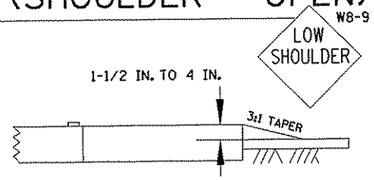
EDGE DROP OFF

NO TAPER (SHOULDER - OPEN)

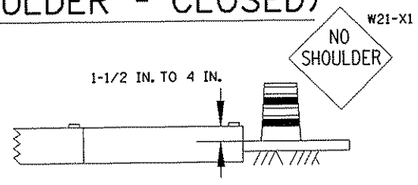


WITH 3:1 TAPER (SHOULDER - OPEN)



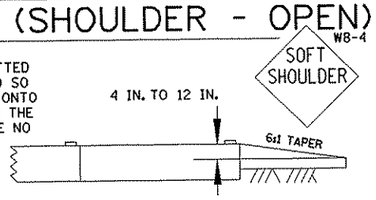
NO TAPER (SHOULDER - CLOSED)

SHOULDER SHALL BE CLOSED WITH APPROPRIATE WARNING SIGNS AND CHANNELIZING DEVICES AT A MAXIMUM OF 100 FT. SPACING.



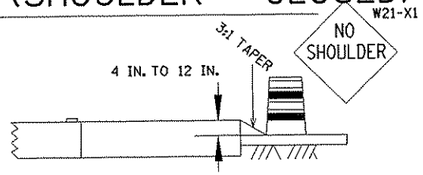
WITH 6:1 TAPER (SHOULDER - OPEN)

THIS CONDITION WILL NOT BE PERMITTED UNLESS THE 6:1 SLOPE IS COMPACTED SO THAT A VEHICLE MAY SAFELY DRIVE ONTO IT WITHOUT LOSING CONTROL AND IN THE OPINION OF THE ENGINEER THERE ARE NO OTHER HAZARDOUS CONDITIONS.



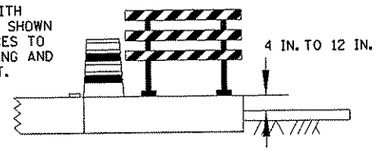
WITH 3:1 TAPER (SHOULDER - CLOSED)

SHOULDER SHALL BE CLOSED WITH APPROPRIATE WARNING SIGNS AND CHANNELIZING DEVICES AT A MAXIMUM OF 100 FT. SPACING.



NO TAPER (SHOULDER - CLOSED)

ADJACENT LANE SHALL BE CLOSED WITH APPROPRIATE LANE CLOSURE LAYOUT SHOWN IN APPENDIX B. CHANNELIZING DEVICES TO BE AT A MAXIMUM OF 100 FT. SPACING AND TYPE III BARRICADES EVERY 1000 FT.

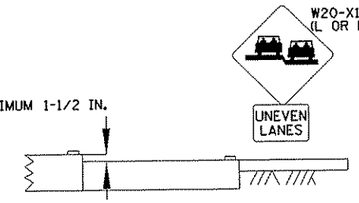


NOTE:

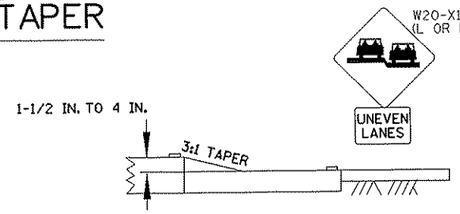
SIGNS ARE REQUIRED ONLY ON THE SIDE OF THE ROAD THAT IS AFFECTED BY CONSTRUCTION (EXCEPT SIGNS THAT ARE FOR A LANE CLOSURE ON DIVIDED HIGHWAYS).

UNEVEN LANES

NO TAPER

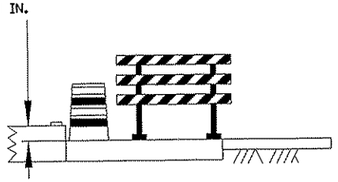


WITH 3:1 TAPER



NO TAPER

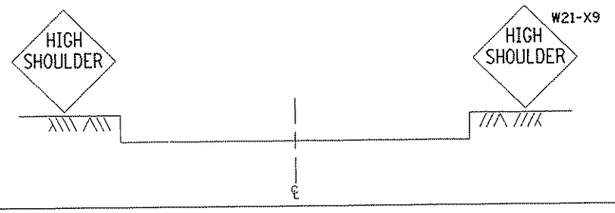
LANE SHALL BE CLOSED WITH APPROPRIATE LANE CLOSURE FROM APPENDIX B. CHANNELIZING DEVICES AT A MAXIMUM OF 100 FT. SPACING AND TYPE III BARRICADES EVERY 1000 FT.



NOTE:

FOR DIVIDED HIGHWAYS, USE SIGNS ON RIGHT AND LEFT SIDE. SIGN SEQUENCE SHOWN FOR ONE DIRECTION ONLY; OTHER DIRECTION SHALL BE IDENTICAL.

MILLED EDGE



NOTE:

MILLED EDGES SHOULD BE TREATED WITH TAPERS, CHANNELIZERS, AND SIGNING AS SHOWN ON EDGE DROP-OFF DETAILS.

GUIDELINES

THESE GUIDELINES ARE INTENDED TO INCREASE TRAFFIC SAFETY USING TRAFFIC CONTROL DEVICES, SAFETY RELATED APPURTENANCES, AND CONSTRUCTION TECHNIQUES FOR UNEVEN LANES, MILLED EDGES, AND EDGE DROP-OFFS THAT OCCUR IN HIGHWAY WORK ZONES. THE BEST WAY TO INCREASE TRAFFIC SAFETY IS TO MAKE EVERY ATTEMPT TO MINIMIZE EXPOSURE TO UNEVEN LANES, MILLED EDGES, AND EDGE DROP-OFFS; HOWEVER, IT IS REALIZED THAT THIS IS OFTEN NOT POSSIBLE OR FEASIBLE. ONLY WHEN UNEVEN LANES, MILLED EDGES, OR EDGE DROP-OFFS ARE DEEMED NECESSARY, SHALL THE APPROPRIATE PORTION(S) OF THESE GUIDELINES BE APPLIED TO ENHANCE TRAFFIC SAFETY.

1. FOR DROP-OFFS OF 1-1/2 INCHES OR LESS, APPROPRIATE WARNING SIGNS SHALL BE PROVIDED
2. FOR DROP-OFFS GREATER THAN 1-1/2 INCHES UP TO 4 INCHES:
   - A- THE EDGE SHALL BE TAPERED AND COMPACTED AT A RATE OF 3:1 AND APPROPRIATE WARNING SIGNS SHALL BE PROVIDED; OR
   - B- IF THE TAPER IS NOT PROVIDED, TRAFFIC SHALL NOT BE PERMITTED TO CROSS THE DROP-OFF AND THAT PORTION OF THE ROADWAY SHALL BE CLOSED TO TRAFFIC WITH THE APPROPRIATE WARNING SIGNS AND DEVICES.
3. FOR DROP-OFFS GREATER THAN 4 INCHES UP TO 12 INCHES:
   - A- THE EDGE SHALL BE TAPERED AND COMPACTED AT A RATE OF 6:1 AND APPROPRIATE WARNING SIGNS SHALL BE PROVIDED, (6:1 TAPER SHALL NOT BE USED AS A TRAFFIC CARRYING LANE);
   - B- THE EDGE SHALL BE TAPERED AND COMPACTED AT A RATE OF 3:1, TRAFFIC SHALL NOT BE ALLOWED TO CROSS THE DROP-OFF, AND THAT PORTION OF THE ROADWAY SHALL BE CLOSED TO TRAFFIC WITH APPROPRIATE WARNING SIGNS AND CHANNELIZING DEVICES; OR
   - C- IF A TAPER IS NOT PROVIDED, THE TRAFFIC OR AUXILIARY LANE ADJACENT TO THE DROP-OFF SHALL BE CLOSED TO TRAFFIC WITH THE APPROPRIATE WARNING SIGNS AND CHANNELIZING DEVICES OR A POSITIVE BARRIER, SUCH AS A PORTABLE PRECAST CONCRETE BARRIER, SHALL BE PROVIDED TO PREVENT TRAFFIC FROM CROSSING THE DROP-OFF.

4. FOR SHOULDER EDGE DROP-OFFS:
   - A - 0-2 FOOT SHOULDER WIDTH AND A 0-12 INCH DROP-OFF; USE GUIDELINES AS SHOWN
   - B - 2-8 FOOT SHOULDER WIDTH AND A 0-4 INCH DROP-OFF; INSTALL EDGELINE OR USE GUIDELINES AS SHOWN.
   - C - 8 FOOT OR GREATER SHOULDER WIDTH AND A 0-4 INCH DROP-OFF; NO TRAFFIC CONTROL REQUIRED
   - D - GREATER THAN 2 FOOT SHOULDER WIDTH AND A 4-12 INCH DROP-OFF; USE GUIDELINES AS SHOWN

5. AT NO TIME SHALL THERE BE MORE THAN ONE UNEVEN LANE CONDITION BETWEEN THE TRAFFIC CARRYING LANES WHICH INCLUDE AUXILIARY LANES, TURN LANES, AND RAMP ACCESS OR EGRESS AREAS. WEATHER PERMITTING, ALL EXPOSED UNEVEN LANE CONDITIONS WITHIN THE TRAFFIC CARRYING LANES SHALL BE "MATCHED" WITHIN 24 HOURS.
6. MILLING OPERATIONS SHALL BE REQUIRED TO COMPLETE THE FULL WIDTH OF THE SECTION UNDER CONSTRUCTION AT THE END OF EACH WORK PERIOD.

DROP-OFFS GREATER THAN 4 INCHES ADJACENT TO TRAFFIC CARRYING LANES ARE PERMITTED WITHOUT TAPERS OR POSITIVE BARRIERS FOR:
1. PROJECTS WITHIN URBAN AREAS WHEN THE SPEED LIMIT IS 30 MPH OR LESS; OR
2. SHORT TERM (7 CALENDAR DAYS OR LESS) CONCRETE OR UTILITY REPAIR, LESS THAN 50 FEET IN LENGTH WHEN THE SPEED LIMIT IS GREATER THAN 30 MPH.

APPROPRIATE UNEVEN LANE WARNING SIGNS OR SHOULDER WARNING SIGNS SHALL BE REPEATED AFTER EACH INTERSECTION.

MAXIMUM WARNING SIGN SPACING SHALL BE:
1. 1 MILE WHEN THE SPEED LIMIT IS GREATER THAN 30 MPH AND
2. 1/4 MILE WHEN THE SPEED LIMIT IS 30 MPH OR LESS.

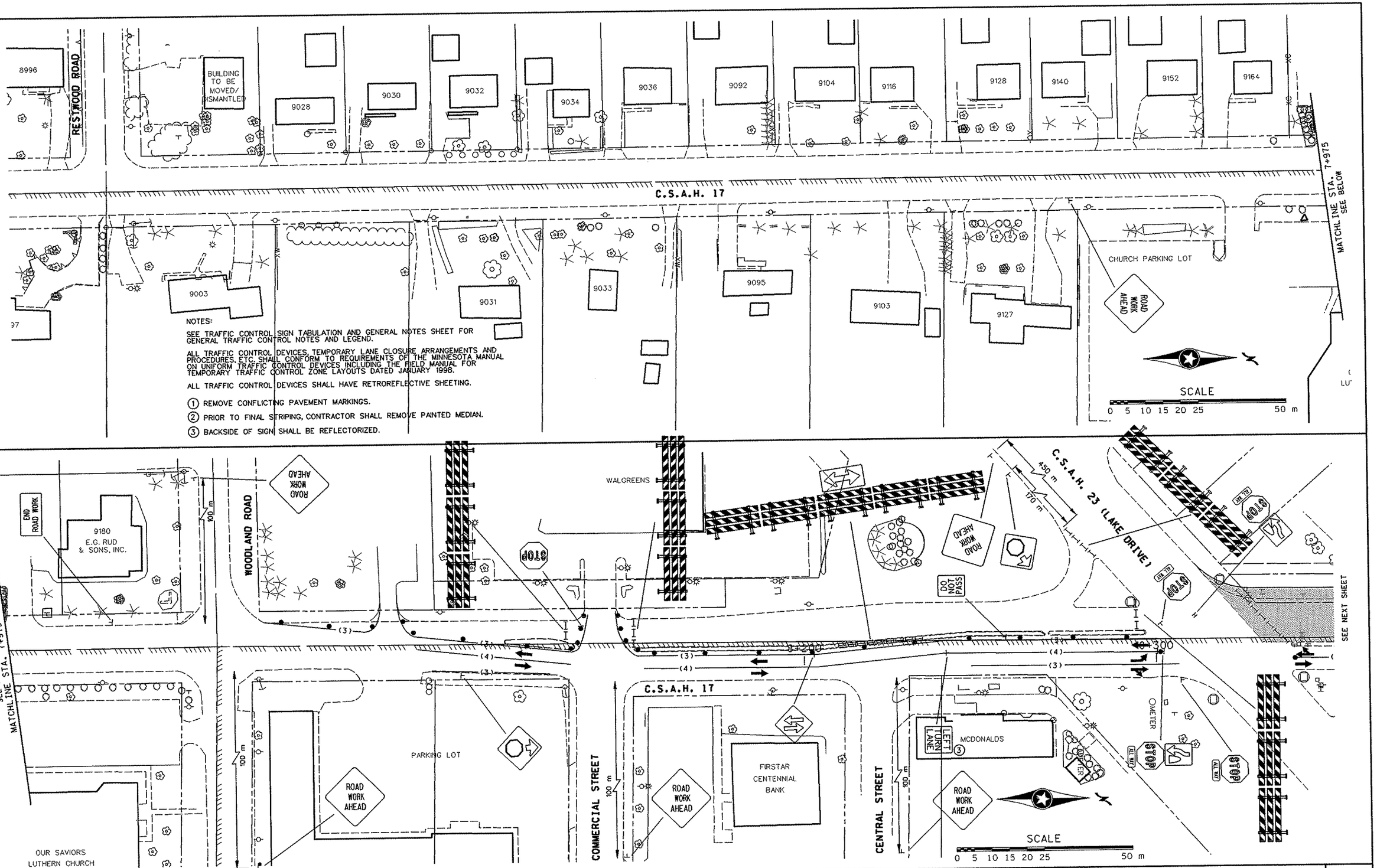
WHEN SPACE PERMITS, MINIMUM WARNING SIGN SIZE SHALL BE:
1. 48 INCHES X 48 INCHES WHEN THE SPEED LIMIT IS GREATER THAN 30 MPH AND
2. 36 INCHES X 36 INCHES WHEN THE SPEED LIMIT IS 30 MPH OR LESS.

NOTE: ENGLISH UNITS

TRAFFIC CONTROL SHEET NO.	TITLE: TYPICAL - TRAFFIC CONTROL TREATMENT OF LONGITUDINAL JOINTS AND EDGE DROP-OFFS IN WORK ZONES

FEDERAL AID PROJ NO. 02-617-17, et al. SHEET NO 24 OF 183 SHEETS

NAME: 2842.DED DATE: May. 01, 2001



NO	DATE	BY	CKD	APPR	REVISION
1	7-31-00	VGG	BRW	MDH	REVISED PER FEDERAL AID STANDARDS
2	11-16-00	VGG	BRW	MDH	C.R. 110 S.A.P. NO. REVISION
3	03-09-01	SJP	BRW	MDH	REVISED PER ANOKA CO. COMMENTS

NAME: 2842.TCC DATE: May. 08, 2001

minnesota metric

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Date 5-1-2001 Reg. No. 21364

STATE AID PROJECT NO. S.A.P. 106-020-14
FED. AID PROJECT NO. S.P. 02-617-17

		DATE
DRAWN BY	S. MARTINS	10-98
DESIGNED BY	M. HANSEN	10-98
CHECKED BY	M. HANSEN	2-99
COMM. NO.	0972842	

SRF CONSULTING GROUP, INC.

ANOKA COUNTY
TRAFFIC CONTROL-STAGE 1
C.S.A.H. 17 RECONSTRUCTION
STA. 7+600 TO STA. 8+325

SHEET 28 OF 183

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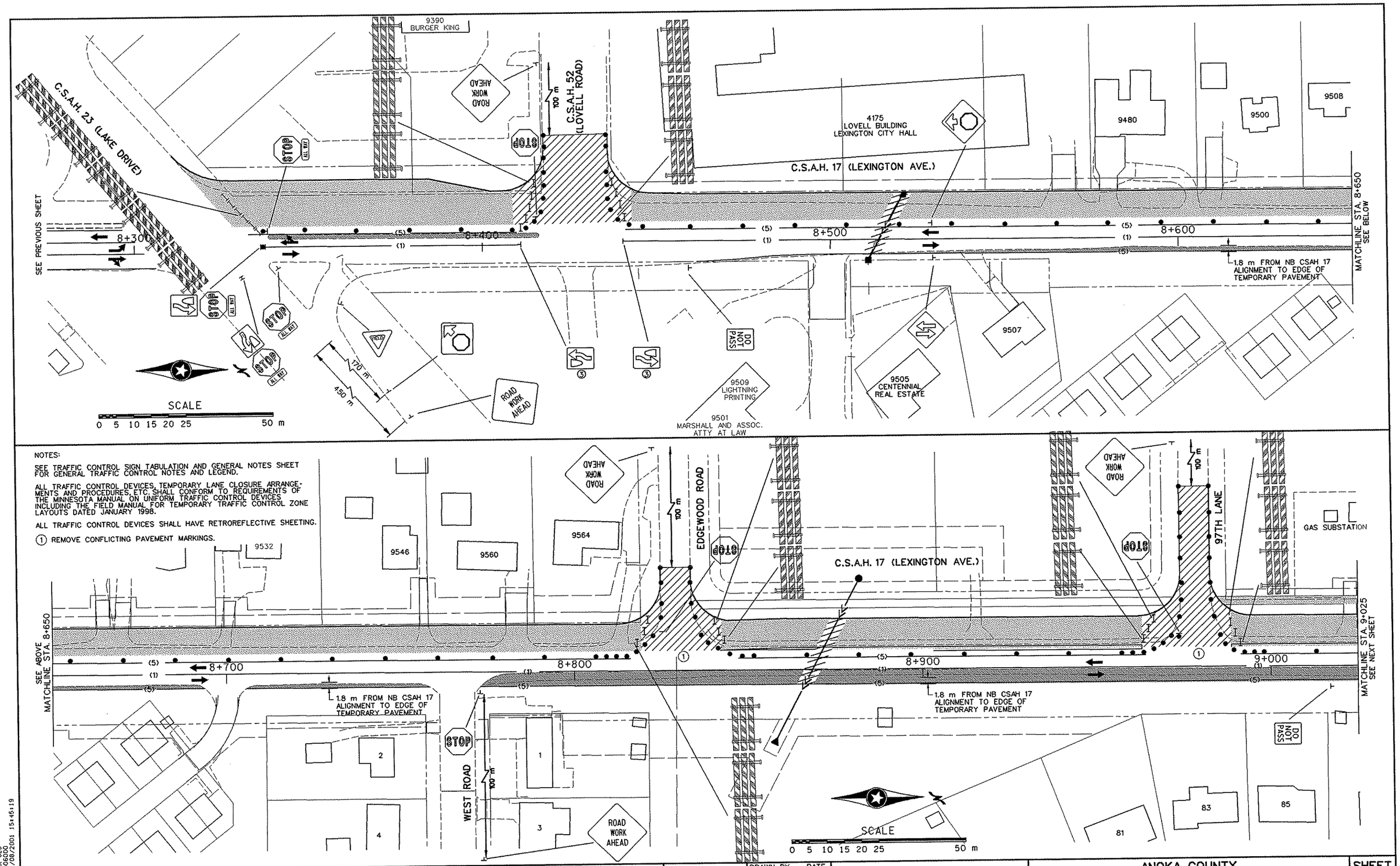

NO	DATE	BY	CKD	APPR	REVISION
1	7-31-00	VGG	BRW	MDH	REVISED PER FEDERAL AID STANDARDS
2	11-16-00	VGG	BRW	MDH	C.R. 110 S.A.P. NO. REVISION
3	03-09-01	SJP	BRW	MDH	REVISED PER ANOKA CO. COMMENTS

NAME: TC1A 410.PLN DATE: May. 08, 2001

minnesota metric

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Date 5-1-2001 Reg. No. 21364

STATE AID PROJECT NO. S.A.P. 106-020-14
FED. AID PROJECT NO. S.P. 02-617-17

DRAWN BY M. IISAKKA DATE 12-96
DESIGNED BY D. DEMERS 12-96
CHECKED BY D. DEMERS 1-97
COMM. NO. 0962842

SRF CONSULTING GROUP, INC.

ANOKA COUNTY
TRAFFIC CONTROL-STAGE 1
C.S.A.H. 17 RECONSTRUCTION
STA. 8+358 TO STA. 9+025

SHEET 29 OF 183

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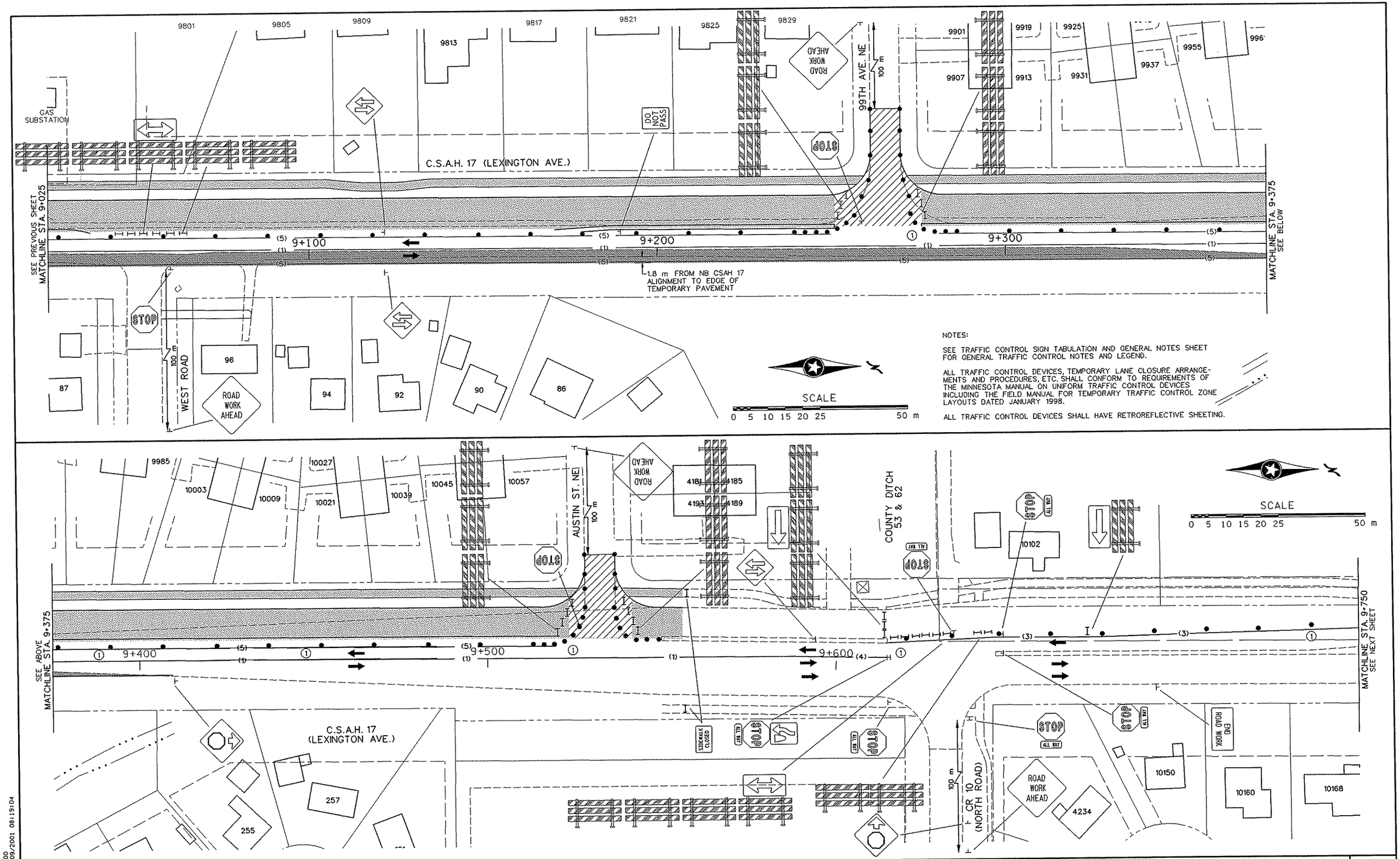

NOTES:

SEE TRAFFIC CONTROL SIGN TABULATION AND GENERAL NOTES SHEET FOR GENERAL TRAFFIC CONTROL NOTES AND LEGEND.

ALL TRAFFIC CONTROL DEVICES, TEMPORARY LANE CLOSURE ARRANGEMENTS AND PROCEDURES, ETC. SHALL CONFORM TO REQUIREMENTS OF THE MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES INCLUDING THE FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS DATED JANUARY 1998.

ALL TRAFFIC CONTROL DEVICES SHALL HAVE RETROREFLECTIVE SHEETING.

NO	DATE	BY	CKD	APPR	REVISION
1	7-31-00	VGG	BRW	MDH	REVISED PER FEDERAL AID STANDARDS
2	11-16-00	VGG	BRW	MDH	C.R. 110 S.A.P. NO. REVISION
3	03-09-01	SJP	BRW	MDH	REVISED PER ANOKA CO. COMMENTS

NAME: TC1B 410.PLN DATE: May. 02, 2001

minnesota metric

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Date 5-1-2001 Reg. No. 21364

STATE AID PROJECT NO. S.A.P. 108-020-14

FED. AID PROJECT NO. S.P. 02-617-17

	DATE
DRAWN BY M. IISAKKA	12-96
DESIGNED BY D. DEMERS	12-96
CHECKED BY D. DEMERS	1-97
COMM. NO. 0962842	

SRF CONSULTING GROUP, INC.

ANOKA COUNTY

TRAFFIC CONTROL-STAGE 1

C.S.A.H. 17 RECONSTRUCTION

STA. 9+025 TO STA. 9+750

SHEET 30 OF 183

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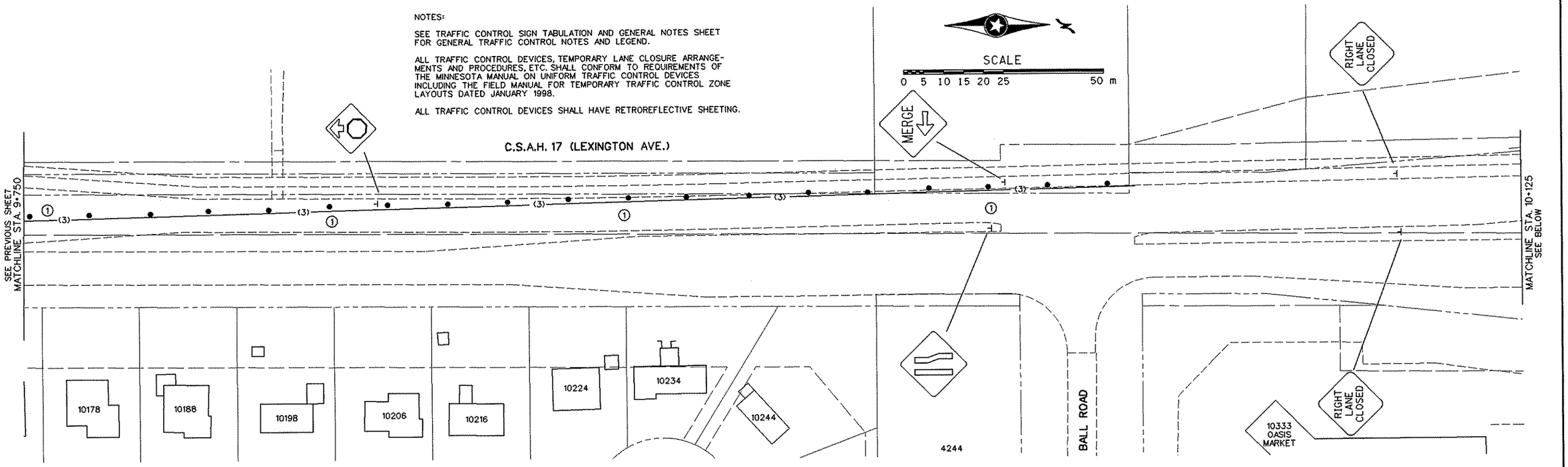
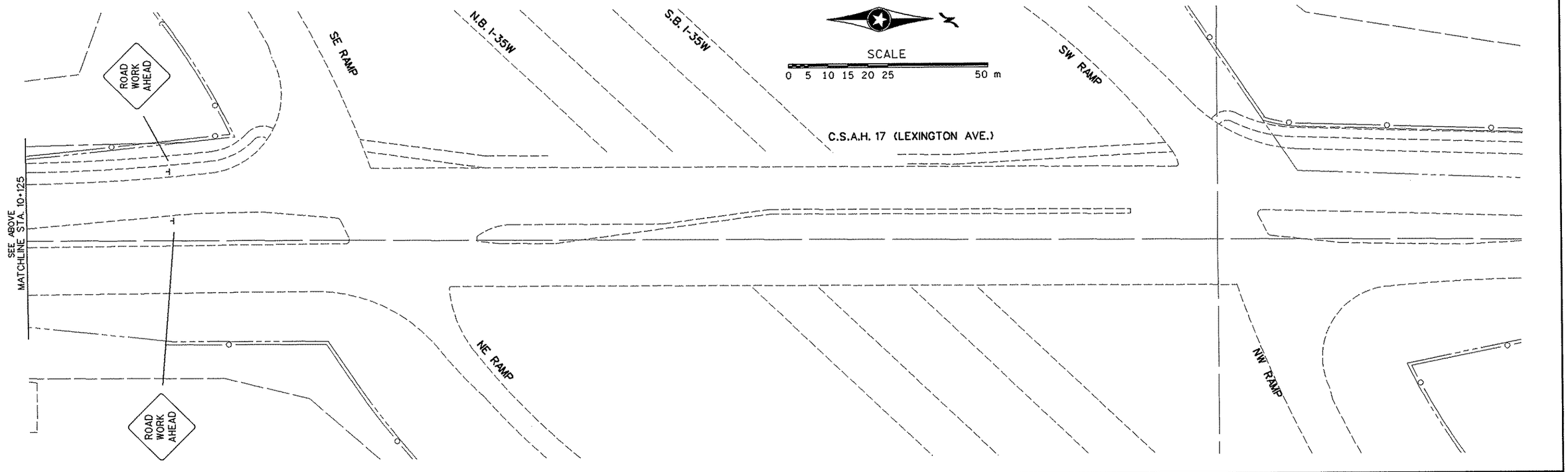
NOTES:

SEE TRAFFIC CONTROL SIGN TABULATION AND GENERAL NOTES SHEET FOR GENERAL TRAFFIC CONTROL NOTES AND LEGEND.

ALL TRAFFIC CONTROL DEVICES, TEMPORARY LANE CLOSURE ARRANGEMENTS AND PROCEDURES, ETC. SHALL CONFORM TO REQUIREMENTS OF THE MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES INCLUDING THE FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS DATED JANUARY 1998.

ALL TRAFFIC CONTROL DEVICES SHALL HAVE RETROREFLECTIVE SHEETING.





NO	DATE	BY	CKD	APPR	REVISION
1	7-31-00	VGG	BRW	MDH	REVISED PER FEDERAL AID STANDARDS
2	11-16-00	VGG	BRW	MDH	C.R. 110 S.A.P. NO. REVISION
3	03-09-01	SJP	BRW	MDH	REVISED PER ANOKA CO. COMMENTS

NAME: TC1C 410.PLN DATE: May. 02, 2001

minnesota metric

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Date 5-1-2001 Reg. No. 21364

STATE AID PROJECT NO. S.A.P. 106-020-14

FED. AID PROJECT NO. S.P. 02-617-17

		DATE
DRAWN BY	M. IISAKKA	12-96
DESIGNED BY	D. DEMERS	12-96
CHECKED BY	D. DEMERS	1-97
COMM. NO.	0962842	

SRF CONSULTING GROUP, INC.

ANOKA COUNTY

TRAFFIC CONTROL-STAGE 1

C.S.A.H. 17 RECONSTRUCTION

STA. 9+750 TO STA. 10+500

SHEET 31 OF 183

DESIGN FILE: h:\civil\008\2410\Plan\ort\TLK\DF\TC1C-410.PLN
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NOTES:

SEE TRAFFIC CONTROL SIGN TABULATION AND GENERAL NOTES SHEET FOR GENERAL TRAFFIC CONTROL NOTES AND LEGEND.

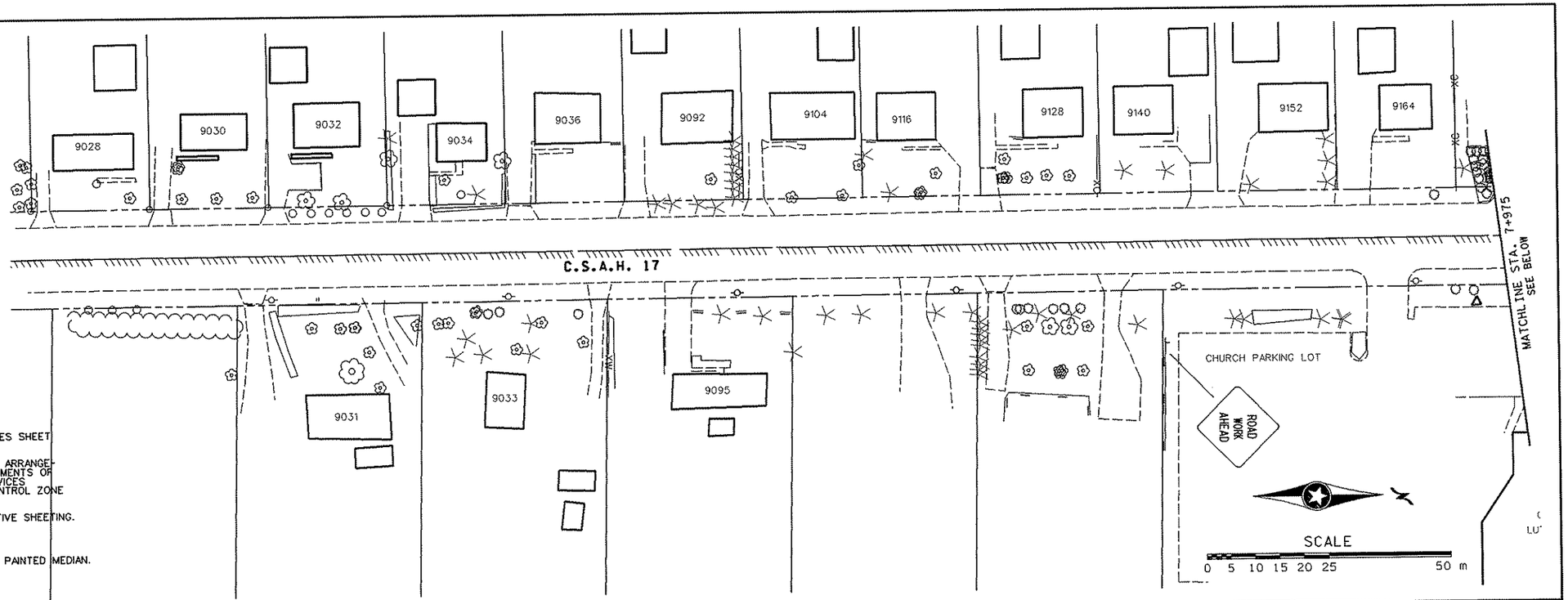
ALL TRAFFIC CONTROL DEVICES, TEMPORARY LANE CLOSURE ARRANGEMENTS AND PROCEDURES, ETC. SHALL CONFORM TO REQUIREMENTS OF THE MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES INCLUDING THE FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS DATED JANUARY 1998.

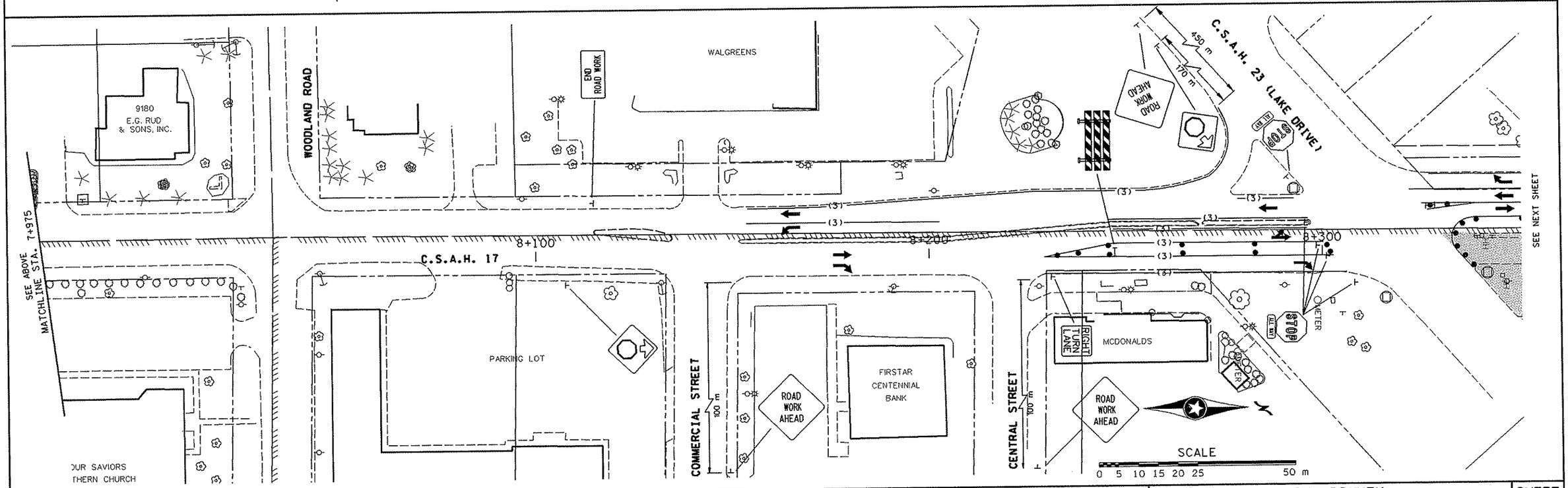
ALL TRAFFIC CONTROL DEVICES SHALL HAVE RETROREFLECTIVE SHEETING.

(1) REMOVE CONFLICTING PAVEMENT MARKINGS.

(2) PRIOR TO FINAL STRIPING, CONTRACTOR SHALL REMOVE PAINTED MEDIAN.

(3) BACKSIDE OF SIGN SHALL BE REFLECTORIZED.





NO	DATE	BY	CKD	APPR	REVISION
1	7-31-00	VGG	BRW	MDH	REVISED PER FEDERAL AID STANDARDS
2	11-16-00	VGG	BRW	MDH	C.R. 110 S.A.P. NO. REVISION
3	03-09-01	SJP	BRW	MDH	REVISED PER ANOKA CO. COMMENTS

NAME: 2842.TCG DATE: May. 08, 2001

minnesota metric

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.
Date 5-1-2001 Reg. No. 21364

STATE AID PROJECT NO. S.A.P. 106-020-14

FED. AID PROJECT NO. S.P. 02-617-17

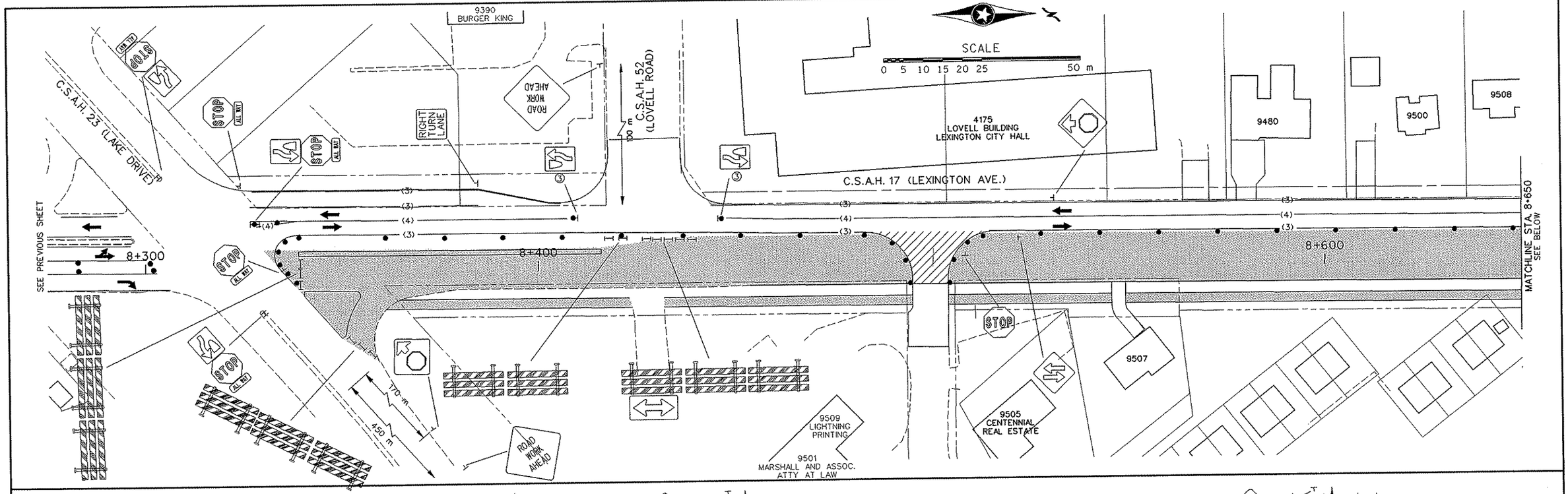
DRAWN BY S. MARTINS	DATE 10-98
DESIGNED BY M. HANSEN	10-98
CHECKED BY M. HANSEN	2-99
COMM. NO. 0972842	

SRF CONSULTING GROUP, INC.

ANOKA COUNTY
TRAFFIC CONTROL-STAGE 2
C.S.A.H. 17 RECONSTRUCTION
STA. 7+600 TO STA. 8+325

SHEET 35 OF 183

DESIGN FILE: D:\civil\2842\Plan\North\2842.tcg
RESET FILE: D:\civil\2842\Plan\North\2842-prf
PLOTTER: MS-HP5SIMX
PLOT SCALE: 25.657000
PLOT DATE/TIME: 05/09/2001 07:14:11

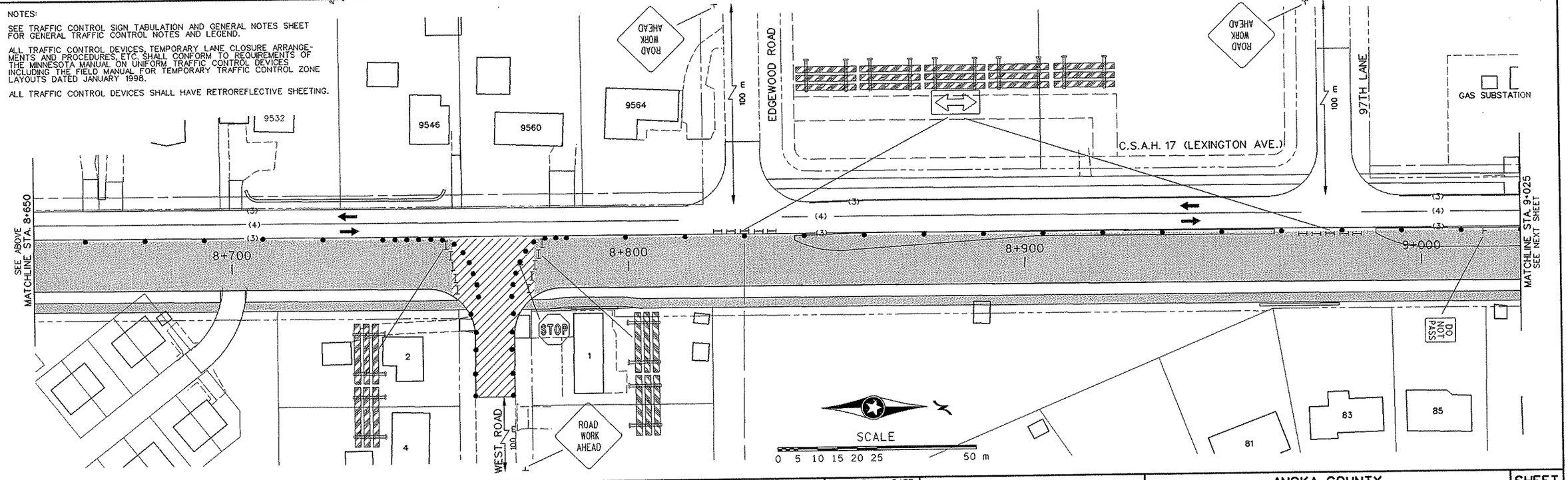


NOTES:

SEE TRAFFIC CONTROL SIGN TABULATION AND GENERAL NOTES SHEET FOR GENERAL TRAFFIC CONTROL NOTES AND LEGEND.

ALL TRAFFIC CONTROL DEVICES, TEMPORARY LANE CLOSURE ARRANGEMENTS AND PROCEDURES, ETC. SHALL CONFORM TO REQUIREMENTS OF THE MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES INCLUDING THE FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS DATED JANUARY 1998.

ALL TRAFFIC CONTROL DEVICES SHALL HAVE RETROREFLECTIVE SHEETING.



NO	DATE	BY	CKD	APPR	REVISION
1	7-31-00	VGG	BRW	MDH	REVISED PER FEDERAL AID STANDARDS
2	11-16-00	VGG	BRW	MDH	C.R. 110 S.A.P. NO. REVISION
3	03-12-01	SJP	BRW	MDH	REVISED PER ANOKA CO. COMMENTS

NAME: TC2A 410.PLN DATE: May. 08, 2001

minnesota metric

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.

Date 5-1-2001 Reg. No. 21364

STATE AID PROJECT NO. S.A.P. 106-020-14

FED. AID PROJECT NO. S.P. 02-617-17

DRAWN BY M. IISAKKA DATE 12-96
DESIGNED BY D. DEMERS 12-96
CHECKED BY D. DEMERS 1-97
COMM. NO. 0962842

SRF CONSULTING GROUP, INC.

ANOKA COUNTY
TRAFFIC CONTROL-STAGE 2
C.S.A.H. 17 RECONSTRUCTION
STA. 8+358 TO STA. 9+025

SHEET 36 OF 183

DESIGN FILE: n:\civil\0083\2410\Plan\North\LKDn\TC2A-410.PLN
PRF FILE: n:\civil\0083\2410\Plan\North\LKDn\TC2A-410.prf
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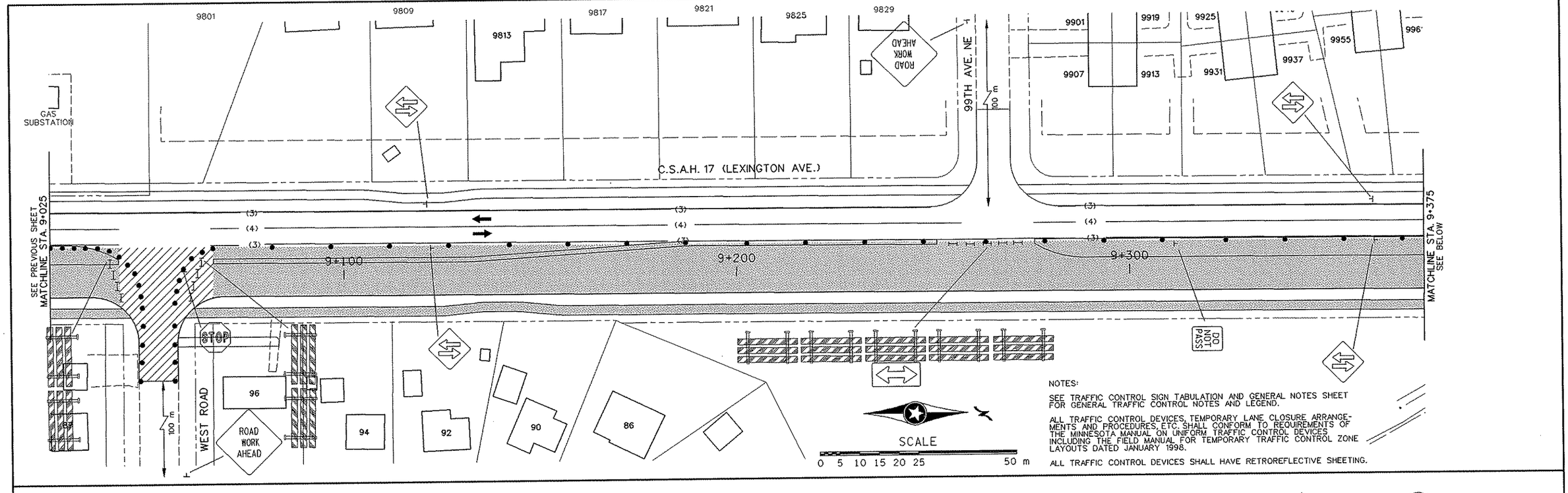
PLOT SCALE: 25.657000
PLOT DATE/TIME: 05/09/2001 08:21:52



NO	DATE	BY	CKD	APPR	REVISION
1	7-31-00	VGG	BRW	MDH	REVISED PER FEDERAL AID STANDARDS
2	11-16-00	VGG	BRW	MDH	C.R. 110 S.A.P. NO. REVISION
3	03-12-01	SJP	BRW	MDH	REVISED PER ANOKA CO. COMMENTS

NAME: TC2B 410.PLN DATE: May. 08, 2001

minnesota metric

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Date 5-1-2001 Reg. No. 21364

STATE AID PROJECT NO. S.A.P. 106-020-14

FED. AID PROJECT NO. S.P. 02-617-17

	DATE
DRAWN BY M. IISAKKA	12-96
DESIGNED BY D. DEMERS	12-96
CHECKED BY D. DEMERS	1-97
COMM. NO. 0962642	

SRF CONSULTING GROUP, INC.

ANOKA COUNTY

TRAFFIC CONTROL-STAGE 2

C.S.A.H. 17 RECONSTRUCTION

STA. 9+025 TO STA. 9+750

SHEET 37 OF 183

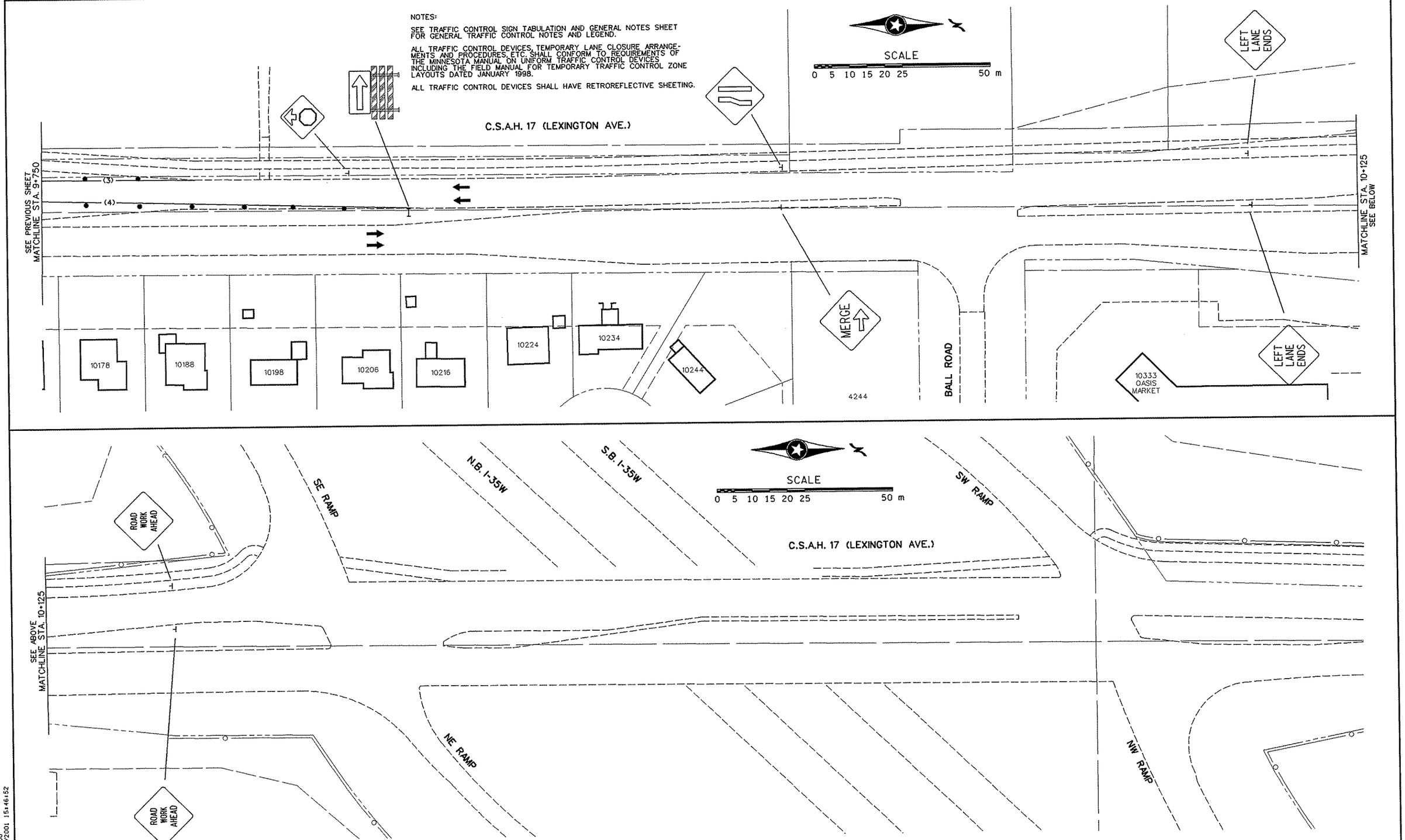
DESIGN FILE: N:\CIVIL\008\2410\PlanMnTHLRd\TC2B-410.PLN
PROFILE: N:\CIVIL\008\2410\PlanMnTHLRd\TC2B-410.prf
PLOT STYLE: ASSOC.TBL
PLOT SCALE: 25.657000
PLOT DATE/TIME: 05/09/2001 08:23:56

NOTES:

SEE TRAFFIC CONTROL SIGN TABULATION AND GENERAL NOTES SHEET FOR GENERAL TRAFFIC CONTROL NOTES AND LEGEND.

ALL TRAFFIC CONTROL DEVICES, TEMPORARY LANE CLOSURE ARRANGEMENTS AND PROCEDURES, ETC. SHALL CONFORM TO REQUIREMENTS OF THE MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES INCLUDING THE FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS DATED JANUARY 1998.

ALL TRAFFIC CONTROL DEVICES SHALL HAVE RETROREFLECTIVE SHEETING.



NO	DATE	BY	CKD	APPR	REVISION
1	7-31-00	VGG	BRW	MDH	REVISED PER FEDERAL AID STANDARDS
2	11-16-00	VGG	BRW	MDH	C.R. 110 S.A.P. NO. REVISION
3	03-12-01	SJP	BRW	MDH	REVISED PER ANOKA CO. COMMENTS

NAME: TC2C 410.PLN DATE: May. 08, 2001

minnesota metric

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Date 5-1-2001 Reg. No. 21364

STATE AID PROJECT NO. S.A.P. 106-020-14

FED. AID PROJECT NO. S.P. 02-617-17

		DATE
DRAWN BY	M. IISAKKA	12-96
DESIGNED BY	D. DEMERS	12-96
CHECKED BY	D. DEMERS	1-97
COMM. NO.	0962842	

SRF CONSULTING GROUP, INC.

ANOKA COUNTY

TRAFFIC CONTROL-STAGE 2

C.S.A.H. 17 RECONSTRUCTION

STA. 9+750 TO STA. 10+500

SHEET 38 OF 183

DESIGN FILE: h:\civil\008\2410\PlanNorthLkD\TC2C-410.PLN
PRF FILE: h:\civil\008\2410\PlanNorthLkD\TC2C-410.prf
PLOTTER: MS-HPSSIMX-OLD
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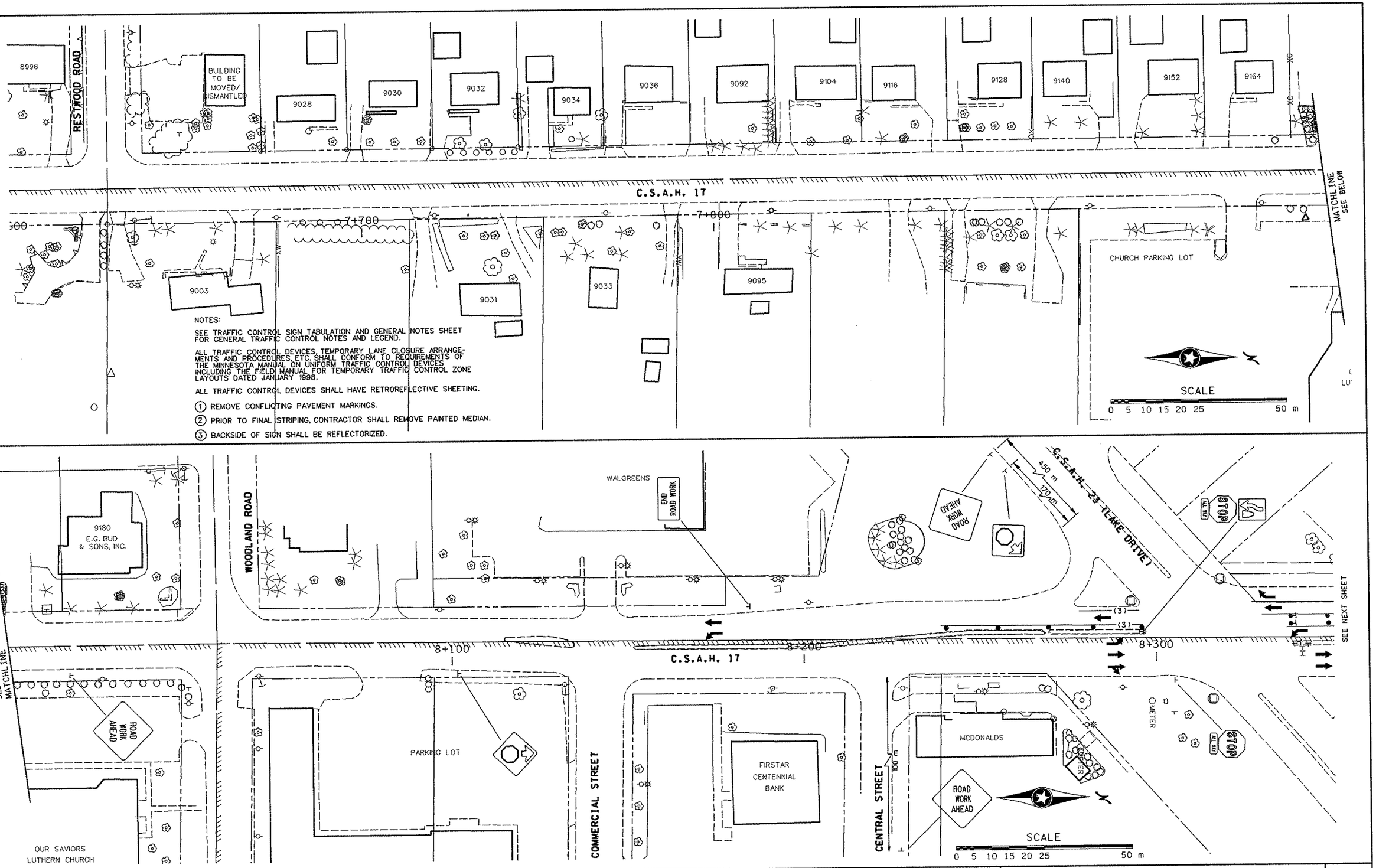
PLOT DATE/TIME: 05/08/2001 15:46:52



NO	DATE	BY	CKD	APPR	REVISION
1	7-31-00	VGG	BRW	MDH	REVISED PER FEDERAL AID STANDARDS
2	11-16-00	VGG	BRW	MDH	C.R. 110 S.A.P. NO. REVISION
3	03-12-01	SJP	BRW	MDH	REVISED PER ANOKA CO. COMMENTS

NAME: 2842.TCK DATE: May. 08, 2001

minnesota metric

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Date 5-1-2001 Reg. No. 21364

STATE AID PROJECT NO. S.A.P. 106-020-14
FED. AID PROJECT NO. S.P. 02-617-17

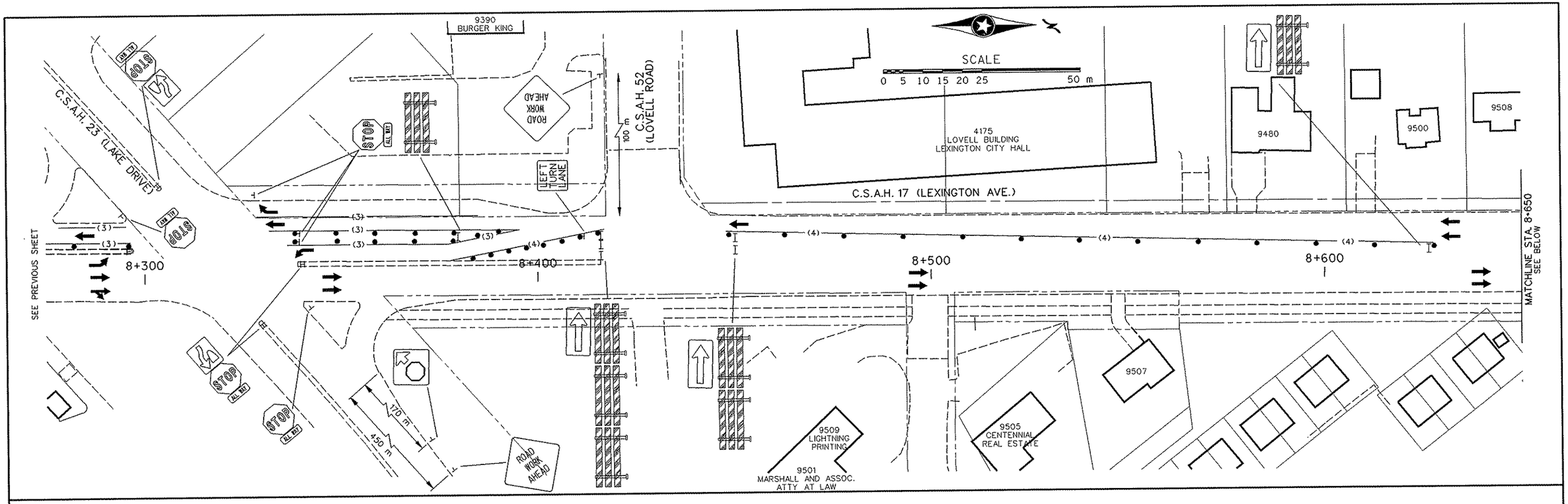
DRAWN BY S. MARTINS DATE 10-98
DESIGNED BY M. HANSEN 10-98
CHECKED BY M. HANSEN 2-99
COMM. NO. 0972842

SRF CONSULTING GROUP, INC.

ANOKA COUNTY
TRAFFIC CONTROL-STAGE 3
C.S.A.H. 17 RECONSTRUCTION
STA. 7+600 TO STA. 8+325

SHEET 41 OF 183

DESIGN FILE: n:\civil\047\2842\PlanNorth\Dr\2842.tck
PRF FILE: n:\civil\047\2842\PlanNorth\Dr\2842.prf
PLOTTER: HP-HPGSJMX
PLOT SCALE: 25.650000
PLOT DATE/TIME: 05/09/2001 07:05:12

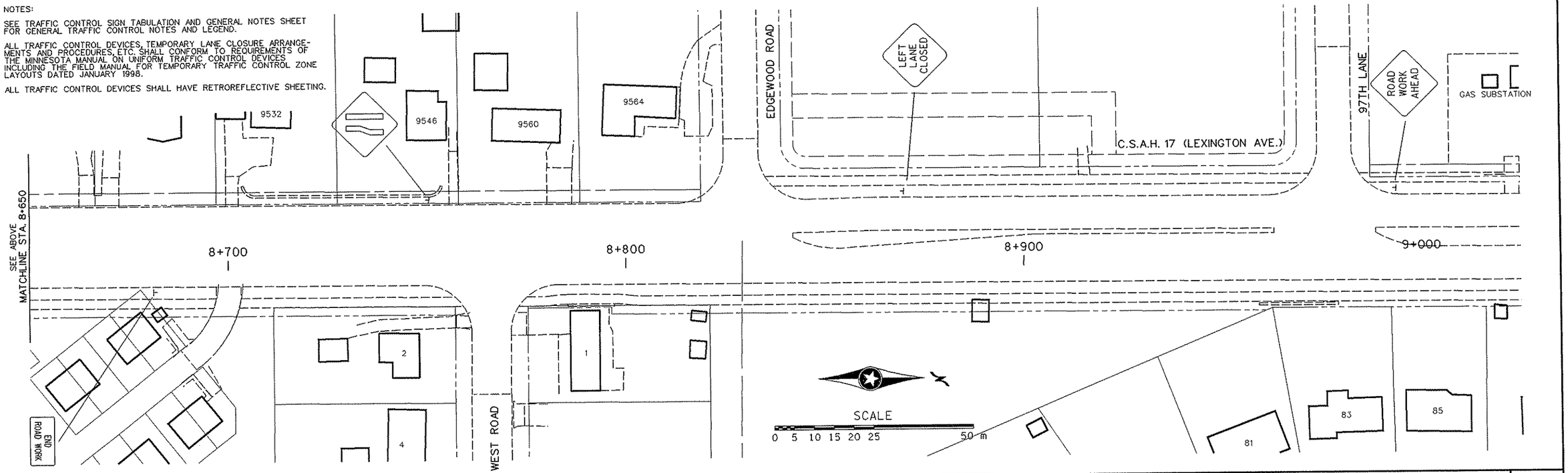


NOTES:

SEE TRAFFIC CONTROL SIGN TABULATION AND GENERAL NOTES SHEET FOR GENERAL TRAFFIC CONTROL NOTES AND LEGEND.

ALL TRAFFIC CONTROL DEVICES, TEMPORARY LANE CLOSURE ARRANGEMENTS AND PROCEDURES, ETC. SHALL CONFORM TO REQUIREMENTS OF THE MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES INCLUDING THE FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS DATED JANUARY 1998.

ALL TRAFFIC CONTROL DEVICES SHALL HAVE RETROREFLECTIVE SHEETING.



NO	DATE	BY	CKD	APPR	REVISION
1	7-31-00	VGG	BRW	MDH	REVISED PER FEDERAL AID STANDARDS
2	11-16-00	VGG	BRW	MDH	C.R. 110 S.A.P. NO. REVISION
3	03-12-01	SJP	BRW	MDH	REVISED PER ANOKA CO. COMMENTS

NAME: TC3A 410.DGN DATE: May. 08, 2001

minnesota metric

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Date 5-1-2001 Reg. No. 21364

STATE AID PROJECT NO. S.A.P. 106-020-14

FED. AID PROJECT NO. S.P. 02-617-17

	DATE
DRAWN BY M. IISAKKA	12-96
DESIGNED BY D. DEMERS	12-96
CHECKED BY D. DEMERS	1-97
COMM. NO. 0962842	

SRF CONSULTING GROUP, INC.

ANOKA COUNTY

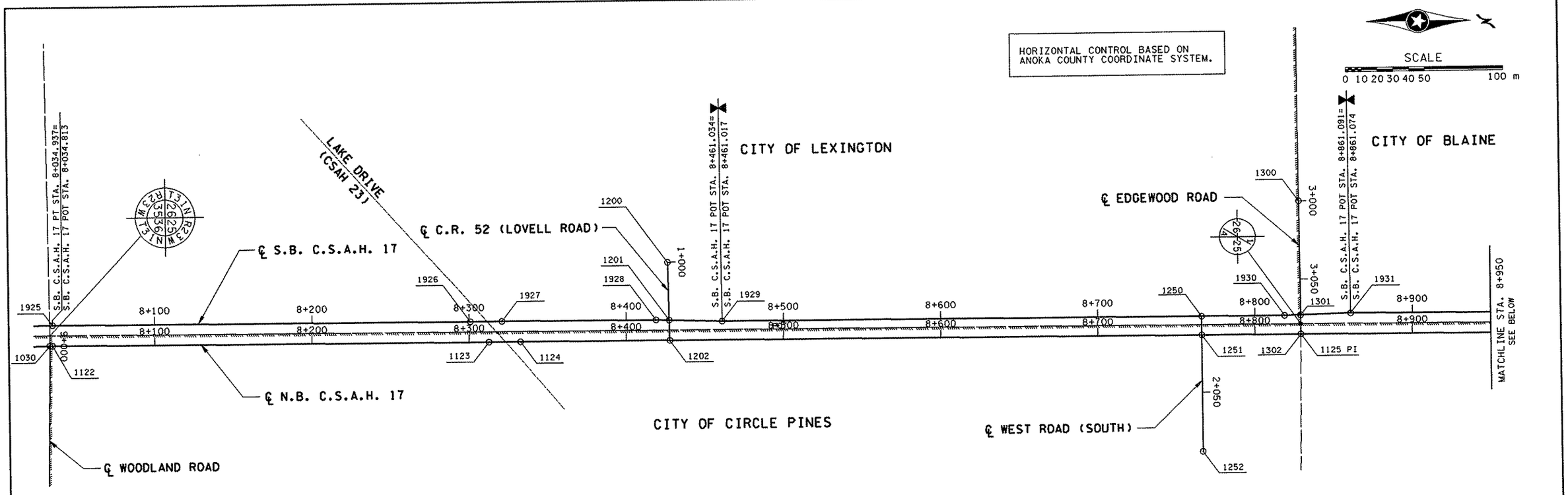
TRAFFIC CONTROL-STAGE 3

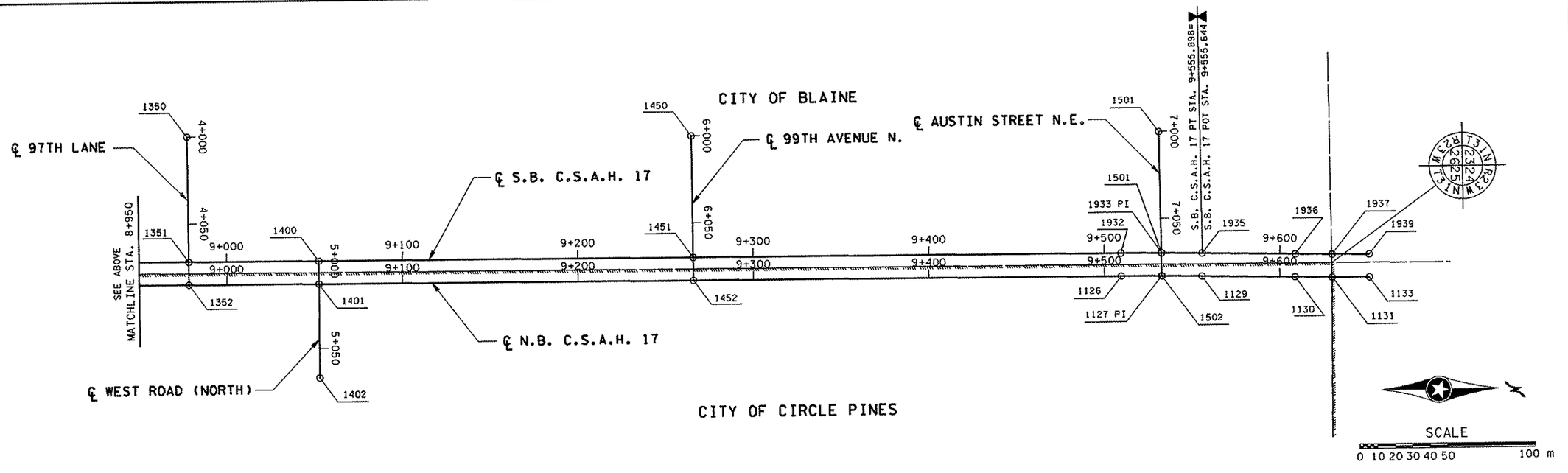
C.S.A.H. 17 RECONSTRUCTION

STA. 8+358 TO STA. 9+025

SHEET 42 OF 183

DESIGN FILE: N:\civil\008124100\Planset\MLK0r1tc3a-410.dgn
PROJECT FILE: N:\civil\008124100\Planset\MLK0r1tc3a-410.prj
PLOTTER: MS-HPESJMX
PLOT SCALE: 25.65T000
PLOT DATE/TIME: 05/09/2001 08:24:37





NO	DATE	BY	CKD	APPR	REVISION
1	11-16-00	VGG	BRW	MDH	C.R. 110 S.A.P. NO. REVISION

NAME: 2842.APB DATE: May. 01, 2001

minnesota metric

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.
Date 5-1-2001 Reg. No. 21364

STATE AID PROJECT NO. S.A.P. 106-020-14
FED. AID PROJECT NO. S.P. 02-617-17

DRAWN BY S. MARTINS DATE 11-98
DESIGNED BY M. HANSEN 11-98
CHECKED BY M. HANSEN 1-99
COMM. NO. 0972842

SRF CONSULTING GROUP, INC.

ANOKA COUNTY
ALIGNMENT PLAN
C.S.A.H. 17 RECONSTRUCTION

SHEET 44 OF 183

DESIGN FILE: n:\civil\out\2842\plan\plnkdn\2842.dgn
PROJECT: 0972842 C.S.A.H. 17
PLOTTER: MS-HPRSIMX
PLOT SCALE: 2525.258000
PLOT DATE/TIME: 05/02/2001 15:37:47

CURVE NO.	POINT	STATION		CURVE DATA Δ	R	T	L	COORDINATES X	Y	AZIMUTH
		℄ N.B. C.S.A.H. 17								
			8+000.000					279 220.8261	24 562.8286	
1116	PC		7+947.294					279 220.6920	24 584.9115	PI
1117	PI		7+969.377	11° 03' 17.3" LT	228.200	22.083	44.030	278 992.6304	24 561.4423	348° 35' 49.7"
1118	CC							279 216.3260	24 606.5589	
1119	PRC		7+991.323					279 212.0121	24 627.9477	PI
1120	PI		8+013.143	11° 35' 23.1" RT	215.000	21.819	43.490	279 427.0822	24 649.0657	0° 11' 12.9"
1121	CC							279 212.0850	24 648.0360	
1030	POC	C/L N.B. C.S.A.H. 17	8+033.082=							
		A PT. ON C/L WOODLAND ROAD POT	9+000.000					279 212.0833	24 649.7671	
1122	PT		8+034.813					279 212.9895	24 927.5439	0° 10' 53.4"
1123	PI		8+312.592					279 213.0531	24 947.6322	0° 11' 12.7"
1124	PI		8+332.680					279 213.3629	25 042.6160	
1202	POT	C/L N.B. C.S.A.H. 17	8+427.664=							
		A PT. ON C/L C.R. 52 (LOVELL ROAD) POT	1+050.000					279 214.4667	25 381.0895	
1251	POT	C/L N.B. C.S.A.H. 17	8+766.140=							
		A PT. ON C/L WEST ROAD (SOUTH) POT	2+013.201					279 214.6729	25 444.3220	
1302	POT	C/L N.B. C.S.A.H. 17	8+829.373=							
		A PT. ON C/L EDGEWOOD ROAD POT	3+085.209					279 214.6730	25 444.3430	0° 11' 23.4"
1125	PI		8+829.394					279 215.1668	25 593.3850	
1352	POT	C/L N.B. C.S.A.H. 17	8+978.436=							
		A PT. ON C/L 97TH LANE POT	4+085.237					279 215.4125	25 667.5351	
1401	POT	C/L N.B. C.S.A.H. 17	9+052.587=							
		A PT. ON C/L WEST ROAD (NORTH) POT	5+013.200					279 216.1192	25 880.8090	
1452	POT	C/L N.B. C.S.A.H. 17	9+265.862=							
		A PT. ON C/L 99TH AVENUE N.E. POT	6+083.105					279 216.9267	26 124.5314	
1126	PC		9+509.586					279 217.0030	26 147.5610	PI
1127	PI		9+532.615	1° 03' 20.1" RT	2 500.000	23.030	46.058	281 716.9130	26 116.2481	1° 14' 43.5"
1128	CC							279 217.1113	26 147.7380	
1502	POC	C/L N.B. C.S.A.H. 17	9+532.793=							
		A PT. ON C/L AUSTIN STREET N.E. POT	7+083.020					279 217.5035	26 170.5853	
1129	PT		9+555.644					279 218.6595	26 223.7578	
1130	PC		9+608.829					279 219.1180	26 244.8470	PI
1131	PI		9+629.923	0° 58' 00.7" LT	2 500.000	21.094	42.187	276 719.2501	26 278.0950	0° 16' 42.8"
1132	CC							279 219.2206	26 265.9409	
1133	PT	C/L N.B. C.S.A.H. 17	9+651.016							

NO	DATE	BY	CKD	APPR	REVISION
1	11-16-00	VGG	BRW	MDH	C.R. 110 S.A.P. NO. REVISION

NAME: 2842.ATA DATE: May. 01, 2001

minnesota metric

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Date 5-1-2001 Reg. No. 21364

STATE AID PROJECT NO. S.A.P. 106-020-14

FED. AID PROJECT NO. S.P. 02-617-17

DRAWN BY S. MARTINS DATE 11-98
DESIGNED BY M. HANSEN 11-98
CHECKED BY M. HANSEN 2-99
COMM. NO. 0972842

SRF CONSULTING GROUP, INC.

ANOKA COUNTY
ALIGNMENT TABULATIONS
C.S.A.H. 17 RECONSTRUCTION

SHEET 45 OF 183

DESIGN FILE: h:\civil\1041\2842\Plan\North\LKDr\2842.dtg
PROJECT FILE: h:\civil\1041\2842\Plan\North\LKDr\2842.prj
PLOTTER: MS-HP55.IMX
PLOT SCALE: 101.010000
PLOT DATE/TIME: 05/02/2001 15:38:18

CURVE NO.	POINT	STATION	CURVE DATA Δ	R	T	L	COORDINATES X	Y	AZIMUTH
		℄ S.B. C.S.A.H. 17							
1925	PT	C/L S.B. C.S.A.H. 17 8+034.937=					279 198.8834	24 649.8101	
		A PT. ON C/L S.B. C.S.A.H. 17 POT 8+034.813							
1926	PI	8+300.831					279 199.7512	24 915.8263	0° 10' 52.8"
1927	PI	8+320.919					279 199.8148	24 935.9145	0° 11' 12.7"
1928	PI	8+419.016					279 200.1347	25 034.0114	1° 49' 24.3"
1201	POT	C/L S.B. C.S.A.H. 17 8+427.410=					279 200.4018	25 042.4006	
		A PT. ON C/L C.R.52 (LOVELL ROAD) POT 1+037.037							
1929	PI	C/L S.B. C.S.A.H. 17 8+461.034=					279 201.4716	25 076.0073	0° 11' 12.7"
		A PT. ON C/L S.B. C.S.A.H. 17 POT 8+461.017							
1250	POT	C/L S.B. C.S.A.H. 17 8+766.140=					279 202.4667	25 381.1290	
		A PT. ON C/L WEST ROAD (SOUTH) POT 2+001.201							
1930	PI	8+819.074					279 202.6393	25 434.0624	358° 33' 09.0"
1301	POT	C/L S.B. C.S.A.H. 17 8+829.285=					279 202.3814	25 444.2698	
		A PT. ON C/L EDGEWOOD ROAD POT 3+072.917							
1931	PI	C/L S.B. C.S.A.H. 17 8+861.091=					279 201.5779	25 476.0661	0° 11' 23.3"
		A PT. ON C/L S.B. C.S.A.H. 17 POT 8+861.074							
1351	POT	C/L S.B. C.S.A.H. 17 8+978.380=					279 201.9666	25 593.3714	
		A PT. ON C/L 97TH LANE POT 4+072.037							
1400	POT	C/L S.B. C.S.A.H. 17 9+052.606=					279 202.2124	25 667.5970	
		A PT. ON C/L WEST ROAD (NORTH) POT 5+000.000							
1451	POT	C/L S.B. C.S.A.H. 17 9+265.795=					279 202.9187	25 880.7849	
		A PT. ON C/L 99TH AVENUE N.E. POT 6+069.905							
1932	PC	9+509.576					279 203.7263	26 124.5642	
1501	POC	C/L S.B. C.S.A.H. 17 9+532.642=					279 203.9085	26 147.6299	
		A PT. ON C/L AUSTIN STREET N.E. POT 7+069.817							
1933	PI	9+532.738	1° 03' 21.8" RT	2 513.200	23.162	46.322	279 203.8030	26 147.7260	PI
1934	CC						281 716.9125	26 116.2386	1° 14' 45.1"
1935	PT	C/L S.B. C.S.A.H. 17 9+555.898=					279 204.3066	26 170.8824	
		A PT. ON C/L S.B. C.S.A.H. 17 POT 9+555.644							
1936	PC	9+608.808					279 205.4625	26 224.0337	
1937	PI	9+629.802	0° 58' 02.6" LT	2 486.800	20.994	41.987	279 205.9190	26 245.0230	PI
1938	CC						276 719.2504	26 278.1035	0° 16' 42.5"
1939	PT	C/L S.B. C.S.A.H. 17 9+650.795					279 206.0210	26 266.0170	

NO	DATE	BY	CKD	APPR	REVISION
1	11-16-00	VGG	BRW	MDH	C.R. 110 S.A.P. NO. REVISION

NAME: 2842.ATB DATE: May. 01, 2001

minnesota metric

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.

Date 5-1-2001 Reg. No. 21364

STATE AID PROJECT NO. S.A.P. 106-020-14

FED. AID PROJECT NO. S.P. 02-617-17

DRAWN BY S. MARTINS DATE 11-98
DESIGNED BY M. HANSEN 11-98
CHECKED BY M. HANSEN 2-99
COMM. NO. 0972842

SRF CONSULTING GROUP, INC.

ANOKA COUNTY
ALIGNMENT TABULATIONS
C.S.A.H. 17 RECONSTRUCTION

SHEET 46 OF 183

DESIGN FILE: N:\CIVIL\047\2842\PlanNorthLkDr\2842.dtd
PREFFILE: N:\CIVIL\047\2842\PlanNorthLkDr\2842.prf
PLOTTER: MS-HPSSINX
PLOT SCALE: 101.010000
PLOT DATE/TIME: 05/02/2001 15:38:30

CURVE NO.	POINT	STATION		CURVE DATA Δ	R	T	L	COORDINATES X	Y	AZIMUTH
		℄ C.R. 52 (LOVELL ROAD)								
1200	POT	C/L C.R. 52 (LOVELL ROAD)	1+000.000					279 163.3698	25 041.7853	89° 02' 53.0"
1201	POT	C/L C.R. 52 (LOVELL ROAD)	1+037.037=					279 200.4018	25 042.4006	
		A PT. ON C/L S.B. C.S.A.H. 17	8+427.410							
1202	POT	C/L C.R. 52 (LOVELL ROAD)	1+050.000=					279 213.3629	25 042.6160	
		A PT. ON C/L N.B. C.S.A.H. 17	8+427.664							
		℄ WEST ROAD (SOUTH)								
1250	POT	C/L WEST ROAD (SOUTH)	2+001.201=					279 202.4667	25 381.1290	90° 11' 19.6"
		A PT. ON C/L S.B. C.S.A.H. 17	8+766.140							
1251	POT	C/L WEST ROAD (SOUTH)	2+013.201=					279 214.4667	25 381.0895	
		A PT. ON C/L N.B. C.S.A.H. 17	8+766.140							
1252	POT	C/L WEST ROAD (SOUTH)	2+088.018					279 289.2830	25 380.8430	
		℄ EDGEWOOD ROAD								
1300	POT	C/L EDGEWOOD ROAD	3+000.000					279 129.4650	25 443.9600	89° 45' 23.7"
1301	POT	C/L EDGEWOOD ROAD	3+072.917=					279 202.3814	25 444.2698	
		A PT. ON C/L S.B. C.S.A.H. 17	8+829.285							
1302	POT	C/L EDGEWOOD ROAD	3+085.209=					279 214.6729	25 444.3220	
		A PT. ON C/L N.B. C.S.A.H. 17	8+829.373							
		℄ 97TH LANE								
1350	POT	C/L 97TH LANE	4+000.000					279 129.9300	25 593.2970	89° 56' 27.0"
1351	POT	C/L 97TH LANE	4+072.037=					279 201.9666	25 593.3714	
		A PT. ON C/L S.B. C.S.A.H. 17	8+978.380							
1352	POT	C/L 97TH LANE	4+085.237=					279 215.1668	25 593.3850	
		A PT. ON C/L N.B. C.S.A.H. 17	8+978.436							
		℄ WEST ROAD (NORTH)								
1400	POT	C/L WEST ROAD (NORTH)	5+000.000=					279 202.2124	25 667.5970	90° 16' 07.3"
		A PT. ON C/L S.B. C.S.A.H. 17	9+052.606							
1401	POT	C/L WEST ROAD (NORTH)	5+013.200=					279 215.4125	25 667.5351	
		A PT. ON C/L N.B. C.S.A.H. 17	9+052.587							
1402	POT	C/L WEST ROAD (NORTH)	5+066.954					279 269.1660	25 667.2830	
		℄ 99TH AVENUE N.E.								
1450	POT	C/L 99TH AVENUE N.E.	6+000.000					279 133.0140	25 880.6570	89° 53' 42.7"
1451	POT	C/L 99TH AVENUE N.E.	6+069.905=					279 202.9187	25 880.7849	
		A PT. ON C/L S.B. C.S.A.H. 17	9+265.795							
1452	POT	C/L 99TH AVENUE N.E.	6+083.105=					279 216.1192	25 880.8090	
		A PT. ON C/L N.B. C.S.A.H. 17	9+265.862							
		℄ AUSTIN STREET N.E.								
1500	POT	C/L AUSTIN STREET N.E.	7+000.000					279 134.0940	26 147.0580	89° 31' 50.5"
1501	POT	C/L AUSTIN STREET N.E.	7+069.817=					279 203.9085	26 147.6299	
		A PT. ON C/L S.B. C.S.A.H. 17	9+532.642							
1502	POT	C/L AUSTIN STREET N.E.	7+083.020=					279 217.1113	26 147.7380	
		A PT. ON C/L N.B. C.S.A.H. 17	9+532.793							

NO	DATE	BY	CKD	APPR	REVISION
1	11-16-00	VGG	BRW	MDH	C.R. 110 S.A.P. NO. REVISION

NAME: 2842.ATC DATE: May. 01, 2001

minnesota metric

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.

Date 5-1-2001 Reg. No. 21364

STATE AID PROJECT NO. S.A.P. 106-020-14

FED. AID PROJECT NO. S.P. 02-617-17

DRAWN BY S. MARTINS DATE 11-98
DESIGNED BY M. HANSEN 11-98
CHECKED BY M. HANSEN 2-99
COMM. NO. 0972842

SRF CONSULTING GROUP, INC.

ANOKA COUNTY
ALIGNMENT TABULATIONS
C.S.A.H. 17 RECONSTRUCTION

SHEET 47 OF 183

DESIGN FILE: n:\civil\047\2842\Plan\northtn.kdr\2842.dtc
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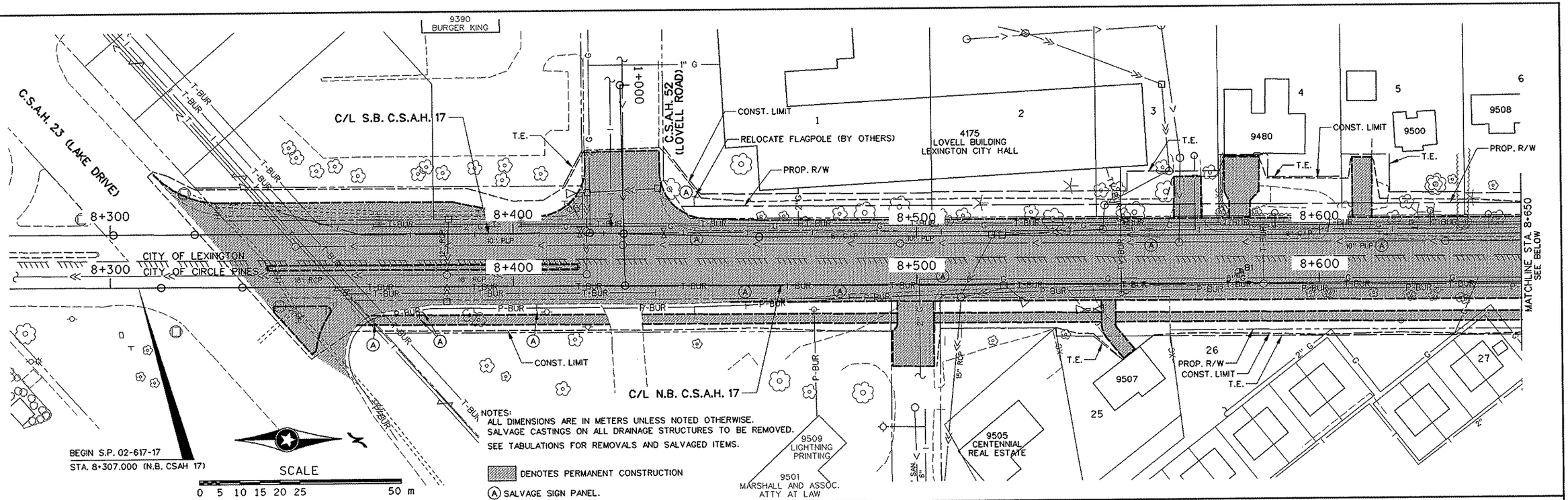

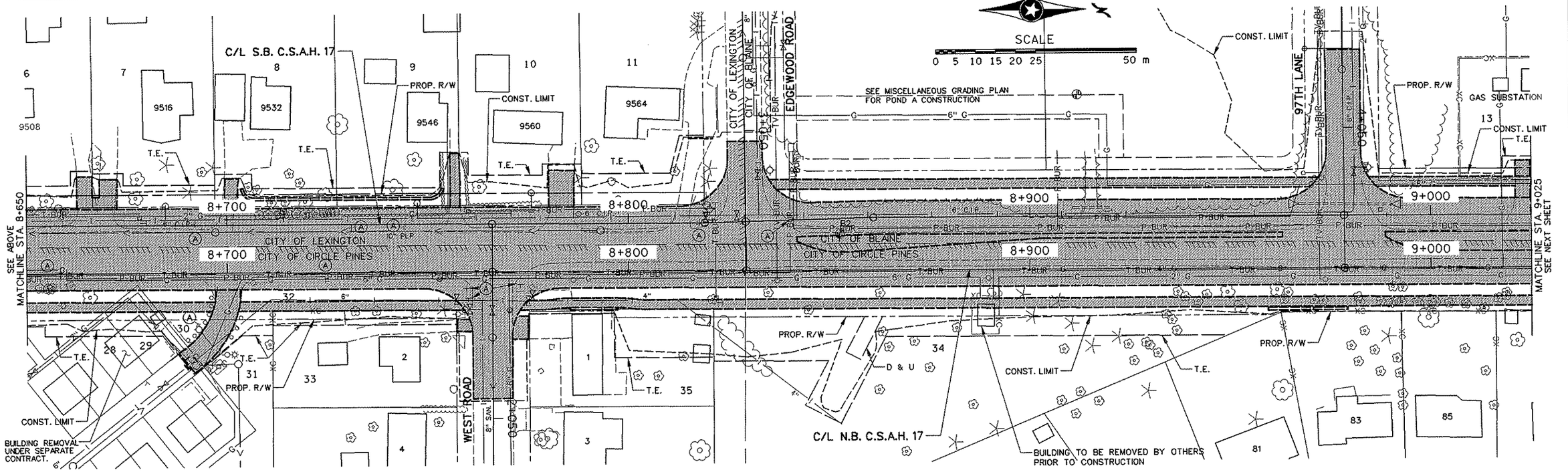

NO	DATE	BY	CKD	APPR	REVISION
1	7-31-00	VGG	BRW	MDH	REVISED PER FEDERAL AID STANDARDS
2	11-16-00	VGG	BRW	MDH	C.R. 110 S.A.P. NO. REVISION
3	11-16-00	VGG	BRW	MDH	REVISED NOTE (BY OTHERS)

NAME: TP1 410.PLN DATE: May. 01, 2001

minnesota metric

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.
Date 5-1-2001 Reg. No. 21364

STATE AID PROJECT NO. S.A.P. 106-020-14
FED. AID PROJECT NO. S.P. 02-617-17

DRAWN BY V. GRAF DATE 10-96
DESIGNED BY B. URBANEK 10-96
CHECKED BY D. DEMERS 1-97
COMM. NO. 0962842

SRF CONSULTING GROUP, INC.

ANOKA COUNTY
EXISTING TOPOGRAPHY
C.S.A.H. 17 RECONSTRUCTION
STA. 8+307 TO STA. 9+025

SHEET 52 OF 183

DESIGN FILE: h:\civil\008\2410\Plan\North\k0r\TP1-410.PLN
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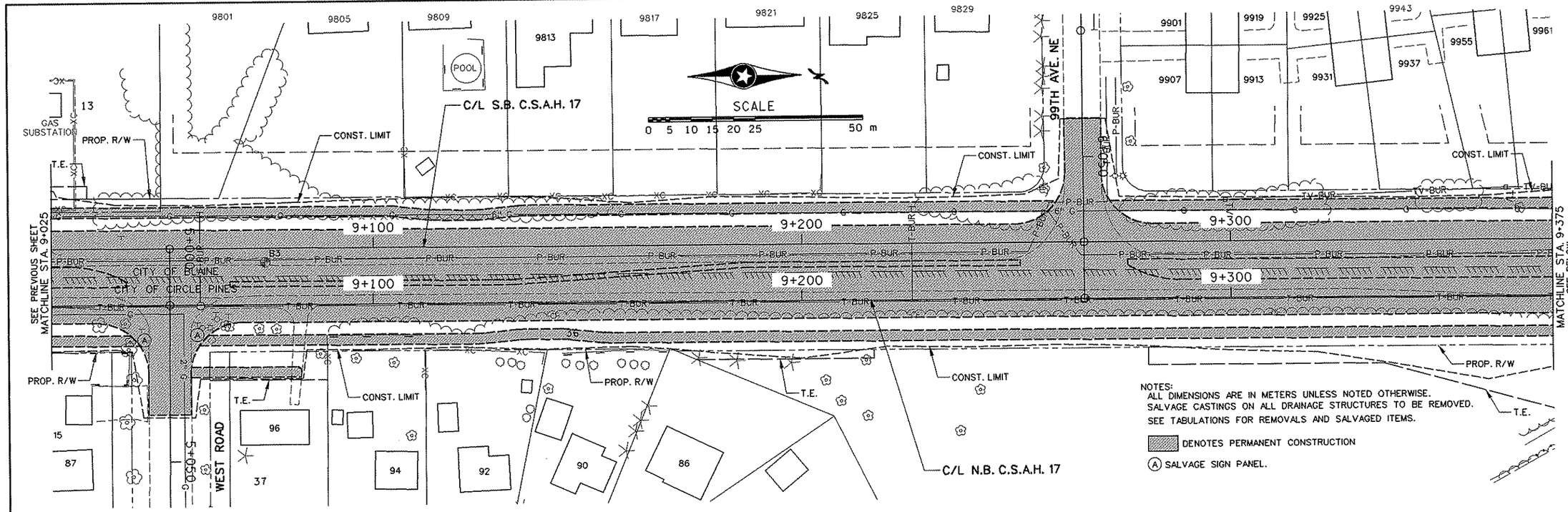
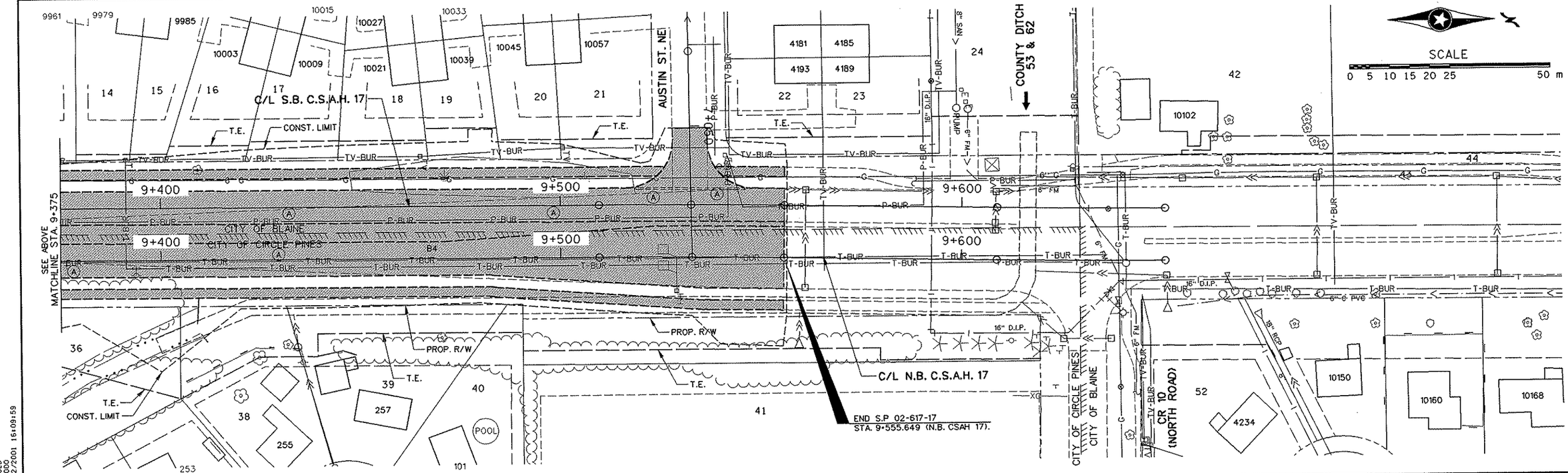
PLOT DATE/TIME: 05/02/2001 16:09:38





NO	DATE	BY	CKD	APPR	REVISION
1	7-31-00	VGG	BRW	MDH	REVISED PER FEDERAL AID STANDARDS
2	11-16-00	VGG	BRW	MDH	C.R. 110 S.A.P. NO. REVISION

NAME: TP2 410.PLN DATE: May. 01, 2001

DESIGN FILE: N:\Civil\008\2410\PlanNorth\LKD\TP2-410.PLN
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PLOT SCALE: 1002.006000
PLOT DATE/TIME: 05/02/2001 16:09:59

minnesota metric

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.
Date 5-1-2001 Reg. No. 21364

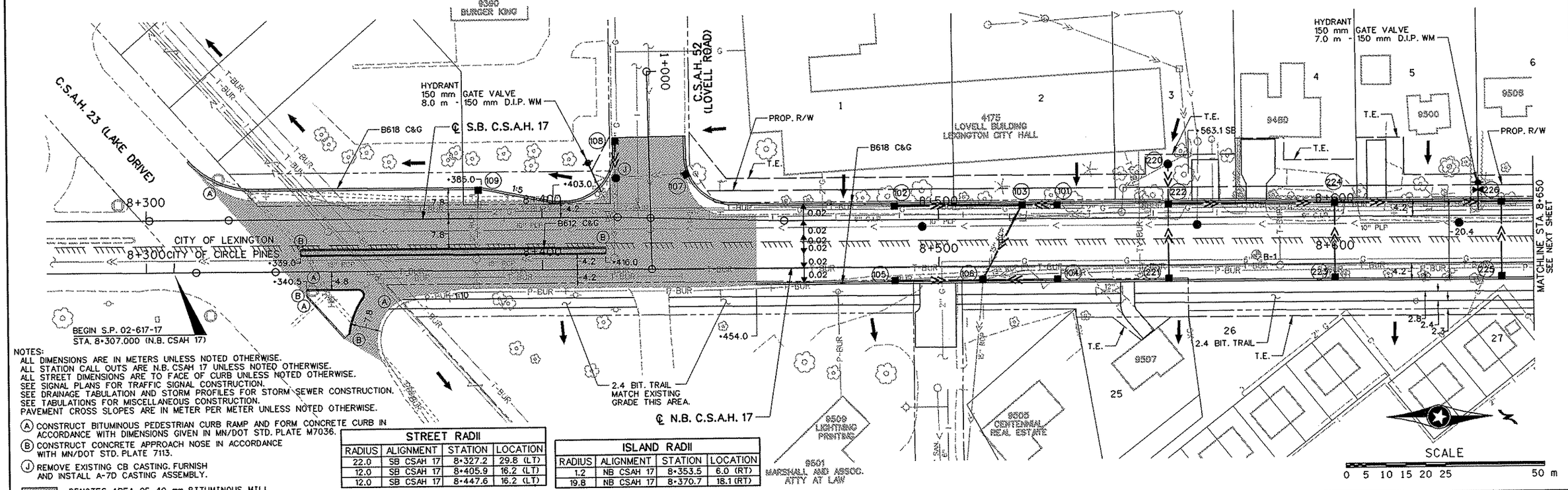
STATE AID PROJECT NO. S.A.P. 106-020-14
FED. AID PROJECT NO. S.P. 02-617-17

		DATE
DRAWN BY	V. GRAF	10-96
DESIGNED BY	B. URBANEK	10-96
CHECKED BY	D. DEMERS	1-97
COMM. NO.	0962842	

SRF CONSULTING GROUP, INC.

ANOKA COUNTY
EXISTING TOPOGRAPHY
C.S.A.H. 17 RECONSTRUCTION
STA. 9+025 TO STA. 9+750

SHEET 53 OF 183



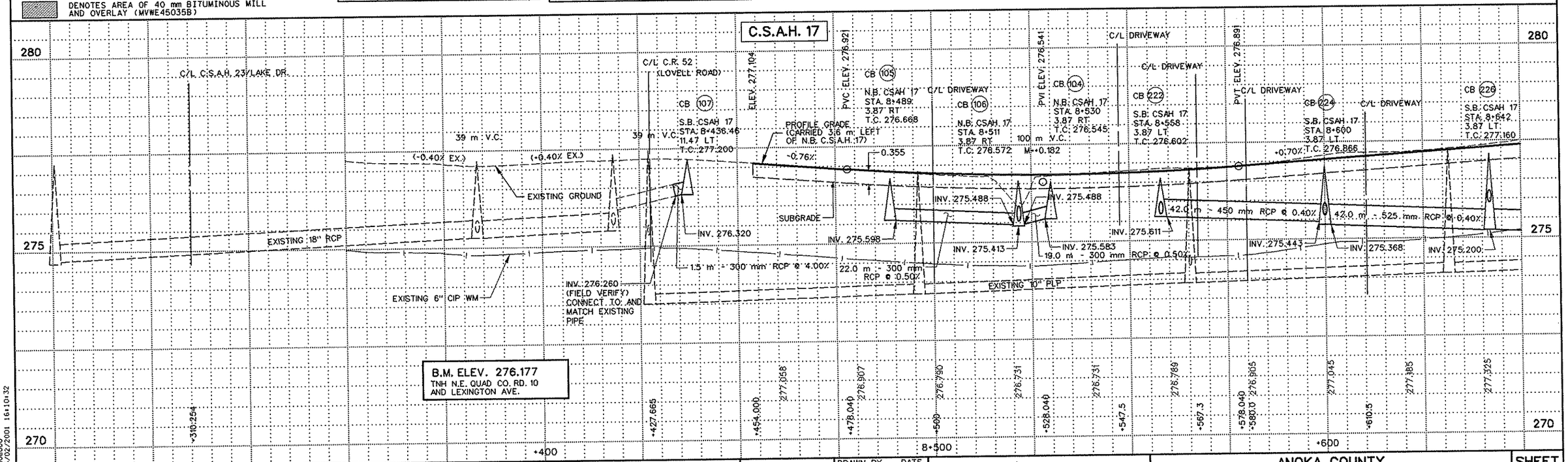
NOTES:
ALL DIMENSIONS ARE IN METERS UNLESS NOTED OTHERWISE.
ALL STATION CALL OUTS ARE N.B. CSAH 17 UNLESS NOTED OTHERWISE.
ALL STREET DIMENSIONS ARE TO FACE OF CURB UNLESS NOTED OTHERWISE.
SEE SIGNAL PLANS FOR TRAFFIC SIGNAL CONSTRUCTION.
SEE DRAINAGE TABULATION AND STORM PROFILES FOR STORM SEWER CONSTRUCTION.
SEE TABULATIONS FOR MISCELLANEOUS CONSTRUCTION.
PAVEMENT CROSS SLOPES ARE IN METER PER METER UNLESS NOTED OTHERWISE.

(A) CONSTRUCT BITUMINOUS PEDESTRIAN CURB RAMP AND FORM CONCRETE CURB IN ACCORDANCE WITH DIMENSIONS GIVEN IN MN/DOT STD. PLATE M7036.
(B) CONSTRUCT CONCRETE APPROACH NOSE IN ACCORDANCE WITH MN/DOT STD. PLATE 7113.
(J) REMOVE EXISTING CB CASTING. FURNISH AND INSTALL A-7D CASTING ASSEMBLY.

DENOTES AREA OF 40 mm BITUMINOUS MILL AND OVERLAY (MVWE45035B)

STREET RADII			
RADIUS	ALIGNMENT	STATION	LOCATION
22.0	SB CSAH 17	8+327.2	29.8 (LT)
12.0	SB CSAH 17	8+405.9	16.2 (LT)
12.0	SB CSAH 17	8+447.6	16.2 (LT)

ISLAND RADII			
RADIUS	ALIGNMENT	STATION	LOCATION
1.2	NB CSAH 17	8+353.5	6.0 (RT)
19.8	NB CSAH 17	8+370.7	18.1 (RT)



NO	DATE	BY	CKD	APPR	REVISION
1	7-31-00	VGG	BRW	MDH	REVISED PER FEDERAL AID STANDARDS
2	11-16-00	VGG	BRW	MDH	C.R. 110 S.A.P. NO. REVISION
3	11-16-00	VGG	BRW	MDH	ADDED V.C. INFORMATION

NAME: CP1 410.PLN DATE: May. 01, 2001

minnesota metric

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.
Date 5-1-2001 Reg. No. 21364

STATE AID PROJECT NO. S.A.P. 106-020-14
FED. AID PROJECT NO. S.P. 02-617-17

DRAWN BY V. GRAF 10-96
DESIGNED BY B. URBANEK 10-96
CHECKED BY D. DEMERS 1-97
COMM. NO. 0962842

SRF CONSULTING GROUP, INC.

ANOKA COUNTY
CONSTRUCTION PLAN AND PROFILE
C.S.A.H. 17 RECONSTRUCTION
STA. 8+307 TO STA. 8+650

SHEET 60 OF 183

DESIGN FILE: h:\civil\008\2410\Plan\north\KD\CP1-410.PLN
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PLOTTER: MS-HP55 IMX-OLD
PLOT SCALE: 1002.006000
PLOT DATE/TIME: 05/02/2001 16:10:32

STREET RADII			
RADIUS	ALIGNMENT	STATION	LOCATION
12.0	NB CSAH 17	8+749.2	16.2 (RT)
12.0	NB CSAH 17	8+783.1	16.2 (RT)
12.0	SB CSAH 17	8+812.8	16.2 (LT)
12.0	SB CSAH 17	8+845.9	16.2 (LT)
12.0	SB CSAH 17	8+962.0	16.2 (LT)
12.0	SB CSAH 17	8+994.6	16.2 (LT)

SCALE
0 5 10 15 20 25 50 m

ISLAND RADII			
RADIUS	ALIGNMENT	STATION	LOCATION
25.0	NB CSAH 17	8+853.4	29.6 (LT)
25.0	NB CSAH 17	9+001.5	29.2 (LT)

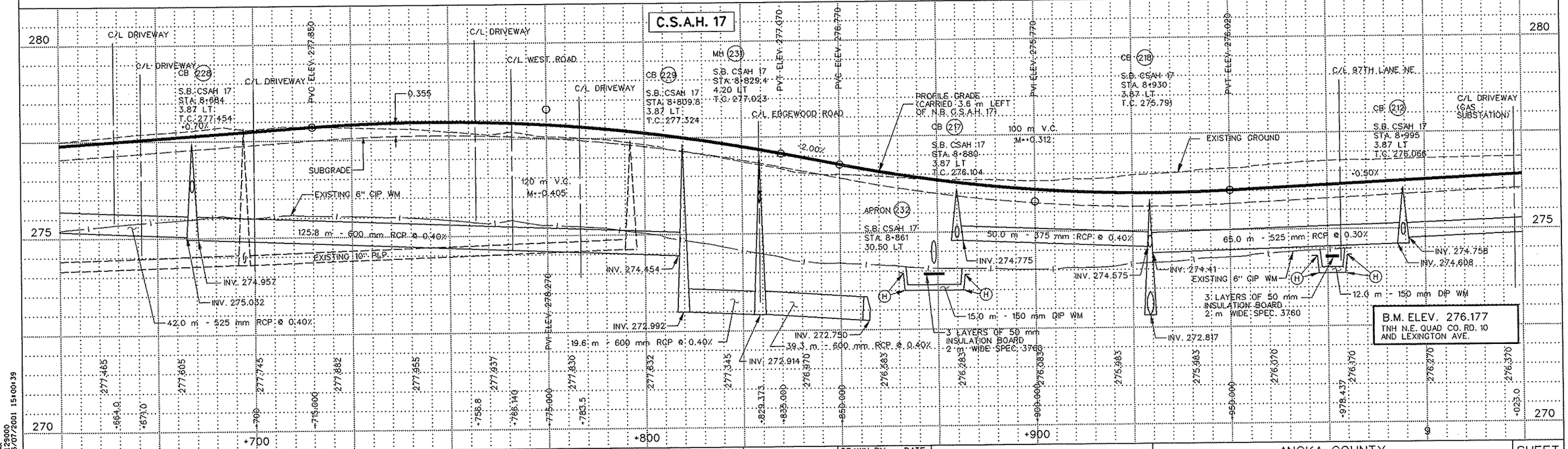
NOTES:
ALL DIMENSIONS ARE IN METERS UNLESS NOTED OTHERWISE.
ALL STATION CALL OUTS ARE N.B. CSAH 17 UNLESS NOTED OTHERWISE.
ALL STREET DIMENSIONS ARE TO FACE OF CURB UNLESS NOTED OTHERWISE.
SEE SIGNAL PLANS FOR TRAFFIC SIGNAL CONSTRUCTION.
SEE DRAINAGE TABULATION AND STORM PROFILES FOR STORM SEWER CONSTRUCTION.
SEE TABULATIONS FOR MISCELLANEOUS CONSTRUCTION.
PAVEMENT CROSS SLOPES ARE IN METER PER METER UNLESS NOTED OTHERWISE.

(A) CONSTRUCT BITUMINOUS PEDESTRIAN CURB RAMP AND FORM CONCRETE CURB IN ACCORDANCE WITH DIMENSIONS GIVEN IN MN/DOT STD. PLATE M7036.

(B) CONSTRUCT CONCRETE APPROACH NOSE IN ACCORDANCE WITH MN/DOT STD. PLATE 7113.

(G) LOWER EXISTING WATERMAIN TO PROVIDE 0.5 m MINIMUM SEPARATION FROM STORM SEWER. SEE WATERMAIN PROFILE BELOW.

(H) F & 1150 mm 45° BEND. (K) TRANSITION B618 C&G TO MATCH EXISTING CURB TYPE.



NO	DATE	BY	CKD	APPR	REVISION
1	7-31-00	VGG	BRW	MDH	REVISED PER FEDERAL AID STANDARDS
2	8-03-00	VGG	BRW	MDH	ADDED RETAINING WALL E
3	11-16-00	VGG	BRW	MDH	C.R. 110 S.A.P. NO. REVISION
4	11-16-00	VGG	BRW	MDH	ADDED WATERMAIN LOWERING DETAIL AND NOTES.
5	2-01-01	ELB	BRW	MDH	ADDED INVERT ELEVATION TO CB 229

NAME: CP2 410.PLN DATE: May. 01, 2001

minnesota metric

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.
Date 6-7-2001 Reg. No. 21364

STATE AID PROJECT NO. S.A.P. 106-020-14
FED. AID PROJECT NO. S.P. 02-617-17

DRAWN BY	V. GRAF	DATE 10-96
DESIGNED BY	B. URBANEK	10-96
CHECKED BY	D. DEMERS	1-97
COMM. NO.	0962842	

SRF CONSULTING GROUP, INC.

ANOKA COUNTY
CONSTRUCTION PLAN AND PROFILE
C.S.A.H. 17 RECONSTRUCTION
STA. 8+650 TO STA. 9+025

SHEET 61 OF 183

DESIGN FILE: h:\civil\008\2410\Plan\nrt\HLK0\CP2-410.PLN
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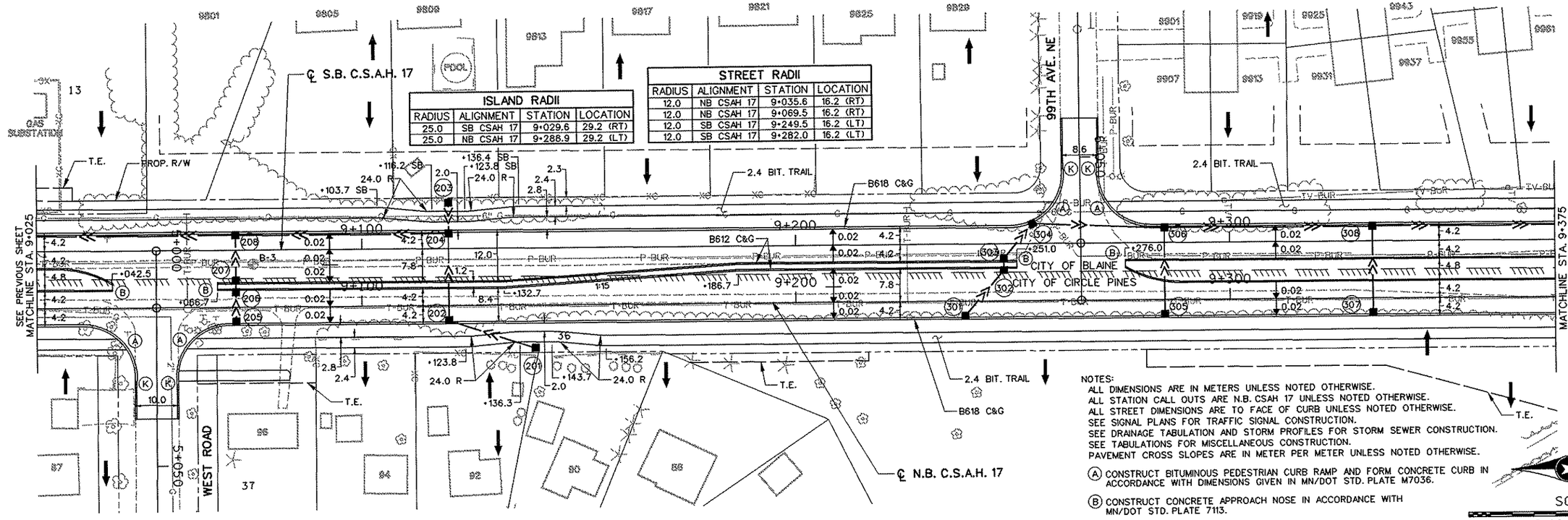
ISLAND RADII			
RADIUS	ALIGNMENT	STATION	LOCATION
25.0	SB CSAH 17	9+029.6	29.2 (RT)
25.0	NB CSAH 17	9+288.9	29.2 (LT)

STREET RADII			
RADIUS	ALIGNMENT	STATION	LOCATION
12.0	NB CSAH 17	9+035.6	16.2 (RT)
12.0	NB CSAH 17	9+069.5	16.2 (RT)
12.0	SB CSAH 17	9+249.5	16.2 (LT)
12.0	SB CSAH 17	9+282.0	16.2 (LT)



NOTES:
ALL DIMENSIONS ARE IN METERS UNLESS NOTED OTHERWISE.
ALL STATION CALL OUTS ARE N.B. CSAH 17 UNLESS NOTED OTHERWISE.
ALL STREET DIMENSIONS ARE TO FACE OF CURB UNLESS NOTED OTHERWISE.
SEE SIGNAL PLANS FOR TRAFFIC SIGNAL CONSTRUCTION.
SEE DRAINAGE TABULATION AND STORM PROFILES FOR STORM SEWER CONSTRUCTION.
SEE TABULATIONS FOR MISCELLANEOUS CONSTRUCTION.
PAVEMENT CROSS SLOPES ARE IN METER PER METER UNLESS NOTED OTHERWISE.

(A) CONSTRUCT BITUMINOUS PEDESTRIAN CURB RAMP AND FORM CONCRETE CURB IN ACCORDANCE WITH DIMENSIONS GIVEN IN MN/DOT STD. PLATE M7036.

(B) CONSTRUCT CONCRETE APPROACH NOSE IN ACCORDANCE WITH MN/DOT STD. PLATE 7113.

(K) TRANSITION B618 C&G TO MATCH EXISTING CURB TYPE.

SCALE
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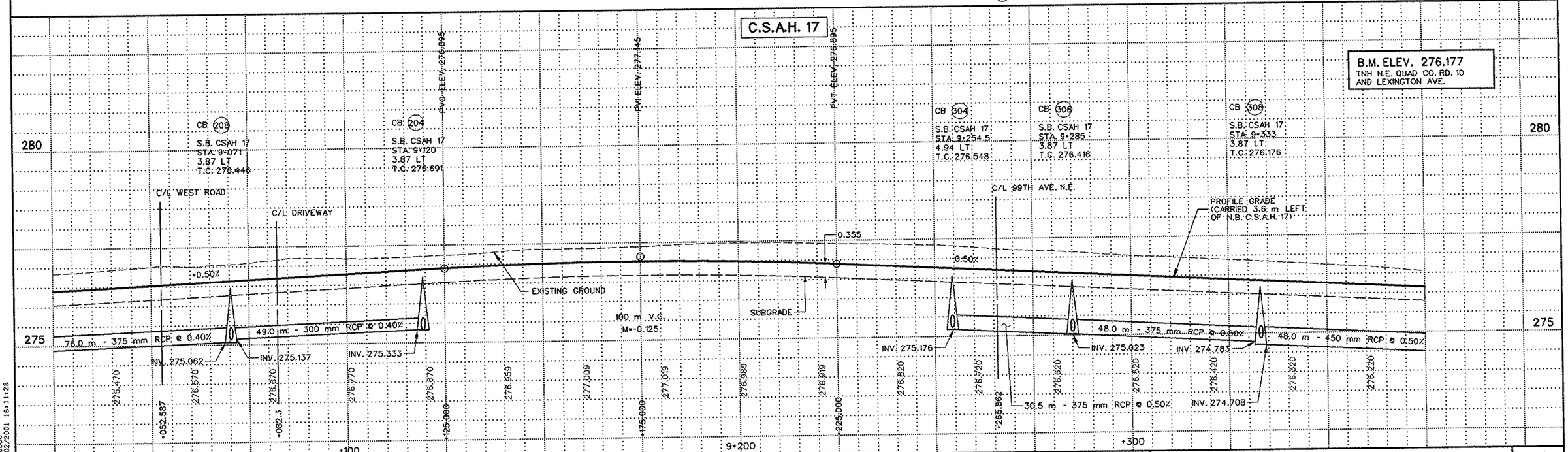

NO	DATE	BY	CKD	APPR	REVISION
1	7-31-00	VGG	BRW	MDH	REVISED PER FEDERAL AID STANDARDS
2	11-16-00	VGG	BRW	MDH	C.R. 110 S.A.P. NO. REVISION
3	11-16-00	VGG	BRW	MDH	REVISED TRAIL RADII

NAME: CP3 410.PLN DATE: May. 01, 2001

minnesota metric

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.
Date 5-1-2001 Reg. No. 21364

STATE AID PROJECT NO. S.A.P. 106-020-14
FED. AID PROJECT NO. S.P. 02-617-17

DRAWN BY V. GRAF DATE 10-96
DESIGNED BY B. URBANEK 10-96
CHECKED BY D. DEMERS 1-97
COMM. NO. 0982842

SRF CONSULTING GROUP, INC.

ANOKA COUNTY
CONSTRUCTION PLAN AND PROFILE
C.S.A.H. 17 RECONSTRUCTION
STA. 9+025 TO STA. 9+375

SHEET 62 OF 183

DESIGN FILE: h:\civil\008\2410\Plan\Horiz\CP3-410.PLN
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PLOTTER: MS-HPSSIMX-OLD
PLOT SCALE: 1002.006000
PLOT DATE/TIME: 05/02/2001 16:11:26

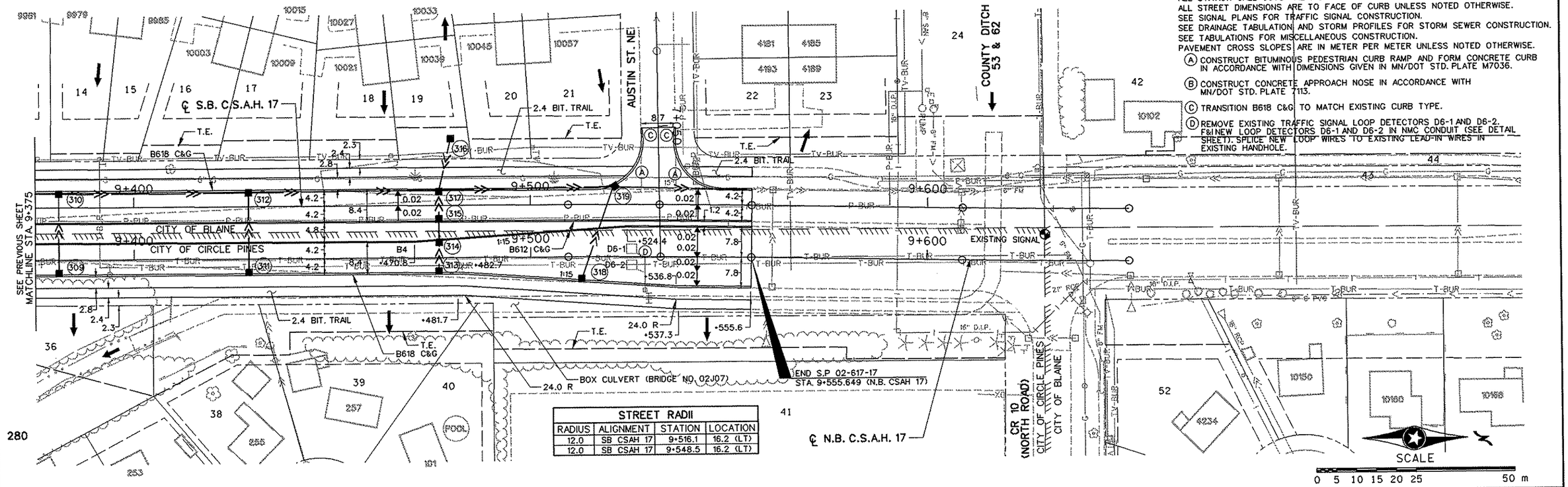
NOTES:
ALL DIMENSIONS ARE IN METERS UNLESS NOTED OTHERWISE.
ALL STATION CALL OUTS ARE N.B. CSAH 17 UNLESS NOTED OTHERWISE.
ALL STREET DIMENSIONS ARE TO FACE OF CURB UNLESS NOTED OTHERWISE.
SEE SIGNAL PLANS FOR TRAFFIC SIGNAL CONSTRUCTION.
SEE DRAINAGE TABULATION AND STORM PROFILES FOR STORM SEWER CONSTRUCTION.
SEE TABULATIONS FOR MISCELLANEOUS CONSTRUCTION.
PAVEMENT CROSS SLOPES ARE IN METER PER METER UNLESS NOTED OTHERWISE.

(A) CONSTRUCT BITUMINOUS PEDESTRIAN CURB RAMP AND FORM CONCRETE CURB IN ACCORDANCE WITH DIMENSIONS GIVEN IN MN/DOT STD. PLATE M7036.

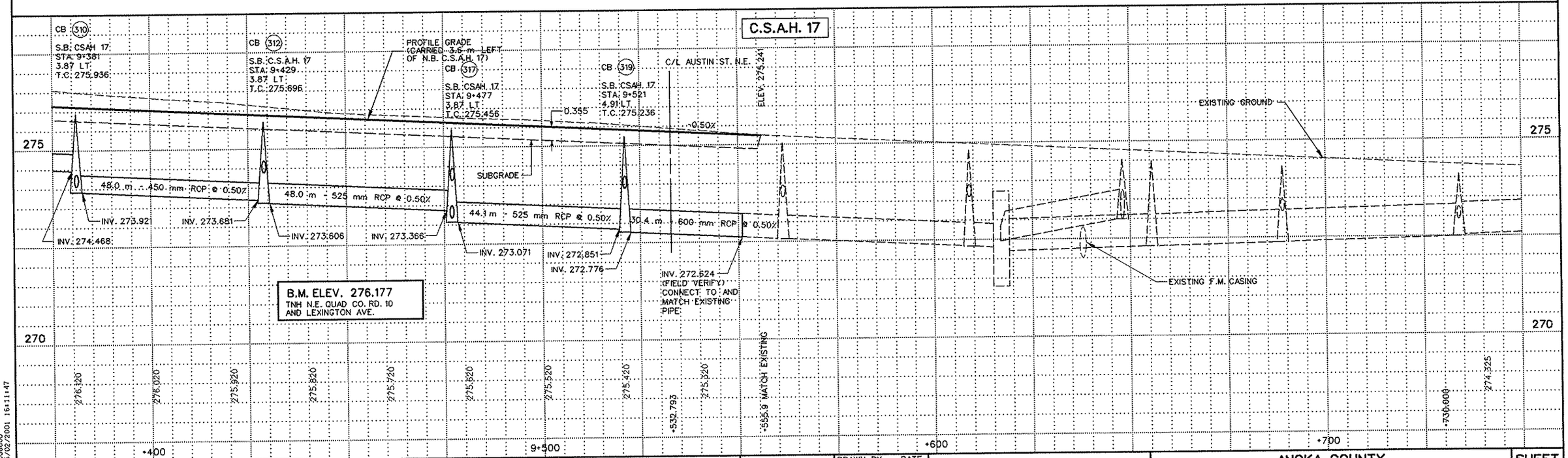
(B) CONSTRUCT CONCRETE APPROACH NOSE IN ACCORDANCE WITH MN/DOT STD. PLATE 7113.

(C) TRANSITION B618 C&G TO MATCH EXISTING CURB TYPE.

(D) REMOVE EXISTING TRAFFIC SIGNAL LOOP DETECTORS D6-1 AND D6-2. F&I NEW LOOP DETECTORS D6-1 AND D6-2 IN NMC CONDUIT (SEE DETAIL SHEET). SPLICE NEW LOOP WIRES TO EXISTING LEAD-IN WIRES IN EXISTING HANDHOLE.



STREET RADII			
RADIUS	ALIGNMENT	STATION	LOCATION
12.0	SB CSAH 17	9+516.1	16.2 (LT)
12.0	SB CSAH 17	9+548.5	16.2 (LT)



NO	DATE	BY	CKD	APPR	REVISION
1	7-31-00	VGG	BRW	MDH	REVISED PER FEDERAL AID STANDARDS
2	11-16-00	VGG	BRW	MDH	C.R. 110 S.A.P. NO. REVISION
3	11-16-00	VGG	BRW	MDH	REVISED TRAIL RADII

NAME: CP4 410.PLN DATE: May. 01, 2001

minnesota metric

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.
Date 5-1-2001 Reg. No. 21364

STATE AID PROJECT NO. S.A.P. 106-020-14
FED. AID PROJECT NO. S.P. 02-617-17

DRAWN BY V. GRAF DATE 10-96
DESIGNED BY B. URBANEK 10-96
CHECKED BY D. DEMERS 1-97
COMM. NO. 0962842

SRF CONSULTING GROUP, INC.

ANOKA COUNTY
CONSTRUCTION PLAN AND PROFILE
C.S.A.H. 17 RECONSTRUCTION
STA. 9+375 TO STA. 9+555.9

SHEET 63 OF 183

DESIGN FILE: h:\civil\008\2410\Plan\Nor†hLkDr\CP4-410.PLN
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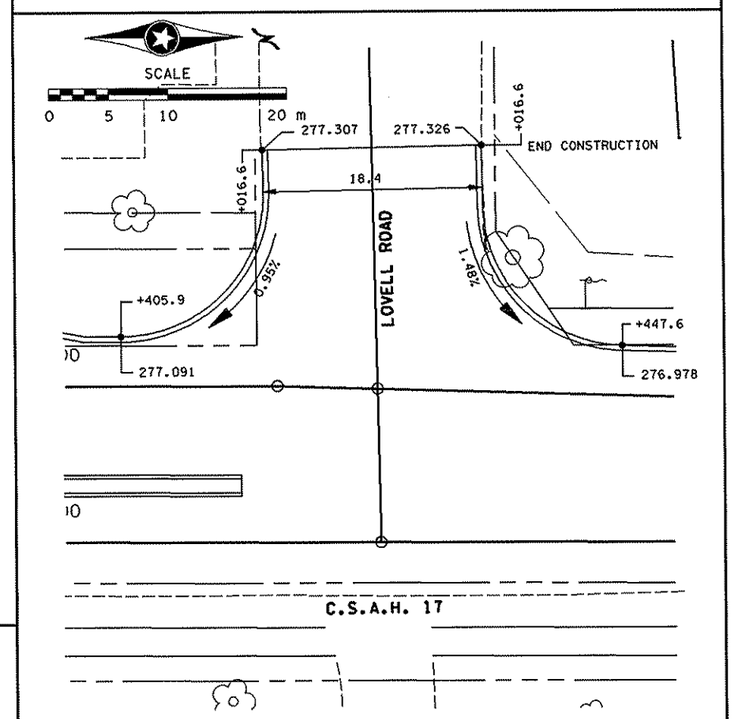

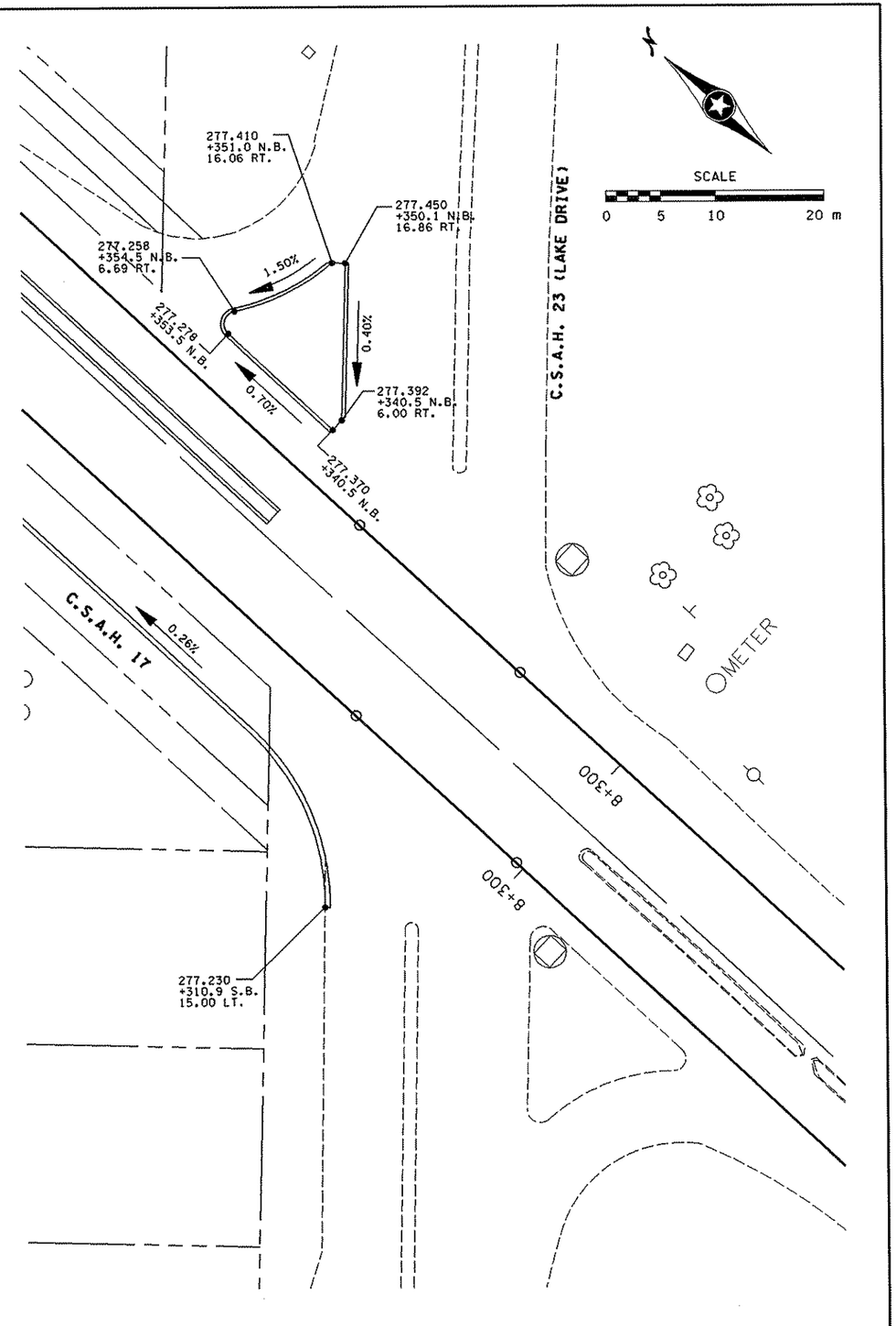

GENERAL NOTES:

ALL ELEVATIONS ARE AT THE FLOW LINE OF THE CURB.

X.XX% INDICATES FLOW LINE PROFILE GRADE.

NO	DATE	BY	CKD	APPR	REVISION
2	11-16-00	VGG	BRW	MDH	C.R. 110 S.A.P. NO. REVISION

NAME: 2842.CDC DATE: May. 08, 2001

minnesota metric

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.

Date 5-1-2001 Reg. No. 21364

STATE AID PROJECT NO. S.A.P. 106-020-14

FED. AID PROJECT NO. S.P. 02-617-17

		DATE
DRAWN BY	S. MARTINS	10-98
DESIGNED BY	M. HANSEN	10-98
CHECKED BY	B. WESTBY	2-99
COMM. NO.	0972842	

SRF CONSULTING GROUP, INC.

ANOKA COUNTY

INTERSECTION DETAILS

C.S.A.H. 17 RECONSTRUCTION

SHEET 68 OF 183

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PRF FILE: N:\Civil\047\2842\PRF\CDC.prf
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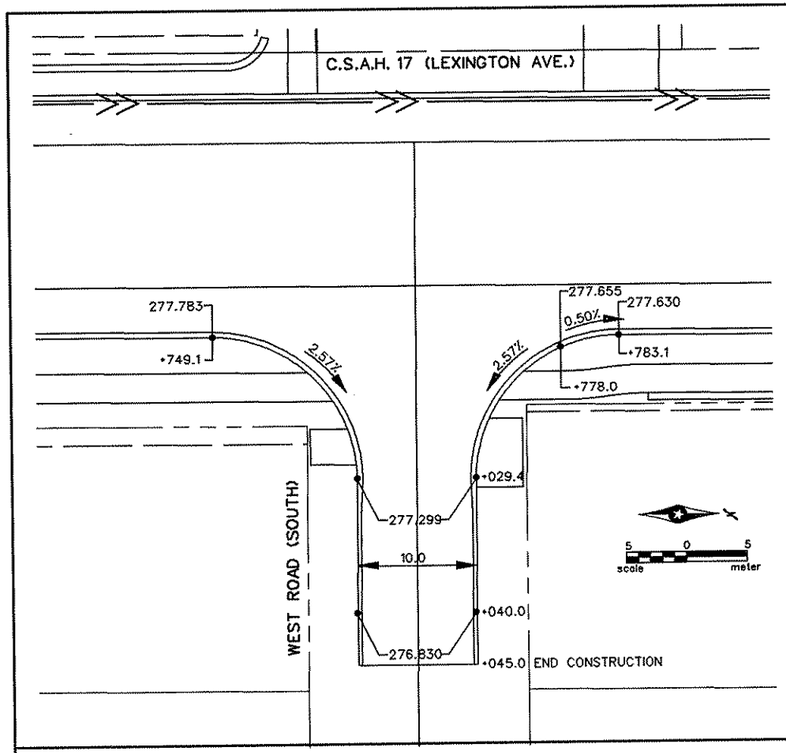

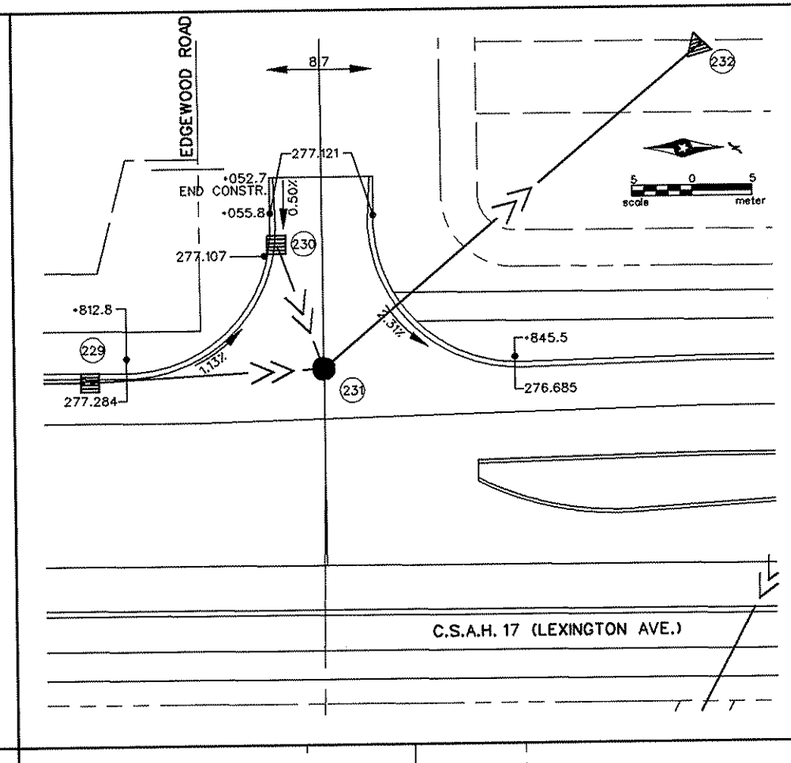

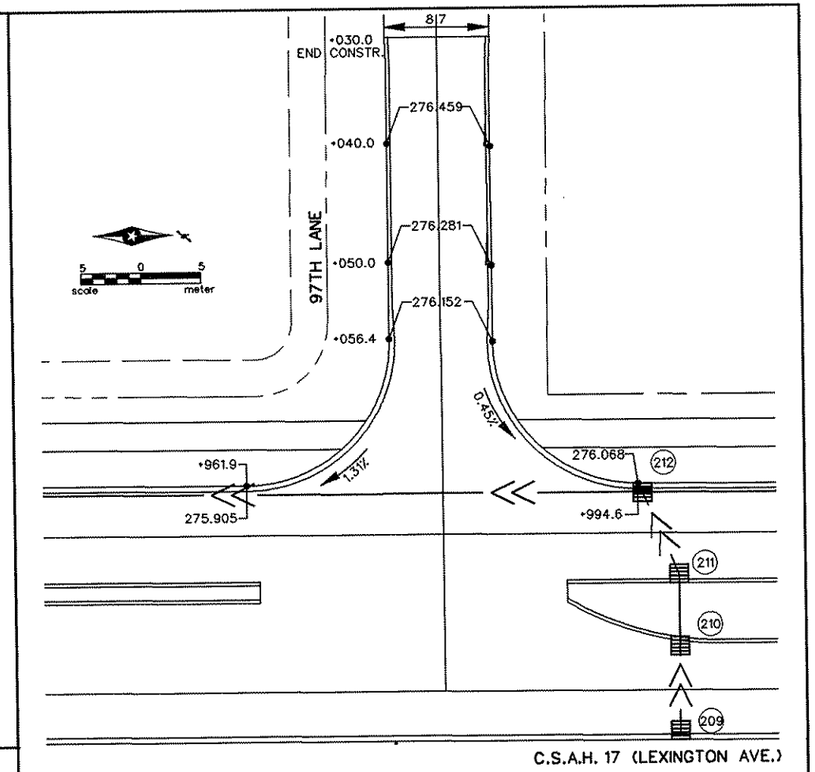

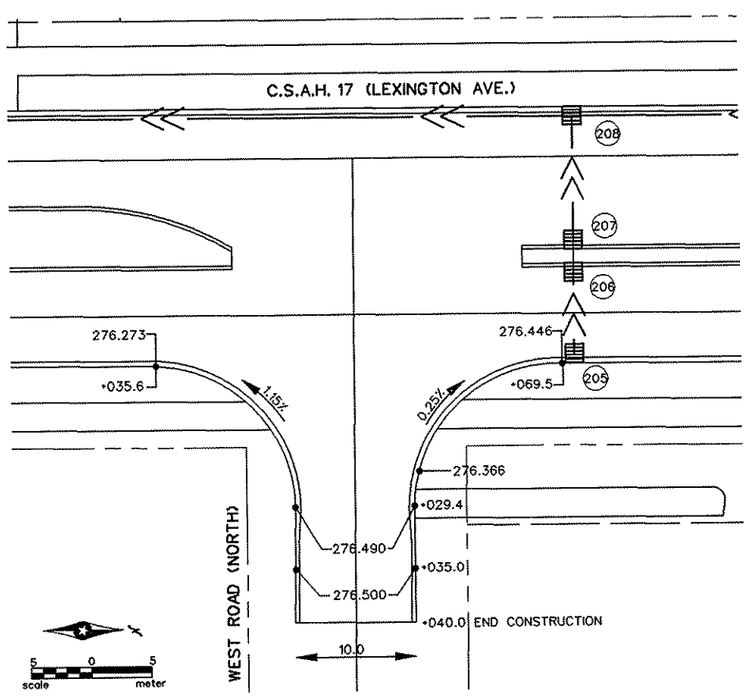

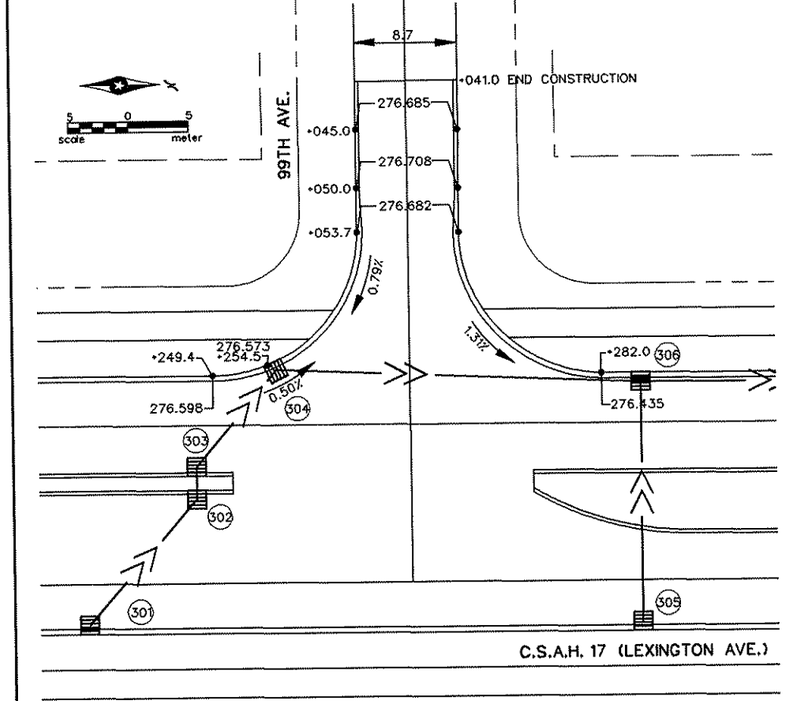

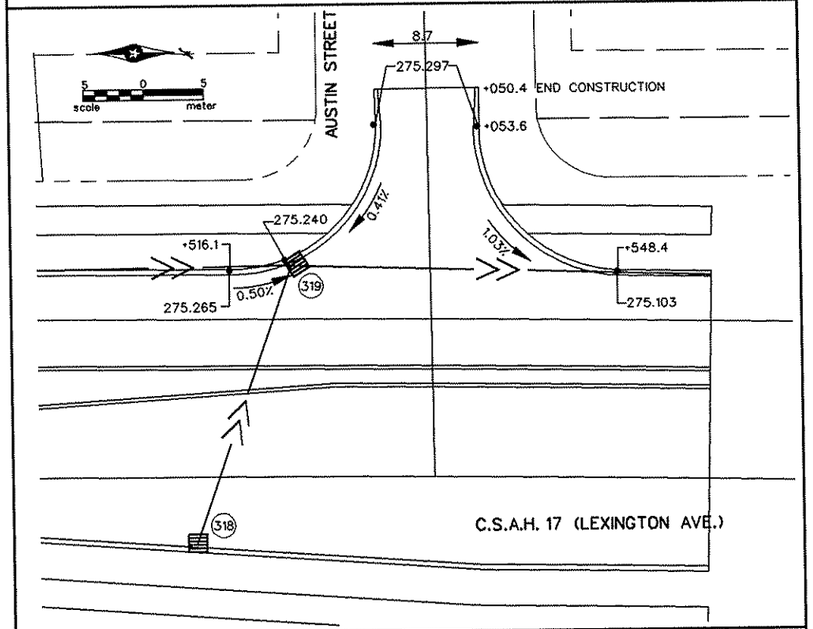

GENERAL NOTES:
ALL ELEVATIONS ARE AT THE FLOW LINE OF THE CURB
X.XX% INDICATES FLOW LINE PROFILE GRADE

NO	DATE	BY	CKD	APPR	REVISION
1	11-16-00	VGG	BRW	MDH	C.R. 110 S.A.P. NO. REVISION

NAME: IN1 410.PLN DATE: May. 01, 2001

minnesota metric

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.
Date 5-1-2001 Reg. No. 21364

STATE AID PROJECT NO. S.A.P. 106-020-14
FED. AID PROJECT NO. S.P. 02-617-17

DRAWN BY M. IISAKKA DATE 12-96
DESIGNED BY M. HANSEN 12-96
CHECKED BY D. DEMERS 1-97
COMM. NO. 0962842

SRF CONSULTING GROUP, INC.

ANOKA COUNTY
INTERSECTION DETAILS
C.S.A.H. 17 RECONSTRUCTION

SHEET 69 OF 183

DESIGN FILE: n:\civil\008\2410\PlanNorthLkDr\IN1-410.PLN
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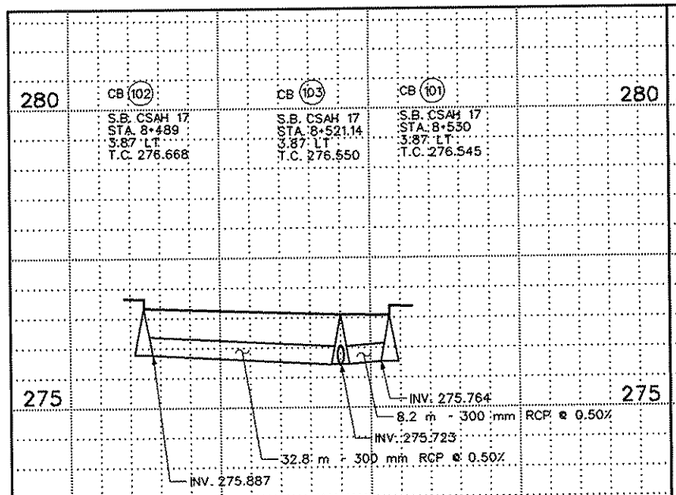

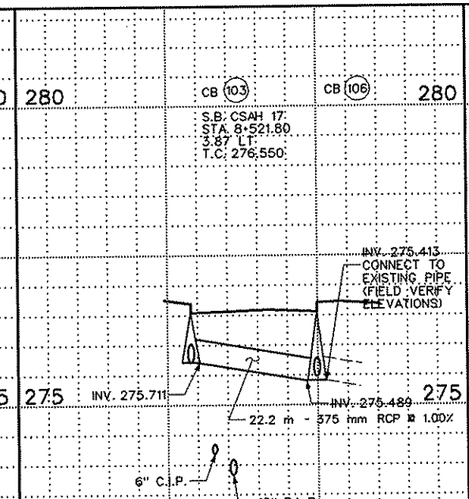

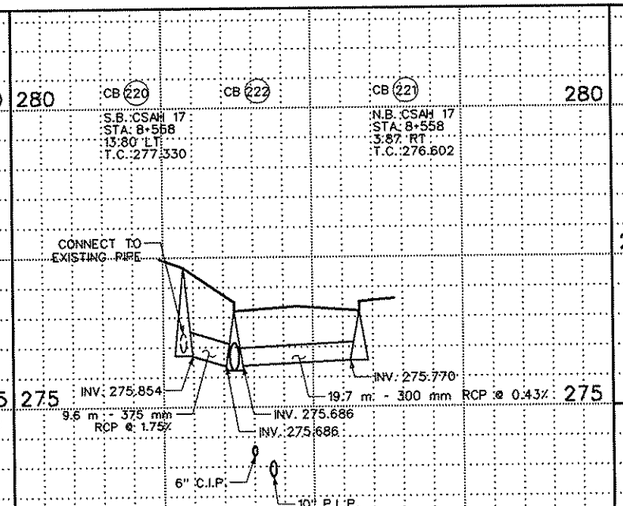

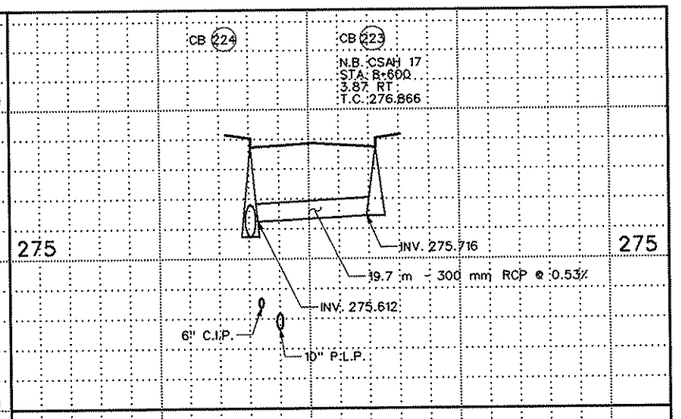

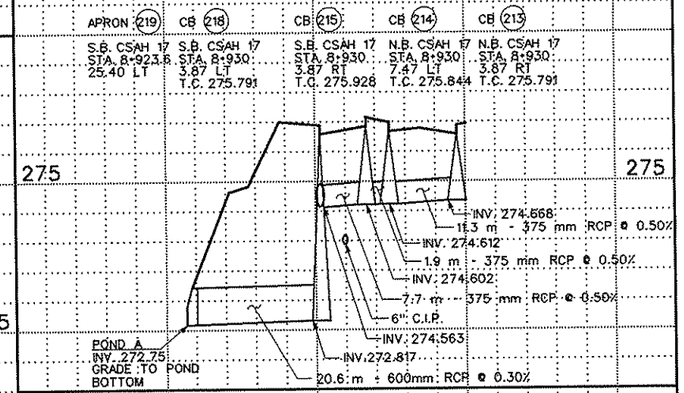

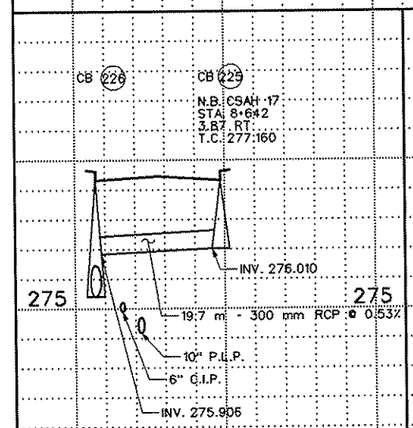

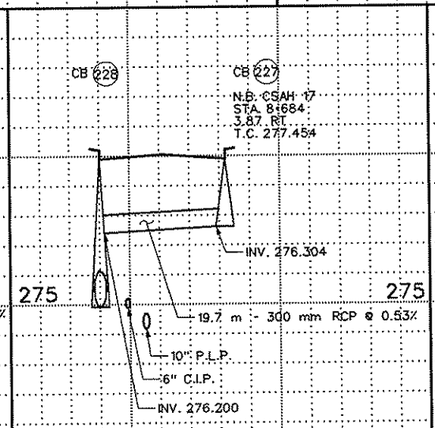

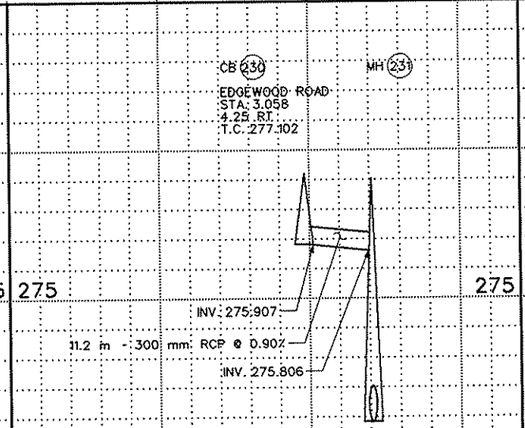

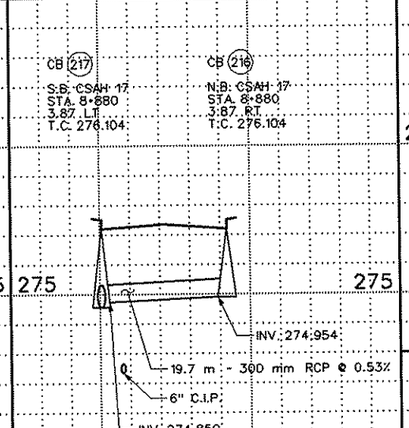

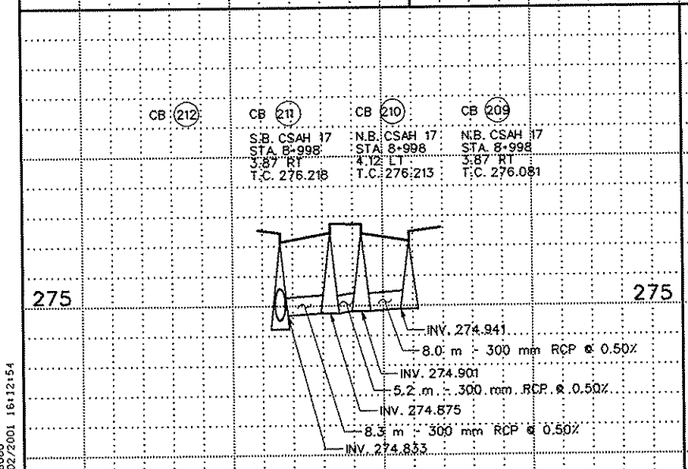

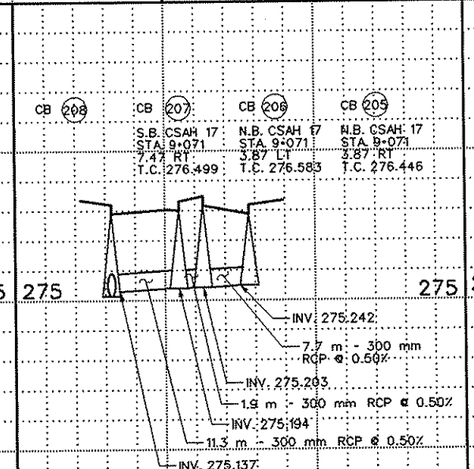

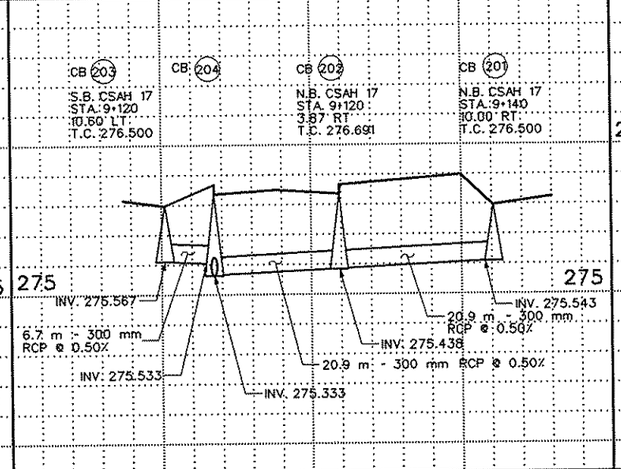

NO	DATE	BY	CKD	APPR	REVISION
1	11-16-00	VGG	BRW	MDH	C.R. 110 S.A.P. NO. REVISION
2	2-02-01	ELB	BRW	MDH	REVISED CB 203 ELEVATIONS

NAME: SP1 410.PLN DATE: May. 01, 2001

minnesota metric

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.

Date 5-1-2001 Reg. No. 21364

STATE AID PROJECT NO. S.A.P. 106-020-14

FED. AID PROJECT NO. S.P. 02-617-17

DRAWN BY	L. VanDRASEK	DATE 11-96
DESIGNED BY	M. HANSEN	11-96
CHECKED BY	D. DEMERS	3-97
COMM. NO.	0962842	

SRF CONSULTING GROUP, INC.

ANOKA COUNTY

MISCELLANEOUS STORM SEWER PROFILES

C.S.A.H. 17 RECONSTRUCTION

SHEET 71 OF 183

DESIGN FILE: N:\CIVIL\008X2410\PlanNorthLkDr\SP1-410.PLN
PRF FILE: N:\CIVIL\008X2410\PlanNorthLkDr\SP1-410.prf
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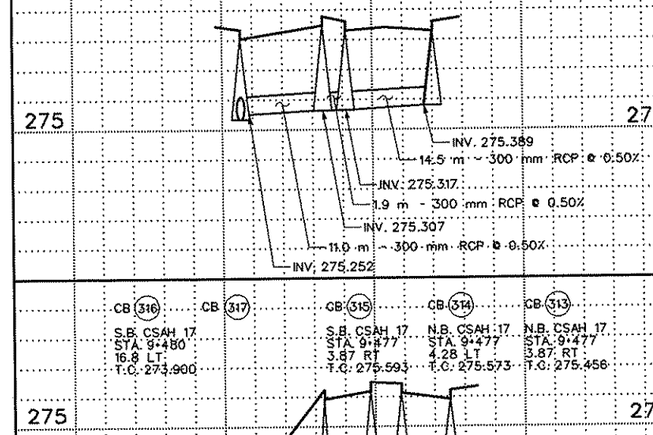

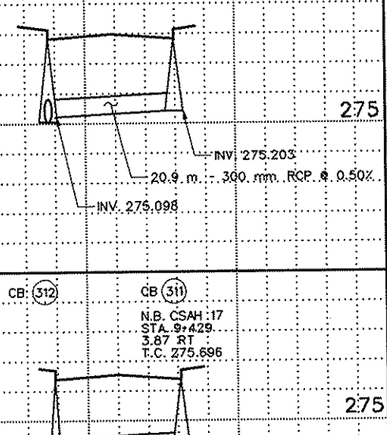

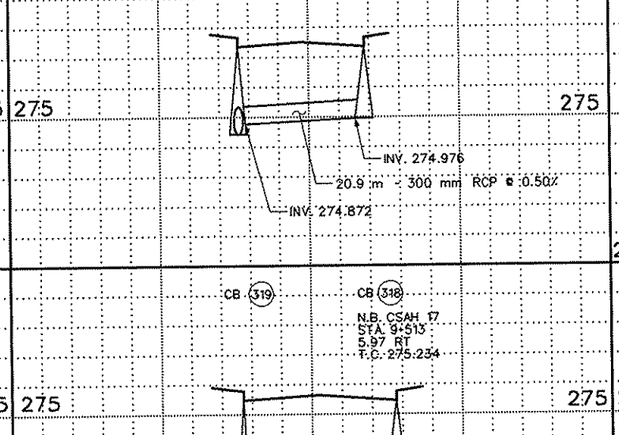

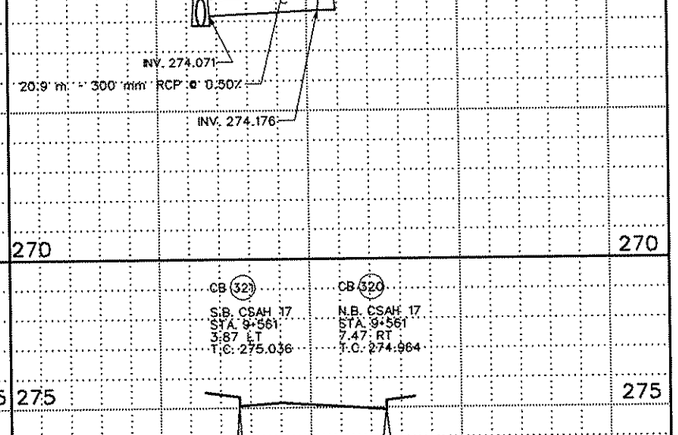

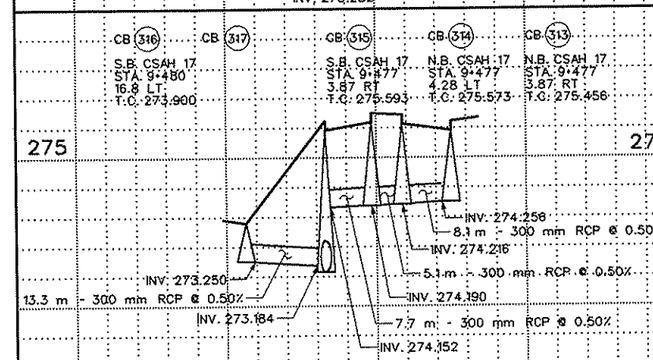

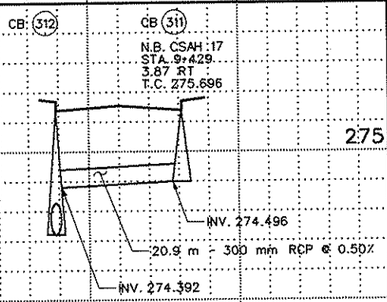

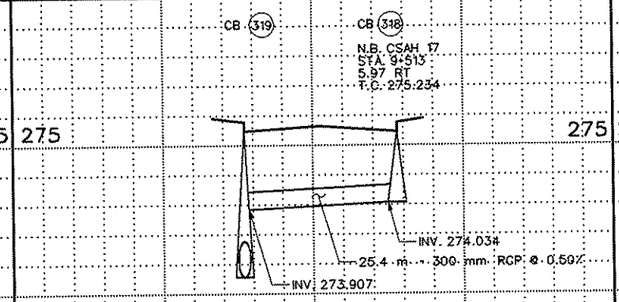

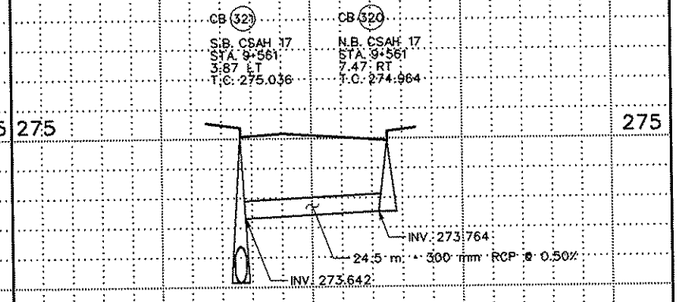

NO	DATE	BY	CKD	APPR	REVISION
1	11-16-00	VGG	BRW	MDH	C.R. 110 S.A.P. NO. REVISION

NAME: SP2 410.PLN DATE: May. 01, 2001

minnesota metric

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.

Date 5-1-2001 Reg. No. 21364

STATE AID PROJECT NO. S.A.P. 106-020-14

FED. AID PROJECT NO. S.P. 02-617-17

		DATE
DRAWN BY	L. VanDRASEK	11-96
DESIGNED BY	M. HANSEN	11-96
CHECKED BY	D. DEMERS	3-97
COMM. NO.	0962842	

SRF CONSULTING GROUP, INC.

ANOKA COUNTY

MISCELLANEOUS STORM SEWER PROFILES

C.S.A.H. 17 RECONSTRUCTION

SHEET 72 OF 183

DESIGN FILE: N:\PW\1\1008\2410\PlanNorthLKDr\SP2-410.PLN
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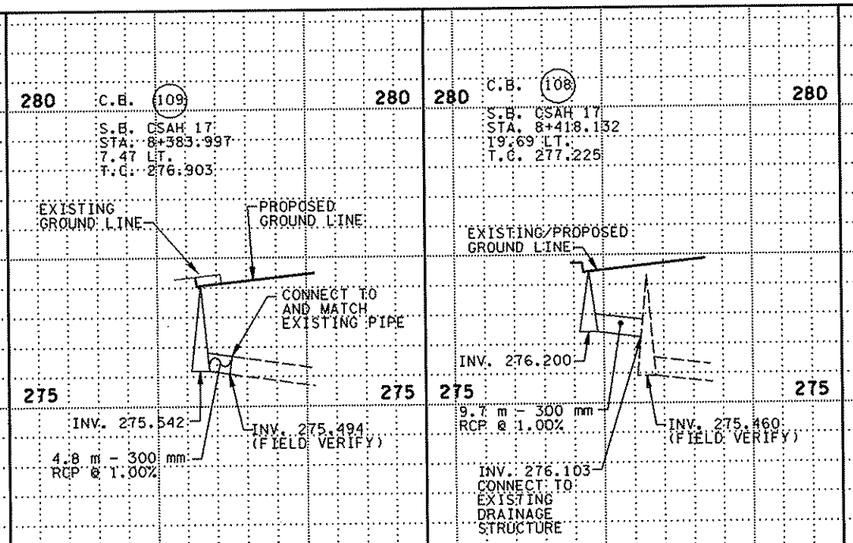

NO	DATE	BY	CKD	APPR	REVISION
1	11-16-00	VGG	BRW	MDH	C.R. 110 S.A.P. NO. REVISION

NAME: 2842.FAG DATE: May. 01, 2001

minnesota metric

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.

Date 5-1-2001 Reg. No. 21364

STATE AID PROJECT NO. S.A.P. 106-020-14

FED. AID PROJECT NO. S.P. 02-617-17

		DATE
DRAWN BY	W. ANDERSON	10-98
DESIGNED BY	M. HANSEN	10-98
CHECKED BY	B. WESTBY	1-99
COMM. NO.	0972842	

SRF CONSULTING GROUP, INC.

ANOKA COUNTY

MISC. STORM SEWER PROFILES

C.S.A.H. 17 RECONSTRUCTION

SHEET 73 OF 183

DESIGN FILE: h:\civil\047\2842\PlanNorthLkOr\2842.fog
PRF FILE: h:\civil\047\2842\PlanNor-hLkOr\2842.prf
PLOTTER: MS-HPSS.INX
PLOT SCALE: 1010.103000
PLOT DATE/TIME: 05/03/2001 09:52:02

Q

FLOWS FROM: STR. OR APRON INLET	ALIGNMENT	STATION (A)	OFF SET (A)	L / R	TOP OF CAST-ING ELEV (A)	INV ELEV FROM	PIPE SLOPE	FLOWS TO: STR. OR APRON OUTLET	NEW STRUCTURE CONSTRUCTION DESIGN	PAY HT	F & I CASTING ASMBLY	CONE	STEPS RE-QUIRED (B)	DRAINAGE PIPE RCP (DESIGN 3006) 300 mm CL II		300 mm CL III		375 mm CL II		375 mm CL III		450 mm CL II		525 mm CL II		525 mm CL III		600 mm CL II		600 mm CL III		600 mm CL IV		SOD TYPE ERO-SION	RIP RAP (C) CLASS III	FOOT NOTES
			m		m	m	m/m			m	TYPE	TYPE		m	APR	m	APR	m	APR	m	APR	m	APR	m	APR	m	APR	m	APR	m	APR	m	APR	m2	m3	
101	SB CSAH 17	8+530.000	3.87	L	276.545	275.764	0.0050	103	G	0.72	B-1					8.2																			
102	SB CSAH 17	8+489.000	3.87	L	276.668	275.887	0.0050	103	G	0.72	B-1					32.8																			
103	SB CSAH 17	8+521.140	3.87	L	276.550	275.711	0.0100	106	1500-4020	0.77	B-1									22.2															
104	NB CSAH 17	8+530.000	3.87	R	276.545	275.583	0.0050	106	G	0.90	B-1			19.0																					
105	NB CSAH 17	8+489.000	3.87	R	276.668	275.598	0.0050	106	G	1.00	B-1			22.0																					
106	NB CSAH 17	8+511.000	3.87	R	276.572	275.413		EX	1500-4020	1.09	B-1																								(E)
107	SB CSAH 17	8+436.460	11.47	L	277.200	276.320	0.0400	EX	G	0.81	B-1			1.5																					(D)
108	SB CSAH 17	8+418.132	19.69	L	277.225	276.200	0.0100	EX	G	0.96	B-1			9.7																					(R)
109	SB CSAH 17	8+383.997	7.47	L	277.030	275.596	0.0100	EX	G	1.37	B-1			4.8																					(D)
201	NB CSAH 17	9+140.000	10.00	R	276.500	275.543	0.0050	202	G	0.92	M-11			20.9																					
202	NB CSAH 17	9+120.000	3.87	R	276.691	275.438	0.0050	204	F	1.19	B-1	C		20.9																					
203	SB CSAH 17	9+120.000	10.60	L	276.500	275.567	0.0050	204	G	0.90	M-11			6.7																					
204	SB CSAH 17	9+120.000	3.87	L	276.691	275.333	0.0040	208	F	1.29	B-1	C		49.0																					
205	NB CSAH 17	9+071.000	3.87	R	276.446	275.242	0.0050	206	G	1.14	B-1			7.7																					
206	NB CSAH 17	9+071.000	3.87	L	276.583	275.203	0.0050	207	F	1.32	B-1	C		1.9																					
207	SB CSAH 17	9+071.000	7.47	R	276.499	275.194	0.0050	208	F	1.24	B-1	C		11.3																					
208	SB CSAH 17	9+071.000	3.87	L	276.446	275.062	0.0040	212	F	1.32	B-1	C						76.0																	
209	NB CSAH 17	8+998.000	3.87	R	276.081	274.941	0.0050	210	G	1.08	B-1			8.0																					
210	NB CSAH 17	8+998.000	4.12	L	276.213	274.901	0.0050	211	F	1.25	B-1	C		5.2																					
211	SB CSAH 17	8+998.000	3.87	R	276.218	274.875	0.0050	212	F	1.28	B-1	C		8.3																					
212	SB CSAH 17	8+995.000	3.87	L	276.066	274.608	0.0030	218	1500-4020	1.39	B-1													65.0											
213	NB CSAH 17	8+930.000	3.87	R	275.791	274.668	0.0050	214	G	1.06	B-1							11.3																	
214	NB CSAH 17	8+930.000	7.46	L	275.844	274.612	0.0050	215	F	1.17	B-1	C						1.9																	
215	SB CSAH 17	8+930.000	3.87	R	275.928	274.602	0.0050	218	F	1.26	B-1	C						7.7																	
216	NB CSAH 17	8+880.000	3.87	R	276.104	274.954	0.0050	217	G	1.08	B-1			19.7																					
217	SB CSAH 17	8+880.000	3.87	L	276.104	274.775	0.0040	218	F	1.26	B-1	C						50.0																	
218	SB CSAH 17	8+930.000	3.87	L	275.791	272.817	0.0030	219	1500-4020	2.91	B-1		Y																			20.6			(F)
219	SB CSAH 17	8+923.600	25.40	L		272.750		POND A	APRON																						1			6.3	
220	SB CSAH 17	8+558.000	13.80	L	277.330	275.854	0.0200	222	G	1.50	A-7D							8.4																	(E)
221	NB CSAH 17	8+558.000	3.87	R	276.602	275.770	0.0040	222	G	0.77	B-1			20.9																					
222	SB CSAH 17	8+558.000	3.87	L	276.602	275.611	0.0040	224	1200-4020	0.93	B-1												42.0												
223	NB CSAH 17	8+600.000	3.87	R	276.866	275.716	0.0050	224	G	1.08	B-1			20.9																					
224	SB CSAH 17	8+600.000	3.87	L	276.866	275.368	0.0040	226	1350-4020	1.43	B-1													42.0											
225	NB CSAH 17	8+642.000	3.87	R	277.160	276.010	0.0050	226	G	1.09	B-1			20.9																					
226	SB CSAH 17	8+642.000	3.87	L	277.160	275.200	0.0040	228	1350-4020	1.90	B-1		Y											42.0											
227	NB CSAH 17	8+684.000	3.87	R	277.454	276.304	0.0050	228	G	1.09	B-1			20.9																					
228	SB CSAH 17	8+684.000	3.87	L	277.454	274.957	0.0040	229	1350-4020	2.43	B-1		Y																			125.8			
229	SB CSAH 17	8+809.800	3.87	L	277.324	272.992	0.0040	231	F	4.27	B-1	B	Y																			19.6			
230	EDGEWOOD	3+058.400	4.25	R	277.102	275.907	0.0090	231	G	1.13	B-1			11.2																					
231	SB CSAH 17	8+829.374	4.20	L	277.023	272.914	0.0040	232	F	3.91	A-7D	B	Y																			39.3			(Q)
232	SB CSAH 17	8+861.000	30.50	L		272.750		POND A	APRON																						1			6.3	
233	SB CSAH 17	8+882.350	25.15	L		273.500	0.0053	234	APRON									7.6	1														7		(F) (G)
234	SB CSAH 17	8+881.900	15.65	L	275.527	274.300	0.0020	235	SPECIAL 1																									1.5	(L) (Q)
235	NB CSAH 17	8+857.560	18.24	R				DITCH	APRON																						1			6.3	

NO	DATE	BY	CKD	APPR	REVISION
1	11-16-00	VGG	BRW	MDH	C.R. 110 S.A.P. NO. REVISION
2	2-05-01	ELB	BRW	MDH	REVISED CB 203 ELEVATIONS PER ANOKA COUNTY COMMENTS

NAME: 2842.DTA DATE: May. 01, 2001

minnesota metric

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.
Date 5-1-2001 Reg. No. 21364

STATE AID PROJECT NO. S.A.P. 106-020-14

FED. AID PROJECT NO. S.P. 02-617-17

DRAWN BY	DATE
V. GRAF	1-99
DESIGNED BY	
B. WESTBY	1-99
CHECKED BY	
M. HANSEN	1-99
COMM. NO.	
0972842	

SRF CONSULTING GROUP, INC.

ANOKA COUNTY
DRAINAGE TABULATION
C.S.A.H. 17 RECONSTRUCTION

SHEET 80 OF 183

DESIGN FILE: h:\c\vl\047\2842\PlanNorthLkDr\2842.dtg
REF FILE: L:\c\vl\047\2842\PlanNorthLkDr\2842.prf
PLOTTER: MS-HP55.IMX
PLOT SCALE: 101.010000
PLOT DATE/TIME: 05/02/2001 15:41:50

Q

FLOWS FROM: STR. OR APRON INLET	ALIGNMENT	STATION (A)	OFF SET (A)	L / R	TOP OF CAST-ING ELEV (A)	INV ELEV FROM	PIPE SLOPE	FLOWS TO: STR. OR APRON OUTLET	NEW STRUCTURE CONSTRUCTION DESIGN	PAY HT	F & I CASTING ASMBLY	CONE	STEPS RE-QUIRED (B)	DRAINAGE PIPE RCP (DESIGN 3006) 300 mm CL II		300 mm CL III		375 mm CL II		375 mm CL III		450 mm CL II		525 mm CL II		525 mm CL III		600 mm CL II		600 mm CL III		600 mm CL IV		SOD TYPE ERO-SION	RIP RAP (C) CLASS III	FOOT NOTES
			m		m	m	m/m			m	TYPE	TYPE		m	APR	m	APR	m	APR	m	APR	m	APR	m	APR	m	APR	m	APR	m	APR	m	APR	m2	m3	
301	NB CSAH 17	9+239.000	3.87	R	276.646	275.389	0.0050	302	G	1.19	B-1			14.5																					
302	NB CSAH 17	9+248.000	7.47	L	276.654	275.317	0.0050	303	F	1.27	B-1	C		1.9																					
303	SB CSAH 17	9+248.000	3.87	L	276.738	275.307	0.0050	304	F	1.37	B-1	C		11.0																					
304	SB CSAH 17	9+254.500	4.94	L	276.548	275.176	0.0050	306	F	1.31	B-1	C						30.5																	
305	NB CSAH 17	9+285.000	3.87	R	276.416	275.203	0.0050	306	G	1.15	B-1			20.9																					
306	SB CSAH 17	9+285.000	3.87	L	276.416	275.023	0.0050	308	F	1.33	B-1	C						48.0																	
307	NB CSAH 17	9+333.000	3.87	R	276.176	274.976	0.0050	308	G	1.13	B-1			20.9																					
308	SB CSAH 17	9+333.000	3.87	L	276.176	274.708	0.0050	310	F	1.40	B-1	C										48.0													
309	NB CSAH 17	9+381.000	3.87	R	275.936	274.176	0.0050	310	F	1.69	B-1	C		20.9																					
310	SB CSAH 17	9+381.000	3.87	L	275.936	273.921	0.0050	312	F	1.95	B-1	C	Y									48.0													
311	NB CSAH 17	9+429.000	3.87	R	275.696	274.496	0.0050	312	G	1.14	B-1			20.9																					
312	NB CSAH 17	9+429.000	3.87	L	275.696	273.606	0.0050	317	F	2.03	B-1	C	Y											48.0											
313	NB CSAH 17	9+477.000	3.87	R	275.456	274.256	0.0050	314	G	1.14	B-1			8.1																					
314	NB CSAH 17	9+477.000	4.28	L	275.573	274.216	0.0050	315	F	1.29	B-1	C		5.1																					
315	SB CSAH 17	9+477.000	3.87	R	275.593	274.190	0.0050	317	F	1.34	B-1	C		7.7																					
316	SB CSAH 17	9+480.000	16.80	L	273.900	273.250	0.0050	317	G	0.61	M-11			13.3																					
317	SB CSAH 17	9+477.000	3.87	L	275.456	273.071	0.0050	319	1500-4020	2.32	B-1		Y													44.1									
318	NB CSAH 17	9+513.000	5.97	R	275.234	274.034	0.0050	319	G	1.13	B-1			25.4																					
319	SB CSAH 17	9+521.000	4.91	L	275.236	272.776	0.0050	EX	F	2.39	B-1	B	Y																	30.4					(D)
STORM SEWER PIPE TOTALS														482.0		41.0		241.4	1	22.2		138.0		197.0		44.1		49.2	3	51.0		184.7		7	20.4	

NOTES:

(A) STATIONS, OFFSETS, AND TOP OF CASTING ELEVATIONS ARE GIVEN TO CENTER OF CASTING. CENTER OF CATCH BASIN CASTING IS 0.33 m FROM FACE OF CURB. DESIGN 4020 STRUCTURES FURNISHED WITH TWO STATIONS AND OFFSETS; THE FIRST IDENTIFIES CASTING LOCATION, THE SECOND IDENTIFIES BASE LOCATION. SUMP DEPTH IS 25 mm ON OUTSIDE CURB AND 50 mm ON MEDIAN CURB. PIPE APRON LOCATIONS ARE GIVEN AT TOE OF APRON.
(B) FURNISHING AND INSTALLING STEPS CONSIDERED INCIDENTAL.
(C) GRANULAR FILTER BLANKET OR GEOTEXTILE MATERIAL REQUIRED CONSIDERED INCIDENTAL.
(D) CONNECT TO EXISTING PIPE AND MATCH ELEVATIONS. VERIFY EXISTING PIPE ELEVATION IN THE FIELD. CONNECTION TO EXISTING PIPE CONSIDERED INCIDENTAL.
(E) CONSTRUCT OVER EXISTING PIPE. VERIFY EXISTING PIPE ELEVATION IN THE FIELD. CONNECTION TO EXISTING PIPE CONSIDERED INCIDENTAL.
(F) TIE LAST THREE JOINTS AT APRON END. FURNISHING AND INSTALLING PIPE TIES CONSIDERED INCIDENTAL.
(G) FURNISH AND INSTALL TRASH GUARD.
(L) OUTLET CONTROL STRUCTURE DESIGN SPECIAL. SEE DETAILS.
(Q) TIE ALL JOINTS. FURNISHING AND INSTALLING PIPE TIES CONSIDERED INCIDENTAL.
(R) CONNECT TO EXISTING DRAINAGE STRUCTURE. VERIFY EXISTING INVERT ELEVATION IN THE FIELD. CONNECTION TO EXISTING STRUCTURE CONSIDERED INCIDENTAL.

P **CASTING ASSEMBLIES SUMMARY**

ASSEMBLY	RING OR FRAME CASTING	COVER OR GRATE CASTING	CURB BOX	STANDARD PLATE NO.	QUANTITY	NOTES / REMARKS
A-7D	700-7	715		M4101 M4110	3	MANHOLE (AA)
B-1	801	810	821B	M4126 M4149 M4161	53	CATCH BASIN
M-11	Round Conc.	731		M4143 M4143	3	CATCH BASIN
PROJECT TOTALS:					59	

NOTES: (AA) INCLUDES ONE CASTING FOR CONVERSION OF EXISTING CB TO MANHOLE AT LOVELL ROAD.

NO	DATE	BY	CKD	APPR	REVISION
1.	11-16-00	VGG	BRW	MDH	C.R. 110 S.A.P. NO. REVISION
2	11-16-00	VGG	BRW	MDH	REVISED PIPE SIZE 717 - 718
3	2-05-01	ELB	BRW	MDH	ADDED CB's 744 & 745 PER ANOKA COUNTY COMMENTS
4	3-23-01	SJP	BRW	MDH	REMOVE CB'S 340 & 341 AND PIPE BETWEEN

NAME: 2842.DTB DATE: May. 01, 2001

minnesota metric

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.
Date 5-1-2001 Reg. No. 21364

STATE AID PROJECT NO. S.A.P. 106-020-14
FED. AID PROJECT NO. S.P. 02-617-17

DRAWN BY V. GRAF DATE 1-99
DESIGNED BY B. WESTBY 1-99
CHECKED BY M. HANSEN 1-99
COMM. NO. 0972842

SRF CONSULTING GROUP, INC.

ANOKA COUNTY
DRAINAGE TABULATION
C.S.A.H. 17 RECONSTRUCTION

SHEET 81 OF 183

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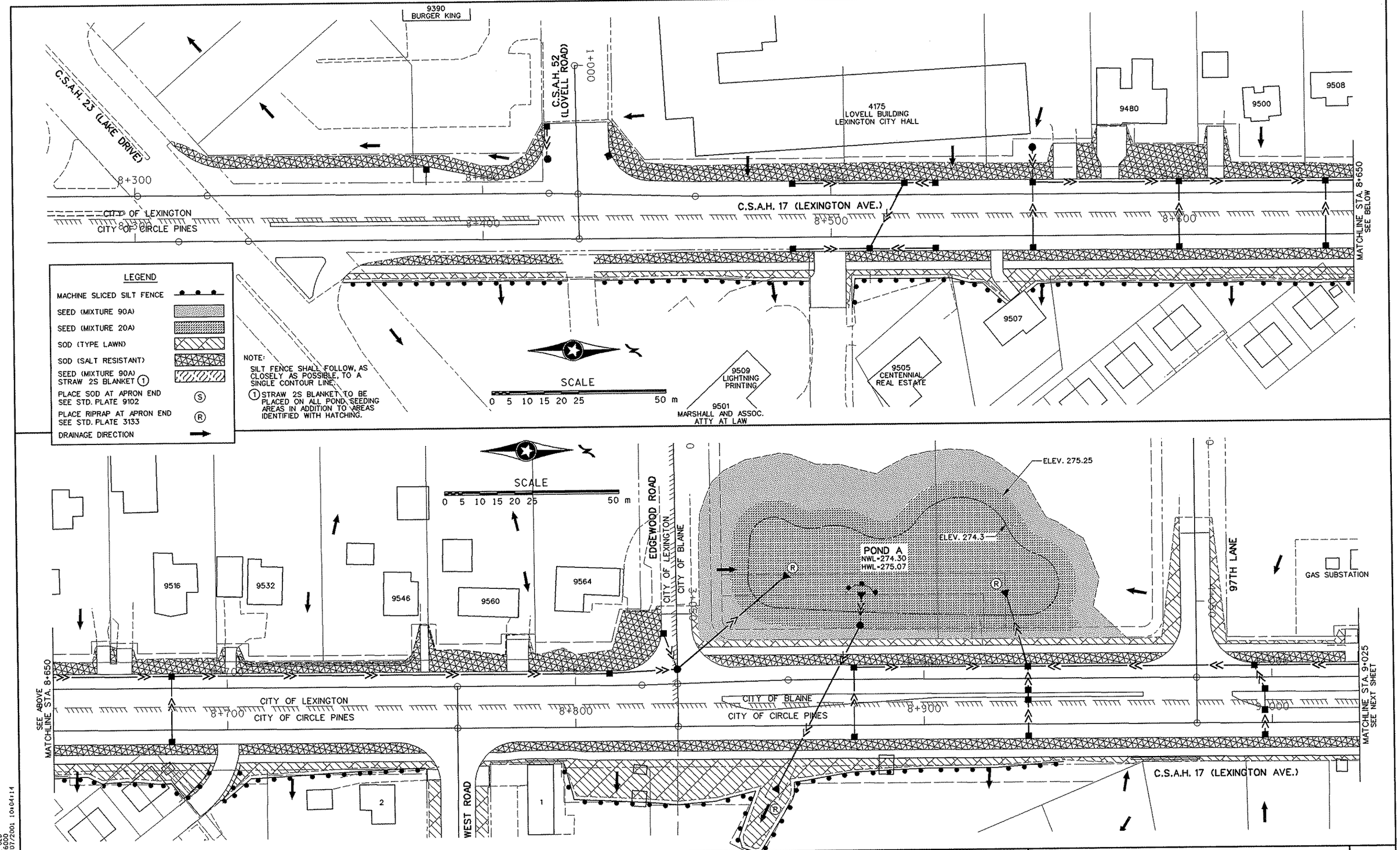

NO	DATE	BY	CKD	APPR	REVISION
1	7-31-00	VGG	BRW	MDH	REVISED PER FEDERAL AID STANDARDS
2	11-16-00	VGG	BRW	MDH	C.R. 110 S.A.P. NO. REVISION
3	2-05-01	ELB	BRW	MDH	ADDED POND STRAW BLANKET NOTE

NAME: TE1 410.PLN DATE: May. 07, 2001

minnesota metric

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.

Date 5-1-2001 Reg. No. 21364

STATE AID PROJECT NO. S.A.P. 106-020-14

FED. AID PROJECT NO. S.P. 02-617-17

DRAWN BY M. IISAKKA DATE 12-96
DESIGNED BY B. URBANEK 12-96
CHECKED BY D. DEMERS 1-97
COMM. NO. 0962842

SRF CONSULTING GROUP, INC.

ANOKA COUNTY
TURF ESTABLISHMENT/ EROSION CONTROL PLAN
C.S.A.H. 17 RECONSTRUCTION
STA. 8+307 TO STA. 9+025

SHEET 88 OF 183

DESIGN FILE: N:\civil\008\2410\PlanNorth\Str\TE1-410.PLN
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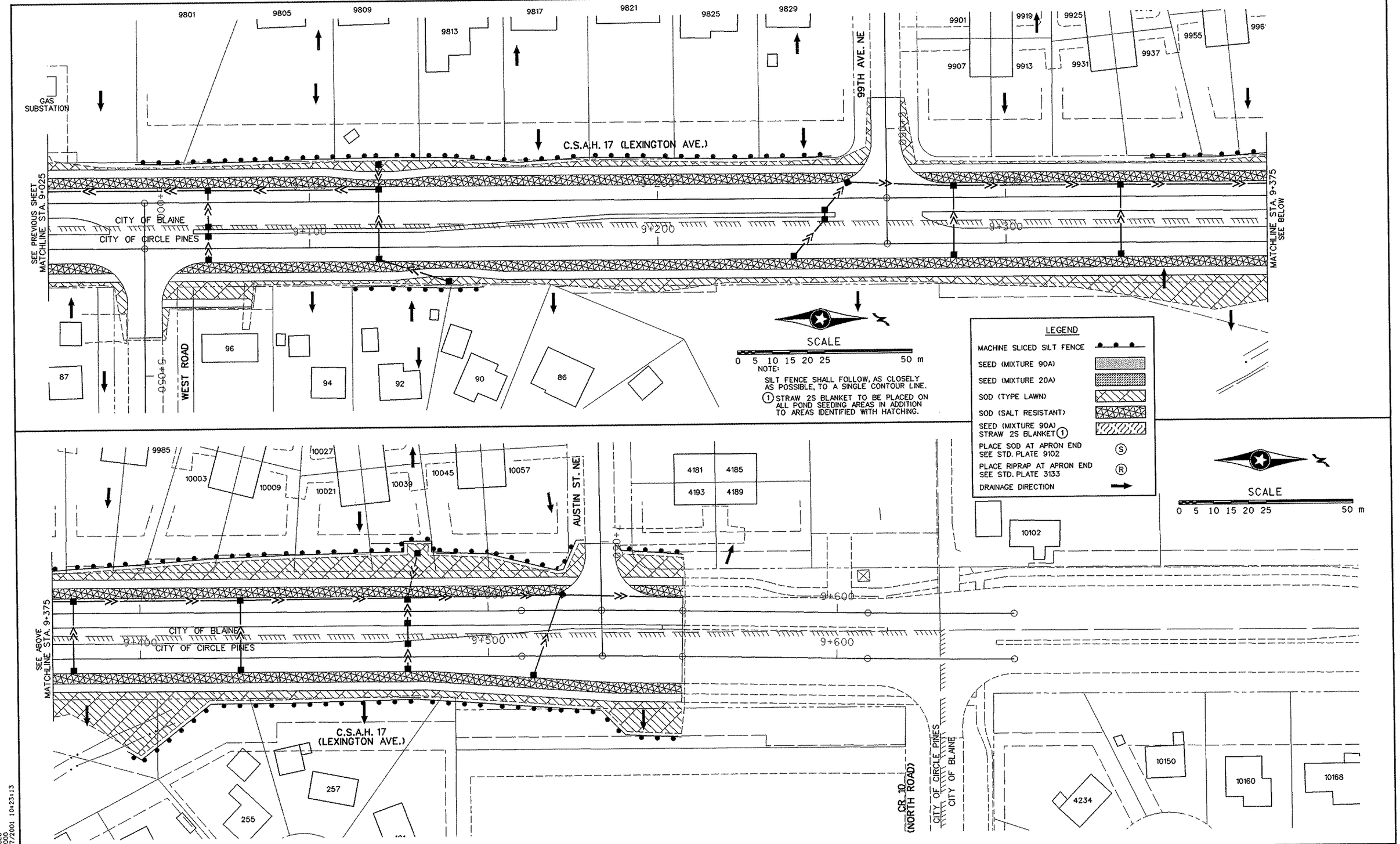

NO	DATE	BY	CKD	APPR	REVISION
1	7-31-00	VGG	BRW	MDH	REVISED PER FEDERAL AID STANDARDS
2	11-16-00	VGG	BRW	MDH	C.R. 110 S.A.P. NO. REVISION
3	2-05-01	ELB	BRW	MDH	ADDED POND STRAW BLANKET NOTE

NAME: TE2 410.PLN DATE: May. 01, 2001

minnesota metric

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.
Date 5-1-2001 Reg. No. 21364

STATE AID PROJECT NO. S.A.P. 106-020-14
FED. AID PROJECT NO. S.P. 02-617-17

DRAWN BY M. IISAKKA DATE 12-96
DESIGNED BY B. URBANEK 12-96
CHECKED BY D. DEMERS 1-97
COMM. NO. 0962842

SRF CONSULTING GROUP, INC.

ANOKA COUNTY
TURF ESTABLISHMENT/ EROSION CONTROL PLAN
C.S.A.H. 17 RECONSTRUCTION
STA. 9+025 TO STA. 9+555.9

SHEET 89 OF 183

DESIGN FILE: h:\civil\008\2410\PlanNorth\RDR\TE2-410.PLN
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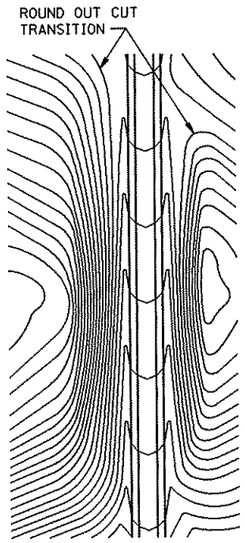
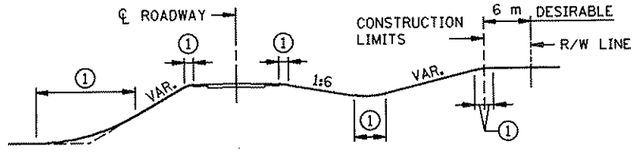
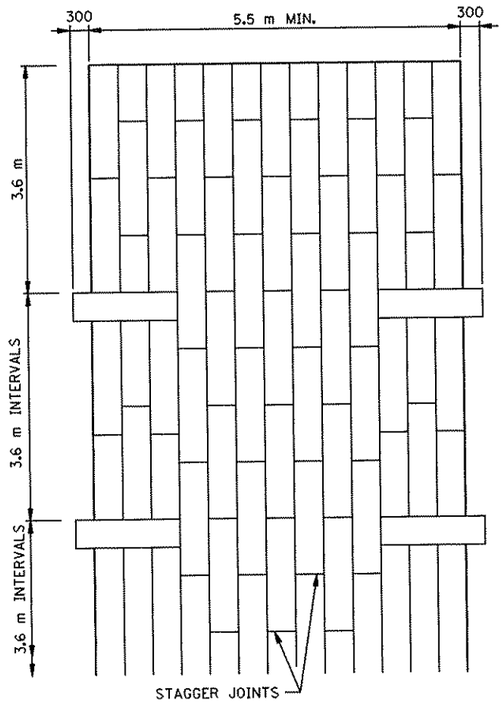


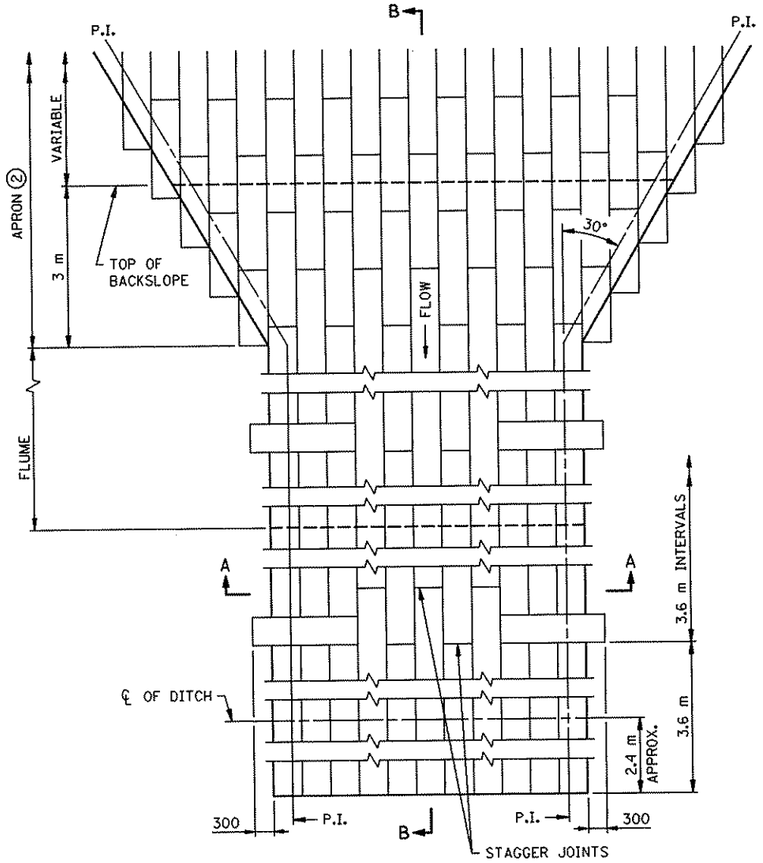
CONTOURING ROAD CUTS



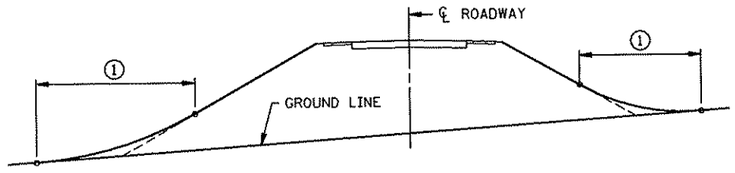
ROUNDING SHOULDERS AND BACKSLOPES



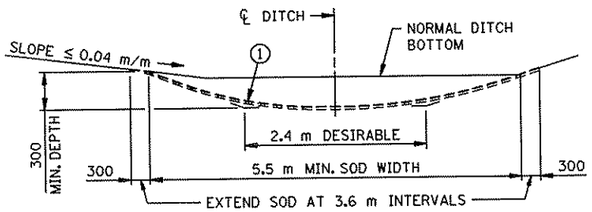
PLAN VIEW



PLAN VIEW

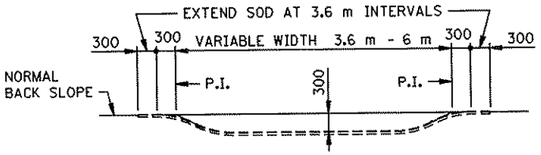


SHAPING FOR DRAINAGE ALONG THE TOE OF FILL SLOPES

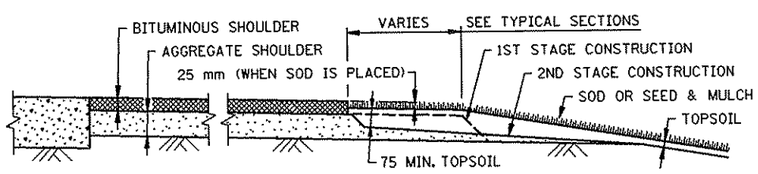


SODDED DITCH CROSS SECTION

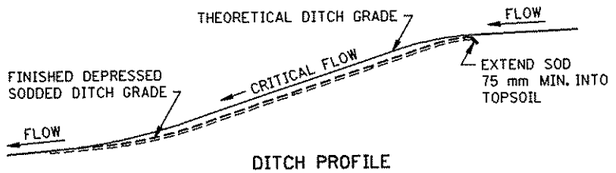
WHERE FRONT OR BACK SLOPE IS FLAT (LESS THAN 0.04 m/m), FIRST NOTCH DITCH AND THAN PROVIDE ROUNDING.



SECTION A-A

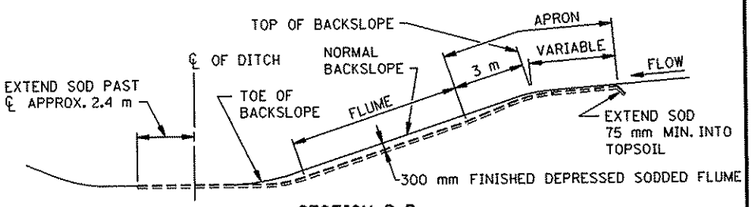


SHAPING AND TOPSOILING INSLOPES



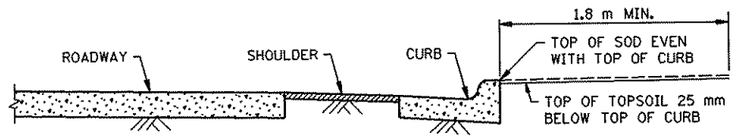
DITCH PROFILE

SODDED DITCH DETAILS



SECTION B-B

SODDED FLUME DETAILS



SHAPING ADJACENT TO CURBS WHEN SOD IS PLACED

NOTE: ALL DIMENSIONS ARE IN MILLIMETERS, EXCEPT AS NOTED.

NOTES:

SEE SPEC. 2575.3 FOR ADDITIONAL INFORMATION.

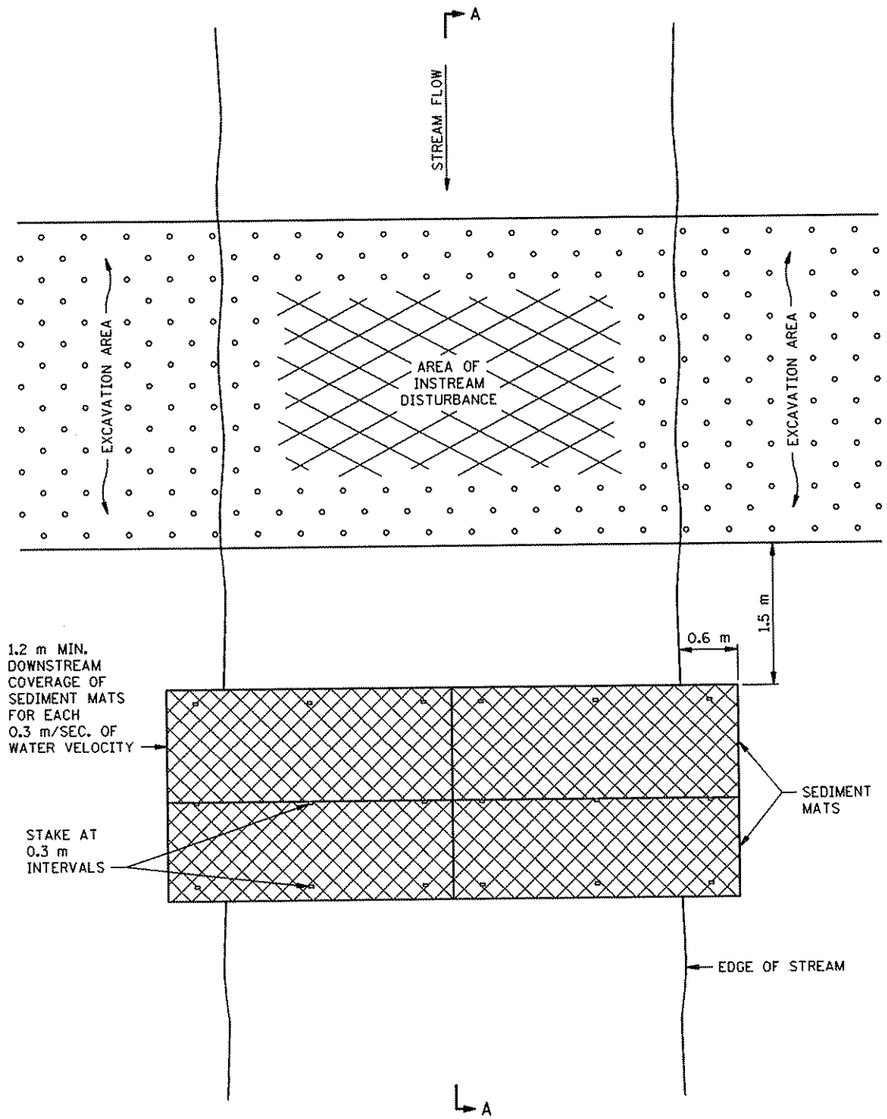
① FOR ROUNDING, SEE ROAD DESIGN MANUAL.

② CONSTRUCT TAPER AS DIRECTED BY THE ENGINEER.

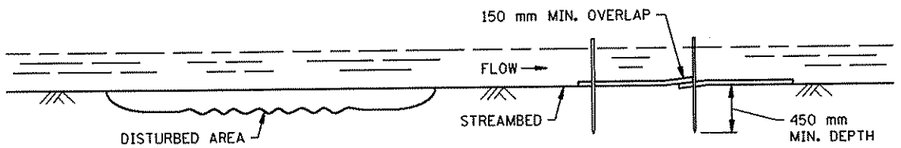
3-6-95

STANDARD SHEET NO. 5-297.404M	TITLE: PERMANENT EROSION CONTROL ALONG ROADWAYS, DITCHES AND FLUMES
STANDARD APPROVED: DECEMBER 19, 1990	
S.P. 02-617-17, et al.	SHEET NO. 91 OF 183 SHEETS

NAME: ECP1 410.PLN DATE: May. 02, 2001



PLAN VIEW

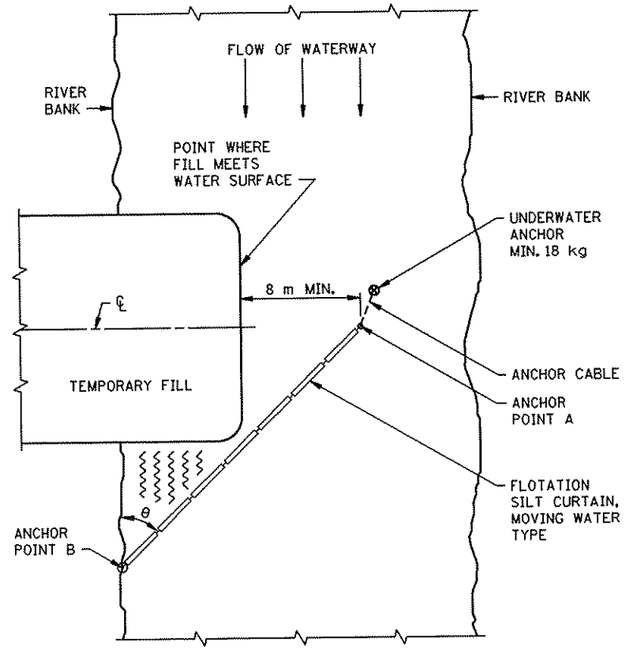


SECTION A-A

SEDIMENT MAT

TYPICAL STREAMBED INSTALLATION

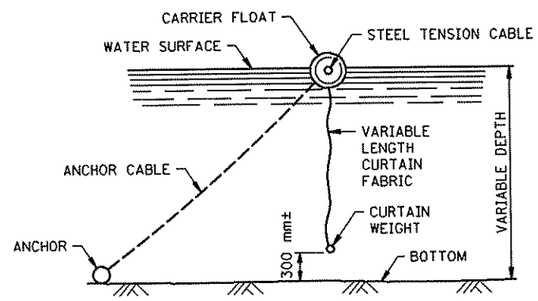
DESIGN CRITERIA:
MAXIMUM FLOW VELOCITY: 1.5 m/SEC.
MAXIMUM FLOW DEPTH: 0.6 m



∠ θ	RIVER VELOCITY
45°	SLOW, LESS THAN 1.5 m/SEC.
35°	MODERATE, 1.5 m - 2 m/SEC.

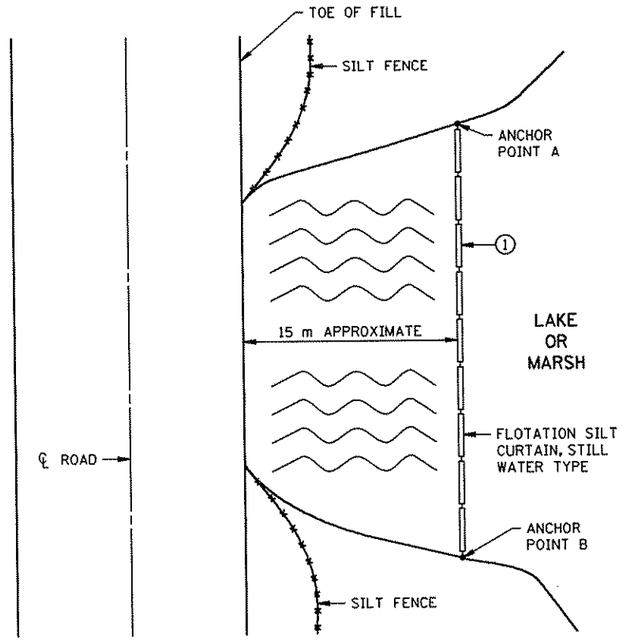
PLAN VIEW OF SILT CURTAIN - MOVING WATER

DESIGN CRITERIA:
MAXIMUM WATER DEPTH: 3.6 m
MAXIMUM WATER VELOCITY: 2.1 m/SEC.



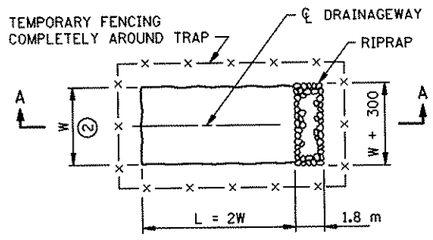
FLOTATION SILT CURTAIN DETAIL

(SEE SPEC. 3887)

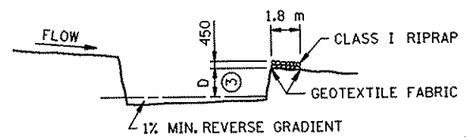


PLAN VIEW OF SILT CURTAIN - STILL WATER

DESIGN CRITERIA:
MAXIMUM WATER DEPTH: 3.6 m



PLAN



SECTION A-A

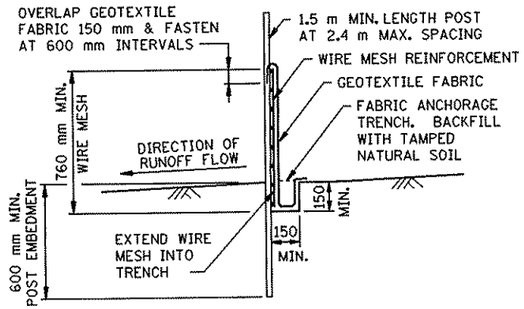
TEMPORARY SEDIMENT TRAP DETAIL

NOTES:
1. CURTAIN 300 mm FROM BOTTOM
2. W = 3 m MIN., 6 m MAX.
3. D = 1 m MIN., 1.8 m MAX.

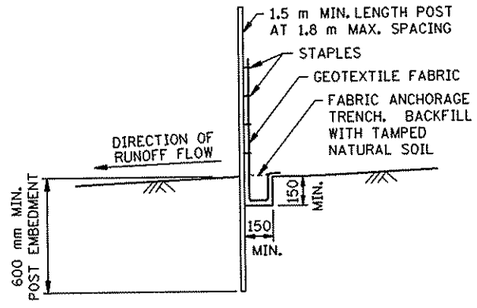
NOTE: ALL DIMENSIONS ARE IN MILLIMETERS, EXCEPT AS NOTED.

STANDARD SHEET NO.	TITLE:
5-297.405M (1 OF 3)	TEMPORARY EROSION CONTROL
STANDARD APPROVED: MAY 1, 1995	
S.P. 02-617-17, et al.	SHEET NO. 92 OF 183 SHEETS

NAME: ECT1 410.PLN DATE: May. 02, 2001



HEAVY DUTY

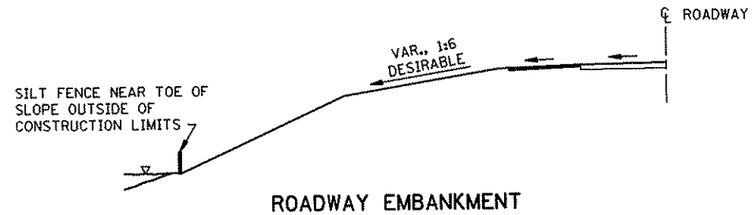


SELF SUPPORTING

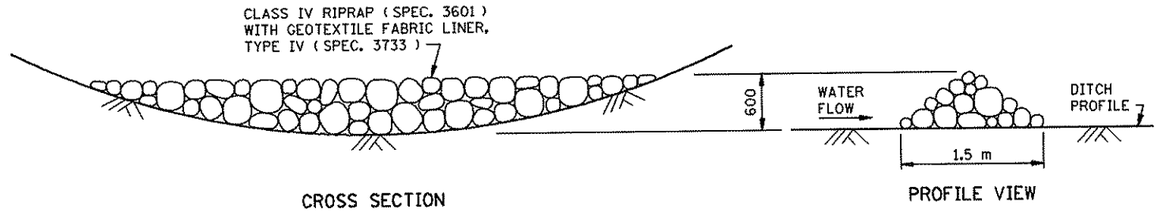
SILT FENCE DETAILS

TO PROTECT AREAS FROM SHEET FLOW
(SEE SPEC. 3886)

DESIGN CRITERIA:
MAXIMUM CONTRIBUTING AREA: 1.2 ha



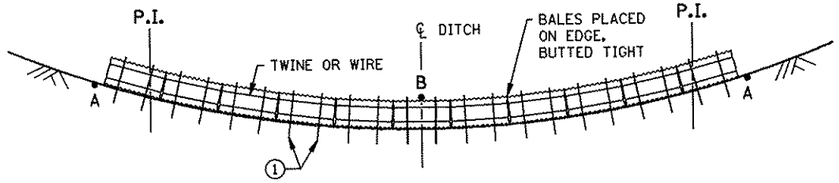
ROADWAY EMBANKMENT



CROSS SECTION

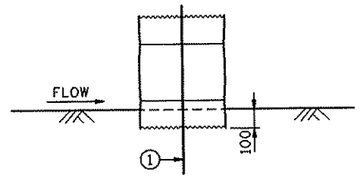
PROFILE VIEW

ROCK DITCH CHECK

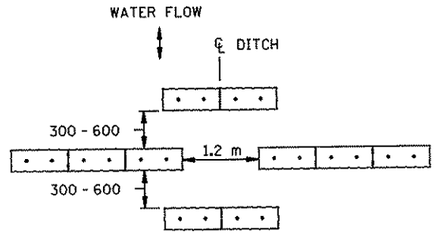


NOTE:
POINT A MUST BE HIGHER THAN POINT B

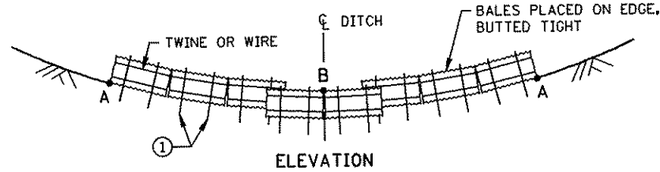
BALE DITCH SEDIMENT CHECK



BALE CHECK DETAIL



PLAN VIEW



ELEVATION

NOTE:
POINT A MUST BE HIGHER THAN POINT B

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

RECOMMENDED SPACING BETWEEN DITCH CHECKS	
DITCH GRADE (%)	SPACING (m)
2	30
4	23
6	15
8	12
10	8

DESIGN CRITERIA:

	BALE	ROCK
STORM FREQUENCY:	2 YR. - 24 HR.	10 YR. - 24 HR.
MAX. FLOW VELOCITY:	1.5 m/SEC.	3.6 m/SEC.
MAX. DITCH GRADE:	5%	—
MAX. DRAINAGE AREA:	0.8 ha	2.0 ha

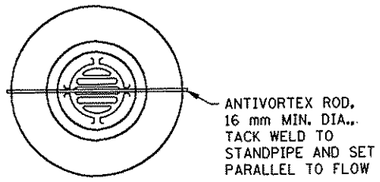
NOTE:
① TWO 50 mm X 50 mm WOOD STAKES OR REINFORCING BARS IN EACH BALE AND EMBEDDED IN THE GROUND 250 mm MINIMUM.

NOTE: ALL DIMENSIONS ARE IN MILLIMETERS, EXCEPT AS NOTED.

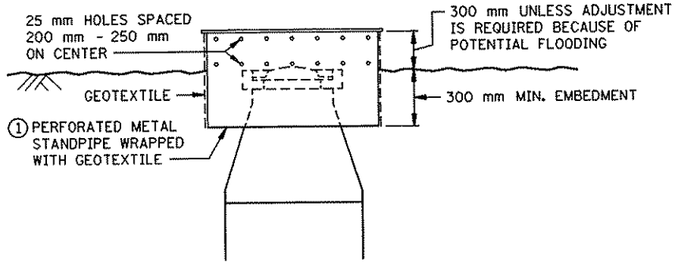
STANDARD SHEET NO.	TITLE:
5-297.405M (2 OF 3)	TEMPORARY EROSION CONTROL
STANDARD APPROVED: MAY 1, 1995	

S.P. 02-617-17, et al. SHEET NO. 93 OF 183 SHEETS

SERVER CA64S1:/USR/STANDARDS FILE NAME SM4052E95.SPN
NAME: ECT2 410.PLN DATE: May. 02, 2001



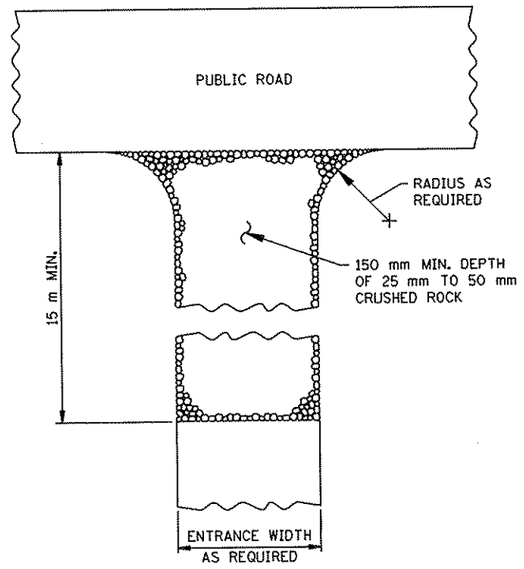
PLAN VIEW



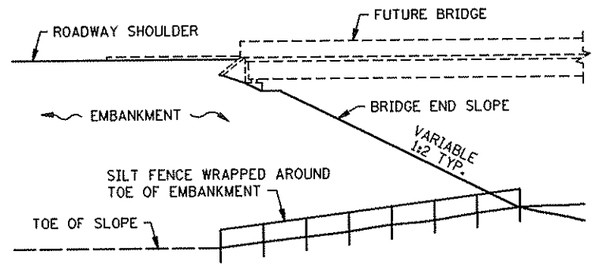
ELEVATION

TEMPORARY STANDPIPE
TO PROTECT DROP INLET

DESIGN CRITERIA:
STORM FREQUENCY: 10 YEAR. - 24 HOUR.

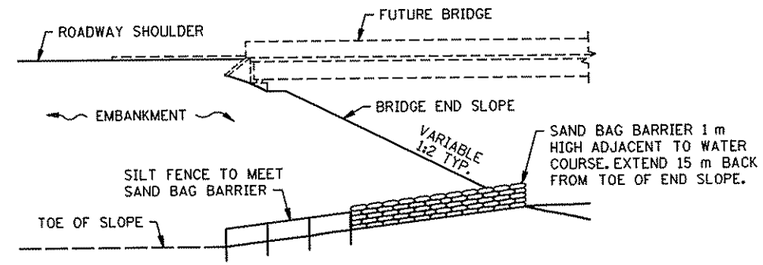


ROCK CONSTRUCTION ENTRANCE



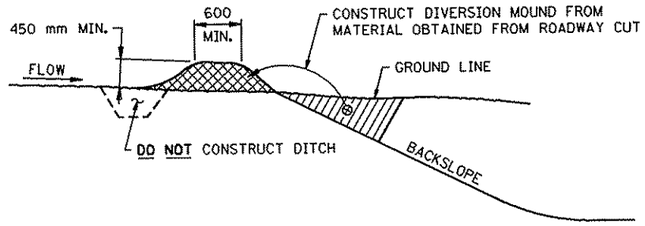
BRIDGE FILL

DESIGN CRITERIA:
WATER COURSE FLOW VELOCITY: STAGNANT
CONTRIBUTING SLOPE AREA: 0.2 ha



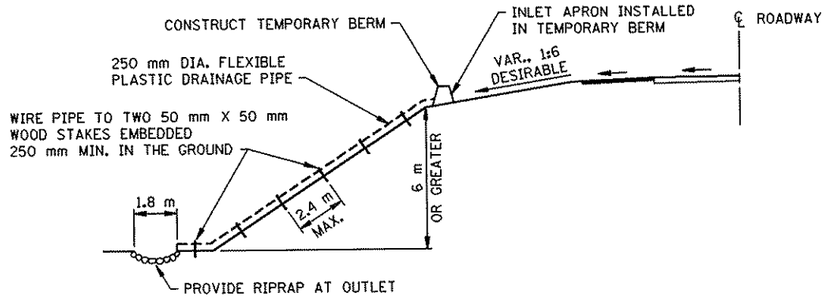
BRIDGE FILL

DESIGN CRITERIA:
MAX. WATER COURSE FLOW VELOCITY: 2 m/SEC.
CONTRIBUTING SLOPE AREA: 0.4 ha



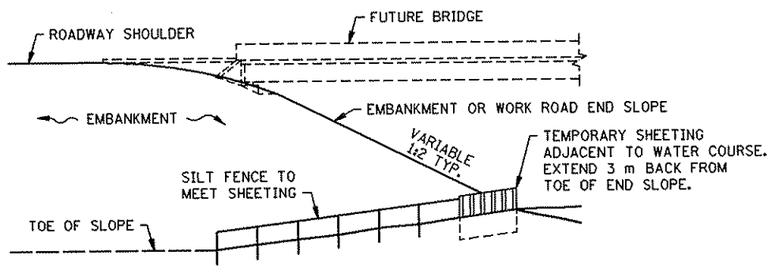
DIVERSION MOUND

DESIGN CRITERIA:
STORM FREQUENCY: 10 YEAR - 24 HOUR
MAXIMUM DRAINAGE AREA: 2 ha
MAXIMUM DIVERSION: GRADE 5%



TEMPORARY DRAIN ON FILL SLOPE

DESIGN CRITERIA:
STORM FREQUENCY: 2 YEAR - 24 HOUR
MAXIMUM DRAINAGE AREA: 1.2 ha



EMBANKMENT OR WORK ROAD FILL

DESIGN CRITERIA:
MAX. WATER COURSE FLOW VELOCITY: 4.5 m/SEC.
CONTRIBUTING SLOPE AREA: 1.2 ha

NOTE: (1) PLASTIC STANDPIPE ACCEPTABLE.

NOTE: ALL DIMENSIONS ARE IN MILLIMETERS, EXCEPT AS NOTED.

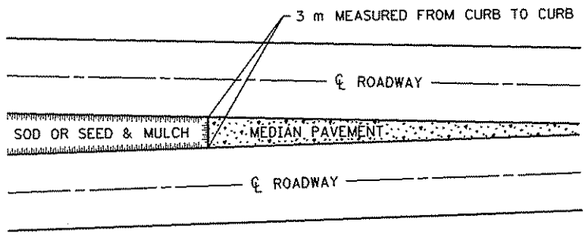
I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.
Date 5-1-2001 Reg. No. 21364

STANDARD SHEET NO. 5-297.405M (3 OF 3)
STANDARD APPROVED: MAY 1, 1995

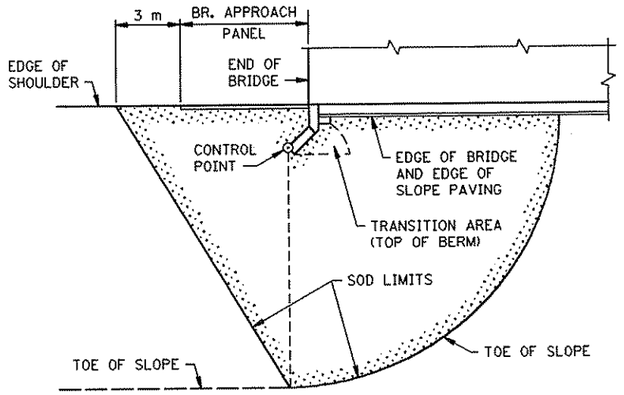
TITLE: TEMPORARY EROSION CONTROL

S.P. 02-617-17, et al.

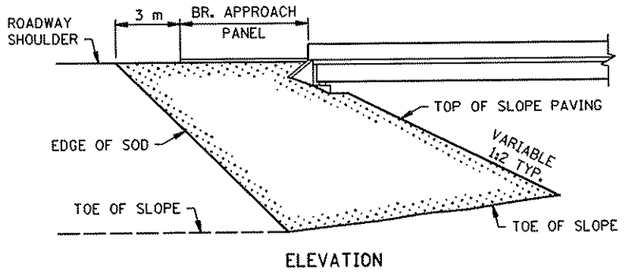
NAME: ECT3 410.PLN DATE: May. 02, 2001



SODDING LIMITS AT GORE AREA

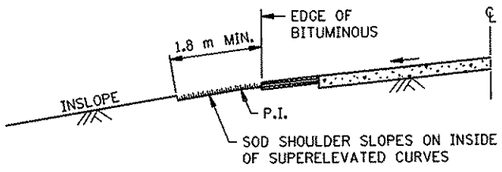


PLAN

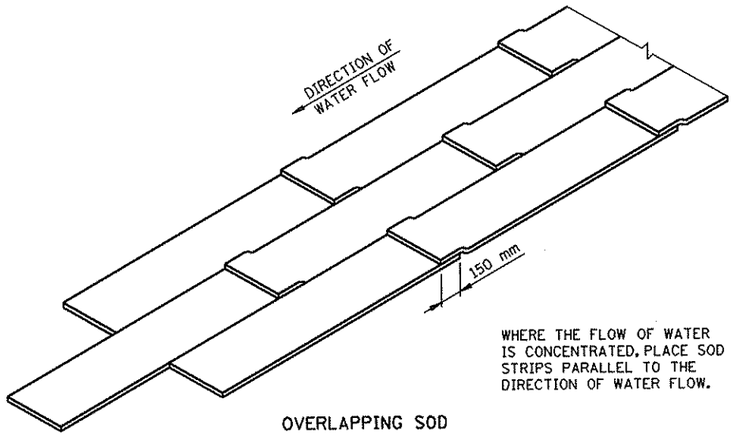


ELEVATION

SODDING LIMITS AT BRIDGE APPROACH FILLS

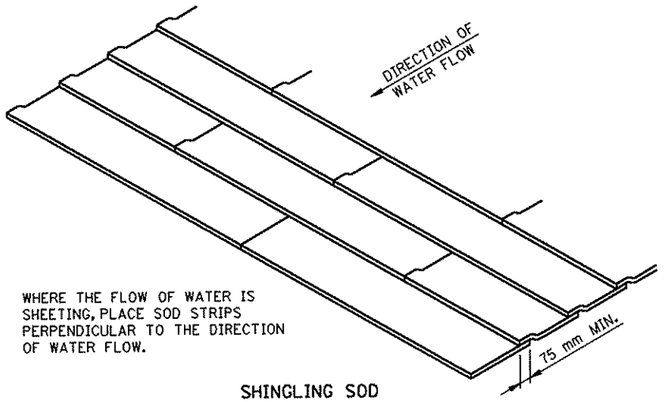


SODDING INSLOPES OF SUPERELEVATED CURVES



OVERLAPPING SOD

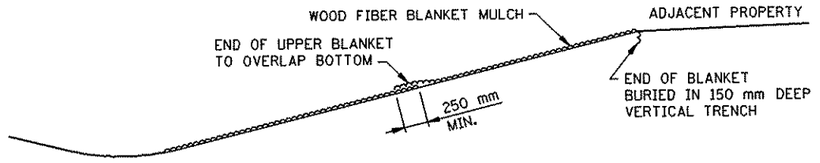
WHERE THE FLOW OF WATER IS CONCENTRATED, PLACE SOD STRIPS PARALLEL TO THE DIRECTION OF WATER FLOW.



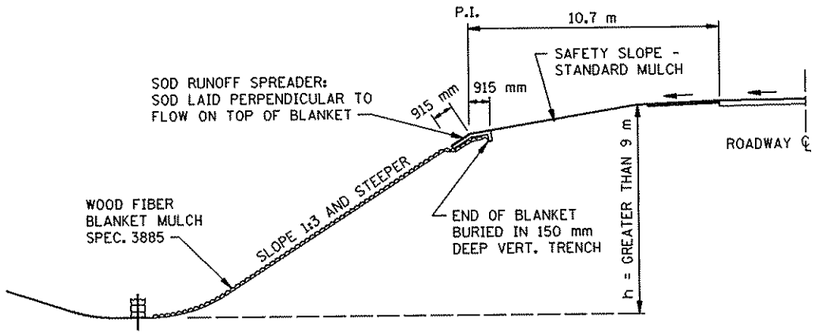
SHINGLING SOD

WHERE THE FLOW OF WATER IS SHEETING, PLACE SOD STRIPS PERPENDICULAR TO THE DIRECTION OF WATER FLOW.

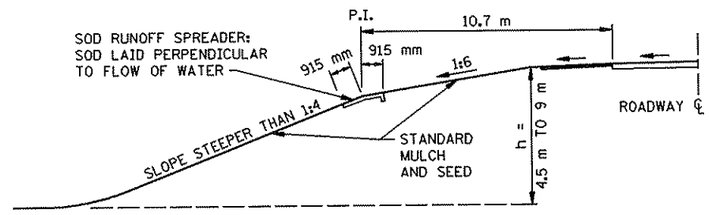
SPECIAL SOD PLACEMENT TECHNIQUES



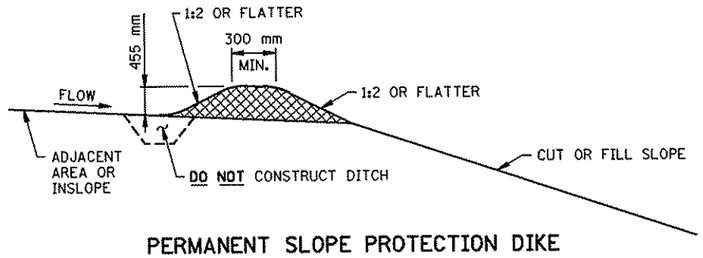
WOOD FIBER BLANKET INSTALLATION ON A CUT SLOPE



WOOD FIBER BLANKET INSTALLATION ON AN INSLOPE
(WHEN REQUIRED)



BROKEN-BACK SAFETY FILL SLOPE



PERMANENT SLOPE PROTECTION DIKE

STANDARD SHEET NO. 5-297.406M	TITLE: PERMANENT EROSION CONTROL
STANDARD APPROVED: JANUARY 31, 1985	ALONG ROADWAYS AND AT GORE AREAS & BRIDGE APPROACH FILLS

4-27-95

S.P. 02-617-17, et al. SHEET NO. 95 OF 183 SHEETS

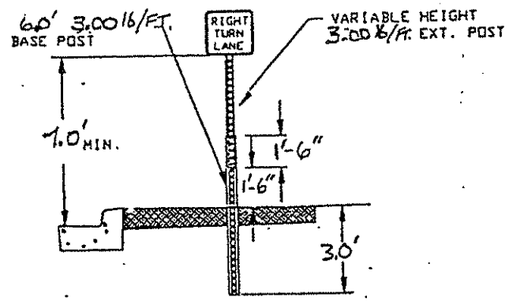
NAME: ECP2 410.PLN DATE: May. 02, 2001

SIGN PANELS TYPE C

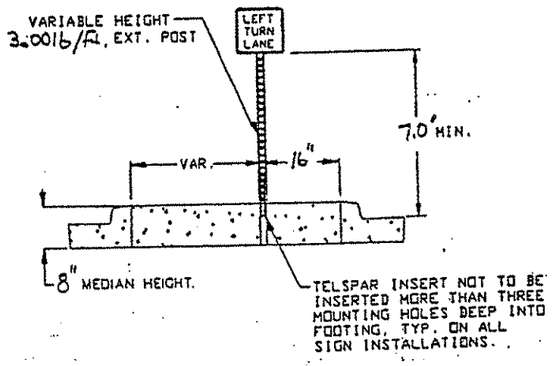
S	SIGN SIZE	SIGN AREA (FT^2)	SIGN AREA (m2)	ANOKA COUNTY INSTALLATIONS (1) (m2)	ANOKA COUNTY SIGN AREA (1) (m2)	POSTS PER INSTALLATION	NOTES (2)
M1-6	24"x24"	4.00	0.372	13	4.831	1	
M2-1A	21"x15"	2.19	0.203	4	0.814	1	V
M2-X1	24"x12"	2.00	0.186	2	0.372	1	V
M3-1A	24"x12"	2.00	0.186	2	0.372	1	V
M3-3A	24"x12"	2.00	0.186	1	0.186	1	V
M4-6	24"x12"	2.00	0.186	3	0.557	1	V
M6-1A	21"x15"	2.19	0.203	2	0.407	1	V
M6-4A	21"x15"	2.19	0.203	2	0.407	1	V
R1-1	30"x30"	6.25	0.581	9	5.226	1	
R1-1	36"x36"	9.00	0.836	1	0.836	2	
R1-2	36"x36"x36"	4.50	0.418	2	0.836	2	
R2-1	36"x48"	12.00	1.115	3	3.345	2	
R3-4	24"x24"	4.00	0.372	4	1.486	1	R
R3-9B	24"x36"	6.00	0.557	5	2.787	1	
R3-X1	30"x30"	6.25	0.581	2	1.161	1	
R3-X2	30"x30"	6.25	0.581	5	2.903	1	
R4-7	24"x30"	5.00	0.465	9	4.181	1	
R5-1	30"x30"	6.25	0.581	7	4.065	1	
R6-1L	36"x12"	3.00	0.279	1	0.279	2	T
R6-1L	48"x18"	6.00	0.557	4	2.230	2	
R6-1R	36"x12"	3.00	0.279	8	2.230	2	S
R8-3A	24"x24"	4.00	0.372	14	5.203	1	
W6-1	36"x36"	9.00	0.836	1	0.836	2	
W12-1	24"x24"	4.00	0.372	1	0.372	1	
X4-2	18"x18"	2.25	0.209	9	1.881	1	U
X4-4L	12"x36"	3.00	0.279	4	1.115	1	
X4-4R	12"x36"	3.00	0.279	1	0.279	1	
X4-5	6"x12"	0.50	0.046	1	0.046	1	
PROJECT TOTALS:				120	49.2		

NOTES: THIS TABLE ILLUSTRATES QUANTITIES FOR F&I NEW TYPE "C" SIGNS ONLY.
(1) CSAH 17 NORTH OF CSAH 23 ELIGIBLE FOR FEDERAL AID FUNDING.
(2) SEE SIGNING AND STRIPING GENERAL NOTES.

GROUND POST MOUNT SIGN
INSTALLATION TYPICAL



ISLAND MOUNT BREAK-AWAY SIGN
POST INSTALLATION TYPICAL
1- POST INSTALLATION (NO BASE POST)



GENERAL NOTES:

ALL STRIPING DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.

ALL STRIPING SHALL BE PAINT UNLESS NOTED OTHERWISE.

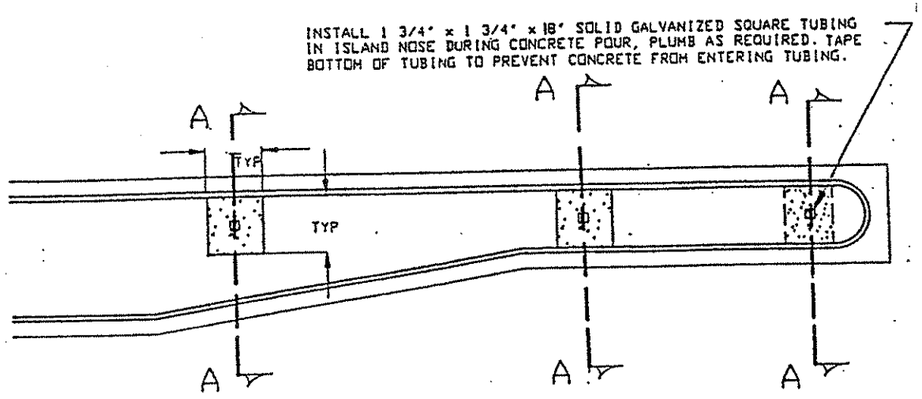
PROPOSED SIGN DIMENSIONS ARE GIVEN IN ENGLISH UNITS OF INCHES.
[ENGLISH VALUE (ft^2)] X 0.092903 = METRIC VALUE (m^2)

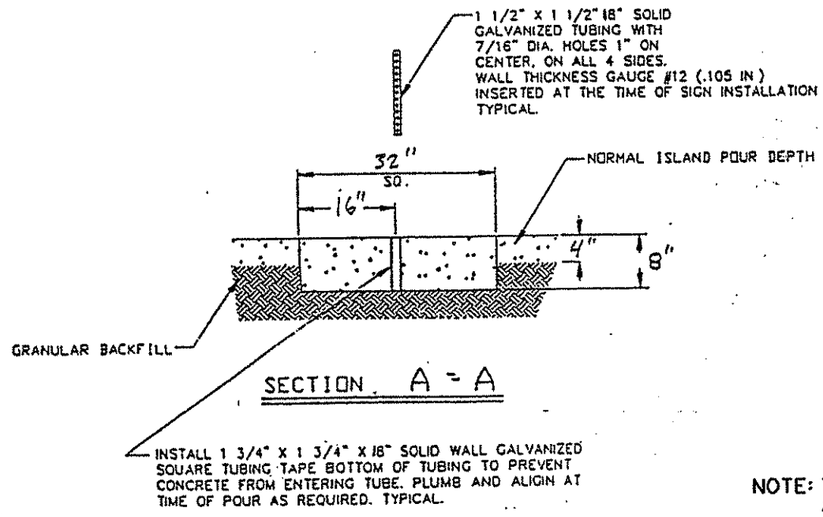
ANY EXISTING SIGNING NOT SHOWN ON THIS PLAN WHICH FALLS WITHIN THE CONSTRUCTION LIMITS AND WHICH IS STILL APPROPRIATE UNDER THE PERMANENT CONDITION, IN THE OPINION OF THE ENGINEER, SHALL BE TEMPORARILY RELOCATED OUTSIDE OF THE CONSTRUCTION LIMITS BY THE CONTRACTOR. FOLLOWING CONSTRUCTION, THE CONTRACTOR SHALL RELOCATE THE SIGNS AS NEAR AS POSSIBLE TO THEIR ORIGINAL LOCATIONS.

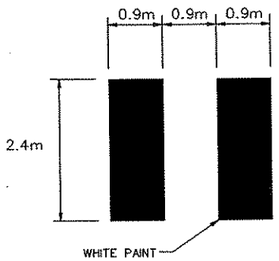
EXISTING SIGNING NOT SHOWN ON THIS PLAN WHICH IS NOT APPROPRIATE UNDER THE PERMANENT CONDITION, IN THE OPINION OF THE ENGINEER, SHALL BE REMOVED BY THE CONTRACTOR. SUCH REMOVALS SHALL BE CONSIDERED INCIDENTAL TO PERMANENT SIGNING CONSTRUCTION AND NO DIRECT COMPENSATION SHALL BE MADE THEREFOR.

(A) INSTALL SALVAGED SIGN PANEL.
(B) SIGN TO REMAIN IN PLACE.
(C) 100 mm SOLID LINE WHITE
(D) 100 mm SOLID LINE YELLOW
(E) 100 mm BROKEN LINE YELLOW. SKIP RATIO SHALL BE 2.0 m LINE FOLLOWED BY 8.0 m GAP.
(F) 100 mm BROKEN LINE WHITE. SKIP RATIO SHALL BE 2.0 m OF LINE FOLLOWED BY 8.0 m GAP
(H) 300 mm CROSSWALK LINE WHITE
(J) 600 mm STOP LINE WHITE
(K) PAVEMENT MESSAGE (ARROW)
(L) PAVEMENT MESSAGE (ONLY)
(N) CROSSWALK MARKING.
(P) SIGN TO BE RELOCATED BY OTHERS.
(R) MOUNTED ON BACK OF R4-7 SIGN POST ASSEMBLY
(S) (7) R6-1R SIGNS MOUNTED ON R1-1 SIGN POST ASSEMBLIES
(T) (1) R6-1L SIGN MOUNTED ON R1-1 SIGN POST ASSEMBLIES.
(U) MOUNTED ON R4-7 SIGN POST ASSEMBLIES.
(V) SIGN MOUNTED ON M1-6 SIGN POST ASSEMBLY.

(G), (I), (M), (O) AND (Q) NOT USED







CROSSWALK MARKING DETAIL

NOTE: THIS SHEET CONTAINS BOTH ENGLISH AND METRIC DIMENSIONS

NO	DATE	BY	CKD	APPR	REVISION
1	11-16-00	VGG	BRW	MDH	C.R. 110 S.A.P. NO. REVISION
2	11-16-00	VGG	BRW	MDH	REVISED TAB "S" PER FEDERAL AID COMMENTS
3	3-23-01	SJP	BRW	MDH	REVISE TAB AND NOTES PER ANOKA COUNTY COMMENTS

NAME: SSN 410.PLN DATE: May. 08, 2001

minnesota metric

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.
Date 5-1-2001 Reg. No. 21364

STATE AID PROJECT NO. S.A.P. 108-020-14
FED. AID PROJECT NO. S.P. 02-617-17

DRAWN BY M. IISAKKA DATE 3-97
DESIGNED BY D. DEMERS 3-97
CHECKED BY D. DEMERS 3-97
COMM. NO. 0962842

SRF CONSULTING GROUP, INC.

ANOKA COUNTY
SIGNING AND STRIPING GENERAL NOTES AND TABULATION
C.S.A.H. 17 RECONSTRUCTION

SHEET 96 OF 183

DESIGN FILE: n:\civil\008\2410\Plan\Mar-TMLK01\SSN-410.PLN
PRF FILE: n:\civil\008\2410\Plan\Mar-TMLK01\SSN-410.prf
PLOTTER: HP DesignJet 750C
PLOT SCALE: 1.0000 '/ Inch
PLOT DATE/TIME: 05/09/2001 07:13:26

RICK ?
320.253.9005

C.S.A.H. 23 (LAKE DRIVE)

C.S.A.H. 52 (LOVELL ROAD)

C.S.A.H. 17

SCALE
0 5 10 15 20 25 50 m

MATCHLINE STA. 8+650
SEE BELOW

LEGEND
- ⊢ POST MOUNTED SIGN TYPE C
- ⊣ POST MOUNTED SIGN TYPE D
- H TWO-SIDED POST MOUNTED SIGN
- + STREET SIGN

SEE SIGNING AND STRIPING GENERAL NOTES AND TABULATION SHEET FOR NOTES

MATCHLINE STA. 8+650
SEE ABOVE

MATCHLINE STA. 9+025
SEE NEXT SHEET

EDGEWOOD ROAD

97TH LANE

WEST ROAD

GAS SUBSTATION

NO	DATE	BY	CKD	APPR	REVISION
1	11-16-00	VGG	BRW	MDH	C.R. 110 S.A.P. NO. REVISION
2	11-16-00	VGG	BRW	MDH	REVISED PER FEDERAL AID COMMENTS
3	03-08-01	SJP	BRW	MDH	REVISED PER ANOKA CO. COMMENTS

NAME: SSP1 410.PLN DATE: May. 08, 2001

minnesota metric

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.
Date 5-1-2001 Reg. No. 21364

STATE AID PROJECT NO. S.A.P. 106-020-14
FED. AID PROJECT NO. S.P. 02-617-17

DRAWN BY V. GRAF DATE 11-96
DESIGNED BY D. DEMERS 11-96
CHECKED BY B. MOORE 3-97
COMM. NO. 0962842

SRF CONSULTING GROUP, INC.

ANOKA COUNTY
SIGNING AND STRIPING PLAN
C.S.A.H. 17 RECONSTRUCTION
STA. 8+358 TO STA. 9+025

SHEET 100 OF 183

DESIGN FILE: h:\civil\008\2410\PlanNorth\kDr\SSP1-410.PLN
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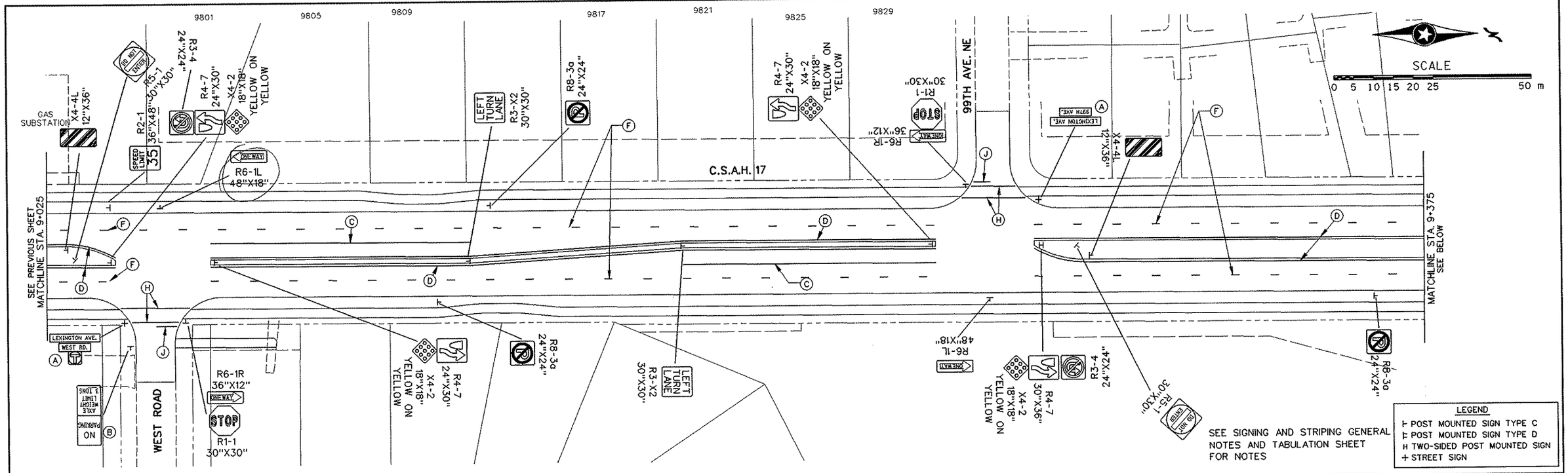

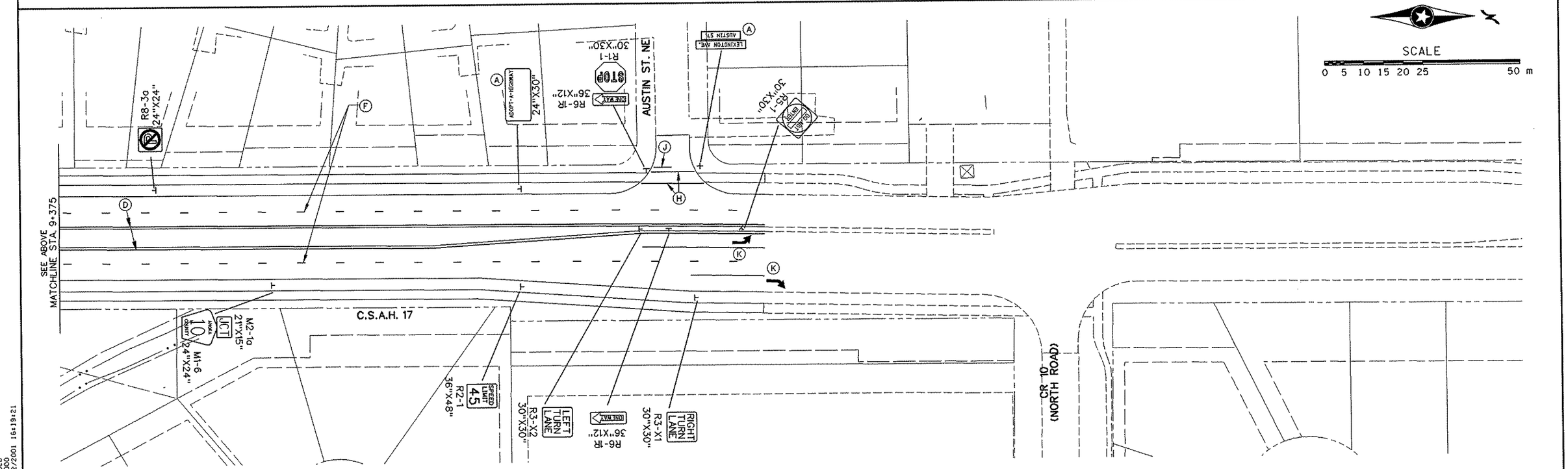

NO	DATE	BY	CKD	APPR	REVISION
1	11-16-00	VGG	BRW	MDH	C.R. 110 S.A.P. NO. REVISION
2	11-16-00	VGG	BRW	MDH	REVISED PER FEDERAL AID COMMENTS
3	03-08-01	SJP	BRW	MDH	REVISED PER ANOKA CO. COMMENTS

NAME: SSP2 410.PLN DATE: May. 02, 2001

minnesota metric

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.
Date 5-1-2001 Reg. No. 21364

STATE AID PROJECT NO. S.A.P. 106-020-14
FED. AID PROJECT NO. S.P. 02-617-17

DRAWN BY V. GRAF DATE 11-96
DESIGNED BY D. DEMERS 11-96
CHECKED BY B. MOORE 3-97
COMM. NO. 0962842

SRF CONSULTING GROUP, INC.

ANOKA COUNTY
SIGNING AND STRIPING PLAN
C.S.A.H. 17 RECONSTRUCTION
STA. 9+025 TO STA. 9+555

SHEET 101 OF 183

DESIGN FILE: n:\civil\008\2410\PlanNorthLkDr\SSP2-410.PLN
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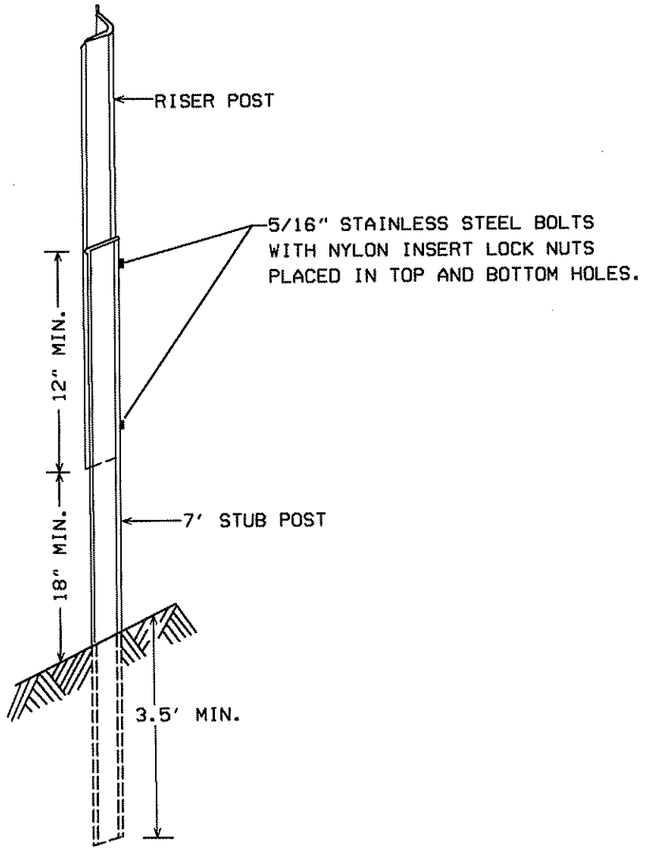
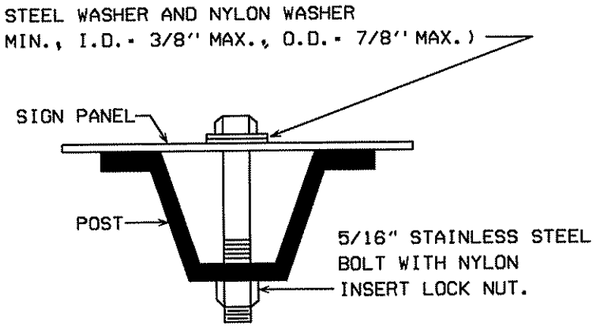
PLOTTER: MS-HPSSIMX-OLD
PLOT SCALE: 1002.006000
PLOT DATE/TIME: 05/02/2001 16:19:21

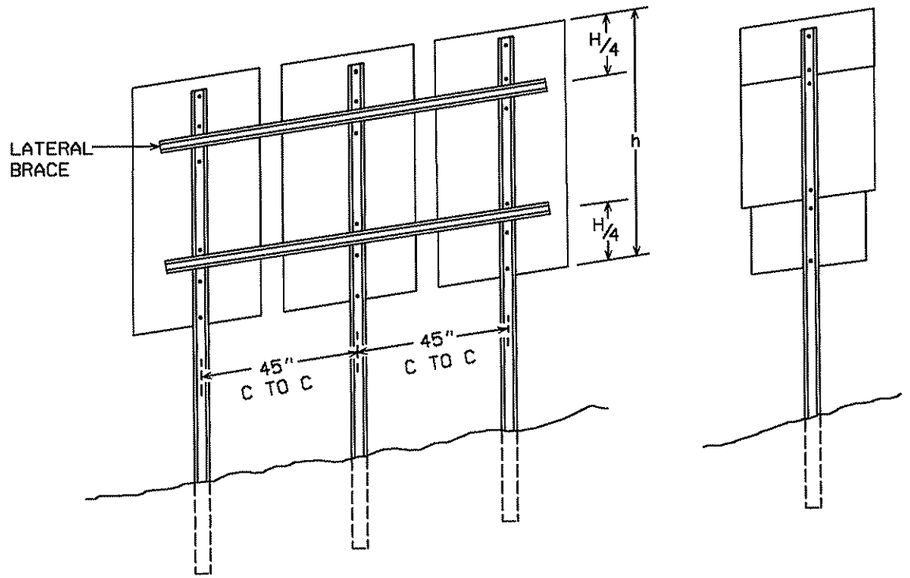
TYPE "C" & "D" POST



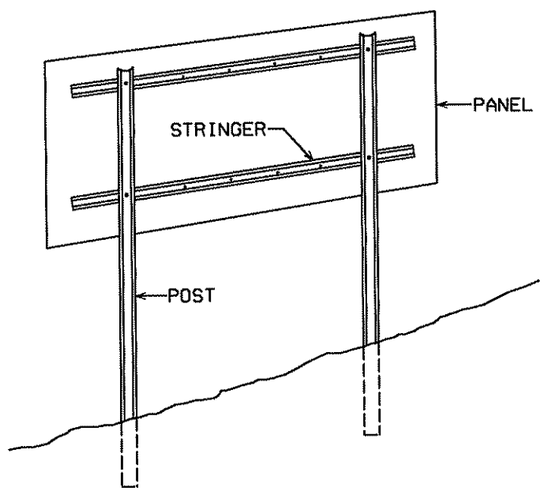
"U POST" SPLICE



"U POST" MOUNTING
TYPE "C" SIGNS



TYPICAL TYPE "C" INSTALLATIONS



TYPICAL TYPE "D" INSTALLATION

NOTES:

1. USE 3# STUB POSTS, RISER POSTS, STRINGERS, KNEE BRACES, LATERAL BRACES AND KNEE BRACE STUB POSTS. ALL SHALL CONFORM TO MN/DOT 3401.
2. FOR TYPE "D" SIGN POST LENGTHS AND SPACINGS, SEE SIGN DATA SHEET.
3. TYPE "D" SIGN PANELS SHALL BE BOLTED TO STRINGERS AT 24' MAXIMUM INTERVALS IN ACCORDANCE WITH TYPE "D" STRINGER AND PANEL-JOINT DETAIL (SEE STANDARD SIGNS MANUAL).
4. MOUNTING (PUNCHING CODE) FOR TYPE 'C'' SIGN PANELS SHALL BE AS INDICATED IN THE STANDARD SIGNS MANUAL UNLESS OTHERWISE SPECIFIED.
5. ALL RISER (VERTICAL) 'U POSTS' SHALL BE SPLICED. DRIVEN STUB POSTS SHALL BE AT LEAST 7' LONG.
6. USE STAINLESS STEEL 5/16' BOLTS, WASHERS, AND NYLON INSERT LOCK NUTS AS SHOWN FOR ALL GROUND MOUNTED AND OVERHEAD MOUNTED SIGNS.
7. STAINLESS STEEL WASHER WITH SAME DIMENSIONS SHALL BE PROVIDED BETWEEN ALL NYLON WASHERS AND BOLT HEADS.
8. BRACING STUBS SHALL BE NO MORE THAN 4' ABOVE GROUND AND EMBEDDED AT LEAST 3 1/2'.
9. A-FRAME BRACKET SHALL BE STEEL CONFORMING TO MN/DOT 3306 AND GALVANIZED IN ACCORDANCE WITH MN/DOT 3394.
10. COLLARS SHALL BE USED TO SHIM OVERLAYS AND DEMOUNTABLE LEGEND AWAY FROM PANEL WHERE INTERFERENCE WITH BOLT HEADS IS ENCOUNTERED. MN/DOT 3352.2A7.
11. 2 AND 3 POST TYPE "C" SIGNS SHALL BE REINFORCED WITH AT LEAST ONE LATERAL BRACE. INSTALLATIONS WHERE THE TOTAL PANEL HEIGHT IS 60" OR MORE SHALL HAVE TWO LATERAL BRACES LOCATED APPROXIMATELY AT THE QUARTER POINTS.
12. WHERE 2 OR MORE SINGLE POST SIGNS (TYPE 'C') ARE MOUNTED SIDE BY SIDE, THEY SHALL BE REINFORCED LATERALLY BY AT LEAST 2 POST SECTIONS. BOLTED AT EACH POST AND LOCATED APPROXIMATELY AT THE QUARTER POINTS AS SHOWN IN SKETCH.

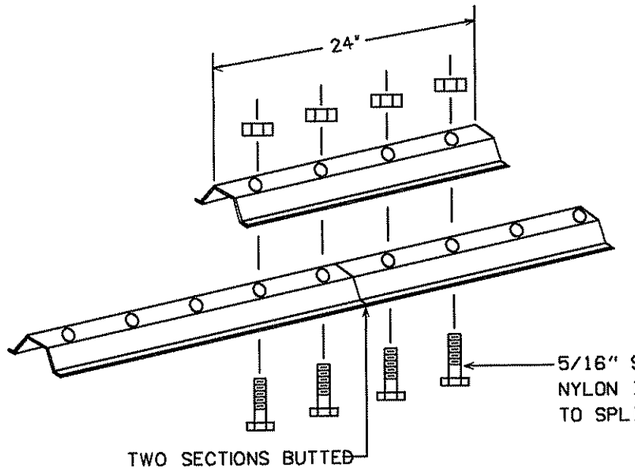
"C" & "D" SIGN DETAILS

DESIGN A
SHEET 1 OF 3

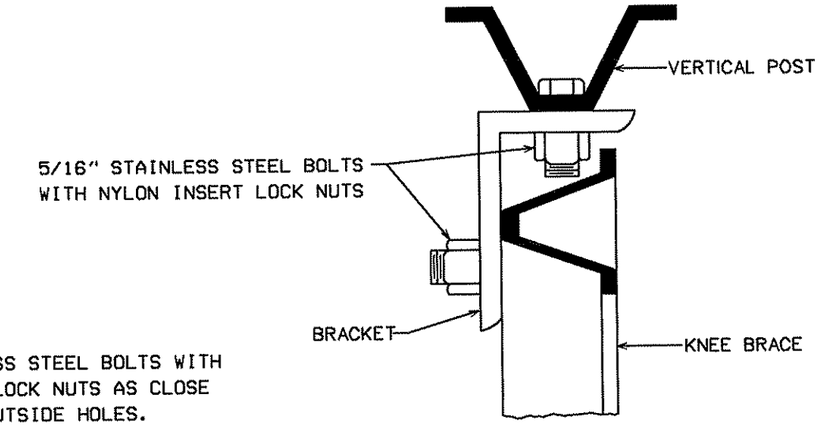
NOTE:THIS SHEET IN ENGLISH UNITS

Rev. 7-20-93
Rev. 3-23-90

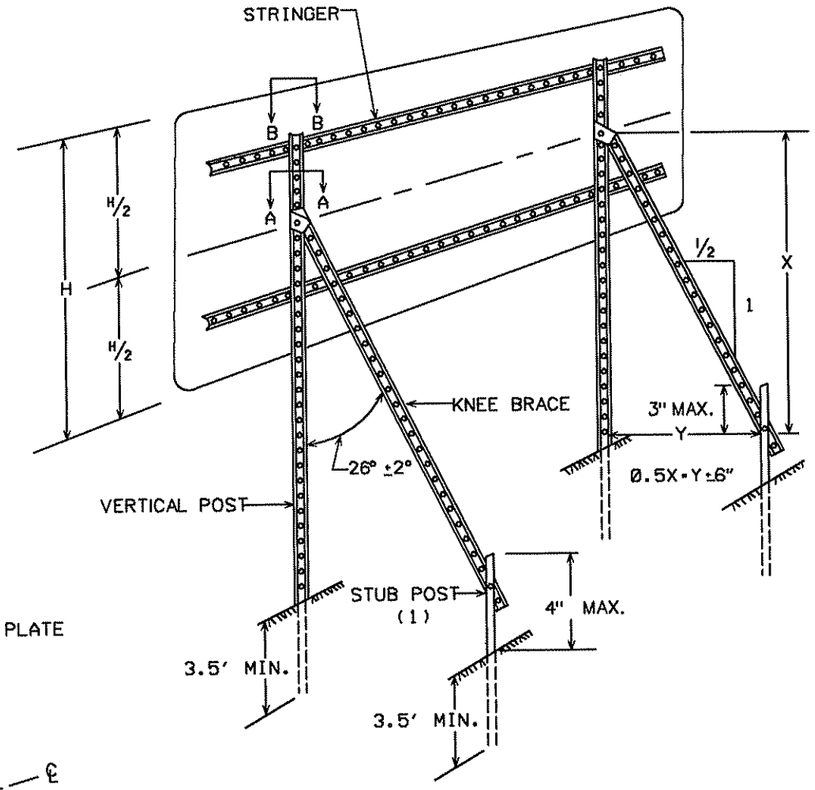
CDSIGN.STR CD1 8-9-94
NAME: SGNS 410.PLN DATE: May. 02, 2001



LATERAL BRACE OR STRINGER. SPLICE DETAIL (EXPLODED VIEW)

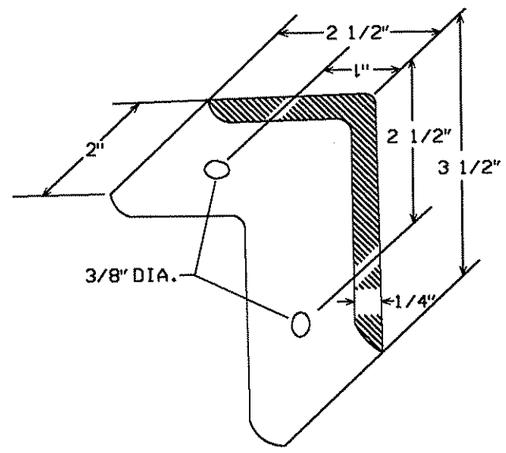


SECTION A-A



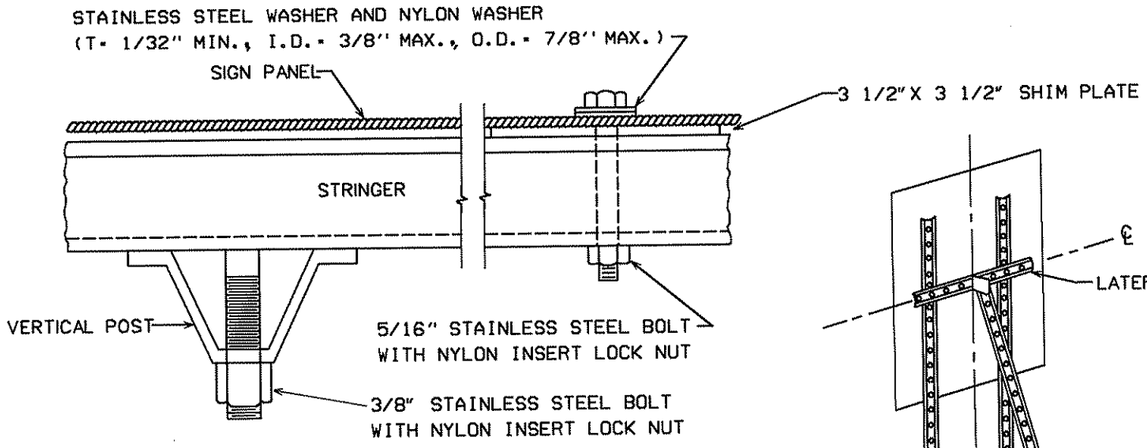
TYPICAL "A-FRAME" INSTALLATION
TYPE "D" SIGNS

(1) OFFSET STUB POST 1' TOWARD ROADWAY RELATIVE TO VERTICAL POST.

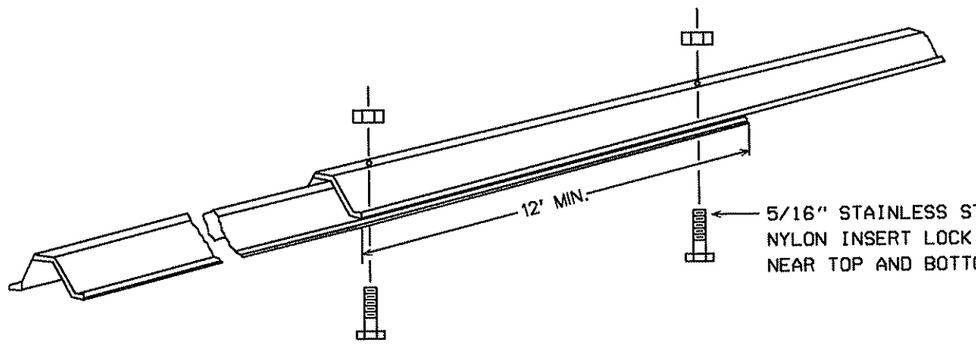


A-FRAME BRACKET

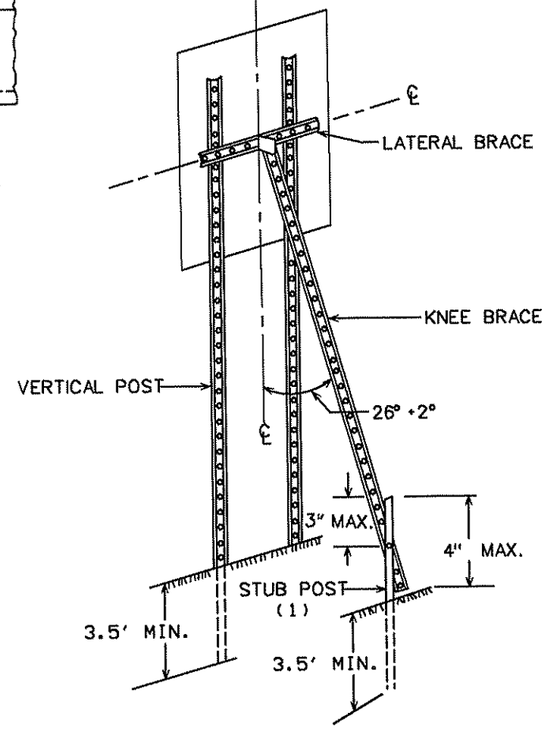
(Steel Mn/DOT 3306 galvanized per Mn/DOT 3394)



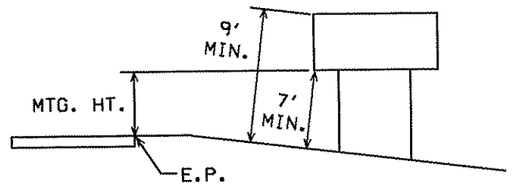
SECTION B-B



KNEE BRACE SPLICE



TYPICAL "A-FRAME" INSTALLATION
TYPE C SIGNS



TYPICAL MOUNTING

"C" & "D" SIGN DETAILS

DESIGN A
SHEET 2 OF 3

Rev. 3-31-93
Rev. 3-23-90

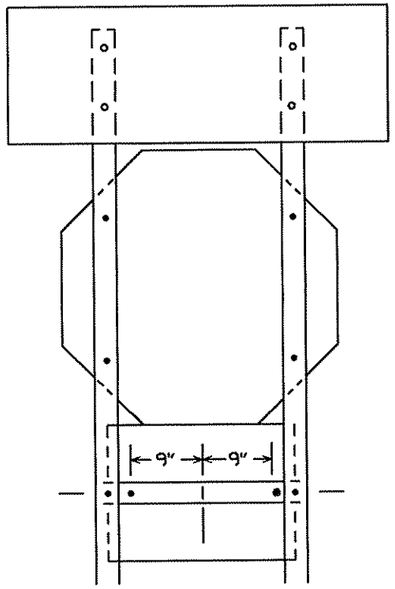
NOTE:THIS SHEET IN ENGLISH UNITS

S.P. 02-617-17, et al.

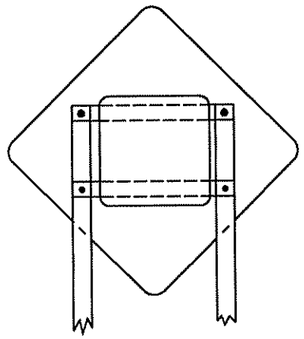
Sheet No. 103 of 183 Sheets

CDSIGN.STR CD2 6-9-94

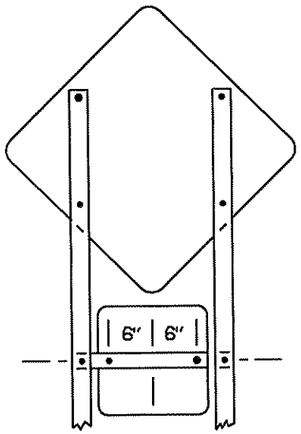
NAME: SGN6 410.PLN DATE: May. 02, 2001



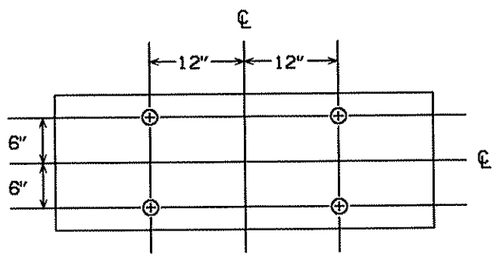
R6-1, R1-1 & (R6-3 OR R6-3A)
MOUNTING



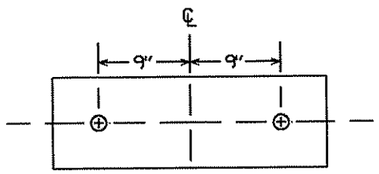
BACK TO BACK MOUNTING
OF R4-7 AND W9-2



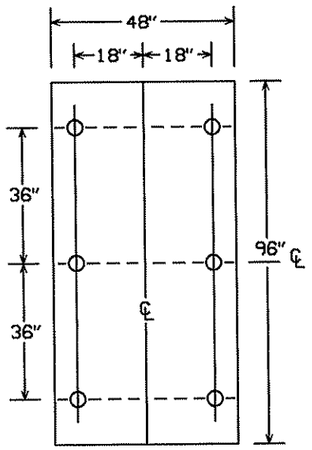
(W1-1, W1-2, W1-3, W1-4 OR W1-5) & W13-1
MOUNTING



PUNCHING FOR R6-1(48X18")



PUNCHING FOR R6-1(36X12")



PUNCHING FOR R2-4A
SPEED LIMIT

REV. 3-31-93
REV. 3-23-90

NOTE: THIS SHEET IN ENGLISH UNITS

"C" & "D" SIGN DETAILS

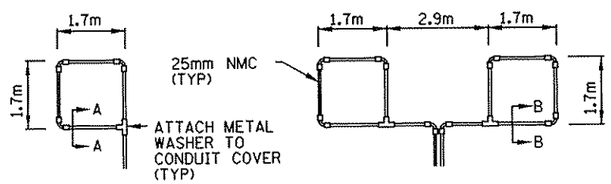
DESIGN A
SHEET 3 OF 3

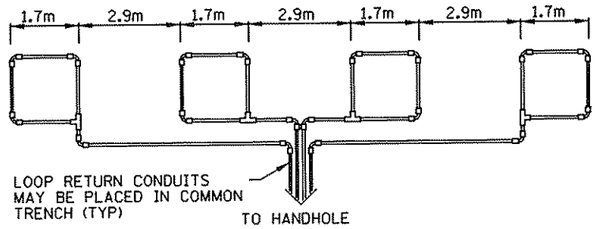
S.P. 02-617-17, et al.

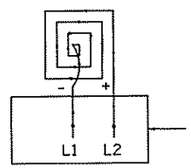
Sheet No. 104 of 183 Sheets

DESIGN.STR 003 9-7-94

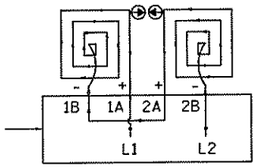
NAME: SGN3_410.PLN DATE: May. 02, 2001







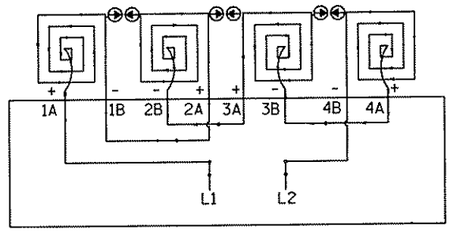
LOOP DETECTOR
DETAIL 'A'



LOOP CONNECTIONS SHALL BE
LABELED AND SPLICED IN THE
HANDHOLE AS FOLLOWS:

L1 TO 1A
1B TO 2A
2B TO L2

LOOP DETECTOR
DETAIL 'B'
(LOOP PHASING FOR
SERIES CONNECTION)



LOOP CONNECTIONS SHALL BE LABELED AND SPLICED
IN THE HANDHOLE AS FOLLOWS:

L1 TO 1A
1B TO 2A
2B TO 3A
3B TO 4A
4B TO L2

SPLICE CONTROL CABLE TO L1 & L2 IN HANDHOLE.
ALL CONDUCTORS SHALL BE TAGGED IN HANDHOLE
(1A, 1B, ECT)

LOOP DETECTOR
DETAIL 'C'
(LOOP PHASING FOR
SERIES CONNECTION)

LOOP DETECTOR WIRING

1) ALL CORNERS SHALL BE 90 DEGREE CONDUIT BENDS.

2) CONNECT WIRES IN HANDHOLES USING SPLICE KIT METHOD DESCRIBED IN THE SPECIAL PROVISIONS.

3) LOOP DETECTOR WIRES SHALL BE #12 AWG CROSSED LINKED POLYETHLENE (XLP). SEE SPECIAL PROVISIONS.

4) LOOP LEAD IN WIRES SHALL BE TWISTED A MIN. OF (5) TURNS PER FOOT THROUGH THE CONDUIT TO THE HANDHOLE.

5) NMC DESIGNATES NON-METALLIC CONDUIT (SPEC. 3803)

6) LOOPS 1.7m x 1.7m THRU 1.7m x 4.3m SHALL HAVE (4) TURNS.

7) LOOPS 1.7m x 4.6m AND LARGER SHALL HAVE (2) TURNS.

ELECTRICAL ENGINEER

I hereby certify that the electrical portion of this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Electrical Engineer under the laws of the State of Minnesota.

Print Name: BRIAN HOLT

Date 5/4/01 License # 21428

NO	DATE	BY	CKD	APPR	REVISION

NAME: 2842.DSA DATE: Apr. 30, 2001

minnesota metric

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.

Date 5/4/01 Reg. No. 21849

STATE AID PROJECT NO. S.A.P. 106-020-14

FED. AID PROJECT NO. S.P. 02-617-17

DRAWN BY R. W. SMITH DATE 04-01
DESIGNED BY G. STUEMPFIG 04-01
CHECKED BY G. STUEMPFIG 04-01
COMM. NO. 0972842

SRF CONSULTING GROUP, INC.

ANOKA COUNTY

LOOP DETECTOR DETAILS
C.S.A.H. 17 RECONSTRUCTION

SHEET 105 OF 183

DESIGN FILE: h:\civil\047\2842\SIGNALS\3507.dsa
PRF FILE: h:\civil\047\2842\SIGNALS\3507.prf
PLOTTER: HP 820C
PLOT SCALE: 1.000000
PLOT DATE/TIME: 05/04/2001 14:42:30

SIGNAL INDICATION CHART

ALL SIGNAL INDICATIONS SHALL BE 300 mm
ALL CIRCULAR & ARROW INDICATIONS SHALL BE LED

SIGNAL FACE	R	Y	G	RLTA	YLTA	GLTA
1-1,1-2				←	←	←
2-1,2-2,2-3	●	●	●			
4-1,4-2,4-3	●	●	●			
4-4,4-5	●	●	●		←	←
5-1,5-2				←	←	←
6-1,6-2,6-3	●	●	●			
8-1,8-2,8-3	●	●	●			
8-4,8-5	●	●	●		←	←

SIGNAL HEAD PHASING

FACE	PHASE
4-4	R
4-5	Y
8-4	G
8-5	Ø4 & Ø8
2-1	Y
2-2	G
2-3	Ø3 & Ø7

(4) PA100 FOUNDATION
TYPE PA100-A-10.7 m-D12 m-3 m (DAVIT AT 350°)
2 - ONE WAY SIGNALS (OVERHEAD)
(0 m AND 3.4 m FROM END OF MAST ARM)
TYPE 10B POLE MOUNTED AT 90°
TYPE 20B POLE MOUNTED AT 180°
LUMINAIRE - 200 WATT H.P.S. WITH P.E.C. AND TEST SWITCH
ONE WAY EVP DETECTOR AND LIGHT
(1.8 m FROM END OF MAST ARM), 19 mm HUB
2 - PEDESTRIAN PUSHBUTTONS
1 - R10-12 (24"x30") SIGN
EXTEND 78 mm RSC INTO HH-13 WITH:
3 - 12/C #12, 2 - 3/C #12
1 - 3/C #12 (LUM.) AND 1 - 3/C #20

(2) PA100 FOUNDATION
TYPE PA100-A-10.7 m-D12 m-3 m (DAVIT AT 350°)
2 - ONE WAY SIGNALS (OVERHEAD)
(0 m AND 3.6 m FROM END OF MAST ARM)
TYPE 10B POLE MOUNTED AT 90°
TYPE 20B POLE MOUNTED AT 180°
LUMINAIRE - 200 WATT H.P.S. WITH P.E.C. AND TEST SWITCH
ONE WAY EVP DETECTOR AND LIGHT
(1.8 m FROM END OF MAST ARM), 19 mm HUB
2 - PEDESTRIAN PUSHBUTTONS
1 - R10-12 (24"x30") SIGN
EXTEND 78 mm RSC INTO HH-5 WITH:
3 - 12/C #12, 2 - 3/C #12
1 - 3/C #12 (LUM.) AND 1 - 3/C #20

(3) PA100 FOUNDATION
TYPE PA100-A-12.2 m-D12 m-3 m (DAVIT AT 350°)
2 - ONE WAY SIGNALS (OVERHEAD)
(0.2 m AND 4.0 m FROM END OF MAST ARM)
TYPE 10B POLE MOUNTED AT 90°
TYPE 20B POLE MOUNTED AT 180°
LUMINAIRE - 200 WATT H.P.S. WITH P.E.C. AND TEST SWITCH
ONE WAY EVP DETECTOR AND LIGHT
(1.8 m FROM END OF MAST ARM), 19 mm HUB
2 - PEDESTRIAN PUSHBUTTONS
EXTEND 78 mm RSC INTO HH-10 WITH:
3 - 12/C #12, 2 - 3/C #12
1 - 3/C #12 (LUM.) AND 1 - 3/C #20

SIGNAL OPERATION NOTES

- NORMAL OPERATION IS 8 PHASE
- FLASH MODE SHALL BE ALL RED
- Ø1 & Ø5 SHALL BE PROTECTED LEFT TURNS
  LEFT TURNS
- Ø3 & Ø7 SHALL BE PROTECTED/PERMISSIVE LEFT TURNS
- Ø2 & Ø6 SHALL BE ON VEHICLE RECALL

FUNCTIONS:
(1) CALL AND EXTEND
(3) EXTEND ONLY
(7) DELAY CALL, IMMEDIATE EXTEND

LOOP DETECTOR CHART

DESIGNATION	SIZE	FUNCTION	DISTANCE FROM STOP LINE
D1-1	2-1.7m x 1.7m	(1)	3.4, 12.2 m
D1-2	2-1.7m x 1.7m	(1)	-1, 7.8 m
D2-1	1-1.7m x 1.7m	(1)	107 m
D3-1	2-1.7m x 1.7m	(1)	3.4, 12.2 m
D3-2	2-1.7m x 1.7m	(1)	-1, 7.8 m
D4-1,D4-2	**1-1.7m x 1.7m**	**(3)**	**73 m**
D4-3,D4-4	**2-1.7m x 1.7m**	**(1)**	**-1, 3.4 m**
D4-5	**3-1.7m x 1.7m**	**(7)**	**-7.8,-3.4, 1 m**
D5-1	2-1.7m x 1.7m	(1)	3.4, 12.2 m
D5-2	2-1.7m x 1.7m	(1)	-1, 7.8 m
D6-1	1-1.7m x 1.7m	(1)	107 m
D7-1	**2-1.7m x 1.7m**	**(1)**	**3.4, 12.2 m**
D7-2	**2-1.7m x 1.7m**	**(1)**	**-1, 7.8 m**
D8-1,D8-2	1-1.7m x 1.7m	(3)	73 m
D8-3	3-1.7m x 1.7m	(1)	-7.8,-3.4, 1 m
D8-4	2-1.7m x 1.7m	(1)	-1, 3.4 m

NOTES: ALL ITEMS ON THIS SHEET ARE EXISTING AND SHALL REMAIN IN PLACE, EXCEPT FOR WORK TO BE COMPLETED IN THIS CONTRACT, WHICH INCLUDES:
1) REPLACE EXISTING SAWCUT LOOP DETECTORS D4-1,2,3,4 AND D7-1,2 WITH NMC LOOP DETECTORS. SPLICE LOOP WIRE TO EXISTING LEAD-IN-WIRE IN HANDHOLE.
2) F&I LOOP DETECTOR D4-5. SPLICE LOOP WIRE TO EXISTING LEAD-IN WIRE IN HH-10.
3) CHANGE D8-3 FUNCTION FROM (7) TO (1).

LAKE DR. (CSAH 23)
70 km/h (45 MPH)

LEXINGTON AVE. (CSAH 17)
55 km/h (35 MPH)

MATCH LINE "A" (SEE SHEET 108)
MATCH LINE "B" (SEE SHEET 108)
MATCH LINE "C" (SEE SHEET 108)
MATCH LINE "D" (SEE SHEET 108)

NEW CURB

53 mm RSC
2 - 2/C #14

103 mm RSC
3 - 12/C #12
2 - 3/C #12
1 - 3/C #12 (LUM.)
5 - 2/C #14
1 - 3/C #20

78 mm RSC
1 - 2/C #14

103 mm RSC
6 - 12/C #12
4 - 3/C #12
2 - 3/C #12 (LUM.)
8 - 2/C #14
2 - 3/C #20

103 mm RSC
3 - 12/C #12
2 - 3/C #12
1 - 3/C #12 (LUM.)
7 - 2/C #14
1 - 3/C #20

53 mm RSC
1 - 2/C #14

53 mm RSC
2 - 3/C #12 (LUM.)

103 mm RSC
3 - 12/C #12
2 - 3/C #12
1 - 3/C #12 (LUM.)
8 - 2/C #14
1 - 3/C #20

103 mm RSC
3 - 12/C #12
2 - 3/C #12
1 - 3/C #12 (LUM.)
5 - 2/C #14
1 - 3/C #20

53 mm RSC
2 - 2/C #14

Ø1-Ø6 EVP
Ø2-Ø5 EVP
Ø4-Ø8 EVP

D1-1, D1-2, D2-1, D3-1, D3-2, D4-1, D4-2, D4-3, D4-4, D4-5, D5-1, D5-2, D6-1, D7-1, D7-2, D8-1, D8-2, D8-3, D8-4

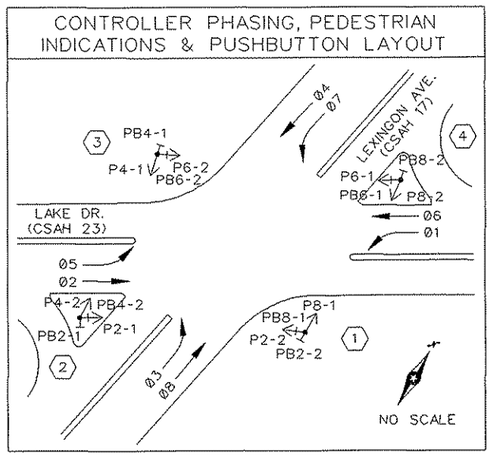
(A) CONTROLLER FOUNDATION - SEE DETAIL
CONTROLLER & CABINET
EXTEND 103 mm RSC INTO HH-1 WITH:
6 - 12/C #12, 4 - 3/C #12,
9 - 2/C #14 AND 2 - 3/C #20
EXTEND 103 mm RSC INTO HH-18 WITH:
6 - 12/C #12, 4 - 3/C #12,
10 - 2/C #14 AND 2 - 3/C #20
EXTEND 53 mm RSC INTO HH-19 WITH:
3 - 1/C #6
1 - 78 mm RSC STUB OUT OF CABINET (THREAD AND CAP BOTH ENDS)

(B) SERVICE CABINET FOUNDATION
SIGNAL SERVICE CABINET
EXTEND 53 mm RSC INTO HH-19 WITH: 3 - 1/C #6
EXTEND 53 mm RSC INTO HH-1 WITH: 4 - 3/C #12 (LUM.)
EXTEND 53 mm RSC INTO HH-20 WITH: 3 - 1/C #2

(C) SOURCE OF POWER
INPLACE WOOD POLE
53 mm RSC RISER AND WEATHERHEAD WITH:
3 - 1/C #2

(1) PA100 FOUNDATION
TYPE PA100-A-12.2 m-D12 m-3 m (DAVIT AT 350°)
2 - ONE WAY SIGNALS (OVERHEAD)
(0.2 m AND 4.0 m FROM END OF MAST ARM)
TYPE 10B POLE MOUNTED AT 90°
TYPE 20B POLE MOUNTED AT 180°
LUMINAIRE - 200 WATT H.P.S. WITH P.E.C. AND TEST SWITCH
ONE WAY EVP DETECTOR AND LIGHT
(1.8 m FROM END OF MAST ARM), 19 mm HUB
2 - PEDESTRIAN PUSHBUTTONS
EXTEND 78 mm RSC INTO HH-1 WITH:
3 - 12/C #12, 2 - 3/C #12
1 - 3/C #12 (LUM.) AND 1 - 3/C #20

CONTROLLER PHASING, PEDESTRIAN INDICATIONS & PUSHBUTTON LAYOUT



NOTES:

1) SEE SPECIAL PROVISIONS FOR COUNTY FURNISHED MATERIALS.
2) EACH SIGNAL FACE SHALL HAVE A BACKGROUND SHIELD.
3) INTERNATIONAL SYMBOLS SHALL BE USED FOR ALL PEDESTRIAN INDICATIONS (HAND AND WALKING PERSON). THE HAND AND WALKING PERSON INDICATION SHALL USE LED UNITS (SEE SPECIAL PROVISIONS).
4) EXACT LOCATION OF HANDHOLES, POLES, LOOP DETECTORS, AND CABINET SHALL BE DETERMINED BY TRAFFIC OFFICE PERSONNEL.
5) ALL LOOP DETECTORS SHALL BE INSTALLED IN NMC CONDUIT (SEE DETAIL SHEET), EXCEPT D4-1,2,3,4 AND D7-1,2, WHICH SHALL BE SAWCUT.
6) ALL SIGNAL INDICATIONS (RED, YELLOW AND GREEN CIRCULAR AND ARROW INDICATIONS) SHALL USE LED UNITS.
7) SEE SPECIAL PROVISIONS FOR REMOVALS EXISTING SIGNAL SYSTEM.
8) SEE SIGNING AND STRIPING PLAN FOR CROSSWALK AND STOP BAR INFORMATION.
9) HANDHOLES SHALL BE PVC TYPE WITH METAL FRAMES AND COVERS.
10) R10-4b SIGNS SHALL BE FURNISHED BY THE OWNER AND INSTALLED ABOVE PEDESTRIAN PUSHBUTTONS BY THE CONTRACTOR.
11) LOOP LEAD-IN CABLE FOR FUTURE D4-5 SHALL BE EXTENDED FROM THE CONTROLLER CABINET TO HH-10, WHERE IT SHALL BE COILED FOR FUTURE SPLICING AND PROTECTED TO THE SATISFACTION OF THE ENGINEER.

ELECTRICAL ENGINEER
I hereby certify that the electrical portion of this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Electrical Engineer under the laws of the State of Minnesota.
Print Name: BRIAN HOLT
Signature: Brian D Holt
Date: 5/4/01 License #: 21428

NO	DATE	BY	CKD	APPR	REVISION

NAME: 3507.ILA DATE: May. 04, 2001

minnesota metric

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.
George M. Stuempfig
Date 5/4/01 Reg. No. 21849

STATE AID PROJECT NO. S.A.P. 106-020-14
FED. AID PROJECT NO. S.P. 02-617-17

DRAWN BY R.W.SMITH DATE 04-01
DESIGNED BY G. STUEMPFIG 04-01
CHECKED BY G. STUEMPFIG 04-01
COMM. NO. 0972842

SRF CONSULTING GROUP, INC.

ANOKA COUNTY
INTERSECTION LAYOUT
C.S.A.H. 17 RECONSTRUCTION
(SYSTEM "A")

SHEET 107 OF 183

DESIGN FILE: N:\CIVIL\047\2842\SIGNALS\3507_11a
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PLOTTER: MS-HP8000N2
PLOT SCALE: 12.828000
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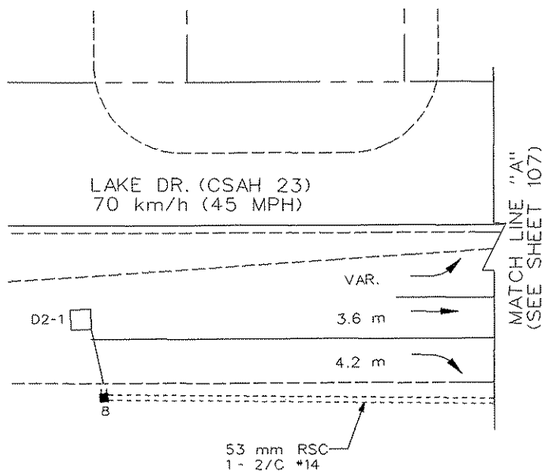
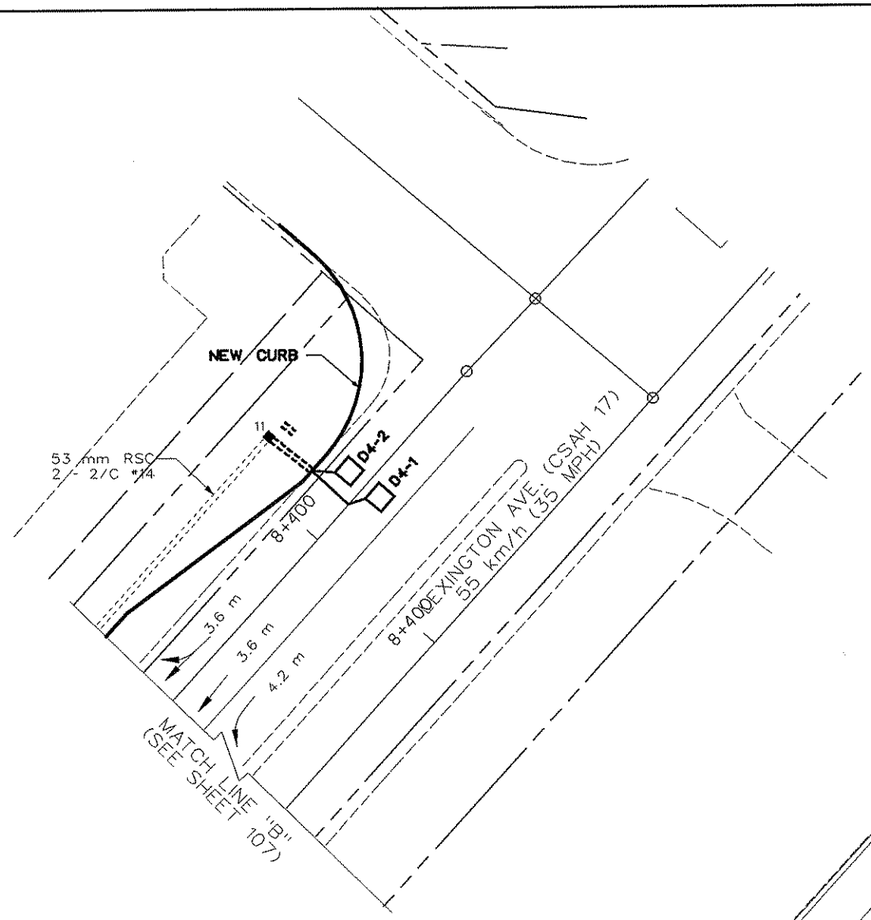
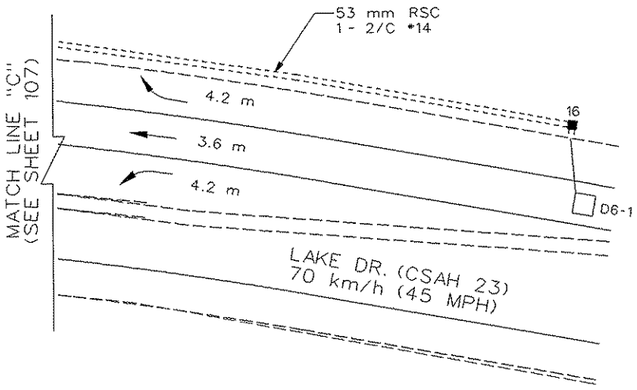
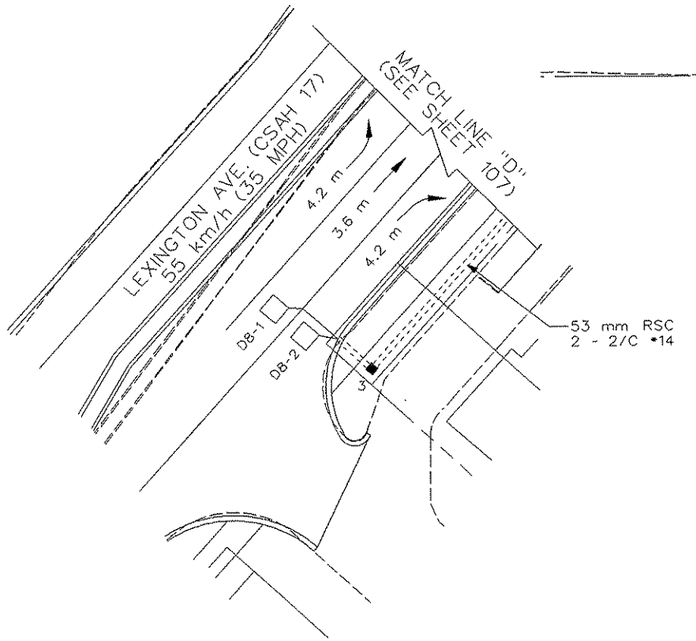


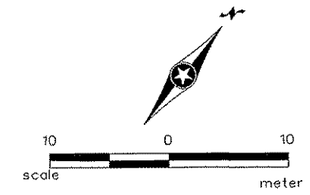






NOTES: ALL ITEMS ON THIS SHEET ARE EXISTING AND SHALL REMAIN IN PLACE, EXCEPT FOR WORK TO BE COMPLETED IN THIS CONTRACT, WHICH INCLUDES:

1) REPLACE EXISTING SAWCUT LOOP DETECTORS D4-1 AND D4-2 WITH NMC LOOP DETECTORS. SPLICE LOOP WIRE TO EXISTING LEAD-IN-WIRE IN HH-11.



ELECTRICAL ENGINEER

I hereby certify that the electrical portion of this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Electrical Engineer under the laws of the State of Minnesota.

Print Name: BRIAN HOLT

Signature: Brian D Holt

Date 5/4/01 License # 21428

NO	DATE	BY	CKD	APPR	REVISION

NAME: 3507.ILC DATE: May. 04. 2001

minnesota metric

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.

George M. Stuempfig

Date 5/4/01 Reg. No. 21849

STATE AID PROJECT NO. S.A.P. 105-020-14

FED. AID PROJECT NO. S.P. 02-617-17

DRAWN BY R. W. SMITH DATE 04-01
DESIGNED BY G. STUEMPFIG 04-01
CHECKED BY G. STUEMPFIG 04-01
COMM. NO. 0972842

SRF CONSULTING GROUP, INC.

ANOKA COUNTY

MATCH LINE LAYOUT

C.S.A.H. 17 RECONSTRUCTION

(SYSTEM "A")

SHEET 108 OF 183

DESIGN FILE: h:\Civil\047\2842\SIGNALS\3507.ilc
PRF FILE: h:\Civil\047\2842\SIGNALS\3507.prf
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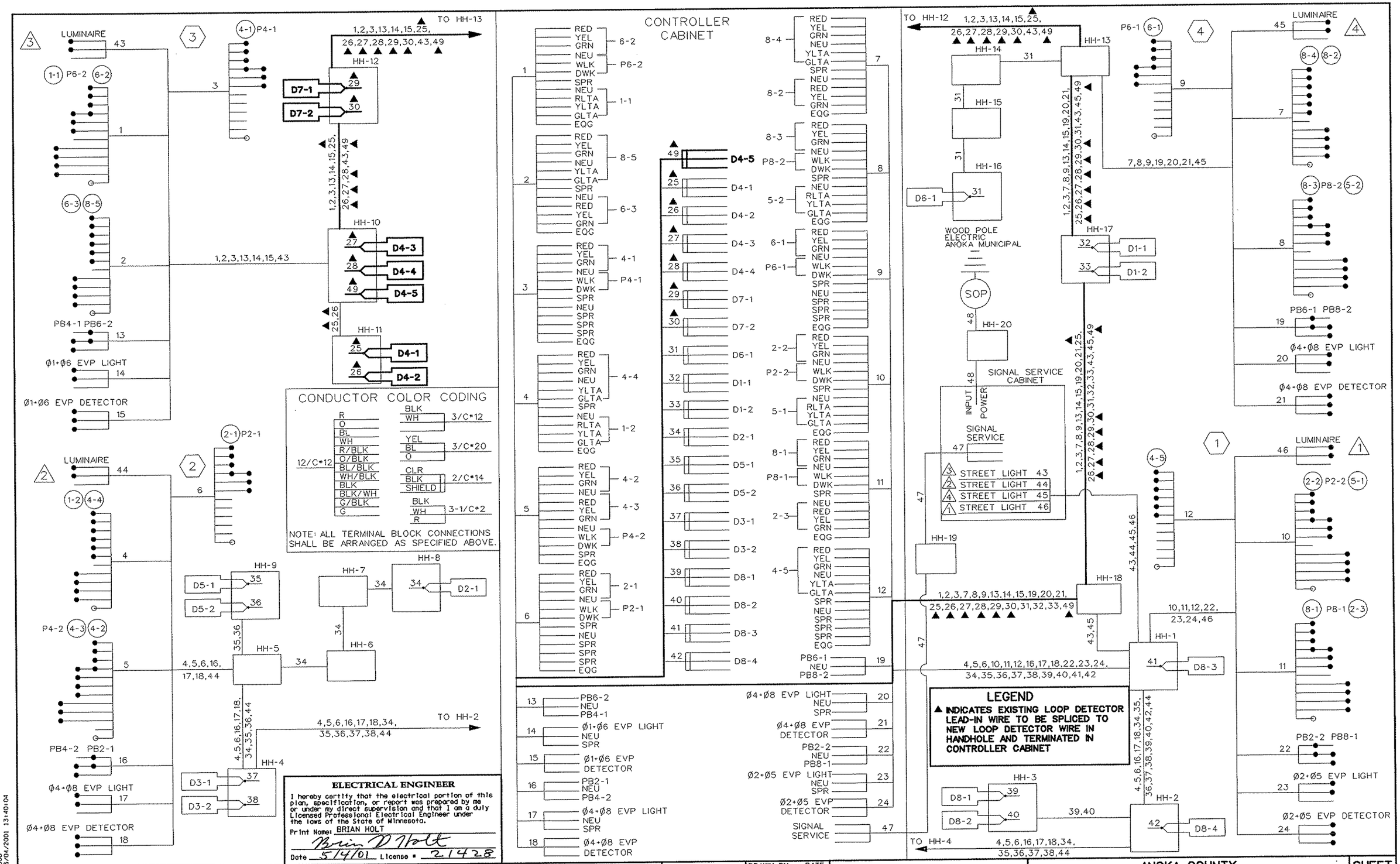
PLOTTED BY: Jeff Hoffman
PLOT DATE/TIME: 05/04/2001 13:40:43



NO	DATE	BY	CKD	APPR	REVISION

NAME: 3507.WDA DATE: May. 04, 2001

minnesota metric

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.
George M. Stuempfig
Date 5/4/01 Reg. No. 21849

STATE AID PROJECT NO. S.A.P. 106-020-14

FED. AID PROJECT NO. S.P. 02-617-17

DRAWN BY R. W. SMITH DATE 04-01
DESIGNED BY G. STUEMPFIG 04-01
CHECKED BY G. STUEMPFIG 04-01
COMM. NO. 0972842

SRF CONSULTING GROUP, INC.

ANOKA COUNTY
FIELD WIRING DIAGRAM
C.S.A.H. 17 RECONSTRUCTION
(SYSTEM "A")

SHEET 109 OF 183

DESIGN FILE: N:\CIVIL\047\2842\SIGNALS\350T.wdg
PROJECT: 047N2842
PLOTTED BY: MPHOUNOUNG
PLOT SCALE= 2.566000
PLOT DATE/TIME: 05/04/2001 13:40:04

ANOKA COUNTY PROPERTY

ANOKA COUNTY PROPERTY

CONST. LIMIT

NOTES:
CONTOUR INTERVAL = 0.25m
CONTOURS SHOWN REPRESENT FINISHED SURFACE.
(R) PLACE RIPRAP AT APRON END SEE STD. PLATE 3133

11

10

8

12

13

POND A
NWL 274.30
HWL 275.07

6.0m BENCH (TYP.)

1:4

3:1

MAINTENANCE ACCESS 1:10

97TH LANE

CONST. LIMIT

CITY OF LEXINGTON

CITY OF BLAINE

EDGEWOOD ROAD

C.S.A.H. 17 (LEXINGTON AVE.)

EARTHWORK MATCHLINE TO C.S.A.H. 17 ROADWAY CROSS SECTIONS

2.4 BIT. WALK

OUTLET STRUCTURE (SEE DETAIL)

CITY OF LEXINGTON
CITY OF CIRCLE PINES

CITY OF BLAINE
CITY OF CIRCLE PINES

PROP. R/W

CONST. LIMIT

T.E.

T.E.

2.4 BIT. WALK

scale 5 0 5 meter

NO	DATE	BY	CKD	APPR	REVISION
1	11-16-00	VGG	BRW	MDH	C.R. 110 S.A.P. NO. REVISION
2	11-16-00	VGG	BRW	MDH	SHOW RIGHT-OF-WAY

NAME: MGP1 410.PLN DATE: May. 02, 2001

minnesota metric

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.
Date 5-1-2001 Reg. No. 21364

STATE AID PROJECT NO. S.A.P. 106-020-14

FED. AID PROJECT NO. S.P. 02-617-17

DRAWN BY V. GRAF DATE 12-96
DESIGNED BY L. ROBJENT 12-96
CHECKED BY L. ROBJENT 1-97
COMM. NO. 0962842

SRF CONSULTING GROUP, INC.

ANOKA COUNTY
MISCELLANEOUS GRADING PLAN
C.S.A.H. 17 RECONSTRUCTION
POND A

SHEET 118 OF 183

DESIGN FILE: N:\CIVIL\008\2410\Plan\North\LKD\MGP1-410.PLN
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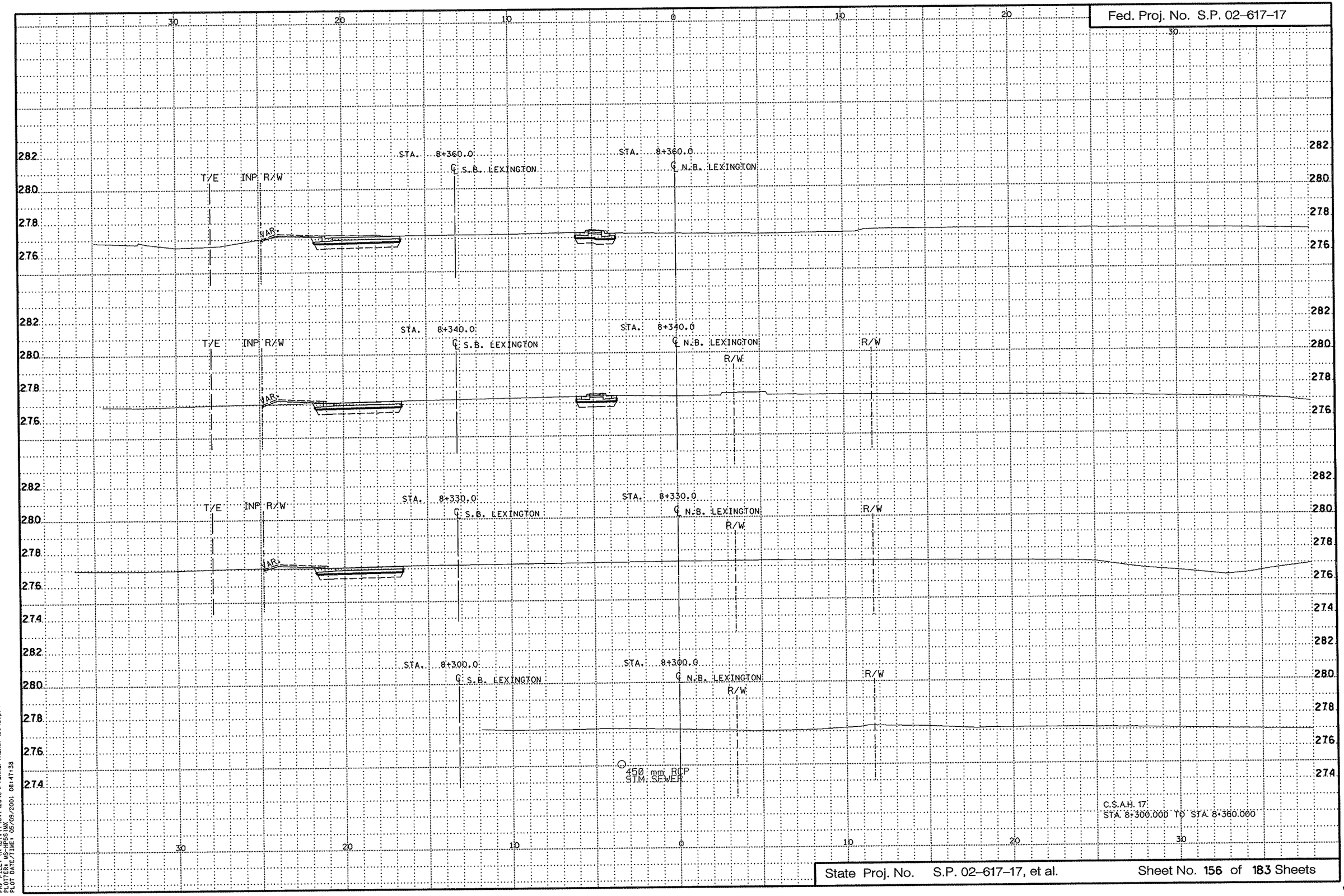
Fed. Proj. No. S.P. 02–617–17



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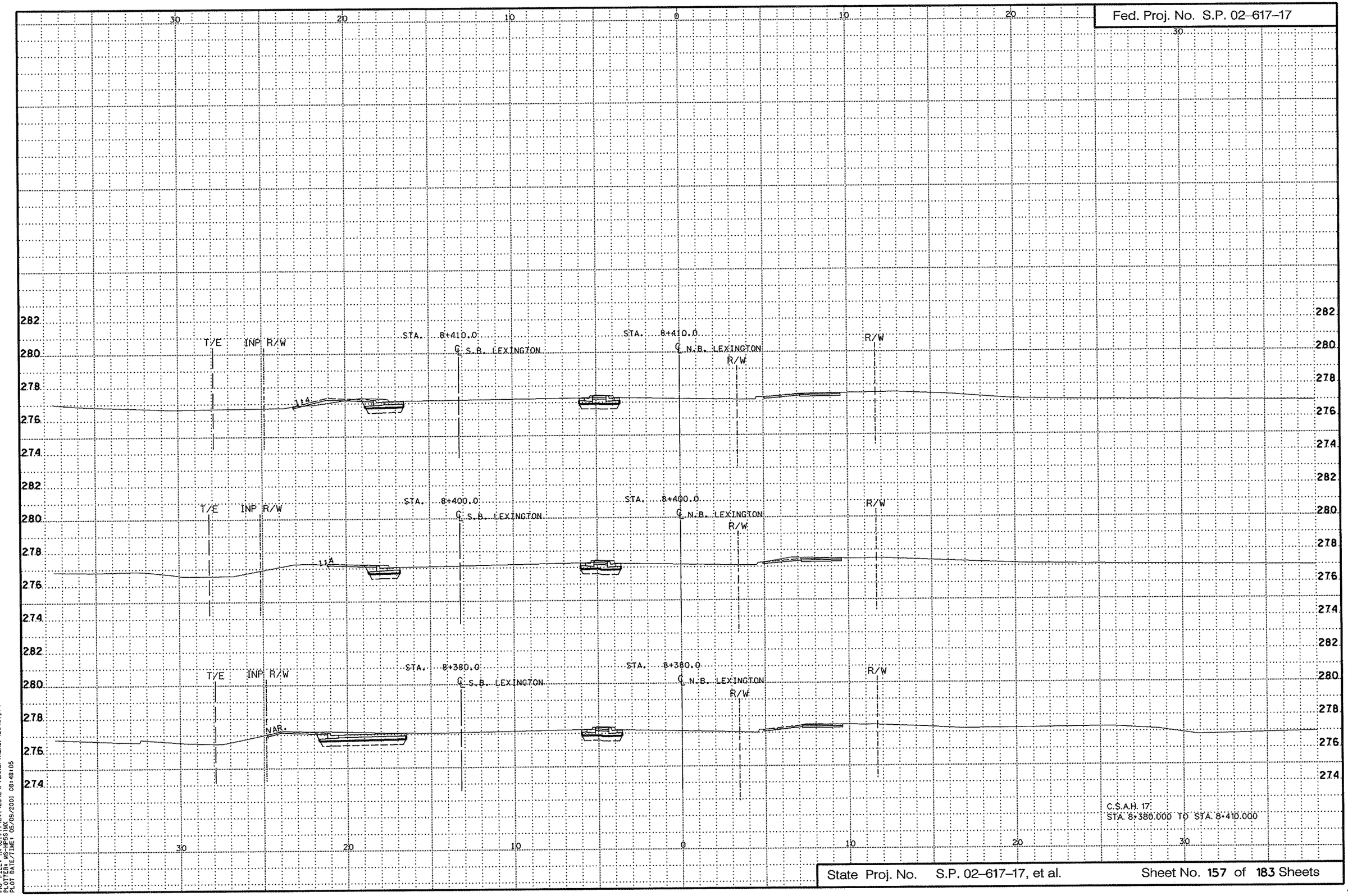
Fed. Proj. No. S.P. 02-617-17



C.S.A.H. 17
STA. 8+380.000 TO STA. 8+410.000

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State Proj. No. S.P. 02-617-17, et al. Sheet No. 157 of 183 Sheets

Fed. Proj. No. S. P. 02-617-17

STA. 8+500.0
℄ S.B. LEXINGTON
276.765
(EXISTING)

STA. 8+500.0
℄ N.B. LEXINGTON
276.756
(EXISTING)

276.790

BUILDING

T/E

R/W

R/W

PUBLIC STREET

T-BUR
G-BUR

T-BUR
P-BUR (AEC)

EX. W/M

EX. SAN.

STA. 8+480.0
℄ S.B. LEXINGTON
276.991
(EXISTING)

STA. 8+480.0
℄ N.B. LEXINGTON
276.892
(EXISTING)

276.907

BUILDING
BEGINS +461

T/E

R/W

R/W

R/W

T-BUR
G-BUR

T-BUR
P-BUR (AEC)

EX. W/M

EX. SAN.

STA. 8+460.0
℄ S.B. LEXINGTON
277.037
(EXISTING)

STA. 8+460.0
℄ N.B. LEXINGTON
277.057
(EXISTING)

277.058

T/E

R/W

R/W

R/W

T-BUR
G-BUR

T-BUR
R-BUR (AEC)

EX. W/M

EX. SAN.

C.S.A.H. 17 (LEXINGTON AVENUE)
STA. 8+460.000 TO STA. 8+500.000

State Proj. No. S.P. 02-617-17, et al. Sheet No. 158 of 183 Sheets

DESIGN FILE: h:\civil\008\2410\Plan\Cnr-tmlk0r\SHT-LEX1.PLN
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PLOT DATE/TIME: 05/09/2001 09:07:51

Fed. Proj. No. S. P. 02–617–17

30 20 10 0 10 20 30

282
280
278
276
274

BUILDING
ENDS +558

T/E R/W R/W

STA. 8+547.5
℄ S.B. LEXINGTON
276.992
(EXISTING)

STA. 8+547.5
℄ N.B. LEXINGTON
276.792 R/W
(EXISTING)

276.746

DRIVEWAY
R/W T/E
0.08 m/m

1:4

T-BUR
G-BUR

T-BUR
G-BUR P-BUR (AEC)

EX. W/M
EX. SAN.

BUILDING

T/E R/W R/W

STA. 8+540.0
℄ S.B. LEXINGTON
276.915
(EXISTING)

STA. 8+540.0
℄ N.B. LEXINGTON
276.745 R/W
(EXISTING)

276.73

R/W

1:4

T-BUR

T-BUR
G-BUR P-BUR (AEC)

EX. W/M
EX. SAN.

BUILDING

T/E R/W R/W

STA. 8+520.0
℄ S.B. LEXINGTON
276.815
(EXISTING)

STA. 8+520.0
℄ N.B. LEXINGTON
276.681 R/W
(EXISTING)

276.733

R/W

1:4

T-BUR
G-BUR

T-BUR
G-BUR P-BUR (AEC)

EX. W/M
EX. SAN.

C.S.A.H. 17 (LEXINGTON AVENUE)
STA. 8+520.000 TO STA. 8+547.500

State Proj. No. S.P. 02–617–17, et al. Sheet No. **159** of **183** Sheets

DESIGN FILE: h:\civil\008\2410\PlanNor+hLK0r\SHT-LEX1.PLN
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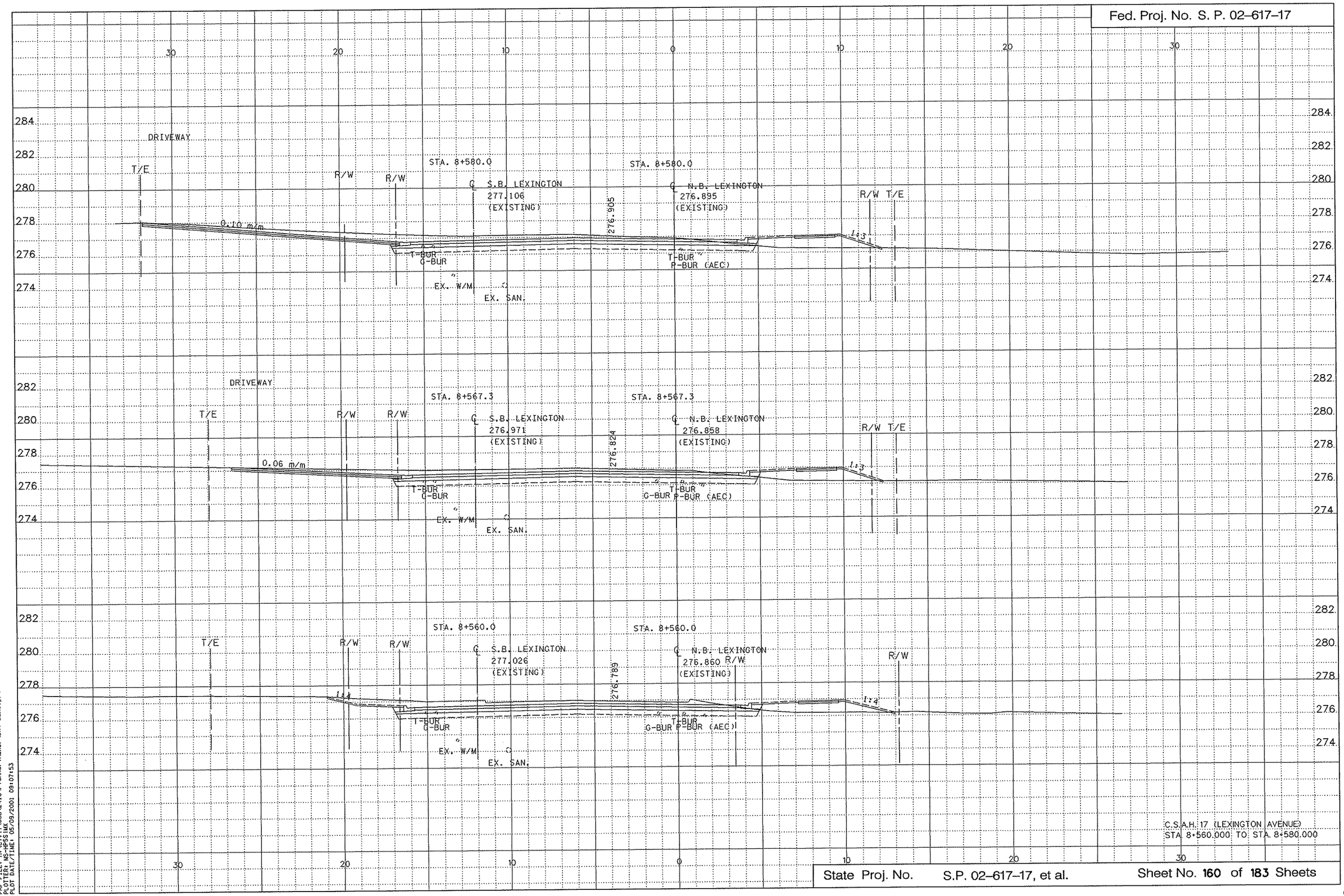

C.S.A.H. 17 (LEXINGTON AVENUE)
STA 8+560.000 TO STA. 8+580.000

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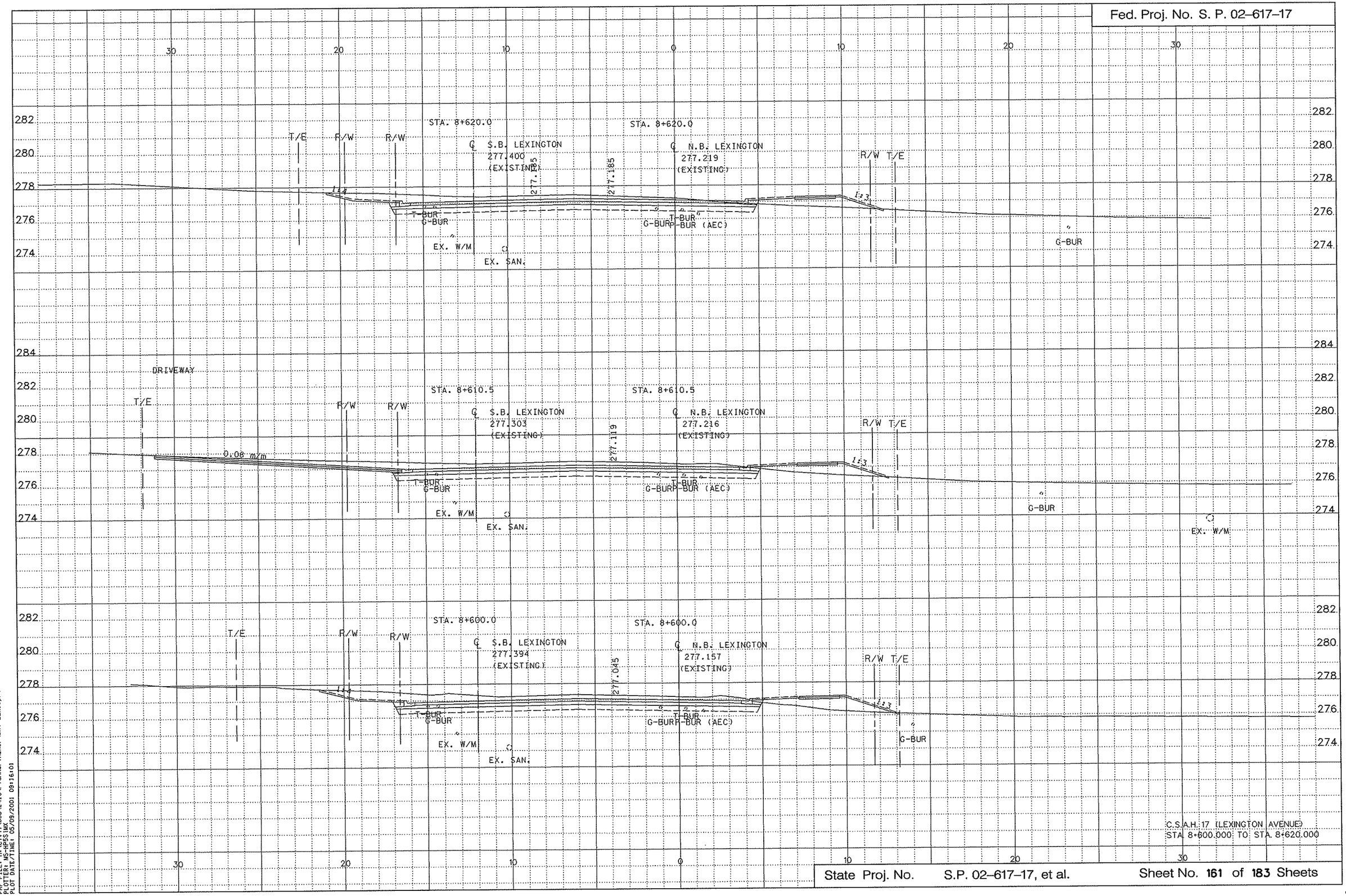
State Proj. No. S.P. 02–617–17, et al. Sheet No. **160** of **183** Sheets

Fed. Proj. No. S. P. 02-617-17



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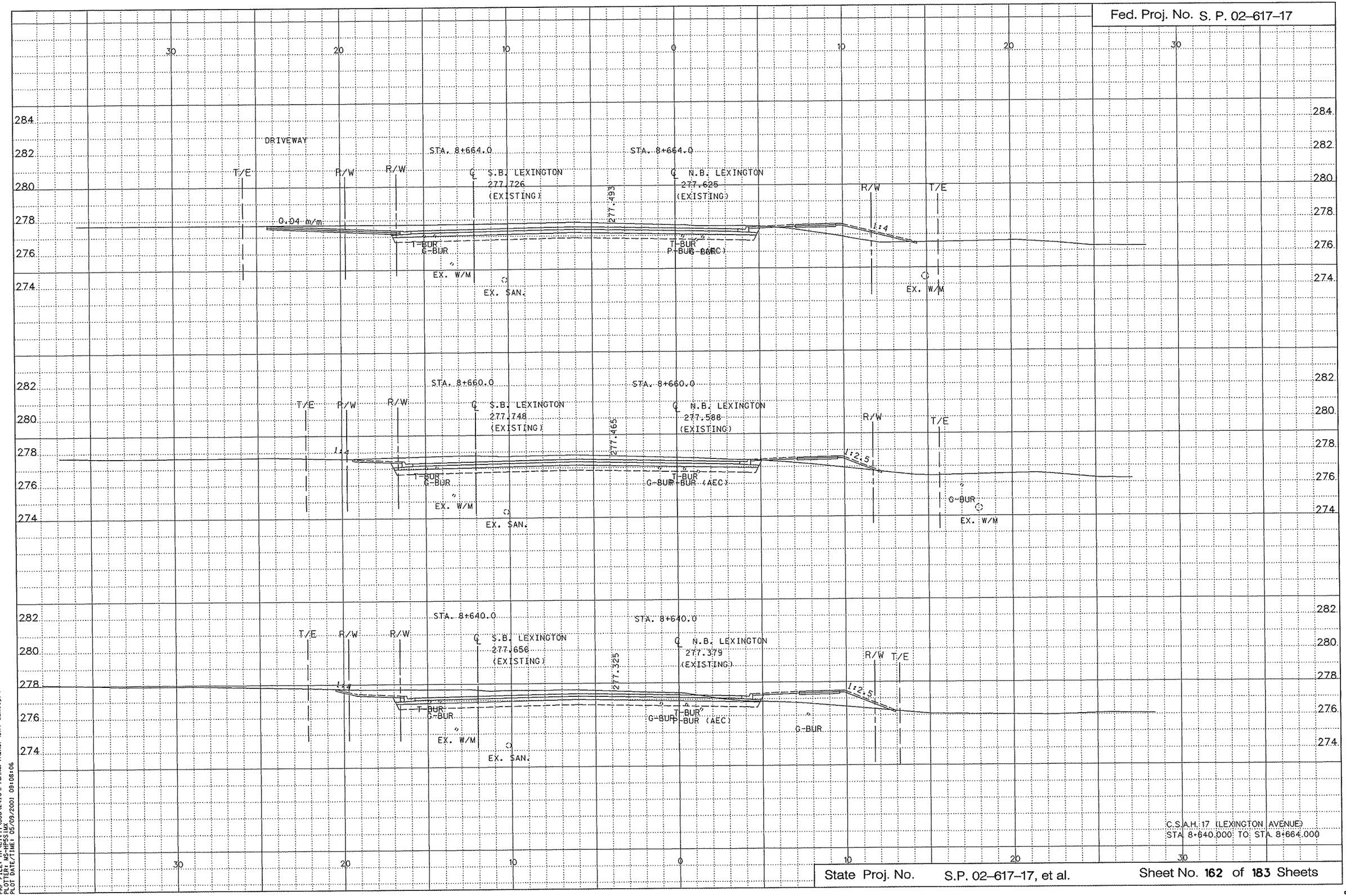
PLOT DATE/TIME: 05/09/2001 09:16:01

State Proj. No. S.P. 02-617-17, et al. Sheet No. **161** of **183** Sheets

Fed. Proj. No. S. P. 02-617-17



C.S.A.H. 17 (LEXINGTON AVENUE)
STA. 8+640.000 TO STA. 8+664.000

State Proj. No. S.P. 02-617-17, et al. Sheet No. **162** of **183** Sheets

DESIGN FILE: d:\prlv\jl008\2410\Prdnwrf\NJD\SHT-LEX1.PLN
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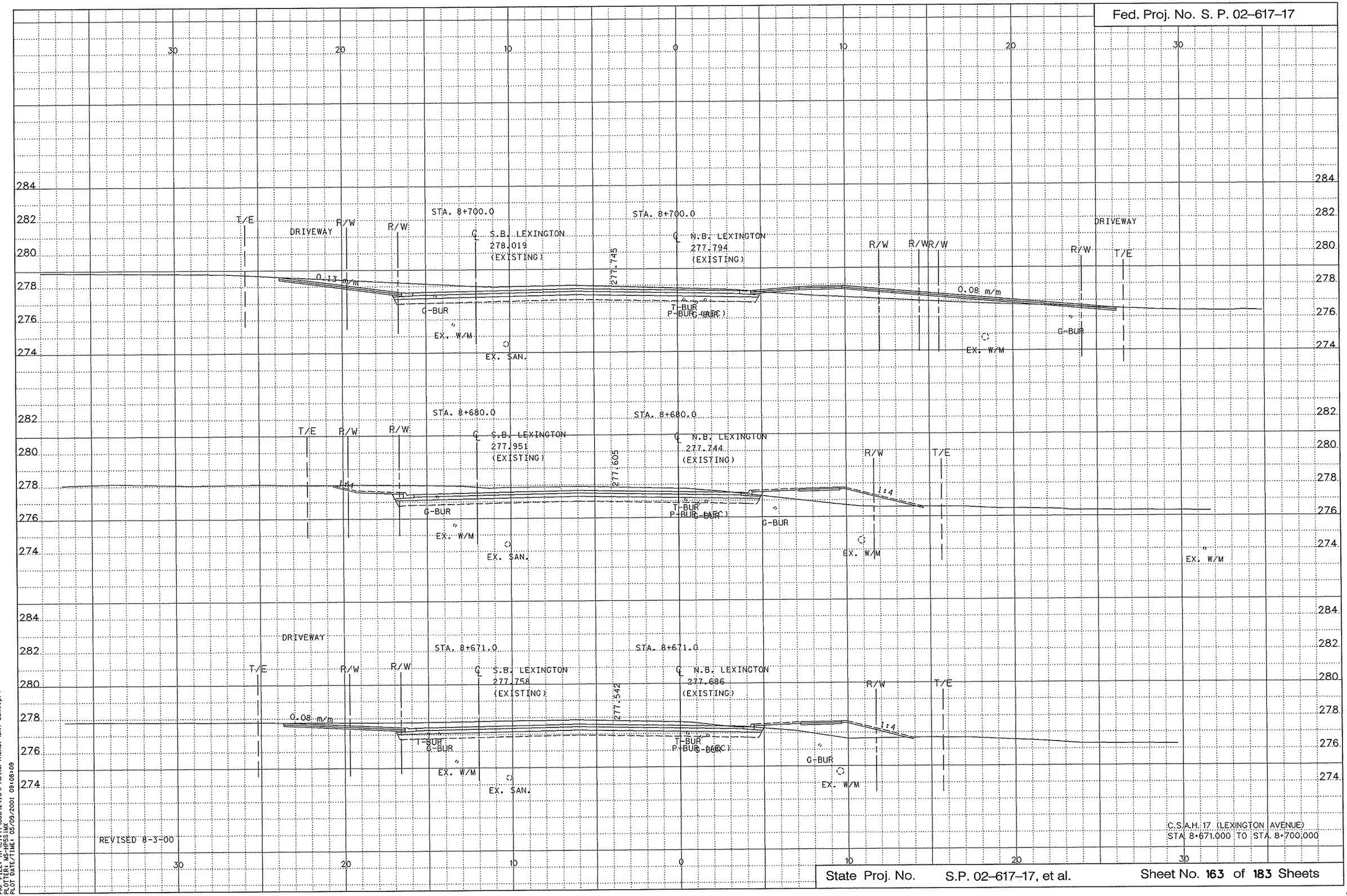
Fed. Proj. No. S. P. 02-617-17



REVISED 8-3-00

C.S.A.H. 17 (LEXINGTON AVENUE)
STA. 8+671.000 TO STA. 8+700.000

State Proj. No. S.P. 02-617-17, et al. Sheet No. **163** of **183** Sheets

DESIGN FILE: n:\civil\1000\241OP\conNor1NLKD\SHT-LEX1.PLN
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PLOTTER: NS-HP5SIMX
PLOT DATE/TIME: 05/09/2001 09:08:09

Fed. Proj. No. S. P. 02–617–17

30 20 10 0 10 20 30

284 282 280 278 276 274

DRIVEWAY

STA. 8+756.8

T/E R/W R/W

℄ S.B. LEXINGTON
277.993
(EXISTING)

0.07 m/m

277.946

STA. 8+756.8

℄ N.B. LEXINGTON
277.641
(EXISTING)

R/W T/E

1:4

C-BUR

T-BUR
P-BUR (C-BUR)

EX. W/M

EX. SAN.

EX. W/M

STA. 8+740.0

T/E R/W R/W

℄ S.B. LEXINGTON
278.354
(EXISTING)

277.955

STA. 8+740.0

℄ N.B. LEXINGTON
277.777
(EXISTING)

R/W T/E

1:4

C-BUR

T-BUR
P-BURG(BUR)

EX. W/M

EX. SAN.

EX. W/M

STA. 8+720.0

T/E R/W R/W

℄ S.B. LEXINGTON
278.524
(EXISTING)

277.882

STA. 8+720.0

℄ N.B. LEXINGTON
277.834
(EXISTING)

R/W T/E

1:4

C-BUR

T-BUR
P-BURG(BUR)

EX. W/M

EX. SAN.

EX. W/M

REVISED 8-3-00

C.S.A.H. 17 (LEXINGTON AVENUE)
STA. 8+720.000 TO STA. 8+756.800

30 20 10 0 10 20 30

DESIGN FILE: h:\civil\008\2410\Plan&Pro\NorthLKD\SHT-LEX1.PLN
PRF FILE: h:\civil\008\2410\Plan&Pro\NLKD\SHT-LEX1.prf
PLOTTER: MS-HP55.1MX
PLOT DATE/TIME: 05/09/2001 09:08:18

State Proj. No. S.P. 02–617–17, et al. Sheet No. **164** of **183** Sheets

Fed. Proj. No. S. P. 02-617-17

DRIVEWAY

T/E R/W R/W

STA. 8+763.5

℄ S.B. LEXINGTON
277.706
(EXISTING)

277.801

℄ N.B. LEXINGTON
277.511
(EXISTING)

STA. 8+763.5

R/W T/E

10%

T-BUR

T-BUR
P-BUR (4-BUR)

EX. W/M

EX. SAN.

EX. W/M

NOTE: BEGIN CONSTRUCTION OF DRIVEWAY FROM FLOW LINE OF GUTTER.

T/E R/W R/W

STA. 8+780.0

℄ S.B. LEXINGTON
277.751
(EXISTING)

277.830

℄ N.B. LEXINGTON
277.530
(EXISTING)

STA. 8+780.0

R/W

1:4

1:3

T-BUR

T-BUR
P-BUR (4-BUR)

EX. W/M

EX. SAN.

EX. W/M

T/E R/W R/W

STA. 8+766.1

℄ S.B. LEXINGTON
277.929
(EXISTING)

277.914

℄ N.B. LEXINGTON
277.689
(EXISTING)

STA. 8+766.1

1:4

T-BUR
G-BUR

T-BUR
P-BUR (4-BUR)

WEST RD.

2.0%

-4.9%

-2.6%

EX. W/M

EX. SAN.

EX. W/M

T/E T/E R/W R/W

STA. 8+760.0

℄ S.B. LEXINGTON
277.994
(EXISTING)

277.937

℄ N.B. LEXINGTON
277.614
(EXISTING)

STA. 8+760.0

1:4

G-BUR

T-BUR
P-BUR (4-BUR)

EX. W/M

EX. SAN.

EX. W/M EX. W/M

C.S.A.H. 17 (LEXINGTON AVENUE)
STA. 8+760.000 TO STA. 8+783.5

State Proj. No. S.P. 02-617-17, et al.

Sheet No. 165 of 183 Sheets

DESIGN FILE: h:\civil\008\2410\Plan\North\LK0r\SHT-LEX1.PLN
PRF FILE: h:\civil\008\2410\Plan\North\LK0r\SHT-LEX1.prf
PLOTTER: MS-HP55.MX
PLOT DATE/TIME: 05/09/2001 09:08:27

Fed. Proj. No. S. P. 02–617–17

STA. 8+800.0

℄ S.B. LEXINGTON
277.596
(EXISTING)

277.632

℄ N.B. LEXINGTON
277.328
(EXISTING)

T/E R/W R/W T-BUR EX. W/M T-BUR P-BUR GABOR EX. W/M R/W T/E

STA. 8+796.5

℄ S.B. LEXINGTON
277.649
(EXISTING)

277.673

℄ N.B. LEXINGTON
277.376
(EXISTING)

T/E R/W R/W T-BUR EX. W/M T-BUR P-BUR GABOR EX. W/M R/W T/E

STA. 8+790.0

℄ S.B. LEXINGTON
277.738
(EXISTING)

277.742

℄ N.B. LEXINGTON
277.470
(EXISTING)

T/E R/W R/W T-BUR EX. W/M EX. SAN. T-BUR P-BUR GABOR EX. W/M R/W T/E BUILDING

C.S.A.H. 17 (LEXINGTON AVENUE)
STA. 8+790.000 TO STA. 8+800.000

State Proj. No. S.P. 02–617–17, et al.

Sheet No. **166** of **183** Sheets

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Fed. Proj. No. S. P. 02-617-17

ANOKA COUNTY PROPERTY

SEE MISC. GRADING PLAN A

VAR.

G-BUR

R/W

STA. 8+840.0

℄ S.B. LEXINGTON
276.784
(EXISTING)

EX. W/M

276.970

STA. 8+840.0

℄ N.B. LEXINGTON
276.563
(EXISTING)

T-BUR
P-BUR (AEC)
G-BUR

R/W

T/E

1:4

STA. 8+829.4

℄ S.B. LEXINGTON
277.121
(EXISTING)

EX. W/M

277.179

STA. 8+829.4

℄ N.B. LEXINGTON
276.780
(EXISTING)

EDGEWOOD RD.

-0.9%

-2.0%

T-BUR
P-BUR (AEC)
G-BUR

R/W

T/E

1:4

EX. W/M

STA. 8+820.0

℄ S.B. LEXINGTON
277.343
(EXISTING)

EX. W/M

277.345

STA. 8+820.0

℄ N.B. LEXINGTON
276.956
(EXISTING)

1:4

T-BUR

T-BUR
P-BUR (AEC)
G-BUR

R/W

T/E

1:4

EX. W/M

C.S.A.H. 17 (LEXINGTON AVENUE)
STA 8+820.000 TO STA. 8+840.000

State Proj. No. S.P. 02-617-17, et al.

Sheet No. **167** of **183** Sheets

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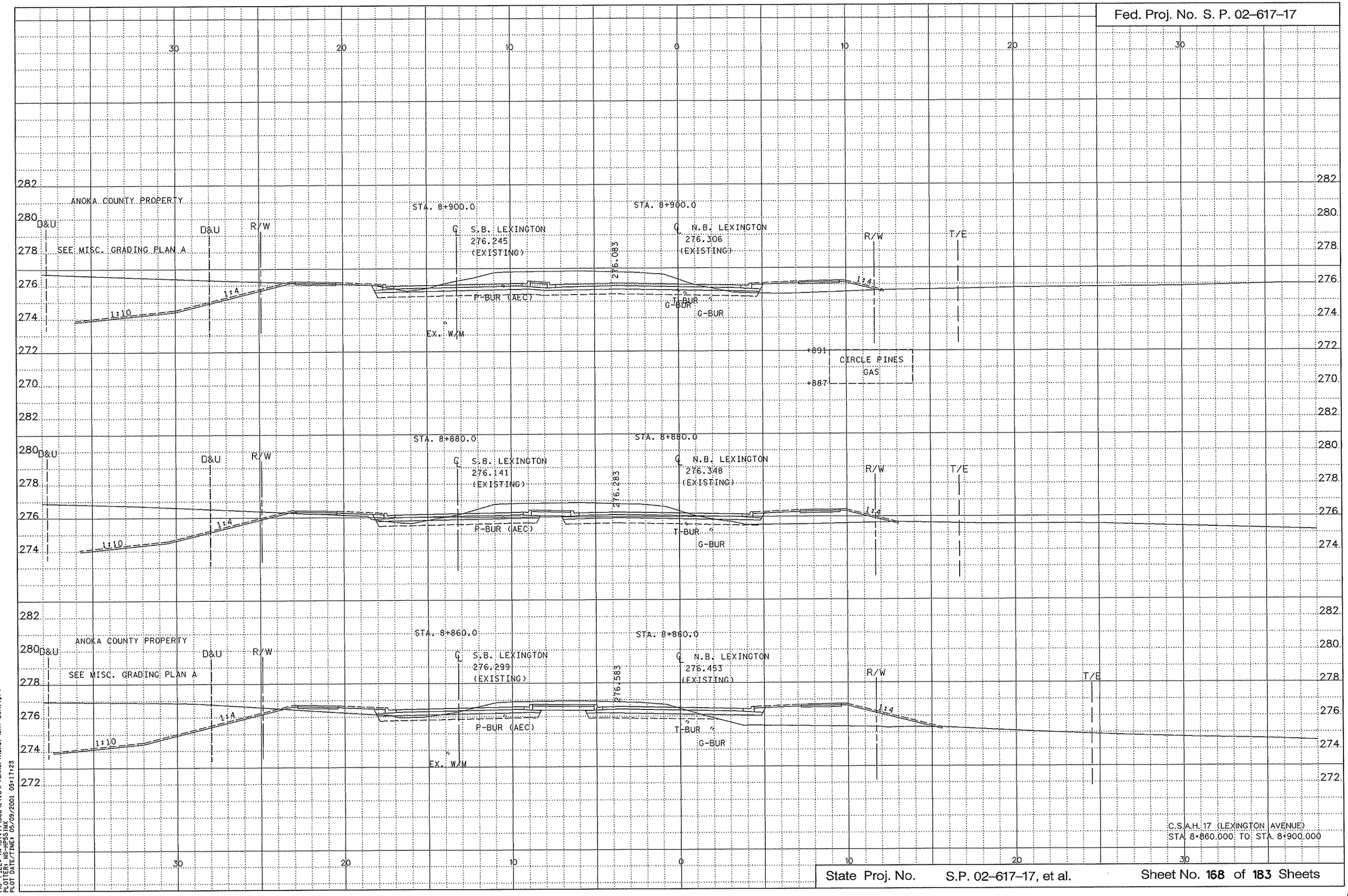
Fed. Proj. No. S. P. 02–617–17



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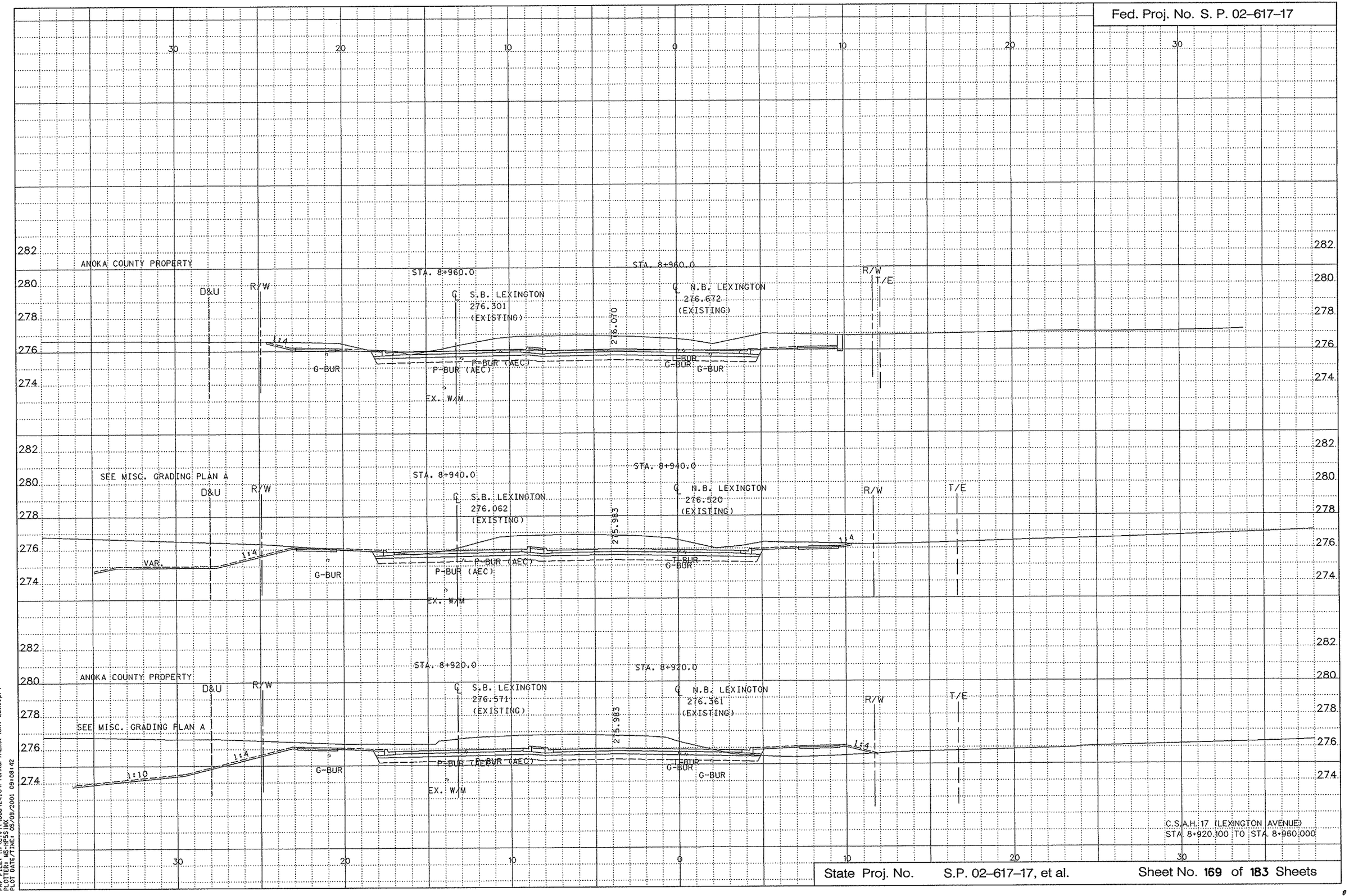

C.S.A.H. 17 (LEXINGTON AVENUE)
STA. 8+920.100 TO STA. 8+960.000

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Fed. Proj. No. S. P. 02–617–17

STA. 9+020.0
℄ S.B. LEXINGTON
276.875
(EXISTING)

STA. 9+020.0
℄ N.B. LEXINGTON
276.844
(EXISTING)

276.370

T/E R/W R/W R/W

1:4 2.5:1

G-BUR P-BUR (AEC) T-BUR G-BUR

STA. 9+000.0
℄ S.B. LEXINGTON
276.272
(EXISTING)

STA. 9+000.0
℄ N.B. LEXINGTON
276.796
(EXISTING)

276.270

R/W R/W R/W

1:4 2.5:1

P-BUR (AEC) T-BUR G-BUR G-BUR

STA. 8+978.4
℄ S.B. LEXINGTON
276.869
(EXISTING)

STA. 8+978.4
℄ N.B. LEXINGTON
276.771
(EXISTING)

276.162

M/L R/W

-0.4% 97TH LANE -2.0%

G-BUR P-BUR (AEC) T-BUR G-BUR G-BUR

EX. W/M

M/L 97TH LANE -0.4%

C.S.A.H. 17 (LEXINGTON AVENUE)
STA. 8+978.400 TO STA. 9+020.000

State Proj. No. S.P. 02–617–17, et al. Sheet No. **170** of **183** Sheets

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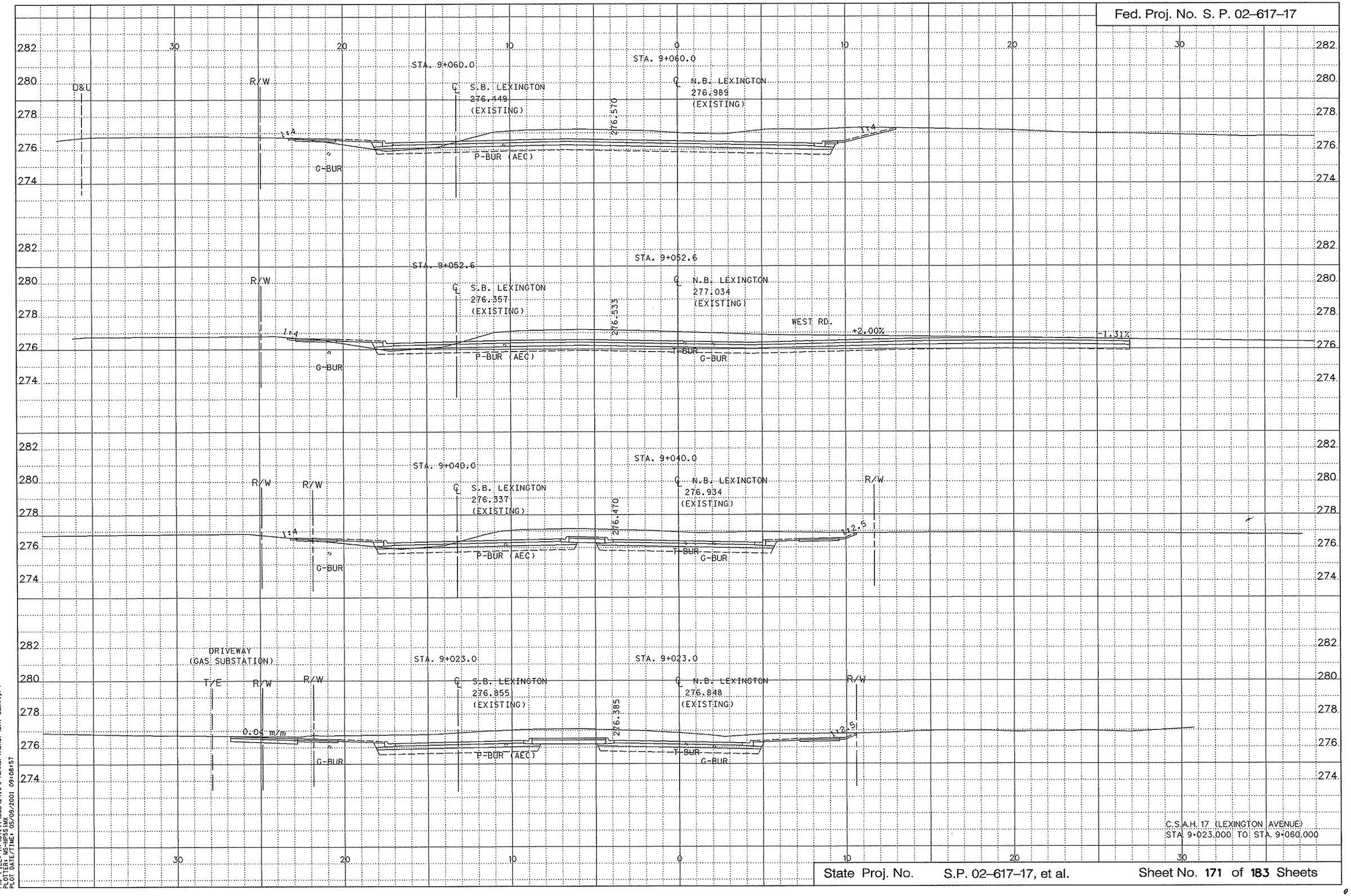

C.S.A.H. 17 (LEXINGTON AVENUE)
STA. 9+023.000 TO STA. 9+060.000

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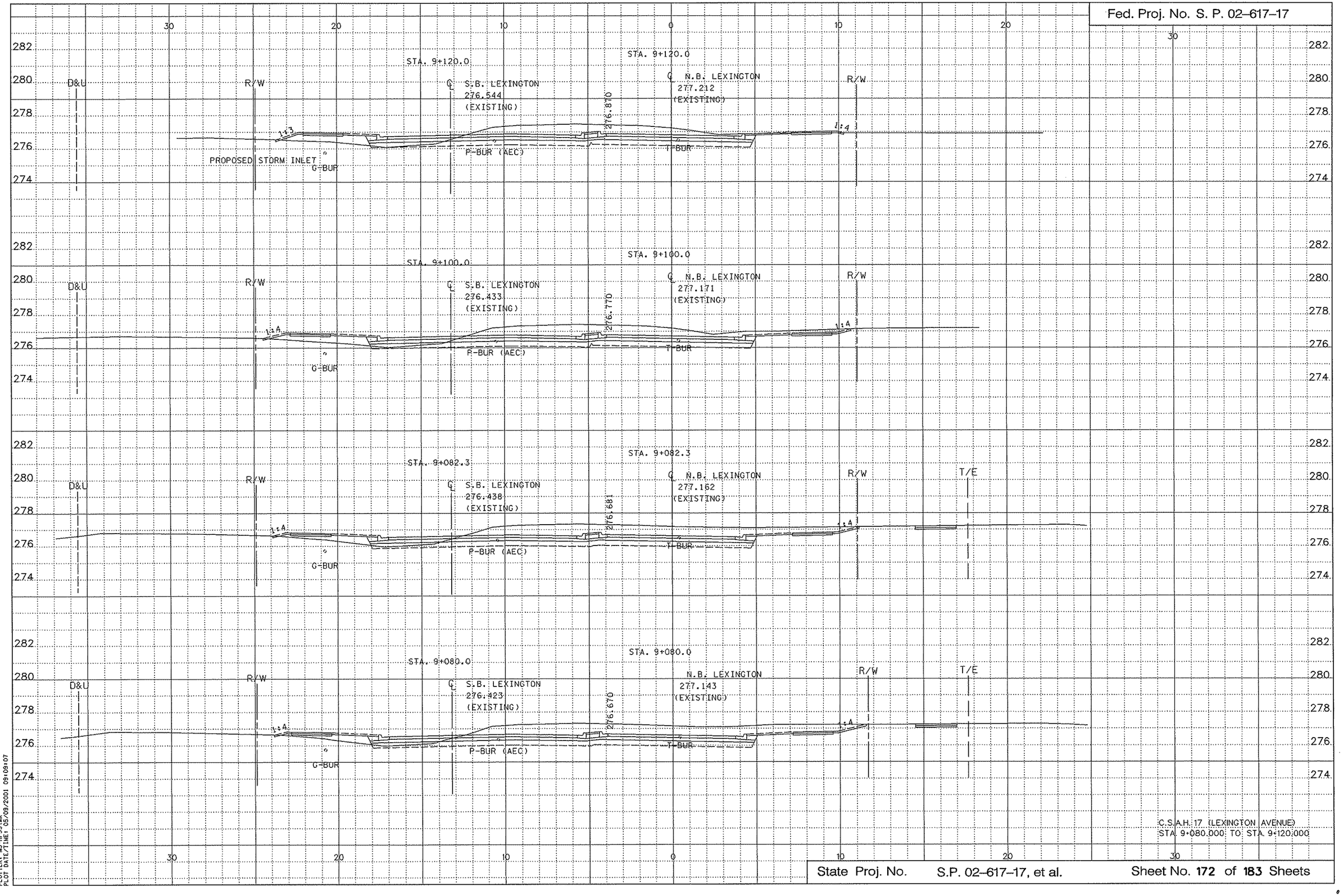

C.S.A.H. 17 (LEXINGTON AVENUE)
STA. 9+080.000 TO STA. 9+120.000

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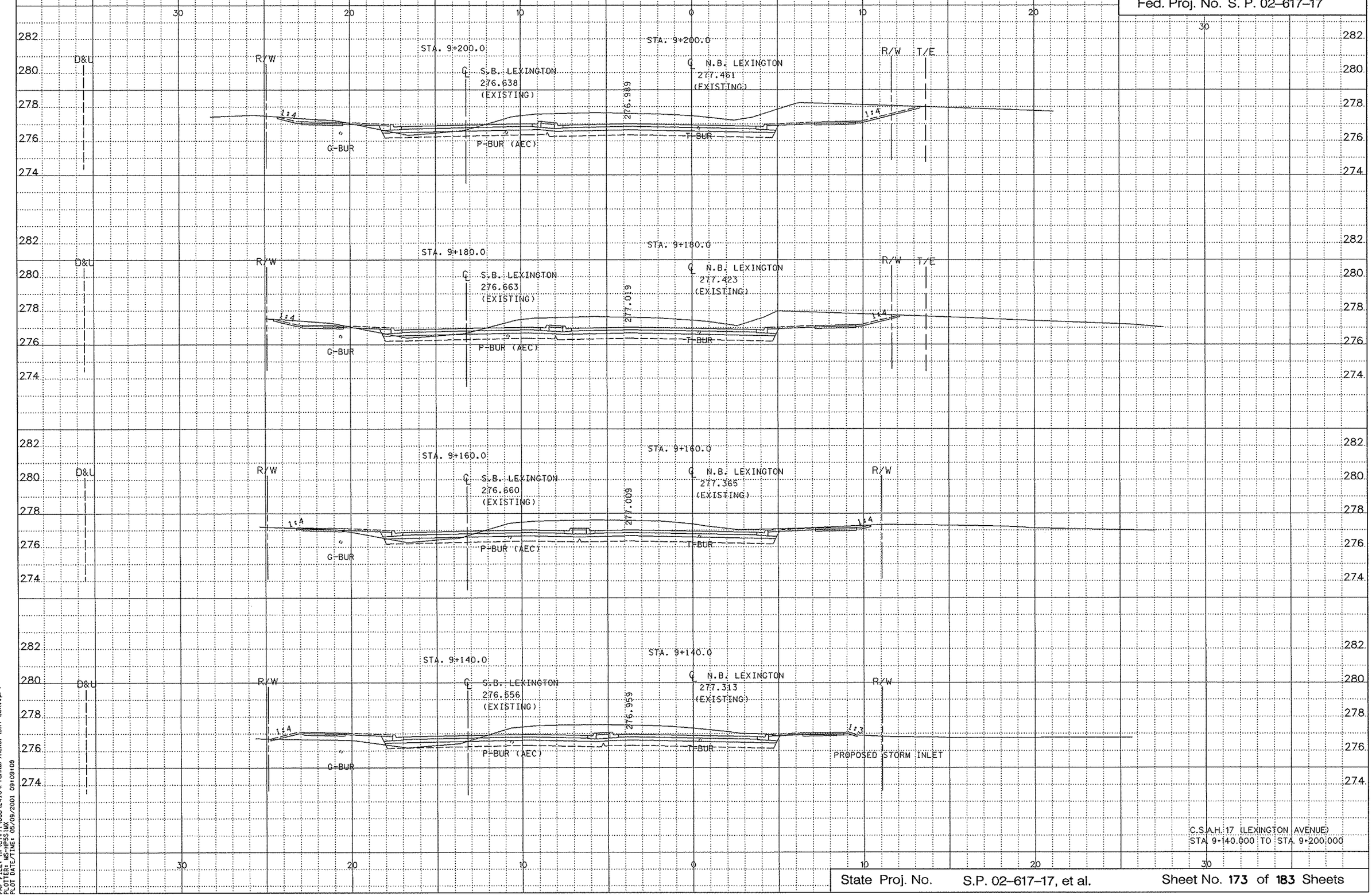

C.S.A.H. 17 (LEXINGTON AVENUE)
STA. 9+140.000 TO STA. 9+200.000

State Proj. No. S.P. 02–617–17, et al. Sheet No. **173** of **183** Sheets

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Fed. Proj. No. S. P. 02–617–17

STA. 9+265.9

℄ S.B. LEXINGTON
277.362
(EXISTING)

STA. 9+265.9

℄ N.B. LEXINGTON
277.231
(EXISTING)

R/W

99TH AVE. NE

M/L

+2.00%

-2.00%

276.691

1:4

P-BUR (AEC)-BUR

P-BUR (AEC)

T-BUR

M/L

STA. 9+260.0

D&L

℄ S.B. LEXINGTON
277.337
(EXISTING)

STA. 9+260.0

℄ N.B. LEXINGTON
277.278
(EXISTING)

R/W

276.720

1:4

1:4

P-BUR (AEC)

P-BUR (AEC)

T-BUR

STA. 9+240.0

D&U

R/W

℄ S.B. LEXINGTON
276.564
(EXISTING)

STA. 9+240.0

℄ N.B. LEXINGTON
277.378
(EXISTING)

R/W

276.820

1:4

1:4

G-BUR

P-BUR (AEC)

T-BUR

STA. 9+220.0

D&U

R/W

℄ S.B. LEXINGTON
276.668
(EXISTING)

STA. 9+220.0

℄ N.B. LEXINGTON
277.426
(EXISTING)

R/W

276.919

1:4

1:3

G-BUR

P-BUR (AEC)

T-BUR

C.S.A.H. 17 (LEXINGTON AVENUE)
STA. 9+220.000 TO STA. 9+265.900

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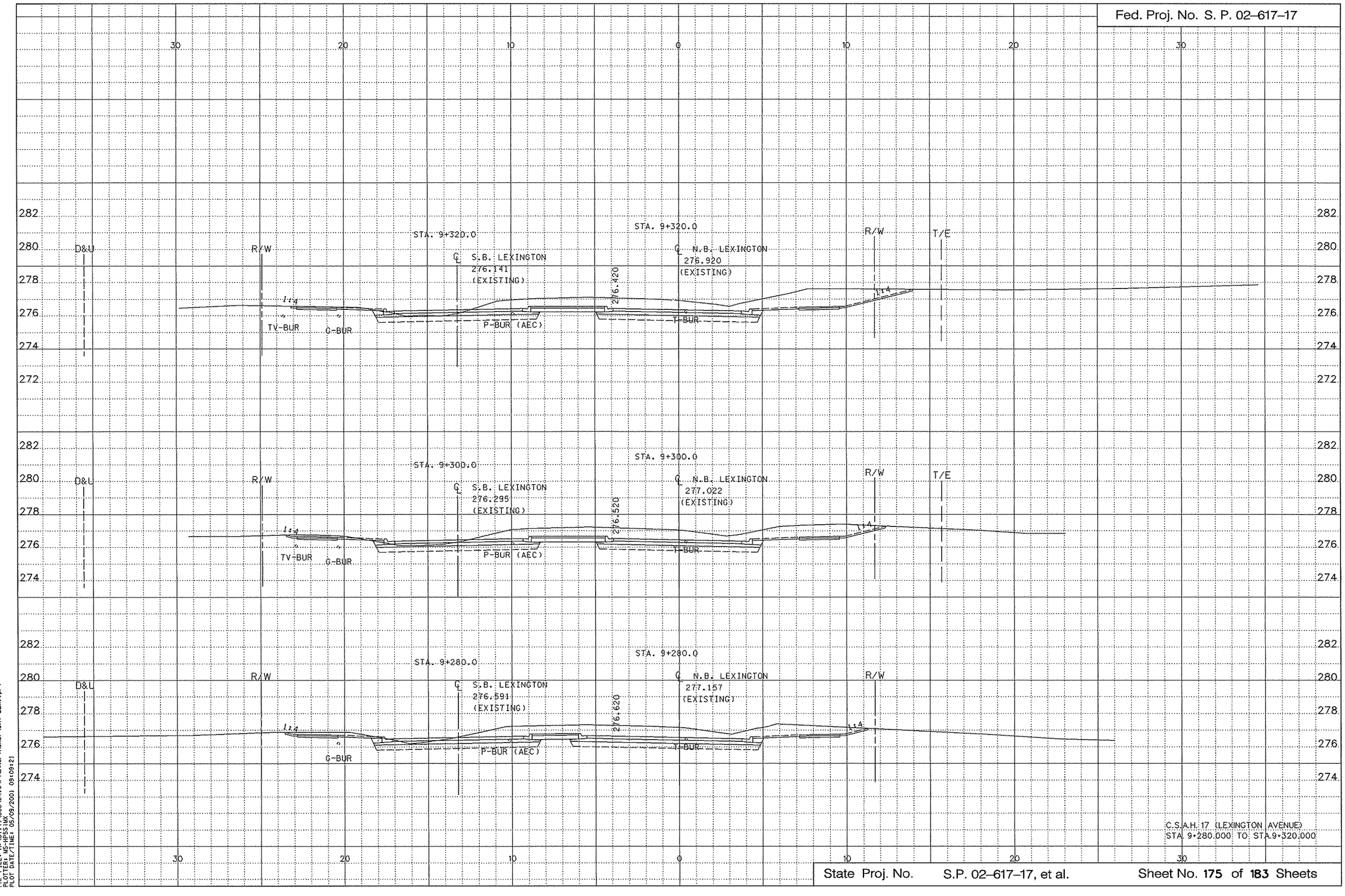

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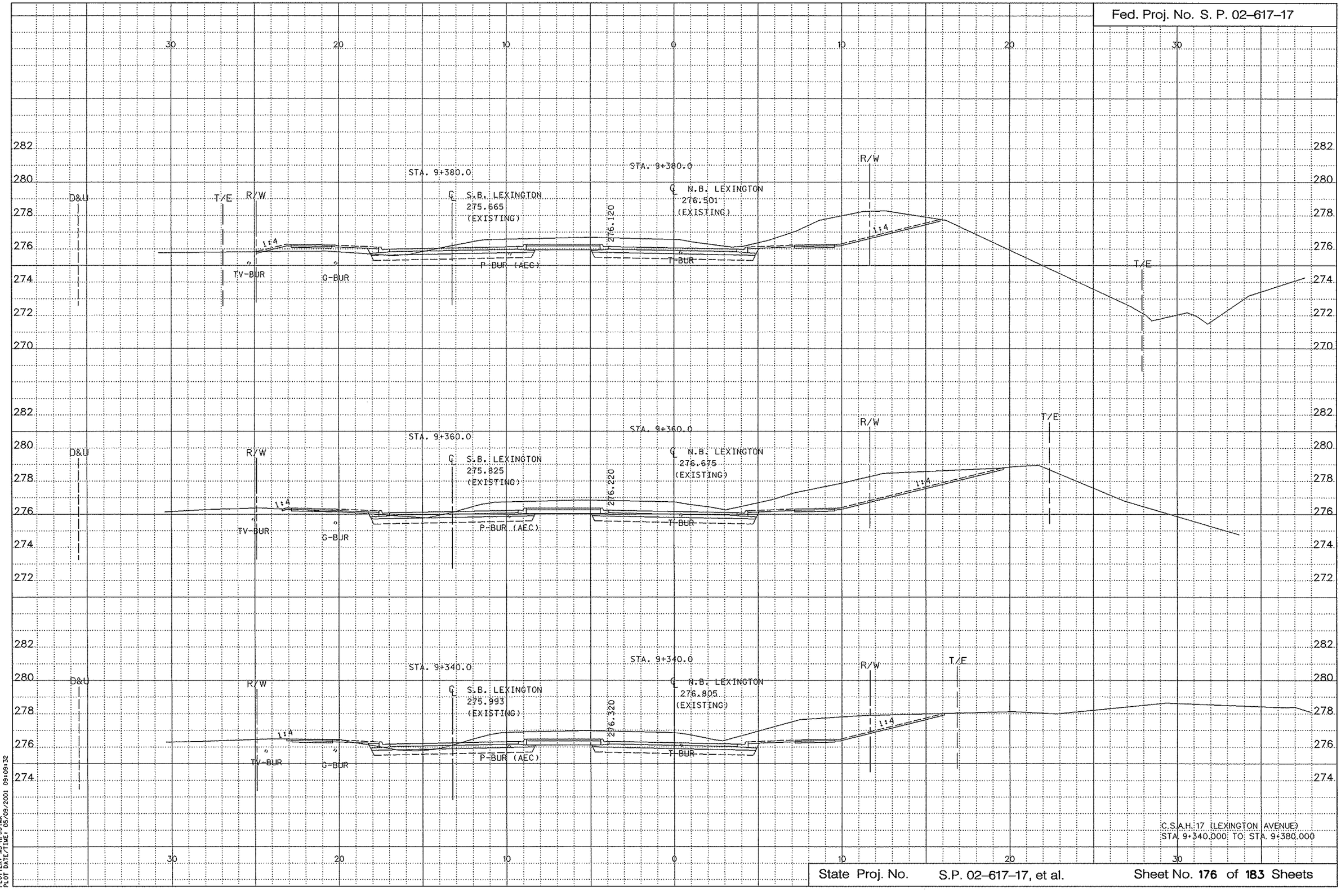

C.S.A.H. 17 (LEXINGTON AVENUE)
STA. 9+340.000 TO STA. 9+380.000

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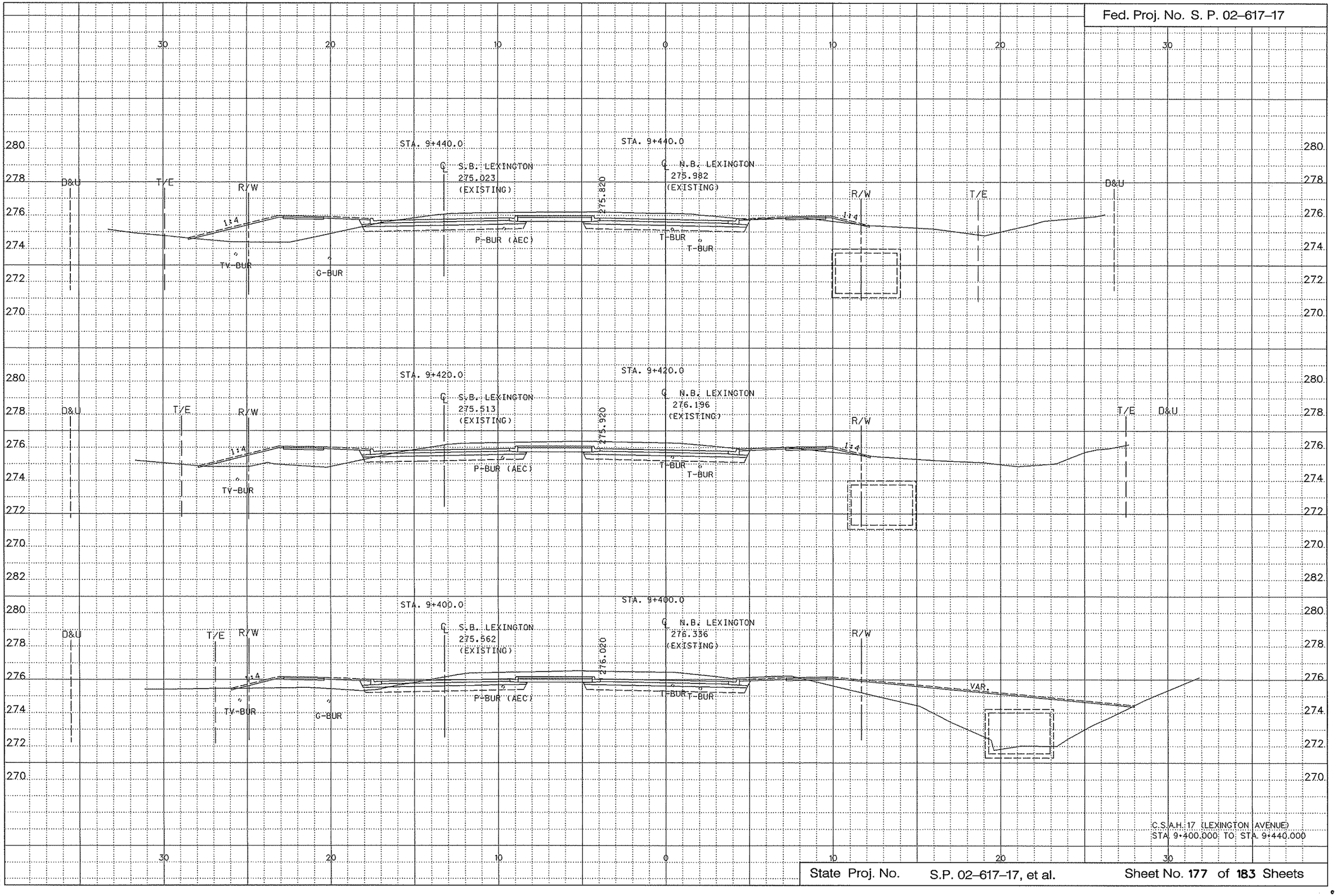

C.S.A.H. 17 (LEXINGTON AVENUE)
STA. 9+400.000 TO STA. 9+440.000

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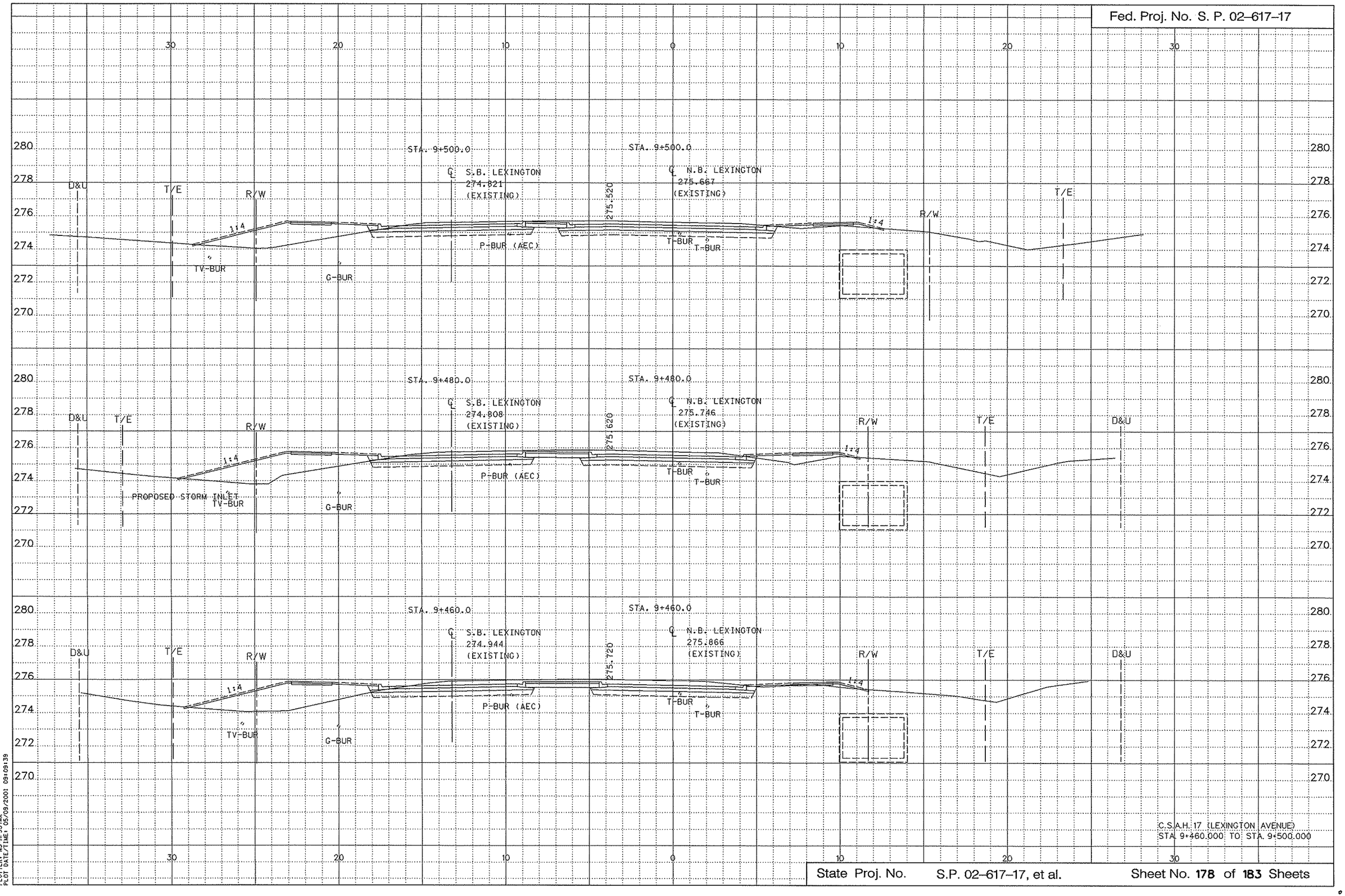

C.S.A.H. 17 (LEXINGTON AVENUE)
STA. 9+460.000 TO STA. 9+500.000

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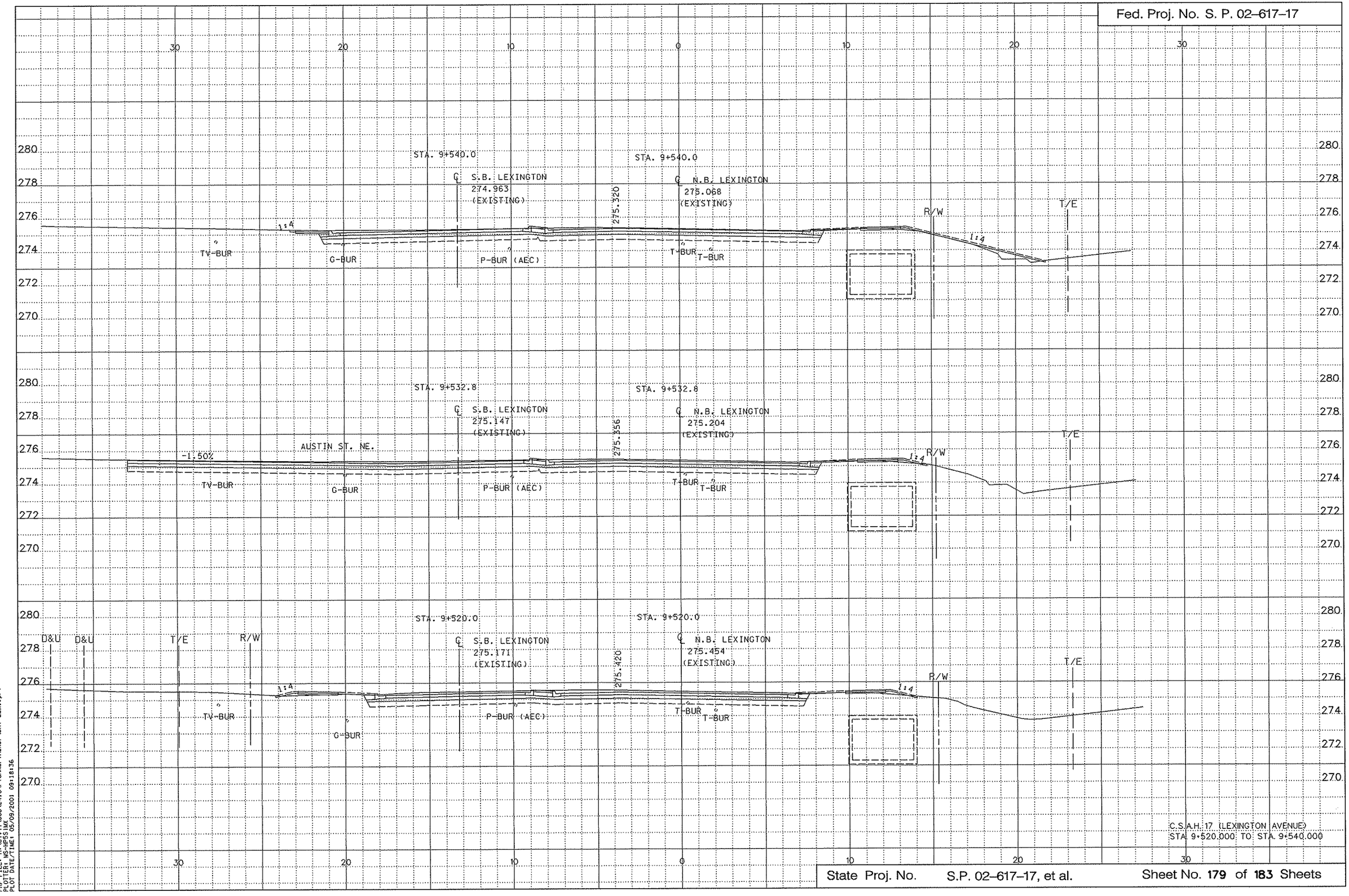

C.S.A.H. 17 (LEXINGTON AVENUE)
STA. 9+520.000 TO STA. 9+540.000

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