MINNESOTA DEPARTMENT OF TRANSPORTATION

CONSTRUCTION PLAN FOR GRADING, BITUMINOUS SURFACING, WATER MAIN, STORM SEWER, LIGHTING, SIGNAL, AND HISTORIC BRIDGE NO. 5370

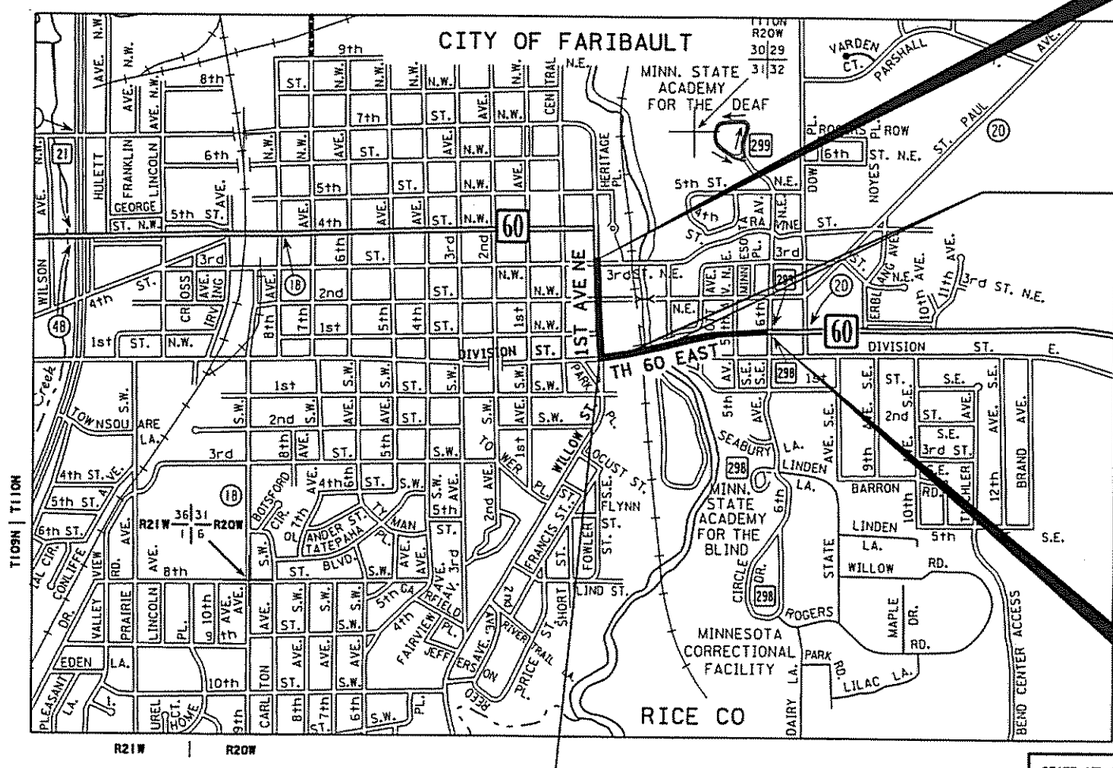
LOCATED ON: TH 60 (1ST AVE NE)/ TH 60 (EAST) FROM 3RD ST NE TO 6TH AVE NE

STATE PROJ. NO. 6607-42
GROSS LENGTH 3094.03 FEET 0.586 MILES
BRIDGES-LENGTH 751.37 FEET 0.142 MILES
EXCEPTIONS-LENGTH FEET MILES
NET LENGTH 3094.03 FEET 0.586 MILES
REF. POINT 149+00.131 TO REF. POINT 149+00.730

STATE PROJ. NO. 125-010-010
GROSS LENGTH 3094.03 FEET 0.586 MILES
BRIDGES-LENGTH 751.37 FEET 0.142 MILES
EXCEPTIONS-LENGTH FEET MILES
NET LENGTH 3094.03 FEET 0.586 MILES
REF. POINT 149+00.131 TO REF. POINT 149+00.730

BEGIN SP 6607-42
BEGIN SP 125-010-010
TH 60 (1ST AVE NE)
STA 107+85.84
RP 149+00.131

BRIDGE 5370
BEGIN STA 6+27.54
END STA 12+83.58



END SP 6607-42
END SP 125-010-010
TH 60 (EAST)
STA 25+18.46
RP 149+00.730

TH 60 POT (1ST AVE NE) STA 118+69.31
TH 60 POT (EAST) STA 3+81.21

EQUATIONS

EQ ↓ DIVISION STA 3+72.95 BK = ↑ DIVISION STA 3+44.20 AH

EQ ↓ TH 60 STA 6+49.18 BK = ↑ TH 60 STA 5+53.85 AH

EQ ↓ TH 60 STA 21+92.10 BK = ↑ TH 60 STA 24+14.12 AH

SCALES

PLAN	50'	
PROFILE	50' HORIZ.	5' VERT.
INDEX MAP	1000'	
GENERAL LAYOUT	100'	

PLAN REVISIONS		
DATE	SHEET NO.	APPROVED BY

DESIGN DESIGNATION

Design ESALS 2028 = 1,716,000
ADT (Current Year) 2008 = 10,900
ADT (Future Year) 2028 = 13,100
DHV (Design Hr. Vol.) =
D (Directional Distr.) = %
T (Heavy Commercial) = %

Design Speed 30 MPH
Based on STOPPING Sight Distance
Height of eye 3.5 Height of object 2.0
Design Speed not achieved at:
STA. TO STA. MPH
STA. TO STA. MPH

STATE AID APPROVALS:
Cindy Schmidt Date: 8-14-08
Asst District State Aid Engineer: Reviewed for Compliance with State-Aid Rules/Policy
Mary Daher Date: 9-17-08
Approved for State Aid Funding: State Aid Engineer

FOR PLANS AND UTILITIES SYMBOLS SEE TECHNICAL MANUAL

PROJECT LOCATION	STATE PROJ. NO.	CHARGE IDENTIFIER
COUNTY : RICE	6607-42	
DISTRICT : 6		

FED. PROJ. NO. BR-STP 6601 (007)

GOVERNING SPECIFICATIONS

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

INDEX

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	GENERAL LAYOUT
3-5	ESTIMATED QUANTITIES
6	STANDARD PLATES, SOILS AND CONSTRUCTION NOTES
7-9	EARTHWORK TABULATION AND SUMMARY
10-19	TABULATIONS
20-21	INPLACE UTILITY TABULATIONS
22-27	TYPICAL SECTIONS
28-35	MISC DETAILS
36-47	STANDARD PLAN SHEETS
48-51	ALIGNMENT PLAN AND TABULATIONS
52-57	INPLACE TOPOGRAPHY AND UTILITIES
58-63	REMOVAL PLANS
64-70	CONSTRUCTION PLANS
71-78	PROFILES
79	STORM WATER POLLUTION PREVENTION PLAN
80-85	EROSION CONTROL AND TURF ESTABLISHMENT
DR1-DR17	DRAINAGE PLAN, PROFILES &DETAILS
C1-C4	CITY UTILITY PLAN
T1-T4	TRAFFIC CONTROL PLAN
ST1-ST6	STRIPING PLANS
L1-L5	LIGHTING PLANS
S1-S14	SIGNING PLANS
SG1-SG8	SIGNAL PLANS
XI-X34	CROSS SECTIONS

SHEETS NO. 42,46 HAVE BEEN DELETED
THIS PLAN CONTAINS 175 SHEETS

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

PRINT NAME: FAUSTO CABRAL LICENSE # 44229
DATE: 08/14/2008 SIGNATURE:
DESIGN SQUAD J FENSKE, F SCHLEUSNER, C LISSER, B SCHULTZ, & V KERNS

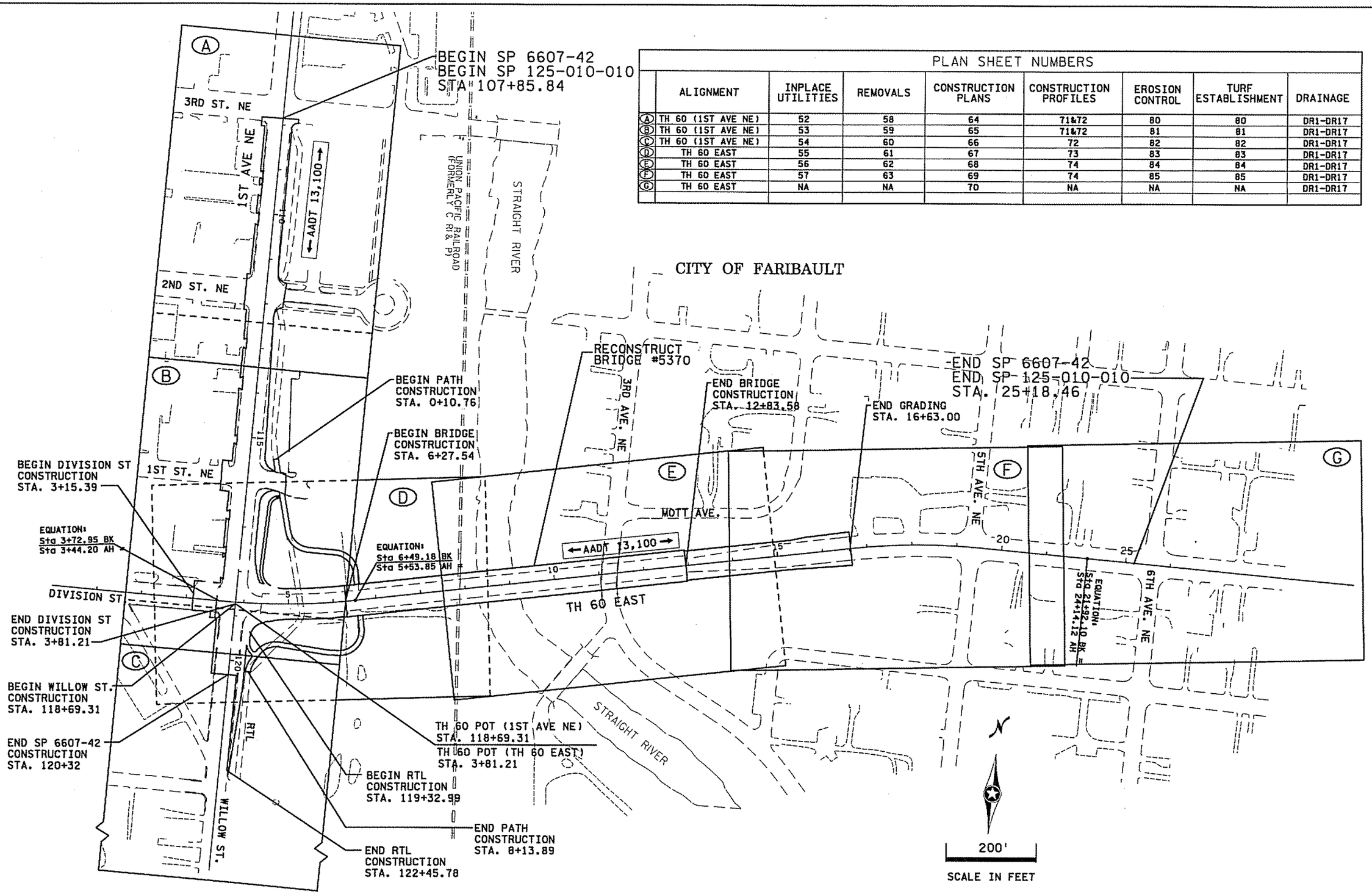
RECOMMENDED FOR APPROVAL 8/14 2008 CITY OF FARIBAULT ENGINEER
RECOMMENDED FOR APPROVAL 8/14 2008 FOR DISTRICT TRANSPORTATION ENGINEER
RECOMMENDED FOR APPROVAL 8/14 2008 DISTRICT MATERIALS ENGINEER
RECOMMENDED FOR APPROVAL 8/14 2008 DISTRICT WATER RESOURCES/HYDRAULICS ENGINEER
RECOMMENDED FOR APPROVAL 8/14 2008 DISTRICT TRAFFIC ENGINEER
RECOMMENDED FOR APPROVAL 10/15 2008 TRS STATE PRE-LETTING ENGINEER
OFFICE OF LAND MANAGEMENT APPROVAL 10/17 2008 FOR DIRECTOR, LAND MANAGEMENT
APPROVED Oct. 17 2008 STATE DESIGN ENGINEER

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

PRINT NAME: LICENSE #
DATE: SIGNATURE:

SP 125-010-010 | STATE PROJ. NO. 6607-42 (TH 60=21) | SHEET NO. 1 OF 85 SHEETS

PLOTTED/REVISED: 14-AUG-2008
DISTRICT #: 6
IPLOT NAME: L_title_sheet
PATH & FILENAME: S:\Projects By SP\6607-42\Design\Final Plan Set\Title Sheet\6607-42_tsh.dgn
DR 10-17-08



PLAN SHEET NUMBERS

	ALIGNMENT	INPLACE UTILITIES	REMOVALS	CONSTRUCTION PLANS	CONSTRUCTION PROFILES	EROSION CONTROL	TURF ESTABLISHMENT	DRAINAGE
A	TH 60 (1ST AVE NE)	52	58	64	71&72	80	80	DR1-DR17
B	TH 60 (1ST AVE NE)	53	59	65	71&72	81	81	DR1-DR17
C	TH 60 (1ST AVE NE)	54	60	66	72	82	82	DR1-DR17
D	TH 60 EAST	55	61	67	73	83	83	DR1-DR17
E	TH 60 EAST	56	62	68	74	84	84	DR1-DR17
F	TH 60 EAST	57	63	69	74	85	85	DR1-DR17
G	TH 60 EAST	NA	NA	70	NA	NA	NA	DR1-DR17

CERTIFIED BY : Fausto Cabral
LICENSED PROFESSIONAL ENGINEER - FAUSTO CABRAL
LIC. NO. 44229 DATE 07-OCT-2008

GENERAL LAYOUT

STATE PROJ. NO. 6607-42 (TH 60) SHEET NO. 2 OF 85 SHEETS

PLOTTED/REVISED: 07-OCT-2008

DISTRICT #: 6
IPLOT NAME: 2_general_layout
PATH & FILENAME: S:\Projects By SP\6607-42\Design\Final Plan Set\General Layout\gl-12.dgn

STATEMENT OF ESTIMATED QUANTITIES

NOTE.	TAB.	SHEET NO.	ITEM NO.	DESCRIPTION	UNITS	TOTAL ESTIMATED QUANTITY	SP 6607-42 80% FEDERAL 20% STATE	SP 125-010-010 80% FEDERAL 20% CITY	100% CITY FARIBAULT	(1)
			2011.601	VIBRATION MONITORING	LUMP SUM	1	1			
			2021.501	MOBILIZATION	LUMP SUM	1	0.95	0.02	0.03	
			2031.501	FIELD OFFICE TYPE D	EACH	1	0.95	0.02	0.03	
			2031.503	FIELD LABORATORY TYPE D	EACH	1	0.95	0.02	0.03	
			2041.610	TRAINEES	HOUR	2500				
			2051.501	MAINT & RESTORATION OF HAUL ROADS	LUMP SUM	1	1			
			2101.511	CLEARING AND GRUBBING	LUMP SUM	1	1			
	CC	C1	2104.501	REMOVE WATER MAIN	LIN FT	1394			1394	
	DRA	DR1,DR2	2104.501	REMOVE SEWER PIPE (STORM)	LIN FT	1687	1687			
	CA	C1	2104.501	REMOVE SEWER PIPE (SANITARY)	LIN FT	1326			1326	
	D	10-11	2104.501	REMOVE CURB AND GUTTER	LIN FT	3331	3118	213		
	D	10-11	2104.503	REMOVE SIDEWALK	SQ FT	12812	6923			5889
	D	10-11	2104.503	REMOVE BITUMINOUS WALK	SQ FT	4360		4360		
	D	10-11	2104.505	REMOVE BITUMINOUS PAVEMENT	SQ YD	3500	3500			
	D	10-11	2104.505	REMOVE CONCRETE PAVEMENT	SQ YD	7741	6928	813		
	D	10-11	2104.505	REMOVE CONCRETE DRIVEWAY PAVEMENT	SQ YD	270	270			
	D	10-11	2104.505	REMOVE CONCRETE APPROACH PANEL	SQ YD	109	109			
		C1,DR1-DR2	2104.509	REMOVE MANHOLE OR CATCH BASIN	EACH	53	31		22	
		C1	2104.509	REMOVE GATE VALVE	EACH	3			3	
		C1	2104.509	REMOVE HYDRANT	EACH	2			2	
		S1	2104.509	REMOVE SIGN TYPE C	EACH	22	22			
	M	S1	2104.509	REMOVE SIGN TYPE D	EACH	2	2			
	C	10	2104.511	SAWING CONCRETE PAVEMENT (FULL DEPTH)	LIN FT	95	95			
	C	10	2104.513	SAWING BIT PAVEMENT (FULL DEPTH)	LIN FT	676	351	263	62	
		S1	2104.523	SALVAGE SIGN TYPE C	EACH	3	3			
		S1	2104.523	SALVAGE SIGN TYPE SPECIAL	EACH	3	3			
	A	9	2105.501	COMMON EXCAVATION	CU YD	1457	1364	93		
	A	9	2105.507	SUBGRADE EXCAVATION	CU YD	3929	3811	118		
(3)	A	9	2105.522	SELECT GRANULAR BORROW MOD (CV)	CU YD	8857	8621	236		
(4)	A-B	9	2105.523	COMMON BORROW (CV)	CU YD	19015	17501	11	1503	
(5)	A	9	2105.525	TOPSOIL BORROW (CV)	CU YD	762	762			
	A	9	2105.607	EXCAVATION SPECIAL	CU YD	5792	5652	140		
	B,DRA	9,DR1-DR2	2105.609	HAUL & DISPOSE OF CONTAMINATED MATERIAL	TON	17665	15931		1734	
(2)			2123.610	CRAWLER MOUNTED BACKHOE	HOUR	50		50		
			2123.610	STREET SWEEPER (WITH PICKUP BROOM)	HOUR	300	300			
			2130.501	WATER	M GALLONS	50		50		
	E,G	12,14-16	2211.503	AGGREGATE BASE (CV) CLASS 5	CU YD	3478	3168	197		113
	R	38	2301.553	BRIDGE APPROACH PANELS	SQ YD	292	292			
	E	12	2360.501	TYPE SP 12.5 WEARING COURSE MIX (2,B)	TON	152	23	129		
	E	12	2360.501	TYPE SP 12.5 WEARING COURSE MIX (4,F)	TON	2604	2538	66		
	E	12	2360.502	TYPE SP 12.5 NON WEAR COURSE MIX (4,B)	TON	1302	1269	33		
	H	16	2433.501	STRUCTURE REMOVALS	LUMP SUM	1			1	
		C1	2451.609	ROCK STABILIZATION	TON	100			100	
	F	13	2502.521	4" TP PIPE DRAIN	LIN FT	60	60			
	F	13	2502.541	4" PERF TP PIPE DRAIN	LIN FT	3354	3354			

NOTE:

(1) SP 6607-42
40% FED 10% STATE
SP 125-010-010
40% FED 10% CITY

(2) USE AS DIRECTED BY MN/DOT PROJECT ENGINEER FOR UTILITY EXPLORATION.

(3) FOR MODIFICATION SEE 3149.2B2 IN STANDARD SPECIFICATIONS.

(4) SEE NOTE 14 ON SHEET 9.

(5) SEE NOTE 15 ON SHEET 9.

CERTIFIED BY : Fausto Cabral
LICENSED PROFESSIONAL ENGINEER - FAUSTO CABRAL
LIC. NO. 44229 DATE 14-OCT-2008

PLOTTED/REVISED: 14-OCT-2008
DISTRICT #: 6
IPLOT NAME: 3_seq_l
PATH & FILENAME: S:\Projects By SP\6607-42\Design\Final Plan Set\SEQ\d6607-42 seq.dgn

STATEMENT OF ESTIMATED QUANTITIES

NOTE.	TAB.	SHEET NO.	ITEM NO.	DESCRIPTION	UNITS	TOTAL ESTIMATED QUANTITY	SP 6607-42 80% FEDERAL 20% STATE	SP 125-010-010 80% FEDERAL 20% CITY	100% CITY FARIBAULT	(1)
	G	14-16	2531.501	CONCRETE CURB & GUTTER DESIGN B424	LIN FT	57	57			
	G	14-16	2531.501	CONCRETE CURB & GUTTER DESIGN B624	LIN FT	3504	3191	313		
	G	14-16	2531.507	6" CONCRETE DRIVEWAY PAVEMENT	SQ YD	17				17
	G	14-16	2531.507	8" CONCRETE DRIVEWAY PAVEMENT	SQ YD	191				191
	G	14-16	2531.618	TRUNCATED DOMES	SQ FT	381	206			175
(2)	G	14-16	2533.507	PORTABLE PRECAST CONC BARRIER DES 8337	LIN FT	150	150			
	H	16,35	2540.601	STONE MONUMENT	LUMP SUM	1			1	
(4)	H	16	2540.602	INSTALL HISTORIC PLAQUE	EACH	1			1	
	K	L1	2545.511	LIGHTING UNIT TYPE GS	EACH	21	16	5		
	K	L1	2545.511	LIGHTING UNIT TYPE 1X-35	EACH	1		1		
	K	L1	2545.515	LIGHT BASE DESIGN E	EACH	6		6		
	K	L1	2545.523	1" NON-METALLIC CONDUIT	LIN FT	50		50		
	K	L1	2545.523	1.5" NON-METALLIC CONDUIT	LIN FT	1400	1400			
	K	L1	2545.523	2" NON-METALLIC CONDUIT	LIN FT	920	400	520		
	K	L1	2545.523	2" NON-METALLIC COND (DIRECTIONAL BORE)	LIN FT	10	10			
	K	L1	2545.523	3" NON-METALLIC CONDUIT	LIN FT	310	135	175		
	K	L1	2545.531	UNDERGROUND WIRE 1 COND NO 4	LIN FT	8635	6400	2235		
	K	L1	2545.541	SERVICE CABINET SECONDARY TYPE L1	EACH	1	1			
			2563.601	TRAFFIC CONTROL	LUMP SUM	1	0.95	0.02	0.03	
		S1	2564.531	SIGN PANELS TYPE C	SQ FT	193	193			
		S1	2564.531	SIGN PANELS TYPE D	SQ FT	48	48			
		S1	2564.537	INSTALL SIGN TYPE C	EACH	3	3			
		S1	2564.537	INSTALL SIGN TYPE SPECIAL	EACH	3	3			
		S1	2564.552	HAZARD MARKER X4-2	EACH	2	2			
		SG1-SG8	2565.511	TRAFFIC CONTROL SIGNAL SYSTEM	SIG SYS	1	0.5	0.5		
	K	L1	2565.602	PVC HANDHOLE	EACH	8	4	4		
	I	17-19	2573.502	SILT FENCE, TYPE MACHINE SLICED	LIN FT	4183	4033	150		
(3)			2573.505	FLOTATION SILT CURTAIN TYPE MOVING WATER	LIN FT	180	180			
	I	17-19	2573.530	STORM DRAIN INLET PROTECTION	EACH	57	54	3		
	I	17-19	2575.501	SEEDING	ACRE	2	2			
	I	17-19	2575.502	SEED MIXTURE 260	POUND	200	200			
	I	17-19	2575.505	SODDING TYPE LAWN	SQ YD	5201	5085	82		34
	I	17-19	2575.519	DISK ANCHORING	ACRE	2	2			
	I	17-19	2575.523	EROSION CONTROL BLANKETS CATEGORY 3	SQ YD	9306	9306			
	I	17-19	2575.532	FERTILIZER TYPE 1	POUND	672	667	3		2
		ST1-ST6	2582.501	PAVT MSSG (LT ARROW) POLY PREF-GR IN	EACH	6	6			
		ST1-ST6	2582.501	PAVT MSSG (RT ARROW) POLY PREF-GR IN	EACH	9	9			
		ST1-ST6	2582.501	PAVT MSSG (THRU ARROW)POLY PREF-GR IN	EACH	5	5			
		ST1-ST6	2582.501	PAVT MSSG(RT-THRU ARROW)POLY PREF-GR IN	EACH	1	1			
		ST1-ST6	2582.502	4" SOLID LINE WHITE-POLY PREF (GR IN)	LIN FT	1850	1850			
		ST1-ST6	2582.502	4" BROKEN LINE WHITE-POLY PREF (GR IN)	LIN FT	800	800			
		ST1-ST6	2582.502	24" STOP LINE WHITE-POLY PREF (GR IN)	LIN FT	224	224			
		ST1-ST6	2582.502	24" SOLID LINE YELLOW-POLY PREF (GR IN)	LIN FT	224	224			
		ST1-ST6	2582.502	4" DB SOLID LINE YELLOW-POLY PREF(GR IN)	LIN FT	6600	6600			
		ST1-ST6	2582.503	CROSSWALK MARKING-POLY PREFORM (GR IN)	SQ FT	835	835			

NOTE:

(1) SP 6607-42
40% FED 10% STATE
SP 125-010-010
40% FED 10% CITY

(2) TO REMAIN THE PROPERTY OF THE CONTRACTOR.

(3) HEIGHT OF WATER IS 3 FEET. SEE SHEET 40 FOR INSTALLATION DIRECTIONS.

(4) PLAQUE SALVAGED BY THE CITY OF FARIBAULT PRIOR TO THE START OF CONSTRUCTION. OBTAIN PLAQUE FROM CITY OF FARIBAULT.

CERTIFIED BY : Fausto Cabral LIC. NO. 44229 DATE 13-OCT-2008
LICENSED PROFESSIONAL ENGINEER - FAUSTO CABRAL

PLOTTED/REVISED: 13-OCT-2008
DISTRICT #: 6
IPLOT NAME: 5_seq_3
PATH & FILENAME: S:\Projects By SP\6607-42\Design\Final Plan Set\SEQ\d6607-42 seq.dgn

STANDARD PLATES	
THE FOLLOWING STANDARD PLATES, APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION, SHALL APPLY ON THIS PROJECT.	
PLATE NO	DESCRIPTION
3000L	REINFORCED CONCRETE PIPE (5 SHEETS)
3006G	GASKET JOINT FOR RC PIPE (2 SHEETS)
3007D	SHEAR REINFORCEMENT FOR PRECAST DRAINAGE STRUCTURES
3136B	SLOTTED VANE DRAIN FOR PVC PIPE
4000J	MANHOLE OR CATCH BASIN (MASONRY, FIELD CONSTRUCTION) - DESIGN A
4002F	MANHOLE OR CATCH BASIN (MASONRY, FIELD CONSTRUCTION) - DESIGN C
4005L	MANHOLE OR CATCH BASIN TYPE A & B CONE SECTIONS PRECAST - DESIGN F
4006L	MANHOLE OR CATCH BASIN PRECAST - DESIGNS G AND H
4010H	CONCRETE SHORT CONE & ADJUSTING RING (SECTIONAL CONCRETE)
4011E	PRECAST CONCRETE BASE
4020J	MANHOLE OR CATCH BASIN (FOR USE WITH OR WITHOUT TRAFFIC LOADS)
4022A	MANHOLE OR CATCH BASIN COVER (3 FT X 2 FT OPENING)
4101D	RING CASTING FOR MANHOLE OR CATCH BASIN
4108F	ADJUSTING RINGS
4110F	COVER CASTING FOR MANHOLE (FOR USE IN ALL TRAFFIC AREAS) - CASTING NO. 715 AND 716
4132F	CATCH BASIN FRAME CASTING (FOR SQUARE GRATE) - CASTING NO 805
4151B	CATCH BASIN FRAME CASTING (FOR SQUARE TYPE) - CASTING NO 811
4154B	CATCH BASIN GRATE CASTING - CASTING NO 816
4180J	MANHOLE OR CATCH BASIN STEP
7035M	CONCRETE WALK & CURB RETURNS AT ENTRANCES
7036F	PEDESTRIAN CURB RAMP (FOR THE HANDICAPPED)(2 SHEETS)
7100H	CONCRETE CURB AND GUTTER
7111J	INSTALLATION OF CATCH BASIN CASTINGS
7113A	CONCRETE APPROACH NOSE DETAIL
8000I	STANDARD BARRICADES
8114A	PVC HANDHOLE/PULLBOX
8115D	PEDESTRIAN PUSH BUTTON INSTALLATION
8119C	GROUND MOUNTED CABINET FOUNDATION
8121E	TRANSFORMER BASE AND POLE BASE PLATE
8122D	PEDESTAL AND PEDESTAL BASE
8123E	POLE AND MAST ARM (LUMINAIRE AND TRAFFIC LIGHTS)
8124E	MAST ARM SIGNAL HEAD MOUNTS
8126H	POLE FOUNDATION (PA90 AND PA100)
8337B	TEMPORARY PORTABLE PRECAST CONCRETE BARRIER

NOTE:

FOR ADDITIONAL STANDARD PLATES, SEE SHEET L1.

SOILS AND CONSTRUCTION NOTES

1) ITEMS DISTURBED BY CONSTRUCTION SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF OUTSIDE THE RIGHT OF WAY IN ACCORDANCE WITH MN/DOT SPECIFICATION 2104.3C3.

2) THE "GRADING GRADE" IS DEFINED AS THE BOTTOM OF THE AGGREGATE BASE.

3) PROVIDE BITUMINOUS TACK COAT (MN/DOT SPECIFICATION 2357). THE TACK COAT SHALL BE INCIDENTAL.

4) RECYCLED MATERIAL THAT IS USED ON THE PROJECT SHALL CONSIST OF MATERIAL THAT ORIGINATED FROM THE PROJECT.

5) ALL SLOPES ARE SHOWN AS 1 VERTICAL TO XX HORIZONTAL IN THIS PLAN.

6) THE FOLLOWING COMPACTION REQUIREMENTS WILL BE USED:

MATERIAL	DENSITY
AGGREGATE BASE	MODIFIED PENETRATION INDEX METHOD
SELECT GRANULAR BORROW MODIFIED	MODIFIED PENETRATION INDEX METHOD
SELECT GRADING MATERIAL	SPECIFIED

7) THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ACCESS TO LOCAL RESIDENCES AND BUSINESSES AT ALL TIMES. COSTS ASSOCIATED WITH PROVIDING ACCESS TO LOCAL PROPERTIES SHALL BE INCIDENTAL.

INDEX OF TABULATIONS

TABULATION LETTER	SHEET NUMBER	DESCRIPTION
A	9	GRADING EARTHWORK SUMMARY
B	9	GRADING, UTILITIES & BRIDGE EARTHWORK SUMMARY
C	10	SAW CUT
D	10-11	MISCELLANEOUS REMOVALS
E	12	BITUMINOUS AND AGGREGATE
F	13	SUBSURFACE DRAINS
G	14-16	MISCELLANEOUS CONCRETE
H	16	CONCRETE AND MASONRY STRUCTURES
I	17-19	TURF ESTABLISHMENT AND EROSION CONTROL
DRA	DR1,DR2	EXISTING AND TEMPORARY DRAINAGE ITEMS
DRB	DR3	CASTING ASSEMBLIES SUMMARY - STORM
DRC	DR11-DR17	DRAINAGE TABULATION
CA	C1	CITY OF FARIBAULT SANITARY SEWER
CB	C1	CASTING ASSEMBLIES SUMMARY -SANITARY
CC	C1	CITY OF FARIBAULT WATERMAIN TABULATION
J	T4	ESTIMATE OF TRAFFIC CONTROL DEVICES
K	L1	TABULATION OF LIGHTING QUANTITIES
L	S2	SIGN PANEL TYPE C
M	S2	REMOVE SIGN TYPE D
N	S2	SALVAGE & INSTALL SIGN TYPE SPECIAL
O	S2	SALVAGE & INSTALL SIGN TYPE C
P	S2	MARKERS
Q	S2	SIGN PANELS TYPE D
R	38	BRIDGE APPROACH PANEL
S	38	SPECIAL SIDEWALK

CERTIFIED BY : Fausto Cabral
LICENSED PROFESSIONAL ENGINEER - FAUSTO CABRAL
LIC. NO. 44229 DATE 07-OCT-2008

STANDARD PLATES, INDEX OF TABULATIONS, AND CONSTRUCTION NOTES

STATE PROJ. NO. 6607-42 (TH 60) SHEET NO. 6 OF 85 SHEETS

DISTRICT #: 6
IPLOT NAME: 6_StdPlt_SoilNotes_TabIndex
PATH & FILENAME: S:\Projects By SP\6607-42\Design\Final Plan Set\Standard plates and Construction notes\d660742_scndgn PLOTTED/REVISED: 07-OCT-2008

TURF ESTABLISHMENT & EROSION CONTROL

I

STATION TO STATION	LOCATION	SILT FENCE TYPE MACHINE SLICED	STORM DRAIN INLET PROTECTION	SEED MIXTURE 260 APPLIED @ 100LB/ACRE	SODDING TYPE LAWN	SEEDING	DISK ANCHORING	EROSION CONTROL BLANKET CATEGORY 3	FERTILIZER TYPE 1 ANALYSIS 22-5-10 APPLIED @ 300LB/ACRE	FERTILIZER TYPE 1 ANALYSIS 24-12-24 APPLIED @ 200LB/ACRE	REMARKS
		LIN FT	EACH	POUND	SQ YD	ACRE	ACRE	SQ YD	POUND	POUND	
SP 6607-42 (80% FEDERAL 20% STATE)											
ALIGNMENT -TH 60 (1ST AVE NE) & WILLOW ST											
107+93 - 111+59	49 LT - 24 LT	391									
107+95	46 RT		1								
108+10	33 RT		1								
108+11	18 LT		1								
108+14 - 111+44	40 LT - 21 LT				343					14	
108+73	31 RT		1								
109+29	19 LT		1								
109+30	31 RT		1								
109+82	31 RT		1								
110+13	32 RT		1								
110+14	18 LT		1								
111+31	32 RT		1								
111+49	45 RT		1								
111+96 - 115+73	50 LT - 27 LT	443									
112+04	27 LT		1								
112+06	51 RT		1								
112+06	43 RT		1								
112+21	20 LT		1								
112+23 - 115+75	27 LT - 21 LT				586					24	
112+24	32 RT		1								
112+33	20 LT		1								
112+41	20 LT		1								
113+55	32 RT		1								
113+59	24 LT		1								
114+04	31 RT		1								
114+89	31 RT		1								
115+46	31 RT		1								
115+70	44 RT		1								
116+09	57 RT		1								
116+09	45 RT		1								
116+14 - 118+20	75 LT - 33 LT				365					16	
116+20 - 117+02	110 LT - 88 LT	88									
116+26	31 RT		1								
116+34	31 RT		1								
116+43	32 LT		1								
117+47	31 LT		1								
117+67	30 RT		1								
118+27	31 RT		1								
120+23 - 122+46	51 LT - 22 LT	90									
121+25	31 RT		1								
	SUBTOTAL (1)										

NOTE:
(1) SEE SHEET 19 FOR SP 6607-42 TOTAL.

CERTIFIED BY : Fausto Cabral
LICENSED PROFESSIONAL ENGINEER - FAUSTO CABRAL
LIC. NO. 44229 DATE 07-OCT-2008

TURF ESTABLISHMENT AND EROSION CONTROL

STATE PROJ. NO. 6607-42 (TH 60) SHEET NO. 17 OF 85 SHEETS

PLOTTED/REVISED: 07-OCT-2008
DISTRICT #: 6
IPLOT NAME: d660742_turf & erosion
PATH & FILENAME: S:\Projects By SP\6607-42\Design\Final Plan Set\Tabs\d660742_fb.dgn

TURF ESTABLISHMENT & EROSION CONTROL

I

STATION TO STATION	LOCATION	SILT FENCE TYPE MACHINE SLICED	STORM DRAIN INLET PROTECTION	SEED MIXTURE 260 APPLIED @ 100LB/ACRE	SODDING TYPE LAWN	SEEDING	DISK ANCHORING	EROSION CONTROL BLANKET CATEGORY 3	FERTILIZER TYPE 1 ANALYSIS 22-5-10 APPLIED @ 300LB/ACRE	FERTILIZER TYPE 1 ANALYSIS 24-12-24 APPLIED @ 200LB/ACRE	REMARKS
		LIN FT	EACH	POUND	SQ YD	ACRE	ACRE	SQ YD	POUND	POUND	
SP 6607-42 (80% FEDERAL 20% STATE)											
ALIGNMENT - DIVISION ST & TH 60 EAST											
3+19	24 LT		1								DIVISION ST
3+66	24 LT		1								DIVISION ST
4+16 - 4+96	33 RT - 110 RT				29					1.2	
4+18 - 5+55	35 RT - 108 RT			30		0.3	0.3	1375	90		
4+26 - 7+80	46 LT - 144 RT	829									
4+39 - 4+98	106 LT - 33 LT				23					1	
4+41 - 5+54 R3	234 LT - 35 LT			40		0.4	0.4	2105	120		
5+04	25 RT		1								
5+07	25 LT		1								
6+33	26 LT		1								
6+33	26 RT		1								
6+42	26 LT		1								
6+44	26 RT		1								
7+48 - 7+76	42 LT - 68 RT	139									
7+58	26 RT		1								
7+59	27 LT		1								
9+27 - 9+31	46 LT - 40 RT	86									
9+31 - 11+09	46 LT	178									
9+33 - 10+97	71 RT	164									
9+45 - 9+50	42 LT - 69 RT	111									
9+45 - 9+52	45 LT - 42 LT	8									
9+50 - 9+76	69 RT	26									
11+28	109 LT		1								
11+36 - 15+71	33 RT - 117 RT			70		0.7	0.7	3150	210		
11+37 - 11+81	112 LT - 90 RT	219									
11+53 - 11+82	71 LT - 67 RT	142									
11+54 - 11+58	77 RT - 101 RT	24									
11+57 - 15+66	115 LT - 33 LT			60		0.6	0.6	2676	180		
11+58 - 16+64	38 RT - 117 RT	555									
11+60	95 LT		1								
11+82 - 11+90	112 LT - 71 LT	41									
11+90 - 16+64	112 LT - 39 LT	499									
	SUBTOTAL (1)										

NOTE:

(1) SEE SHEET 19 FOR SP 6607-42 TOTAL.

CERTIFIED BY : Fausto Cabral
LICENSED PROFESSIONAL ENGINEER - FAUSTO CABRAL
LIC. NO. 44229 DATE 07-OCT-2008

TURF ESTABLISHMENT AND EROSION CONTROL

STATE PROJ. NO. 6607-42 (TH 60) SHEET NO. 18 OF 85 SHEETS

PLOTTED/REVISED: 07-OCT-2008
DISTRICT #: 6
IPLOT NAME: d660742_turf & erosion
PATH & FILENAME: S:\Projects By SP\660742\Design\Final Plan Set\Tabs\d660742_th.dgn

TURF ESTABLISHMENT & EROSION CONTROL

I

STATION TO STATION	LOCATION	SILT FENCE TYPE MACHINE SLICED	STORM DRAIN INLET PROTECTION	SEED MIXTURE 260 APPLIED @ 100LB/ACRE	SODDING TYPE LAWN	SEEDING	DISK ANCHORING	EROSION CONTROL BLANKET CATEGORY 3	FERTILIZER TYPE 1 ANALYSIS 22-5-10 APPLIED @ 300LB/ACRE	FERTILIZER TYPE 1 ANALYSIS 24-12-24 APPLIED @ 200LB/ACRE	REMARKS
		LIN FT	EACH	POUND	SQ YD	ACRE	ACRE	SQ YD	POUND	POUND	
ALIGNMENT - DIVISION ST & TH 60 EAST											
6+27 - 7+72	119 LT - 75 RT				3458						
13+06	15 RT		1								
13+06	14 LT		1								
13+07	25 RT		1								
13+08	24 LT		1								
13+17	25 RT		1								
14+65	24 RT		1								
14+66	23 LT		1								
15+71 - 16+64	34 RT - 47 RT				103					4	
15+71 - 16+64	27 RT - 31 RT				31					1	
15+72 - 16+63	32 LT - 27 LT				43					2	
15+72 - 16+63	48 LT - 36 LT				104					4	
16+42	25 RT		1								
16+45	25 LT		1								
	SP 6607-42 TOTAL	4033	54	200	5085	2	2	9306	600	67	
SP 125-010-010 (80% FEDERAL 20% CITY)											
ALIGNMENT - TH 60 (1ST AVE NE) & WILLOW ST											
119+98	32 LT		1								
121+00 - 122+50	34 LT - 20 LT	150			82					3	
121+22	20 LT		1								
121+28	28 LT		1								
	SP 125-010-010 TOTAL	150	3		82					3	
SP 6607-42 (1)											
ALIGNMENT - TH 60 (1ST AVE NE) & WILLOW ST											
113+45 - 113+69	39 RT - 40 RT				4					0.2	
113+93 - 115+00	39 RT - 40 RT				15					1	
116+24 - 116+68	39 RT - 40 RT				6					0.3	
116+85 - 117+50	39 RT - 40 RT				9					0.4	
	SP 6607-42 (1) TOTAL				34					2	
	PROJECT GRAND TOTAL	4183	57	200	5201	2	2	9306	600	72	

NOTE:
(1) SP 6607-42
40% FED 10% STATE
SP 125-010-010
40% FED 10% CITY

CERTIFIED BY : Fausto Cabral
LICENSED PROFESSIONAL ENGINEER - FAUSTO CABRAL
LIC. NO. 44229 DATE 07-OCT-2008

TURF ESTABLISHMENT AND EROSION CONTROL

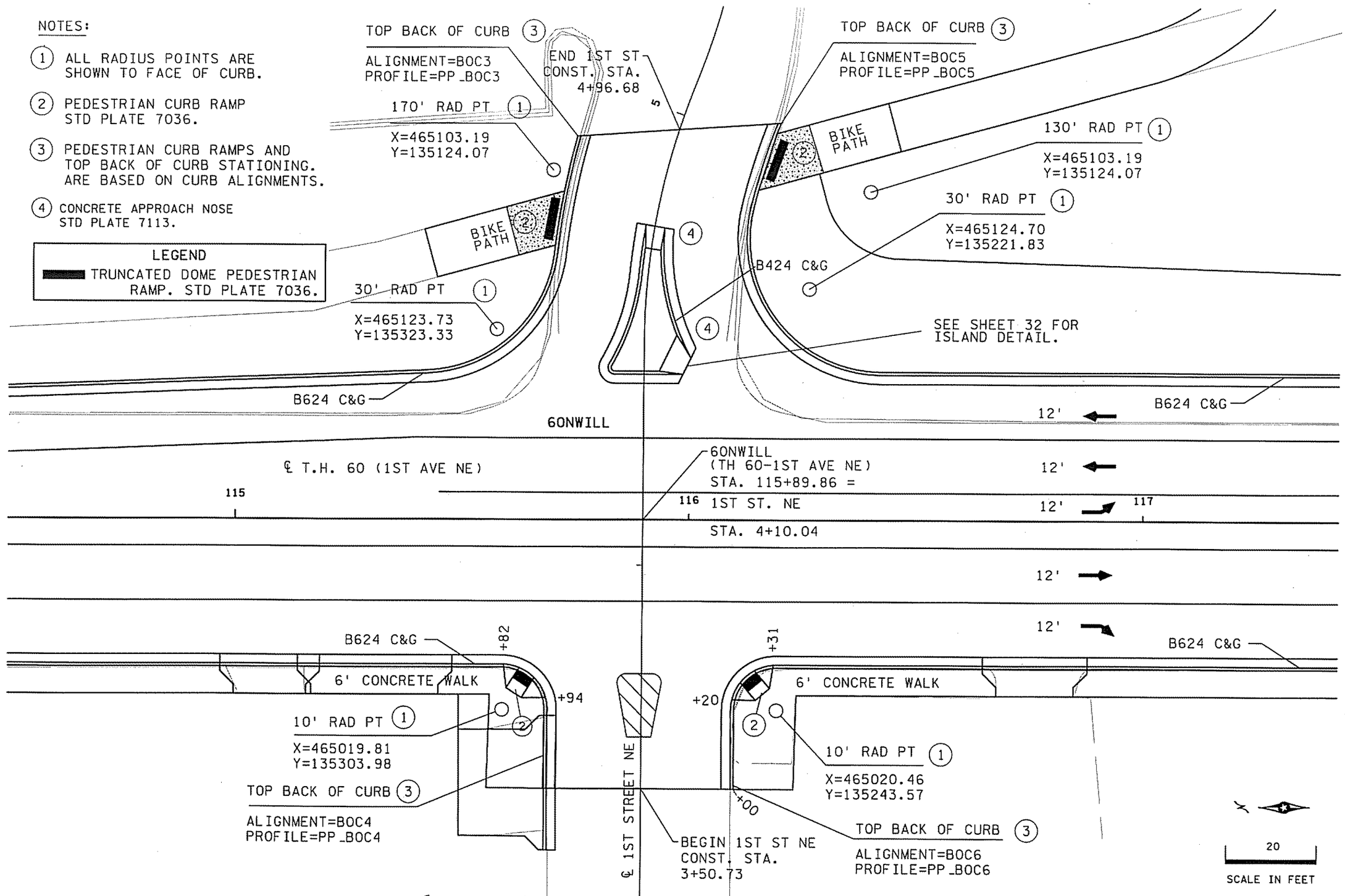
STATE PROJ. NO. 6607-42 (TH 60) SHEET NO. 19 OF 85 SHEETS

PLOTTED/REVISED: 07-OCT-2008
DISTRICT #: 6
IPLOT NAME: d660742_turf & erosion2
PATH & FILENAME: S:\Projects By SP\660742\Design\Final Plan SetTabs\d660742_1bdgn

NOTES:

1. ALL RADIUS POINTS ARE SHOWN TO FACE OF CURB.
2. PEDESTRIAN CURB RAMP STD PLATE 7036.
3. PEDESTRIAN CURB RAMPS AND TOP BACK OF CURB STATIONING. ARE BASED ON CURB ALIGNMENTS.
4. CONCRETE APPROACH NOSE STD PLATE 7113.

LEGEND
TRUNCATED DOME PEDESTRIAN RAMP. STD PLATE 7036.



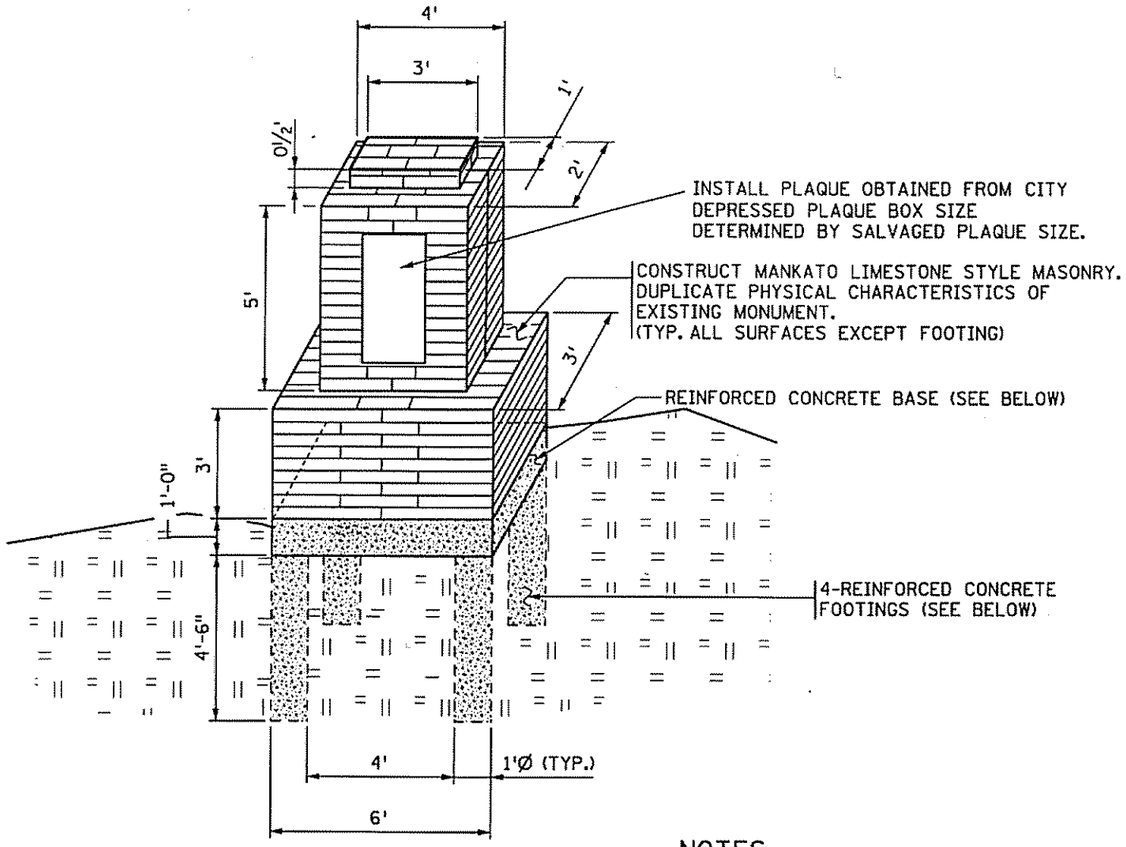
CERTIFIED BY : Fausto Cabral
LICENSED PROFESSIONAL ENGINEER - FAUSTO CABRAL
LIC. NO. 44229 DATE 13-OCT-2008

TH 60 (1ST AVE NE) & 1ST ST NE — INTERSECTION DETAILS

STATE PROJ. NO. 6607-42 (TH 60) SHEET NO. 30 OF 85 SHEETS

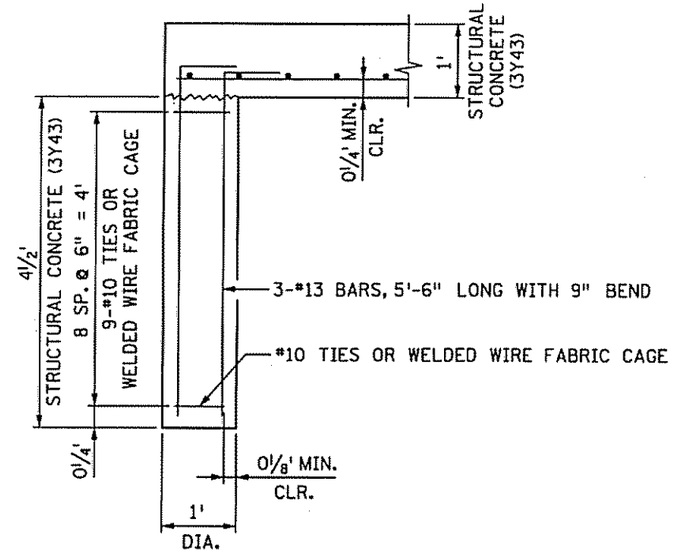
PLOTTED/REVISED: 13-OCT-2008
DISTRICT #: 6
IPLOT NAME: Intersection_dd5i2
PATH & FILENAME: S:\Projects By SP\6607-42\Design\Final Plan Set\Details\DD5i.dgn

PLOTTED/REVISED: 13-OCT-2008
DISTRICT #: 6
IPLOT NAME: monument detail1
PATH & FILENAME: S:\Projects By SP\6607-42\Design\Final Plan Set\Details\monument detail.dgn



MONUMENT DETAIL

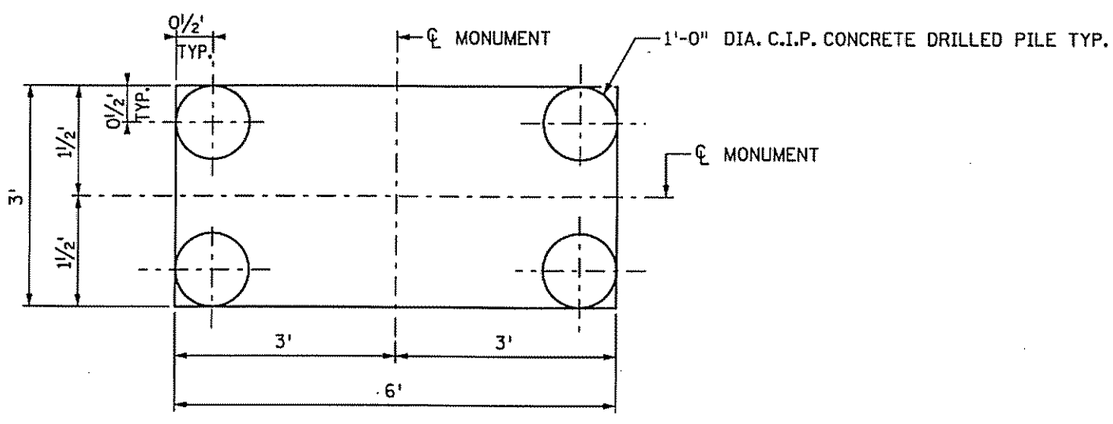
APPROXIMATE SUMMARY OF QUANTITIES FOR FOOTING		
STRUCTURAL CONCRETE (3Y43)	1.2	CU. YDS.
REINFORCEMENT BARS	100	POUNDS



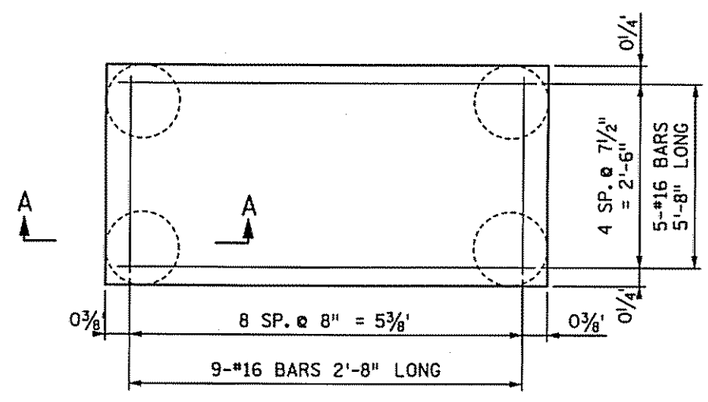
SECTION A-A

NOTES:

FOR LOCATION, SEE SHEET 65.



FOOTING PLAN

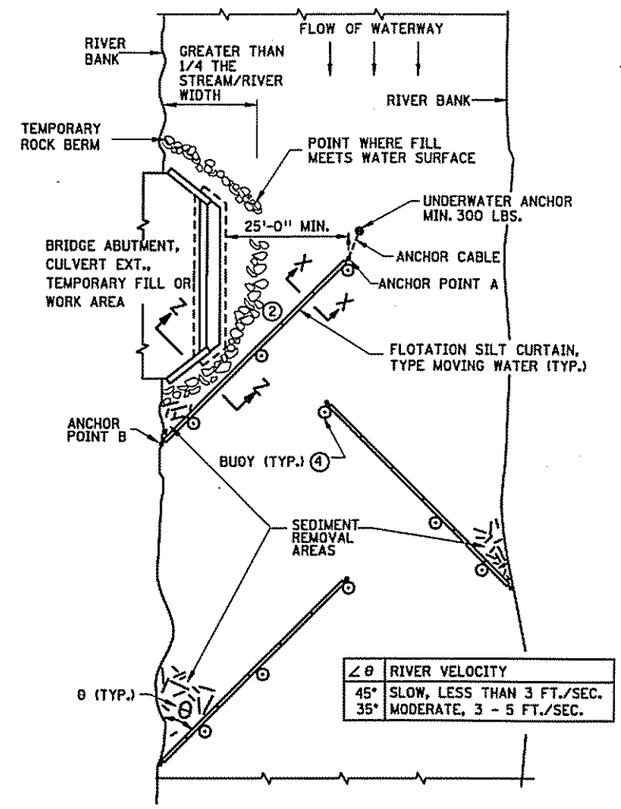


FOOTING REINFORCEMENT

CERTIFIED BY : Fausto Cabral
LICENSED PROFESSIONAL ENGINEER - FAUSTO CABRAL
LIC. NO. 44229 DATE 13-OCT-2008

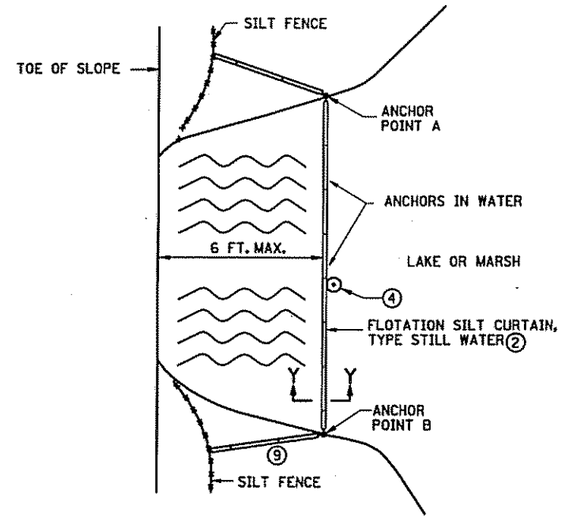
MONUMENT DETAIL

STATE PROJ. NO. 6607-42 (TH 60) SHEET NO. 35 OF 85 SHEETS

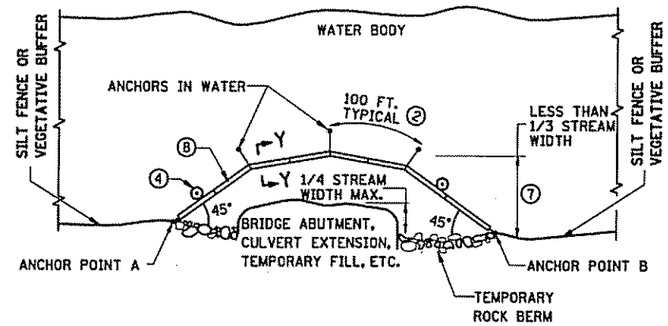


∠θ	RIVER VELOCITY
45°	SLOW, LESS THAN 3 FT./SEC.
35°	MODERATE, 3 - 5 FT./SEC.

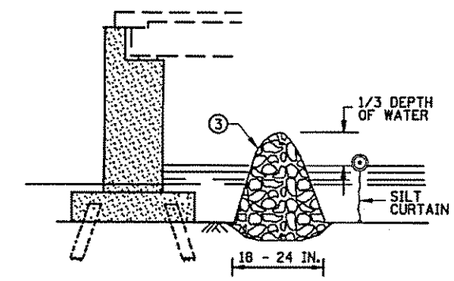
PLAN VIEW (TYPE: MOVING WATER)



PLAN VIEW (TYPE: STILL WATER)



PLAN VIEW (TYPE: WORK AREA)



SECTION Z-Z TEMPORARY ROCK BERM
FOR SEDIMENT CONTROL

DESIGN GUIDELINES: MOVING WATER

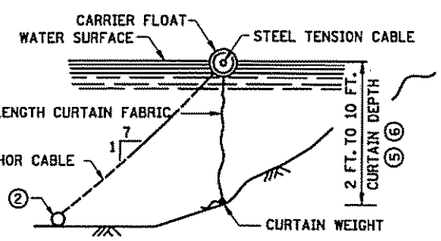
WHEN TEMPORARY FILL ENCROACHES MORE THAN 1/4 BUT LESS THAN 1/3 WIDTH OF THE STREAM. 1 6
MINIMUM WATER DEPTH: 3 FT.
MAXIMUM WATER DEPTH: 11 FT.
MAXIMUM WATER VELOCITY: 5 FT./SEC.

DESIGN GUIDELINES: WORK AREA

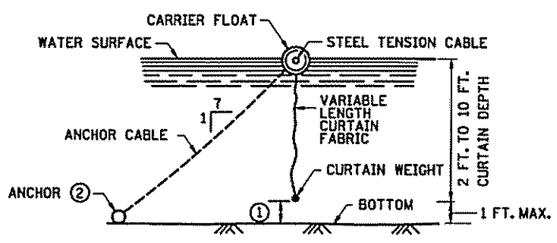
WHEN TEMPORARY FILL ENCROACHES LESS THAN 1/4 OF THE WIDTH OF STREAM.
MAXIMUM WATER DEPTH: 10 FT.
MAXIMUM WATER VELOCITY: 5 FT./SEC.

DESIGN GUIDELINES: STILL WATER 6

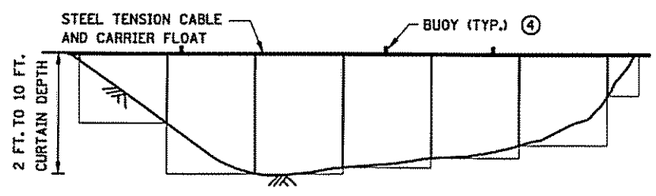
MINIMUM WATER DEPTH: 0 FT.
MAXIMUM WATER DEPTH: 10 FT.



SECTION Y-Y

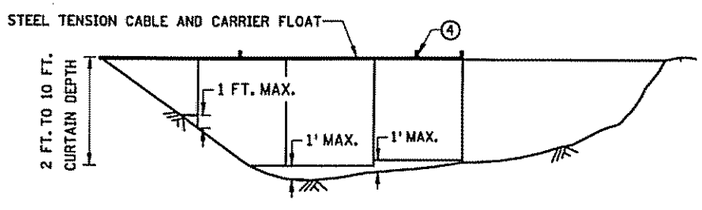


SECTION X-X



FLOTATION SILT CURTAIN - TYPE: WORK AREA AND STILL WATER 5

FOR CONTAINING OVERFLOWS FROM WEIRS, STANDPIPES, SETTLING PONDS



FLOTATION SILT CURTAIN - TYPE: MOVING WATER 5

USE FOR SMALLER RIVERS
WITH SLOW AND MODERATE VELOCITIES

NOTES:

SEE SPECS. 2573 & 3887.

1. CURTAIN EXTENDS TO 1 FT. MAXIMUM FROM BOTTOM OF WATER BODY.
2. FOR ANCHOR AND WEIGHT REQUIREMENTS, SEE SPEC. 2573.
3. IN AREAS WHERE THE PLAN CALLS FOR RIPRAP AT THE BRIDGE, A TEMPORARY ROCK BERM WILL BE USED TO PROVIDE ADDITIONAL PROTECTION. THE TEMPORARY ROCK BERM IS INCIDENTAL FOR WHICH NO DIRECT PAYMENT WILL BE MADE.
4. ON U.S. COAST GUARD OR OTHER MOTORIZED WATERWAYS, BUOYS ARE REQUIRED TO MARK THE ENDS AND SPECIAL AREAS FOR VISIBILITY. PLACE BUOYS AS REQUIRED FOR NAVIGATIONAL PURPOSES.
5. WATER DEPTH CAN BE 0 TO 10 FEET, 0 TO 11 FEET FOR TYPE MOVING WATER.
6. SILT CURTAIN HEIGHT INCLUDES MAXIMUM WAVE HEIGHT FOR WATER BODY.
7. KEEP AS CLOSE TO WORK AREA AS POSSIBLE.
8. SILT CURTAIN, ROCK BERM OR SHEET PILE AS REQUIRED TO CONTROL THE INFILTRATION OF SILT.
9. IF 6 INCHES OR LESS OF WATER, USE BALE BARRIERS, SEE SHEET 2.

STANDARD SHEET NO.	TITLE:
5-297.405 (1 OF 4)	TEMPORARY SEDIMENT CONTROL SILT CURTAIN
STANDARD APPROVED: SEPTEMBER 27, 2006	

STATE PROJ. NO. 6607-42 (TH 60) SHEET NO. 40 OF 85 SHEETS

PLOTTED/REVISED: 14-AUG-2008
DISTRICT #: 6
USER NAME: $$$USER$NAME$$$
PATH & FILENAME: S:\Projects By SP\6607-42\Design\Final Plan Set\Standard Plans\D660742_SPN.dgn
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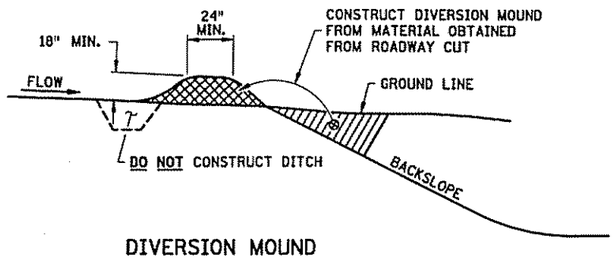
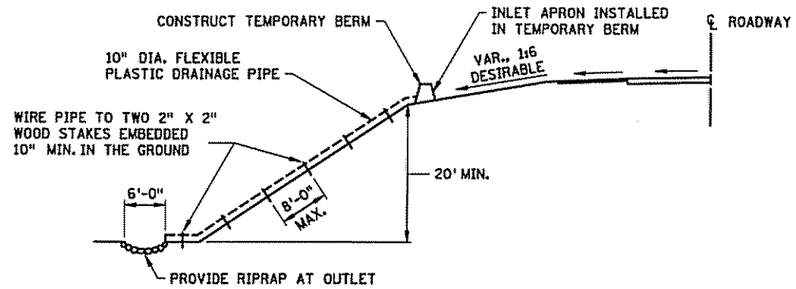


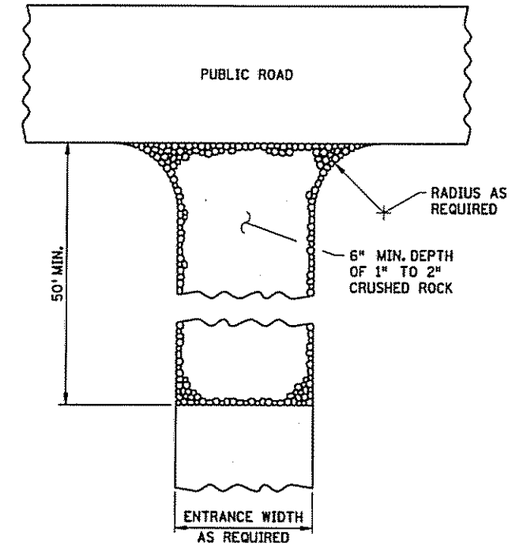
DIVERSION MOUND

DESIGN GUIDELINES:
STORM FREQUENCY: 10 YEAR - 24 HOUR
MAXIMUM DRAINAGE AREA: 5 ACRES
MAXIMUM DIVERSION: GRADE 5%

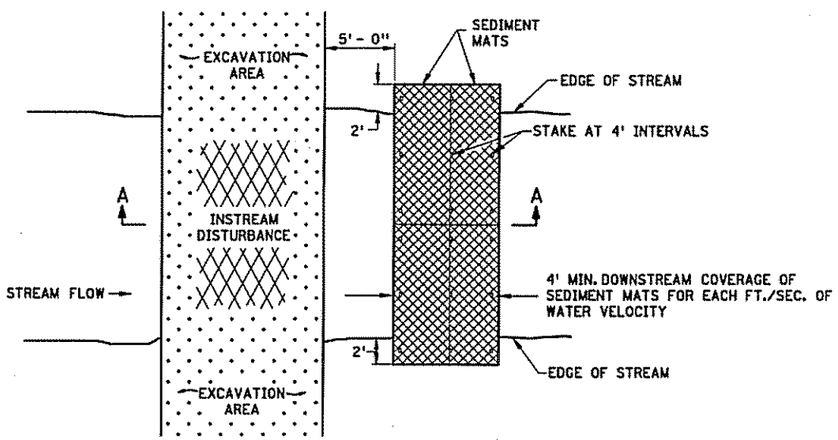


TEMPORARY DOWN DRAIN ON FILL SLOPE

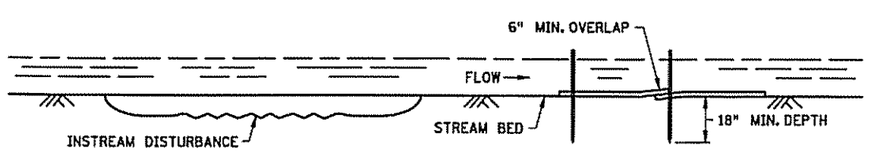
DESIGN GUIDELINES:
STORM FREQUENCY: 2 YEAR - 24 HOUR
MAXIMUM DRAINAGE AREA: 3 ACRES



ROCK CONSTRUCTION ENTRANCE ①



PLAN VIEW

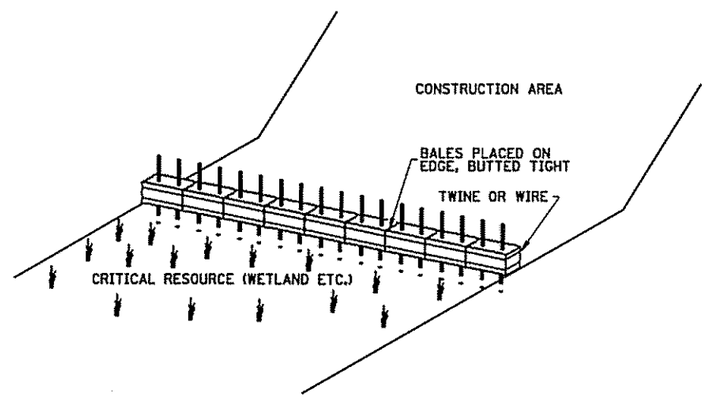


SECTION A-A

SEDIMENT MAT ⑥

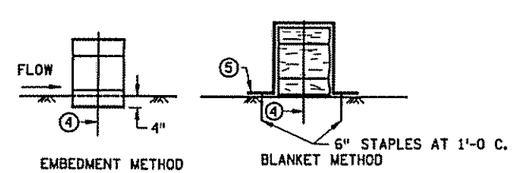
TYPICAL STREAM BED INSTALLATION

DESIGN GUIDELINES:
MAXIMUM FLOW VELOCITY: 5 FT./SEC.
MAXIMUM FLOW DEPTH: 2 FT.



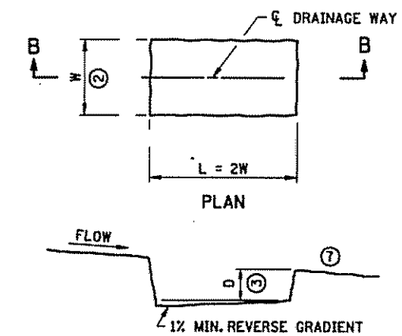
BALE BARRIERS

TO BE USED FOR CRITICAL PERIMETER CONTROL AREAS



BALE BARRIER DETAIL

APPROX. BALE SIZE: 14" X 18" X 36" LONG



SECTION B-B

SEDIMENT TRAP DETAIL

NOTES:
SEE SPECS. 2573, 3892, & 3894.

① ROCKS AT ENTRANCE CLEAN WORKSITE MUD OFF OF TRUCK TIRES BEFORE TRUCKS ENTER MAIN ROAD. KEEPING MUD OFF THE ROAD WILL PREVENT AUTO DAMAGE AND KEEP CONSTRUCTION SEDIMENT OUT OF DRAINAGE SYSTEMS AND WETLANDS. GEOTEXTILE MAY BE PLACED UNDER THE ROCK TO KEEP ROCKS SEPARATE FROM SOIL.

② W = 10 FT. MIN., 20 FT. MAX.

③ D = 2 FT.

④ TWO 2 IN. X 2 IN. WOOD STAKES OR REINFORCING BARS IN EACH BALE EMBEDDED 10 INCHES MINIMUM IN THE GROUND.

⑤ PLACE A CATEGORY 3 EROSION CONTROL BLANKET, 6 FT. WIDE MINIMUM, OVER THE BALE INSTEAD OF TRENCHING.

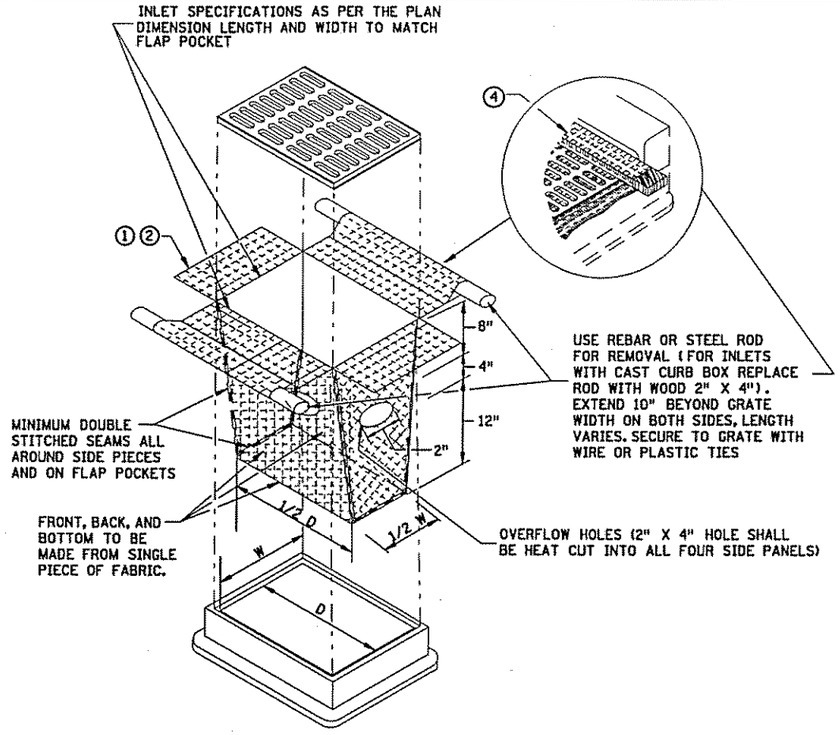
⑥ THIS DETAIL MAY NOT BE ACCEPTABLE FOR WORK ON PUBLIC WATERS, SEE GENERAL PUBLIC WATERS PERMIT (GP) 2004-0001.

⑦ LOCATION OF DOWNSTREAM TEMPORARY SEDIMENT CONTROL DEVICE.

STANDARD SHEET NO.	TITLE:
5-297.405 (2 of 4)	TEMPORARY SEDIMENT CONTROL MISCELLANEOUS DETAILS
STANDARD APPROVED: SEPTEMBER 27, 2006	

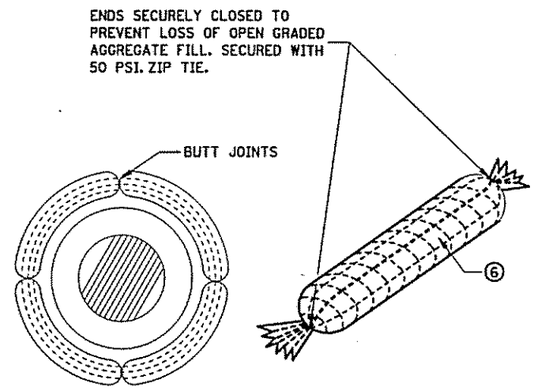
STATE PROJ. NO. 6607-42 (TH 60) SHEET NO. 41 OF 85 SHEETS

PLOTTED/REVISED: 14-AUG-2008
DISTRICT : 6
USER NAME: $$USER$NAME$$$
PATH & FILENAME: S:\Projects By SP\6607-42\Design\Final Plan Set\Standard Plans\D6607-42_SPN.dgn
FILE NAME: @FILENAME@

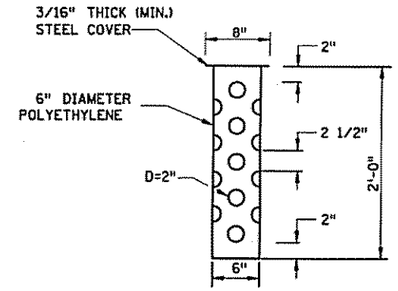


FILTER BAG INSERT ③

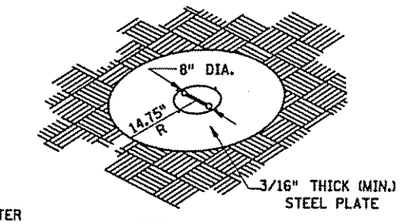
(CAN BE INSTALLED IN ANY INLET TYPE WITH OR WITHOUT A CURB BOX)



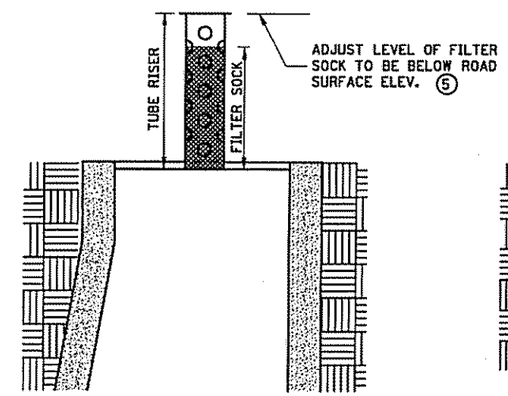
ROCK LOG/COMPOST LOG



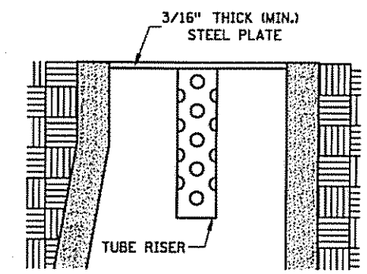
TUBE RISER



PERSPECTIVE VIEW

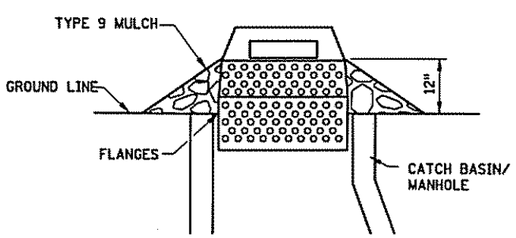


SECTION
(UP POSITION)



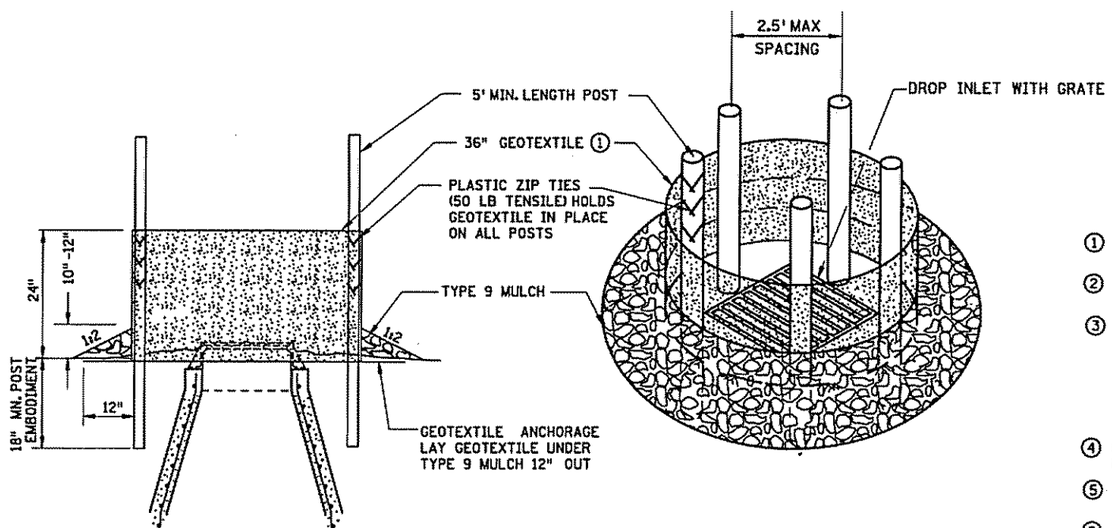
SECTION
(DOWN POSITION)

POP-UP HEAD



SEDIMENT CONTROL INLET HAT

NOTE:
THE SEDIMENT CONTROL BARRIER SHALL BE A METAL OR PLASTIC/POLYETHYLENE RISER SIZED TO FIT INSIDE THE CATCH BASIN/MANHOLE; HAVE PERFORATIONS TO ALLOW FOR WATER INFILTRATION; HAVE AN OVERFLOW OPENING, FLANGES AND A LID/COVER.



SILT FENCE RING AND ROCK FILTER BERM

USE WHERE INLET DRAINS IN AN AREA WITH SLOPES AT 1:3 or LESS

NOTES:

SEE SPECS. 2573, 3137, 3886 & 3891.

MANUFACTURED ALTERNATIVES LISTED ON Mn/DOT'S APPROVED PRODUCTS LIST MAY BE SUBSTITUTED.

① ALL GEOTEXTILE USED FOR INLET PROTECTION SHALL BE MONOFILAMENT IN BOTH DIRECTIONS, MEETING SPEC. 3886.

② FINISHED SIZE, INCLUDING POCKETS WHERE REQUIRED SHALL EXTEND A MINIMUM OF 10 INCHES AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.

③ INSTALLATION NOTES:
DO NOT INSTALL FILTER BAG INSERT IN INLETS SHALLOWER THAN 30 INCHES, MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE. THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE OF 3 INCHES BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES. WHERE NECESSARY THE CONTRACTOR SHALL CLINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3 INCH SIDE CLEARANCE.

④ FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2 INCH X 4 INCH OR USE A ROCK SOCK OR SAND BAGS IN PLACE OF THE FLAP POCKETS.

⑤ SOCK HEIGHT MUST NOT BE SO HIGH AS TO SLOW DOWN WATER FILTRATION TO CAUSE FLOODING OF THE ROADWAY.

⑥ GEOTEXTILE SOCK BETWEEN 4-10 FEET LONG AND 4-6 INCH DIAMETER. SEAM TO BE JOINED BY TWO ROWS OF STITCHING WITH A PLASTIC MESH BACKING OR PROVIDE A HEAT BONDED SEAM (OR APPROVED EQUIVALENT). FILL ROCK LOG WITH OPEN GRADED AGGREGATE CONSISTING OF SOUND DURABLE PARTICLES OF COARSE AGGREGATE CONFORMING TO SPEC. 3137 TABLE 3137-1; CA-3 GRADATION.

STANDARD SHEET NO. 297.405 (4 OF 4)	TITLE: TEMPORARY SEDIMENT CONTROL STORM DRAIN INLET PROTECTION
STANDARD APPROVED: SEPTEMBER 27, 2006	

STATE PROJ. NO. 6607-42 (TH 60) SHEET NO. 43 OF 85 SHEETS

PLOTTED/REVISED: 14-AUG-2008
DISTRICT #: 6
USER NAME: $$$USER$NAME$$$
PATH & FILENAME: S:\Projects By SP\6607-42\Design\Final Plan Set\Standard Plans\06607-42_SPN.dgn
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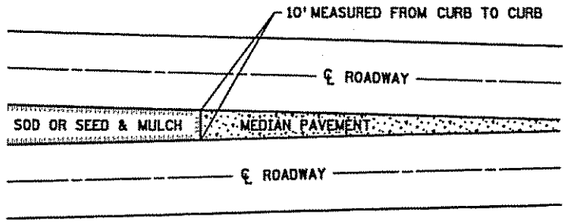
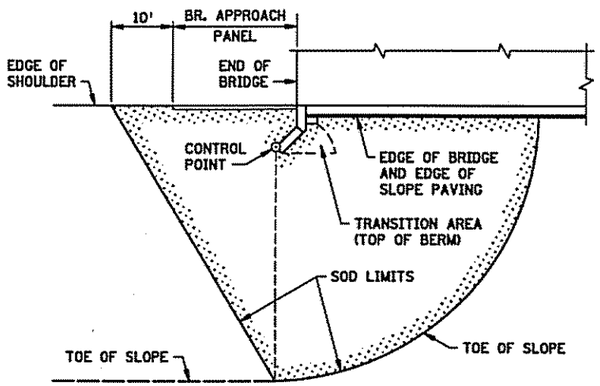
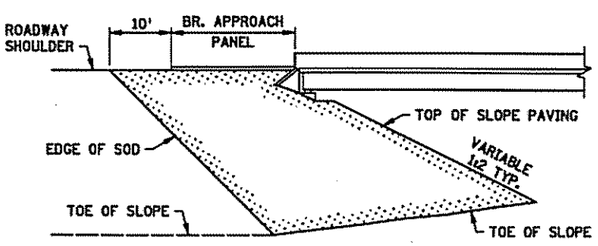


SODDING LIMITS AT GORE AREA

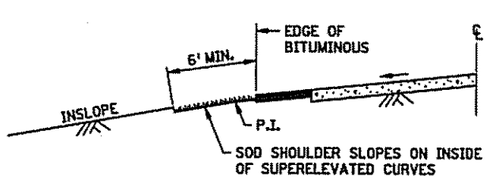


PLAN

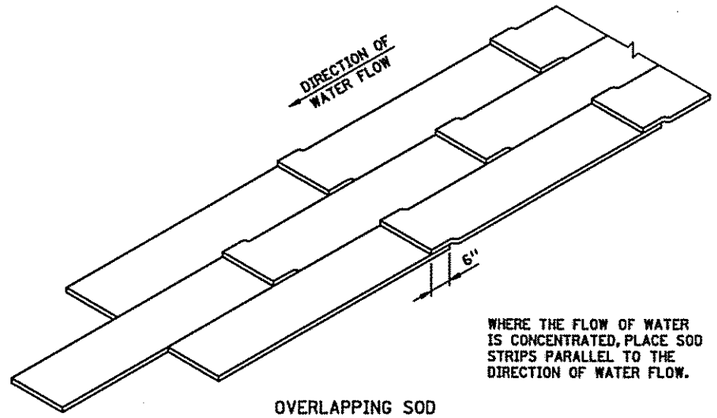


ELEVATION

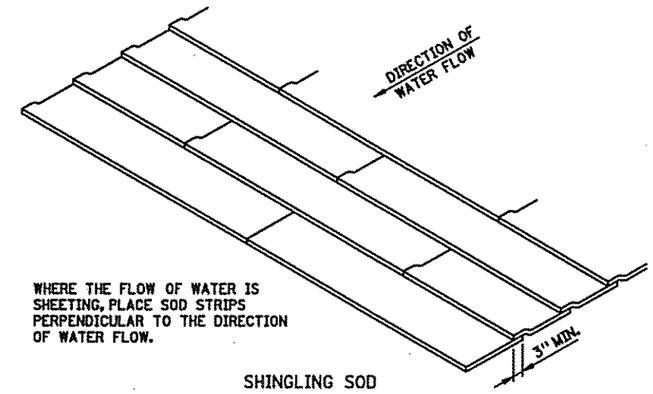
SODDING LIMITS AT BRIDGE APPROACH FILLS



SODDING INSLOPES OF SUPERELEVATED CURVES

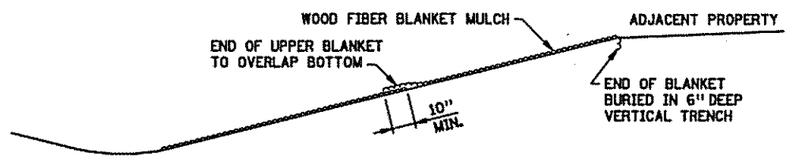


OVERLAPPING SOD

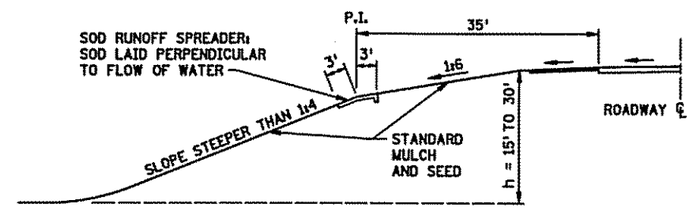


SHINGLING SOD

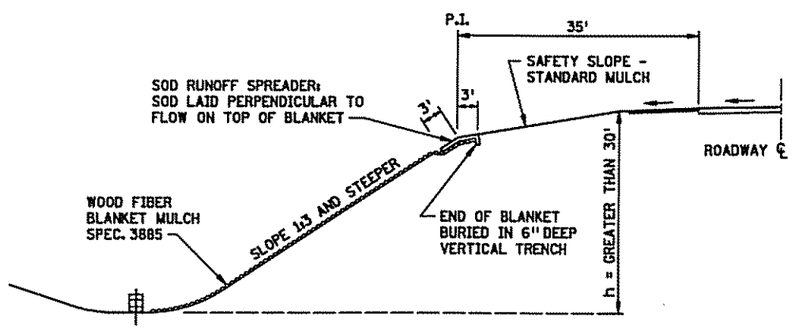
SPECIAL SOD PLACEMENT TECHNIQUES



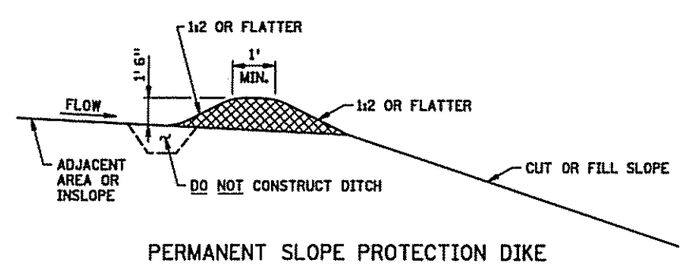
WOOD FIBER BLANKET INSTALLATION ON A CUT SLOPE



BROKEN-BACK SAFETY FILL SLOPE



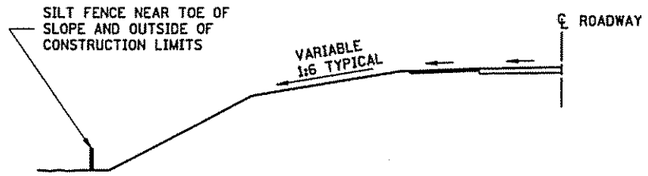
WOOD FIBER BLANKET INSTALLATION ON AN INSLOPE
(WHEN REQUIRED)



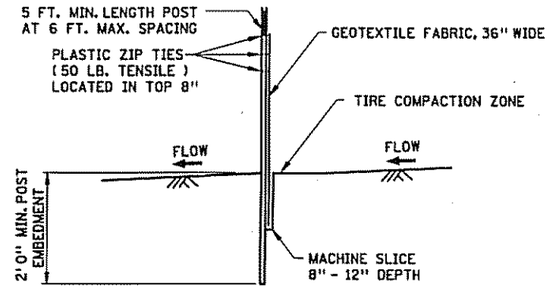
PERMANENT SLOPE PROTECTION DIKE

STANDARD SHEET NO. 5-297.406	TITLE: PERMANENT EROSION CONTROL ALONG ROADWAYS AND AT GORE AREAS & BRIDGE APPROACH FILLS
STANDARD APPROVED: JANUARY 31, 1985	
REVISION DATE 10-26-2000	STATE PROJ. NO. 6607-42 (TH 60 SHEET NO. 44 OF 85 SHEETS

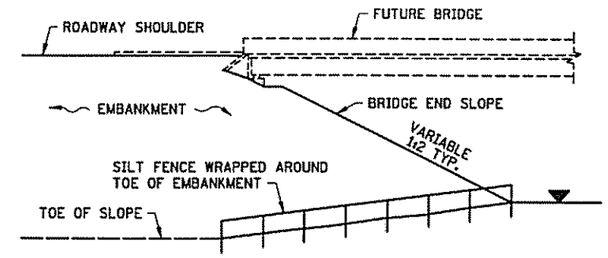
PLOTTED/REVISED: 14-AUG-2008
DISTRICT #: 6
USER NAME: $$$USER$NAME$$$
PATH & FILENAME: S:\Projects By SP\6607-42\Design\Final Plan Set\Standard Plans\0660742_SPN.dgn
FILE NAME: @FILENAME@



LOCATION OF SILT FENCE
AT TOE OF ROADWAY EMBANKMENT

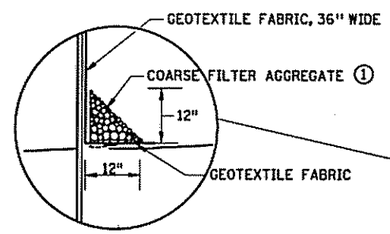


SILT FENCE, MACHINE SLICED
DESIGN GUIDELINES:
TO PROTECT AREAS FROM SHEET FLOW.
MAXIMUM CONTRIBUTING AREA: 1 ACRE.

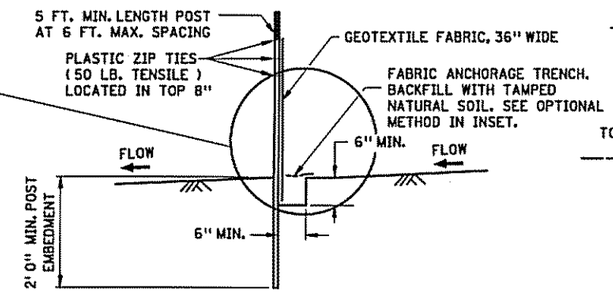


BRIDGE FILL

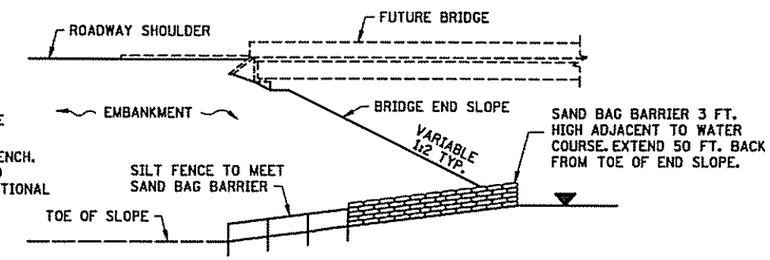
DESIGN GUIDELINES:
WATER COURSE FLOW VELOCITY: STAGNANT
CONTRIBUTING SLOPE AREA: 1/2 ACRE



OPTIONAL METHOD
FOR SILT FENCE, HEAVY DUTY

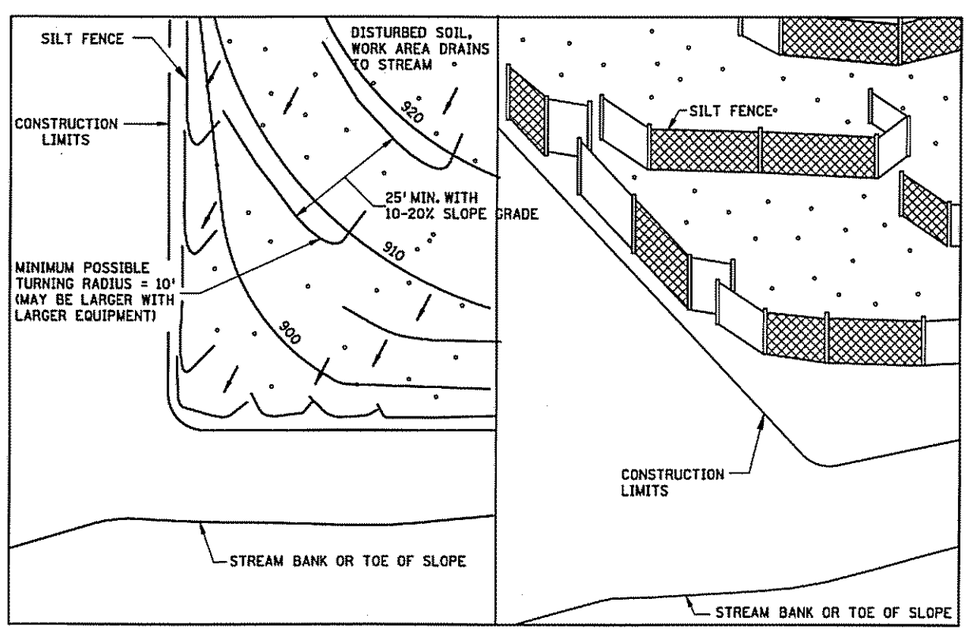


SILT FENCE, HEAVY DUTY
(HAND INSTALLED)
DESIGN GUIDELINES:
TO PROTECT AREAS FROM SHEET FLOW.
MAXIMUM CONTRIBUTING AREA: 1 ACRE.



BRIDGE FILL

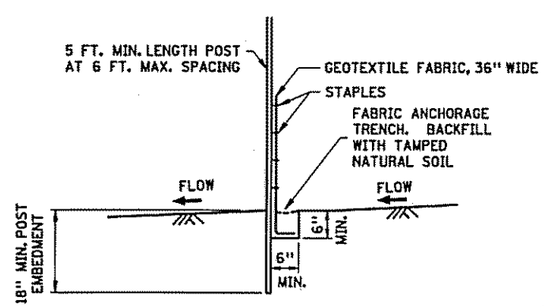
DESIGN GUIDELINES:
WATER COURSE FLOW VELOCITY: 1 TO 7 FT./SEC.
CONTRIBUTING SLOPE AREA: 1 ACRE



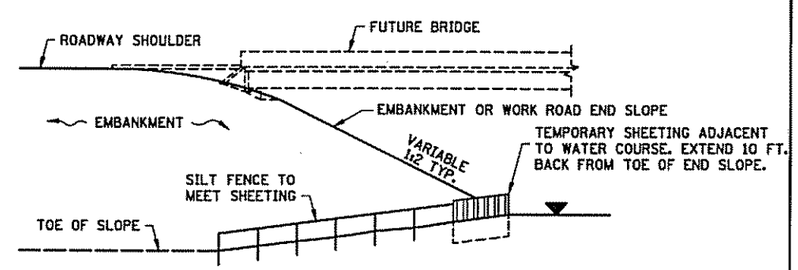
PLAN VIEW

SIDE VIEW

SILT FENCE, J-HOOK INSTALLATION



SILT FENCE, PREASSEMBLED
DESIGN GUIDELINES:
TO PROTECT AREAS FROM SHEET FLOW.
MAXIMUM CONTRIBUTING AREA: 1 ACRE.



EMBANKMENT OR WORK ROAD FILL

DESIGN GUIDELINES:
WATER COURSE FLOW VELOCITY: 8 TO 15 FT./SEC.
CONTRIBUTING SLOPE AREA: 3 ACRES

SILT FENCE AT BRIDGE EMBANKMENT ADJACENT TO WATER

NOTES:
SEE SPECS. 2573, 3149 & 3886.
① COARSE FILTER AGGREGATE (SPEC. 3149) SHALL BE INCIDENTAL.

STANDARD SHEET NO. 5-297.408 (1 OF 2)	TITLE: TEMPORARY SEDIMENT CONTROL SILT FENCE
STANDARD APPROVED: SEPTEMBER 27, 2006	

STATE PROJ. NO. 6607-42 (TH 60) SHEET NO. 45 OF 85 SHEETS

PLOTTED/REVISED: 14-AUG-2008
DISTRICT #: 6
USER NAME: $$$USER$NAME$$$
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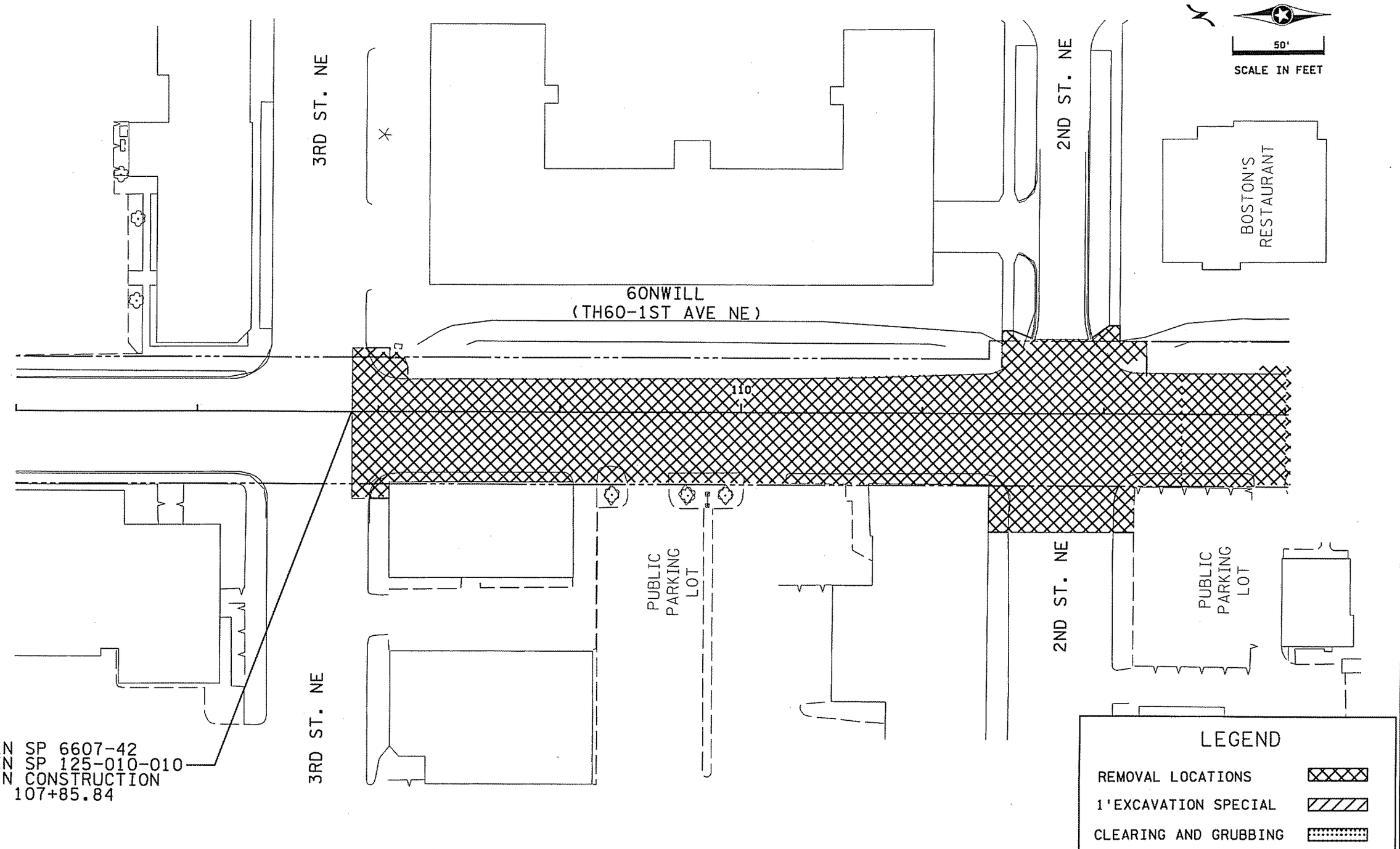
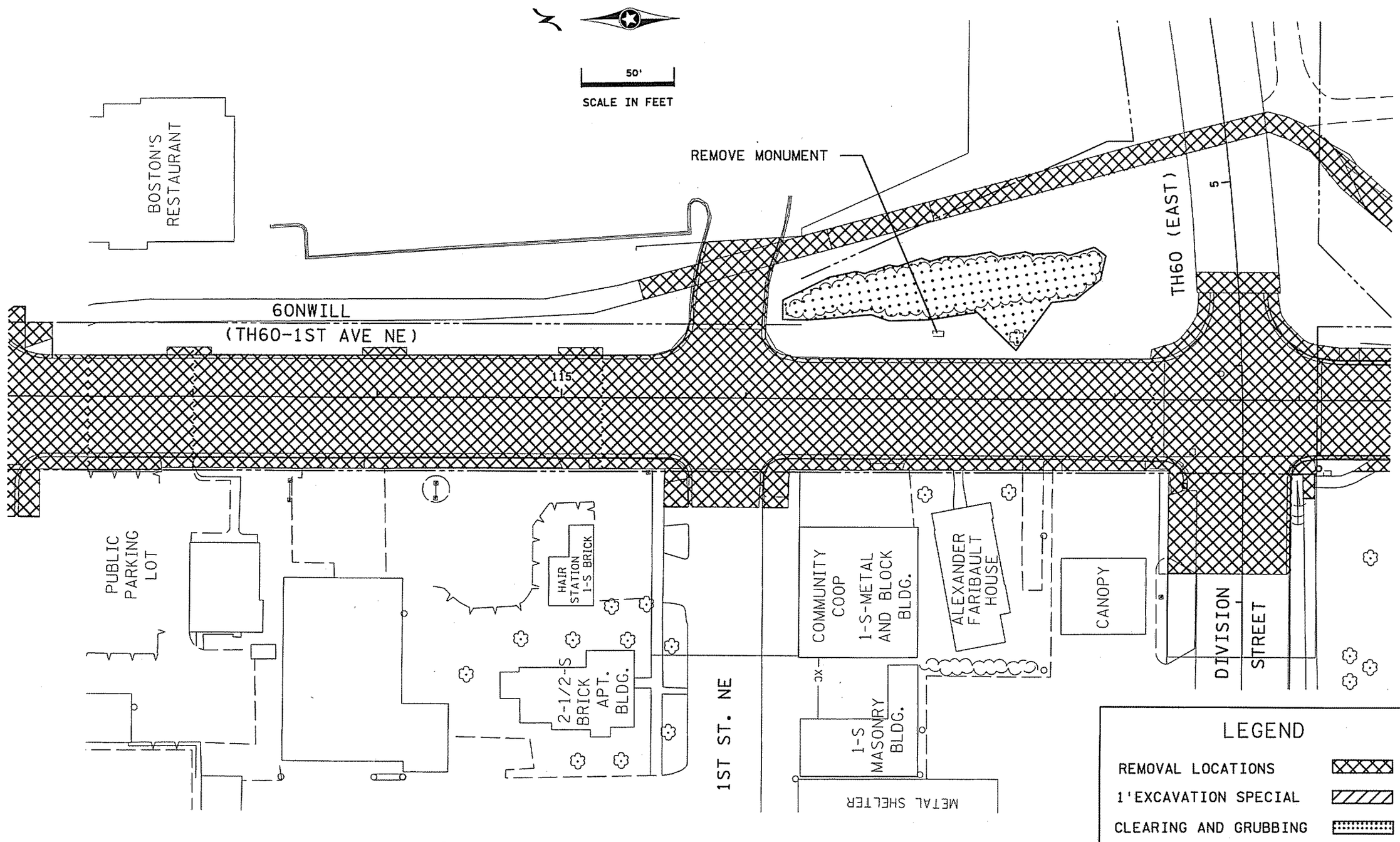


DISTRICT #: 6
IPLOT NAME: th60n_removals51
PATH & FILENAME: S:\Projects By SP\6607-42\Design\Final Plan Set\Removals\th60n_removals51.dgn
PLOTTED/REVISED: 14-AUG-2008

CERTIFIED BY : Fausto Cabral
LICENSED PROFESSIONAL ENGINEER - FAUSTO CABRAL
LIC. NO. 44229 DATE 14-AUG-2008

REMOVALS

STATE PROJ. NO. 6607-42 (TH 60) SHEET NO. 58 OF 85 SHEETS



CERTIFIED BY : Fausto Cabral
LICENSED PROFESSIONAL ENGINEER - FAUSTO CABRAL
LIC. NO. 44229 DATE 14-AUG-2008

REMOVALS

STATE PROJ. NO. 6607-42 (TH 60) SHEET NO. 59 OF 85 SHEETS

DISTRICT #: 6
IPLOT NAME: th60n_removals51l
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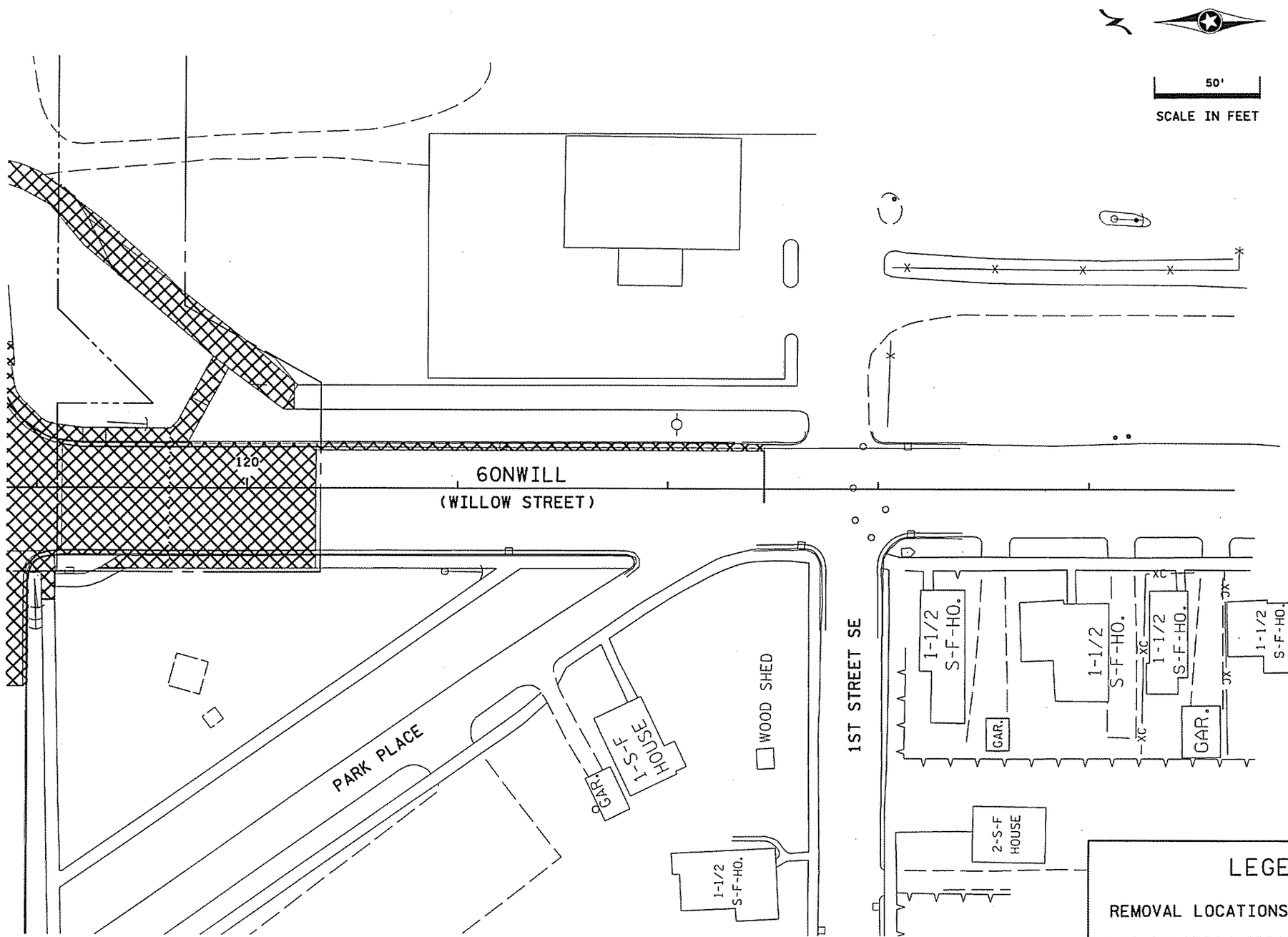
PLOTTED/REVISED: 14-AUG-2008



CERTIFIED BY : Fausto Cabral
LICENSED PROFESSIONAL ENGINEER - FAUSTO CABRAL
LIC. NO. 44229 DATE 14-AUG-2008

REMOVALS

STATE PROJ. NO. 6607-42 (TH 60) SHEET NO. 60 OF 85 SHEETS

PLOTTED/REVISED: 14-AUG-2008

DISTRICT #: 6
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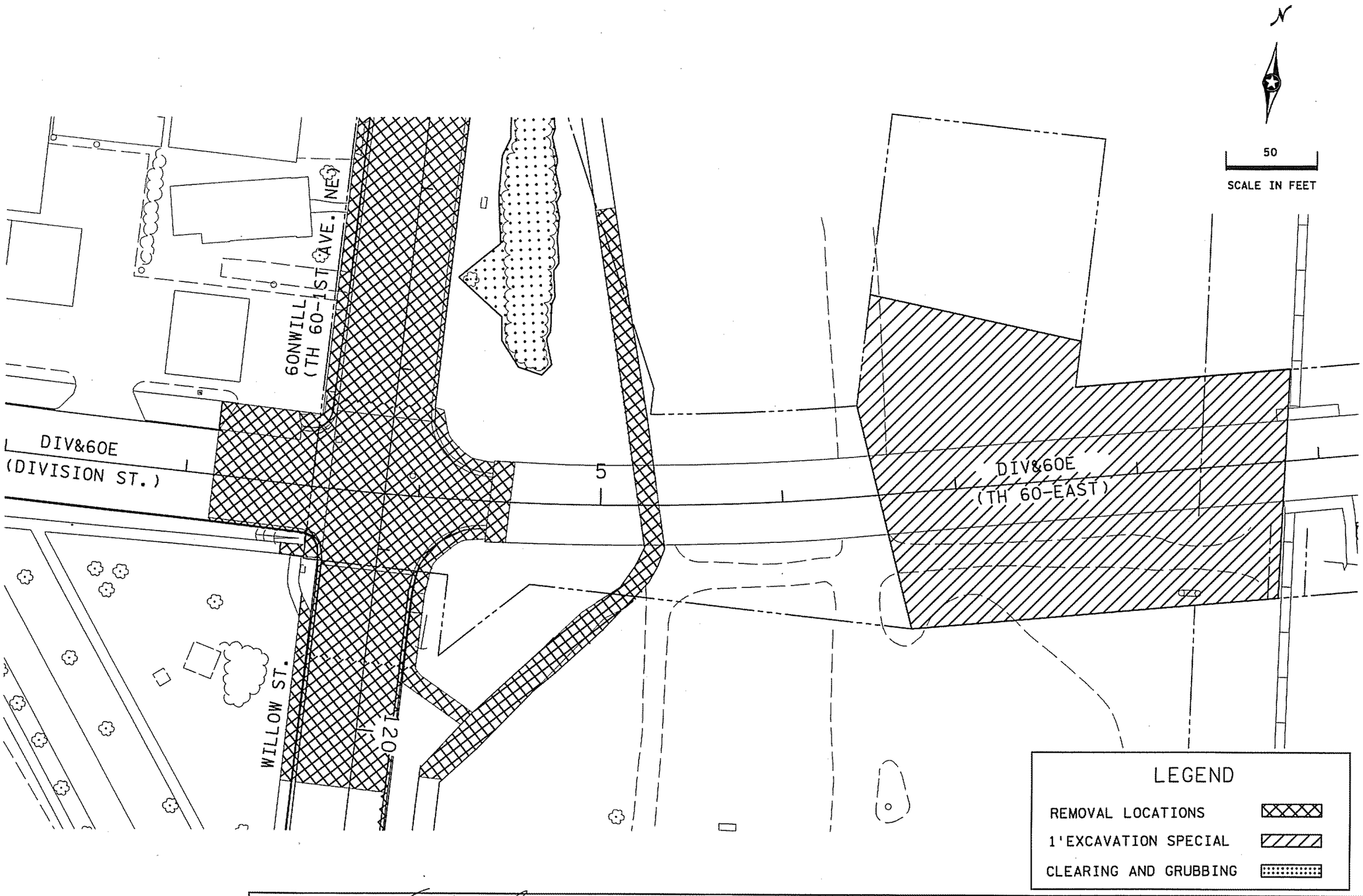

CERTIFIED BY : Fausto Cabral
LICENSED PROFESSIONAL ENGINEER - FAUSTO CABRAL
LIC. NO. 44229 DATE 07-OCT-2008

REMOVALS

STATE PROJ. NO. 6607-42 (TH 60) SHEET NO. 61 OF 85 SHEETS

DISTRICT #: 6
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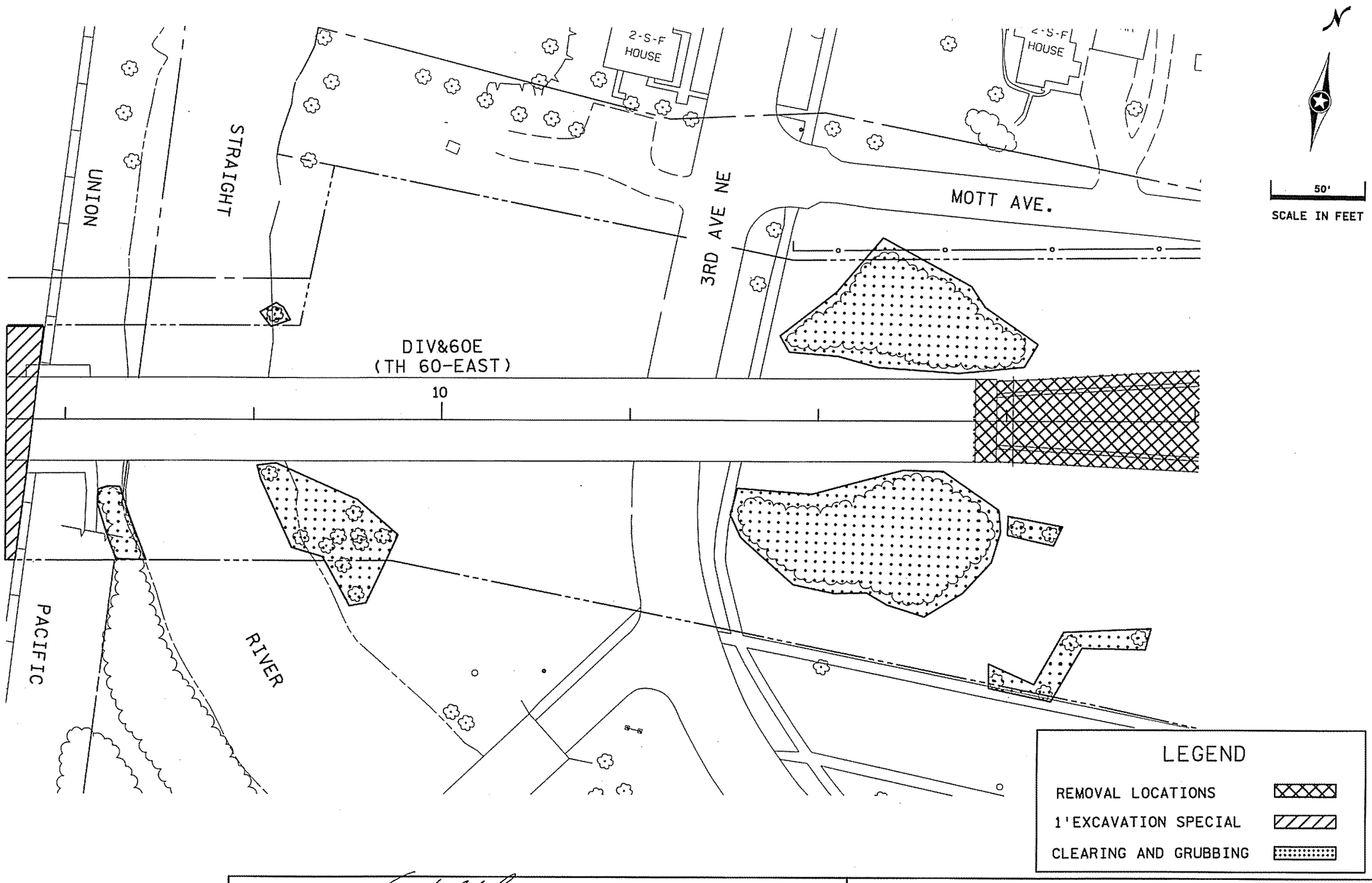
PLOTTED/REVISED: 07-OCT-2008



CERTIFIED BY : Fausto Cabral LIC. NO. 44229 DATE 14-AUG-2008
LICENSED PROFESSIONAL ENGINEER - FAUSTO CABRAL

REMOVALS

STATE PROJ. NO. 6607-42 (TH 60) SHEET NO. 62 OF 85 SHEETS

DISTRICT #: 6
IPLOT NAME: th60e_removals54i
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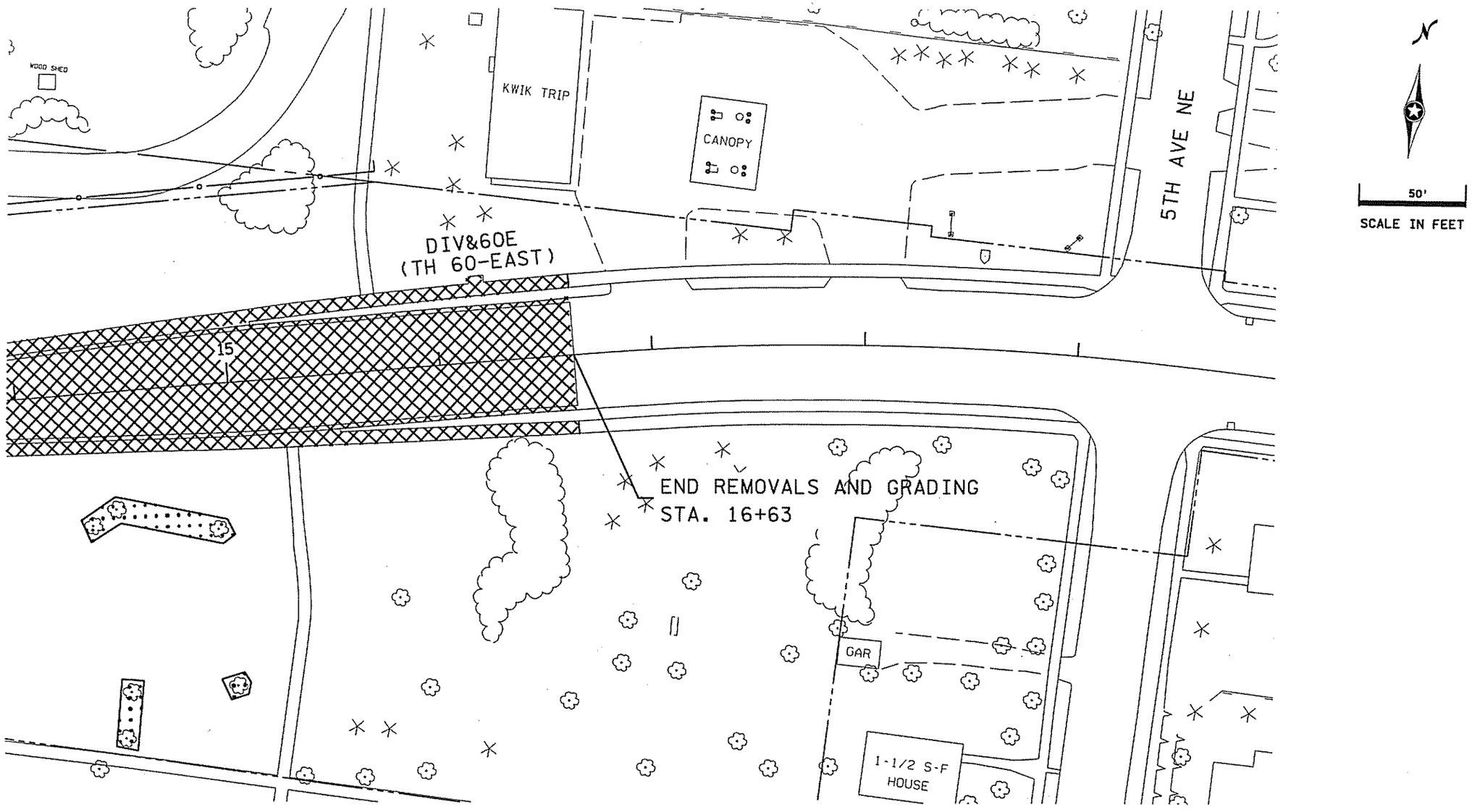
PLOTTED/REVISED: 14-AUG-2008



LEGEND

REMOVAL LOCATIONS	
1'EXCAVATION SPECIAL	
CLEARING AND GRUBBING	

CERTIFIED BY : Fausto Cabral
LICENSED PROFESSIONAL ENGINEER - FAUSTO CABRAL
LIC. NO. 44229 DATE 14-AUG-2008

REMOVALS

STATE PROJ. NO. 6607-42 (TH 60) SHEET NO. 63 OF 85 SHEETS

DISTRICT #: 6
IPLOT NAME: th60e_removals542
PATH & FILENAME: S:\Projects By SP\660742\Design\Final Plan Set\Removals\Th60e_removals54.dgn
PLOTTED/REVISED: 14-AUG-2008

NOTES:

1) RIGHT OF WAY AND EASEMENTS SHOWN ON THE CONSTRUCTION SHEETS GIVE GRAPHICAL LOCATION WITH RESPECT TO THE GEOMETRIC DESIGN AND MAP DATA. THE EXACT RIGHT OF WAY, EASEMENTS, AND BOUNDARY CORNERS ARE LOCATED BY REFERENCE TO THE RIGHT OF WAY PLATS AND ARE IDENTIFIED ON THE RIGHT OF WAY MAP, WHICH SHALL BE USED FOR STAKING PURPOSES.

2) FOR INPLACE CITY STORM SEWER, SANITARY SEWER, AND WATERMAIN, SEE SHEETS C1 THROUGH C4.

HORIZONTAL CONTROL

COORDINATE VALUES SHOWN IN THIS PLAN ARE RICE COUNTY COORDINATES, REFERRED TO THE NORTH AMERICAN DATUM OF 1983 (1986 adj.) THROUGH THE MINNESOTA STATE PLANE COORDINATE SYSTEM. TIES WERE MADE TO PERMANENT CONTROL STATIONS : HYVEE, WALMART, FARIBAULT, AND ZITA.

AZIMUTH REFERENCE IS TO ZERO DEGREES NORTH.

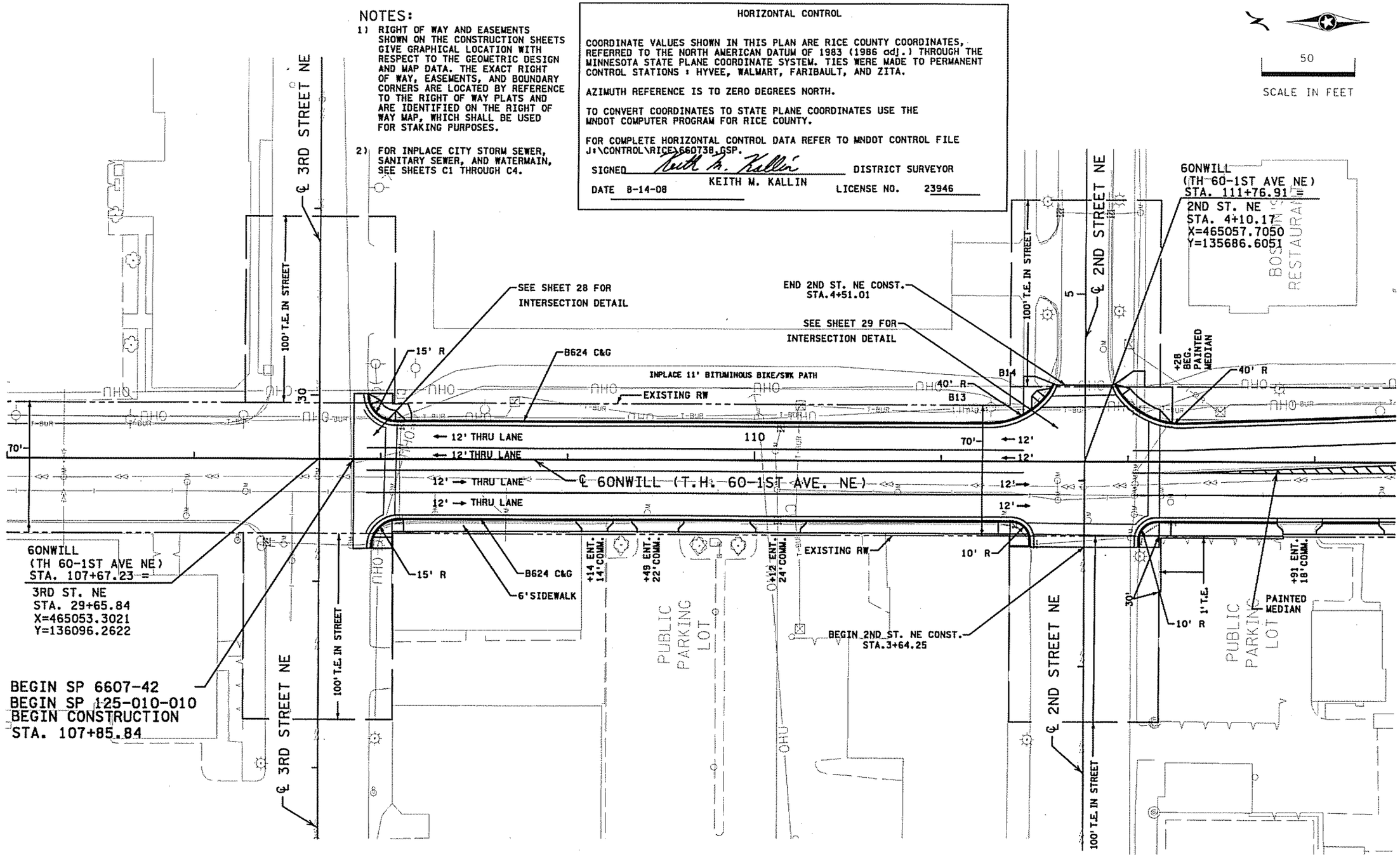
TO CONVERT COORDINATES TO STATE PLANE COORDINATES USE THE MNDOT COMPUTER PROGRAM FOR RICE COUNTY.

FOR COMPLETE HORIZONTAL CONTROL DATA REFER TO MNDOT CONTROL FILE J:\CONTROL\RICE\660738.GSP.

SIGNED Keith M. Kallin DISTRICT SURVEYOR

KEITH M. KALLIN

DATE 8-14-08 LICENSE NO. 23946



CERTIFIED BY : Fausto Cabral LIC. NO. 44229 DATE 07-OCT-2008

LICENSED PROFESSIONAL ENGINEER - FAUSTO CABRAL

CONSTRUCTION PLAN

STATE PROJ. NO. 6607-42 (TH 60) SHEET NO. 64 OF 85 SHEETS

DISTRICT #: 6
IPLOT NAME: 60NWILL273
PATH & FILENAME: S:\Projects By SP\6607-42\Design\Final Plan Set\Const Plans Profiles\60NWILL27.dgn
PLOTTED/REVISED: 07-OCT-2008

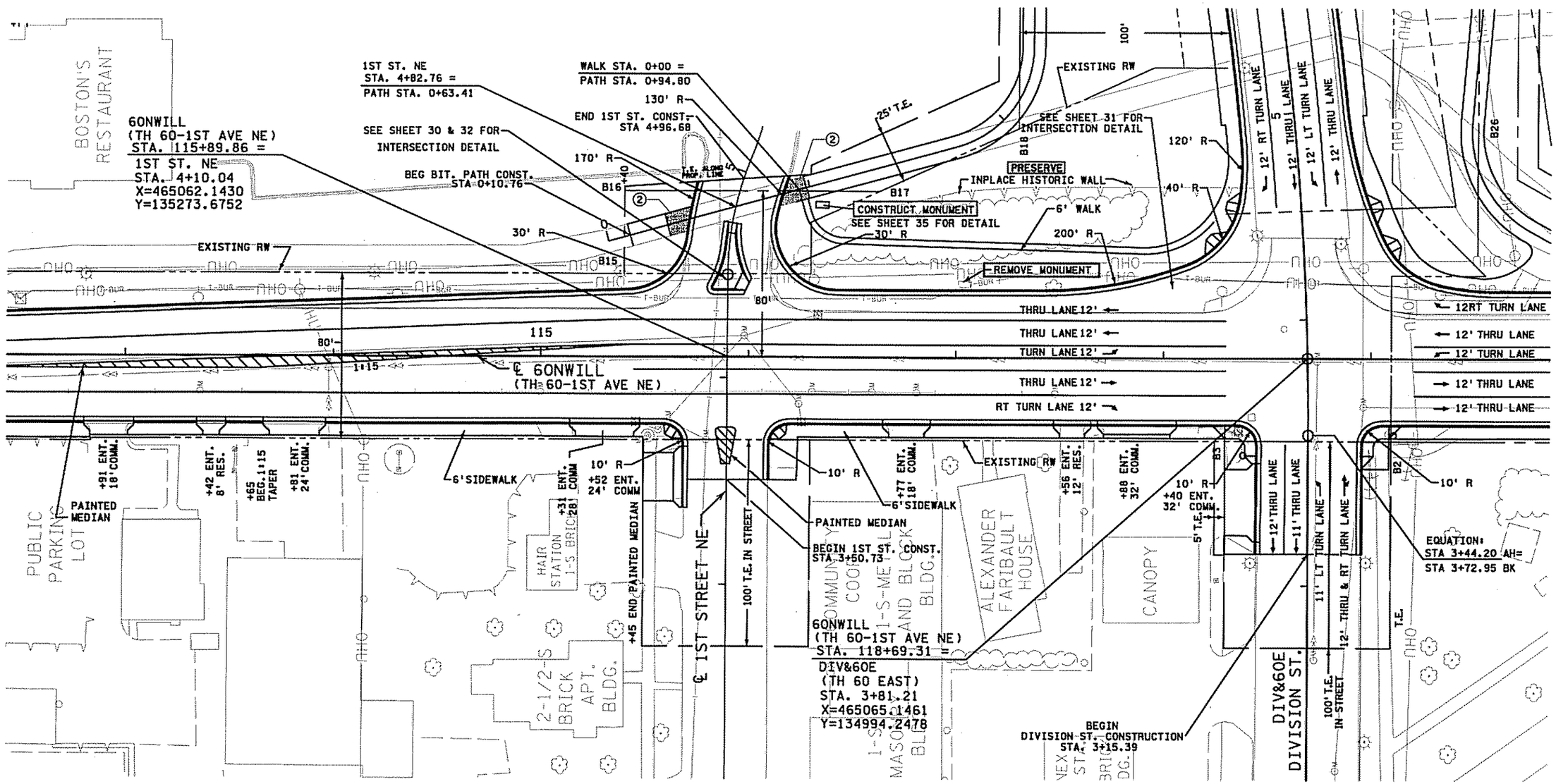
NOTES:

1) FOR INPLACE CITY STORM SEWER, SANITARY SEWER, AND WATERMAIN, SEE SHEETS C1 THROUGH C4.

② TAPER PED RAMP 1:12.

50

SCALE IN FEET



CERTIFIED BY : Fausto Cabral
LICENSED PROFESSIONAL ENGINEER - FAUSTO CABRAL

LIC. NO. 44229 DATE 07-OCT-2008

CONSTRUCTION PLAN

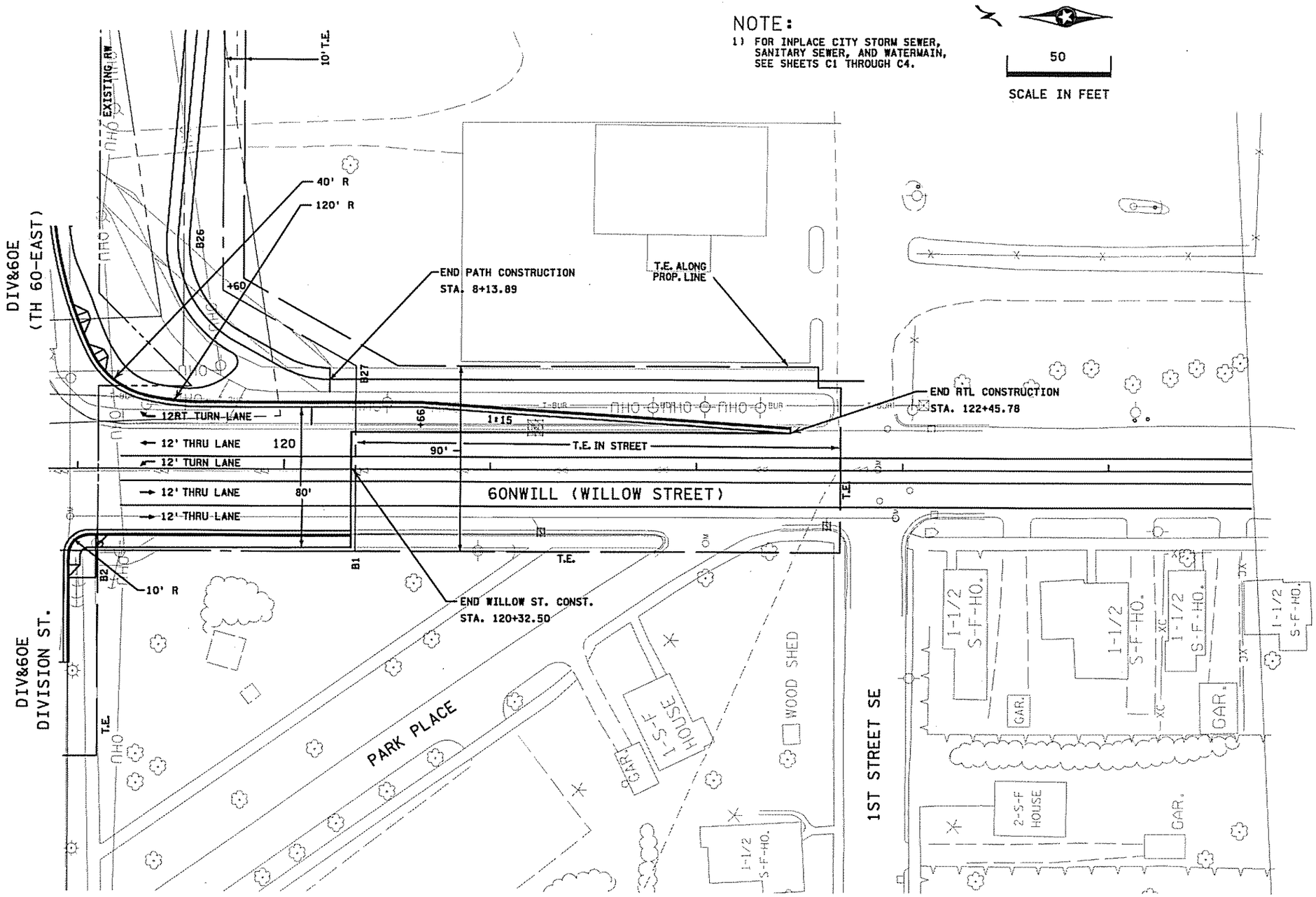
STATE PROJ. NO. 6607-42 (TH 60) SHEET NO. 65 OF 85 SHEETS

PLOTTED/REVISED: 07-OCT-2008

DISTRICT #: 6
IPLOT NAME: 60nwill27
PATH & FILENAME: S:\Projects By SP\660742\Design\Final Plan Set\Const Plans Profiles\60NWILL27.dgn

NOTE:

1) FOR INPLACE CITY STORM SEWER, SANITARY SEWER, AND WATERMAIN, SEE SHEETS C1 THROUGH C4.



CERTIFIED BY : Fausto Cabral
LICENSED PROFESSIONAL ENGINEER - FAUSTO CABRAL
LIC. NO. 44229 DATE 07-OCT-2008

CONSTRUCTION PLAN

STATE PROJ. NO. 6607-42 (TH 60) SHEET NO. 66 OF 85 SHEETS

DISTRICT #: 6
IPLOT NAME: 60NWILL275
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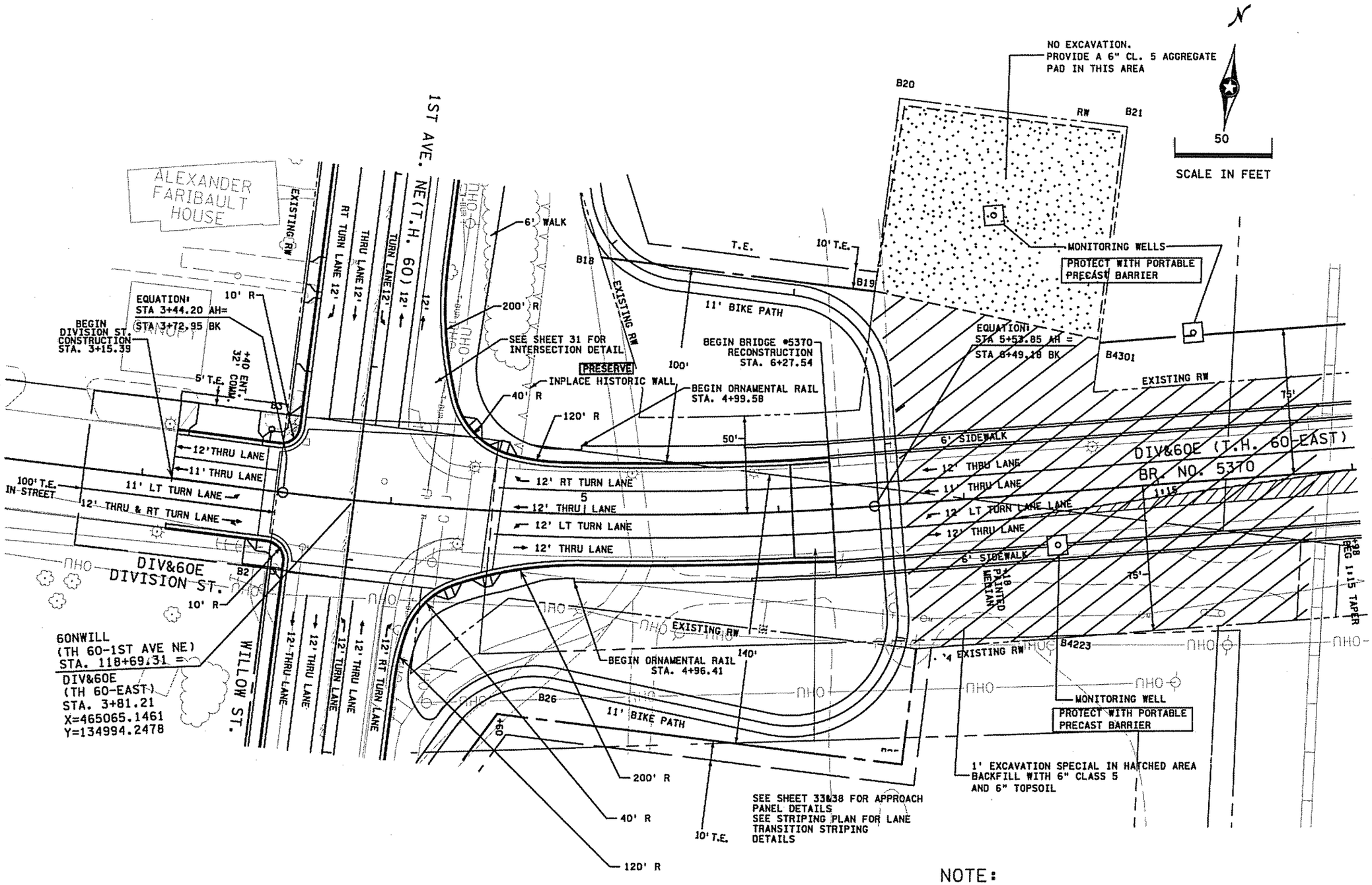
PLOTTED/REVISED: 07-OCT-2008



NOTE:

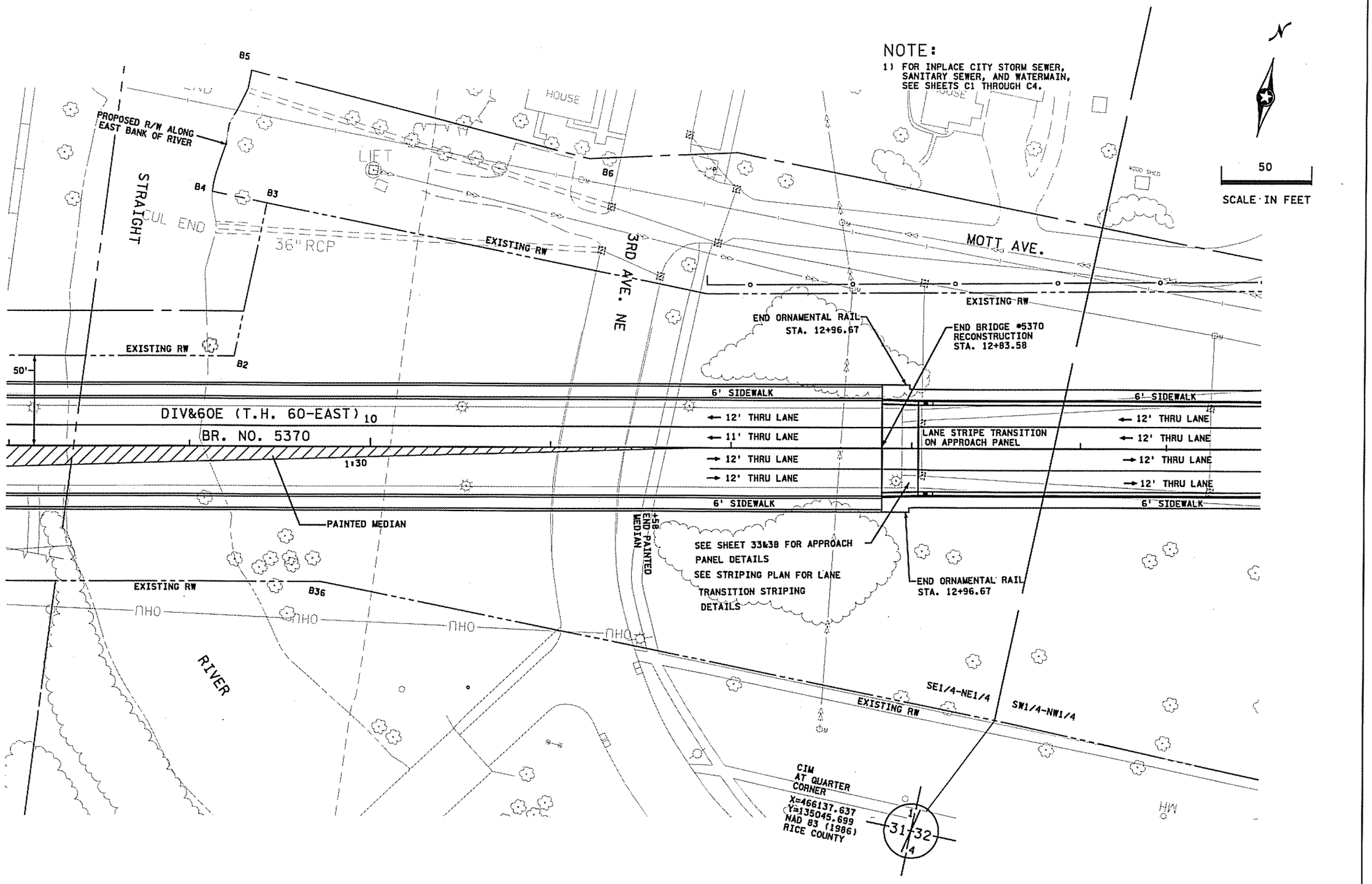
FOR INPLACE CITY STORM SEWER, SANITARY SEWER, AND WATERMAIN, SEE SHEETS C1 THROUGH C4.

CERTIFIED BY : Fausto Cabral
LICENSED PROFESSIONAL ENGINEER - FAUSTO CABRAL
LIC. NO. 44229 DATE 07-OCT-2008

CONSTRUCTION PLAN

STATE PROJ. NO. 6607-42 (TH 60) SHEET NO. 67 OF 85 SHEETS

DISTRICT #: 6
IPLOT NAME: DIV60E414
PATH & FILENAME: S:\Projects By SP\6607-42\Design\Final Plan Set\Const Plans Profiles\DIV60E41.dgn
PLOTTED/REVISED: 07-OCT-2008



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LICENSED PROFESSIONAL ENGINEER - FAUSTO CABRAL
LIC. NO. 44229 DATE 07-OCT-2008

CONSTRUCTION PLAN

STATE PROJ. NO. 6607-42 (TH 60) SHEET NO. 68 OF 85 SHEETS

DISTRICT #: 6
IPLOT NAME: DN60E415
PATH & FILENAME: S:\Projects By SP\6607-42\Design\Final Plan Set\Const Plans Profiles\DN60E4.dgn
PLOTTED/REVISED: 07-OCT-2008

PROJECT DESCRIPTION

SP 6607-42 INCLUDES BRIDGE REHABILITATION, ROADWAY WIDENING & TURN LANE.
THE PROJECT IS LOCATED ON T.H. 60 WITHIN THE CITY OF FARIBAULT.
THE RECEIVING WATERS FOR STORM WATER FROM THIS PROJECT INCLUDES:
STRAIGHT RIVER, WHICH IS CLASSIFIED AS WILD AND SCENIC.

SWPPP IMPLEMENTATION

THE CONTRACTOR IS RESPONSIBLE FOR IMPLEMENTATION OF THE STORM WATER POLLUTION PREVENTION PLAN AND THE INSTALLATION, INSPECTION, AND MAINTENANCE OF THE EROSION PREVENTION AND SEDIMENT CONTROL BMP'S BEFORE AND DURING CONSTRUCTION. MN/DOT DISTRICT 6 STAFF AND MEMBERS OF MN/DOT'S OFFICE OF ENVIRONMENTAL SERVICE ARE ALSO AVAILABLE FOR ASSISTANCE.

PROJECT ENGINEER

MN/DOT PROJECT SUPERVISOR IS;

JAMES ROBERTS
507-446-5931
(CELL) 507-456-5315

MN DEPT. OF TRANSPORTATION
1010 21ST AVE. NW
OWATONNA, MN 55060-1005

DISTRICT 6 MAINTENANCE CONTACT;

LARRY KRUCKENBERG
507-334-4495
(CELL) 507-456-5340

MN DEPT. OF TRANSPORTATION
555 NW 24TH ST.
FARIBAULT, MN 55021

AGENCY CONTACTS

AGENCY	PERMIT	CONTACT NAME	PHONE NUMBER
MPCA	NPDES	ROBERTA GETMAN	507-280-2996
DNR	PERMIT	PETER LEETE	651-296-6569
DNR PUBLIC WATERS	PERMIT	RANDY BRADT	507-281-7779
COE	PERMIT	BRAD JOHNSON	651-290-5250
MPCA		STATE DUTY OFFICER	800-422-0798
MN/DOT DESIGN		FAUSTO CABRAL	507-286-7552
MN/DOT CONSTRUCTION INSPECTOR		SCOTT JOHNSON	507-453-2904 (CELL) 507-429-6304
EROSION CONTROL REVIEW	NOT REQUIRED		
EROSION CONTROL SUPERVISOR (CONTRACTOR)			

CHEMICAL CONTAINMENT

ALL CHEMICALS, FERTILIZERS AND FORM RELEASE OILS SHALL BE PROPERLY CONTAINED, ALL SPILLS SHALL BE CLEANED UP IMMEDIATELY UPON DISCOVERY AND ANY SPILLS LARGE ENOUGH TO REACH THE STORMWATER CONVEYANCE SYSTEM WILL BE REPORTED TO THE MPCA STATE DUTY OFFICER.

CONCRETE TRUCKS WILL NOT BE ALLOWED TO WASH OUT OR DISCHARGE SURPLUS CONCRETE OR DRUM WASH WATER ON THE SITE, UNLESS DONE IN A CONTAINMENT SYSTEM DESIGNED TO LEAVE NO DISCHARGE OF CONCRETE OR CONCRETE RESIDUE WITH POLLUTION POTENTIAL TO SPECIAL WATERS.

TIMING OF BMP INSTALLATION

THE EROSION PREVENTION AND SEDIMENT CONTROL BMP'S SHALL BE INSTALLED AS NECESSARY TO MINIMIZE EROSION FROM DISTURBED SURFACES AND CAPTURE SEDIMENT ON SITE, AND SHALL MEET THE NPDES PERMIT CONSTRUCTION ACTIVITY REQUIREMENTS.

USE THE TIME FRAMES FOR DRAINAGE AREAS CONTRIBUTING TO SPECIAL WATERS AS OUTLINED IN THE SPECIAL PROVISIONS (1717) FOR THIS PROJECT.

CALCULATIONS

WATER QUALITY VOLUME
TOTAL DISTURBED AREA = 6.48 ACRES
EXISTING IMPERVIOUS AREA 3.22 ACRES
NEW IMPERVIOUS AREA 4.11 ACRES (PROPOSED) MINUS - 3.22 ACRES (EXISTING) = 0.89 ACRES

SOIL TYPES

SOIL TYPES FOUND ON THIS PROJECT ARE AS FOLLOWS:
CLAY LOAM, SILT LOAM AND SILTY CLAY LOAM.
FOR BORING LOGS, CONTACT THE DISTRICT 6 SOILS ENGINEER.

TMDL IMPLEMENTATION PLANS CONTAINING STORM WATER REQUIREMENTS

NO TMDL IMPLEMENTATION PLANS CURRENTLY EXIST FOR THE RECEIVING WATERS ON THIS PROJECT.

CONSTRUCTION NOTES

CONSTRUCTION SHALL BE GOVERNED BY MN/DOT SPEC BOOK AND THE SPECIAL PROVISIONS.
THE CONTRACTOR SHALL KEEP THE INSPECTION AND MAINTENANCE LOG.

TRACKED SEDIMENT MUST BE REMOVED FROM ALL OFF SITE PAVED SURFACES WITHIN 24 HOURS OF DISCOVERY, OR IF APPLICABLE, WITHIN A SHORTER TIME, AND AS DIRECTED BY THE ENGINEER.

KARST AREA PROTECTION

THIS PROJECT IS LOCATED IN THE KARST AREA OF MINNESOTA, NO KNOWN SINKHOLES EXIST IN OR NEAR THE PROJECT. IF POTENTIAL SINK HOLES ARE ENCOUNTERED DURING CONSTRUCTION, CONTACT THE DISTRICT SOILS ENGINEER FOR RECOMMENDATIONS.

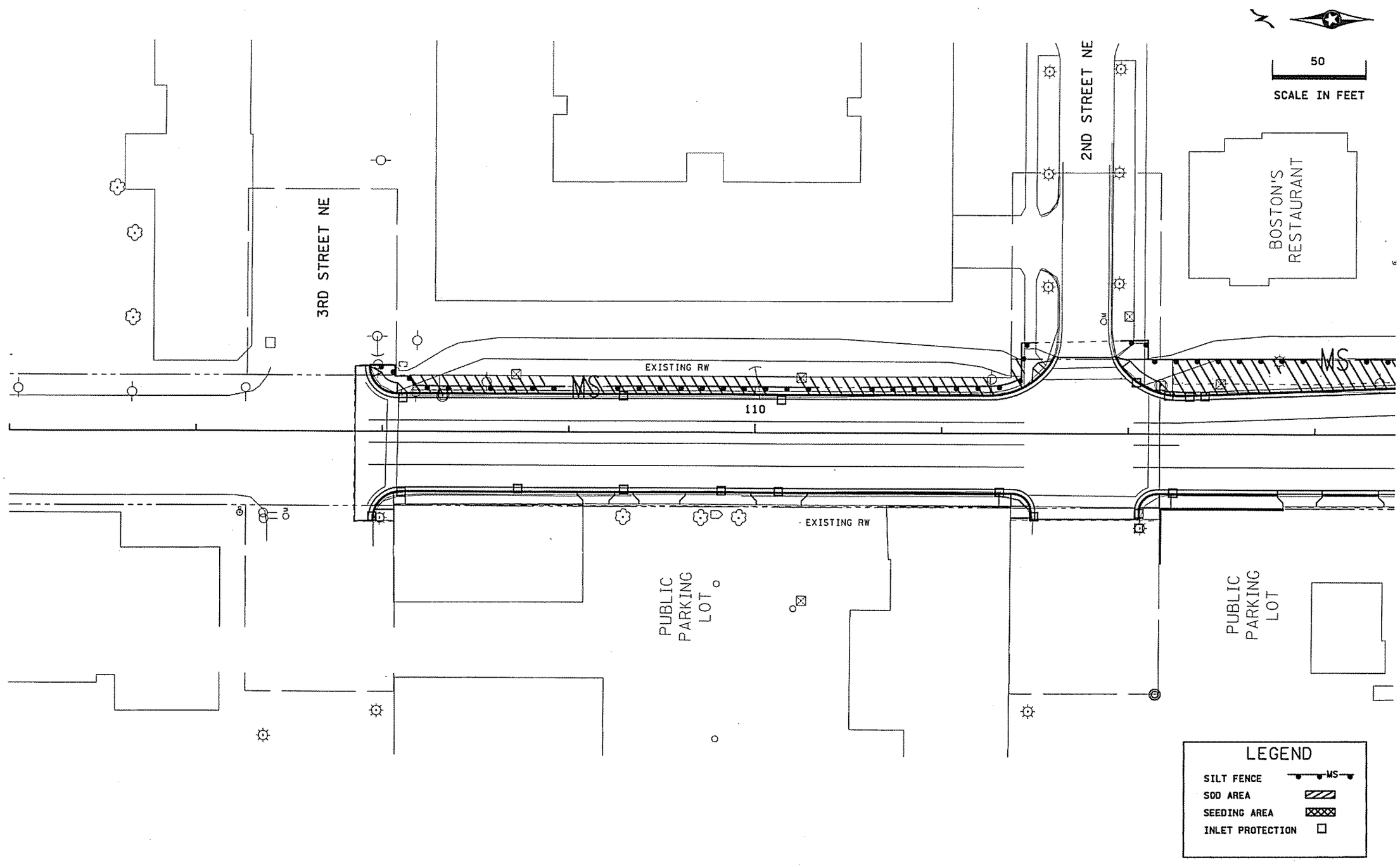
LOCATION OF SWPPP REQUIREMENTS IN PROJECT PLAN

DESCRIPTION	TITLE	LOCATION
SUMMARY OF PERVIOUS AND IMPERVIOUS	SWPPP	SHEET 79
DIRECTION OF FLOW	DRAINAGE PLAN	SHEETS DR4 - DR8
RECEIVING SURFACE WATERS	DRAINAGE PLAN	SHEETS DR4 - DR8
FINAL STABILIZATION	EROSION CONTROL AND TURF ESTABLISHMENT	SHEETS 80 - 85
DRAINAGE STRUCTURES	DRAINAGE PLAN	SHEETS DR4 - DR8
DRAINAGE TABULATION	DRAINAGE PLAN	SHEETS DR11 - DR17
EROSION CONTROL TABULATION	TAB I	SHEET 17-19
EROSION CONTROL SHEETS	EROSION CONTROL AND TURF ESTABLISHMENT	SHEETS 80 - 85
EROSION CONTROL DETAILS	STANDARD PLAN SHEETS	SHEETS 39-46
STORM SEWER TABULATION	DRAINAGE PLAN	SHEETS DR11 - DR17
STORM SEWER PLAN SHEETS	DRAINAGE PLAN	SHEETS DR4 - DR8
STORM SEWER DETAILS	DRAINAGE PLAN	SHEETS DR9 - DR10
POND TABULATIONS	NA	
POND SHEETS	NA	
LOCATION OF PONDS	NA	

CERTIFIED BY : Fausto Cabral
LICENSED PROFESSIONAL ENGINEER - FAUSTO CABRAL
LIC. NO. 44229 DATE 14-AUG-2008

STORMWATER POLLUTION PREVENTION PLAN

PLOTTED/REVISED: 14-AUG-2008
DISTRICT #: 6
IPLOT NAME: d6607-42_SWPPP19
PATH & FILENAME: S:\Projects By SP\6607-42\Design\Final Plan Set\Tabs\d6607-42_tb.dgn



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LICENSED PROFESSIONAL ENGINEER - FAUSTO CABRAL
LIC. NO. 44229 DATE 07-OCT-2008

EROSION CONTROL AND TURF ESTABLISHMENT

STATE PROJ. NO. 6607-42 (TH 60) SHEET NO. 80 OF 85 SHEETS

DISTRICT #: 6
IPLOT NAME: 60nwIIL_TEI
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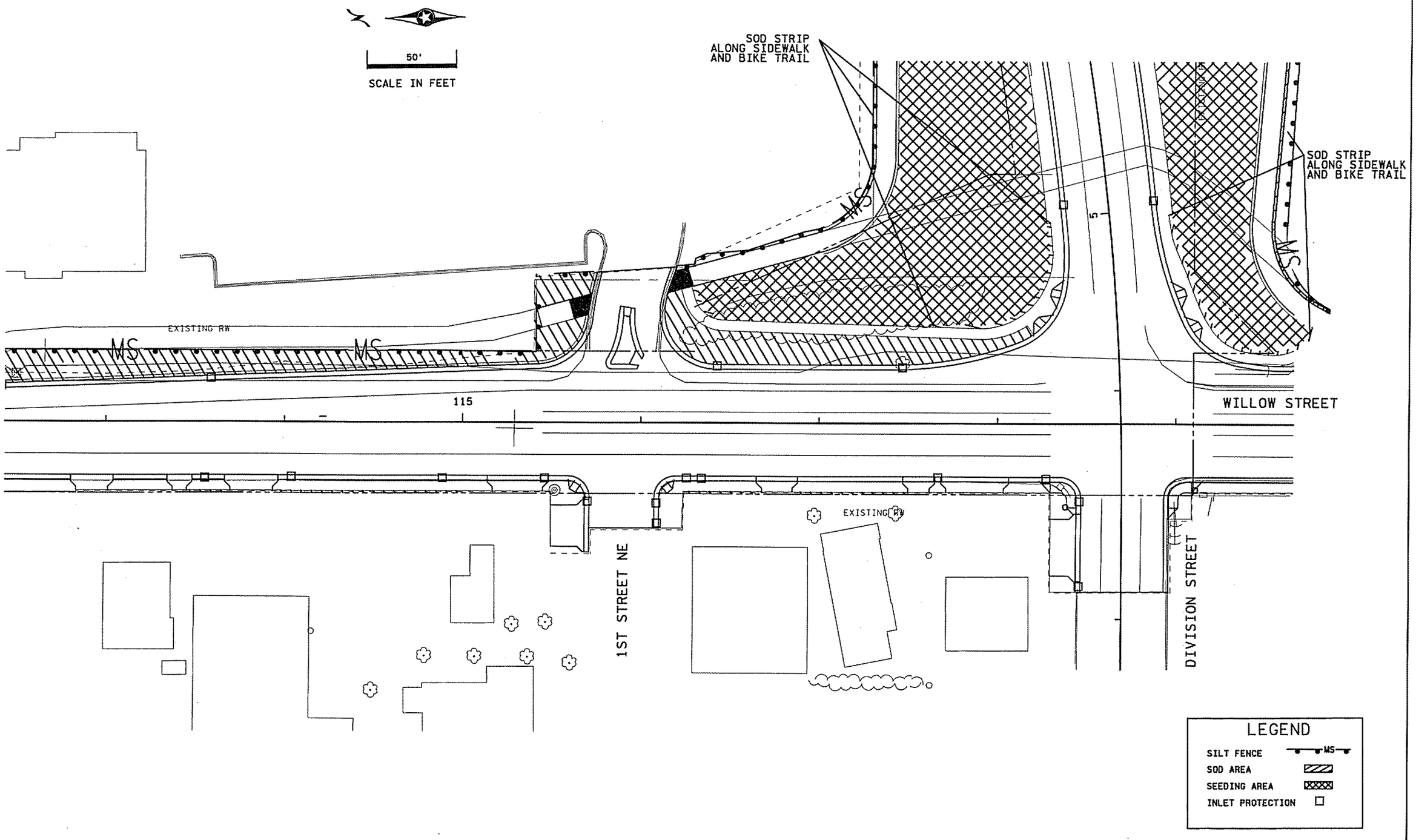
PLOTTED/REVISED: 07-OCT-2008



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LICENSED PROFESSIONAL ENGINEER - FAUSTO CABRAL
LIC. NO. 44229 DATE 07-OCT-2008

EROSION CONTROL AND TURF ESTABLISHMENT

STATE PROJ. NO. 6607-42 (TH 60) SHEET NO. 81 OF 85 SHEETS

DISTRICT #: 6
IPLOT NAME: 60nwIII_TEII
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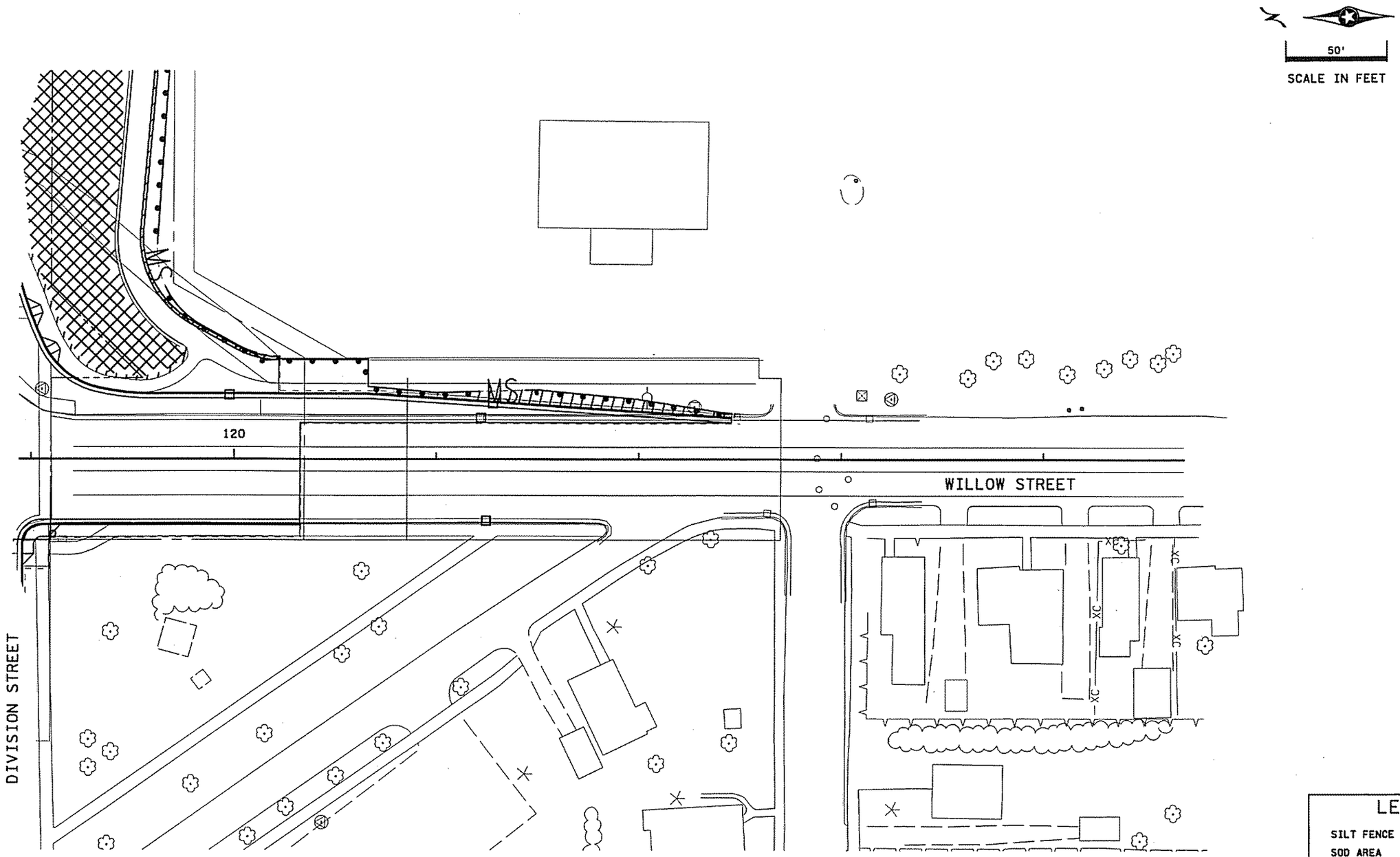
PLOTTED/REVISED: 07-OCT-2008



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LICENSED PROFESSIONAL ENGINEER - FAUSTO CABRAL
LIC. NO. 44229 DATE 07-OCT-2008

EROSION CONTROL AND TURF ESTABLISHMENT

STATE PROJ. NO. 6607-42 (TH 60) SHEET NO. 82 OF 85 SHEETS

DISTRICT #: 6
IPLOT NAME: 60nwill_TEI2
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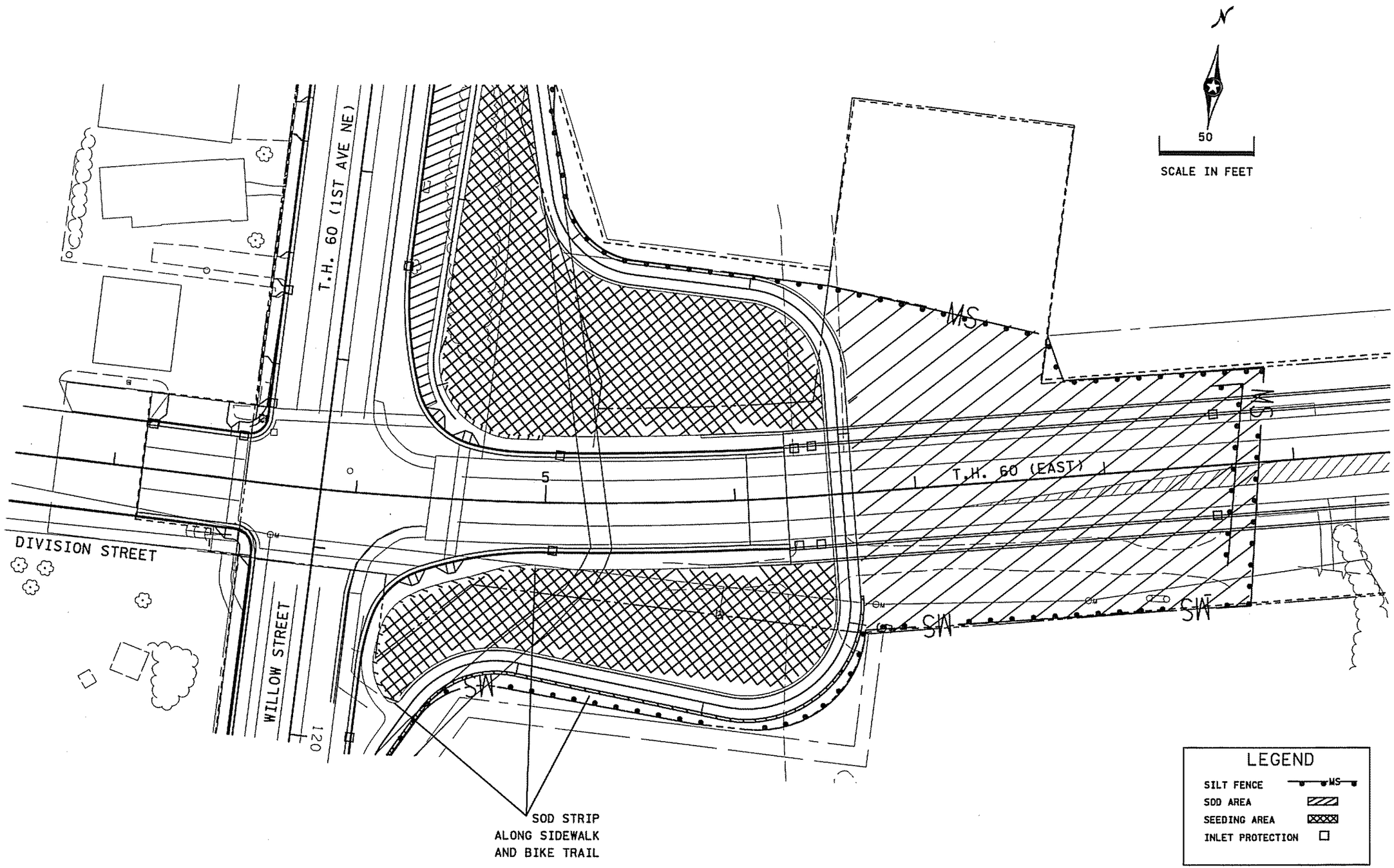

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LICENSED PROFESSIONAL ENGINEER - FAUSTO CABRAL
LIC. NO. 44229 DATE 07-OCT-2008

EROSION CONTROL AND TURF ESTABLISHMENT

STATE PROJ. NO. 6607-42 (TH 60) SHEET NO. 83 OF 85 SHEETS

DISTRICT #: 6
IPLOT NAME: div&60e_TE4
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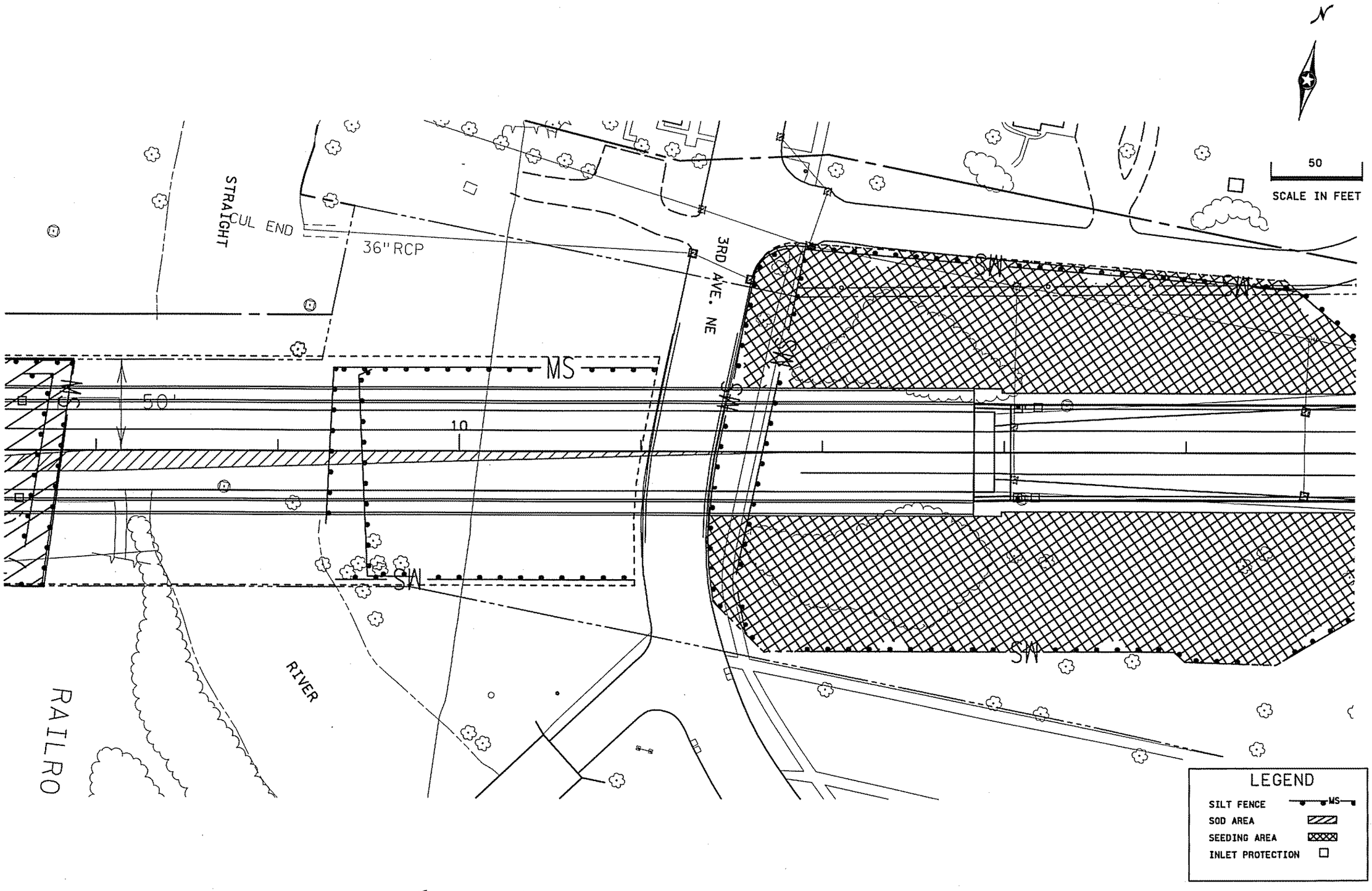
PLOTTED/REVISED: 07-OCT-2008



CERTIFIED BY : Fausto Cabral
LICENSED PROFESSIONAL ENGINEER - FAUSTO CABRAL
LIC. NO. 44229 DATE 07-OCT-2008

EROSION CONTROL AND TURF ESTABLISHMENT

STATE PROJ. NO. 6607-42 (TH 60) SHEET NO. 84 OF 85 SHEETS

DISTRICT #: 6
IPLOT NAME: div860e_TE4I
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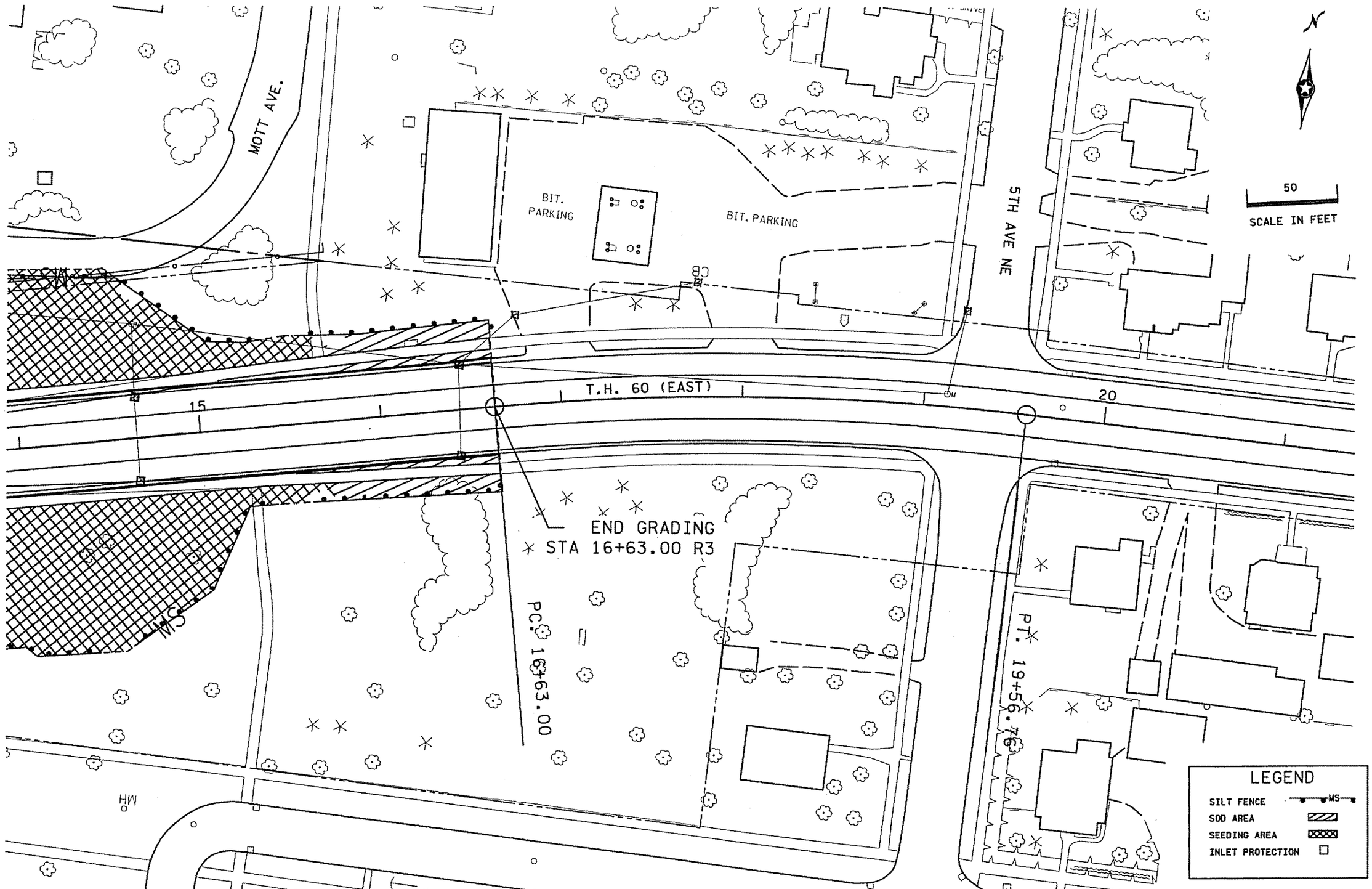
PLOTTED/REVISED: 07-OCT-2008



CERTIFIED BY : Fausto Cabral LIC. NO. 44229 DATE 07-OCT-2008

LICENSED PROFESSIONAL ENGINEER - FAUSTO CABRAL

EROSION CONTROL AND TURF ESTABLISHMENT

STATE PROJ. NO. 6607-42 (TH 60) SHEET NO. 85 OF 85 SHEETS

DISTRICT #: 6
IPLOT NAME: div860a_TE42
PATH & FILENAME: S:\Projects By SP\6607-42\Design\Final Plan Set\Erosion and Turf\div860a_TE4.dgn

PLOTTED/REVISED: 07-OCT-2008

WATER RESOURCES NOTES

THE FOLLOWING NOTES GIVE INFORMATION ABOUT CRITICAL FEATURES AND ELEVATIONS FOR THE DRAINAGE ON THIS PROJECT.

1. CHANGING THE FLOW DIRECTION SHOWN ON THE PLANS COULD HAVE ADVERSE EFFECTS OUTSIDE THE PROJECT CORRIDOR. DIRECTION CHANGES SHOULD BE REVIEWED WITH THE HYDRAULICS ENGINEER

2. <u>SPECIAL STRUCTURES INCLUDED IN THESE DRAINAGE PLANS</u>

   VARIOUS (DESIGN SPECIAL 1) - SEE FARIBAULT STANDARD PLATE. SEE SHEET DR10 FOR DESIGN DETAILS.

   SLOTTED VANE DRAIN IS PROPOSED AT SEVERAL LOCATIONS TO CAPTURE LARGE POINT DISCHARGES DRAINING ONTO TH 60 FROM ADJACENT PARCELS. SEE SHEETDR9 FOR DESIGN DETAILS.

3. <u>TEMPORARY DRAINAGE AND TEMPORARY STRUCTURES</u>

   ALL TEMPORARY DRAINAGE IS THE RESPONSIBLITY OF THE CONTRACTOR. ANY TEMPORARY CONNECTIONS MADE TO MAINTAIN SURFACE DRAINAGE SHALL BE INCIDENTAL.

DRB — CASTING ASSEMBLIES SUMMARY — S.P. 6607-42

ASSEMBLY	RING OR FRAME CASTING	(A) COVER OR GRATE CASTING	CURB BOX	STANDARD PLATE NO.	(C) QUANTITY	REMARKS
C-1	(B)				6	FARIBAULT CATCH BASIN
		(B)				
			(B)			
A - 70	700-7			4101	19	MANHOLE
		715		4110		
			N/A			
B - 6	805			4132	6	CATCH BASIN
		811		4151		
			N/A			
B - 9	805			4132	34	CATCH BASIN
		816		4154		
			N/A			
				PROJECT TOTALS:	65	

NOTES:
(A) USE BENT BOLT WITH 816 GRATES.
(B) NEENAH CASTING R-3067 WITH TYPE V GRATE, EAST JORDAN IRON WORKS CATALOG #7035, SYRACUSE CASTINGS PATTERN #2616, OR APPROVED EQUAL.
(C) QUANTITY DOES NOT INCLUDE CASTINGS REQUIRED FOR UTILITIES OTHER THAN PERMANENT STORM.

NO	DATE	BY	CKD	APPD	REVISION

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

Print Name: LISA A. GODDARD

Date 10-13-02 License # 41312

STATE AID PROJECT NO. X X
STATE PROJECT NO. 6607-42
COUNTY PROJECT NO.
CITY PROJECT NO. X

DRAWN BY W. ANDERSON
DESIGNED BY G. STANLEY-WOJDYLA
CHECKED BY L. GODDARD
COMM. NO. 00R6347

SRF CONSULTING GROUP, INC.

MINNESOTA DEPARTMENT OF TRANSPORTATION

WATER RESOURCE NOTES
T.H. 60

SHEET DR3 OF DR17

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10/15/2006
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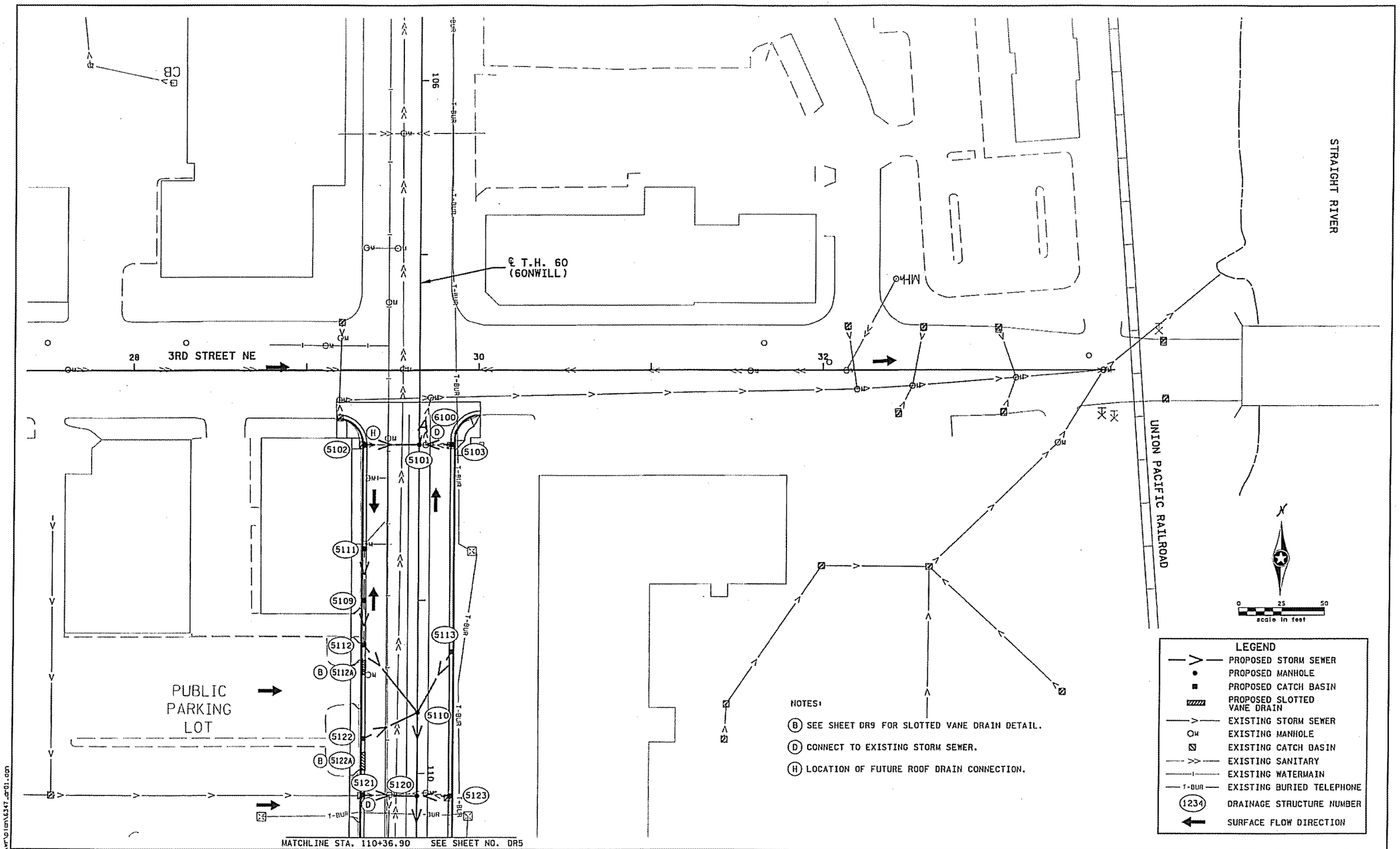

NO	DATE	BY	CKD	APPR	REVISION

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Print Name: LISA A. GODDARD

Date 8-7-08 License # 41312

STATE AID PROJECT NO. X X

STATE PROJECT NO. 6607-42

COUNTY PROJECT NO. X

CITY PROJECT NO. X

DRAWN BY W. ANDERSON

DESIGNED BY G. STANLEY-WOIDYLA

CHECKED BY L. GODDARD

COVM. NO. 0086347

SRF CONSULTING GROUP, INC.

MINNESOTA DEPARTMENT OF TRANSPORTATION

DRAINAGE PLAN
T.H. 60

SHEET DR4 OF DR17

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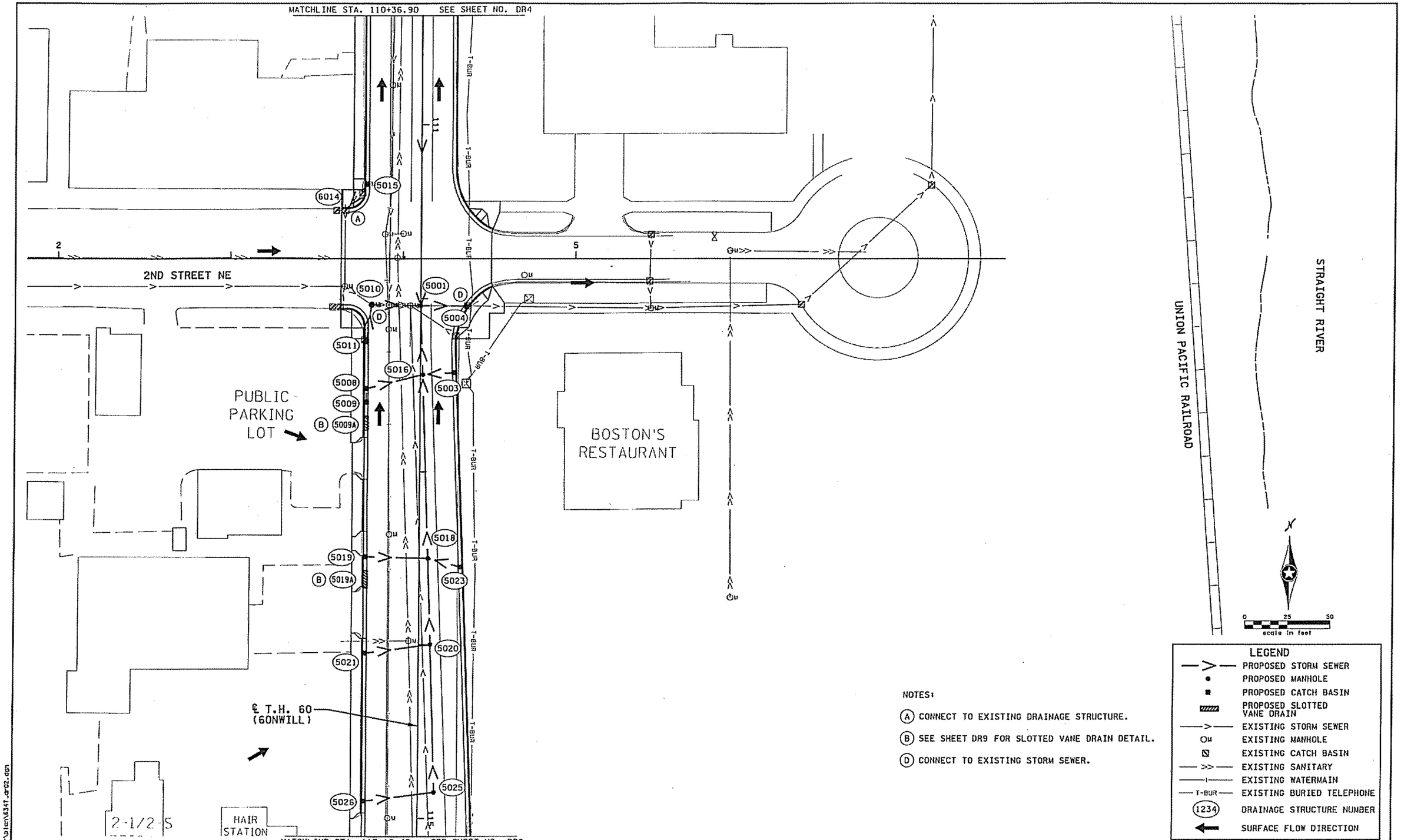

NOTES:

(A) CONNECT TO EXISTING DRAINAGE STRUCTURE.

(B) SEE SHEET DR9 FOR SLOTTED VANE DRAIN DETAIL.

(D) CONNECT TO EXISTING STORM SEWER.

NO	DATE	BY	CKD	APPR	REVISION

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Print Name: LISA A. GODDARD

Date 8-7-08 License # 41312

STATE AID PROJECT NO. X X

STATE PROJECT NO. 5607-42

COUNTY PROJECT NO. X

CITY PROJECT NO. X

DRAWN BY W. ANDERSON

DESIGNED BY G. STANLEY-WOJDYLA

CHECKED BY L. GODDARD

COMM. NO. 0086347

SRF CONSULTING GROUP, INC.

MINNESOTA DEPARTMENT OF TRANSPORTATION

DRAINAGE PLAN

T.H. 60

SHEET DR5 OF DR17

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MATCHLINE STA. 5+67.50 SEE SHEET NO. DR7

MATCHLINE STA. 115+10.40 SEE SHEET NO. DR5

℄ T.H. 60 (DIV&60E)

℄ PATH

EXISTING RETAINING WALL

℄ T.H. 60 (60NWILL)

HIGH POINT TH 60 STA. 118+69.31 ELEV. 993.63

LOW POINT WILLOW ST STA. 121+25.3 ELEV. 989.63

LOW POINT DIVISION STREET STA. 3+66.07 ELEV. 993.09

℄ WILLOW STREET (60NWILL)

EQUATION: STA 3+72.95 BK = STA 3+44.20 AH

℄ DIVISION STREET (DIV&60E)

1ST STREET NE

1ST STREET SE

PARK PLACE

COMMUNITY COOP 1-S-METAL AND BLOCK BLDG.

ALEXANDER FARIBAULT HOUSE

CANOPY

CENEX GAS STA. 1-S-BRICK BLDG.

BRICK APT. BLDG.

1-S BRICK

1-ST HOUSE

GAR

WOOD SHED

5041 5042 5051 5052 5061 5062 5063 5064 5210 5211 5212 5213 5214 5220 5230 5231 5232 5233 5240 5241 5242 5243 5250 5251

NOTES:

(D) CONNECT TO EXISTING STORM SEWER.

(F) CONNECT TO EXISTING 4" ROOF DRAIN.

LEGEND

- PROPOSED STORM SEWER
- PROPOSED MANHOLE
- PROPOSED CATCH BASIN
- PROPOSED SLOTTED VANE DRAIN
- EXISTING STORM SEWER
- EXISTING MANHOLE
- EXISTING CATCH BASIN
- EXISTING SANITARY
- EXISTING WATERMAIN
- EXISTING BURIED TELEPHONE
- DRAINAGE STRUCTURE NUMBER
- SURFACE FLOW DIRECTION

NO	DATE	BY	CKD	APPR	REVISION

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Print Name: LISA A. GOODARD

Date 3-7-08 License # 41312

STATE AID PROJECT NO. X X

STATE PROJECT NO. 6607-42

COUNTY PROJECT NO. X

CITY PROJECT NO. X

DRAWN BY N. ANDERSON

DESIGNED BY G. STANLEY-WOIDYLA

CHECKED BY L. GOODARD

COMM. NO. 0086347

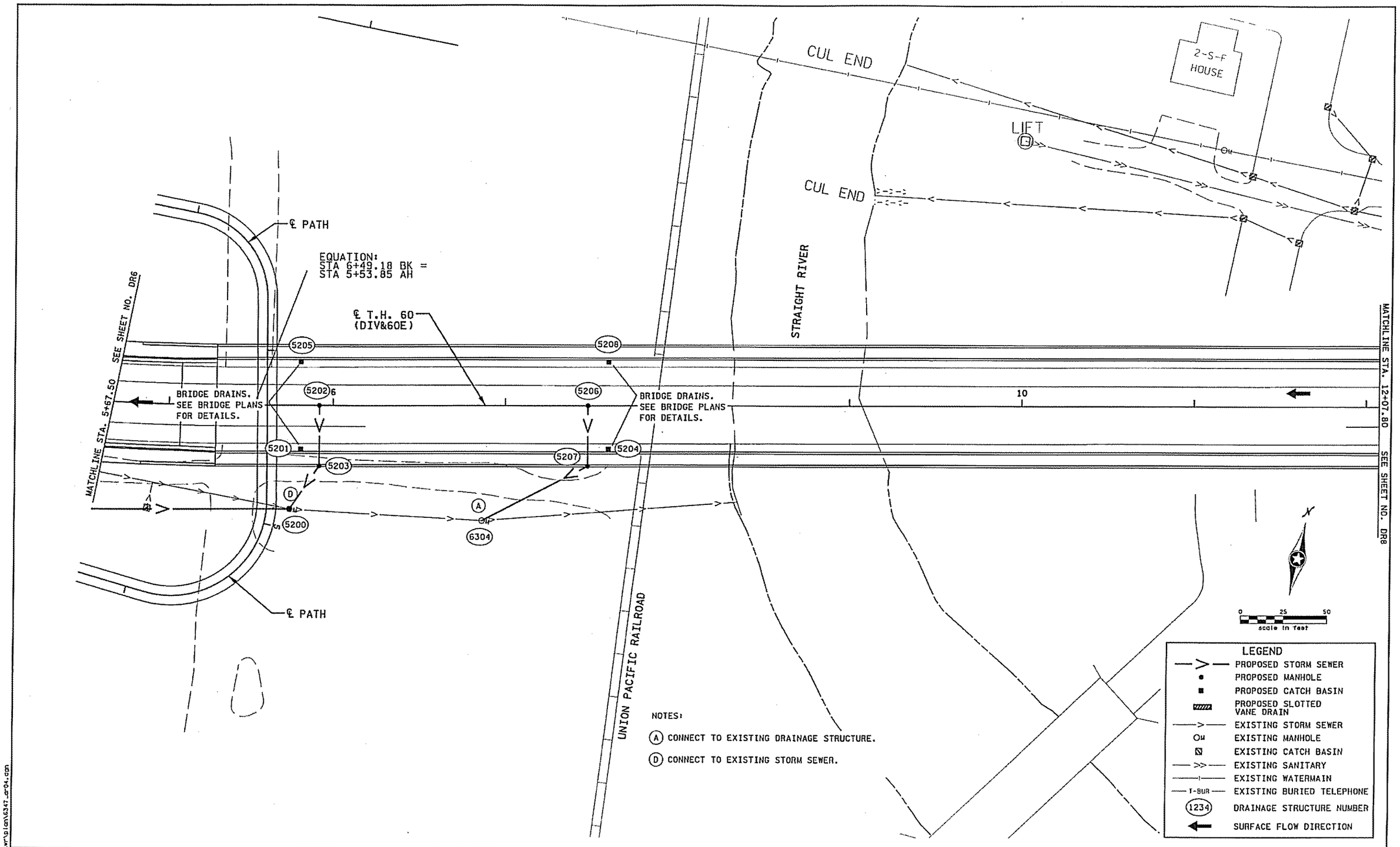
SRF CONSULTING GROUP, INC.

MINNESOTA DEPARTMENT OF TRANSPORTATION

DRAINAGE PLAN

T.H. 60

SHEET DR6 OF DR17



NOTES:

(A) CONNECT TO EXISTING DRAINAGE STRUCTURE.

(D) CONNECT TO EXISTING STORM SEWER.

NO	DATE	BY	CKD	APPR	REVISION

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Print Name: LISA A. GODDARD

Date 8-7-08 License # 41312

STATE AID PROJECT NO. X X

STATE PROJECT NO. 5607-42

COUNTY PROJECT NO. X

CITY PROJECT NO. X

DRAWN BY W. ANDERSON

DESIGNED BY G. STANLEY-WOIDYLA

CHECKED BY L. GODDARD

COMM. NO. 0086347

SRF CONSULTING GROUP, INC.

MINNESOTA DEPARTMENT OF TRANSPORTATION

DRAINAGE PLAN
T.H. 60

SHEET DR7 OF DR17

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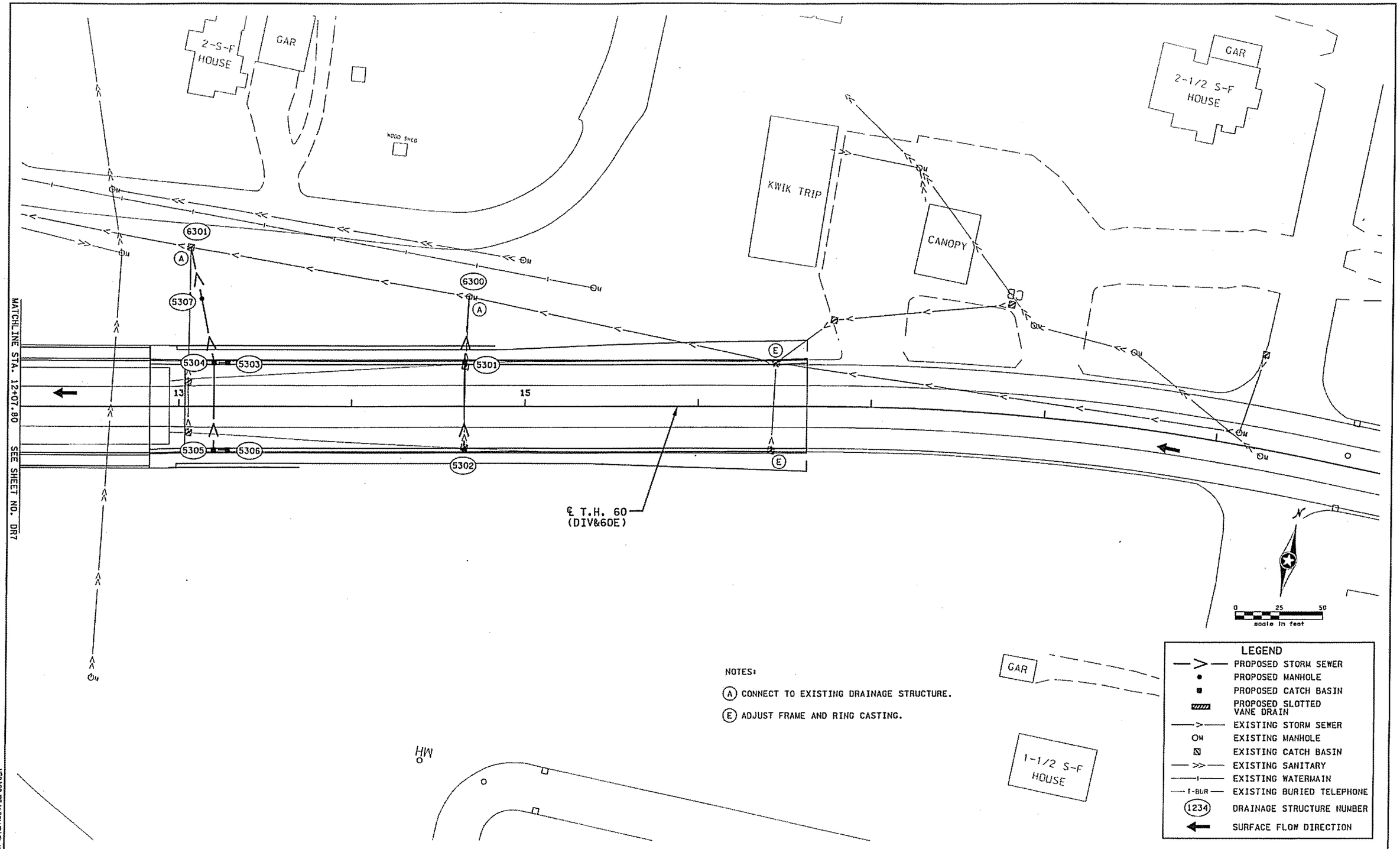

NOTES:

(A) CONNECT TO EXISTING DRAINAGE STRUCTURE.

(E) ADJUST FRAME AND RING CASTING.

NO	DATE	BY	CKD	APPR	REVISION

...\6347\wr\plan\6347_dr05.dgn

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Print Name: LISA A. GOODARD

Date 8-7-08 License # 41312

STATE AID PROJECT NO. X X

STATE PROJECT NO. 6807-42

COUNTY PROJECT NO. X

CITY PROJECT NO. X

DRAWN BY W. ANDERSON

DESIGNED BY G. STANLEY-WOJOYLA

CHECKED BY L. GOODARD

COVM. NO. 0086347

SRF CONSULTING GROUP, INC.

MINNESOTA DEPARTMENT OF TRANSPORTATION

DRAINAGE PLAN

T.H. 60

SHEET DR8 OF DR17

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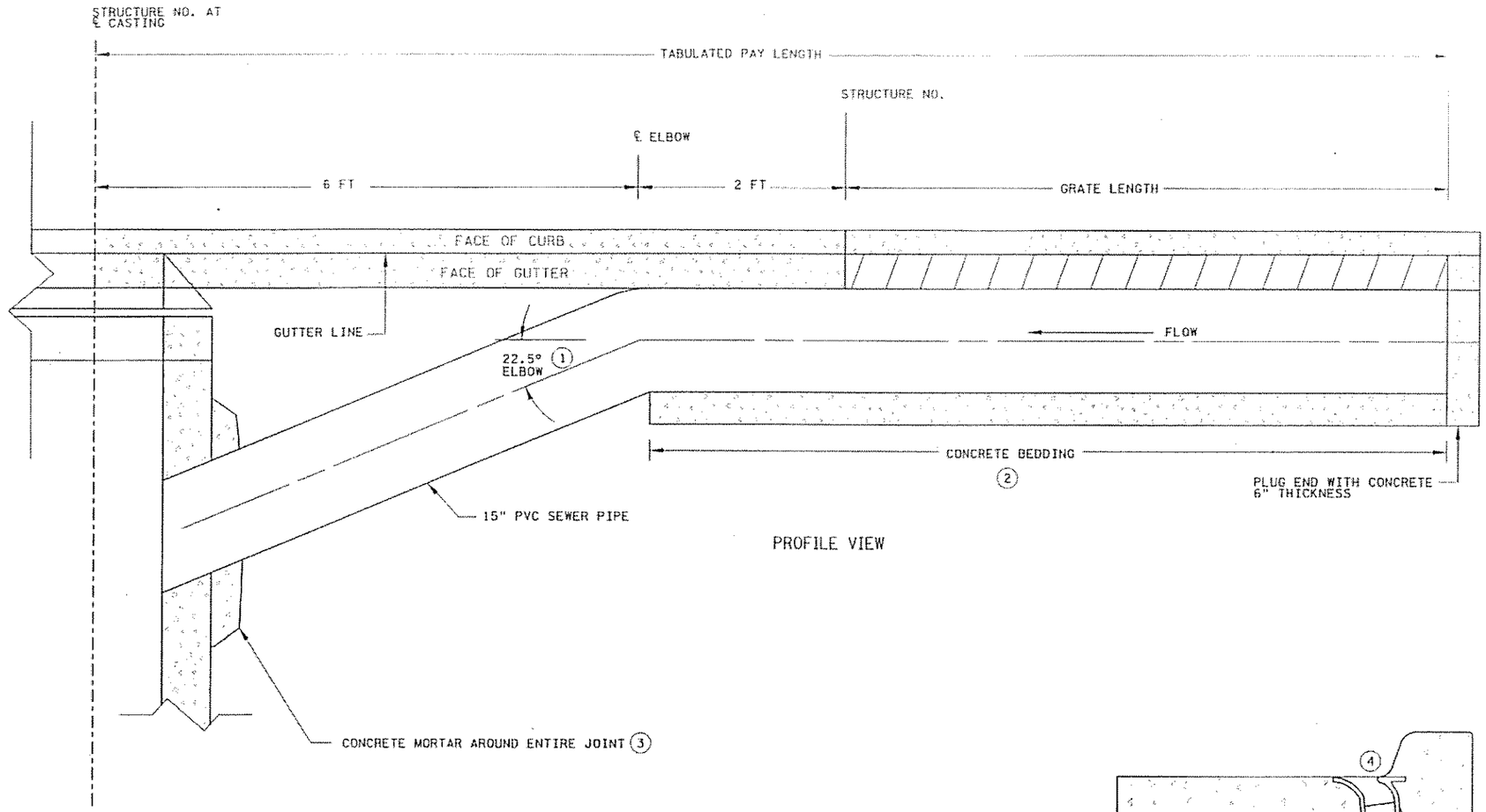


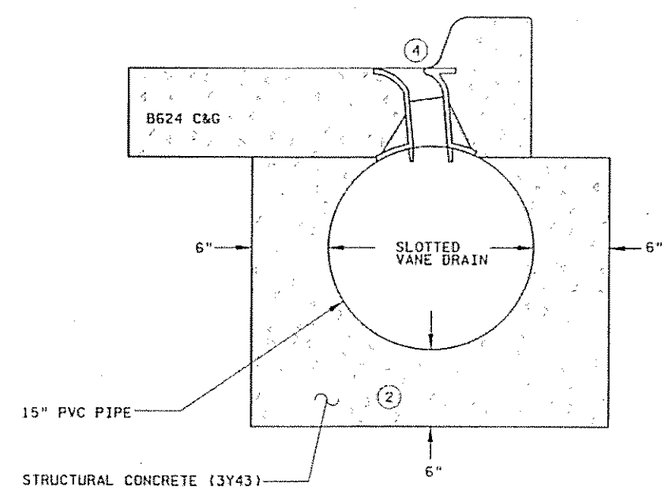
PROFILE VIEW

INSTALLATION NOTES:

1. ALL ELBOWS SHALL BE INCIDENTAL.
2. CONCRETE BEDDING AND PLUG SHALL BE INCIDENTAL.
3. CONNECTION TO CATCH BASIN SHALL BE INCIDENTAL.
4. REFER TO STD. PLATE 3136.
5. SEE SHEETS DR4-DR8 FOR LOCATIONS.

SLOTTED DRAIN 4 5 — S.P. 6607-42

STRUCTURE NO.	STATION / LOCATION	GRATE LENGTH LIN. FT.	SLOTTED VANE DRAIN PAY LENGTH LIN. FT.
5112A	109+35 / 31.0' RT	12	20
5122A	109+88 / 31.0' RT	9	17
5009A	112+68 / 31.0' RT	12	20
5019A	113+57 / 31.0' RT	9	17
TOTAL	S.P. 6607-42		74



SLOTTED VANE DRAIN

NO	DATE	BY	CKD	APPR	REVISION

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Printed Name LISA A. GODDARD

Date 11-13-08 License # 41312

STATE AID PROJECT NO. X X
STATE PROJECT NO. 6607-42
COUNTY PROJECT NO. X
CITY PROJECT NO. X

DRAWN BY W. ANDERSON
DESIGNED BY C. STANLEY-WOIBY, A
CHECKED BY L. GODDARD
COMM. NO. 00H6347

SRF CONSULTING GROUP, INC.

MINNESOTA DEPARTMENT OF TRANSPORTATION

DRAINAGE DETAILS
T.H. 60

SHEET DR9 OF DR17

3/26/2024 PM
12:12:00 PM
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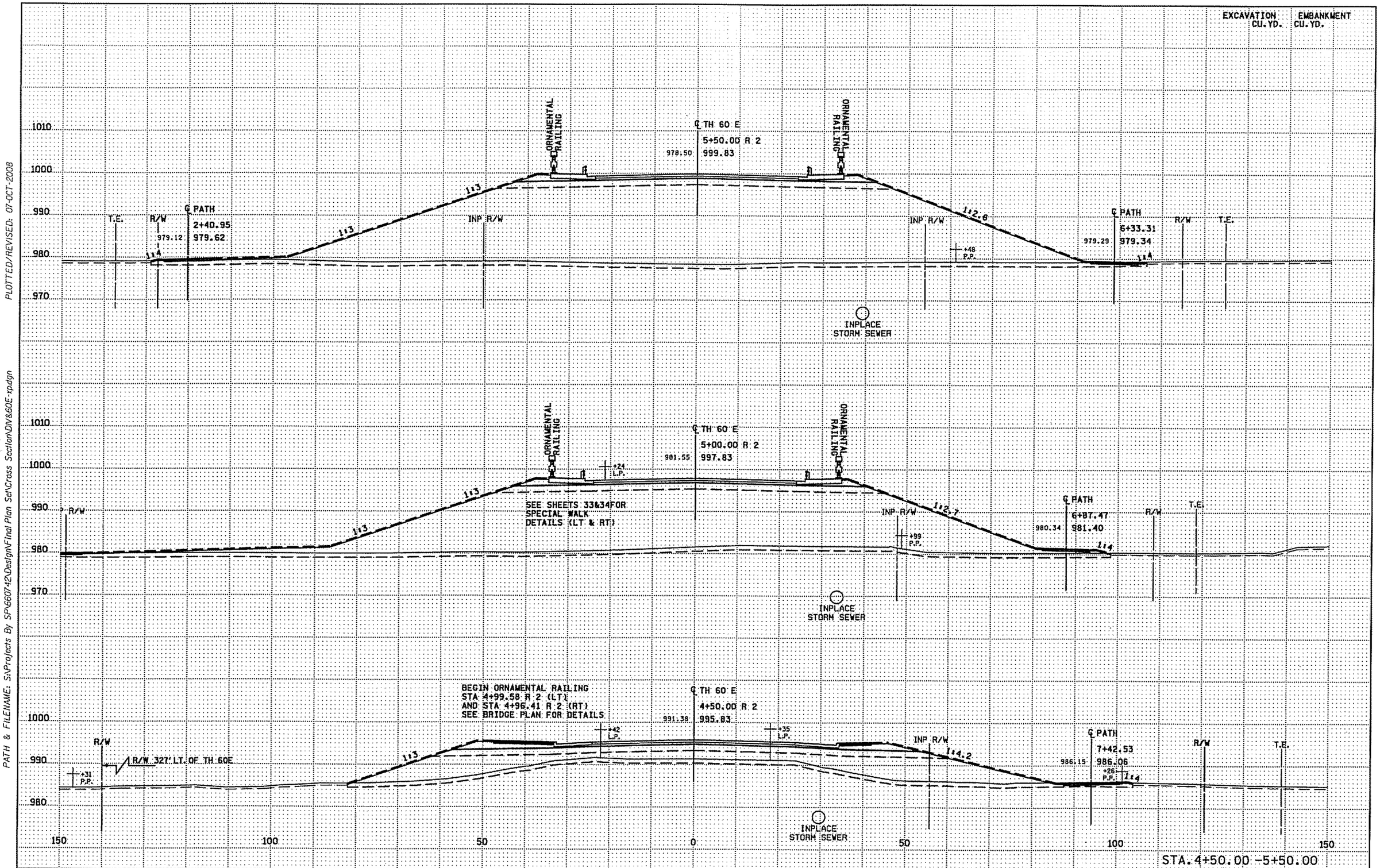

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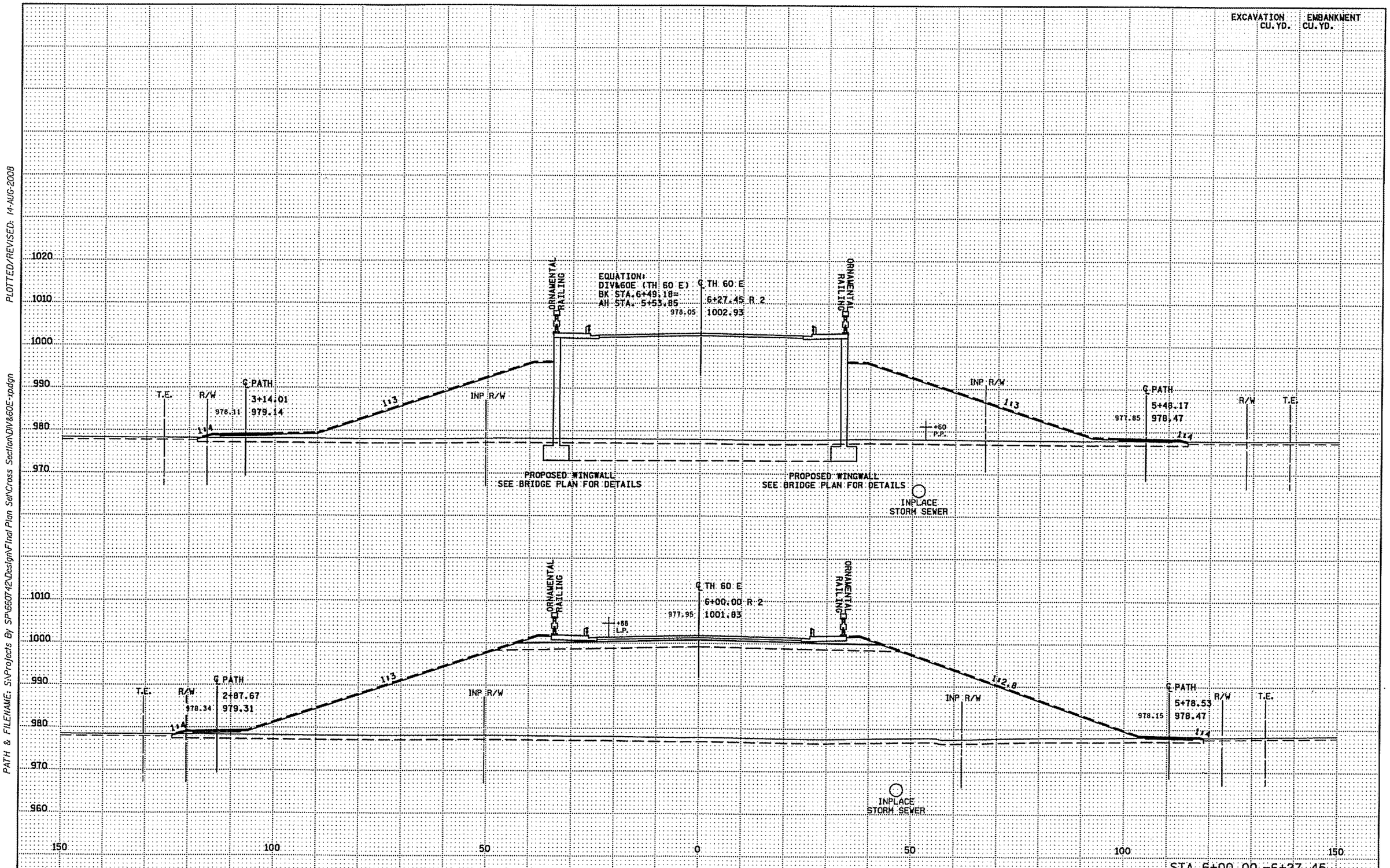

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PLOTTED/REVISED: 14-AUG-2008

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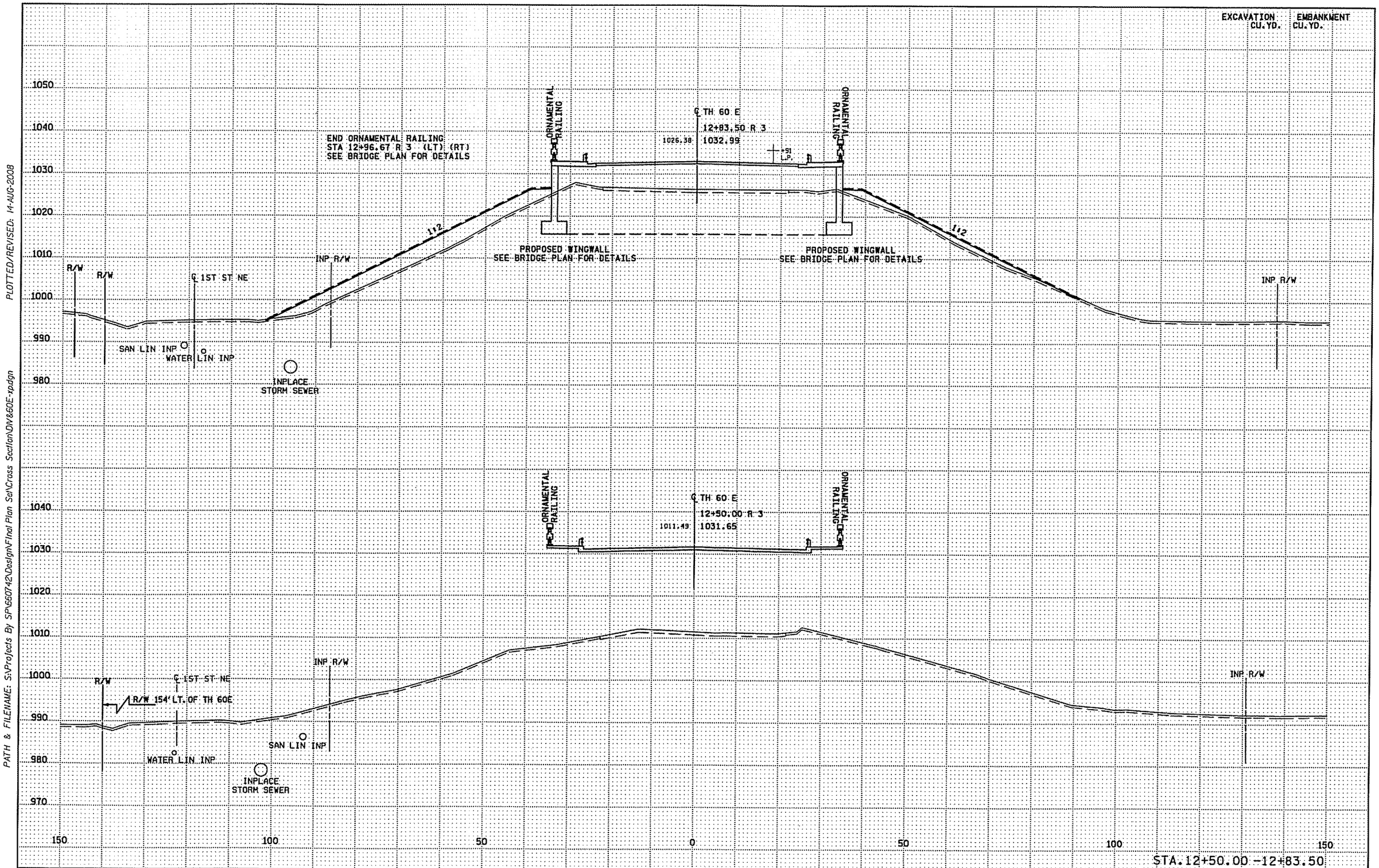

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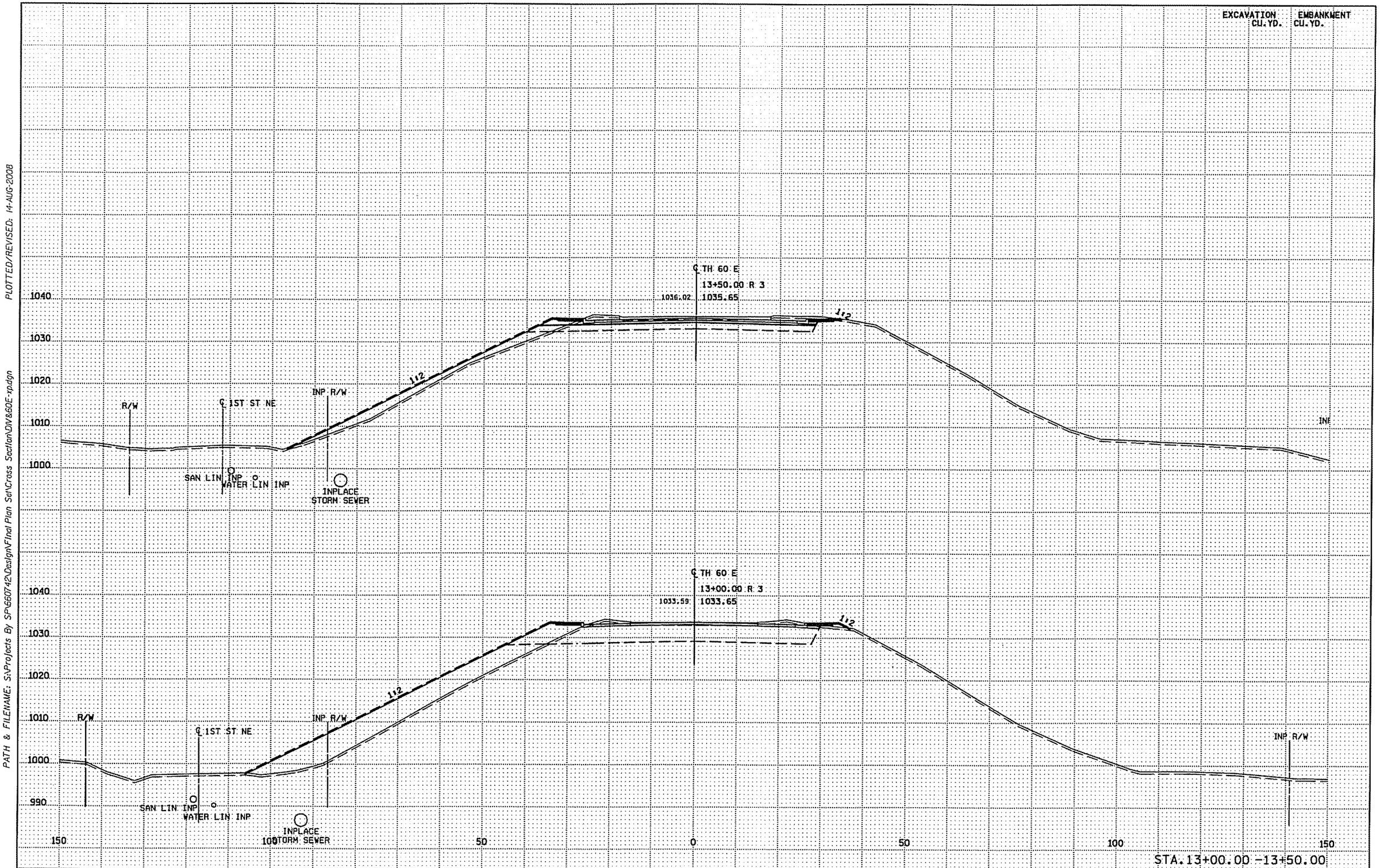

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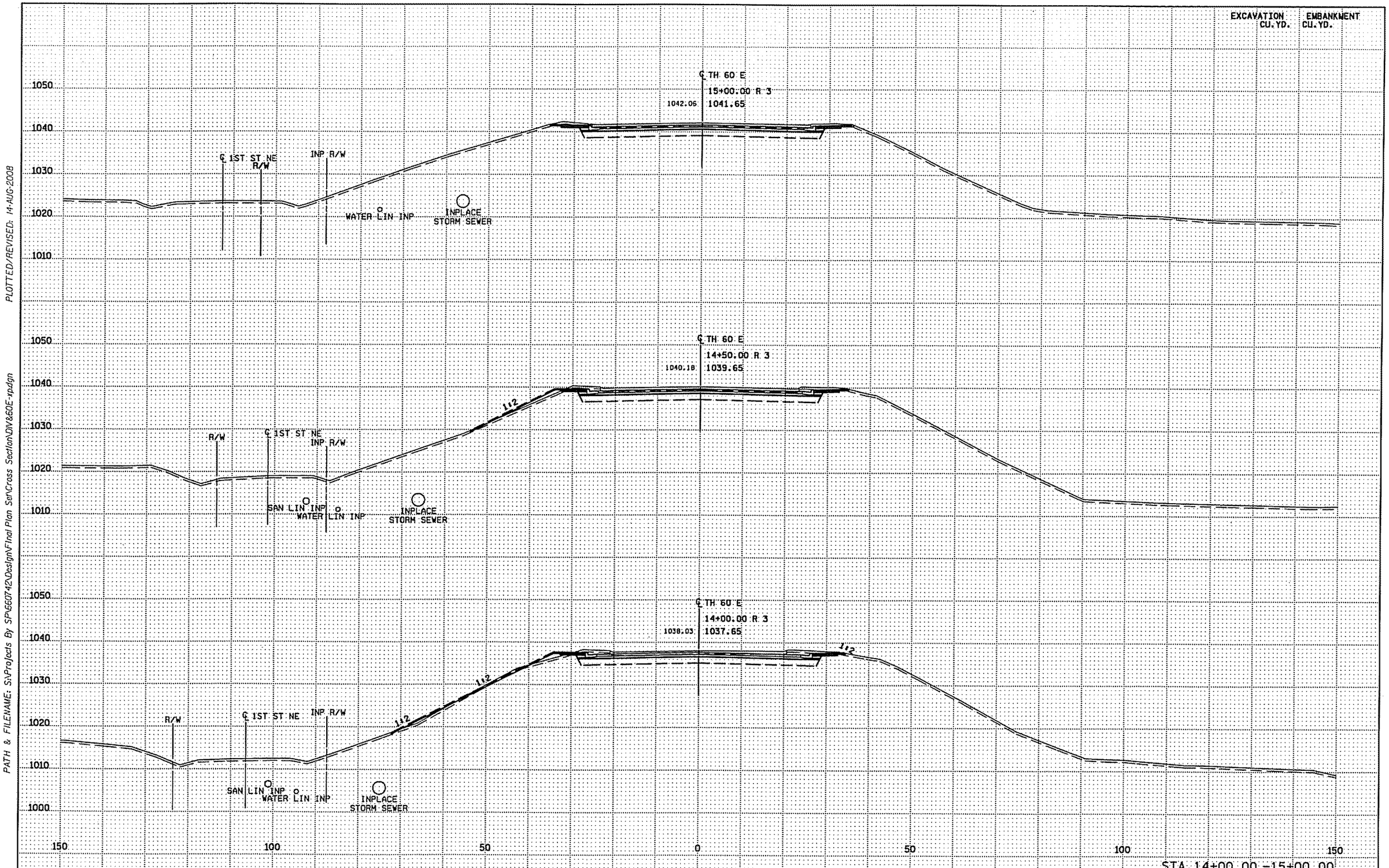

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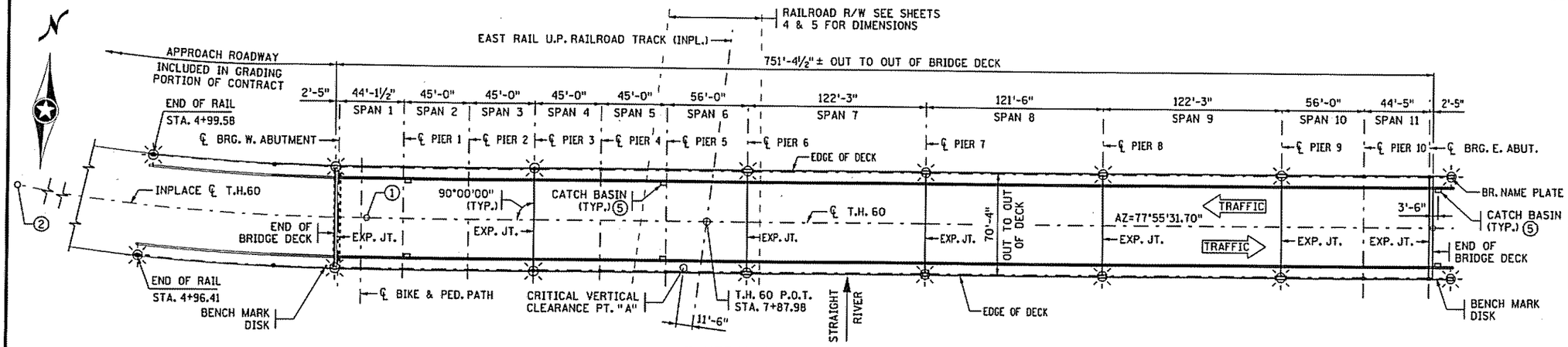
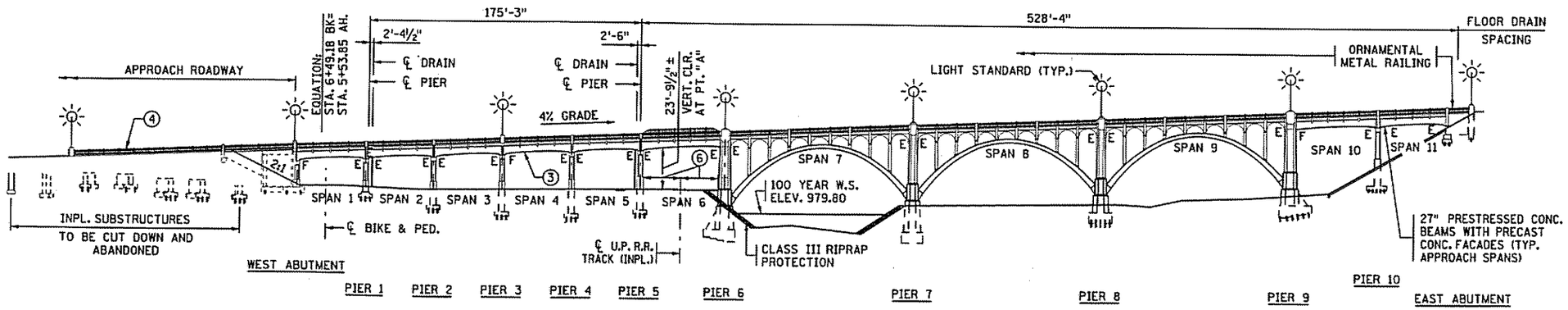


GENERAL PLAN



GENERAL ELEVATION

FED. PROJ. NO. BR-STP 6601(007)

DESIGN DATA

2007 AND CURRENT INTERIM AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

LOAD AND RESISTANCE FACTOR DESIGN METHOD

HL 93 LIVE LOAD

DEAD LOAD INCLUDES 20 p.s.f. ALLOWANCE FOR FUTURE WEARING COURSE MODIFICATIONS

MATERIAL DESIGN PROPERTIES:
REINFORCED CONCRETE:
f'c = 4 ksi n = 8
Fy = 60 ksi FOR REINFORCEMENT
PRESTRESSED CONCRETE:
f'c = ksi n=1
fpu = 270 ksi FOR ½" AND 0.6" DIAMETER LOW RELAXATION STRANDS

DECK AREA = 52845 SQ. FT.
13100 PROJECTED ADT FOR YEAR 2028
DESIGN SPEED = 30 MILES PER HOUR

NOTES

1. INPLACE PT EQUATION STA. 6+49.18 BK= STA. 5+53.85 AH.
2. EQUATION STA. 3+72.95 BK= STA. 3+44.20 AH.
3. PRECAST CONCRETE FACADE (TYP.)
4. ORNAMENTAL METAL RAILING ON APPROACH ROADWAY INCLUDED IN BRIDGE PORTION OF CONTRACT.
5. INCLUDED IN GRADING PORTION OF CONTRACT.
6. SEE SHEETS 4 & 5 FOR HORIZONTAL CLEARANCES TO ℄ RAILROAD TRACK.

CONSTRUCTION NOTES

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

BRIDGE SEAT REINFORCEMENT SHALL BE CAREFULLY PLACED TO AVOID INTERFERENCE WITH DRILLING HOLES FOR ANCHOR RODS. THE BEAMS SHALL BE ERECTED IN FINAL POSITION PRIOR TO DRILLING HOLES FOR AND PLACING ANCHOR RODS.

THE FIRST TWO DIGITS OF EACH BAR MARK INDICATE THE BAR NUMBER WHICH APPROXIMATES THE NOMINAL DIAMETER OF THE BAR IN MILLIMETERS (mm).

BARS MARKED WITH THE SUFFIX "E" SHALL BE EPOXY COATED IN ACCORDANCE WITH SPEC. 3301.

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

THE PILE LOADS SHOWN IN THE PLANS AND THE CORRESPONDING NOMINAL PILE BEARING RESISTANCE (R_n) WERE COMPUTED USING LRFD METHODOLOGY. PILE BEARING RESISTANCE DETERMINED IN THE FIELD SHALL INCORPORATE THE METHODS AND/OR FORMULAS DESCRIBED IN THE SPECIAL PROVISIONS.

DIMENSIONS SHOWN FOR INPLACE CONCRETE WERE TAKEN FROM ORIGINAL PLANS FOR BRIDGE NO. 5370. ACTUAL DIMENSIONS MAY BE DIFFERENT. CONTRACTOR TO VERIFY THE PLAN DIMENSIONS AND MAKE FIELD ADJUSTMENTS IF NECESSARY TO CONSTRUCT THE SUPERSTRUCTURE TO THE GRADE AND ELEVATIONS SHOWN. ALL FIELD ADJUSTMENTS MUST BE APPROVED BY THE ENGINEER.

CONSTRUCTION OF EACH ABUTMENT SHALL NOT BE STARTED UNTIL THE APPROACH FILL AT THAT ABUTMENT HAS BEEN CONSTRUCTED TO THE FULL HEIGHT AND CROSS-SECTION AND ALLOWED TO SETTLE FOR 72 HOURS.

THE 27" PRESTRESSED BEAMS HAVE BEEN DESIGNED AND DETAILED WITHOUT DIAPHRAGMS. THE CONTRACTOR SHALL DESIGN AND CONSTRUCT A TEMPORARY BRACING SYSTEM AND/OR A DECK FALSEWORK/FORMWORK SYSTEM AS NEEDED. THE SYSTEM SHALL PROVIDE LATERAL AND ROTATIONAL STABILITY OF THE GIRDERS TO RESIST UNSYMMETRICAL CONCRETE AND CONSTRUCTION LOADS UNTIL THE DECK CONCRETE HAS ATTAINED A MINIMUM STRENGTH OF 2800 PSI.

SEE SHEET 2 FOR OVERHANG SUPPORT CONCEPT.

LIST OF SHEETS

NO.	DESCRIPTION	NO.	DESCRIPTION
1	GENERAL PLAN AND ELEVATION	55-57	PIER 6 DETAILS
2	SCHEDULE OF QUANTITIES	58-63	PIER 6 REINFORCEMENT
3	INPLACE PLAN AND ELEVATION	64-65	PIERS 7 AND 8 DETAILS
4-5	GENERAL PLAN AND ELEVATION	66-68	PIERS 7 AND 8 REINFORCEMENT
6	TRANSVERSE SECTIONS	69-71	PIER 9 DETAILS
7	BRIDGE LAYOUT	72-76	PIER 9 REINFORCEMENT
8	APPROACH SPNAS REMOVAL	77	FRAMING PLAN
9	ABUTMENT 1 REMOVAL	78-79	PRESTRESSED CONCRETE BEAM
10	BENTS 1-6 AND 8-12 REMOVALS	80-82	FACADE DETAILS AND REINFORCEMENT
11	BENST 7 AND 17 REMOVALS	83-89	SUPERSTRUCTURE DETAILS AND REINFORCEMENT
12	STAIRCASE AT INPLACE PIER 13 REMOVAL	90	ARCH SPAN SEQUENCE DETAILS
13	ARCH SPANS REMOVAL	91	ARCH SPAN ELEVATION
14	REMOVAL & CONST. SEQUENCE AT ARCH SPANS	92	SPANDREL BEAM DETAILS
15	PIER 13 REMOVAL	93	SPANDREL BEAM REINFORCEMENT
16	PIERS 14 AND 15 REMOVALS	94	SPANDREL ARCH DETAILS AND REINFORCEMENT
17	PIER 16 REMOVALS	95-97	ARCH SUPERSTRUCTURE DETAILS AND REINF.
18	ABUTMENT 18 REMOVAL	98-102	SIDEWALK DETAILS AND REINFORCEMENT
19-22	WEST ABUTMENT DETAILS	103-107	CONCRETE RAIL POST TYPE 1 THRU 5
23-31	WEST ABUTMENT REINFORCEMENT	108-113	ORNAMENTAL METAL RAILING
32-34	EAST ABUTMENT DETAILS	114	PIPE RAILING DESIGN SPECIAL
35-39	EAST ABUTMENT REINFORCEMENT	115	BRIDGE DECK DRAINAGE SYSTEM
40	PIER 1 DETAILS	116	WATERPROOF EXPANSION DEVICE
41	PIERS 2 THRU 5 DETAILS	117	CONDUIT SYSTEM (LIGHTING)
42	PIER 10 DETAILS	118	CONCRETE SLOPE PAVING
43	PIER 1 DETAILS	119-122	DETAILS
44-47	PIER 2 THRU 5 DETAILS	122A	DETAILS (RAILROAD STANDARDS)
48	PIER 10 DETAILS	123	AS-BUILT BRIDGE DATA
49-54	PIER REINFORCEMENT	124	BRIDGE SRVEY
		125	BRIDGE SURVEY PLAN AND PROFILE

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

SIGNED Arlen Ottman DATE 10/16/08
LICENSED PROFESSIONAL ENGINEER
NAME: ARLEN OTTMAN LIC NO. 7578

SEE SURVEY SHEET FOR BENCH MARK INFORMATION.

TRUNK HIGHWAY NO. 60
MINNESOTA
DEPARTMENT OF TRANSPORTATION

BRIDGE NO. 5370

T.H. 60 OVER STRAIGHT RIVER AND RAILROAD TRACKS IN FARIBAULT
27" PRESTRESSED CONCRETE BEAM 6-45', 2-56' SPANS
122'-3", 121'-6" & 122'-3" C.I.P. CONCRETE ARCH.
MAIN SPAN I.D. 112
APPROACH SPAN I.D. 501

GENERAL PLAN AND ELEVATION

SEC. 31 T 110 N R 20 W
CITY OF FARIBAULT RICE COUNTY

APPROVED Gary Peterson
STATE BRIDGE ENGINEER
DATE 10/16/08

DES.	DR. B.T.	5370
CHK.	CHK. A.D.O.	

JOB NO. T68742 DESIGN UNIT: A. D. OTTMAN STATE PROJ. NO. 6607 -5370 (T.H. 60=021) SHEET NO. 1 OF 125 SHEETS

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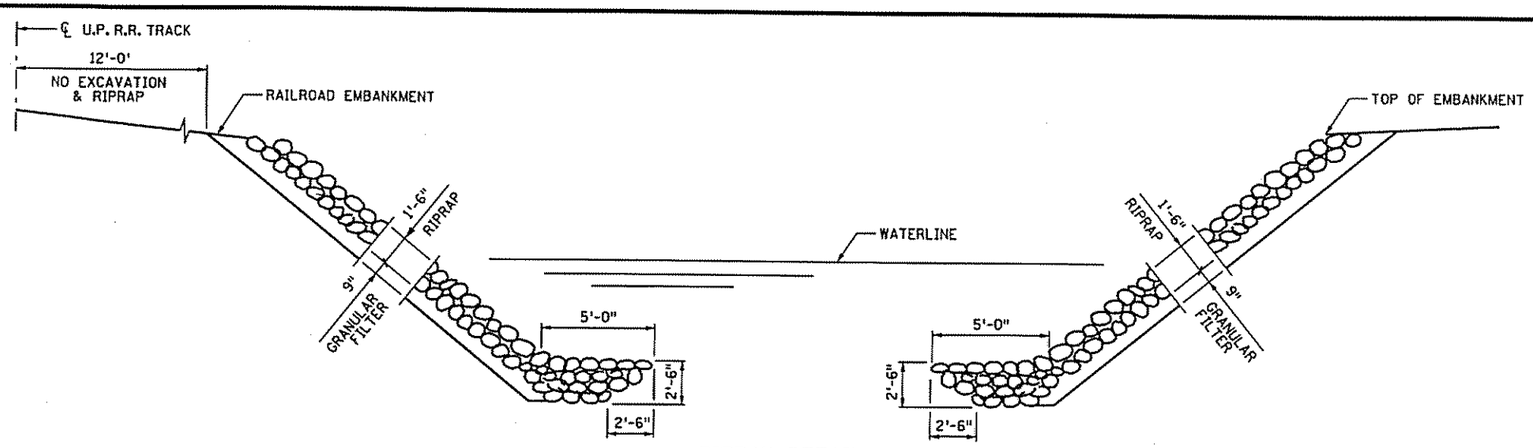
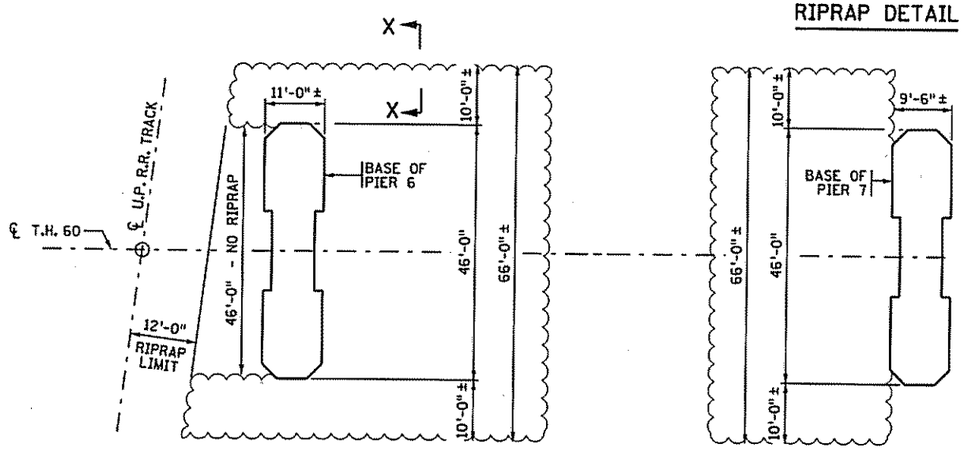
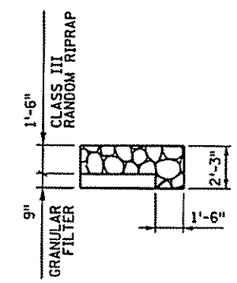
10-20-08 JRR



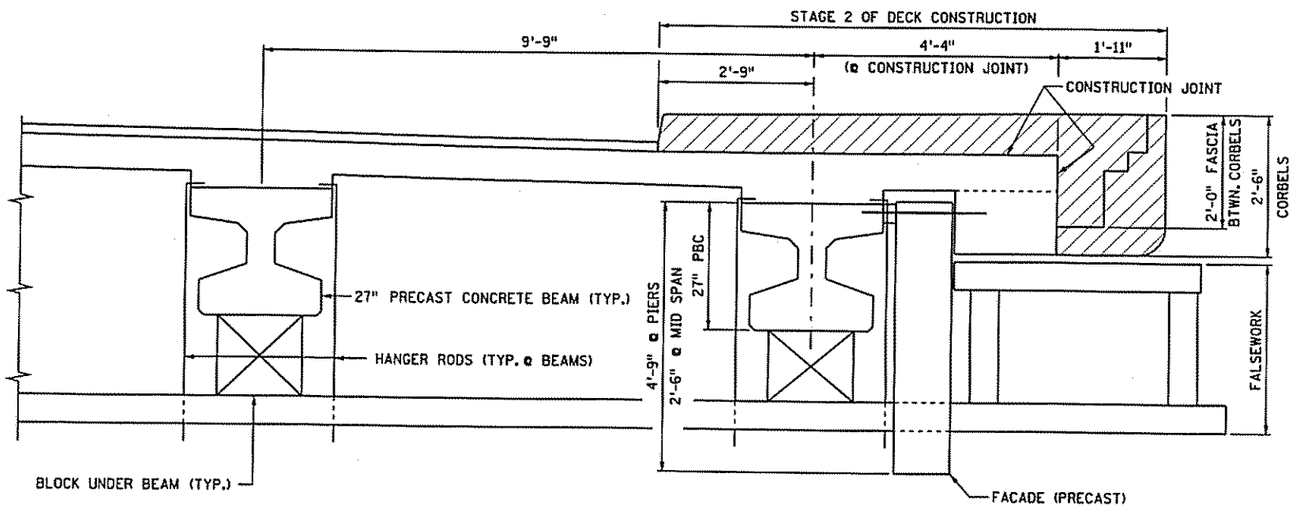
RIPRAP DETAIL



PLAN VIEW



SECTION X-X



OVERHANG SUPPORT CONCEPT FOR 27" PRESTRESSED BEAMS

SEE "CONSTRUCTION NOTES" ON SHEET 1

SCHEDULE OF QUANTITIES FOR ENTIRE BRIDGE

NO.	ITEM	QUANTITY	UNIT
2104.601	REMOVE REGULATED WASTE (BRIDGE)	1	LUMP SUM
2401.501	STRUCTURAL CONCRETE (1A43)	630 (P)	CU. YD.
2401.501	STRUCTURAL CONCRETE (3Y43)	1837 (P)	CU. YD.
2401.512	BRIDGE SLAB CONCRETE (3Y36A)	50473 (P)	SQ. FT.
2401.515	SIDEWALK CONCRETE (3Y46A)	12917 (P)	SQ. FT.
2401.541	REINFORCEMENT BARS	29880 (P)	POUND
2401.541	REINFORCEMENT BARS (EPOXY COATED)	710360 (P)	POUND
2401.601	STRUCTURE EXCAVATION	1	LUMP SUM
2401.602	CONCRETE RAIL POST TYPE 1	4	EACH
2401.602	CONCRETE RAIL POST TYPE 2	26	EACH
2401.602	CONCRETE RAIL POST TYPE 3	4	EACH
2401.602	CONCRETE RAIL POST TYPE 4	4	EACH
2401.602	CONCRETE RAIL POST TYPE 5	4	EACH
2401.618	SPECIAL SURFACE FINISH (INPLACE)	36720 (P)	SQ. FT.
2402.583	ORNAMENTAL METAL RAILING	1680 (P)	LIN. FT.
2402.585	PIPE RAILING DESIGN SPECIAL	1794 (P)	LIN. FT.
2402.601	DRAINAGE SYSTEM BRIDGE DECK	1	LUMP SUM
2402.590	ELASTOMERIC BEARING PAD TYPE 1	42	EACH
2402.591	EXPANSION JOINT DEVICES TYPE 4	471 (P)	LIN. FT.
2402.595	BEARING ASSEMBLY	112	EACH
(1) 2404.501	CONCRETE WEARING COURSE (3U17A)	41923 (P)	SQ. FT.
2405.502	PRESTRESSED CONCRETE BEAMS 27M	2645 (P)	LIN. FT.
2411.602	PRECAST CONCRETE FACADE TYPE 1	12	EACH
2411.602	PRECAST CONCRETE FACADE TYPE 2	4	EACH
2433.502	REMOVE CONCRETE	1121 (P)	CU. YD.
2433.503	REMOVE STUCTURAL METALS	31310 (P)	POUND
2433.505	REMOVE SUPERSTRUCTURE	42864 (P)	SQ. FT.
2433.506	REMOVE ORNAMENTAL METAL RAILING	2075 (P)	LIN. FT.
2433.601	REMOVE TIMBER BRIDGE	1	LUMP SUM
2433.602	GROUTED REINF BARS	482	EACH
2433.516	ANCHORAGES TYPE REINF BARS	388	EACH
2452.511	STEEL H-PILING DELIVERED 10"	2855	LIN. FT.
2452.510	STEEL H-PILING DRIVEN 10"	2855	LIN. FT.
2452.511	STEEL H-PILING DELIVERED 12"	950	LIN. FT.
2452.510	STEEL H-PILING DRIVEN 12"	950	LIN. FT.
2452.520	STEEL H-TEST PILE 35 FOOT LONG 12"	2	EACH
2452.520	STEEL H-TEST PILE 40 FOOT LONG 10"	2	EACH
2452.520	STEEL H-TEST PILE 45 FOOT LONG 10"	3	EACH
2452.520	STEEL H-TEST PILE 60 FOOT LONG 10"	2	EACH
2452.520	STEEL H-TEST PILE 70 FOOT LONG 10"	2	EACH
2452.602	PILE TIP PROTECTION 10"	82	EACH
2452.602	PILE TIP PROTECTION 12"	40	EACH
2502.502	DRAINAGE SYSTEM TYPE (B910)	1	LUMP SUM
2511.501	RANDOM RIPRAP, CLASS III	348 (P)	CU. YD.
2511.511	GRANULAR FILTER	141 (P)	CU. YD.
2514.501	CONCRETE SLOPE PAVING	789 (P)	SQ. YD.
2545.509	CONDUIT SYSTEM (LIGHTING)	1	LUMP SUM

(1) INCLUDES 2100 SQ. FT. FOR APPROACH PANELS.

NOTE:

HATCHED AREA DENOTES STAGE 2 OF DECK CONSTRUCTION.

10/16/2008 S:\Design\S\5370\RAILROAD\RAILROAD_SHT.DGN

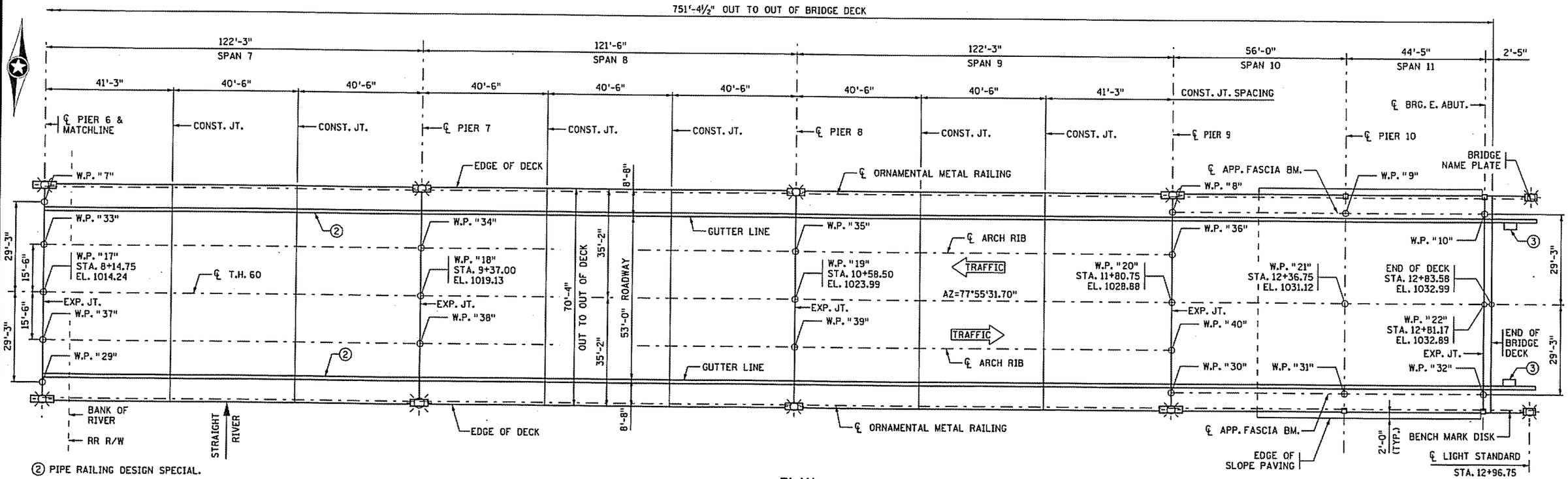
CERTIFIED BY Arlen Ottman 10/16/08
LICENSED PROFESSIONAL ENGINEER DATE
NAME: ARLEN OTTMAN LIC. NO. 7578

TITLE: SCHEDULE OF QUANTITIES

DES: ADO DR: BT/CAG APPROVED: 10/16/08
CHK: TRS CHK: ADO

SHEET NO. 2 OF 125 SHEETS

BRIDGE NO. 5370

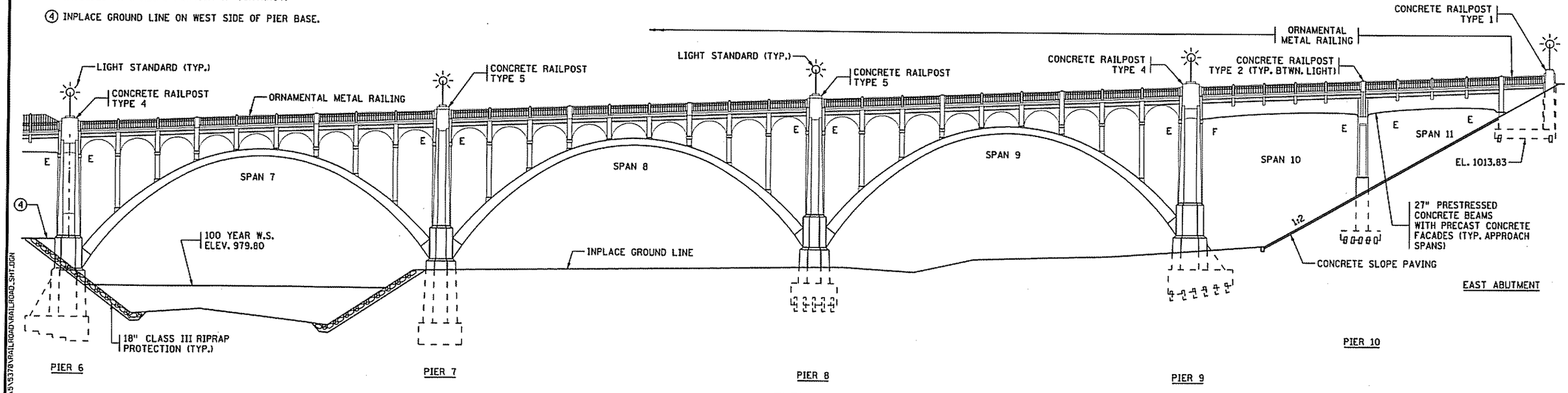


② PIPE RAILING DESIGN SPECIAL.

③ CATCH BASIN IN APPROACH PANEL INCLUDED IN GRADING PORTION OF CONTRACT.

④ INPLACE GROUND LINE ON WEST SIDE OF PIER BASE.

PLAN



ELEVATION

NOTE:

SEE SHEET 2 FOR RIPRAP PLACEMENT LIMITS.

CERTIFIED BY Arlen Ottman 10/16/08 LICENSED PROFESSIONAL ENGINEER DATE NAME: ARLEN OTTMAN LIC. NO. 7578	TITLE: GENERAL PLAN AND ELEVATION	DES: DR: B.T. CHK: CHK: A.D.O.	APPROVED: 10/16/08	BRIDGE NO. 5370
		SHEET NO. 5 OF 125 SHEETS		

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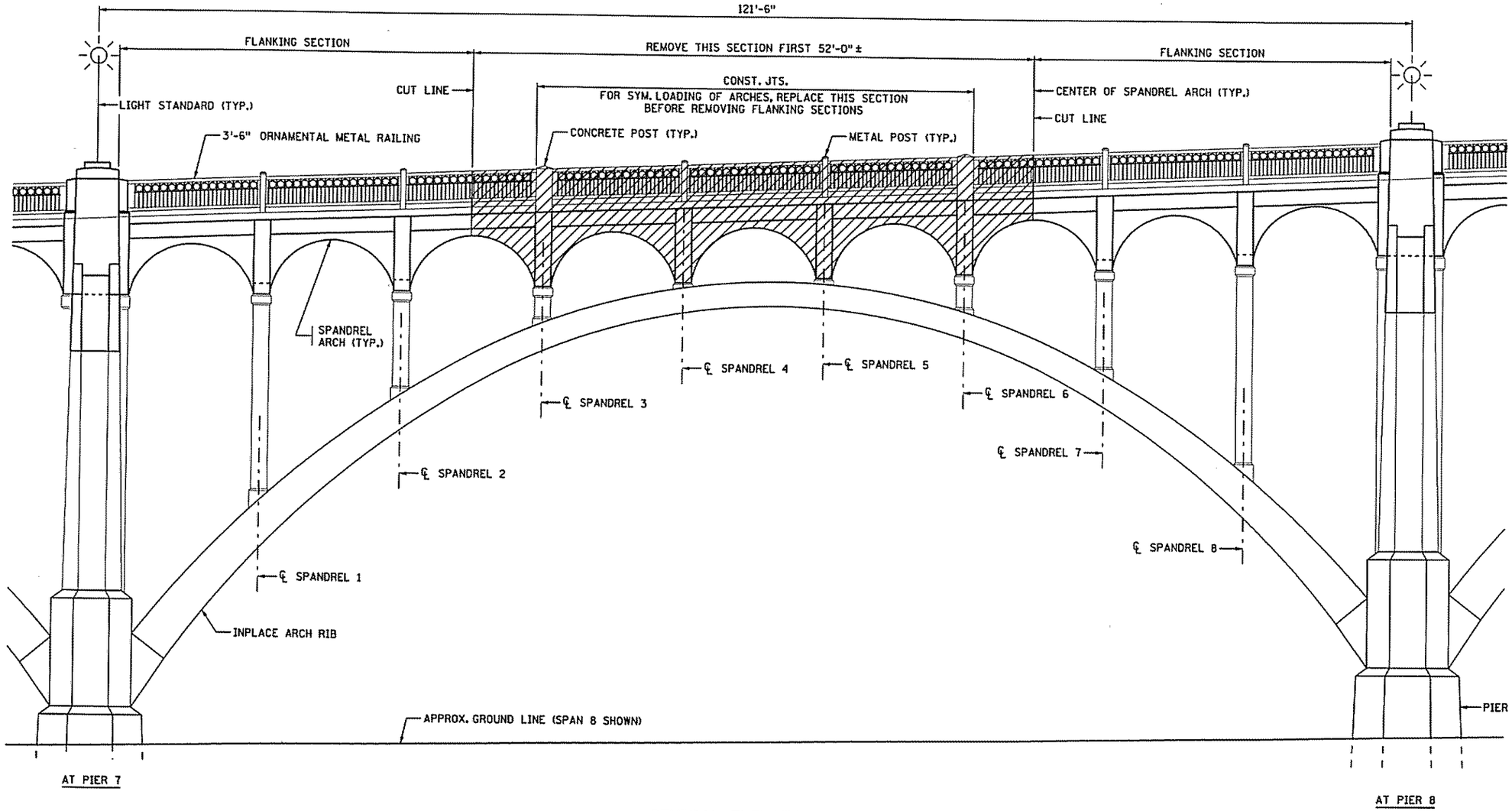

GENERAL ELEVATION

(TYPICAL AT ARCH SPANS)

NOTES:

DIMENSIONS GIVEN FOR INPLACE BRIDGE WERE TAKEN FROM THE ORIGINAL PLANS FOR BR. 5370.

NO CUTTING WILL BE PERMITTED UNTIL THE CUTTING LIMITS HAVE BEEN OUTLINED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER. REMOVAL AND RECONSTRUCTION SHALL CONFORM TO 2433.

SEE SPECIAL PROVISIONS FOR ARCH SPAN REMOVAL AND RECONSTRUCTION SEQUENCE.

DENOTES CONCRETE AND METAL RAILING REMOVAL.

① SOME ORIGINAL LIGHT STANDARDS ARE MISSING FROM BRIDGE.

CERTIFIED BY Arlen Ottman 9/19/08 LICENSED PROFESSIONAL ENGINEER DATE NAME: ARLEN OTTMAN LIC. NO. 7578	TITLE: REMOVAL AND CONSTRUCTION SEQUENCE AT ARCH SPANS	DES: DR: B.T. CHK: CHK: R.E.H. SHEET NO. 14 OF 125 SHEETS	APPROVED: 9/24/08	BRIDGE NO. 5370

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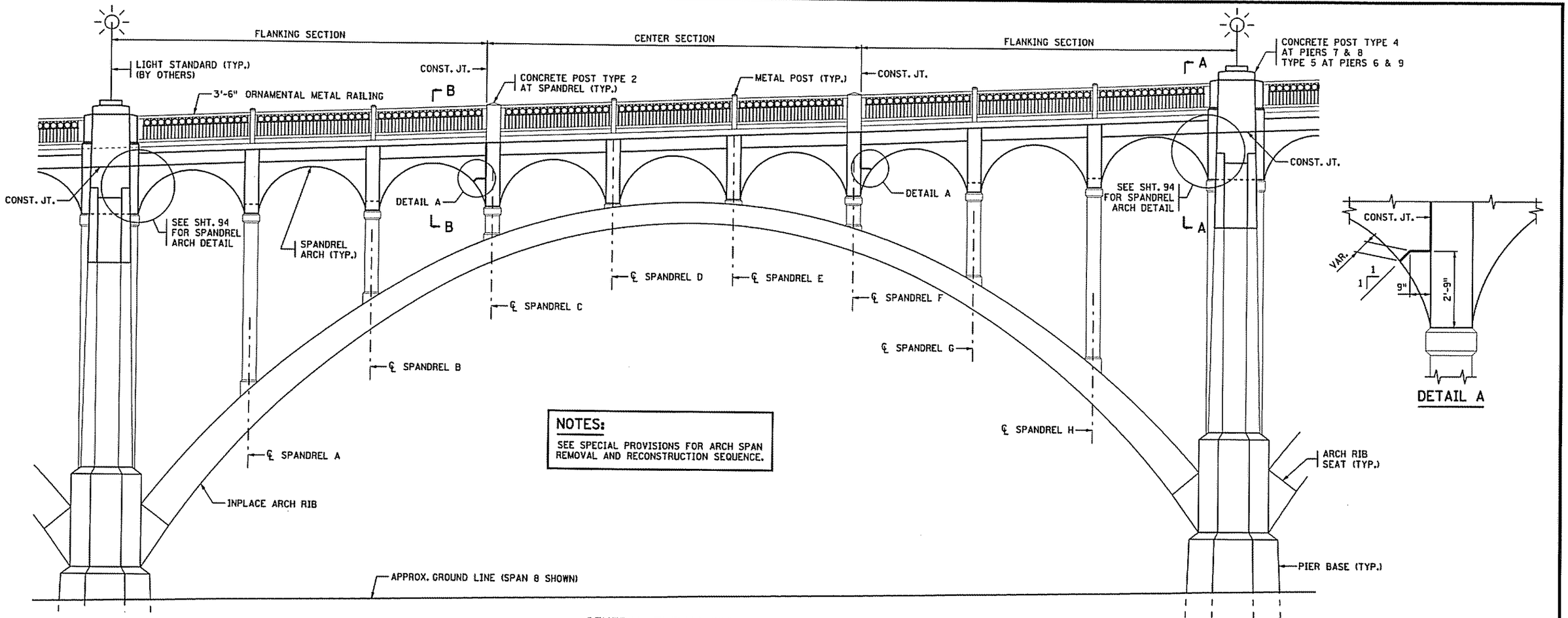


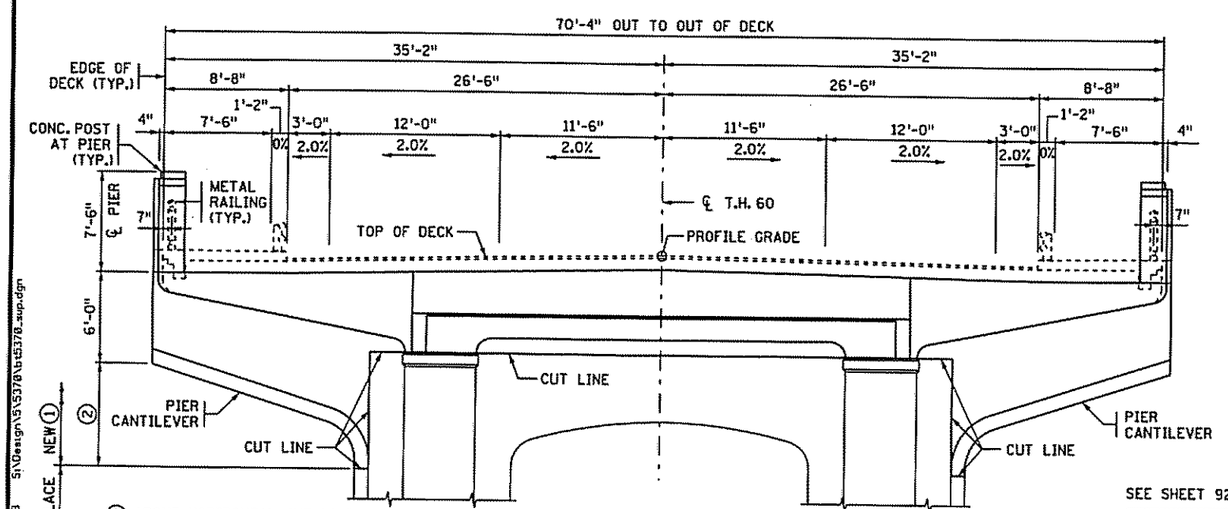
NOTES:

SEE SPECIAL PROVISIONS FOR ARCH SPAN REMOVAL AND RECONSTRUCTION SEQUENCE.

DETAIL A

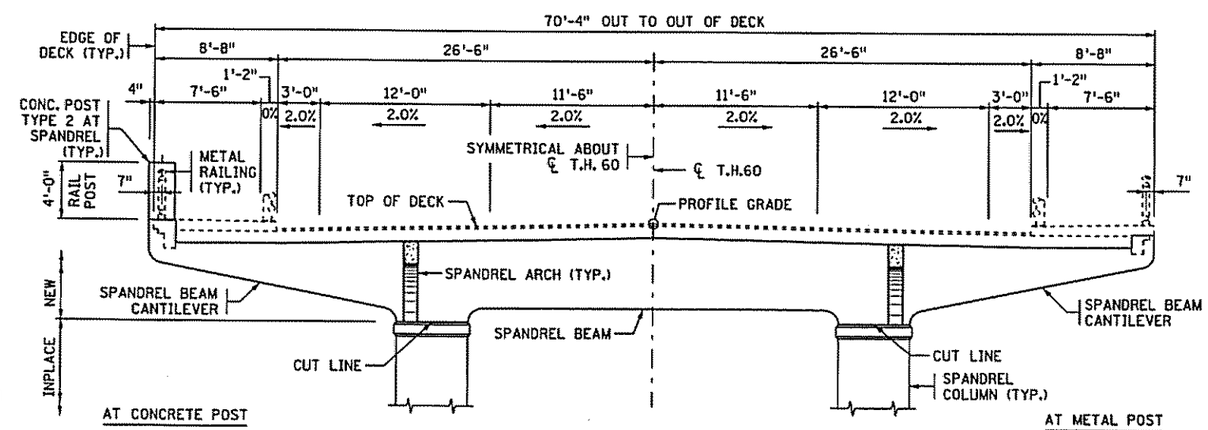
GENERAL ELEVATION

(TYPICAL AT ALL ARCH SPANS EXCEPT AS SHOWN OR NOTED)



① ABOVE HORIZONTAL CUT LINE.
② SEE PIER SHEETS FOR DIMENSIONS.

SECTION A-A



SECTION B-B

SEE SHEET 92 FOR SPANDREL BEAM DETAILS.

CERTIFIED BY Arlen Ottman 9/18/08 (LICENSED PROFESSIONAL ENGINEER, DATE) NAME: ARLEN OTTMAN LIC. NO. 7578	TITLE: ARCH SPAN CONSTRUCTION SEQUENCE	DES: T.R.S. DR: B.T. CHK: A.J.L. CHK: A.D.O.	APPROVED: 9/24/08	BRIDGE NO. 5370
		SHEET NO. 90 OF 125 SHEETS		

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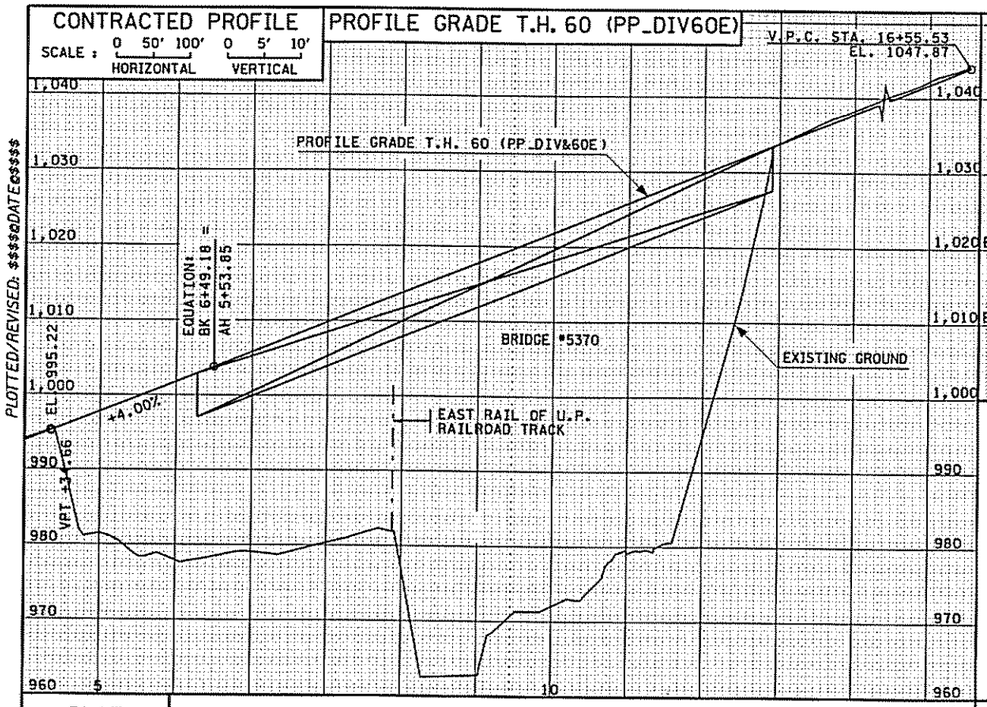
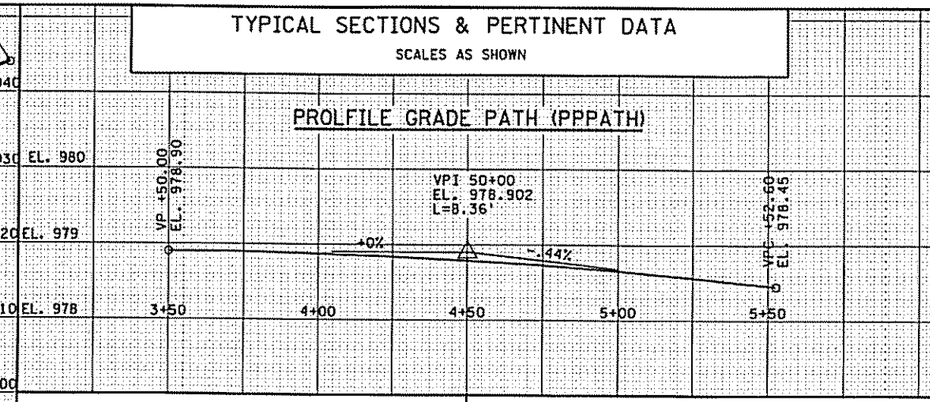
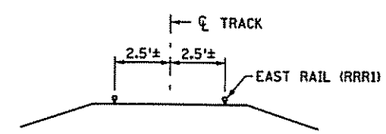




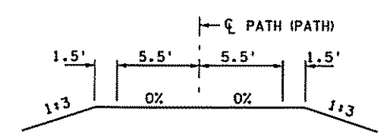
LOCATION ENGINEER'S OBSERVATIONS AT BRIDGE SITE

1. SPECIAL FEATURES: WATERFALLS, DAMS, FLOODS, ICE, DEBRIS, SLIDING BANKS, RECREATIONAL BOATING.
   - FISHING BOAT TRAFFIC.
   - ALSO KNOWN AS KELLY CREEK.
2. OTHER BRIDGES OR CULVERTS OVER THE SAME STREAM (PARTICULARLY STRUCTURES WHICH CARRY HIGH WATER WITHOUT OVERFLOW OF ROADWAY): GIVEN LOCATION,TYPE, LENGTH, HEIGHT ABOVE HIGH WATER, CROSS-SECTIONAL AREA ETC.

   BR 7584 ON CO. RD. 88, 2000' UPSTREAM.
   STEEL SPAN WITH WOOD SUB-STRUCTURE & DECK.
   80'X186' LOW STEEL=1083.40 OPENING 801.35 SQFT



RAILROAD TYPICAL



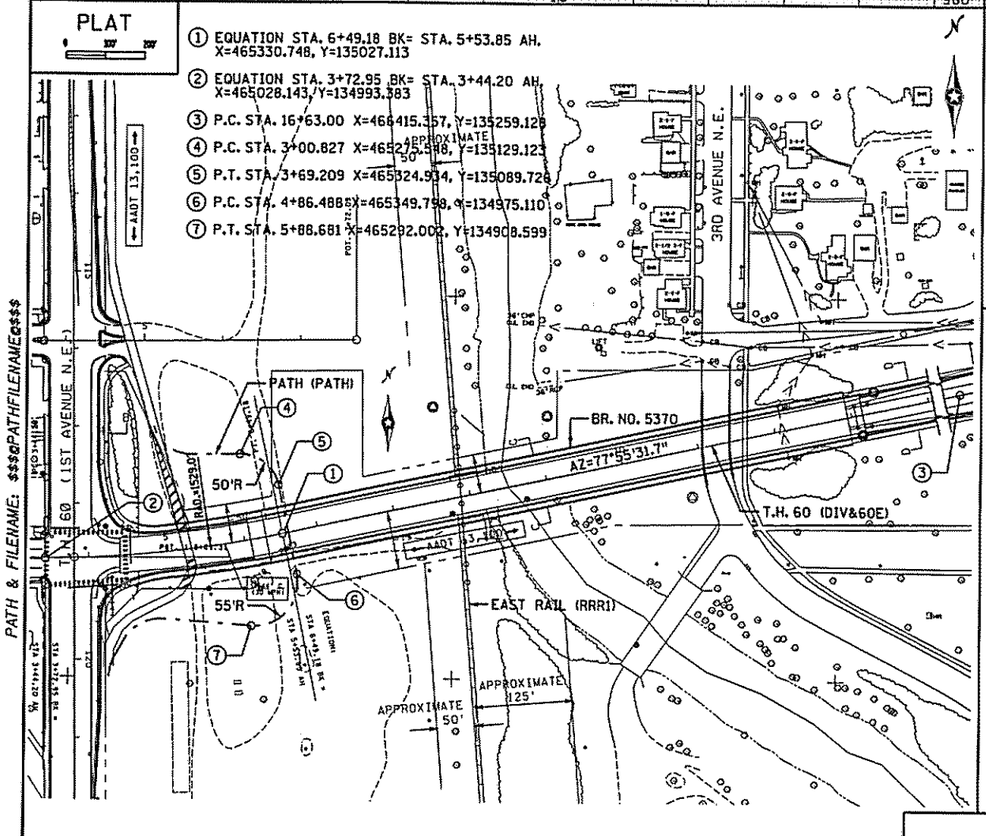
PATH TYPICAL

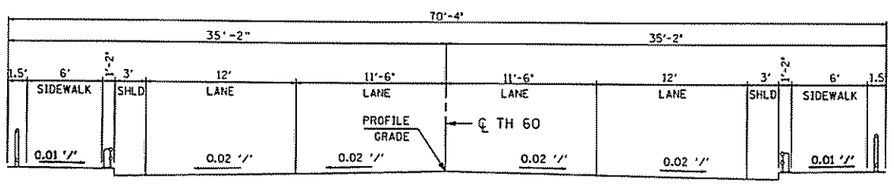
HYDRAULIC ENGINEERS RECOMMENDATION

STREAM: STRAIGHT RIVER

100 - YEAR W.S. ELEV. 979.800
FROM CITY OF FARIBAULT F.I.S.

CLASS III RIPRAP TO BE PLACED AT PIERS 13 & 14
PER MN/DOT BRIDGE HYDRAULIC LETTER DATED 1/16/2007





TYPICAL GRADING SECTION

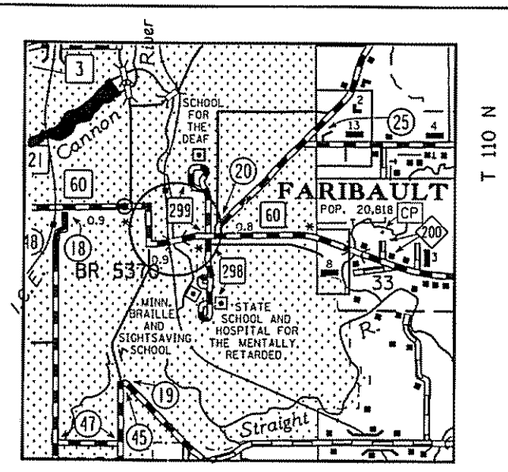
BRIDGE SURVEY SHEETS MADE FROM :
2006 SURVEY DONE BY KEN MANAHAN

BENCH MARK ELEVATION 1120.34 (NAVD 88)

LOCATION: 1.5 MILES SOUTH OF FARIBAULT, 1.5 MILES SOUTH OF SOUTH JUNCTION OF TRUNK HIGHWAY 35 AND TRUNK HIGHWAY 65, IN SOUTHEAST CORNER OF COUNTY ROAD 39 BRIDGE 66823 OVER RAILROAD

2nd BENCH MARK ELEVATION 1136.34 (NAVD 88)

LOCATION: 1.0 MILES EAST OF TH 60 BRIDGE OVER STRAIGHT RIVER AT FARIBAULT, AT TRUNK HIGHWAY 60 MILEPOINT 150.6, 217 FEET SOUTH OF TRUNK HIGHWAY 60, 30 FEET WEST OF TOWNSHIP ROAD, 1 FOOT EAST OF NORTH-SOUTH FENCELINE, 1.0 FEET NORTH OF STEEL FENCE POST



INDEX MAP

MINNESOTA
DEPARTMENT OF TRANSPORTATION

BRIDGE SURVEY

PROPOSED BRIDGE LOCATED 0.4 MILES W. OF JCT. OF T.H. 299 AND T.H. 60 IN FARIBAULT OVER STRAIGHT RIVER

SEC 31 TWP 110 N R 20 W

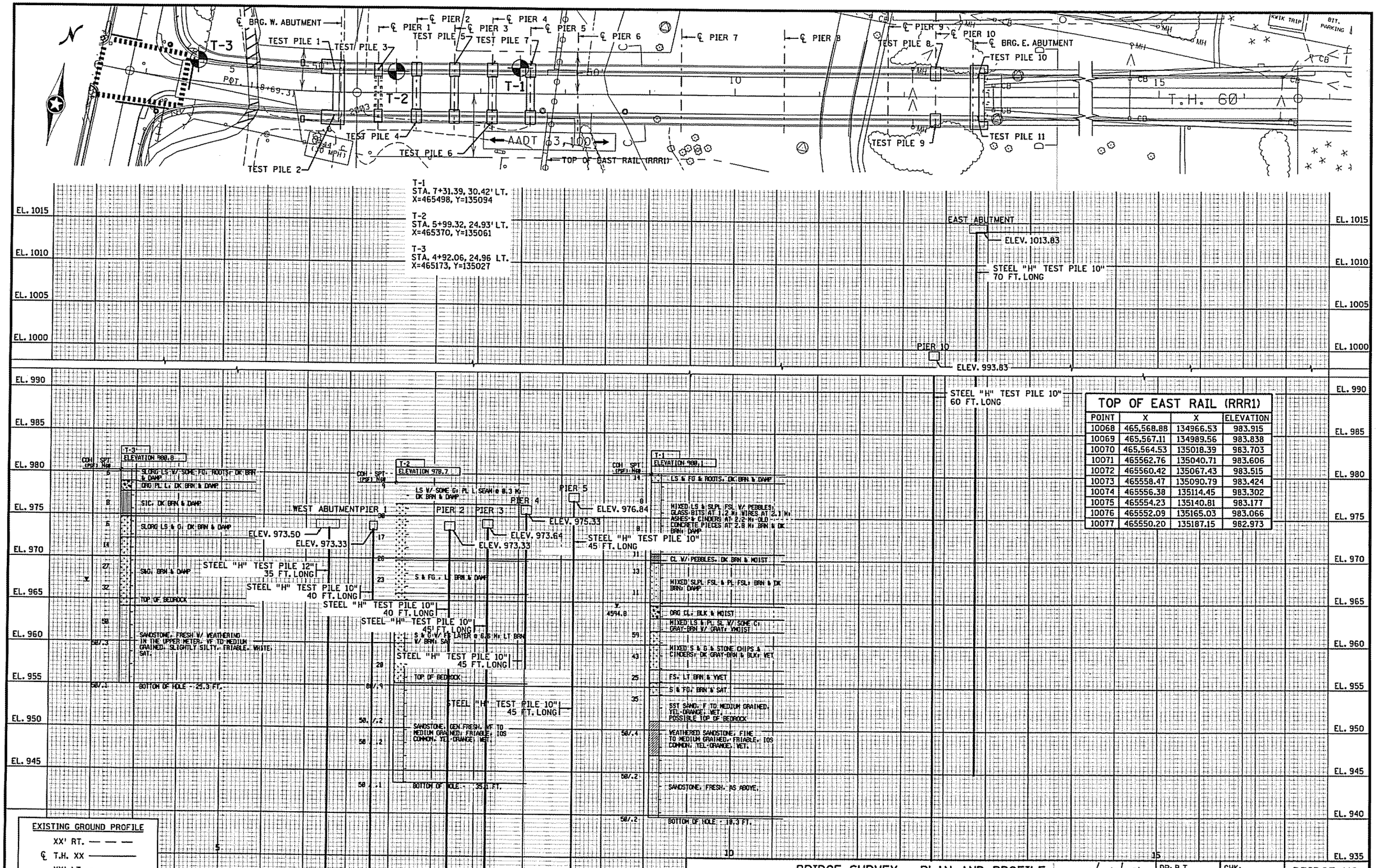
CITY OF FARIBAULT RICE COUNTY

BRIDGE NO. **5370**

Date:
Initials: C.F.= 0. XC = YC =

DISTRICT #: $$DISTRICT$$
IPLOT NAME: $$$IPLOT$NAME$$$
PATH & FILENAME: $$$$PATH$FILENAME$$$$
PLOTTED/REVISED: $$$$$DATE$$$$$

Job Number T68742 | State Proj. No. 6607-42 (T.H. 60) | 9/24/08 | Sheet No. 124 of 125 Sheets



TOP OF EAST RAIL (RRR1)			
POINT	X	X	ELEVATION
10068	465,568.88	134966.53	983.915
10069	465,567.11	134989.56	983.838
10070	465,564.53	135018.39	983.703
10071	465562.76	135040.71	983.606
10072	465560.42	135067.43	983.515
10073	465558.47	135090.79	983.424
10074	465556.38	135114.45	983.302
10075	465554.23	135140.81	983.177
10076	465552.09	135165.03	983.066
10077	465550.20	135187.15	982.973

BRIDGE SURVEY - PLAN AND PROFILE | 9/24/08 | DR: B.T. | CHK:

STATE PROJECT NO. 6607-5370 (T.H. 60=021) | SHEET NO. 125 OF 125 SHEETS | BRIDGE NO. 5370