

MINNESOTA DEPARTMENT OF TRANSPORTATION

GRADING, CONC. & BIT. SURFACING, NOISE AND RETAINING WALLS, TRAFFIC SIGNAL, LIGHTING,
 CONSTRUCTION PLAN FOR SIGNING, BRIDGE NOS. 62902, 62904, 62905, 62907, 62908, 62909, 62910, 62914, 99191, AND 99192.
 LOCATED ON T.H. 35E FROM 1000' NORTH OF T.H. 36 TO 900' NORTH OF COUNTY ROAD E

STATE PROJ. NO. 6280-304 IN CITIES OF LITTLE CANADA AND
 VADNAIS HEIGHTS

GROSS LENGTH.....19,860.73 FEET.....3.762 MILES
 BRIDGES-LENGTH.....0.00 FEET.....0.000 MILES
 EXCEPTIONS-LENGTH.....0.00 FEET.....0.000 MILES
 NET LENGTH.....19,860.73 FEET.....3.762 MILES
 REF. POINT 111+00.851 TO REF. POINT 115+00.427
 NOTE: LENGTHS BASED ON SB35E STA. 866+45.94
 TO STA. 893+22.67 AND NB35E STA. 792+60.00
 TO STA. 964+44.00

FED. PROJ. NO. IM 0354(253)

GOVERNING SPECIFICATIONS
 THE 2000 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION
 STANDARD SPECIFICATIONS FOR CONSTRUCTION SHALL GOVERN.

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1795-1992	CROSS SECTIONS

THIS PLAN CONTAINS 2007 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.

SIGNATURE: *Avedis Tochradjian*
 PRINTED NAME: AVEDIS TOCHRADJIAN
 DATE: MAY 27 2005 LIC. NO. 40917

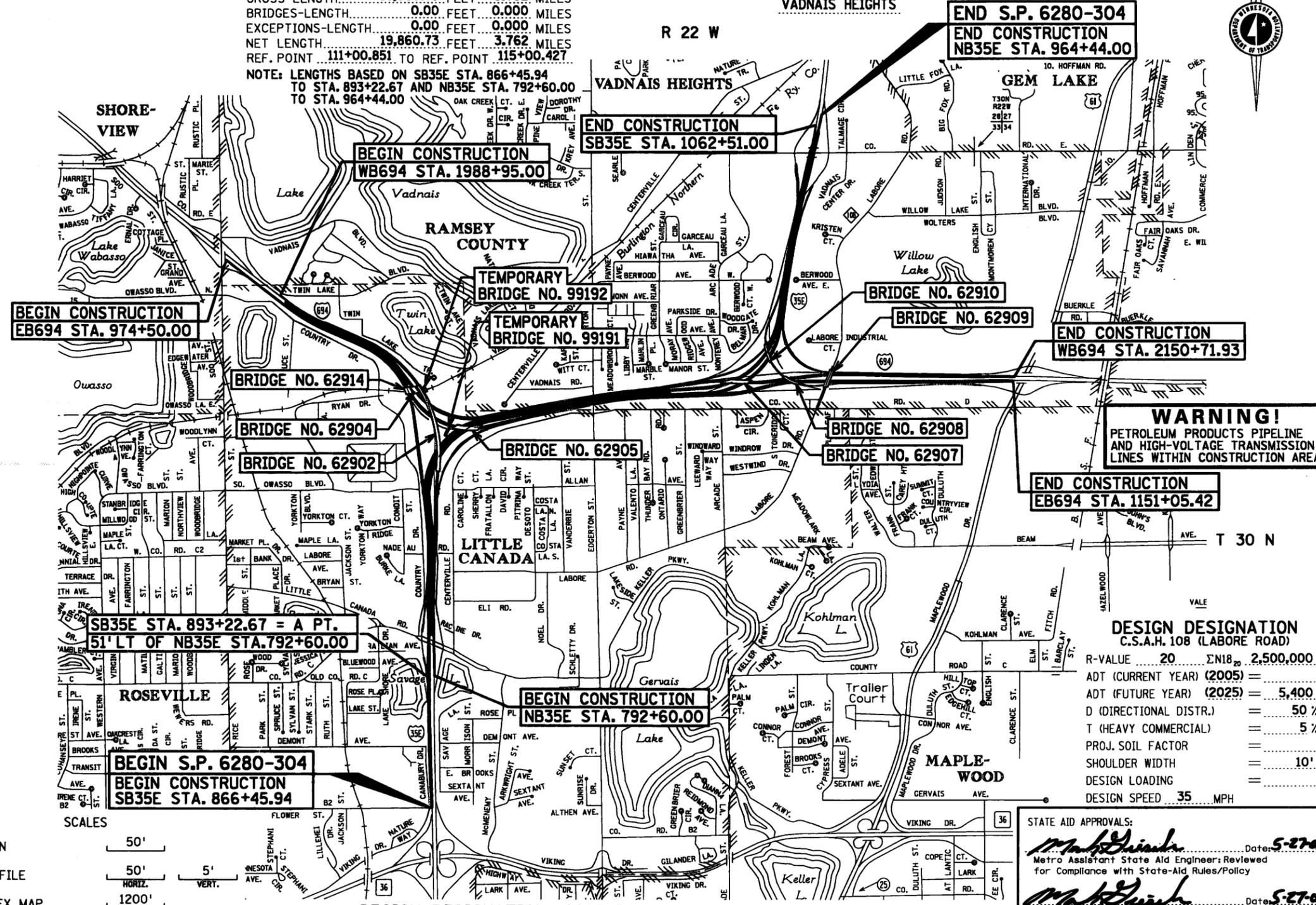
I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

SIGNATURE: *Timothy A. Chalupnik*
 PRINTED NAME: TIMOTHY A. CHALUPNIK
 DATE: MAY 27 2005 LIC. NO. 15400

APPROVED: *William D. Deh* DATE: 5/26/05
 CITY ENGINEER
 APPROVED: *Karl J. ...* DATE: 5/26/05
 RAMSEY COUNTY ENGINEER
 RECOMMENDED FOR APPROVAL: *By Glen C. Ellis* DATE: 5/26/05
 DISTRICT TRANSPORTATION ENGINEER
 RECOMMENDED FOR APPROVAL: *Kelli S. ...* DATE: 5/26/05
 DISTRICT MATERIALS ENGINEER
 RECOMMENDED FOR APPROVAL: *For Jeff ...* DATE: 5/26/05
 DISTRICT WATER RESOURCES ENGINEER
 RECOMMENDED FOR APPROVAL: *...* DATE: 5/24/05
 DISTRICT TRAFFIC ENGINEER
 RECOMMENDED FOR APPROVAL: *James ...* DATE: 9/27/05
 STATE PRELIMINARY ENGINEER
 OFFICE OF LAND MANAGEMENT APPROVAL: *...* DATE: 6/27/05
 DIRECTOR OF LAND MANAGEMENT
 APPROVED: *Richard ...* DATE: 6/27/05
 STATE DESIGN ENGINEER

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

DATE: _____ LIC. NO. _____



PLAN 50'
 PROFILE 50' HORIZ. 5' VERT.
 INDEX MAP 1200'
 GENERAL LAYOUT 500'

PLAN REVISIONS		
DATE	SHEET NO.	APPROVED BY
1-20-05	1, 11, 12, 14, 15, 31, 36, 3A, 4, 9B	T.R.S.
499, 1056, 1058, 1066, 1069, 1139, 1148, 1151, 1156, 1160, 1170, 1171		

DESIGN DESIGNATION (6280-304)

ADT (CURRENT YEAR) (2005)	= 135,000	DESIGN SPEED NOT ACHIEVED AT:	
ADT (FUTURE YEAR) (2025)	= 199,000	EB694 STA. 1034+69 TO 1041+18	mph 48
D (DIRECTIONAL DISTR.)	= 50 %	WB694 STA. 2017+06 TO 2023+92	mph 55
T (HEAVY COMMERCIAL)	= 5 %	WB694 STA. 2023+92 TO 2024+88	mph 50
DESIGN SPEED	60 MPH	WB694 STA. 2024+88 TO 2028+56	mph 55
BASED ON STOPPING SIGHT DISTANCE		WB694 STA. 2031+27 TO 2037+67	mph 55
HT OF EYE 3.50' HT OF OBJECT 0.50'		35CON694 STA. 423+40 TO 440+95	mph 58
		694CON35 STA. 320+94 TO 322+57	mph 52

STATE AID APPROVALS:
M. ... Date: 5-27-05
 Metro Assistant State Aid Engineer; Reviewed for Compliance with State-Aid Rules/Policy
M. ... Date: 5-27-05
 Approved for State Aid Funding; State Aid Engineer

FOR PLANS AND UTILITIES SYMBOLS SEE TECHNICAL MANUAL

STATE PROJ. NO. 6280-304 CHARGE IDENTIFIER T56376
 S.A.P. 62-649-11 CTB
 S.A.P. 62-658-11
 S.A.P. 200-010-02

PROJECT LOCATION
 COUNTY: RAMSEY
 DIVISION: METRO
 WATERS EDGE OFFICE

STATE PROJ. NO. 6280-304 (T.H. 35E = 390) SHEET NO. 1 OF 1992 SHEETS

5/25/2005 6:44:29 AM k:\n-z\urs-brw\12391\p-in-sh\cv304-01.dgn

ESTIMATED QUANTITIES

TAB. LETTER	ITEM NUMBER	ITEM	NOTE NO.	UNIT	TOTAL ESTIMATED QUANTITY	87% FEDERAL 13% STATE	WEST VADNAIS AREA (A)	TWIN LAKE AREA (B)	EDGERTON AREA (C)	LABORE AREA (D)
Y	2104.509	REMOVE WOOD POLE		EACH	20	20				
Y	2104.509	REMOVE LIGHT STANDARD BASE		EACH	163	163				
U	2104.509	REMOVE HANDHOLE		EACH	12	12				
U	2104.509	REMOVE FOUNDATION		EACH	1	1				
B, R	2104.511	SAWING CONCRETE PAVEMENT (FULL DEPTH)		LIN FT	33974	33974				
B, R	2104.513	SAWING BIT PAVEMENT (FULL DEPTH)		LIN FT	6234	6047	187			
C	2104.521	SALVAGE PIPE SEWER		LIN FT	44	44				
B	2104.521	SALVAGE CHAIN LINK FENCE		LIN FT	896	896				
B, T	2104.521	SALVAGE GUARD RAIL-PLATE BEAM		LIN FT	12490	12490				
B	2104.523	SALVAGE ECCENTRIC LOADER BCT		EACH	17	17				
C	2104.523	SALVAGE PIPE APRON		EACH	5	5				
GG	2104.523	SALVAGE SIGN TYPE C		EACH	15	15				
GG	2104.523	SALVAGE SIGN TYPE D		EACH	2	2				
GG	2104.523	SALVAGE SIGN TYPE EO		EACH	5	5				
GG	2104.523	SALVAGE SIGN PANEL TYPE OH		EACH	1	1				
GG	2104.523	SALVAGE SIGN TYPE OH (BR MOUNTED)		EACH	1	1				
GG	2104.523	SALVAGE DELINEATOR		EACH	21	21				
X, Y	2104.523	SALVAGE LIGHTING UNIT		EACH	278	278				
X, Y	2104.523	SALVAGE STEEL LIGHT BASE		EACH	183	183				
U	2104.523	SALVAGE CABINET		EACH	1	1				
U	2104.523	SALVAGE CHANGEABLE MESSAGE SIGN		EACH	1	1				
U	2104.523	SALVAGE CCTV HARDWARE		EACH	1	1				
Y	2104.523	SALVAGE SERVICE CABINET		EACH	9	9				
B	2104.525	ABANDON & SEAL WELL SHAFT	(1)	EACH	1	1				
C	2104.525	ABANDON CATCH BASIN OR MANHOLE		EACH	2	2				
C, J	2104.525	ABANDON CULVERT		EACH	20	20				
C, J	2104.525	ABANDON PIPE SEWER		EACH	18	18				
U	2104.601	HAUL SALVAGED MATERIAL	(2)	LUMP SUM	1					
U	2104.601	REMOVE CABLES		LUMP SUM	1	1				
F	2105.501	COMMON EXCAVATION	(P)	CU YD	1496152	1496152				
F	2105.507	SUBGRADE EXCAVATION	(P)	CU YD	595551	595551				
F	2105.522	SELECT GRANULAR BORROW (CV)	(P)	CU YD	879990	879990				
F	2105.522	SELECT GRANULAR BORROW MOD 10% (CV)	(P)	CU YD	232185	232185				
F	2105.525	TOPSOIL BORROW (LV)		CU YD	48066	48066				
	2105.550	SUBSOILING	(3)	ACRE	4	4				
	2105.601	DEWATERING		LUMP SUM	1	1				
S	2105.604	GEOMEMBRANE SYSTEM		SQ YD	1011	1011				
S	2105.604	GEOTEXTILE FABRIC SPECIAL TYPE V		SQ YD	1334	1334				
S	2105.607	GEOFOAM		CU YD	775	775				
F	2105.607	EXCAVATION SPECIAL	(P)	CU YD	22000	22000				
	2123.610	STREET SWEEPER (WITH PICKUP BROOM)		HOUR	1500	1500				
	2130.501	WATER		M GALLONS	1200	1200				
	2131.502	CALCIUM CHLORIDE SOLUTION		GALLON	300000	300000				

NOTES:

- (1) INCLUDES SALVAGING PROTECTIVE STEEL CASING.
- (2) 100% STATE FUNDS.
- (3) TO BE USED AS DIRECTED BY THE ENGINEER.
- (4) STREET SWEEPINGS LOCATED AT EB694 STA. 1027 TO STA. 1036.

COST PARTICIPATION:

- (A) 100% RAMSEY COUNTY S.A.P. 62-649-11 CTB.
- (B) 81.6% FEDERAL, 12.2% STATE, 6.2% CITY OF LITTLE CANADA LOCAL FUNDS.
- (C) 74.4% FEDERAL, 11.1% STATE, 0.5% RAMSEY COUNTY S.A.P. 62-658-11, 3.6% CITY OF LITTLE CANADA S.A.P. 200-010-02, 10.4% CITY OF LITTLE CANADA LOCAL FUNDS.
- (D) 45.8% FEDERAL, 6.9% STATE, 6.3% RAMSEY COUNTY S.A.P. 62-658-11, 30.8% CITY OF LITTLE CANADA S.A.P. 200-010-02, 10.2% CITY OF LITTLE CANADA LOCAL FUNDS.

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B	33-34	REMOVALS, SAWCUTS, SALVAGES, AND TEMPORARY FENCING
C	87-100	INPLACE UTILITY TABULATION - STORM SEWER AND CULVERTS
F	19-30	EARTHWORK SUMMARY AND BALANCE
J	1131-1139	DRAINAGE SUMMARY
R	50-52	BYPASS SAW CUT
S	57	GEORETENTION
T	311	TRAFFIC CONTROL TABULATION
U	1690	TABULATION OF TMS ESTIMATED QUANTITIES
X	1660	TABULATION OF PERMANENT LIGHTING QUANTITIES
Y	1626	TABULATION OF TEMPORARY LIGHTING QUANTITIES
GG	1476	SIGNING TABULATION

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DRAWN BY: SJS
CHECKED BY: TAC

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.

SIGNATURE: *Timothy A. Chalupnik*
PRINTED NAME: TIMOTHY A. CHALUPNIK
DATE: SEPTEMBER 1 2005 LIC. NO. 15400



MINNESOTA DEPARTMENT OF TRANSPORTATION
STATE PROJECT NO. 6280-304 (T.H. 35E)



ESTIMATED QUANTITIES

5R
1992

ESTIMATED QUANTITIES

TAB. LETTER	ITEM NUMBER	ITEM	NOTE NO.	UNIT	TOTAL ESTIMATED QUANTITY	87% FEDERAL 13% STATE	WEST VADNAIS AREA (A)	TWIN LAKE AREA (B)	EDGERTON AREA (C)	LABORE AREA (D)
GG	2564.602	INSTALL DELINEATOR		EACH	21	21				
GG	2564.602	MODIFY SIGN TYPE OH (BR MTD)		EACH	1	1				
FF	2564.602	PAVT MSSG (LT ARROW) POLY PREF-GROUND IN		EACH	14	14				
FF	2564.602	PAVT MSSG (RT ARROW) POLY PREF-GROUND IN		EACH	9	9				
FF	2564.602	PAVT MSSG(LT-THRU ARROW) POLY PREF-GR IN		EACH	4	4				
FF	2564.602	PAVT MSSG (HOV DIAMOND) POLY PREF-GR IN		EACH	2	2				
T	2564.603	4" SOLID LINE WHITE-PAINT		LIN FT	265281	265281				
T	2564.603	4" SOLID LINE YELLOW-PAINT		LIN FT	245118	245118				
T	2564.603	4" DOUBLE SOLID LINE WHITE-PAINT		LIN FT	2635	2635				
T	2564.603	4" DOUBLE SOLID LINE YELLOW-PAINT		LIN FT	1665	1665				
T	2564.603	8" SOLID LINE WHITE-PAINT		LIN FT	58929	58929				
T	2564.603	8" BROKEN LINE WHITE-PAINT		LIN FT	48628	48628				
T	2564.603	8" DOTTED LINE WHITE-PAINT		LIN FT	5266	5266				
T	2564.603	8" DOTTED LINE YELLOW-PAINT		LIN FT	25	25				
T	2564.603	24" STOP LINE WHITE-PAINT		LIN FT	37	37				
T, FF	2564.603	4" SOLID LINE WHITE-EPOXY		LIN FT	369417	369417				
T	2564.603	4" DOUBLE SOLID LINE WHITE-EPOXY		LIN FT	1480	1480				
T, FF	2564.603	4" SOLID LINE YELLOW-EPOXY		LIN FT	363230	363230				
FF	2564.603	4" DOUBLE SOLID LINE YELLOW-EPOXY		LIN FT	3498	3498				
FF	2564.603	4" BROKEN LINE WHITE-EPOXY		LIN FT	35	35				
FF	2564.603	4" BROKEN LINE YELLOW-EPOXY		LIN FT	331	331				
FF	2564.603	4" BROKEN LINE WHITE-POLY PREF-GR IN		LIN FT	34443	34443				
FF	2564.603	4" SOLID LINE WHITE-POLY PREF-GR IN		LIN FT	3070	3070				
T	2564.603	8" BROKEN LINE WHITE-EPOXY		LIN FT	41570	41570				
T, FF	2564.603	8" DOTTED LINE WHITE-EPOXY		LIN FT	7111	7111				
T, FF	2564.603	8" SOLID LINE WHITE-EPOXY		LIN FT	72100	72100				
FF	2564.603	8" SOLID LINE WHITE-POLY PREF-GR IN		LIN FT	20820	20820				
FF	2564.603	8" DOTTED LINE WHITE-POLY PREF-GR IN		LIN FT	3213	3213				
FF	2564.603	24" SOLID LINE WHITE-EPOXY		LIN FT	2173	2173				
FF	2564.603	24" SOLID LINE YELLOW-EPOXY		LIN FT	617	617				
FF	2564.618	ZEBRA CROSSWALK WHITE-POLY PREFORM-GR IN		SQ FT	522	522				
Z	2565.616	REVISE SIGNAL SYSTEM	(1)	SYSTEM	1	1				
B	2572.501	TEMPORARY FENCE	(2)	LIN FT	10439	10439				
	2572.505	TREE PRUNING	(3)	HOUR	208	208				
N	2573.501	BALE CHECK		EACH	515	515				
N	2573.502	SILT FENCE, TYPE MACHINE SLICED		LIN FT	10966	10966				
N	2573.505	FLOTATION SILT CURTAIN TYPE STILL WATER	(4)	LIN FT	82	82				
N	2573.506	SEDIMENT TRAP EXCAVATION		CU YD	363	363				
N	2573.507	TEMPORARY PIPE DOWNDRAIN	(5)	LIN FT	545	545				

COST PARTICIPATION:

- (A) 100% RAMSEY COUNTY S.A.P. 62-649-11 CTB.
- (B) 81.6% FEDERAL, 12.2% STATE, 6.2% CITY OF LITTLE CANADA LOCAL FUNDS.
- (C) 74.4% FEDERAL, 11.1% STATE, 0.5% RAMSEY COUNTY S.A.P. 62-658-11, 3.6% CITY OF LITTLE CANADA S.A.P. 200-010-02, 10.4% CITY OF LITTLE CANADA LOCAL FUNDS.
- (D) 45.8% FEDERAL, 6.9% STATE, 6.3% RAMSEY COUNTY S.A.P. 62-658-11, 30.8% CITY OF LITTLE CANADA S.A.P. 200-010-02, 10.2% CITY OF LITTLE CANADA LOCAL FUNDS.

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B	33-34	REMOVALS, SAWCUTS, SALVAGES, AND TEMPORARY FENCING
N	44-48	TEMPORARY EROSION CONTROL AND TURF ESTABLISHMENT
T	311	TRAFFIC CONTROL TABULATION
Z	1756	SIGNAL TABULATION
FF	1438	PAVEMENT MARKING TABULATION
GG	1476	SIGNING TABULATION

NOTES:

- (1) REVISE SIGNAL SYSTEM AT RAMPA AND LITTLE CANADA ROAD.
- (2) INCLUDES 1000 LIN FT TO BE USED AS DIRECTED BY THE ENGINEER.
- (3) SEE SPECIAL PROVISIONS.
- (4) 4' AVERAGE DEPTH.
- (5) SEE SHEET NO. 1218 FOR DETAIL.

k:\n-z\urs-brw\12391\p\in-sht\eq304-13.dgn 5:46:17 PM 6/23/2005

DRAWN BY: SJS CHECKED BY: TAC	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.	SIGNATURE: <i>Timothy A. Chalupnik</i> PRINTED NAME: TIMOTHY A. CHALUPNIK DATE: MAY 27 2005 LIC. NO. 15400		MINNESOTA DEPARTMENT OF TRANSPORTATION STATE PROJECT NO. 6280-304 (T.H. 35E)		ESTIMATED QUANTITIES	16 1992
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ESTIMATED QUANTITIES

TAB. LETTER	ITEM NUMBER	ITEM	NOTE NO.	UNIT	TOTAL ESTIMATED QUANTITY	87% FEDERAL 13% STATE	WEST VADNAIS AREA (A)	TWIN LAKE AREA (B)	EDGERTON AREA (C)	LABORE AREA (D)
N	2573.512	TEMPORARY DITCH CHECK TYPE 3		LIN FT	13283	13283				
N	2573.513	TEMPORARY DITCH CHECK TYPE 7		CU YD	398	398				
N	2573.520	SEDIMENT REMOVAL BACKHOE		HOUR	44	44				
N	2573.530	INLET PROTECTION TYPE D	(2)	EACH	50	50				
	2573.601	EROSION CONTROL SUPERVISOR		LUMP SUM	1	1				
N	2573.602	INLET PROTECTION	(1)	EACH	406	406				
N	2573.603	ROCK LOG	(3)	LIN FT	808	808				
N	2573.604	RAPID STABILIZATION METHOD 4		SQ YD	19545	19545				
N	2573.605	RAPID STABILIZATION METHOD 1		ACRE	14	14				
N	2573.605	RAPID STABILIZATION METHOD 2		ACRE	1	1				
N	2573.609	RAPID STABILIZATION METHOD 5		TON	64	64				
N	2573.623	RAPID STABILIZATION METHOD 3		M GALLONS	3	3				
N, O	2575.501	SEEDING		ACRE	266	266				
N, O	2575.511	MULCH MATERIAL TYPE 1		TON	494	494				
N, O	2575.513	MULCH MATERIAL TYPE 9		CU YD	172	172				
N, O	2575.519	DISK ANCHORING		ACRE	248	248				
O	2575.523	EROSION CONTROL BLANKETS CATEGORY 1	(4)	SQ YD	2998	2998				
N, O	2575.523	EROSION CONTROL BLANKETS CATEGORY 3	(4)	SQ YD	38365	38365				
N, O	2575.523	EROSION CONTROL BLANKETS CATEGORY 4	(4)	SQ YD	34379	34379				
N	2575.532	COMMERCIAL FERT ANALYSIS 10-10-20		POUND	16876	16876				
O	2575.532	COMMERCIAL FERT ANALYSIS 22-5-10		POUND	62265	62265				
	2575.541	MOWING	(5)	ACRE	15	15				
	2575.545	WEED SPRAYING	(5)	ACRE	45	45				
N	2575.608	SEED MIXTURE 150		POUND	3370	3370				
O	2575.608	SEED MIXTURE 250		POUND	9940	9940				
O	2575.608	SEED MIXTURE 260		POUND	2412	2412				
O	2575.608	SEED MIXTURE 310		POUND	341	341				
O	2575.608	SEED MIXTURE 350		POUND	889	889				
O	2575.608	HYDRAULIC SOIL STABILIZER TYPE 1		POUND	4696	4696				
N	2575.608	HYDRAULIC SOIL STABILIZER TYPE 6		POUND	5575	5575				
T	2581.501	REMOVABLE PREFORMED PLASTIC MARKING		LIN FT	50939	50939				
T	2581.603	REMOVABLE PREFORMED PLASTIC MASK (BLACK)	(6)	LIN FT	2600	2600				

COST PARTICIPATION:

- (A) 100% RAMSEY COUNTY S.A.P. 62-649-11 CTB.
- (B) 81.6% FEDERAL, 12.2% STATE, 6.2% CITY OF LITTLE CANADA LOCAL FUNDS.
- (C) 74.4% FEDERAL, 11.1% STATE, 0.5% RAMSEY COUNTY S.A.P. 62-658-11, 3.6% CITY OF LITTLE CANADA S.A.P. 200-010-02, 10.4% CITY OF LITTLE CANADA LOCAL FUNDS.
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INDEX OF TABULATIONS

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N	44-48	TEMPORARY EROSION CONTROL AND TURF ESTABLISHMENT
O	49	PERMANENT EROSION CONTROL AND TURF ESTABLISHMENT
T	311	TRAFFIC CONTROL TABULATION

NOTES:

- (1) SEE SHEETS 1211, 1212, AND 1214 FOR DETAILS OF SUGGESTED TYPES AND SHEETS 1224 THRU 1385 FOR PLANS OF SUGGESTED TYPES. PAYMENT FOR INLET PROTECTION BY THE EACH SHALL INCLUDE ALL DEVICES NECESSARY TO PROTECT THE STRUCTURE FOR THE LIFE OF THE PROJECT. EACH STRUCTURE PROTECTED SHALL BE PAID FOR ONLY ONCE, WITH NO SEPARATE PAYMENT MADE FOR MULTIPLE INSTALLATIONS REQUIRED ON THE SAME STRUCTURE.
- (2) SEE SHEET NO. 1213 FOR DETAIL.
- (3) SEE SHEET NO. 1217 FOR DETAIL.
- (4) INCLUDES MAINTENANCE.
- (5) SEE SPECIAL PROVISIONS.
- (6) TO BE USED AS DIRECTED BY THE ENGINEER.

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TEMPORARY EROSION CONTROL AND TURF ESTABLISHMENT N

PLAN SHEET STATION RANGE	RANDOM RIPRAP CL I (1)	RANDOM RIPRAP CL II (2)	CONC. MED. BARR. DES. 8337 (3)	BALE CHECK (4)	SILT FENCE TYPE MACH. SLICED (5)	FLOT. SILT CURT. STILL WATER	SED. TRAP EXCAV.	TEMP. PIPE DOWN DRAIN (6)	TEMP. DITCH CHECK TYPE 3	TEMP. DITCH CHECK TYPE 7	SED. REM. BACK HOE (7)	INLET PROT. (14)	INLET PROT. TYPE D (10)	ROCK LOG (13)	RAPID STAB. METHOD 1	RAPID STAB. METHOD 2	RAPID STAB. METHOD 3	RAPID STAB. METHOD 4	RAPID STAB. METHOD 5	SEEDING	SEED MIX 150 (15)	MULCH MAT. TYPE 1 (16)	MULCH MAT. TYPE 9 (17)	DISK ANCHOR	EROSION CONT. BLANKET CAT. 3 (18)	EROSION CONT. BLANKET CAT. 4 (19)	COMM. FERT. ANALYSIS 10-10-20 (20)	HYD. SOIL STABIL. TYPE 6 (21)
	CU YD	CU YD	LIN FT	EACH	LIN FT	LIN FT	CU YD	LIN FT	LIN FT	CU YD	HOUR	EACH	EACH	LIN FT	ACRE	ACRE	M GAL	SQ YD	TON	ACRE	POUND	TON	CU YD	ACRE	SQ YD	SQ YD	POUND	POUND
STAGE 1 PHASE 1																												
SB35E STA. 861+50 TO STA. 876+50	0.8	0.9					5.3		187	6.1	0.1	6																
SB35E STA. 876+50 TO STA. 891+50					873				136	4.4	2.9	1	20	0.6	0.2											163		
SB35E STA. 891+50 TO NB35E STA. 804+50					487	42					1.6	7	1	0.1					1.0	0.4	14	0.6		0.3	202		70	
NB35E STA. 804+50 TO STA. 817+50												6																
NB35E STA. 830+50 TO STA. 843+50		1.4	50		50			28	16	4.4	0.2	6	1							2.5	100	4.9		2.4	253		500	
NB35E STA. 843+50 TO STA. 856+50	2.0				552		20.1		277	9.6	1.9	8	1	36						4.9	194	8.1		4.0	2341	145	971	800
NB35E STA. 856+50 TO STA. 869+50	2.4	0.4					15.9		363	10.4	0.1	15	1	20						3.5	140	6.7	0.3	3.3	731		698	
NB35E STA. 869+50 TO STA. 882+50	1.4	29.2					21.3		140		0.1	12	3							3.0	120	5.9	7.3	3.0	226		603	
NB35E STA. 882+50 TO STA. 895+50		18.7			837				96	4.4	2.8	6	1		0.4	0.2				2.2	86	4.0	6.2	2.0	703		432	
NB35E STA. 895+50 TO STA. 908+50		2.8			710			99	283	4.4	2.4	3	1	32		0.2				2.6	105	4.6		2.3	1478		522	
NB35E STA. 908+50 TO STA. 921+50		2.8						122	176	5.2			1	16						0.9	37	1.6		0.8	549		178	
NB35E STA. 921+50 TO STA. 936+50									280					20						1.2	49	2.5		1.2			245	
NB35E STA. 936+50 TO STA. 951+50										5.2			1		0.1					0.3	10	0.5		0.3			51	
NB35E STA. 951+50 TO STA. 971+60			45		45							13			0.2	2	4			0.7	28	1.1		0.6	473		133	
EB694 STA. 986+49 TO STA. 993+50										5.2			2		0.1					0.2	10	0.5		0.2			49	
EB694 STA. 993+50 TO STA. 1006+50	1.4	3.1					21.3				0.2		1				1	95	0.6	0.6	25	1.2	2.1	0.6			123	
EB694 STA. 1006+50 TO STA. 1019+50					305							1								0.4	14	0.7		0.4			73	
EB694 STA. 1019+50 TO STA. 1032+50		1.4		43	791			27	200	4.4	3.1	3				0.2				2.2	86	3.8		1.9	871	201	436	275
694CON35 STA. 325+50 TO STA. 339+50	3.2	88.1	85		85		21.2		86		0.4				1.1			1653		3.5	139	6.1	23.8	3.0	2180		697	
EB694 STA. 1099+22 TO STA. 1111+50			54		54						0.2		1															
JIGGS POND AND DRYWALL POND		10.7											1				2	4416						4.3				
STAGE 1 PHASE 2																												
SB35E STA. 891+50 TO NB35E STA. 804+50						40			16	10.4		3			0.1				578									
NB35E STA. 804+50 TO STA. 817+50									78	3.9		9							2.0	0.2	8	0.4		0.2			39	
NB35E STA. 817+50 TO STA. 830+50									91			12									0.3	10	0.5		0.3		51	
NB35E STA. 830+50 TO STA. 843+50												2									0.7	27	1.3		0.7		135	
NB35E STA. 843+50 TO STA. 856+50									48	4.4		2									2.3	91	4.6		2.3		456	
NB35E STA. 921+50 TO STA. 936+50									80				1								0.6	24	1.2		0.6		118	
NB35E STA. 936+50 TO STA. 951+50									220	15.6		9	2		0.3			400		0.1	5	0.3		0.1		27		
NB35E STA. 951+50 TO STA. 966+50	2.4	23.1	63		63		15.9		40		0.3	4	1		1.2			973		0.1	4	0.1	11.9		320		20	
EB694 STA. 986+49 TO STA. 993+50												6																
EB694 STA. 993+50 TO STA. 1006+50	0.8	2.3					5.3		40			9						112		0.1	3	0.1	1.6		186		14	
EB694 STA. 1006+50 TO STA. 1019+50	0.8	2.3					5.3		140		0.1	9						1412					1.5					
EB694 STA. 1019+50 TO STA. 1032+50		1.4						35	116	5.2		6		20						3.1	124	6.0		3.0	528		620	
TABULATION 1 OF 5 TOTALS	15.2	188.6	297	43	4852	82	131.6	311	3122	103.2	16.6	147	24	164	4.0	0.8	3	9639	3.6	36.6	1453	67.3	59.9	33.5	11041	509	7261	1075

GENERAL NOTE:

- SEE SHEET NOS. 1224 THRU 1385 FOR TEMPORARY EROSION CONTROL AND TURF ESTABLISHMENT PLAN LOCATIONS.

NOTES:

- (1) TO BE USED AT THE DOWNSTREAM END OF SEDIMENT TRAPS. SEE DETAIL ON SHEET NO. 183.
- (2) TO BE USED AT THE OUTLET FOR THE TEMPORARY PIPE DOWN DRAIN AND FOR ROCK WEEPER. SEE DETAILS ON SHEETS 1218 AND 1219.
- (3) TO BE USED FOR SILT FENCE TYPE SUPER DUTY. SEE DETAILS ON SHEETS 1215 AND 1216.
- (4) SEE DETAIL ON SHEET NO. 1218.
- (5) INCLUDES QUANTITIES FOR USE AS SILT FENCE TYPE SUPER DUTY. SEE DETAILS ON SHEETS 1215 AND 1216.
- (6) TO BE USED AT BRIDGE ABUTMENT CORNERS. SEE DETAIL ON SHEET NO. 1218.
- (7) SEE NOTE NO. 8 ON SHEET NO. 1222 FOR USE.

- (8) NOT USED.
- (9) NOT USED.
- (10) CULVERT STANDPIPE. SEE DETAIL ON SHEET NO. 1213.
- (11) NOT USED.
- (12) NOT USED.
- (13) SEE DETAILS ON SHEET NO. 1217.
- (14) SEE SHEETS 1211, 1212, AND 1214 FOR DETAILS OF SUGGESTED TYPES AND SHEETS 1224 THRU 1385 FOR PLANS OF SUGGESTED TYPES.

- (15) APPLIED AT A RATE OF 40 POUND/ACRE.
- (16) APPLIED AT A RATE OF 2 TON/ACRE.
- (17) TO BE USED FOR ROCK WEEPER. SEE DETAIL ON SHEET NO. 1219.
- (18) STRAW BLANKET (CATEGORY 3). INCLUDES MAINTENANCE.
- (19) STRAW COCONUT BLANKET (CATEGORY 4). INCLUDES MAINTENANCE.
- (20) APPLIED AT A RATE OF 200 POUND/ACRE.
- (21) APPLIED AT A RATE OF 2500 POUND/ACRE.

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DRAWN BY: SFH CHECKED BY: SJS	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.	SIGNATURE: <i>Matthew A. Wassman</i> PRINTED NAME: MATTHEW A. WASSMAN DATE: MAY 27 2005 LIC. NO. 26883		MINNESOTA DEPARTMENT OF TRANSPORTATION STATE PROJECT NO. 6280-304 (T.H. 35E)		TABULATIONS TEMPORARY EROSION CONTROL AND TURF ESTABLISHMENT	44 1992
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TEMPORARY EROSION CONTROL AND TURF ESTABLISHMENT N

PLAN SHEET STATION RANGE	RANDOM RIPRAP CL I (1)	RANDOM RIPRAP CL II (2)	CONC. MED. BARR. DES. 8337 (3)	BALE CHECK (4)	SILT FENCE TYPE MACH. SLICED (5)	FLOT. SILT CURT. STILL WATER	SED. TRAP EXCAV.	TEMP. PIPE DOWN DRAIN (6)	TEMP. DITCH CHECK TYPE 3	TEMP. DITCH CHECK TYPE 7	SED. REM. BACK HOE (7)	INLET PROT. (14)	INLET PROT. TYPE D (10)	ROCK LOG (13)	RAPID STAB. METHOD 1	RAPID STAB. METHOD 2	RAPID STAB. METHOD 3	RAPID STAB. METHOD 4	RAPID STAB. METHOD 5	SEEDING	SEED MIX 150 (15)	MULCH MAT. TYPE 1 (16)	MULCH MAT. TYPE 9 (17)	DISK ANCHOR	EROSION CONT. BLANKET CAT. 3 (18)	EROSION CONT. BLANKET CAT. 4 (19)	COMM. FERT. ANALYSIS 10-10-20 (20)	HYD. SOIL STABIL. TYPE 6 (21)	
	CU YD	CU YD	LIN FT	EACH	LIN FT	LIN FT	CU YD	LIN FT	LIN FT	CU YD	HOOR	EACH	EACH	LIN FT	ACRE	ACRE	MGAL	SQ YD	TON	ACRE	POUND	TON	CU YD	ACRE	SQ YD	SQ YD	POUND	POUND	
STAGE 3 PHASE 3																													
SB35E STA. 891+50 TO NB35E STA. 804+50												2																	
NB35E STA. 817+50 TO STA. 830+50																											1		
NB35E STA. 830+50 TO STA. 843+50								331	14.8		2	1								0.1	3	0.1		0.1			14		
NB35E STA. 843+50 TO STA. 856+50	2.8	16.5					25.4	446	19.5	0.2	1		60										8.2						
NB35E STA. 856+50 TO STA. 869+50								160	5.2		12		20							0.2	9	0.4		0.2			44		
NB35E STA. 869+50 TO STA. 882+50	0.8	0.8					5.3			0.1	6									0.3	13	0.7	0.8	0.3			66		
NB35E STA. 882+50 TO STA. 895+50								224	4.4		6		32							1.0	39	2.0		1.0			197		
NB35E STA. 895+50 TO STA. 908+50								272	4.4		3		48							0.3	13	0.6		0.3			63		
EB694 STA. 1019+50 TO STA. 1032+50			45		45						0.2																		
694CON35 STA. 325+50 TO STA. 339+50			85		85						0.3																		
STAGE 3 PHASE 4																													
NB35E STA. 817+50 TO STA. 830+50												3																	
NB35E STA. 830+50 TO STA. 843+50								64					16																
NB35E STA. 856+50 TO STA. 869+50											3																		
NB35E STA. 869+50 TO STA. 882+50											3																		
NB35E STA. 882+50 TO STA. 895+50								160			3																		
NB35E STA. 895+50 TO STA. 908+50								80	5.2		1		20																
TABULATION 5 OF 5 TOTALS	3.6	17.3	130		130		30.7		1737	53.5	0.8	45	1	196						1.9	77	3.8	9.0	1.9			385		
TABULATION 1 OF 5	15.2	188.6	297	43	4852	82	131.6	311	3122	103.2	16.6	147	24	164	4.0	0.8	3	9639	3.6	36.6	1453	67.3	59.9	33.5	11041	509	7261	1075	
TABULATION 2 OF 5	8.4	26.8	81		824		62.5	234	1739	49.2	3.2	47	12	80	2.0			4949		21.9	875	39.4	9.1	20.5	5964	412	4379	425	
TABULATION 3 OF 5	11.2	102.9	161	102	1860		74.2		3920	125.0	8.5	98	7	202	6.2			4638	60.0	17.9	711	34.2	52.6	17.2	182	208	3567	1475	
TABULATION 4 OF 5	9.6	46.1	100	370	3300		63.6		2765	67.0	14.9	69	6	166	2.2			319		6.5	254	10.3	23.7	5.3	1099	1373	1284	2600	
TABULATION 5 OF 5	3.6	17.3	130		130		30.7		1737	53.5	0.8	45	1	196						1.9	77	3.8	9.0	1.9			385		
TOTALS	48.0	381.7	769	515	10966	82	362.6	545	13283	397.9	44.0	406	50	808	14.4	0.8	3	19545	63.6	84.8	3370	155.0	154.3	78.4	18286	2502	16876	5575	

GENERAL NOTE:

- SEE SHEET NOS. 1224 THRU 1385 FOR TEMPORARY EROSION CONTROL AND TURF ESTABLISHMENT PLAN LOCATIONS.

NOTES:

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|--|---|--|
| (1) TO BE USED AT THE DOWNSTREAM END OF SEDIMENT TRAPS. SEE DETAIL ON SHEET NO. 183. | (8) NOT USED. | (15) APPLIED AT A RATE OF 40 POUND/ACRE. |
| (2) TO BE USED AT THE OUTLET FOR THE TEMPORARY PIPE DOWN DRAIN AND FOR ROCK WEEPER. SEE DETAILS ON SHEETS 1218 AND 1219. | (9) NOT USED. | (16) APPLIED AT A RATE OF 2 TON/ACRE. |
| (3) TO BE USED FOR SILT FENCE TYPE SUPER DUTY. SEE DETAILS ON SHEETS 1215 AND 1216. | (10) CULVERT STANDPIPE. SEE DETAIL ON SHEET NO. 1213. | (17) TO BE USED FOR ROCK WEEPER. SEE DETAIL ON SHEET NO. 1219. |
| (4) SEE DETAIL ON SHEET NO. 1218. | (11) NOT USED. | (18) STRAW BLANKET (CATEGORY 3). INCLUDES MAINTENANCE. |
| (5) INCLUDES QUANTITIES FOR USE AS SILT FENCE TYPE SUPER DUTY. SEE DETAILS ON SHEETS 1215 AND 1216. | (12) NOT USED. | (19) STRAW COCONUT BLANKET (CATEGORY 4). INCLUDES MAINTENANCE. |
| (6) TO BE USED AT BRIDGE ABUTMENT CORNERS. SEE DETAIL ON SHEET NO. 1218. | (13) SEE DETAILS ON SHEET NO. 1217. | (20) APPLIED AT A RATE OF 200 POUND/ACRE. |
| (7) SEE NOTE NO. 8 ON SHEET NO. 1222 FOR USE. | (14) SEE SHEETS 1211, 1212, AND 1214 FOR DETAILS OF SUGGESTED TYPES AND SHEETS 1224 THRU 1385 FOR PLANS OF SUGGESTED TYPES. | (21) APPLIED AT A RATE OF 2500 POUND/ACRE. |

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PERMANENT EROSION CONTROL AND TURF ESTABLISHMENT O													
PLAN SHEET STATION RANGE	SEEDING ACRE	SEED MIXTURE 250 (1)	SEED MIXTURE 260 (2)	SEED MIXTURE 310 (3)	SEED MIXTURE 350 (4)	MULCH MATERIAL TYPE 1 (5)	MULCH MATERIAL TYPE 9 CU YD	DISK ANCHOR ACRE	EROSION CONTROL BLANKET CAT. 1 (6) (9)	EROSION CONTROL BLANKET CAT. 3 (7) (9)	EROSION CONTROL BLANKET CAT. 4 (8) (9)	COMM. FERT. ANALYSIS 22-5-10 (10)	HYD. SOIL STABIL. TYPE 1 (11)
		POUND	POUND	POUND	POUND	TON	ACRE	SQ YD	SQ YD	SQ YD	POUND	POUND	
SB35E STA. 861+50 TO STA. 876+50	1.5	53	55		16	1.9		1.0	1480		1161	524	49
SB35E STA. 876+50 TO STA. 891+50	1.8	96	44			3.3		1.7	504		178	653	67
SB35E STA. 891+50 TO NB35E STA. 804+50	2.1	94	70			4.0		2.0			348	752	142
NB35E STA. 804+50 TO STA. 817+50	2.7	112	111			5.3		2.6			501	1016	224
NB35E STA. 817+50 TO STA. 830+50	2.4	117	72			4.4		2.2			836	870	142
NB35E STA. 830+50 TO STA. 843+50	9.4	496	173	15	31	18.0		9.0		868	940	3278	344
NB35E STA. 843+50 TO STA. 856+50	9.4	503	155	14	40	17.5		8.8		841	2185	3266	313
NB35E STA. 856+50 TO STA. 869+50	4.0	233	71			7.6		3.8			1151	1444	141
NB35E STA. 869+50 TO STA. 882+50	4.6	217	56	11	71	8.1		4.1		671	2100	1504	114
NB35E STA. 882+50 TO STA. 895+50	4.3	236	95			8.3		4.2			728	1560	190
NB35E STA. 895+50 TO STA. 908+50	11.4	654	181	14	15	21.7		10.9		819	1897	4043	359
NB35E STA. 908+50 TO STA. 921+50	12.1	685	166	21	34	23.1	18	11.6		1228	1433	4221	332
NB35E STA. 921+50 TO STA. 936+50	8.2	349	90		194	14.8		7.4			3784	2563	180
NB35E STA. 936+50 TO STA. 951+50	3.8	167	99		32	7.2		3.5			921	1309	198
NB35E STA. 951+50 TO STA. 966+50	3.2	114	56	16	64	4.9		2.5	20	972	2354	992	112
EB694 STA. 974+00 TO STA. 980+50	0.5	27	14			1.0		0.5				191	27
EB694 STA. 980+50 TO STA. 993+50	2.6	143	49	5		4.8		2.4		289 (12)	505	919	98
EB694 STA. 993+50 TO STA. 1006+50	4.8	261	60	12	25	8.5		4.3		677	1833	1636	119
EB694 STA. 1006+50 TO STA. 1019+50	4.3	206	65		61	8.2		4.1			917	1432	129
EB694 STA. 1019+50 TO STA. 1032+50	8.0	427	98	22	51	15.2		7.6		1316	504	2705	195
694CON35 STA. 325+50 TO STA. 339+50	7.8	379	80	40	93	14.3		7.2		2356	860	2541	159
EB694 STA. 1099+22 TO STA. 1111+50	11.3	614	143	32	66	21.0		10.5	132	1861	2115	3867	280
EB694 STA. 1111+50 TO STA. 1125+50	9.7	516	139	42	32	17.6		8.8	384	2476	1557	3325	266
EB694 STA. 1125+50 TO STA. 1139+50	7.5	384	128	12	52	13.5		6.8		738	2876	2580	256
EB694 STA. 1139+50 TO STA. 1152+47	41.1	2795	118			82.1		41.0			184	14440	234
LABORE STA. 20+00 TO STA. 33+66	0.2	4	10			0.1		0.1	478			58	
JIGGS POND AND DRYWALL POND	1.8	43		85	12	1.5		0.8		4967	9	447	
BYPASS 26 STA. 53+00 TO STA. 62+00	0.4	15	14			0.7		0.4				129	26
TOTALS	180.9	9940	2412	341	889	338.6	18	169.8	2998	20079	31877	62265	4696

GENERAL NOTE:

- SEE SHEET NOS. 1386 THRU 1413 FOR PERMANENT EROSION CONTROL AND TURF ESTABLISHMENT PLAN LOCATIONS.

NOTES:

- (1) APPLIED AT A RATE OF 70 POUND/ACRE.
- (2) APPLIED AT A RATE OF 100 POUND/ACRE.
- (3) APPLIED AT A RATE OF 82 POUND/ACRE.
- (4) APPLIED AT A RATE OF 84.5 POUND/ACRE.
- (5) APPLIED AT A RATE OF 2 TON/ACRE.
- (6) STRAW BLANKET (CATEGORY 1).
- (7) STRAW BLANKET (CATEGORY 3).
- (8) STRAW COCONUT BLANKET (CATEGORY 4).
- (9) INCLUDES MAINTENANCE.
- (10) 22-5-10 80% W/N FERTILIZER APPLIED AT A RATE OF 350 POUND/ACRE FOR SEED MIXTURE 250; 400 POUND/ACRE FOR SEED MIXTURE 260; AND 200 POUND/ACRE FOR SEED MIXTURES 310 AND 350.
- (11) SHOULDER MULCH TACKING. APPLIED AT A RATE OF 200 POUND/ACRE.
- (12) ALL NATURAL NETTING AND STITCHING SHALL BE USED.

DRAWN BY: SFH
CHECKED BY: SJS

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.

SIGNATURE: *Matthew A. Wassman*
PRINTED NAME: MATTHEW A. WASSMAN
DATE: MAY 27 2005 LIC. NO. 26883



MINNESOTA DEPARTMENT OF TRANSPORTATION
STATE PROJECT NO. 6280-304 (T.H. 35E)



TABULATIONS
PERMANENT EROSION CONTROL AND TURF ESTABLISHMENT

SOILS AND CONSTRUCTION NOTES

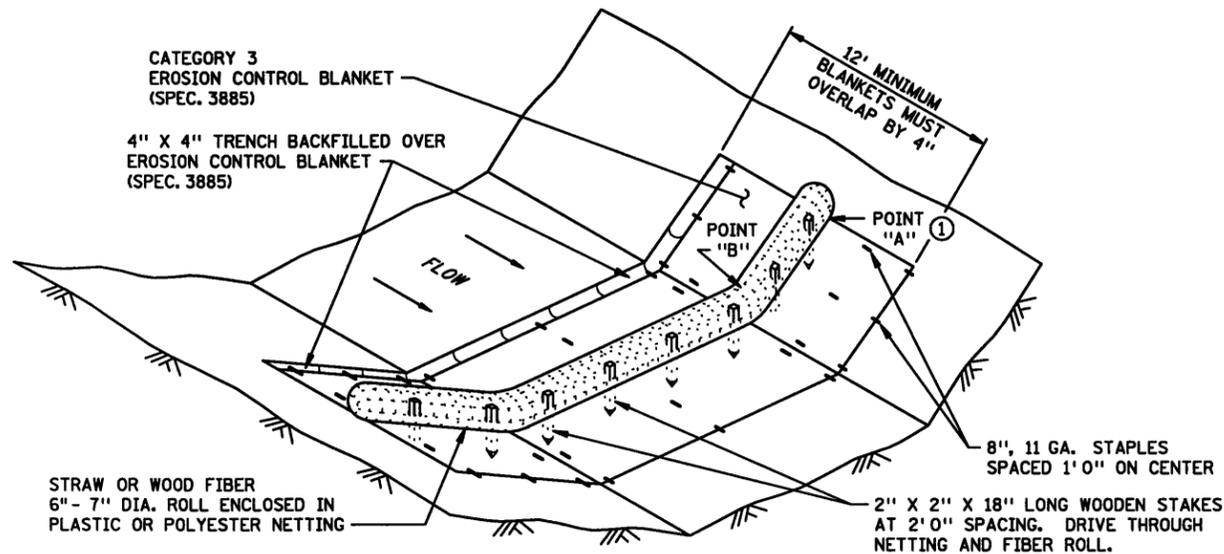
1. TOP OF THE GRADING GRADE IS HEREBY DEFINED AS THE TOP OF THE SELECT GRANULAR MODIFIED MATERIAL OR THE SELECT GRANULAR MATERIAL (SPEC. 3149.2B2) AS IS APPROPRIATE OR THE BOTTOM OF THE BITUMINOUS BASE OR AGGREGATE BASE.
2. UNSUITABLE MATERIALS ARE TOPSOILS, OTHER ORGANIC SOILS, SILT SOILS, CLAY LOAMS, AND DEBRIS.
3. SUITABLE MATERIALS SHALL BE ALL OTHER MINERAL SOILS ENCOUNTERED ON THE PROJECT OR FROM BORROW, NOT PREVIOUSLY DEFINED AS BEING UNSUITABLE, EXCEPT THAT ONLY SELECT GRANULAR MODIFIED/SELECT GRANULAR MATERIAL SHALL BE USED IN THE UPPER PORTION OF THE SUBGRADE.
4. GRANULAR MATERIAL SHALL MEET THE REQUIREMENTS OF SPEC. 3149.2B1.
5. SELECT GRANULAR MATERIAL SHALL MEET THE REQUIREMENTS OF SPEC. 3149.2B2.
6. SELECT GRANULAR MATERIAL (MODIFIED) SHALL MEET THE REQUIREMENTS OF SPEC. 3149.2B2 WITH THE ADDED REQUIREMENT, "IT MAY BE PIT-RUN OR CRUSHER-RUN MATERIAL THAT IS SO GRADED FROM COARSE TO FINE THAT, OF THE MATERIAL PASSING THE #10 SIEVE, NO MORE THAN 65 PERCENT SHALL PASS THE #40 SIEVE, AND NO MORE THAN 10 PERCENT SHALL PASS THE #200 SIEVE".
7. STRIP SOD AND TOPSOIL FROM AREAS TO BE DISTURBED BY CONSTRUCTION AND, IF PRACTICAL, STOCKPILE FOR REPLACEMENT LATER AS SLOPE DRESSING. FOR ESTIMATING PURPOSES, THE DEPTH OF TOPSOIL AVAILABLE IS CONSIDERED TO BE 3" DEEP. TOPSOIL SHALL NOT BE REMOVED OFF THIS PROJECT. THE MOVEMENT AND RE-USE OF TOPSOIL FROM AREAS INFECTED WITH PROHIBITED NOXIOUS WEEDS SHALL BE LIMITED TO WITHIN 0.25 MILES OF THE EXISTING INPLACE WEED LOCATIONS. THE TOPSOIL FROM WEED INFESTED AREAS SHALL BE PLACED ON THE INSLOPE OF THE FINISHED GRADE WITHIN THE 0.25 MILE LIMIT OF ORIGIN.
8. IN FILL SECTIONS, TOPSOIL AND OTHER UNSUITABLE MATERIALS SHALL NOT BE PLACED IN THE UPPER 4.0' OF THE "GRADING GRADE".
9. PROVIDE FOR THE REMOVAL AND DISPOSAL, OUTSIDE THE RIGHT-OF-WAY, OF ANY INPLACE SURFACING OR OTHER STRUCTURES THAT WOULD INTERFERE WITH CONSTRUCTION. ALL SUCH MATERIALS SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL EITHER BE RECYCLED TO THE EXTENT ALLOWED OR DISPOSED OF OFF THE RIGHT-OF-WAY. PROVIDE FOR SAW CUTTING AS SHOWN IN THE PLANS OR AS DIRECTED BY THE ENGINEER.
10. PROVIDE FOR 4 FEET SUBGRADE CORRECTION AND SUBCUT FOR UNIFORMITY AND COMPACTION. IN ANY NEW EMBANKMENT CONSTRUCTION, THE UPPER 4' OF THE GRADING SUBGRADE SHALL BE CONSTRUCTED WITH SELECT GRANULAR MATERIAL OF WHICH THE UPPER 1' SHALL BE SELECT GRANULAR MATERIAL (MODIFIED). FOR TEMPORARY BYPASS EMBANKMENT SECTIONS, THE UPPER 4' OF THE GRADING SUBGRADE SHALL BE CONSTRUCTED WITH SELECT GRANULAR MATERIAL. FOR LABORE EMBANKMENT SECTIONS, THE UPPER 2' OF THE GRADING SUBGRADE SHALL BE CONSTRUCTED WITH SELECT GRANULAR MATERIAL.
11. COMPACTION OF THE GRADING AND AGGREGATE ITEMS SHALL BE BY THE "SPECIFIED DENSITY" METHOD, EXCEPT THAT, IN AREAS WHERE CRUSHED CONCRETE OR SALVAGED ASPHALT IS USED FOR AGGREGATE BASE, COMPACTION OF THE AGGREGATE BASE LAYER SHALL BE BY THE "PENETRATION INDEX" METHOD.
12. COMPACTION OF GRADING AND AGGREGATE ITEMS ON THE BYPASSES AND OTHER TEMPORARY WORK SHALL BE BY THE "QUALITY COMPACTION" METHOD.
13. TEST ROLLING WILL BE REQUIRED. THE ENGINEER HAS THE RIGHT TO EXEMPT AREAS OF TEST ROLLING IN THE FIELD.
14. PROVIDE FOR A UNIFORM BITUMINOUS TACK COAT BETWEEN ALL COURSES. THE TACK COAT SHALL BE IN ACCORDANCE WITH MN/DOT SPECIFICATION 2357 WITH THE FOLLOWING MODIFICATIONS:
 - THE TACK COAT SHALL CONSIST OF EMULSIFIED ASPHALT (CSS-1 OR CSS-1H) AND BE APPLIED TO THE MILLED BITUMINOUS SURFACE AND BETWEEN COURSES ON ALL BITUMINOUS PAVEMENTS.
 - THE TACK COAT APPLIED TO THE MILLED BITUMINOUS SURFACE SHALL HAVE WATER ADDED AT A RATE OF 30 TO 40 PERCENT OF THE VOLUME OF THE EMULSION. THIS WATER SHALL BE EXCLUDED FROM THE PAY QUANTITIES. THE TACK COAT APPLIED BETWEEN COURSES SHALL BE UNDILUTED.
 - THE TACK COAT ON MILLED SURFACES SHALL BE APPLIED AT A UNIFORM RATE OF 0.07 TO 0.10 GALLONS PER SQUARE YARD PRIOR TO BEING OVERLAID. THIS APPLICATION RATE IS BASED ON UNDILUTED TACK MATERIAL. THE TACK COAT BETWEEN COURSES SHALL BE APPLIED AT A UNIFORM RATE OF 0.03 TO 0.05 GALLONS PER SQUARE YARD.
15. SLOPE DRESSING IS DEFINED AS THE TOPSOIL OR OTHER SOIL PLACED DURING PRIOR CONSTRUCTION TO PROVIDE A MEDIUM FOR ESTABLISHING TURF. IN ALL AREAS OF CONSTRUCTION, PROVIDE FOR A MINIMUM 6" OF SLOPE DRESSING.
16. LEAN MIX BACKFILL IS DEFINED AS A LEAN CEMENTITIOUS BACKFILL CONSISTING OF CEMENT, FLY ASH, FINE AGGREGATE AND COARSE AGGREGATE CAPABLE OF FORMING A SLURRY WALL OR COLUMN OF LOW PERMEABILITY AND HIGH SHEAR STRENGTH. IT MUST MEET THE REQUIREMENTS OF SPEC. 2520.
17. THE TOP OF BACKSLOPES AND TOE OF FILL SLOPES SHALL BE ROUNDED TO NATURALIZE THE CONSTRUCTION EVEN THOUGH THE CROSS SECTIONS DO NOT SHOW ANY SUCH ROUNDING.
18. THE CONSTRUCTION LIMITS AS SHOWN IN THE PLANS REPRESENT THE POINT OF INTERSECTION BETWEEN THE PROPOSED CUT OR FILL SLOPE AND THE EXISTING GROUND LINE AS DEPICTED ON THE CROSS SECTIONS. THE CONSTRUCTION LIMITS DO NOT INCLUDE AREAS REQUIRED FOR SLOPE ROUNDING.
19. TEMPORARY FENCE SHALL BE USED FOR TREE PROTECTION AND TO PREVENT ACCESS TO THE FREEWAY. IT MAY NOT BE LOCATED WITHIN ANY ROADWAY CLEAR ZONE, NOR MAY IT IMPEDE ANY DRAINAGE FLOWS. THE CONTRACTOR SHALL STAGE THE REMOVAL OF EXISTING CHAIN LINK FENCE AND THE INSTALLATION OF NEW CHAIN LINK FENCE AS DIRECTED BY THE ENGINEER.
20. HEAVY CONSTRUCTION EQUIPMENT SHALL BE PROHIBITED FROM WORKING DIRECTLY ON TOP OF BP AND MAGELLAN PIPELINES. HEAVY CONSTRUCTION EQUIPMENT SHALL BE DEFINED AS VEHICLES HAVING A GROSS WEIGHT IN EXCESS OF 80,000 POUNDS. FOR VEHICLES HAVING A GROSS WEIGHT OF 80,000 POUNDS OR LESS, THE PIPELINE MUST HAVE A MINIMUM OF 4 FEET OF COVER. FOR VEHICLES HAVING A GROSS WEIGHT OVER 80,000 POUNDS, THE CONTRACTOR MUST CONTACT THE PIPELINE COMPANY FOR ADDITIONAL REQUIREMENTS.
21. WHEREVER THE WORD "INCIDENTAL" IS USED IN THIS PLAN, IT MEANS NO DIRECT COMPENSATION WILL BE MADE.
22. THE CONTRACTOR IS HEREBY REMINDED OF HIS RESPONSIBILITY UNDER STATE LAW TO CONTACT ALL UTILITIES THAT MAY HAVE FACILITIES IN THE AREA. CONTACT MUST BE MADE THROUGH GOPHER STATE ONE-CALL.
23. GROUND WATER ELEVATIONS ARE PRESENTLY BEING MONITORED FOR THE PIEZOMETERS LISTED BELOW. GROUND WATER ELEVATIONS ENCOUNTERED DURING CONSTRUCTION MAY VARY SOMEWHAT DEPENDING ON SEASONAL AND ANNUAL RAINFALL VARIATIONS.

PIEZOMETER NUMBER	COORDINATE LOCATION	HIGH	LOW
T3P	X = 582894.3 Y = 190394.2	915.08 8/6/02	911.30 2/5/04
T4P	X = 583960.8 Y = 190023.5	917.52 8/6/02	914.00 2/5/04
T8P	X = 583363.6 Y = 189911.0	917.50 6/26/03	913.18 3/18/03
T9P	X = 582362.2 Y = 189873.4	915.58 8/6/02	911.80 2/5/04
T12P	X = 582719.5 Y = 190670.2	911.20 5/8/02	908.20 9/9/03
T14P	X = 583224.3 Y = 190572.2	916.62 8/6/02	912.20 2/5/04
T15P	X = 581593.2 Y = 189909.5	914.50 5/8/02	906.50 9/9/03
T204P	X = 582709.5 Y = 191070.4	914.00 4/28/05	911.90 2/5/04

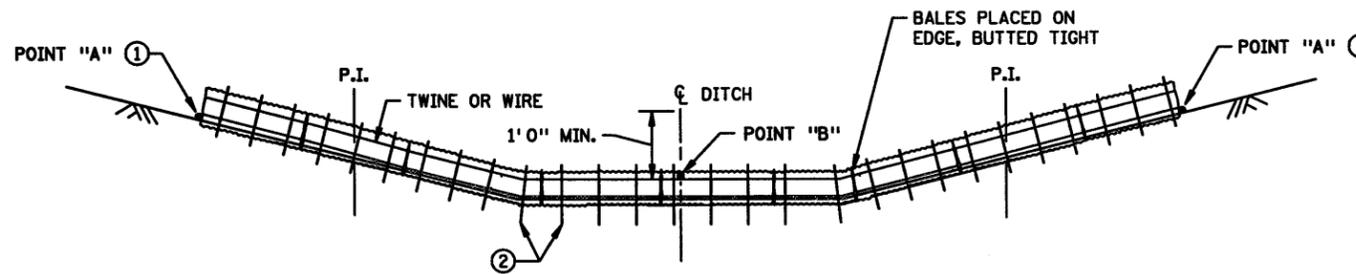
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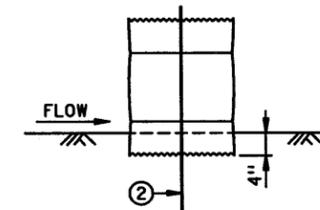
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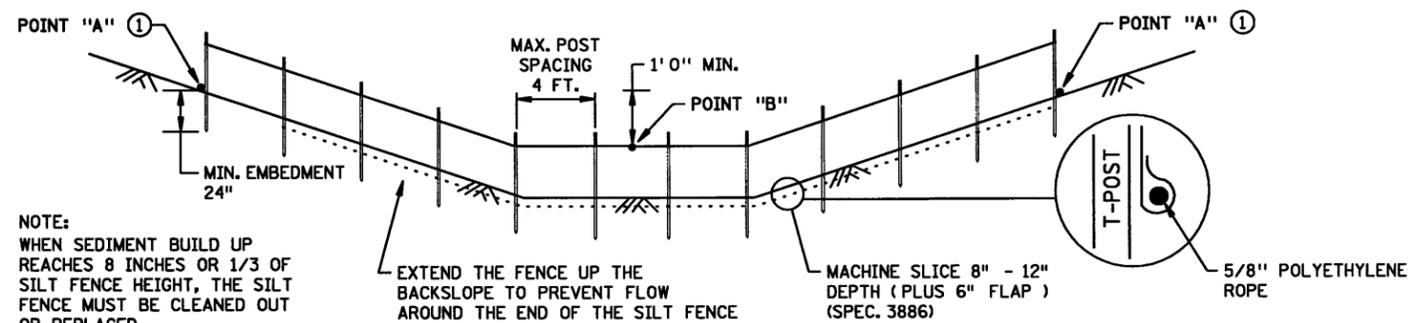
BIOROLL BLANKET SYSTEM
(TYPE 3 SPEC. 3889)



BALE DITCH CHECK
(USED ON ROUGH GRADED SOIL. REMOVE AFTER ROUGH GRADING IS COMPLETED. CAN BE USED AT WETLAND PERIMETERS ANYTIME)

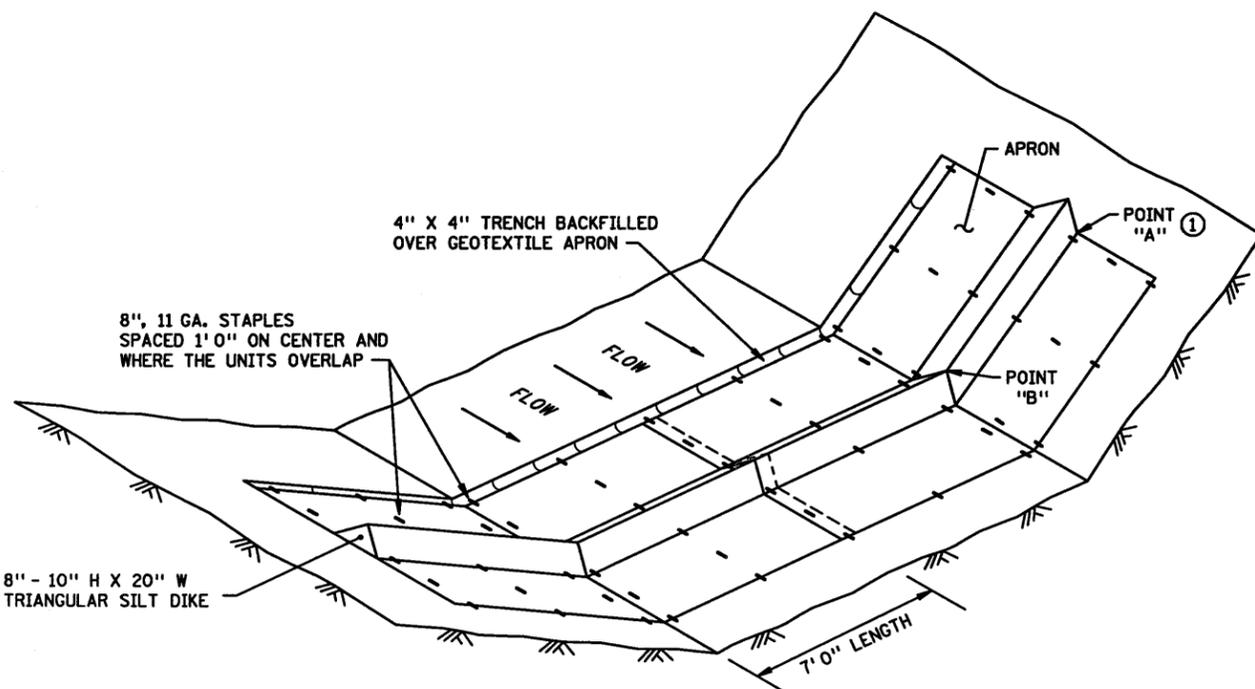


**EMBEDMENT METHOD
BALE CHECK DETAIL**

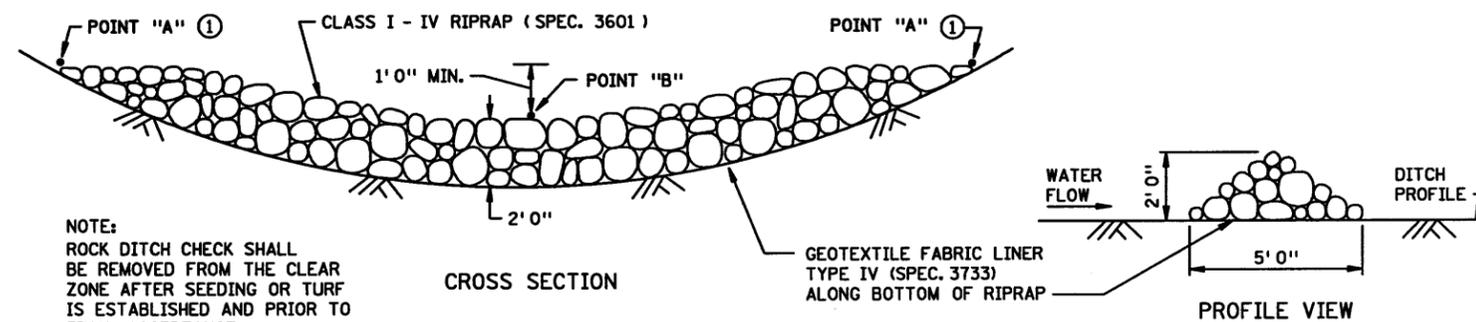


NOTE:
WHEN SEDIMENT BUILD UP REACHES 8 INCHES OR 1/3 OF SILT FENCE HEIGHT, THE SILT FENCE MUST BE CLEANED OUT OR REPLACED.

MACHINE SLICED SILT FENCE
(TYPE 1 SPEC. 3889)



GEOTEXTILE TRIANGULAR DIKE
(TYPE 6 SPEC. 3889)



NOTE:
ROCK DITCH CHECK SHALL BE REMOVED FROM THE CLEAR ZONE AFTER SEEDING OR TURF IS ESTABLISHED AND PRIOR TO FINAL ACCEPTANCE.

ROCK CHECK
(TYPE 7 SPEC. 3889)

NOTES:

SEE SPECS. 2573, 3882, 3885, 3886 & 3889.
SPACING BETWEEN EACH DITCH CHECK SHOULD BE DETERMINED FROM SPACING FORMULA:
SPACING OF DITCH CHECKS (FT) = $\frac{\text{HEIGHT OF DITCH CHECK (FT)} \times 100}{\text{DITCH GRADE IN PERCENT}}$

- ① POINT A MUST BE 1' 0" MIN. HIGHER THAN POINT B TO ENSURE THAT WATER FLOWS OVER THE DIKE AND NOT AROUND THE ENDS.
- ② TWO 2 IN. X 2 IN. WOOD STAKES OR REINFORCING BARS IN EACH BALE AND EMBEDDED IN THE GROUND 10 IN. MINIMUM.

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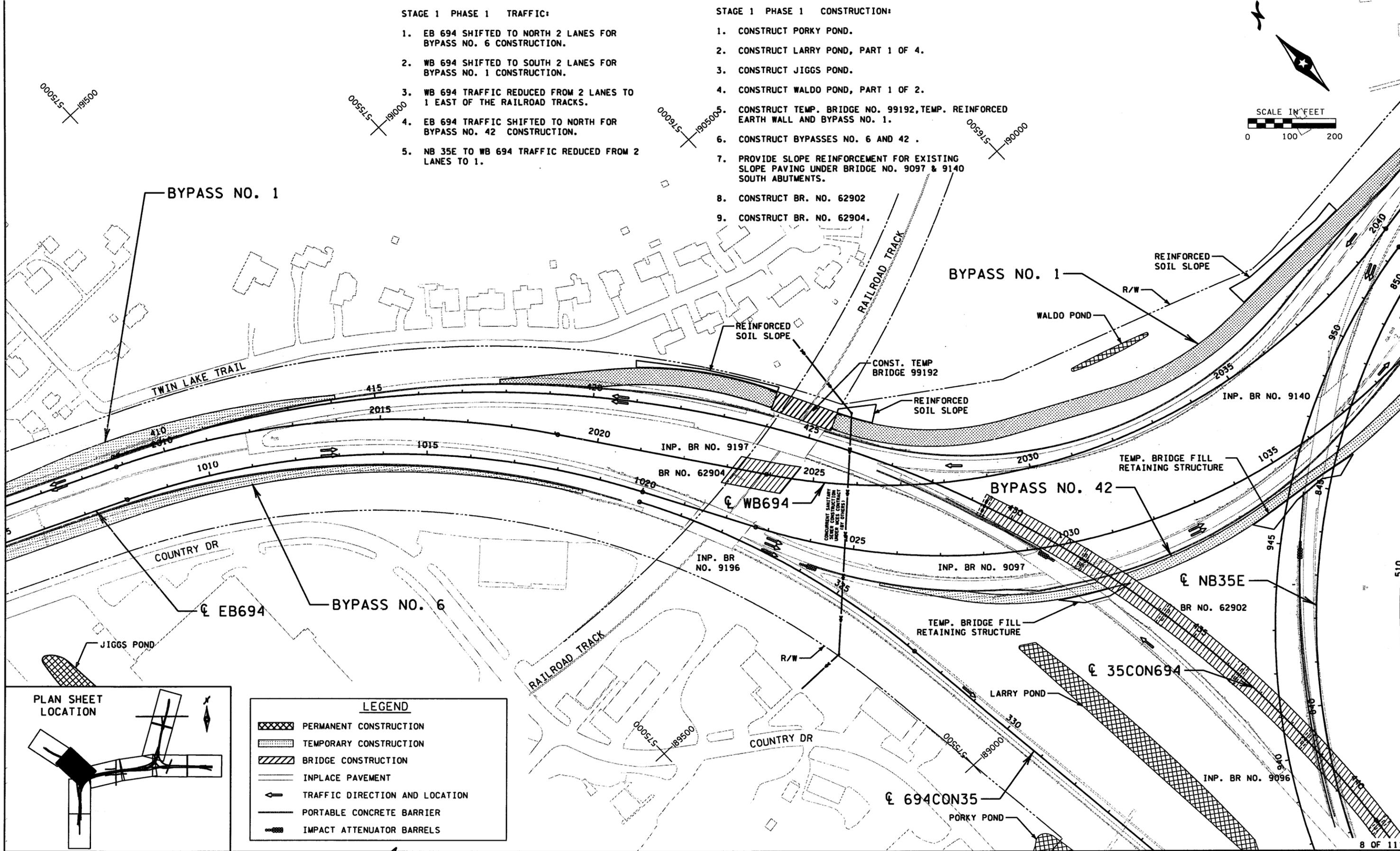
STANDARD SHEET NO. 5-297.405 (3 OF 4)	TITLE: TEMPORARY EROSION CONTROL DITCH CHECKS
STANDARD APPROVED: NOVEMBER 5, 2002	
STATE PROJ. NO. 6280-304 (T.H. 35E) SHEET NO. 185 OF 1992 SHEETS	

STAGE 1 PHASE 1 TRAFFIC:

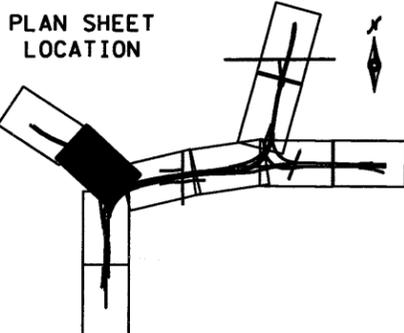
1. EB 694 SHIFTED TO NORTH 2 LANES FOR BYPASS NO. 6 CONSTRUCTION.
2. WB 694 SHIFTED TO SOUTH 2 LANES FOR BYPASS NO. 1 CONSTRUCTION.
3. WB 694 TRAFFIC REDUCED FROM 2 LANES TO 1 EAST OF THE RAILROAD TRACKS.
4. EB 694 TRAFFIC SHIFTED TO NORTH FOR BYPASS NO. 42 CONSTRUCTION.
5. NB 35E TO WB 694 TRAFFIC REDUCED FROM 2 LANES TO 1.

STAGE 1 PHASE 1 CONSTRUCTION:

1. CONSTRUCT PORKY POND.
2. CONSTRUCT LARRY POND, PART 1 OF 4.
3. CONSTRUCT JIGGS POND.
4. CONSTRUCT WALDO POND, PART 1 OF 2.
5. CONSTRUCT TEMP. BRIDGE NO. 99192, TEMP. REINFORCED EARTH WALL AND BYPASS NO. 1.
6. CONSTRUCT BYPASSES NO. 6 AND 42.
7. PROVIDE SLOPE REINFORCEMENT FOR EXISTING SLOPE PAVING UNDER BRIDGE NO. 9097 & 9140 SOUTH ABUTMENTS.
8. CONSTRUCT BR. NO. 62902
9. CONSTRUCT BR. NO. 62904.



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LEGEND	
	PERMANENT CONSTRUCTION
	TEMPORARY CONSTRUCTION
	BRIDGE CONSTRUCTION
	INPLACE PAVEMENT
	TRAFFIC DIRECTION AND LOCATION
	PORTABLE CONCRETE BARRIER
	IMPACT ATTENUATOR BARRELS

DRAWN BY: JTV
CHECKED BY: PJM

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.

SIGNATURE: *Avedis Toghramadjan*
PRINTED NAME: AVEDIS TOGHRAMADJIAN
DATE: MAY 27 2005 LIC. NO. 40917



MINNESOTA DEPARTMENT OF TRANSPORTATION
STATE PROJECT NO. 6280-304 (T.H. 35E)



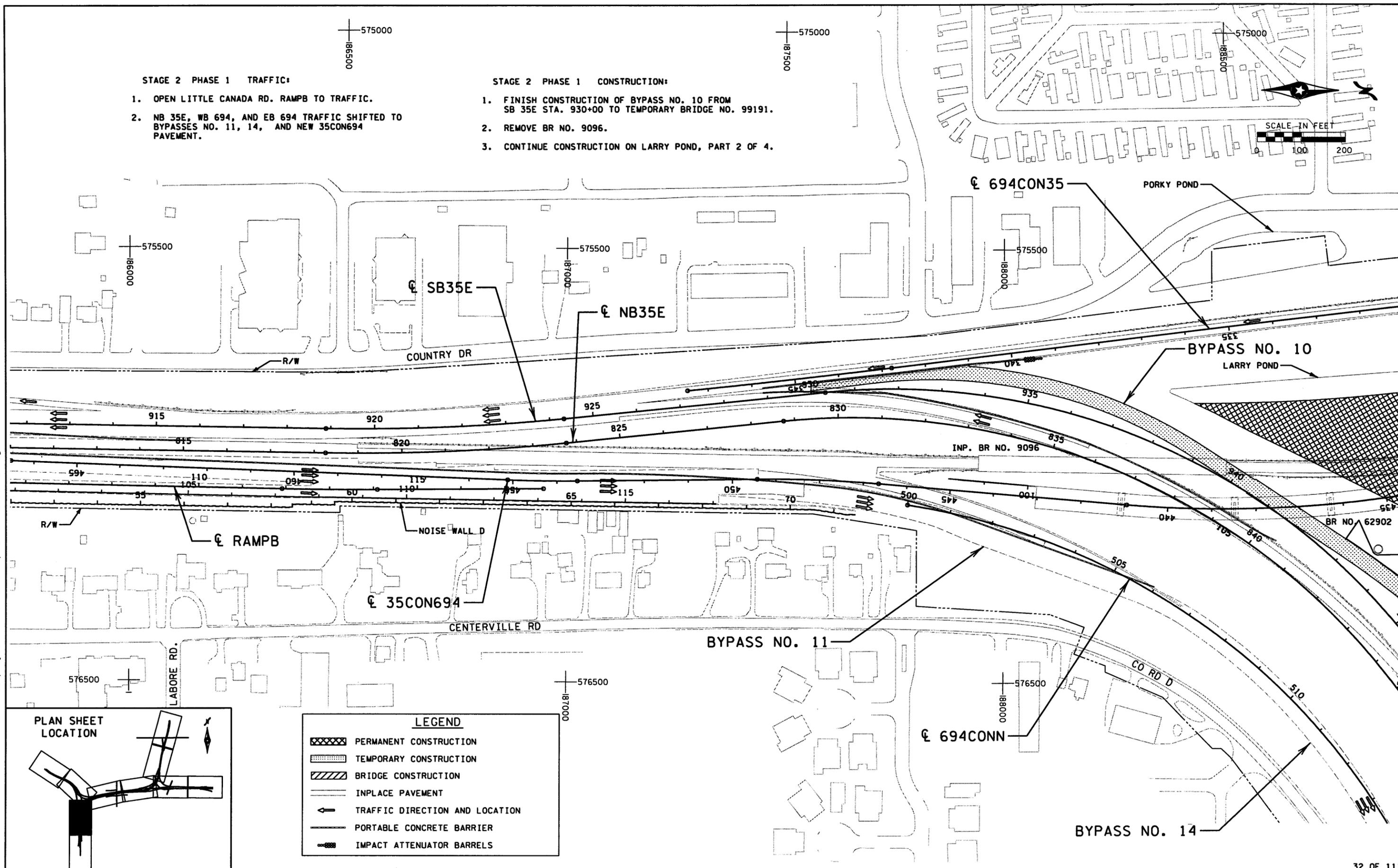
STAGING PLANS
STAGE 1 PHASE 1

STAGE 2 PHASE 1 TRAFFIC:

1. OPEN LITTLE CANADA RD. RAMPB TO TRAFFIC.
2. NB 35E, WB 694, AND EB 694 TRAFFIC SHIFTED TO BYPASSES NO. 11, 14, AND NEW 35CON694 PAVEMENT.

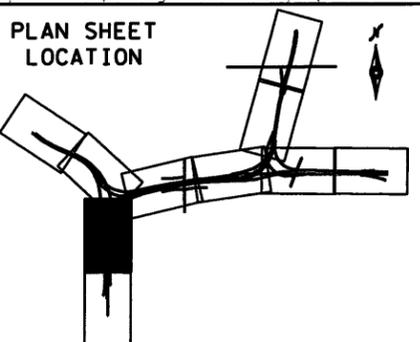
STAGE 2 PHASE 1 CONSTRUCTION:

1. FINISH CONSTRUCTION OF BYPASS NO. 10 FROM SB 35E STA. 930+00 TO TEMPORARY BRIDGE NO. 99191.
2. REMOVE BR NO. 9096.
3. CONTINUE CONSTRUCTION ON LARRY POND, PART 2 OF 4.



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PLAN SHEET LOCATION



LEGEND

- PERMANENT CONSTRUCTION
- TEMPORARY CONSTRUCTION
- BRIDGE CONSTRUCTION
- INPLACE PAVEMENT
- TRAFFIC DIRECTION AND LOCATION
- PORTABLE CONCRETE BARRIER
- IMPACT ATTENUATOR BARRELS

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STATE PROJECT NO. 6280-304 (T.H. 35E)



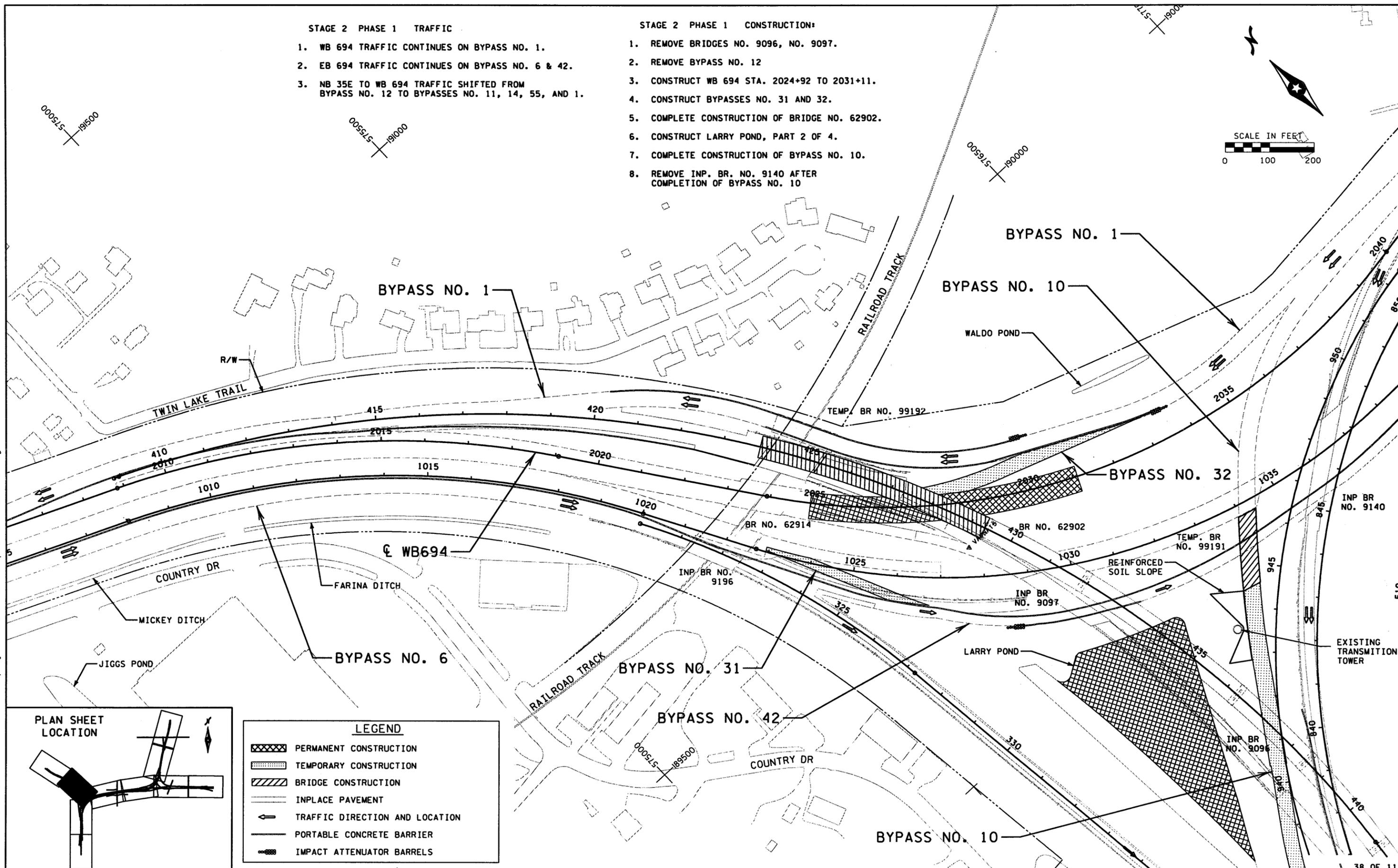
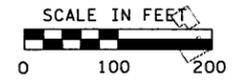
STAGING PLANS
STAGE 2 PHASE 1

STAGE 2 PHASE 1 TRAFFIC

1. WB 694 TRAFFIC CONTINUES ON BYPASS NO. 1.
2. EB 694 TRAFFIC CONTINUES ON BYPASS NO. 6 & 42.
3. NB 35E TO WB 694 TRAFFIC SHIFTED FROM BYPASS NO. 12 TO BYPASSES NO. 11, 14, 55, AND 1.

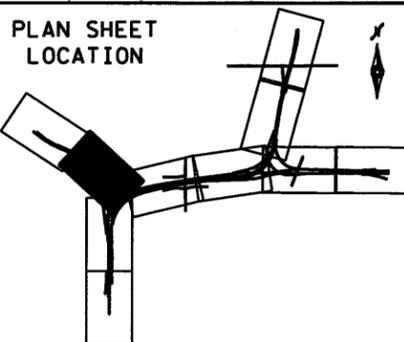
STAGE 2 PHASE 1 CONSTRUCTION:

1. REMOVE BRIDGES NO. 9096, NO. 9097.
2. REMOVE BYPASS NO. 12
3. CONSTRUCT WB 694 STA. 2024+92 TO 2031+11.
4. CONSTRUCT BYPASSES NO. 31 AND 32.
5. COMPLETE CONSTRUCTION OF BRIDGE NO. 62902.
6. CONSTRUCT LARRY POND, PART 2 OF 4.
7. COMPLETE CONSTRUCTION OF BYPASS NO. 10.
8. REMOVE INP. BR. NO. 9140 AFTER COMPLETION OF BYPASS NO. 10



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PLAN SHEET LOCATION



LEGEND

- PERMANENT CONSTRUCTION
- TEMPORARY CONSTRUCTION
- BRIDGE CONSTRUCTION
- INPLACE PAVEMENT
- TRAFFIC DIRECTION AND LOCATION
- PORTABLE CONCRETE BARRIER
- IMPACT ATTENUATOR BARRELS

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STATE PROJECT NO. 6280-304 (T.H. 35E)



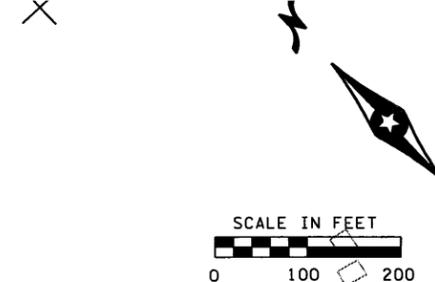
STAGING PLAN
STAGE 2 PHASE 1

STAGE 3 PHASE 2 TRAFFIC:

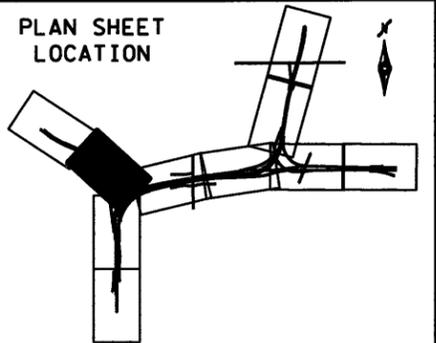
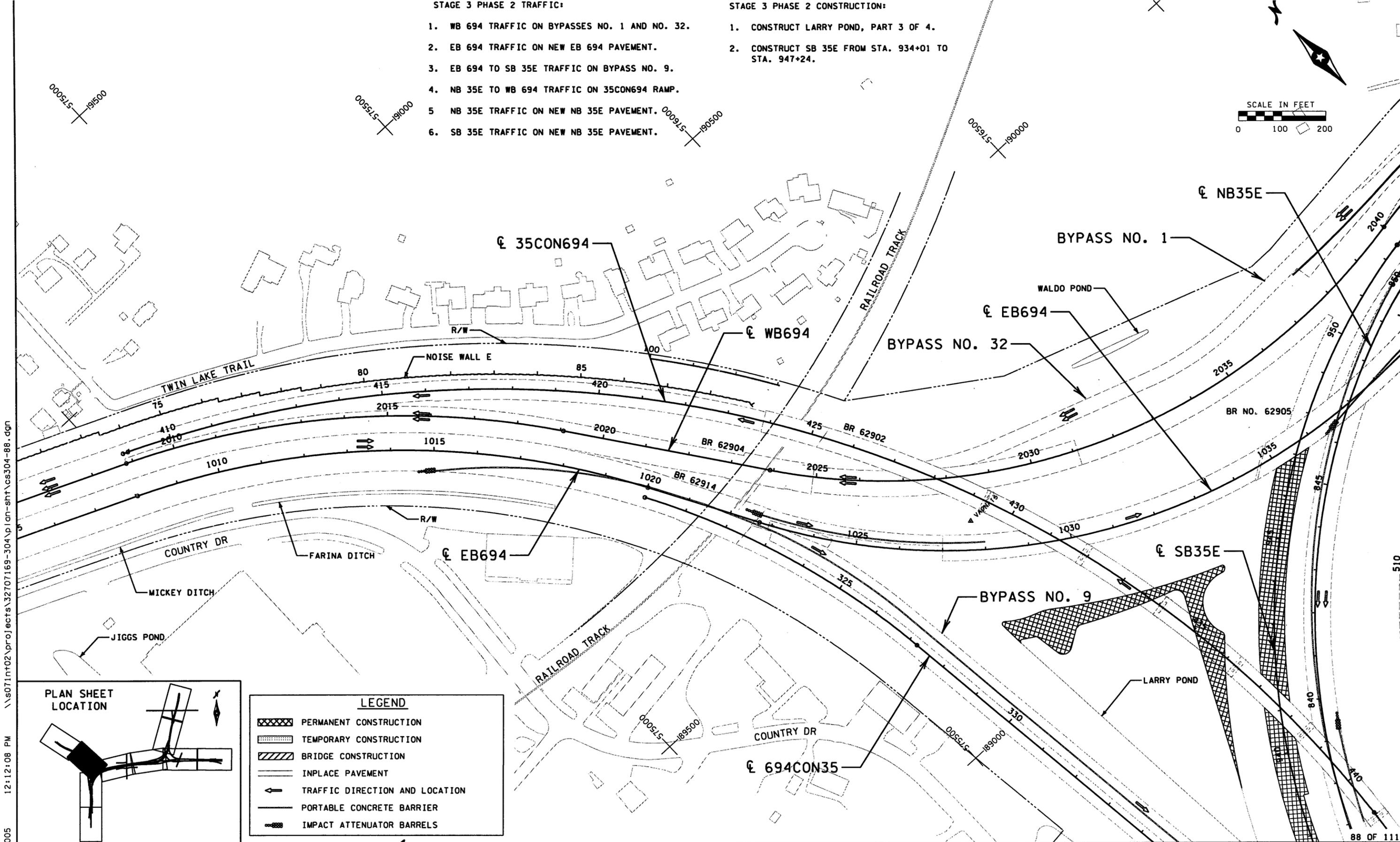
1. WB 694 TRAFFIC ON BYPASSES NO. 1 AND NO. 32.
2. EB 694 TRAFFIC ON NEW EB 694 PAVEMENT.
3. EB 694 TO SB 35E TRAFFIC ON BYPASS NO. 9.
4. NB 35E TO WB 694 TRAFFIC ON 35CON694 RAMP.
5. NB 35E TRAFFIC ON NEW NB 35E PAVEMENT.
6. SB 35E TRAFFIC ON NEW NB 35E PAVEMENT.

STAGE 3 PHASE 2 CONSTRUCTION:

1. CONSTRUCT LARRY POND, PART 3 OF 4.
2. CONSTRUCT SB 35E FROM STA. 934+01 TO STA. 947+24.



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LEGEND	
	PERMANENT CONSTRUCTION
	TEMPORARY CONSTRUCTION
	BRIDGE CONSTRUCTION
	INPLACE PAVEMENT
	TRAFFIC DIRECTION AND LOCATION
	PORTABLE CONCRETE BARRIER
	IMPACT ATTENUATOR BARRELS

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STATE PROJECT NO. 6280-304 (T.H. 35E)



STAGING PLANS
STAGE 3 PHASE 2

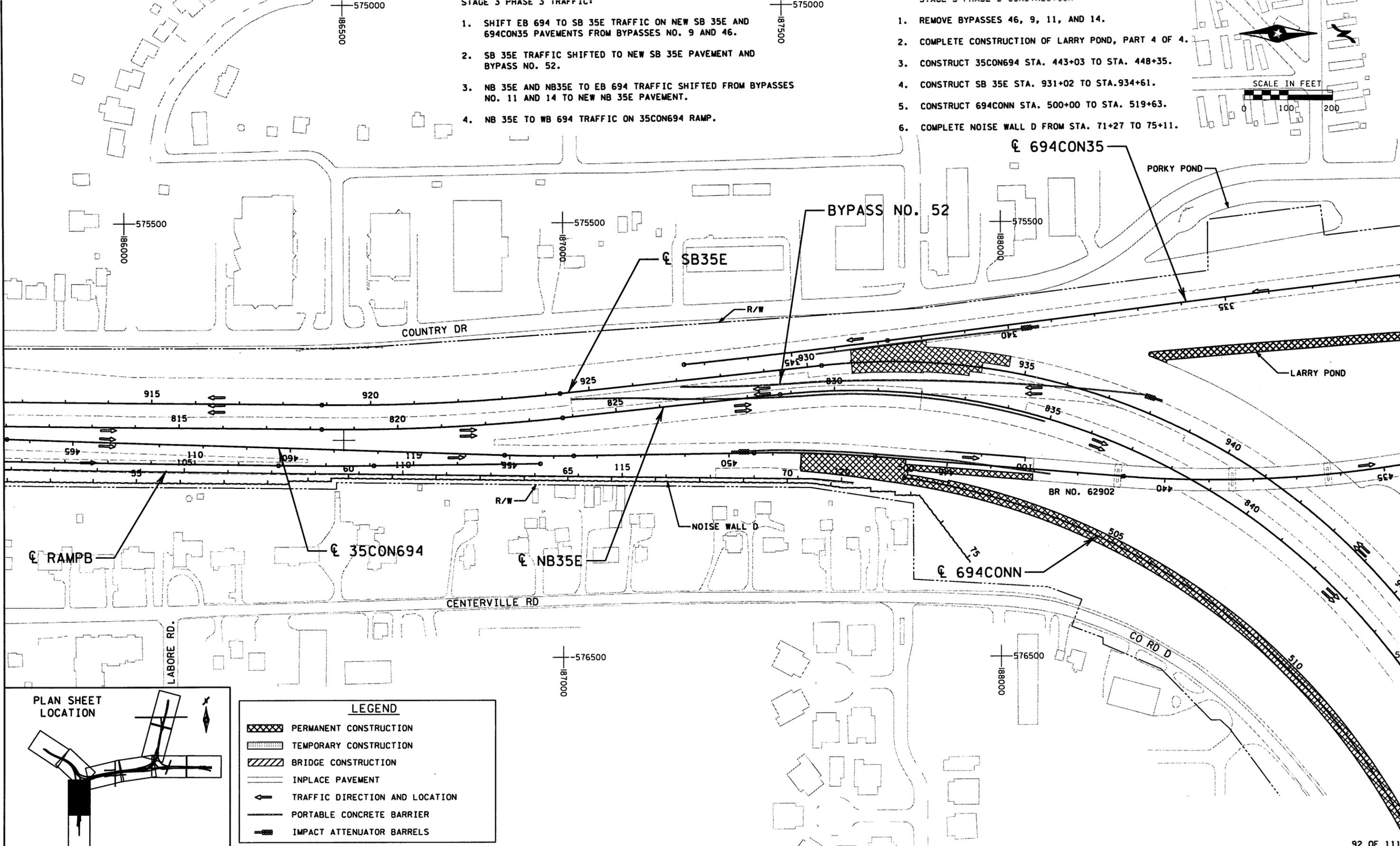
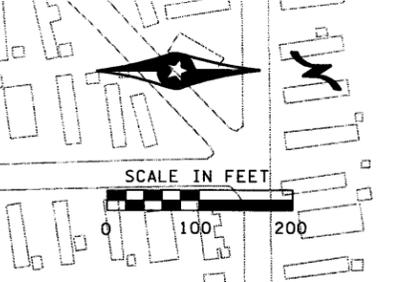
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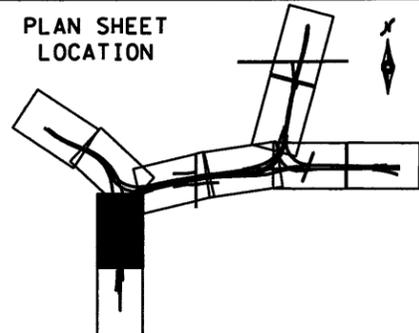
STAGE 3 PHASE 3 TRAFFIC

1. SHIFT EB 694 TO SB 35E TRAFFIC ON NEW SB 35E AND 694CON35 PAVEMENTS FROM BYPASSES NO. 9 AND 46.
2. SB 35E TRAFFIC SHIFTED TO NEW SB 35E PAVEMENT AND BYPASS NO. 52.
3. NB 35E AND NB35E TO EB 694 TRAFFIC SHIFTED FROM BYPASSES NO. 11 AND 14 TO NEW NB 35E PAVEMENT.
4. NB 35E TO WB 694 TRAFFIC ON 35CON694 RAMP.

1. REMOVE BYPASSES 46, 9, 11, AND 14.
2. COMPLETE CONSTRUCTION OF LARRY POND, PART 4 OF 4.
3. CONSTRUCT 35CON694 STA. 443+03 TO STA. 448+35.
4. CONSTRUCT SB 35E STA. 931+02 TO STA.934+61.
5. CONSTRUCT 694CONN STA. 500+00 TO STA. 519+63.
6. COMPLETE NOISE WALL D FROM STA. 71+27 TO 75+11.



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LEGEND	
	PERMANENT CONSTRUCTION
	TEMPORARY CONSTRUCTION
	BRIDGE CONSTRUCTION
	INPLACE PAVEMENT
	TRAFFIC DIRECTION AND LOCATION
	PORTABLE CONCRETE BARRIER
	IMPACT ATTENUATOR BARRELS

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DATE: MAY 27 2005 LIC. NO. 40917



MINNESOTA DEPARTMENT OF TRANSPORTATION
STATE PROJECT NO. 6280-304 (T.H. 35E)



STAGING PLANS
STAGE 3 PHASE 3

WATER RESOURCES NOTES

THE FOLLOWING NOTES ARE INTENDED TO PROVIDE INFORMATION ABOUT CRITICAL FEATURES AND ELEVATIONS FOR THE DRAINAGE ON THIS PROJECT. A CONTROL IS THE ELEVATION OF A PLACE OR FEATURE WHICH DETERMINES HOW HIGH OR LOW A STORM SEWER MUST OR CAN BE OR HOW HIGH THE WATER CAN GET IN A POND.

GENERALLY SPEAKING, STORM SEWERS, PONDS, AND DITCHES ARE LOCATED TO DIRECT THE WATER IN MUCH THE SAME DIRECTION AS IT WAS GOING PRIOR TO THIS PROJECT. CHANGING THE DIRECTION OF FLOW FROM WHAT IS SHOWN ON THE PLANS COULD HAVE ADVERSE AFFECTS OFF THE PROJECT CORRIDOR. CHANGES IN DIRECTION, STRUCTURE, ELEVATION, OR PIPE SIZE SHOULD BE REVIEWED WITH THE WATER RESOURCES ENGINEER.

1. THE STORM WATER MANAGEMENT SYSTEM DESCRIBED IN THESE NOTES HAS BEEN DESIGNED TO BE CONSISTENT WITH THE FOLLOWING PLANS:

- A. MPCA'S MANUAL "PROTECTING WATER QUALITY IN URBAN AREAS", MARCH 2000
- B. RAMSEY-WASHINGTON METRO WATERSHED DISTRICT WATERSHED MANAGEMENT PLAN, MAY 1997
- C. RAMSEY COUNTY EROSION AND SEDIMENT CONTROL HANDBOOK
- D. MINNESOTA URBAN SMALL SITES BMP MANUAL - STORMWATER BEST MANAGEMENT PRACTICES FOR COLD CLIMATES

2. THIS STORM WATER DRAINAGE PLAN CONSISTS OF THE FOLLOWING MAJOR STORM SEWER SYSTEMS:

SHEET NO.	OUTLET	LOCATION	REASON FOR LOCATION	CONTROL
1104	AP-5722	SOUTH LEG 35E, SOUTH OF LITTLE CANADA ROAD	ROUTE SPUD DITCH, CANABURY DRIVE DITCH & 35E RUNOFF TO CULVERT UNDER CANABURY DRIVE	EXISTING CANABURY DRIVE EAST DITCH
1106-1109, 1124	AP-5269	SOUTH LEG 35E (WEST SIDE)	ROUTE 35E, RAMP C AND RAMP A & COUNTRY DRIVE RUNOFF TO PORKY POND	PROFILE GRADE OF ROADWAY, SUBDRAINS & EXISTING STORM SEWER CONNECTIONS
1106-1109	AP-5704	SOUTH LEG 35E (MEDIAN)	ROUTE 35E RUNOFF TO LARRY POND	PROFILE GRADE OF ROADWAY & SUBDRAINS
1106-1109	AP-5277	SOUTH LEG 35E (EAST SIDE)	ROUTE 35E, RAMP B & BRIDGE 62902 RUNOFF TO LARRY POND	PROFILE GRADE OF ROADWAY & SUBDRAINS
1109-1112	AP-5245	35E/694 COMMONS (SOUTH SIDE)	ROUTE COUNTY DITCH 7B, 694 CONN DITCH, SOUTH EDGERTON STREET, LITTLE CANADA DRAINAGE, COUNTY ROAD D RUNOFF, EXISTING 74" RCP-A, BOUNCY DITCH & WOIM POND TO LARRY POND	EXISTING 74" RCP-A, COUNTY DITCH 7B 48" PIPE, STUB TO CITY, 10" PETRO PIPELINE & SUBDRAINS
1110-1113	AP-5132	35E/694 COMMONS (SOUTH SIDE & MEDIAN)	ROUTE 35E/694 COMMONS & BRIDGE 62905 RUNOFF TO WALDO POND	PROFILE GRADE OF ROADWAY, STAGING, 10" PETRO PIPELINE & SUBDRAINS
1110-1113	AP-5508	35E/694 COMMONS (NORTH SIDE)	ROUTE EXISTING CITY POND, 35E/694 COMMONS & NORTH EDGERTON STREET RUNOFF TO WALDO POND	EXISTING CITY POND NWL, EXISTING STORM SEWER CONNECTIONS & 10" PETRO PIPELINE
1114	AP-5321	EAST 35E/694 INTERCHANGE	ROUTE DARLA POND TO EXISTING CITY POND	CITY POND NWL
1113-1114	AP-5363	EAST 35E/694 INTERCHANGE	ROUTE WB694 & SB35E RUNOFF TO DITCH THAT DRAINS TO DARLA POND	SUBDRAINS & DITCH ELEVATION
1114-1115	AP-5838	EAST 35E/694 INTERCHANGE	ROUTE NB35E & BRIDGE 62907 RUNOFF TO DITCH THAT DRAINS TO DARLA POND	SUBDRAINS & DITCH ELEVATION
1114	AP-5362	EAST 35E/694 INTERCHANGE	ROUTE EB694 RUNOFF TO CURLY POND	SUBDRAINS & CURLY POND NWL
1115	AP-5675	EAST 35E/694 INTERCHANGE	ROUTE FROGGY DITCH, BRIDGE 62910 & SB35E RUNOFF TO DARLA POND	DITCH ELEVATION
1115	AP-5206	EAST 35E/694 INTERCHANGE	ROUTE NB35E & SB35E RUNOFF TO MOE DITCH	SUBDRAINS & DITCH ELEVATION
1116	AP-5691	NORTH LEG 35E	ROUTE NB35E & SB35E RUNOFF TO PETEY DITCH	SUBDRAINS & STAGING
1117-1118	AP-5664	NORTH LEG 35E	ROUTE SPANKY DITCH, SWRAMP, NB35E & SB35E RUNOFF TO ALFALFA POND	SUBDRAINS & ALFALFA NWL
1119-1120	AP-5639	WEST LEG 694	ROUTE EB694 & RICE RAMP RUNOFF TO EXISTING WETLAND	WETLAND NWL
1120-1121	AP-5604	WEST LEG 694	ROUTE EB694 & WB694 RUNOFF TO DITCH THAT DRAINS TO STYMIE POND	PROFILE GRADE OF ROADWAY
1121	AP-5153	WEST LEG 694	ROUTE STYMIE POND, EB694 & WB694 RUNOFF TO DITCH THAT DRAINS TO JIGGS POND	SUBDRAINS & EXISTING COUNTRY DRIVE STORM SEWER
1121-1122	AP-5157	WEST LEG 694	ROUTE EB694 & WB694 RUNOFF TO MICKEY DITCH	SUBDRAINS & DITCH ELEVATION
1120-1121	AP-5626	WEST LEG 694	ROUTE WEST VADNAIS LAKE WETLAND TO JIGGS POND	WEST VADNAIS LAKE WETLAND OHW
1122-1123	AP-5616	WEST LEG 694	ROUTE TWIN LAKE DRAINAGE, EB694, WB694, 35CON694, BRIDGES 62904 & 62902 RUNOFF TO FARINA DITCH	SUBDRAINS & CITY STUB
1123-1124	AP-5633	WEST INTERCHANGE	ROUTE 694CON35 & BRIDGE 62914 RUNOFF TO PORKY POND	SUBDRAINS
1125	AP-5808	EAST 35E/694 INTERCHANGE	ROUTE MOE DITCH, EB694 & WB694 RUNOFF TO CURLY POND	CURLY POND NWL
1125	AP-5312	EAST 35E/694 INTERCHANGE	ROUTE EB694, WB694 & BRIDGE 62908 RUNOFF TO CURLY POND	SUBDRAINS
1129	AP-5375	EAST LEG 694	ROUTE SOUTH LEG OF LABORE ROAD RUNOFF TO SHEMP POND	CITY STUB
1129	AP-5327	EAST LEG 694	ROUTE EB694/WB694 MEDIAN DITCH, EB694 & R35SE694 RUNOFF TO SHEMP POND	SUBDRAINS AND STAGING
1129	AP-5377	EAST LEG 694	ROUTE NORTH LEG OF LABORE ROAD RUNOFF TO DITCH THAT DRAINS TO MOE DITCH	DITCH ELEVATION
1126	AP-5811	EAST LEG 694	ROUTE WB694 RUNOFF TO DITCH THAT DRAINS TO CHUBBY POND	SUBDRAINS
1127	AP-5824	EAST LEG 694	ROUTE WB694/EB694 MEDIAN DITCH RUNOFF TO SHEMP POND	DITCH ELEVATION & STAGING
1128	AP-5817	EAST LEG 694	ROUTE SW61 RAMP RUNOFF TO DITCH THAT DRAINS TO WETLAND	SUBDRAINS

IF CHANGES ARE MADE IN THESE LOCATIONS OR IN THE CONTROL POINT ELEVATIONS, PLEASE CHECK WITH THE WATER RESOURCES ENGINEER. STORM SEWER OUTLETS ARE INTENDED TO BE AT THE DITCH BOTTOM OR AT THE POND OR CREEK NWL. WARP THE CONTOURS TO FIT THE APRON TO THE DITCH BOTTOM OR NWL.

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SIGNATURE: *Matthew A. Wassman*
PRINTED NAME: MATTHEW A. WASSMAN
DATE: MAY 27 2005 LIC. NO. 26883

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MINNESOTA DEPARTMENT OF TRANSPORTATION
STATE PROJECT NO. 6280-304 (T.H. 35E)



WATER RESOURCES NOTES

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1992

WATER RESOURCES NOTES - CONTINUED

3. THIS STORM WATER DRAINAGE PLAN ALSO INCLUDES THE PONDING AREAS LISTED BELOW. IT HAS BEEN ANTICIPATED THAT IN CASE OF SEVERE FLOODING, THE PONDS WILL OVERFLOW AS DESCRIBED:

NAME	LOCATION	NWL	100-YR HIGH WATER LEVEL (HWL)	NWL CONTROL	FLOOD CONTROL (FC) WETLAND (W) AND/OR SEDIMENT (S)	OVERFLOW CONDITION	100-YR HWL CONTROLLED BY
STYMIE POND	WEST LEG 694 (NORTH SIDE)	885.5	888.7	DESIGN SPECIAL STRUCTURE - 5640	FC & S	OVERFLOW INTO STRUCTURE - 5640	WB694 SHOULDER P.I. ELEVATION 892
JIGGS POND	WEST LEG 694 (SOUTH SIDE)	873.5	876.4	DUAL 30" RCP CULVERTS	FC & S	RIPRAP SPILLWAY TO 60" CSP RAILROAD CULVERT	BERM ON SOUTH SIDE OF POND
MICKY DITCH	WEST LEG 694 (SOUTH SIDE)	DRY	891.7	24" RCP CULVERT	FC & S	RIPRAP SPILLWAY TO COUNTRY DRIVE STORM SEWER	COUNTRY DRIVE BERM
FARINA DITCH	WEST LEG 694 (SOUTH SIDE)	DRY	897.2	21" RCP CULVERT	FC & S	RIPRAP SPILLWAY TO MICKY DITCH	COUNTRY DRIVE BERM
WALDO POND	WEST 35E/694 INTERCHANGE (NORTH SIDE)	870.0	876.5	72" RCP CULVERT	FC & S	OVERTOP EXISTING BERM ON NORTH SIDE	EXISTING BERM ELEVATION 876.9 NORTH OF WALDO POND
LARRY POND	WEST 35E/694 INTERCHANGE (CENTER)	869.0	876.1	TRIPLE 60" RCP CULVERTS	FC & S	BACKFLOW THROUGH 72" CULVERT TO WALDO POND	EXISTING BERM ELEVATION 876.9 NORTH OF WALDO POND
PORKY POND	WEST 35E/694 INTERCHANGE (WEST SIDE)	868.3	875.3	EXISTING 36" CSP STORM SEWER	FC & S	72" RC PIPE CULVERT	COUNTRY DRIVE SHOULDER PI
SPUD DITCH	SOUTH LEG 35E (WEST SIDE)	DRY	905.0	15" RCP CULVERT	FC & S	DITCH BLOCK ELEVATION 905.0	35E SHOULDER PI ELEVATION 906
BOUNCY DITCH	35E/694 COMMONS (SOUTH SIDE)	DRY	901.4	54" RCP APRON INLET	FC & S	OVERTOP SOUTH SHOULDER EB694	EB694 SHOULDER PI ELEVATION 902.5
WOIM POND	35E/694 COMMONS (SOUTH SIDE)	898.0	904.6	DUAL 36" RCP CULVERTS	FC & S	RIPRAP EMERGENCY SPILLWAY TO BOUNCY DITCH	PROPERTY EAST SIDE OF POND
MOE DITCH	EAST INTERCHANGE (CENTER)	DRY	917.9	36" RCP CULVERT	FC & S	BACKFLOW THROUGH 36" CULVERT UNDER R694N35	EXISTING PARKING LOT NORTH EAST OF R694N35
CURLY POND	EAST INTERCHANGE (SOUTH SIDE)	914.5	916.7	EXISTING DUAL 18" CSP CULVERTS	FC & S	OVERTOP NATURAL GROUND ON SOUTH SIDE	EXISTING EERM ON SOUTH SIDE OF POND
DARLA POND	EAST INTERCHANGE (NORTH SIDE)	907.5	910.3	DESIGN SPECIAL STRUCTURE - 5329	FC & S	OVERFLOW INTO STRUCTURE - 5329	LOW POINT ON W694RAMP
FROGGY DITCH	NORTH LEG 35E (WEST SIDE)	DRY	911.4	18" RCP STORM SEWER	FC & S	OVERTOP BERM ON SOUTH SIDE OF POND	SHOULDER PI OF R35E694
PETEY DITCH	NORTH LEG 35E (WEST SIDE)	DRY	914.2	15" RCP CULVERT	FC & S	OVERTOP BERM ON SOUTH SIDE OF POND	SHOULDER PI OF SB35E
SPANKY DITCH	NORTH LEG 35E (WEST SIDE)	DRY	913.2	18" RCP STORM SEWER	FC & S	OVERTOP SHOULDER OF SB35E	SHOULDER PI OF SB35E
BUCKWHEAT DITCH	NORTH LEG 35E (EAST SIDE)	DRY	913.6	18" RCP STORM SEWER	FC & S	OVERTOP SHOULDER OF NB35E	SHOULDER PI OF NB35E
ALFALFA POND	NORTH LEG 35E (WEST SIDE)	907.0	910.3	DESIGN SPECIAL STRUCTURE - 5671	FC & S	OVERFLOW INTO STRUCTURE - 5671	SHOULDER PI OF SB35E
SHEMP POND	EAST LEG 694 (SOUTH SIDE)	903.5	907.3	DESIGN SPECIAL STRUCTURE - 5826	FC & S	OVERFLOW INTO STRUCTURE - 5826 & RIPRAP SPILLWAY TO CHUBBY POND	SHOULDER PI OF EB694
CHUBBY POND	EAST LEG 694 (SOUTH SIDE)	894.5	898.2	DESIGN SPECIAL STRUCTURE - 5839	FC & S	OVERFLOW INTO STRUCTURE - 5839 & RIPRAP SPILLWAY TO BUTCH DITCH	SHOULDER PI OF EB694
BUTCH DITCH	EAST LEG 694 (SOUTH SIDE)	DRY	890.2	24" RCP CULVERT	FC & S	RIPRAP SPILLWAY TO BREEZY POND	SHOULDER PI OF EB694
BREEZY POND	EAST LEG 694 (SOUTH SIDE)	883.0	887.4	DESIGN SPECIAL STRUCTURE - 5820	FC & S	OVERFLOW INTO STRUCTURE - 5820 & RIPRAP SPILLWAY TO DITCH	SHOULDER PI OF EB694

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STATE PROJECT NO. 6280-304 (T.H. 35E)



WATER RESOURCES NOTES

1102
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WATER RESOURCES NOTES - CONTINUED

4. THE FOLLOWING SPECIAL STRUCTURES ARE INCLUDED IN THESE DRAINAGE PLANS:

STRUCTURE	FUNCTION OF STRUCTURE	CONTROLLING FEATURE
DESIGN SPECIAL - 5640 (STYMIE POND)	SKIMMER FOR FLOATABLES MATERIALS, LIMIT RATE OF DISCHARGE FOR SEDIMENT CONTROL & EMERGENCY OVERFLOW FOR LARGER THAN 100-YEAR STORM EVENTS	SUBMERGED, 15" ADVERSE GRADE RC PIPE TO SKIM FLOATABLE MATERIALS 15" RC OUTLET PIPE TO CONTROL DISCHARGE RATE FOR SEDIMENT CONTROL & 54" DIAMETER WIER TO ALLOW OVERTOPPING FOR LARGER STORM EVENTS
DESIGN SPECIAL - 5820 (BREEZY POND)	SKIMMER FOR FLOATABLES MATERIALS, LIMIT RATE OF DISCHARGE FOR SEDIMENT CONTROL & EMERGENCY OVERFLOW FOR LARGER THAN 100-YEAR STORM EVENTS	SUBMERGED, 30" ADVERSE GRADE RC PIPE TO SKIM FLOATABLE MATERIALS 30" RC OUTLET PIPE TO CONTROL DISCHARGE RATE FOR SEDIMENT CONTROL & 54" DIAMETER WIER TO ALLOW OVERTOPPING FOR LARGER STORM EVENTS
DESIGN SPECIAL - 5839 (DARLA POND)	SKIMMER FOR FLOATABLES MATERIALS, LIMIT RATE OF DISCHARGE FOR SEDIMENT CONTROL & EMERGENCY OVERFLOW FOR LARGER THAN 100-YEAR STORM EVENTS	SUBMERGED, 18" ADVERSE GRADE RC PIPE TO SKIM FLOATABLE MATERIALS 18" RC OUTLET PIPE TO CONTROL DISCHARGE RATE FOR SEDIMENT CONTROL & 54" DIAMETER WIER TO ALLOW OVERTOPPING FOR LARGER STORM EVENTS
DESIGN SPECIAL - 5671 (ALFALFA POND) DESIGN SPECIAL - 5826 (SHEMP POND) DESIGN SPECIAL - 5839 (CHUBBY POND)	SKIMMER FOR FLOATABLES MATERIALS, LIMIT RATE OF DISCHARGE FOR SEDIMENT CONTROL & EMERGENCY OVERFLOW FOR LARGER THAN 100-YEAR STORM EVENTS	SUBMERGED, 24" ADVERSE GRADE RC PIPE TO SKIM FLOATABLE MATERIALS 24" RC OUTLET PIPE TO CONTROL DISCHARGE RATE FOR SEDIMENT CONTROL & 54" DIAMETER WIER TO ALLOW OVERTOPPING FOR LARGER STORM EVENTS

SEE SHEET NO. --- FOR DRAINAGE DESIGN SPECIAL 1 DETAILS.

5. FUTURE CONNECTIONS TO THESE STORM SEWER SYSTEMS ARE PLANNED AT THE FOLLOWING LOCATIONS:

STRUCTURE	DESCRIPTION	CONTROLLING FEATURE
STUB-5572 (35E/694 COMMONS SOUTH SIDE)	CITY OF LITTLE CANADA TO CONNECT FUTURE STORM SEWER TO THIS STUB	INVERT OF STUB-5572 (EL. 885.53) WAS SET AS LOW AS POSSIBLE LIMIT 10-YEAR CITY DISCHARGE TO 40 CFS, 100-YEAR DISCHARGE TO 73 CFS
STUB-5374 (LABORE ROAD)	CITY OF LITTLE CANADA TO CONNECT FUTURE STORM SEWER TO THIS STUB	INVERT OF STUB-5374 (EL. 906.29) WAS SET AS LOW AS POSSIBLE LIMIT 10-YEAR CITY DISCHARGE TO 21 CFS, 100-YEAR DISCHARGE TO 40 CFS

6. THE FOLLOWING CONSTRUCTION PERMITS APPLY:

- A. NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES-PHASE II) - MINNESOTA POLLUTION CONTROL AGENCY (MPCA)
- B. 404 PERMIT - CORPS OF ENGINEERS (COE)
- C. WETLAND CONSERVATION ACT
- D. RAMSEY-WASHINGTON METRO WATERSHED DISTRICT (RWMWD)
- E. MINNESOTA DEPARTMENT OF NATURAL RESOURCES (DNR)

PLEASE READ THE PERMIT APPLICATIONS AND THE PERMITS FOR ANY SPECIAL CONDITIONS.

7. CONTACT NAMES:

- MPCA - DUANE DUNCANSON (651) 296-7072
- COE - RAMSEY COUNTY TIM FELL (651) 290-5360
- COE - WASHINGTON COUNTY DAN SEEMAN (651) 290-5380
- RWMWD - TINA CARSTENS (651) 704-2089
- DNR - TRAVIS GERMUNDSON (651) 772-7910
- MN/DOT WATER RESOURCES - SCOTT CARLSTROM (651) 634-2415
- MN/DOT EROSION - DWAYNE STENLUND (612) 810-9409

8. ENVIRONMENTALLY SENSITIVE AREAS:

AREAS MARKED "ENVIRONMENTALLY SENSITIVE AREA" IN THIS PLAN ARE TO BE TREATED AS SUCH. BEST MANAGEMENT PRACTICES ARE TO BE USED FOR EROSION AND SEDIMENT CONTROL THROUGHOUT THE JOB SITE.

9. ALL STORMWATER PONDS UTILIZED DURING CONSTRUCTION SHALL BE CLEANED OF ALL SEDIMENTS AND SHALL BE SHAPED TO PLAN CONTOURS AT THE COMPLETION OF CONSTRUCTION.

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SIGNATURE: *Matthew A. Wassman*
PRINTED NAME: MATTHEW A. WASSMAN
DATE: MAY 27 2005 LIC. NO. 26883



MINNESOTA DEPARTMENT OF TRANSPORTATION
STATE PROJECT NO. 6280-304 (T.H. 35E)



WATER RESOURCES NOTES

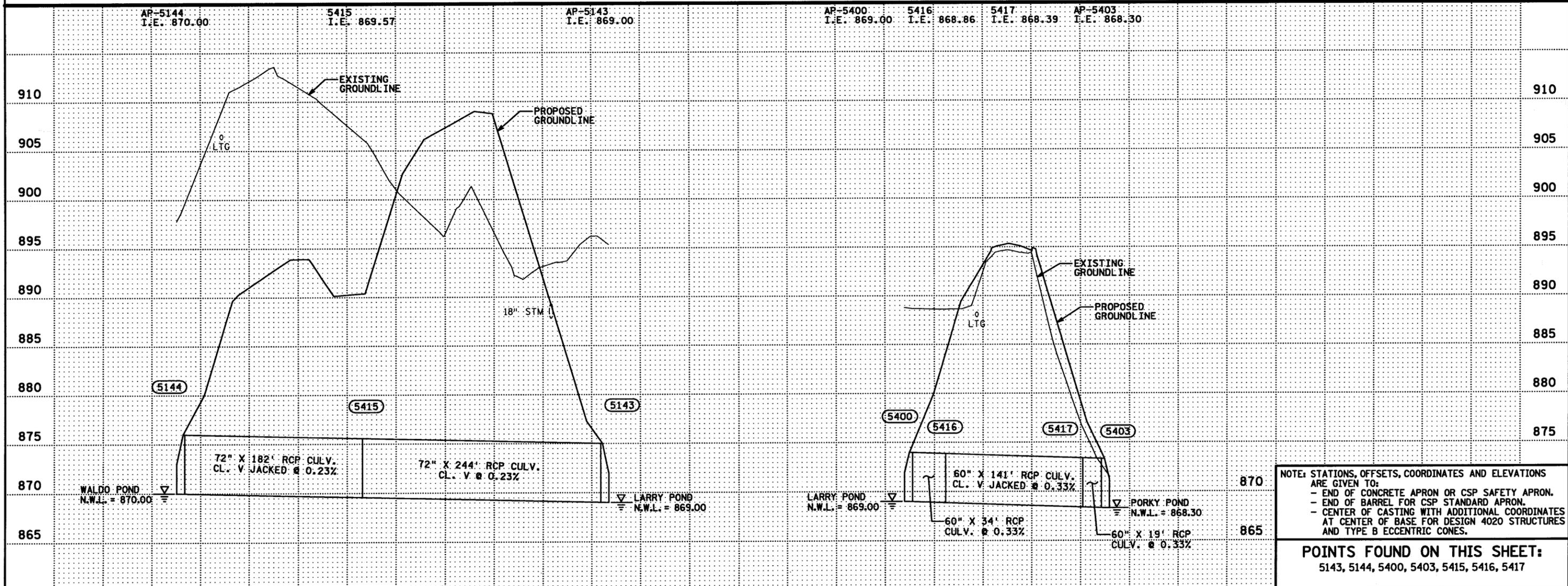
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DRAINAGE TABULATION (THIS SHEET ONLY)

UPSTREAM STRUC. OR APRON INLET POINT NO.	UPSTREAM STRUCTURE LOCATION					FLOWS TO STRUC. OR APRON OUTLET POINT NO.	NEW STRUCTURE CONSTRUCTION			PIPE CULVERT (K)				APRON		RIPRAP		GUIDE POST TYPE B	NOTES	
	ALIGNMENT	STATION	OFFSET	COORDINATES			F & I CASTING ASSEM. (J)	STEPS REQ'D (C)	PAY HEIGHT		60" RC DES 3006 CL II	60" RC DES 3006 CL V JACKED	72" RC DES 3006 CL V	72" RC DES 3006 CL V JACKED	60" RC	72" RC	CL II (D)			CL III (D)
				X	Y															
5144	WB694	2031+26.00	85.00' LT	576207.06	189436.48	5415	APRON					182						1	(F)(G)	
5415	WB694	2030+60.50	93.00' RT	578071.75	189303.54	5143					244								(F)(G)	
5143	EB694	1029+55.00	146.00' RT	575892.10	189126.20		APRON								1	11.8	11.2	1	(O)(Z)	
5400	694CON35	333+88.00	107.00' LT	575788.12	188637.04	5416	APRON			34				1					(F)(G)	
5416	694CON35	333+88.00	65.00' LT	575726.45	188631.77	5417					141									
5417	694CON35	333+88.00	78.00' RT	575586.57	188614.07	5403				19									(F)(G)	
5403	694CON35	333+88.00	103.00' RT	575559.78	188610.68		APRON							1		9.1	10.1	1	(O)(Z)	
TOTALS											53	141	244	182	2	2	20.9	21.3	4	

NOTES:

- (C) IF STEPS REQUIRED, STRUCTURE TO INCLUDE MANHOLE STEPS 16" ON CENTER (CONSIDERED INCIDENTAL). SEE MN/DOT STANDARD PLATE 4180.
- (D) GRANULAR FILTER BLANKET OR GEOTEXTILE FILTER MATERIAL REQUIRED SHALL BE INCIDENTAL. SEE MN/DOT STANDARD PLATE 3133.
- (F) TIE ALL JOINTS. FURNISHING AND INSTALLING PIPE TIES CONSIDERED INCIDENTAL.
- (G) LENGTH GIVEN TO END OF BARREL (DOES NOT INCLUDE APRON LENGTH).
- (J) FOR CASTING ASSEMBLY SUMMARY, SEE SHEET NO. 1143.
- (K) CLASS "C" BEDDING FOR RC PIPE UNLESS OTHERWISE SPECIFIED. USE CLASS "B" BEDDING FOR RCP-ARCH, CP AND PVC PIPE.
- (O) EXTEND RIPRAP TO POND BOTTOM.
- (Z) SEE SHEET NO. 1205 FOR RIPRAP DETAILS.



NOTE: STATIONS, OFFSETS, COORDINATES AND ELEVATIONS ARE GIVEN TO:
 - END OF CONCRETE APRON OR CSP SAFETY APRON.
 - END OF BARREL FOR CSP STANDARD APRON.
 - CENTER OF CASTING WITH ADDITIONAL COORDINATES AT CENTER OF BASE FOR DESIGN 4020 STRUCTURES AND TYPE B ECCENTRIC CONES.

POINTS FOUND ON THIS SHEET:
 5143, 5144, 5400, 5403, 5415, 5416, 5417

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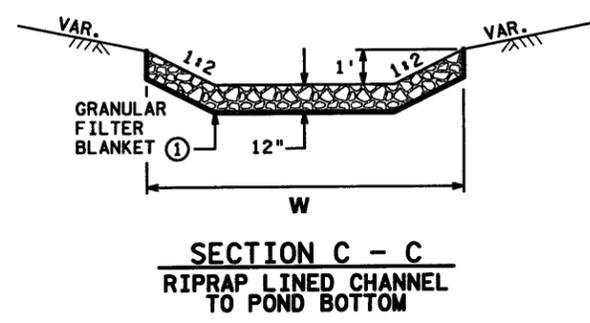
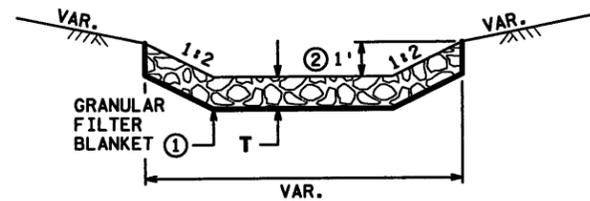
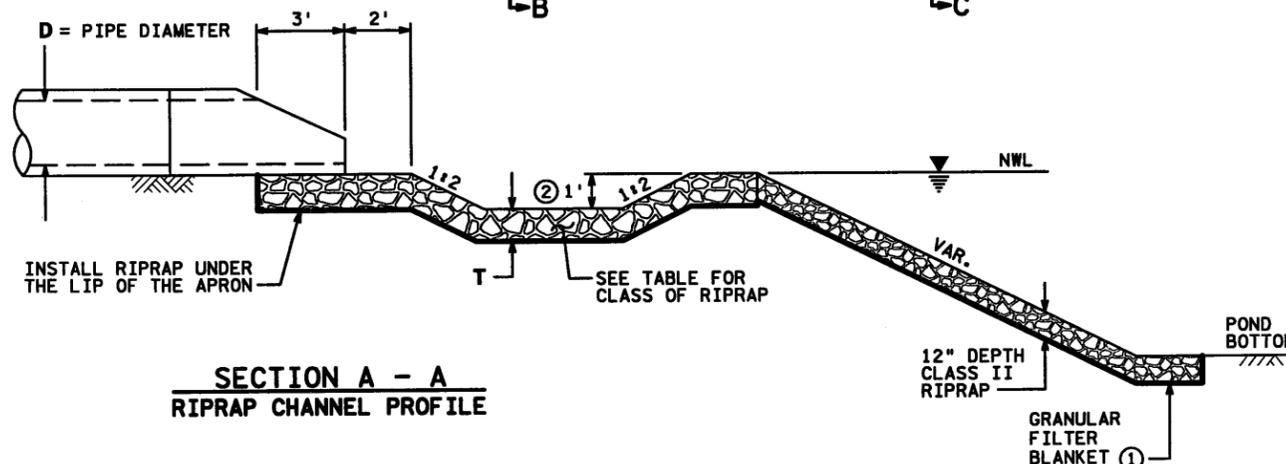
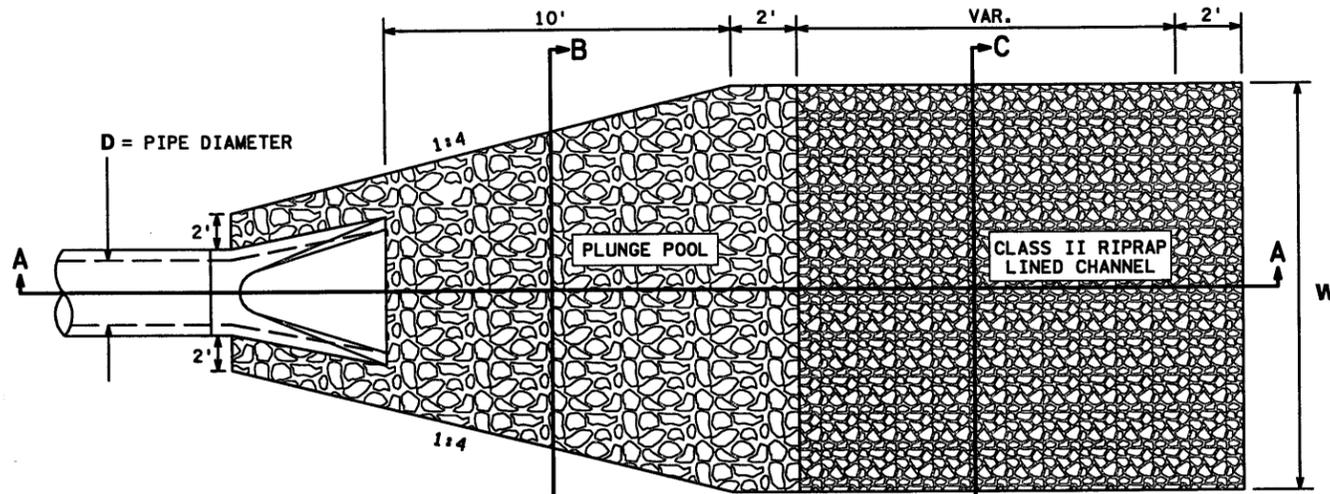
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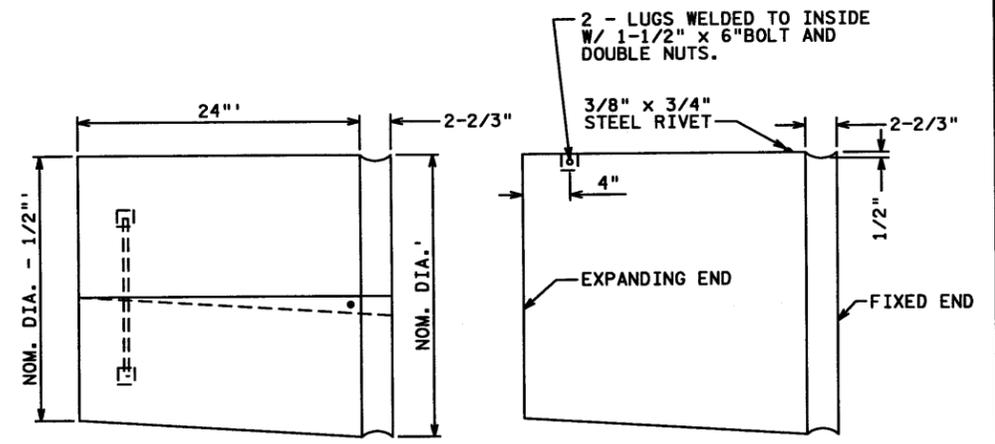


DRAINAGE PROFILES AND TABULATIONS
 EB694, WB694, 694CON35
 1178
 1992



- NOTES:**
- ALL GRADING REQUIRED FOR INSTALLATION OF RIPRAP CHANNEL SHALL BE CONSIDERED INCIDENTAL.
 - ① THE CONTRACTOR, AT HIS OPTION, MAY SUBSTITUTE A GEOTEXTILE FABRIC, SPEC. 3733, FOR THE GRANULAR FILTER BLANKET UNLESS OTHERWISE SPECIFIED IN THE PLANS. THE FABRIC SHOULD COVER THE AREA OF THE RIPRAP AND EXTEND UNDER THE CULVERT APRON 3 FT.
 - ② FOR PIPES GREATER THAN OR EQUAL TO 30", USE 1.5'. FOR PIPES GREATER THAN OR EQUAL TO 48", USE 2.0'.

APRON NUMBER	D IN	W FT	T FT	PLUNGE POOL RIPRAP CLASS
STYMIE POND				
5179	24	11.5	1.5	III
JIGGS POND				
5336	24	11.5	2	IV
WALDO POND				
5508	60	15.0	2	IV
LARRY POND				
5143	72	16.2	1.5	III
5523	27	11.8	1.5	III
5245	66	15.6	2	V
5277	36	12.7	1.5	III
5704	36	12.7	1.5	III
PORKY POND				
5633	15	10.6	1.5	III
5403	60	15.0	1.5	III
5404	60	15.0	1.5	III
5405	60	15.0	1.5	III
5269	36	12.7	1.5	III
WOIM POND				
5533	27	11.8	1.5	III
5531	48	13.8	2	IV
CURLY POND				
5362	15	10.6	1.5	III
5808	36	12.7	1.5	III
5312	18	10.9	1.5	III
5413	15	10.6	1	II
DARLA POND				
5836	36	12.7	2	IV
5318	15	10.6	1	II
5675	27	11.8	1	II
ALFALFA POND				
5207	27	11.8	1.5	III
5664	30	12.1	1.5	III
SHEMP POND				
5375	42	13.3	1.5	III
5327	21	11.2	1.5	III
5848	15	10.6	1	II
5847	15	10.6	1	II
CHUBBY POND				
5827	24	11.5	1.5	III
5840	15	10.6	1.5	III
5824	27	11.8	1.5	III
BREEZY POND				
5832	18	10.9	1.5	III
5813	30	12.1	1.5	III

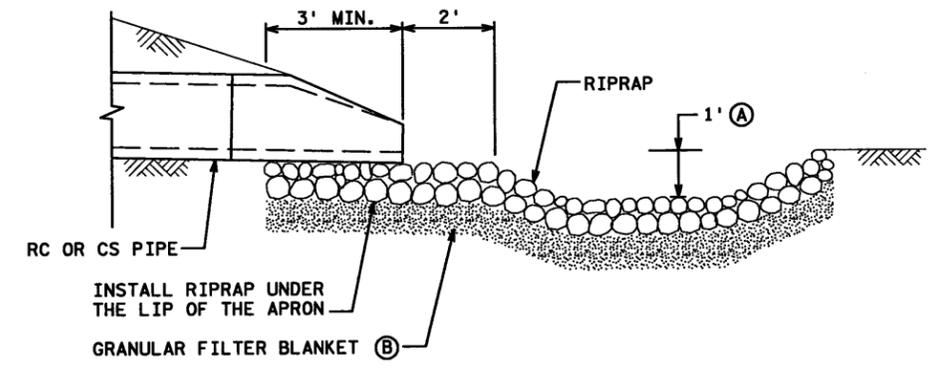


PLAN **PROFILE**

NOTES:

- END SECTION ATTACHES TO SLEEVE USING A TYPE 1 STRAP FOR PIPE SIZES THROUGH 24" OR A TYPE 2 THREADED ROD FOR LARGER SIZES.
- MASTIC MAY BE USED BETWEEN SMOOTH SLEEVE AND PIPE.
- METAL TO BE 12 GAGE SMOOTH GALVANIZED IN ACCORDANCE WITH AASHTO M218.

CONNECTION OF RC PIPE TO CS PIPE DETAIL



- NOTES:**
- RIPRAP MUST BE PLACED PRIOR TO APRON INSTALLATION.
 - Ⓐ FOR PIPES GREATER THAN OR EQUAL TO 30", USE 1.5'. FOR PIPES GREATER THAN OR EQUAL TO 48", USE 2.0'.
 - Ⓑ THE CONTRACTOR, AT HIS OPTION, MAY SUBSTITUTE A GEOTEXTILE FABRIC, SPEC. 3733, FOR THE GRANULAR FILTER BLANKET UNLESS OTHERWISE SPECIFIED IN THE PLANS. THE FABRIC SHOULD COVER THE AREA OF THE RIPRAP AND EXTEND UNDER THE CULVERT APRON 3 FT.

RIPRAP UNDER LIP OF APRON DETAIL

NOT TO SCALE

RIPRAP AT APRON OUTLET TO POND DETAIL

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SIGNATURE: *Matthew A. Wassman*
PRINTED NAME: MATTHEW A. WASSMAN
DATE: MAY 27 2005 LIC. NO. 26883



MINNESOTA DEPARTMENT OF TRANSPORTATION
STATE PROJECT NO. 6280-304 (T.H. 35E)



DRAINAGE DETAILS
MISCELLANEOUS DETAILS

1205
1992

LOCATION OF SWPPP REQUIREMENTS IN PROJECT PLAN

DESCRIPTION	TITLE	LOCATION
SUMMARY OF PERVIOUS AND IMPERVIOUS	PERMANENT EROSION CONTROL AND TURF ESTABLISHMENT PLANS	SHEET 1386
DIRECTION OF FLOW	DRAINAGE PLANS	SHEET 1104-1130
RECEIVING SURFACE WATERS	DRAINAGE PLANS	SHEET 1104-1130
STORM SEWER PLAN	DRAINAGE PLANS	SHEET 1104-1130
STORM SEWER PROFILES AND TABULATIONS	DRAINAGE PROFILES AND TABULATIONS	SHEET 1131-1202
STORM SEWER DETAILS	DRAINAGE DETAILS	SHEET 1203-1207
TEMPORARY EROSION CONTROL TABULATION	TABULATIONS	SHEET 44-48
TEMPORARY TURF ESTABLISHMENT TABULATION	TABULATIONS	SHEET 44-48
STAGE 1 PHASE 1 TEMPORARY EROSION CONTROL PLAN	TEMPORARY DRAINAGE, EROSION CONTROL, AND TURF ESTABLISHMENT PLANS	SHEET 1224-1244
	TEMPORARY DRAINAGE PROFILES AND TABULATIONS	SHEET 1245-1250
	TEMPORARY CONTOUR PLANS	SHEET 1251-1252
STAGE 1 PHASE 2 TEMPORARY EROSION CONTROL PLAN	TEMPORARY DRAINAGE, EROSION CONTROL, AND TURF ESTABLISHMENT PLANS	SHEET 1253-1264
	TEMPORARY DRAINAGE PROFILES AND TABULATIONS	SHEET 1265
STAGE 1 PHASE 3 TEMPORARY EROSION CONTROL PLAN	TEMPORARY DRAINAGE, EROSION CONTROL, AND TURF ESTABLISHMENT PLANS	SHEET 1266-1276
	TEMPORARY DRAINAGE PROFILES AND TABULATIONS	SHEET 1277
STAGE 2 PHASE 1 TEMPORARY EROSION CONTROL PLAN	TEMPORARY DRAINAGE, EROSION CONTROL, AND TURF ESTABLISHMENT PLANS	SHEET 1278-1293
	TEMPORARY DRAINAGE PROFILES AND TABULATIONS	SHEET 1294-1296
	TEMPORARY CONTOUR PLANS	SHEET 1297-1298
STAGE 2 PHASE 2 TEMPORARY EROSION CONTROL PLAN	TEMPORARY DRAINAGE, EROSION CONTROL, AND TURF ESTABLISHMENT PLANS	SHEET 1299-1317
	TEMPORARY DRAINAGE PROFILES AND TABULATIONS	SHEET 1318-1319
STAGE 2 PHASE 3 TEMPORARY EROSION CONTROL PLAN	TEMPORARY DRAINAGE, EROSION CONTROL, AND TURF ESTABLISHMENT PLANS	SHEET 1320-1328
	TEMPORARY DRAINAGE PROFILES AND TABULATIONS	SHEET 1329
STAGE 2 PHASE 4 TEMPORARY EROSION CONTROL PLAN	TEMPORARY DRAINAGE, EROSION CONTROL, AND TURF ESTABLISHMENT PLANS	SHEET 1330-1333
	TEMPORARY DRAINAGE PROFILES AND TABULATIONS	SHEET 1333A
STAGE 3 PHASE 1 TEMPORARY EROSION CONTROL PLAN	TEMPORARY DRAINAGE, EROSION CONTROL, AND TURF ESTABLISHMENT PLANS	SHEET 1334-1355
	TEMPORARY DRAINAGE PROFILES AND TABULATIONS	SHEET 1356
STAGE 3 PHASE 2 TEMPORARY EROSION CONTROL PLAN	TEMPORARY DRAINAGE, EROSION CONTROL, AND TURF ESTABLISHMENT PLANS	SHEET 1357-1368
	TEMPORARY DRAINAGE PROFILES AND TABULATIONS	SHEET 1369
STAGE 3 PHASE 3 TEMPORARY EROSION CONTROL PLAN	TEMPORARY DRAINAGE, EROSION CONTROL, AND TURF ESTABLISHMENT PLANS	SHEET 1370-1379
STAGE 3 PHASE 4 TEMPORARY EROSION CONTROL PLAN	TEMPORARY DRAINAGE, EROSION CONTROL, AND TURF ESTABLISHMENT PLANS	SHEET 1380-1385
PERMANENT EROSION CONTROL TABULATION	TABULATIONS	SHEET 49
PERMANENT TURF ESTABLISHMENT TABULATION	TABULATIONS	SHEET 49
PERMANENT EROSION CONTROL PLAN	PERMANENT EROSION CONTROL AND TURF ESTABLISHMENT PLANS	SHEET 1386-1413
FINAL STABILIZATION	PERMANENT EROSION CONTROL AND TURF ESTABLISHMENT PLANS	SHEET 1386-1413
EROSION CONTROL DETAILS	STANDARD PLANS	SHEET 182-186
	EROSION CONTROL NOTES AND DETAILS	SHEET 1211-1222
POND CONTOURS	CONTOUR PLANS	SHEET 1767-1787
POND LOCATIONS	DRAINAGE PLANS	SHEET 1104-1130
ENVIRONMENTAL PLAN	ENVIRONMENTAL PLAN SHEET	SHEET 1210

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MINNESOTA DEPARTMENT OF TRANSPORTATION
STATE PROJECT NO. 6280-304 (T.H. 35E)



EROSION CONTROL NOTES AND DETAILS
LOCATION OF SWPPP REQUIREMENTS IN PROJECT PLAN

1208
1992

STORM WATER POLLUTION PREVENTION PLAN (SWPPP) NARRATIVE

STORM WATER POLLUTION PREVENTION PLAN (SWPPP) NOTES

PROJECT DESCRIPTION/LOCATION

SP 6280-304 CONSISTS OF RECONSTRUCTING APPROXIMATELY 3.8 MILES OF I-35E AND 2.8 MILES OF I-694 INCLUDING THE CONSTRUCTION OF EIGHT PERMANENT BRIDGES AND TWO TEMPORARY BRIDGES, STORM SEWER, CULVERTS, AND STORM WATER PONDS. THIS PROJECT EXTENDS FROM LITTLE CANADA ROAD TO COUNTY ROAD E ON I-35E AND FROM RICE STREET TO TRUNK HIGHWAY 61 ON I-694. THE PROJECT IS LOCATED WITHIN THE CITIES OF VADNAIS HEIGHTS AND LITTLE CANADA WITHIN RAMSEY COUNTY. THE PROJECT IMPACTS 0.91 ACRES OF WETLAND. STORM WATER DISCHARGE RATES WILL BE DECREASED WITH THE CONSTRUCTION OF TWENTY-TWO STORM WATER PONDS. THE RECEIVING WATERS FOR STORM WATER INCLUDE KOHLMAN LAKE, GERVAIS LAKE, GERVAIS CREEK, WILLOW LAKE, AND SAVAGE LAKE.

PROJECT CONTACTS

THE PROJECT ENGINEER AND THE CONTRACTOR ARE RESPONSIBLE FOR IMPLEMENTATION OF THE SWPPP AND INSTALLATION, INSPECTION AND MAINTENANCE OF THE EROSION PREVENTION AND SEDIMENT CONTROL BMPs BEFORE AND DURING CONSTRUCTION. MN/DOT METRO DISTRICT STAFF AND MEMBERS OF MN/DOTS OFFICE OF ENVIRONMENTAL SERVICES ARE ALSO AVAILABLE FOR ASSISTANCE. MN/DOT METRO MAINTENANCE IS RESPONSIBLE FOR LONG TERM OPERATION AND MAINTENANCE OF THE PERMANENT STORM WATER MANAGEMENT SYSTEM.

THE MN/DOT PROJECT SUPERVISOR IS:

TOM KRIER
METRO DIVISION
3485 HADLEY AVENUE NORTH
OAKDALE, MN 55128
(651) 779-5037

MPCA 24-HOUR EMERGENCY NOTIFICATION: (651) 649-5451
(800) 422-0798

SITE MAPS

IN ADDITION TO WHAT IS LOCATED WITHIN THIS PLAN, EXISTING AND PROPOSED SITE MAPS HAVE BEEN CREATED AND ARE KEPT ON FILE WITH MN/DOT METRO WATER RESOURCES. THE SITE MAPS ARE ROLL MAPS THAT SHOW THE PROJECT LIMITS, ALIGNMENT, EXISTING AND PROPOSED CONTOURS, DRAINAGE AREAS, STORM SEWER LOCATIONS, FLOW ARROWS, AND IMPERVIOUS SURFACES. IMPAIRED WATERS AND WETLANDS ARE ALSO SHOWN.

ENVIRONMENTALLY SENSITIVE AREAS

ALL ENVIRONMENTALLY SENSITIVE AREAS, INCLUDING WETLANDS AND LAKES, ARE LABELED AS "ENVIRONMENTALLY SENSITIVE AREAS" IN THE PLANS.

OUTSTANDING RESOURCE VALUE WATERS

THERE ARE NO OUTSTANDING RESOURCE VALUE WATERS WITHIN THE PROJECT LIMITS.

CALCAREOUS FENS

THERE ARE NO CALCAREOUS FENS WITHIN THE PROJECT LIMITS.

TOTAL MAXIMUM DAILY LOAD (TMDL) WATERS

THERE ARE NO TMDL WATERS WITHIN THE PROJECT LIMITS. KOHLMAN LAKE AND GERVAIS LAKE ARE LISTED ON THE MPCA'S CWA 303D LIST OF IMPAIRED WATERS. THE POLLUTANT OR STRESSOR FOR KOHLMAN LAKE IS EXCESS NUTRIENTS AND THERE IS AN AQUATIC RECREATION ADVISORY. THE POLLUTANT OR STRESSOR FOR GERVAIS LAKE IS MERCURY AND THERE IS AN AQUATIC CONSUMPTION ADVISORY.

LAND FEATURE CHANGES

TOTAL PROJECT AREA DISTURBED: 268.9 ACRES
TOTAL EXISTING IMPERVIOUS SURFACE AREA: 86.0 ACRES
TOTAL EXISTING PERVIOUS SURFACE AREA: 182.9 ACRES
TOTAL PROPOSED IMPERVIOUS SURFACE AREA: 115.8 ACRES
TOTAL PROPOSED PERVIOUS SURFACE AREA: 153.1 ACRES

TIMING OF BMP INSTALLATION

THE EROSION PREVENTION AND SEDIMENT CONTROL BMPs SHALL BE INSTALLED AS NECESSARY TO MINIMIZE EROSION FROM DISTURBED SURFACES AND CAPTURE SEDIMENT ONSITE, AND SHALL MEET THE NPDES PERMIT PART IV CONSTRUCTION ACTIVITY REQUIREMENTS. TIMING OF THE POND CONSTRUCTION IS SHOWN ON SHEET NO. 1223.

DRAINAGE COMPUTATIONS

COMPUTATIONS ARE KEPT ON FILE WITH MN/DOT METRO WATER RESOURCES. CHANGES MADE IN THE FIELD SHOULD BE DISCUSSED WITH THE WATER RESOURCES ENGINEER AND NOTED IN THE CONTRACTOR'S CONSTRUCTION LOG.

CONSTRUCTION NOTES

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

1. THE CONTRACTOR MUST IDENTIFY AN EROSION CONTROL SUPERVISOR WHO SHALL BE KNOWLEDGEABLE AND EXPERIENCED IN THE APPLICATION OF EROSION PREVENTION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES (BMPs).
2. THE EROSION CONTROL SUPERVISOR WILL WORK WITH THE PROJECT ENGINEER TO OVERSEE THE IMPLEMENTATION OF THE SWPPP, AND THE INSTALLATION, INSPECTION, AND MAINTENANCE OF THE EROSION PREVENTION AND SEDIMENT CONTROL BMPs BEFORE AND DURING CONSTRUCTION.
3. THE CONTRACTOR SHALL DEVELOP A CHAIN OF RESPONSIBILITY WITH ALL OPERATORS ON THE SITE TO ENSURE THAT THE SWPPP WILL BE IMPLEMENTED AND STAY IN EFFECT UNTIL THE CONSTRUCTION PROJECT IS COMPLETE, THE ENTIRE SITE HAS UNDERGONE FINAL STABILIZATION, AND A NOTICE OF TERMINATION HAS BEEN SUBMITTED TO THE MPCA.
4. THE CONTRACTOR SHALL PREPARE AND SUBMIT A WRITTEN, NOT ORAL, WEEKLY SCHEDULE OF PROPOSED EROSION CONTROL ACTIVITIES FOR THE PROJECT ENGINEER'S APPROVAL AS PER MN/DOT SPEC. 1803.5G.
5. THE CONTRACTOR SHALL PREPARE AND SUBMIT A SITE PLAN FOR THE PROJECT ENGINEER'S APPROVAL AS PER MN/DOT SPEC. 1803.5I FOR PIPE JACKINGS, DEWATERING, AND AREAS SHOWN IN THE PLANS OR SPECIFIED BY THE PROJECT ENGINEER.
6. THE CONTRACTOR SHALL PROVIDE FOR TEMPORARY AND PERMANENT EROSION PREVENTION AND SEDIMENT CONTROL BMPs AS SHOWN IN THE PLANS AND THEY SHALL BE KEPT IN A FUNCTIONAL CONDITION AT ALL TIMES THROUGHOUT CONSTRUCTION. THESE MEASURES MAY BE MODIFIED AS APPROPRIATE FOR CONSTRUCTION STAGING AS DIRECTED BY THE EROSION CONTROL SUPERVISOR OR THE PROJECT ENGINEER. THE CONTRACTOR SHALL REMAIN IN COMPLIANCE WITH ALL NPDES AND OTHER PERMIT REQUIREMENTS AT ALL TIMES.
7. ALL EXPOSED SOIL AREAS WITH A CONTINUOUS POSITIVE SLOPE WITHIN 200 LINEAL FEET OF A SURFACE WATER MUST HAVE TEMPORARY OR PERMANENT COVER FOR THE EXPOSED SOIL AREAS YEAR ROUND, ACCORDING TO THE FOLLOWING TABLE OF SLOPES AND TIME FRAMES:

TYPE OF SLOPE	TIME *	* MAXIMUM TIME AN AREA CAN REMAIN OPEN WHEN THE AREA IS NOT ACTIVELY BEING WORKED.
STEEPER THAN 1:3	7 DAYS	
FROM 1:10 TO 1:3	14 DAYS	
FLATTER THAN 1:10	21 DAYS	

THESE AREAS INCLUDE CONSTRUCTED STORM WATER MANAGEMENT POND SIDE SLOPES, AND ANY EXPOSED SOIL AREAS WITH A POSITIVE SLOPE TO A STORM WATER CONVEYANCE SYSTEM, SUCH AS A CURB AND GUTTER SYSTEM, STORM SEWER INLET, TEMPORARY OR PERMANENT DRAINAGE DITCH, OR OTHER NATURAL OR MAN MADE SYSTEMS THAT DISCHARGE TO A SURFACE WATER. THESE AREAS MUST BE KEPT STABILIZED AT ALL TIMES.
8. ALL EXPOSED SOIL AREAS WILL BE STABILIZED PRIOR TO THE ONSET OF WINTER. ANY WORK STILL BEING PERFORMED WILL BE SNOW MULCHED OR SNOW BLANKETED AND SNOW SEEDED.
9. THE NORMAL WETTED PERIMETER OF ANY TEMPORARY OR PERMANENT DRAINAGE DITCH THAT DRAINS WATER FROM A CONSTRUCTION SITE, OR DIVERTS WATER AROUND A SITE, MUST BE STABILIZED WITHIN 200 LINEAL FEET FROM THE PROPERTY EDGE, OR FROM THE POINT OF DISCHARGE TO ANY SURFACE WATER. STABILIZATION MUST BE COMPLETED WITHIN 24 HOURS OF CONNECTING TO A SURFACE WATER. THESE AREAS MUST BE KEPT STABILIZED AT ALL TIMES.
10. PIPE OUTLETS MUST BE PROVIDED WITH TEMPORARY OR PERMANENT ENERGY DISSIPATION WITHIN 24 HOURS OF CONNECTION TO A SURFACE WATER.
11. SEDIMENT CONTROL DEVICES MUST BE ESTABLISHED ON ALL DOWN GRADIENT PERIMETERS BEFORE ANY UPGRADIENT LAND DISTURBING ACTIVITIES BEGIN. THESE DEVICES SHALL REMAIN IN PLACE UNTIL FINAL STABILIZATION HAS BEEN ESTABLISHED IN ACCORDANCE WITH PART IV.G OF THE NPDES PERMIT. THE TIMING OF THE INSTALLATION OF SEDIMENT CONTROL DEVICES MAY BE ADJUSTED TO ACCOMMODATE SHORT-TERM ACTIVITIES SUCH AS CLEARING AND GRUBBING, OR PASSAGE OF VEHICLES. ANY SHORT-TERM ACTIVITY MUST BE COMPLETED AS QUICKLY AS POSSIBLE AND THE SEDIMENT CONTROL DEVICES MUST BE INSTALLED IMMEDIATELY AFTER THE ACTIVITY IS COMPLETED. HOWEVER, SEDIMENT CONTROL DEVICES MUST BE INSTALLED BEFORE THE NEXT PRECIPITATION EVENT EVEN IF THE ACTIVITY IS NOT COMPLETE.

12. DEWATERING AND CONCRETE TRUCK WASHING RELATED TO THE CONSTRUCTION ACTIVITY THAT MAY HAVE TURBID OR SEDIMENT LADEN DISCHARGE WATER MUST BE DISCHARGED TO A TEMPORARY OR PERMANENT SEDIMENTATION BASIN ON THE PROJECT SITE WHENEVER POSSIBLE. IF THE WATER CANNOT BE DISCHARGED TO A SEDIMENTATION BASIN PRIOR TO ENTERING THE SURFACE WATER, IT MUST BE TREATED WITH THE APPROPRIATE BMPs, SUCH THAT THE DISCHARGE DOES NOT ADVERSELY AFFECT THE RECEIVING WATER DOWNSTREAM LANDOWNERS. THE CONTRACTOR MUST ENSURE THAT DISCHARGE POINTS ARE ADEQUATELY PROTECTED FROM EROSION AND SCOUR. THE DISCHARGE MUST BE DISPERSED OVER NATURAL ROCK RIPRAP, SAND BAGS, PLASTIC SHEETING OR OTHER ENERGY DISSIPATION MEASURES APPROVED BY THE EROSION CONTROL SUPERVISOR OR THE PROJECT ENGINEER. ADEQUATE SEDIMENTATION CONTROL MEASURES ARE REQUIRED FOR DISCHARGE WATER THAT CONTAINS SUSPENDED SOLIDS. SEE DEWATERING DETAILS ON SHEET NO. 1220.
13. ANY FUEL OR CHEMICAL TANK STORED ON THE PROJECT AREA MUST BE PROTECTED BY A SOIL BERM OR HAVE A NEGATIVE GRADIENT TO ANY WATER RESOURCE AREA. AS PER COE404, A CONTINGENCY PLAN MUST BE CREATED BY THE CONTRACTOR IN THE EVENT OF A SPILL OR LEAK OF ANY CHEMICAL, INCLUDING PETROCHEMICALS, DEEMED HARMFUL TO THE ENVIRONMENT, AND HAVE ON HAND THE MATERIALS NECESSARY TO CAPTURE AND CONTAIN SAID CHEMICALS.
14. THE CONTRACTOR WILL USE CONTINUOUS AND PROGRESSIVE SEEDING PROCESSES. DORMANT SEEDING WILL NOT ALLOW THE NOTICE OF TERMINATION TO BE FILED WITH THE MPCA UNTIL 70 PERCENT OF THE PERENNIAL VEGETATIVE COVER IS ACHIEVED.
15. THE EROSION CONTROL SUPERVISOR MUST ROUTINELY INSPECT THE ENTIRE CONSTRUCTION SITE ONCE EVERY SEVEN DAYS DURING ACTIVE CONSTRUCTION AND WITHIN 24 HOURS AFTER A RAINFALL EVENT GREATER THAN 0.5 INCHES IN 24 HOURS.
16. ALL INSPECTIONS AND MAINTENANCE CONDUCTED DURING CONSTRUCTION MUST BE RECORDED IN WRITING AND THESE RECORDS MUST BE RETAINED WITH THE SWPPP IN ACCORDANCE WITH PART III.D OF THE NPDES PERMIT.
17. WHERE PARTS OF THE CONSTRUCTION SITE HAVE UNDERGONE FINAL STABILIZATION, BUT WORK REMAINS ON OTHER PARTS OF THE SITE, INSPECTIONS OF THE STABILIZED AREAS MAY BE REDUCED TO ONCE PER MONTH. WHERE WORK HAS BEEN SUSPENDED DUE TO FROZEN GROUND CONDITIONS, THE REQUIRED INSPECTIONS AND MAINTENANCE MUST TAKE PLACE AS SOON AS RUNOFF OCCURS AT THE SITE OR PRIOR TO RESUMING CONSTRUCTION, WHICHEVER COMES FIRST.
18. ALL EROSION PREVENTION AND SEDIMENT CONTROL BMPs MUST BE INSPECTED BY THE CONTRACTOR TO ENSURE INTEGRITY AND EFFECTIVENESS. ALL NONFUNCTIONAL BMPs MUST BE REPAIRED, REPLACED, OR SUPPLEMENTED WITH FUNCTIONAL BMPs AS DIRECTED BY THE EROSION CONTROL SUPERVISOR OR THE PROJECT ENGINEER.
19. ALL SLOPES NEAR ENVIRONMENTALLY SENSITIVE AREAS NEED TO BE IMMEDIATELY STABILIZED AS SHOWN IN THE PLANS OR AS DIRECTED BY THE EROSION CONTROL SUPERVISOR OR THE PROJECT ENGINEER.
20. ALL DITCHES AND SLOPES SHALL BE KEPT IN A SMOOTH ROUGH GRADED CONDITION FOR CORRECT APPLICATION OF EROSION CONTROL MULCHES AND BLANKETS.
21. THE CONTRACTOR SHALL USE RAPID STABILIZATION METHOD 3 ON SLOPES FOR DUST CONTROL. WATER AND CALCIUM CHLORIDE SHALL BE USED ON ROADWAY GRADED AREAS FOR DUST CONTROL. ALTERNATIVES TO CALCIUM CHLORIDE IN THE FORM OF VEGETABLE POLYMERS, PETROLEUM EMULSION RESINS, OR ACRYLIC COPOLYMERS MAY BE USED AS DIRECTED BY THE EROSION CONTROL SUPERVISOR OR THE PROJECT ENGINEER.
22. THE SOURCES OF WATER SUPPLY THAT CAN BE USED FOR PROJECT CONSTRUCTION ARE: LITTLE CANADA WATER SUPPLY, VADNAIS HEIGHTS WATER SUPPLY, AND ST. PAUL WATER SUPPLY.
23. THE FOLLOWING WATER SUPPLY SITES MAY NOT BE USED FOR DUST CONTROL DURING THE PROJECT BECAUSE OF POTENTIAL IMPACTS TO FISHERIES: VADNAIS LAKE (EAST OR WEST), GERVAIS MILL POND, TWIN LAKE, GERVAIS LAKE, KOHLMAN LAKE, OR SAVAGE LAKE.
24. A WATER APPROPRIATION PERMIT WILL BE REQUIRED FROM THE MNDNR FOR CONSTRUCTION DEWATERING EXCEEDING 10,000 GALLONS PER DAY.

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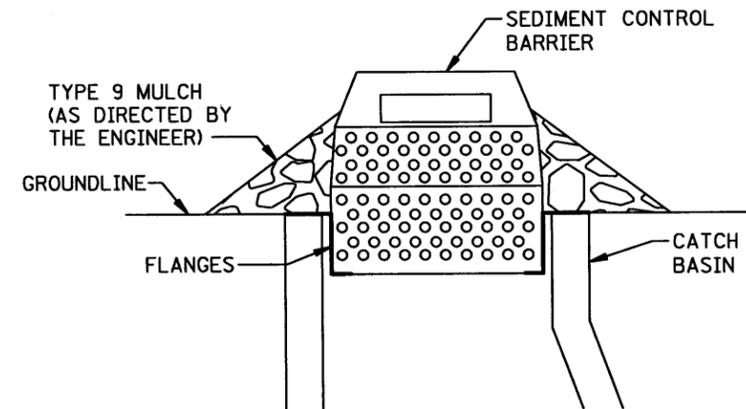
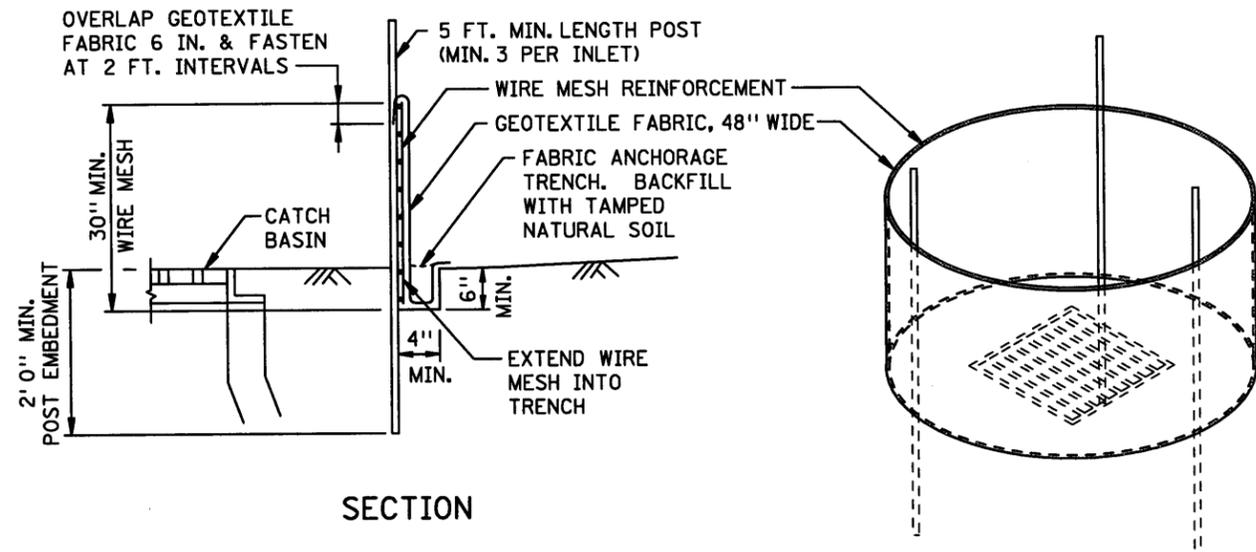


MINNESOTA DEPARTMENT OF TRANSPORTATION
STATE PROJECT NO. 6280-304 (T.H. 35E)



EROSION CONTROL NOTES AND DETAILS
STORM WATER POLLUTION PREVENTION PLAN (SWPPP) NARRATIVE
STORM WATER POLLUTION PREVENTION PLAN (SWPPP) NOTES

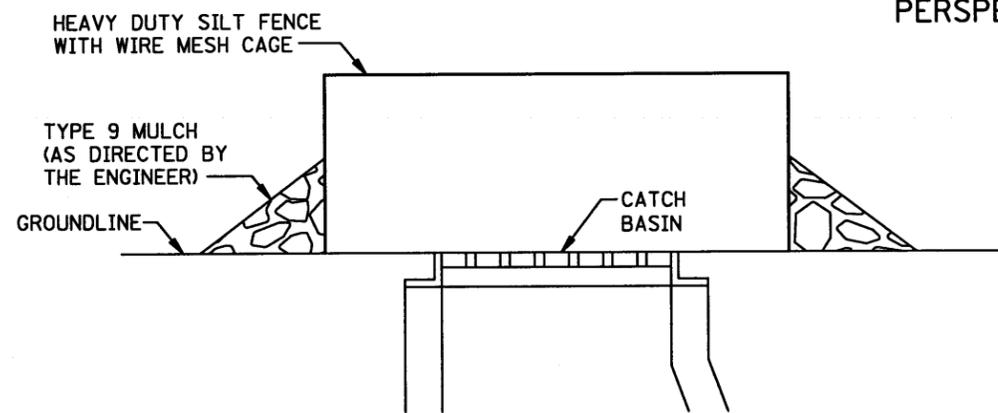
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PROFILE

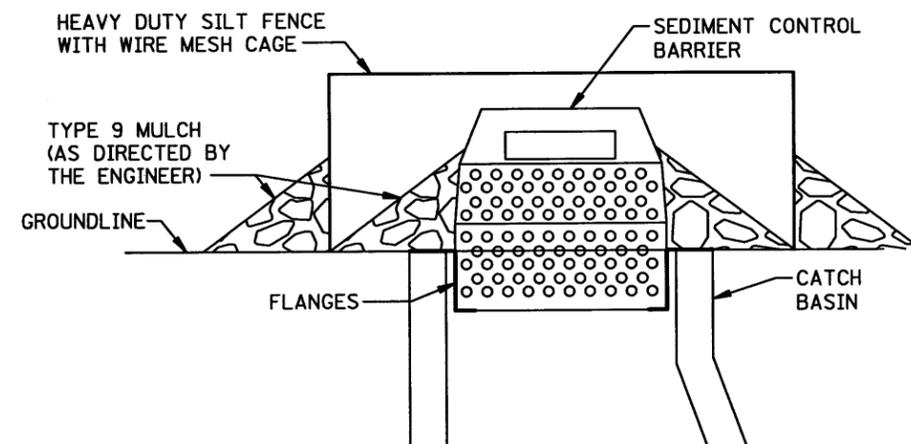
- THE SEDIMENT CONTROL BARRIER SHALL:
- BE A METAL OR PLASTIC/POLYETHYLENE RISER SIZED TO FIT INSIDE THE CATCH BASIN/MANHOLE;
 - HAVE PERFORATIONS TO ALLOW FOR WATER INFILTRATION;
 - HAVE AN OVERFLOW OPENING, FLANGES AND A LID/COVER.

SEDIMENT CONTROL BARRIER



PROFILE

INLET PROTECTION TYPE A
(HEAVY DUTY SILT FENCE)



INLET PROTECTION TYPE A (HEAVY DUTY SILT FENCE) AND SEDIMENT CONTROL BARRIER MAY BE USED IN COMBINATION AT A SINGLE INLET.

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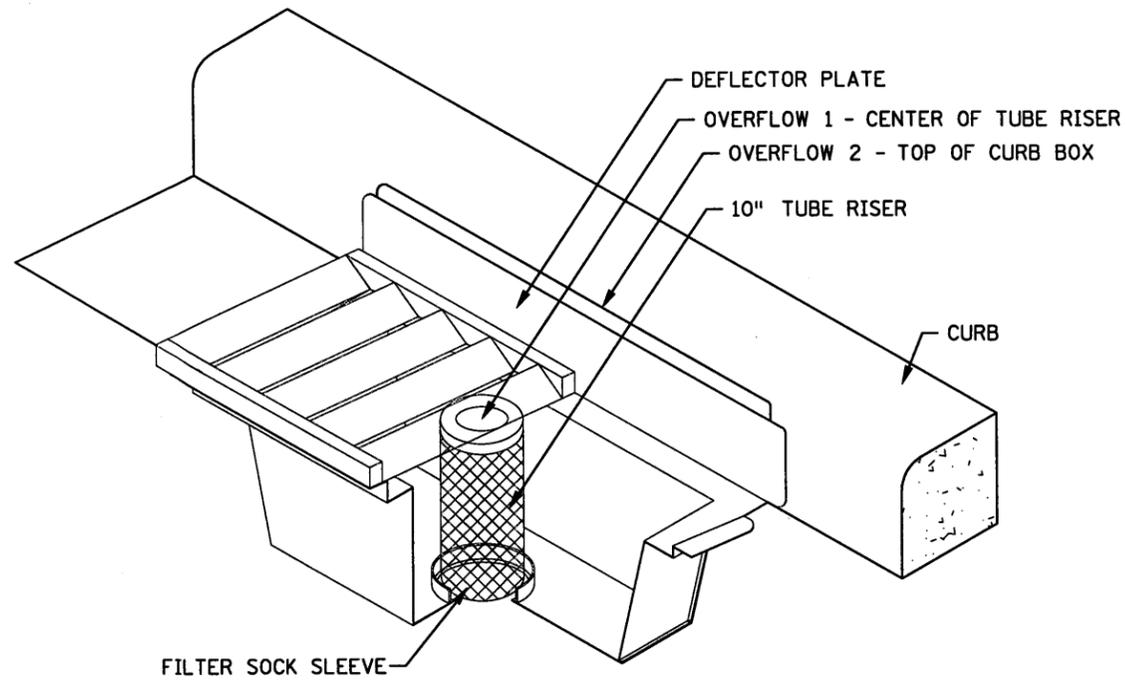
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MINNESOTA DEPARTMENT OF TRANSPORTATION
STATE PROJECT NO. 6280-304 (T.H. 35E)



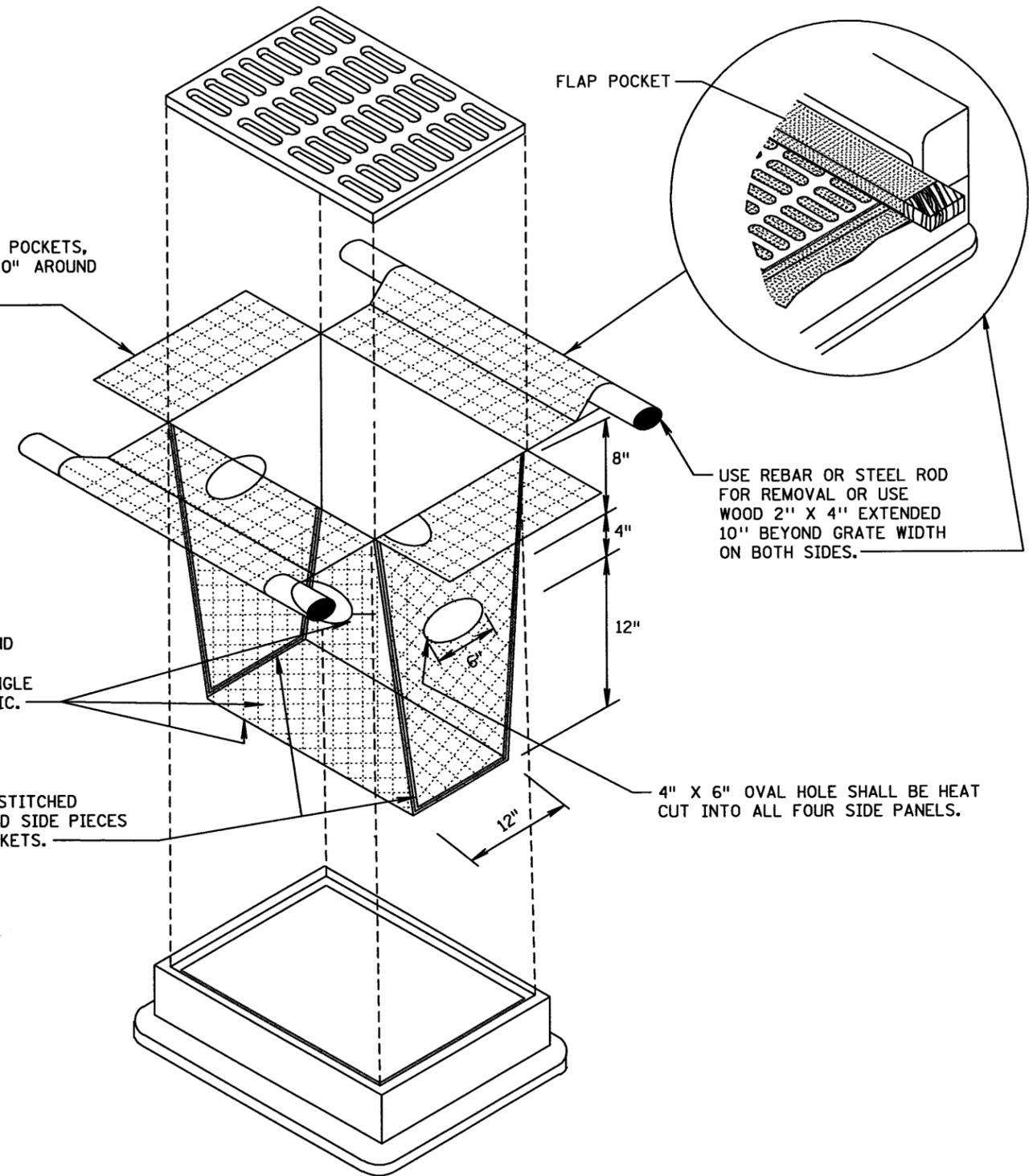
EROSION CONTROL NOTES AND DETAILS
INLET PROTECTION DETAILS

1211
1992



INLET PROTECTION TYPE C
(POP-UP HEAD INSERT)

FINISHED SIZE, INCLUDING FLAP POCKETS, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.



INLET PROTECTION TYPE C
(SILT SAC)

NOTE:
CONTRACTOR MAY USE EITHER POP-UP HEAD INSERT OR SILT SAC WHEREVER INLET PROTECTION TYPE C IS CALLED FOR IN THE PLANS.

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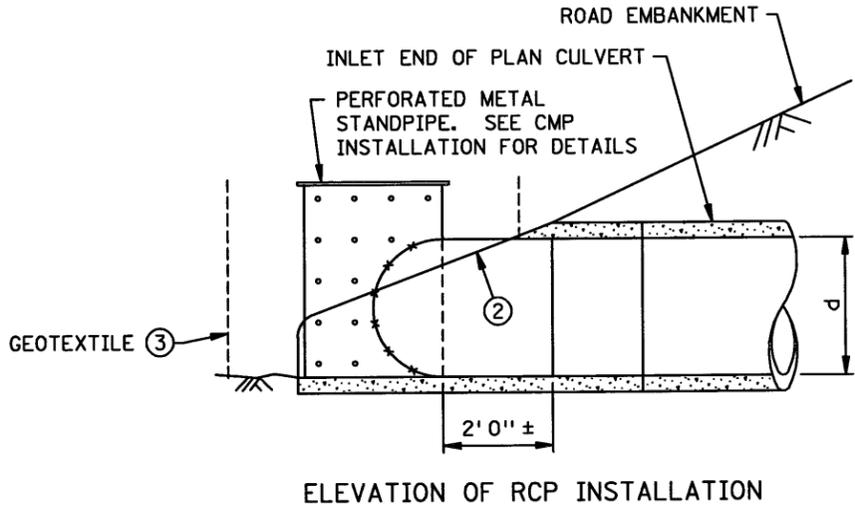
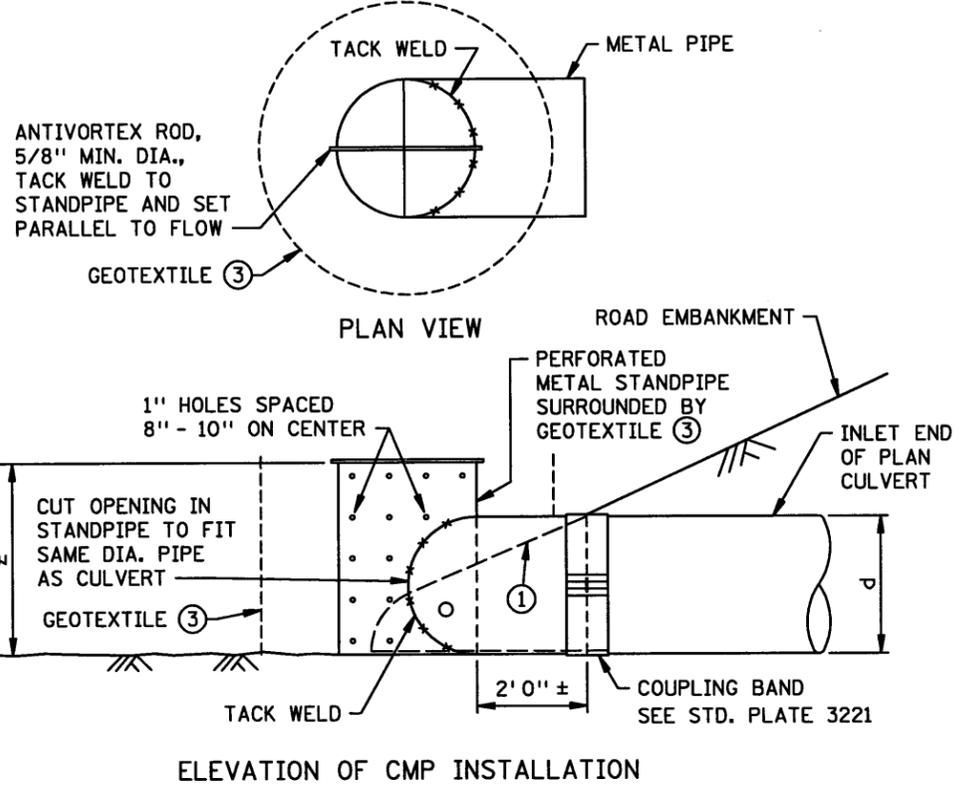
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MINNESOTA DEPARTMENT OF TRANSPORTATION
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EROSION CONTROL NOTES AND DETAILS
INLET PROTECTION DETAILS

1212
1992



INLET PROTECTION TYPE D
(CULVERT STANDPIPE PROTECTION)

d = DIA. OF STANDPIPE EQUAL TO DIA. OF PLAN CULVERT
z = LENGTH OF PERFORATED STANDPIPE (d + 12")

DESIGN GUIDELINES:
 CULVERT SIZE: 12" - 36"
 STORM FREQUENCY: 10 YR. - 24 HR.

- NOTES:**
 SEE SPECS. 2573, 3891 & 3893.
 MANUFACTURED ALTERNATIVES LISTED ON Mn/DOT'S APPROVED PRODUCTS LIST MAY BE SUBSTITUTED.
- ① FOR CMP, REMOVE TEMPORARY STANDPIPE AND INSTALL CULVERT APRON AFTER VEGETATION IS ESTABLISHED.
 - ② FOR RCP, INSTALL CULVERT APRON AND SLIDE TEMPORARY STANDPIPE INTO RCP. AFTER VEGETATION IS ESTABLISHED REMOVE TEMPORARY STANDPIPE.
 - ③ ALL GEOTEXTILE USED FOR INLET PROTECTION SHALL BE MONO/MONO, MEETING SPEC. 3886 FOR MACHINE SLICED. SUPPORT GEOTEXTILE WITH 5 FT. MIN. LENGTH POSTS (MIN. 3 PER INLET).

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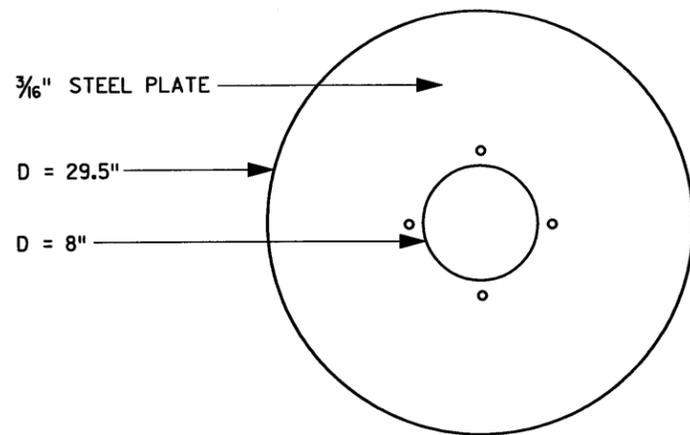


MINNESOTA DEPARTMENT OF TRANSPORTATION
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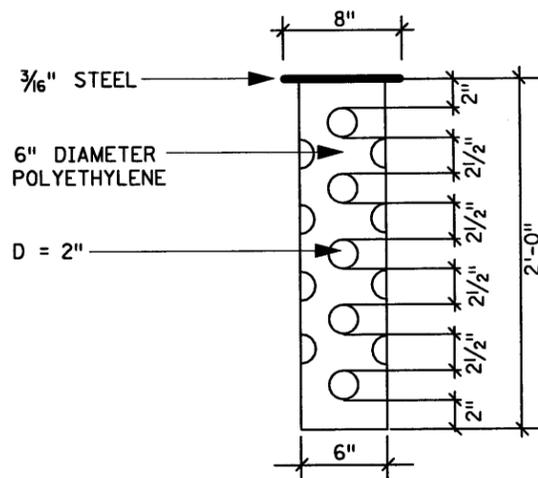


EROSION CONTROL NOTES AND DETAILS
 INLET PROTECTION DETAILS

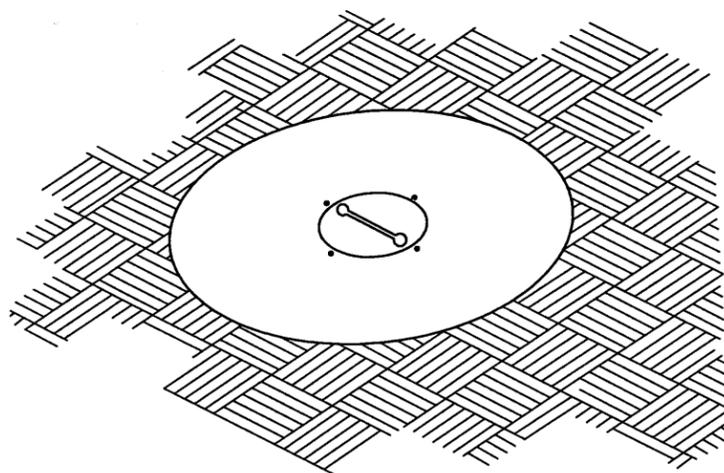
1213
 1992



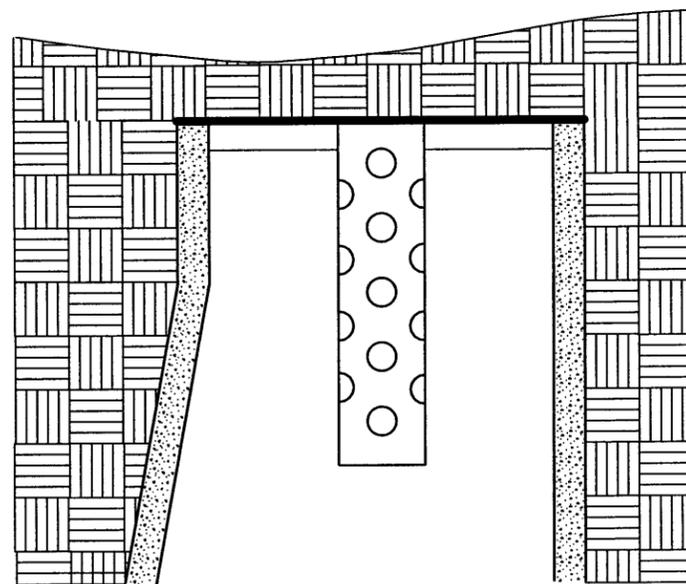
TOP VIEW



DRAIN TUBE

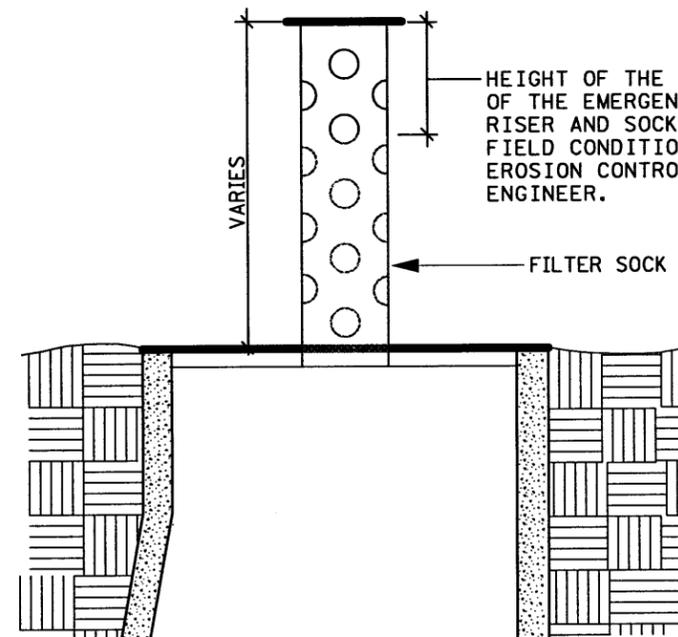


PERSPECTIVE VIEW



SECTION - DOWN POSITION

DRAIN TUBE



SECTION - UP POSITION

HEIGHT OF THE FILTER SOCK IS A FUNCTION OF THE EMERGENCY SPILLWAY REQUIRED. THE RISER AND SOCK HEIGHTS SHALL BE SET FOR FIELD CONDITIONS, AS DETERMINED BY THE EROSION CONTROL SUPERVISOR OR THE PROJECT ENGINEER.

FILTER SOCK

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PRINTED NAME: MATTHEW A. WASSMAN
DATE: MAY 27 2005 LIC. NO. 26883

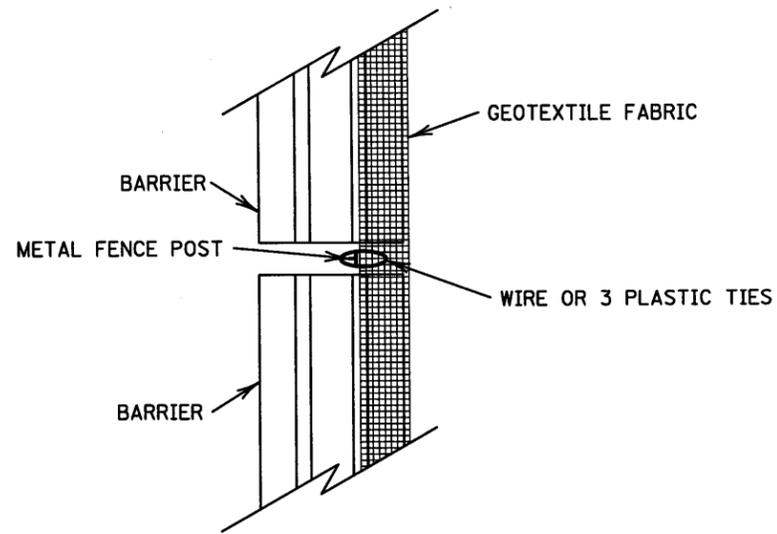
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STATE PROJECT NO. 6280-304 (T.H. 35E)

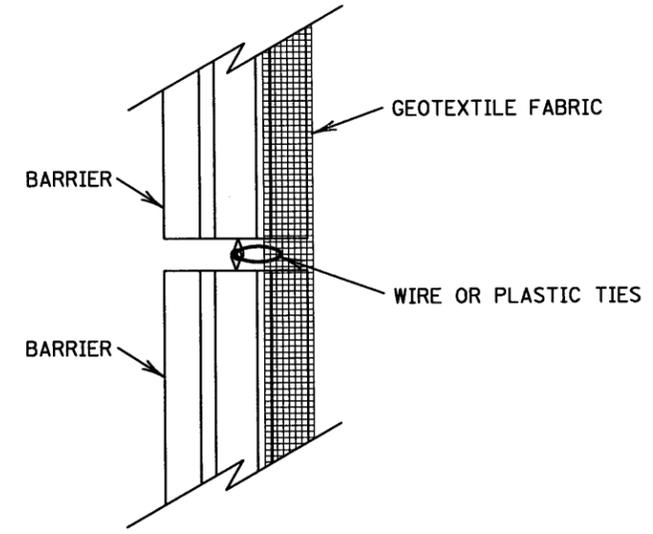


EROSION CONTROL NOTES AND DETAILS
INLET PROTECTION DETAILS

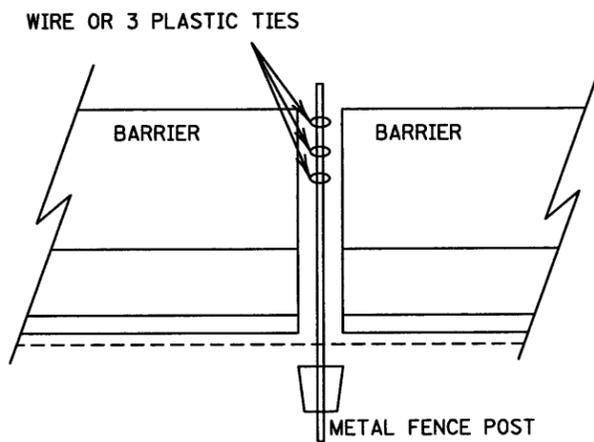
1214
1992



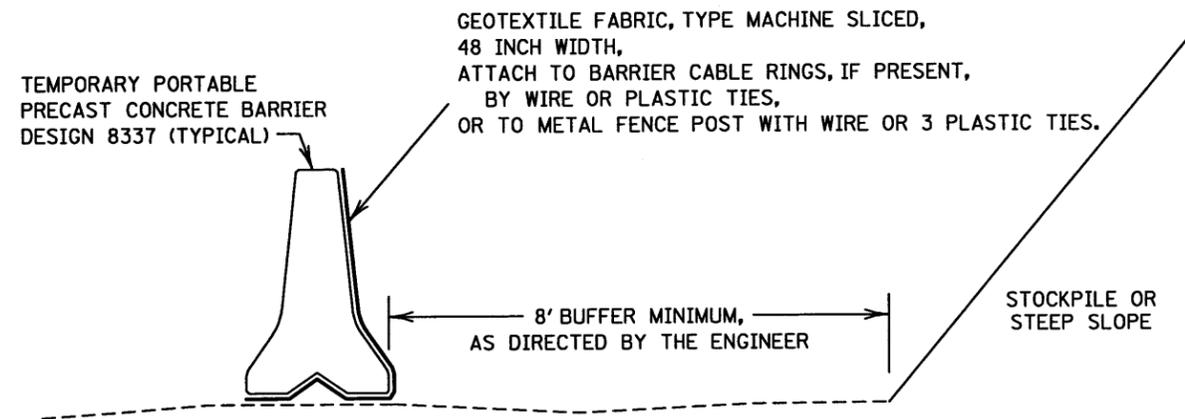
**BARRIER WITHOUT CABLE RINGS
TOP VIEW**



**BARRIER WITH CABLE RINGS
TOP VIEW**



**BARRIER WITHOUT CABLE RINGS
SIDE VIEW**



SILT FENCE, SUPER DUTY

PAID FOR AS CONCRETE MEDIAN BARRIER, DESIGN 8337 AND SILT FENCE, TYPE MACHINE SLICED. ALL OTHER MATERIALS AND LABOR ARE INCIDENTAL.

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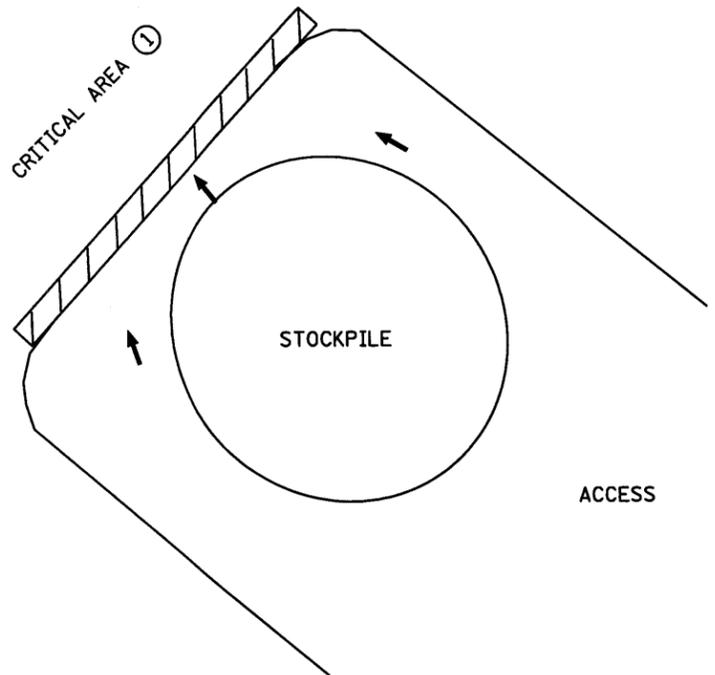
MINNESOTA DEPARTMENT OF TRANSPORTATION
STATE PROJECT NO. 6280-304 (T.H. 35E)



EROSION CONTROL NOTES AND DETAILS
SILT FENCE, SUPER DUTY DETAILS

1215
1992

CRITICAL AREA ①

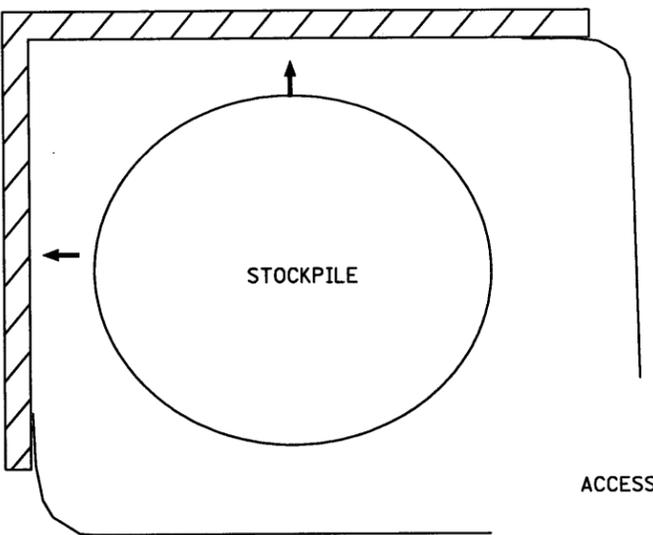


STOCKPILE

ACCESS

CRITICAL AREA ①

CRITICAL AREA ①

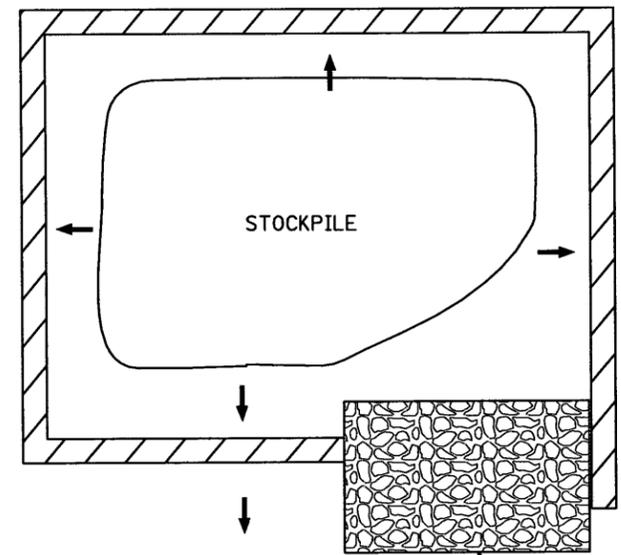


STOCKPILE

ACCESS

CRITICAL AREA ①

CRITICAL AREA ①



STOCKPILE

ACCESS PAD ②

CRITICAL AREA ①

SILT FENCE, SUPER DUTY

STOCKPILE

DITCH BOTTOM

SILT FENCE, SUPER DUTY - DITCH PROTECTION SYSTEM

SILT FENCE, SUPER DUTY

STOCKPILE

SILT FENCE, SUPER DUTY - CURB AND GUTTER PROTECTION SYSTEM

LEGEND



SILT FENCE, SUPER DUTY



MACHINE SLICED SILT FENCE

NOTES:

- IT IS NOT RECOMMENDED TO PLACE STOCKPILES NEXT TO A CRITICAL AREA. WHEN THERE ARE NO FEASIBLE ALTERNATIVES, THE SUPER DUTY SILT FENCE IS TO BE USED AS SHOWN OR AS DIRECTED BY THE PROJECT ENGINEER.
- SILT FENCE, SUPER DUTY MAY BE USED IN CONJUNCTION WITH SEDIMENT TRAPS AT INLETS OR OUTLETS TO PONDS AND DITCHES SIMILAR TO ROCK WEEPERS AS SHOWN ON SHEET NO. 1219. SEE TEMPORARY DRAINAGE, EROSION CONTROL, AND TURF ESTABLISHMENT PLAN LAYOUTS FOR LOCATIONS OR USE AS DIRECTED BY THE EROSION CONTROL SUPERVISOR OR THE PROJECT ENGINEER.
- ① CRITICAL AREAS INCLUDE WETLANDS, JUDICIAL DITCHES, STREAMS, WATER BODIES AND OTHER AREAS IMPORTANT TO PROTECT.
- ② ACCESS PAD SHALL BE 6 INCHES HIGH BY A MINIMUM 20' LONG AND SHALL CONSIST OF MULCH MATERIAL TYPE 6. THE MULCH MATERIAL SHALL BE SLASH MULCH, NOT WOOD CHIP MULCH.

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STATE PROJECT NO. 6280-304 (T.H. 35E)



EROSION CONTROL NOTES AND DETAILS
SILT FENCE, SUPER DUTY DETAILS

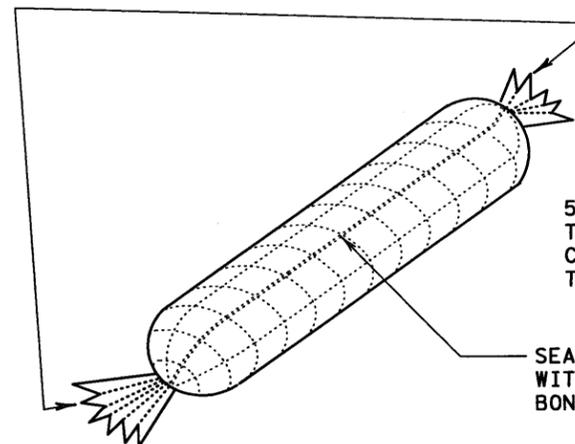
1216
1992

FILL ROCK LOG WITH 45 LBS. OF OPEN GRADED AGGREGATE CONSISTING OF SOUND, DURABLE PARTICLES OF CRUSHED QUARRY ROCK OR GRAVEL CONFORMING TO THE FOLLOWING GRADATION.

GRADATION	
SIEVE SIZE	PERCENT PASSING
1-1/2 INCH	100
1 INCH	95-100
3/4 INCH	65-95
3/8 INCH	30-65
NO. 4	10-35
NO. 10	3-20
NO. 40	0-8
NO. 200	0-3

NOTE: CRUSHED CONCRETE OR BITUMINOUS SHALL NOT BE USED FOR OPEN GRADED AGGREGATE.

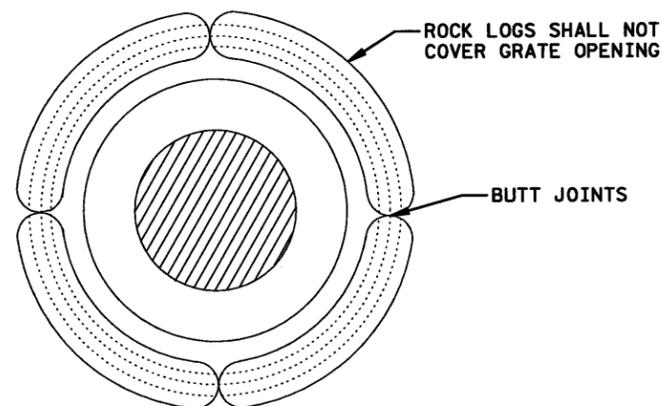
ENDS SECURELY CLOSED TO PREVENT LOSS OF OPEN GRADED AGGREGATE FILL. SECURED WITH 50 PSI. ZIP TIE.



5" DIAMETER GEOTEXTILE SOCK, TYPE WOVEN MONOFILAMENT CONFORMING TO SPEC. 3886, TABLE 3886-1. MACHINE SLICE

SEAM JOINED BY TWO ROWS OF STITCHING WITH A PLASTIC MESH BACKING OR HEAT BONDED. (OR APPROVED EQUIVALENT)

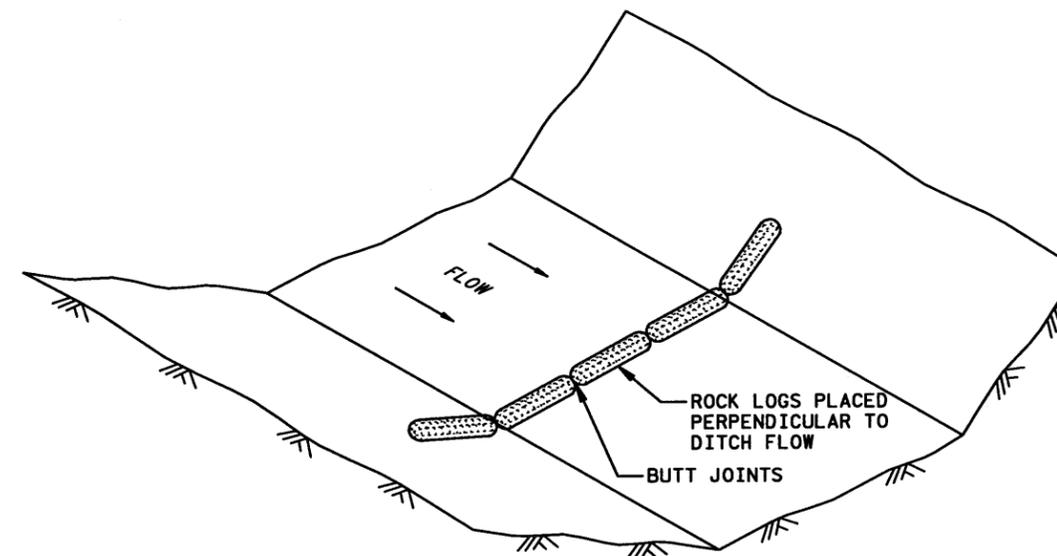
CONSTRUCTION REQUIREMENTS FOR ROCK LOGS



ROCK LOGS SHALL NOT COVER GRATE OPENING

BUTT JOINTS

INLET PROTECTION WITH ROCK LOG



ROCK LOGS PLACED PERPENDICULAR TO DITCH FLOW
BUTT JOINTS

TEMPORARY DITCH CHECK, TYPE ROCK LOG DETAIL

PAYMENT SHALL INCLUDE ALL MATERIALS, FILLING OF LOG, PLACEMENT, MAINTENANCE, & REMOVAL. 80% OF BID PRICE SHALL BE PAID UPON PROPER PLACEMENT WITH THE FINAL 20% PAID UPON REMOVAL.

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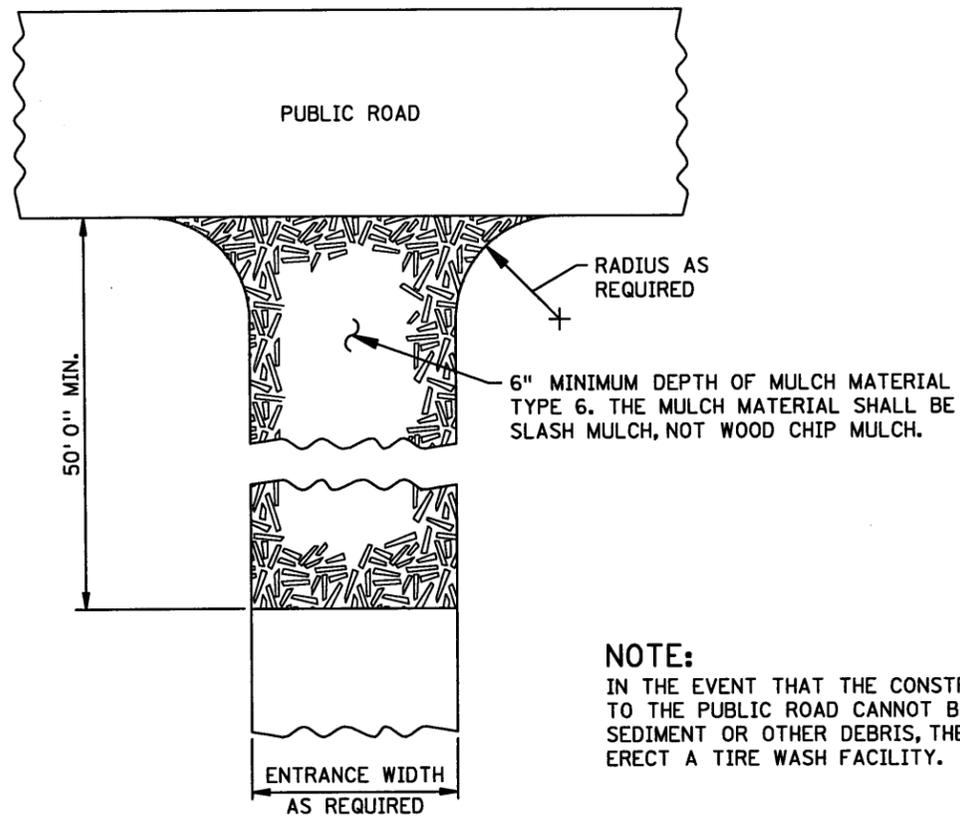


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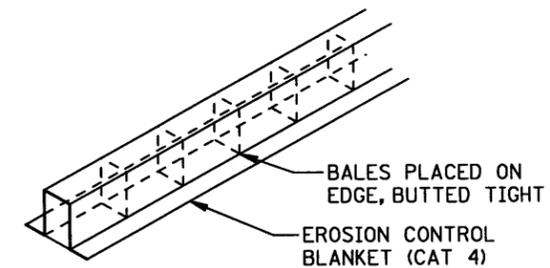
EROSION CONTROL NOTES AND DETAILS
ROCK LOG DETAILS

1217
1992

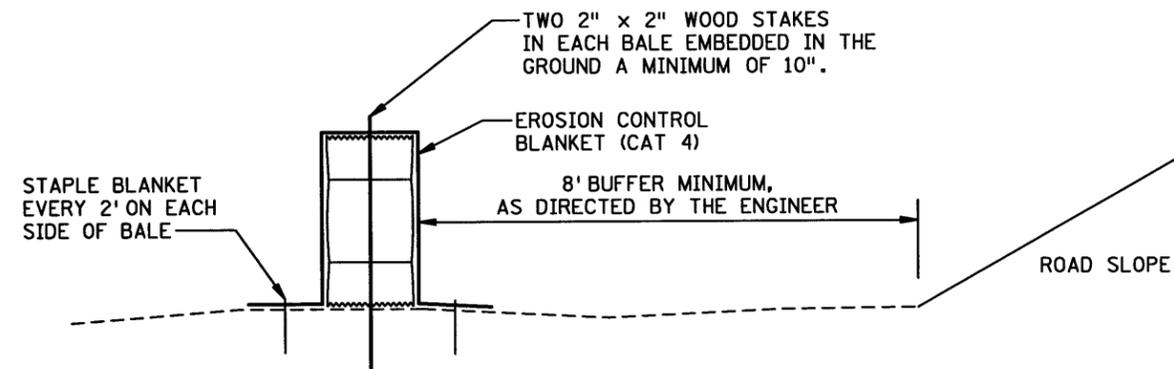


NOTE:
 IN THE EVENT THAT THE CONSTRUCTION EXIT PAD TO THE PUBLIC ROAD CANNOT BE KEPT CLEAN OF SEDIMENT OR OTHER DEBRIS, THE CONTRACTOR MUST ERECT A TIRE WASH FACILITY.

CONSTRUCTION EXIT PAD

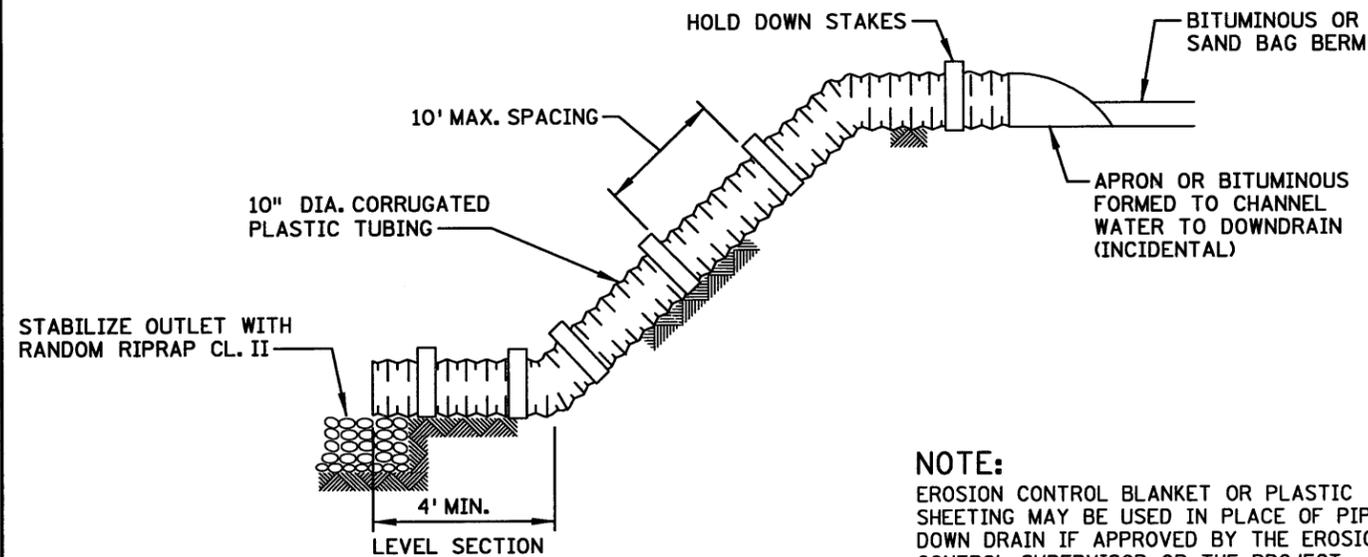


PERSPECTIVE



SECTION

BALE CHECK WITH EROSION BLANKET DETAIL



NOTE:
 EROSION CONTROL BLANKET OR PLASTIC SHEETING MAY BE USED IN PLACE OF PIPE DOWN DRAIN IF APPROVED BY THE EROSION CONTROL SUPERVISOR OR THE PROJECT ENGINEER.

TEMPORARY PIPE DOWN DRAIN

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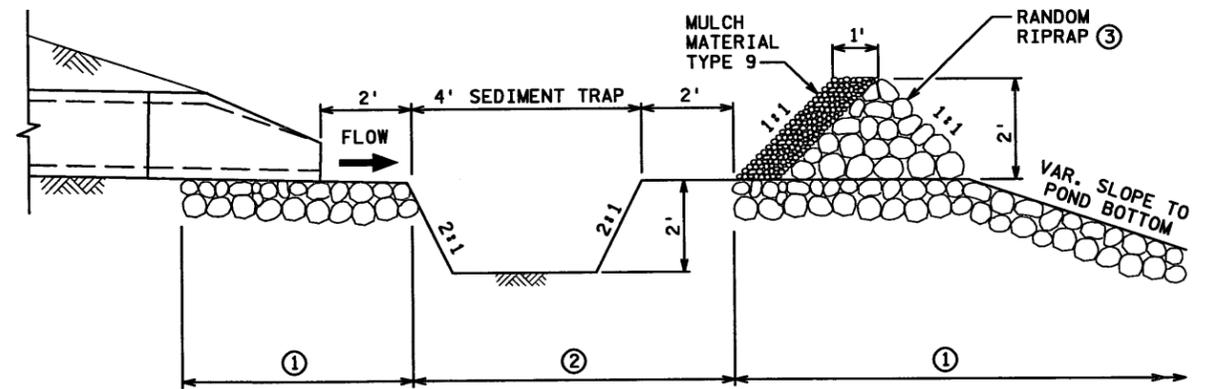
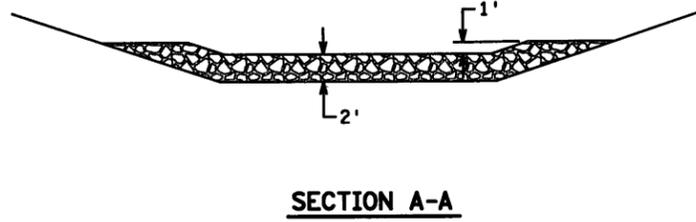
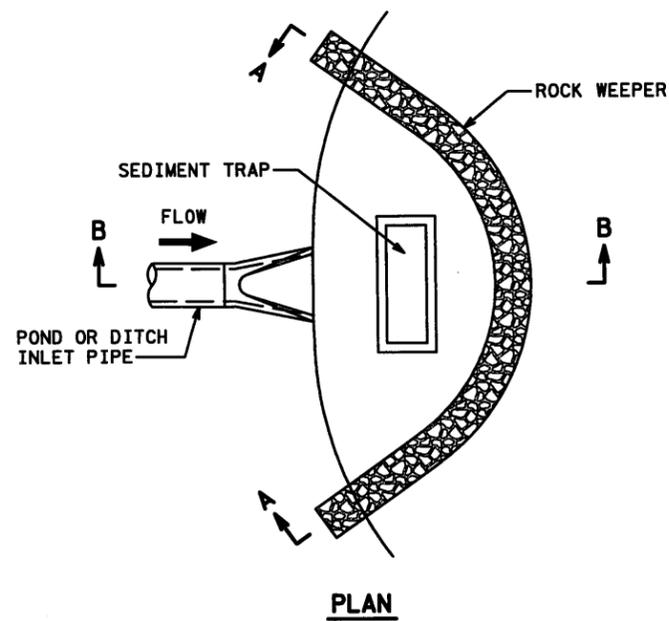
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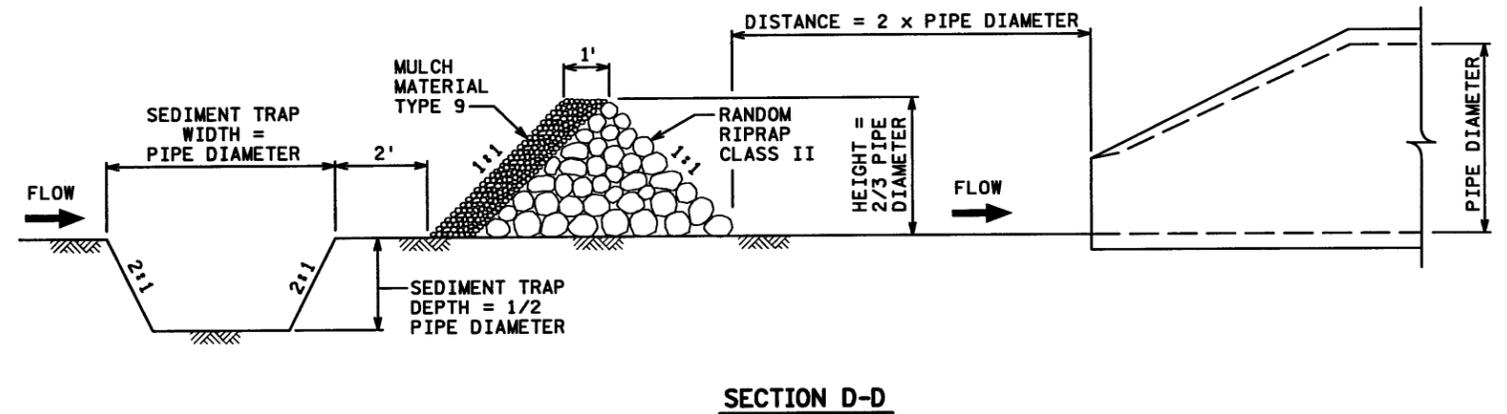
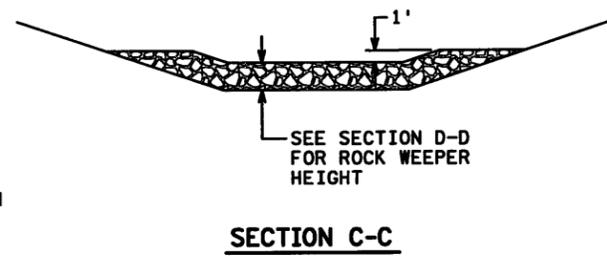
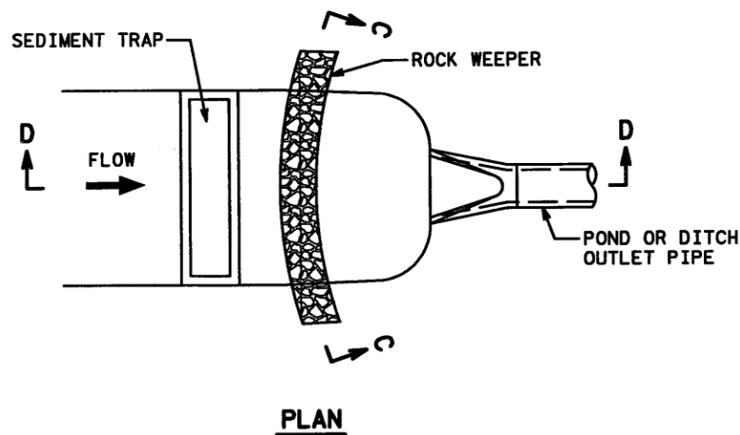
EROSION CONTROL NOTES AND DETAILS
 MISCELLANEOUS DETAILS

1218
 1992

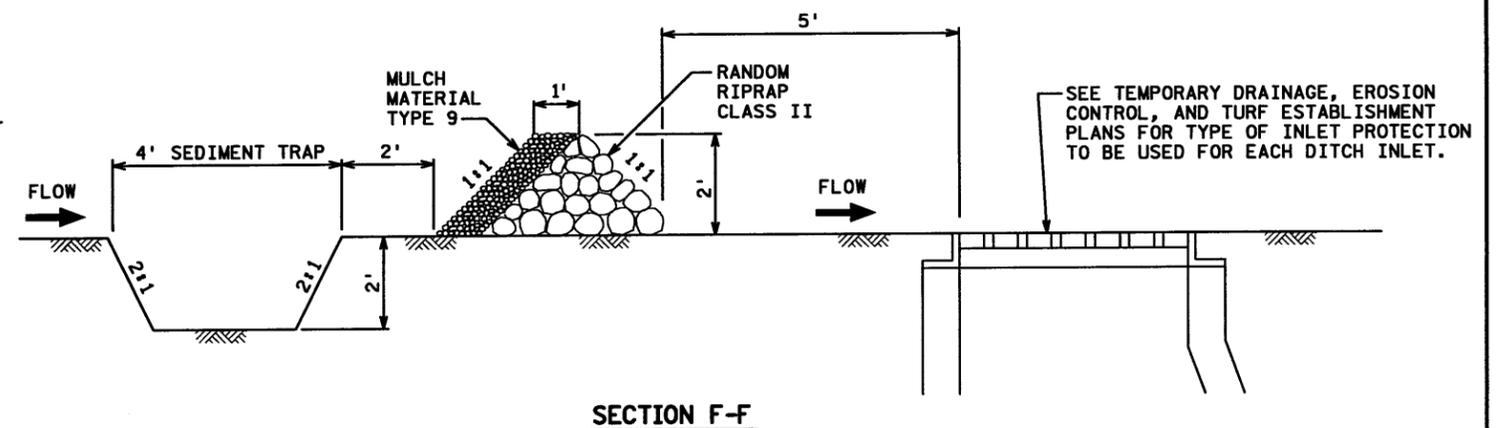
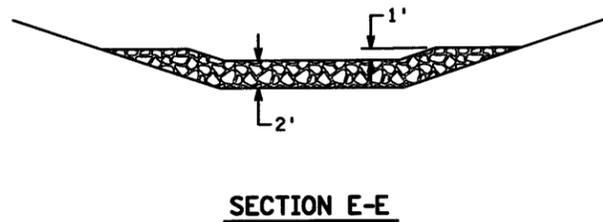
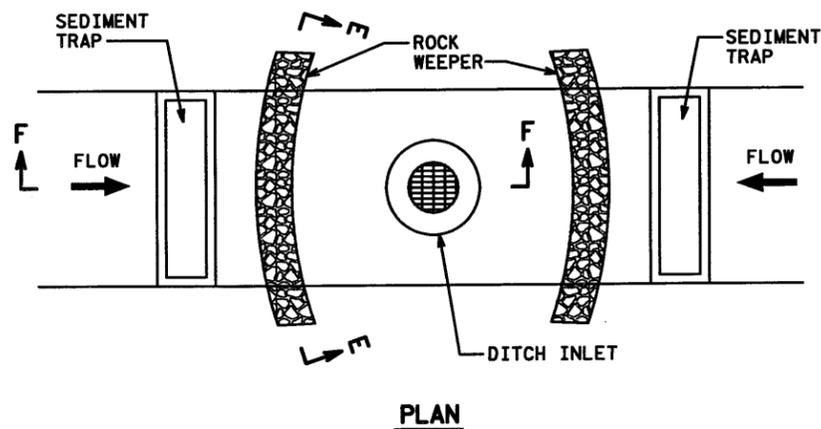


- NOTES:**
- ① INSTALL RIPRAP AS PER DETAIL ON SHEET NO. 1205 PRIOR TO APRON INSTALLATION.
 - ② INSTALL RIPRAP AS PER DETAIL ON SHEET NO. 1205 AFTER SEDIMENT TRAP IS NO LONGER REQUIRED. RIPRAP FROM ROCK WEEPER MAY BE USED FOR THE PLUNGE POOL.
 - ③ CLASS OF RIPRAP TO BE DETERMINED BY THE TABULATION ON SHEET NO. 1205.

ROCK WEEPER FORE-BAY SYSTEM



ROCK WEEPER EXIT SYSTEM



ROCK WEEPER DITCH INLET SYSTEM

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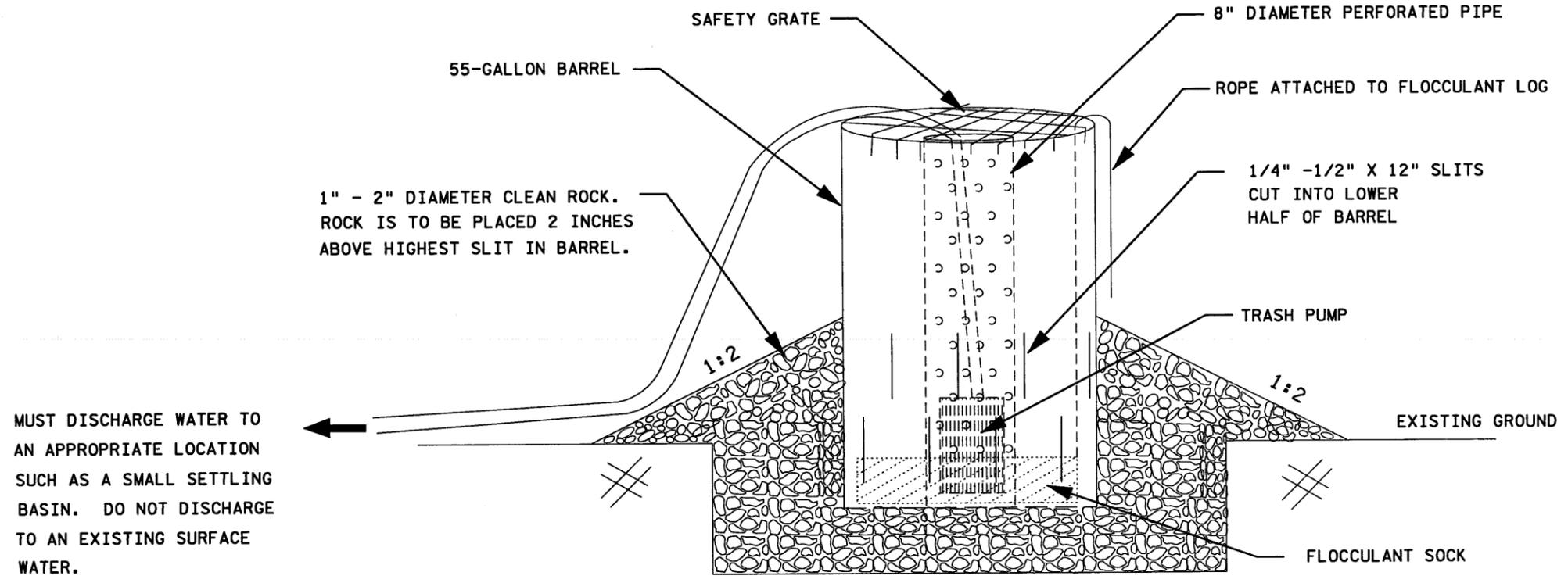
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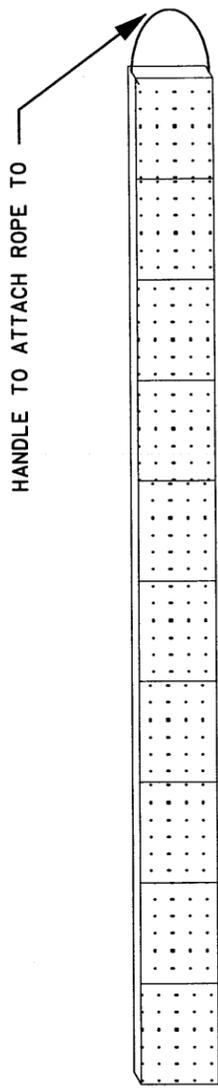
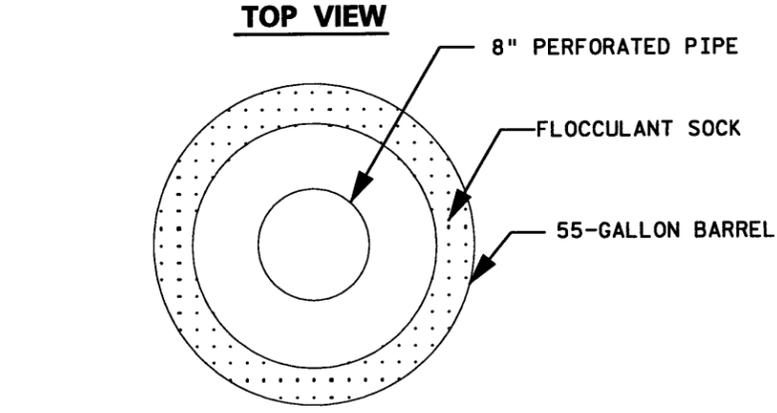


EROSION CONTROL NOTES AND DETAILS
ROCK WEEPER DETAILS

1219
1992

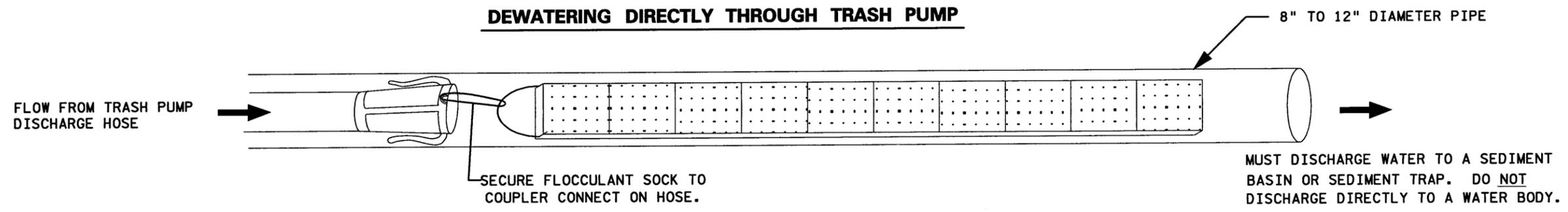


DEWATERING DEVICE SHOULD BE PLACED AT THE LOW POINT OF THE AREA TO DRAIN



TYPICAL FLOCCULANT SOCK

DEWATERING DIRECTLY THROUGH TRASH PUMP



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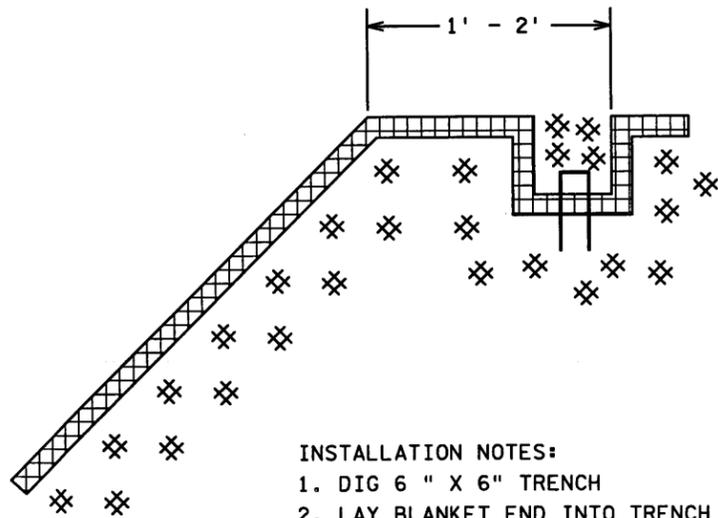
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EROSION CONTROL NOTES AND DETAILS
DEWATERING BMP OPTIONS

1220
1992

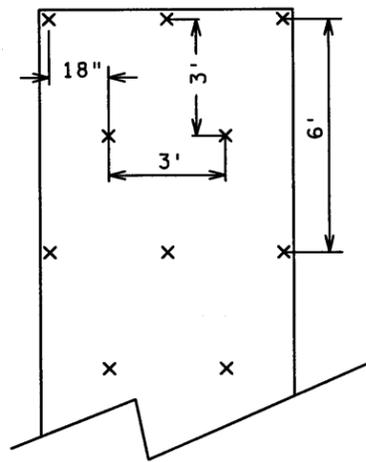
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- INSTALLATION NOTES:**
1. DIG 6 " X 6" TRENCH
 2. LAY BLANKET END INTO TRENCH
 3. STAPLE BLANKET IN BOTTOM OF TRENCH EVERY 18".
 4. BACKFILL TRENCH WITH SOIL AND COMPACT.

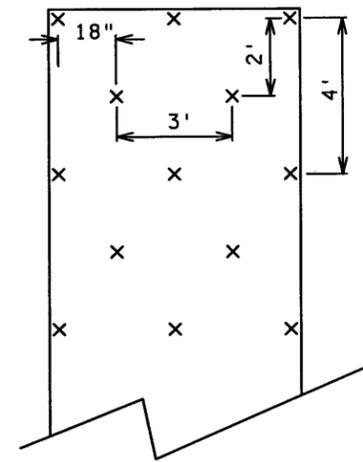
CHECK TRENCH

SLOPES FLATTER THAN 1:2
(1.2 STAPLES PER SQ. YD.)



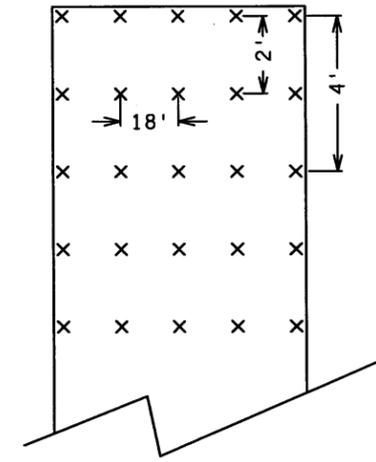
STANDARD 6' BLANKET

SLOPES 1:2 TO 1:1
(1.7 STAPLES PER SQ. YD.)



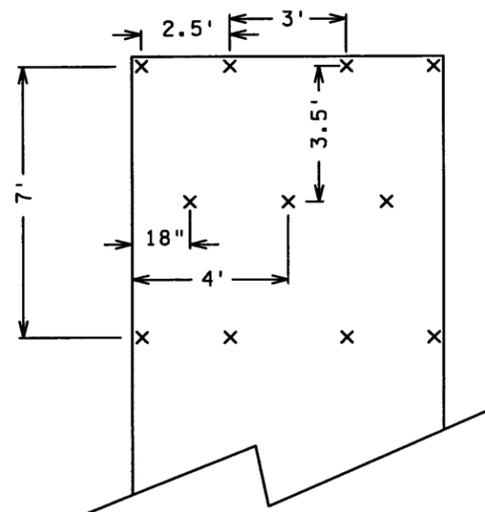
STANDARD 6' BLANKET

CHANNEL AND DITCH APPLICATIONS
(3.5 STAPLES PER SQ. YD.)



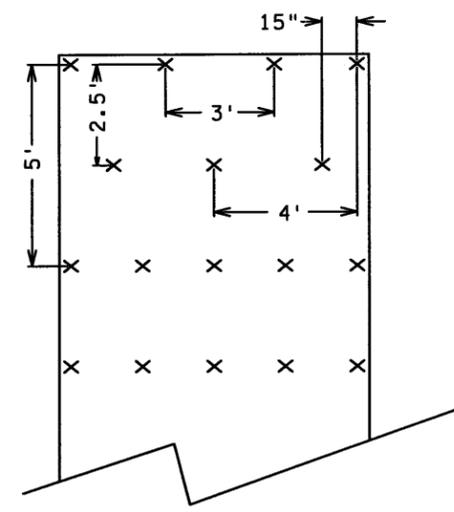
STANDARD 6' BLANKET

SLOPES FLATTER THAN 1:2
(1.2 STAPLES PER SQ. YD.)



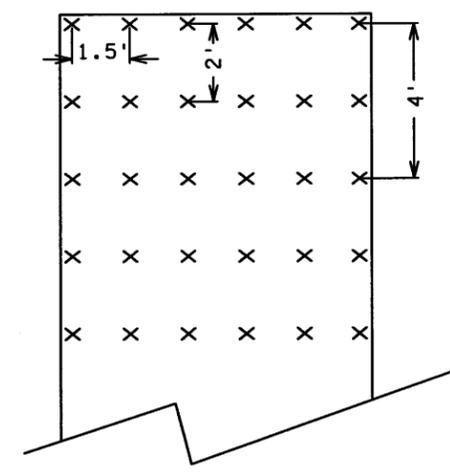
STANDARD 8' BLANKET

SLOPES 1:2 TO 1:1
(1.7 STAPLES PER SQ. YD.)



STANDARD 8' BLANKET

CHANNEL AND DITCH APPLICATIONS
(3.5 STAPLES PER SQ. YD.)



STANDARD 8' BLANKET

BLANKET STAPLING PATTERN

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STATE PROJECT NO. 6280-304 (T.H. 35E)



EROSION CONTROL NOTES AND DETAILS
BLANKET STAPLING PATTERN DETAIL

1221
1992

TEMPORARY EROSION CONTROL NOTES

1. SILT FENCE SHALL FOLLOW, AS CLOSELY AS POSSIBLE, TO A SINGLE CONTOUR LINE AND SHALL BE INSTALLED PRIOR TO THE COMMENCEMENT OF ANY GRADING ACTIVITIES.
2. TEMPORARY PORTABLE PRECAST CONCRETE BARRIER LINED WITH SILT FENCE SHALL BE INSTALLED AROUND ALL STOCKPILES CONSISTING OF TOPSOIL AND ERODABLE GRANULAR MATERIALS BEFORE PLACING THE FILL. RAPID STABILIZATION METHOD 3 SHALL BE USED TO STABILIZE THE STOCKPILES. THE CONTRACTOR SHALL DETERMINE THE LOCATIONS OF ALL STOCKPILES NEEDED ON THE PROJECT. ALL STOCKPILES SHALL HAVE A SITE PLAN APPROVED BY THE PROJECT ENGINEER BEFORE PLACING THE FILL.
3. ALL PONDS MUST BE SURVEYED AND CLEANED OUT AT THE END OF CONSTRUCTION TO MATCH THE PLAN CONTOURS. ALL MATERIAL EXCAVATED FROM THE PONDS SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF OUTSIDE THE RIGHT-OF-WAY.
4. ALL EROSION CONTROL BLANKETS SHALL BE STAPLED AS PER THE DETAILS ON SHEET NO. 1221.
5. RIPRAP AT PIPE APRON OUTLETS MUST BE PLACED PRIOR TO APRON INSTALLATION. RIPRAP SHALL BE INSTALLED UNDER THE LIP OF THE APRON. SEE DETAIL ON SHEET NO. 1205.
6. INLET PROTECTION DEVICES MAY BE REUSED OR RELOCATED IF THE DEVICES ARE STILL IN A FUNCTIONAL CONDITION. PAYMENT SHALL BE BY EACH INLET PROTECTION DEVICE INSTALLED AND/OR RELOCATED.
7. A STREET SWEEPER WITH PICK-UP BROOM SHALL BE USED AS DIRECTED BY THE EROSION CONTROL SUPERVISOR OR THE PROJECT ENGINEER. THREE HOURS PER DAY WAS USED FOR ESTIMATING PURPOSES. IF THE CONTRACTOR CHOOSES TO WORK UNDER WET CONDITIONS, A STREET SWEEPER SHALL FOLLOW EVERY TRUCK LEAVING THE PROJECT AREA AT NO ADDITIONAL COST (INCIDENTAL).
8. A SEDIMENT REMOVAL BACKHOE SHALL BE USED AS DIRECTED BY THE EROSION CONTROL SUPERVISOR OR THE PROJECT ENGINEER. ONE HOUR PER 300 LINEAR FEET OF SILT FENCE AND ONE HOUR PER 200 CUBIC YARDS OF SEDIMENT TRAP EXCAVATION WAS USED FOR ESTIMATING PURPOSES.
9. THE INLET PROTECTION TYPE A, INLET PROTECTION TYPE C, SEDIMENT CONTROL BARRIER, AND DRAIN TUBE LOCATIONS SHOWN ON SHEETS 1224 THRU 1385 ARE THE SUGGESTED TYPES OF INLET PROTECTION TO BE USED AND SHALL BE PAID FOR AS INLET PROTECTION.
10. TEMPORARY EROSION CONTROL DEVICES ARE SHOWN ON THE STAGED PLAN LAYOUTS IN THE STAGE THEY WILL BE INSTALLED. THE DEVICES SHALL REMAIN IN PLACE BUT ARE NOT SHOWN IN SUBSEQUENT STAGES SO THAT QUANTITIES ARE NOT DUPLICATED. ALL TEMPORARY EROSION CONTROL DEVICES SHALL BE REMOVED AS DIRECTED BY THE EROSION CONTROL SUPERVISOR OR THE PROJECT ENGINEER AFTER TURF IS SUFFICIENTLY ESTABLISHED IN ACCORDANCE WITH PART IV,G OF THE NPDES PERMIT.
11. SEE PERMANENT EROSION CONTROL AND TURF ESTABLISHMENT PLANS FOR PERMANENT GRADING TREATMENTS WITHIN THE CONSTRUCTION LIMITS FOR EACH STAGE.
12. ALL TEMPORARY PIPE PLUGS FOR STUBS SHOWN ON THE TEMPORARY DRAINAGE, EROSION CONTROL, AND TURF ESTABLISHMENT PLANS ARE REQUIRED FOR STAGED DRAINAGE CONSTRUCTION. THE CONTRACTOR SHALL DEVELOP AN APPROPRIATE MEANS FOR CONSTRUCTING THE TEMPORARY PIPE PLUGS PROVIDED THAT THEY PREVENT SEDIMENT FROM ENTERING THE PIPE. TEMPORARY PIPE PLUGS SHALL BE INCIDENTAL, WITH NO DIRECT PAYMENT.

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DATE: MAY 27 2005 LIC. NO. 26883



MINNESOTA DEPARTMENT OF TRANSPORTATION
STATE PROJECT NO. 6280-304 (T.H. 35E)



EROSION CONTROL NOTES AND DETAILS
TEMPORARY EROSION CONTROL NOTES

1222
1992

POND CONSTRUCTION SEQUENCING NOTES

STAGE 1 PHASE 1 POND CONSTRUCTION SEQUENCING

- 1-1A. THE CONSTRUCTION OF PORKY POND SHALL OCCUR AT THE BEGINNING OF STAGE 1 PHASE 1. THE CONTRACTOR SHALL USE RAPID STABILIZATION METHODS TO STABILIZE ALL SIDE SLOPES OF PORKY POND AS SHOWN ON SHEET NO. 1242 BEFORE EXPOSING CONTRIBUTING SOIL AREAS GREATER THAN 2 ACRES.
- 1-1B. THE CONSTRUCTION OF LARRY POND PART 1 OF 4 MAY COMMENCE AFTER THE SIDE SLOPES ON PORKY POND HAVE BEEN STABILIZED. THE CONTRACTOR SHALL TEMPORARILY STABILIZE ALL SIDE SLOPES OF LARRY POND PART 1 OF 4 AS SHOWN ON SHEET NO. 1242 BEFORE EXPOSING CONTRIBUTING SOIL AREAS GREATER THAN 2 ACRES.
- 1-1C. THE CONSTRUCTION OF WALDO POND PART 1 OF 2 MAY COMMENCE AFTER THE SIDE SLOPES ON LARRY POND PART 1 OF 4 HAVE BEEN STABILIZED. THE CONTRACTOR SHALL TEMPORARILY STABILIZE ALL SIDE SLOPES OF WALDO POND PART 1 OF 2 AS SHOWN ON SHEET NOS. 1229 AND 1241 BEFORE EXPOSING CONTRIBUTING SOIL AREAS GREATER THAN 2 ACRES.
- 1-1D. THE CONSTRUCTION OF BOUNCY DITCH AND WOIM POND MAY COMMENCE AFTER THE SIDE SLOPES ON LARRY POND PART 1 OF 4 HAVE BEEN STABILIZED. THE CONTRACTOR SHALL PERMANENTLY STABILIZE ALL SIDE SLOPES OF BOUNCY DITCH AND WOIM POND AS SHOWN ON SHEET NO. 1394 BEFORE EXPOSING CONTRIBUTING SOIL AREAS GREATER THAN 2 ACRES.
- 1-1E. THE CONSTRUCTION OF JIGGS POND SHALL OCCUR AT THE BEGINNING OF STAGE 1 PHASE 1. THE CONTRACTOR SHALL USE RAPID STABILIZATION METHODS TO STABILIZE ALL SIDE SLOPES OF JIGGS POND AS SHOWN ON SHEET NOS. 1239 AND 1244 BEFORE EXPOSING CONTRIBUTING SOIL AREAS GREATER THAN 2 ACRES.
- 1-1F. THE CONSTRUCTION OF SPUD DITCH SHALL OCCUR DURING STAGE 1 PHASE 1. THE CONTRACTOR SHALL PERMANENTLY STABILIZE ALL SIDE SLOPES OF SPUD DITCH AS SHOWN ON SHEET NO. 1386 BEFORE EXPOSING CONTRIBUTING SOIL AREAS GREATER THAN 2 ACRES.

STAGE 1 PHASE 2 POND CONSTRUCTION SEQUENCING

- 1-2A. THE CONSTRUCTION OF ALFALFA POND SHALL OCCUR AT THE BEGINNING OF STAGE 1 PHASE 2. THE CONTRACTOR SHALL USE RAPID STABILIZATION METHODS TO STABILIZE ALL SIDE SLOPES OF ALFALFA POND AS SHOWN ON SHEET NO. 1260 BEFORE EXPOSING CONTRIBUTING SOIL AREAS GREATER THAN 2 ACRES.
- 1-2B. THE CONSTRUCTION OF SPANKY DITCH MAY COMMENCE AFTER THE SIDE SLOPES ON ALFALFA POND HAVE BEEN STABILIZED. THE CONTRACTOR SHALL PERMANENTLY STABILIZE ALL SIDE SLOPES OF SPANKY DITCH AS SHOWN ON SHEET NOS. 1399 AND 1400 BEFORE EXPOSING CONTRIBUTING SOIL AREAS GREATER THAN 2 ACRES.
- 1-2C. THE CONSTRUCTION OF MICKEY DITCH AND FARINA DITCH SHALL OCCUR DURING STAGE 1 PHASE 2. THE CONTRACTOR SHALL PERMANENTLY STABILIZE ALL SIDE SLOPES OF MICKEY DITCH AND FARINA DITCH AS SHOWN ON SHEET NOS. 1403 AND 1404 BEFORE EXPOSING CONTRIBUTING SOIL AREAS GREATER THAN 2 ACRES.

STAGE 1 PHASE 3 POND CONSTRUCTION SEQUENCING

- 1-3A. NO POND CONSTRUCTION.

STAGE 2 PHASE 1 POND CONSTRUCTION SEQUENCING

- 2-1A. THE CONSTRUCTION OF LARRY POND PART 2 OF 4 SHALL OCCUR DURING STAGE 2 PHASE 1. THE CONTRACTOR SHALL TEMPORARILY STABILIZE ALL SIDE SLOPES OF LARRY POND PART 2 OF 4 AS SHOWN ON SHEET NOS. 1279 AND 1288 BEFORE EXPOSING CONTRIBUTING SOIL AREAS GREATER THAN 2 ACRES.
- 2-1B. THE CONSTRUCTION OF CURLY POND PART 1 OF 2 SHALL OCCUR AT THE BEGINNING OF STAGE 2 PHASE 1. THE CONTRACTOR SHALL USE RAPID STABILIZATION METHODS TO STABILIZE ALL SIDE SLOPES OF CURLY POND PART 1 OF 2 AS SHOWN ON SHEET NO. 1289 BEFORE EXPOSING CONTRIBUTING SOIL AREAS GREATER THAN 2 ACRES.
- 2-1C. THE CONSTRUCTION OF MOE DITCH PART 1 OF 3 MAY COMMENCE AFTER THE SIDE SLOPES ON CURLY POND PART 1 OF 2 HAVE BEEN STABILIZED. THE CONTRACTOR SHALL TEMPORARILY STABILIZE ALL SIDE SLOPES OF MOE DITCH PART 1 OF 3 AS SHOWN ON SHEET NO. 1289 BEFORE EXPOSING CONTRIBUTING SOIL AREAS GREATER THAN 2 ACRES.
- 2-1D. THE CONSTRUCTION OF BUCKWHEAT DITCH SHALL OCCUR DURING STAGE 2 PHASE 1. THE CONTRACTOR SHALL PERMANENTLY STABILIZE ALL SIDE SLOPES OF BUCKWHEAT DITCH AS SHOWN ON SHEET NOS. 1399 AND 1400 BEFORE EXPOSING CONTRIBUTING SOIL AREAS GREATER THAN 2 ACRES.

STAGE 2 PHASE 2 POND CONSTRUCTION SEQUENCING

- 2-2A. THE CONSTRUCTION OF DARLA POND SHALL OCCUR AT THE BEGINNING OF STAGE 2 PHASE 2. THE CONTRACTOR SHALL USE RAPID STABILIZATION METHODS TO STABILIZE ALL SIDE SLOPES OF DARLA POND AS SHOWN ON SHEET NOS. 1305 AND 1306 BEFORE EXPOSING CONTRIBUTING SOIL AREAS GREATER THAN 2 ACRES.
- 2-2B. THE CONSTRUCTION OF FROGGY DITCH AND PETEY DITCH MAY COMMENCE AFTER THE SIDE SLOPES ON DARLA POND HAVE BEEN STABILIZED. THE CONTRACTOR SHALL PERMANENTLY STABILIZE ALL SIDE SLOPES OF FROGGY DITCH AND PETEY DITCH AS SHOWN ON SHEET NOS. 1397 AND 1398 BEFORE EXPOSING CONTRIBUTING SOIL AREAS GREATER THAN 2 ACRES.
- 2-2C. THE CONSTRUCTION OF CURLY POND PART 2 OF 2 SHALL OCCUR AT THE BEGINNING OF STAGE 2 PHASE 2. THE CONTRACTOR SHALL USE RAPID STABILIZATION METHODS TO STABILIZE ALL SIDE SLOPES OF CURLY POND PART 2 OF 2 AS SHOWN ON SHEET NOS. 1305 AND 1314 BEFORE EXPOSING CONTRIBUTING SOIL AREAS GREATER THAN 2 ACRES.
- 2-2D. THE CONSTRUCTION OF MOE DITCH PART 2 OF 3 MAY COMMENCE AFTER THE SIDE SLOPES ON CURLY POND PART 2 OF 2 HAVE BEEN STABILIZED. THE CONTRACTOR SHALL PERMANENTLY STABILIZE ALL SIDE SLOPES OF MOE DITCH PART 2 OF 3 AS SHOWN ON SHEET NOS. 1397 AND 1407 BEFORE EXPOSING CONTRIBUTING SOIL AREAS GREATER THAN 2 ACRES.
- 2-2E. THE CONSTRUCTION OF STYMIE POND SHALL OCCUR DURING STAGE 2 PHASE 2. THE CONTRACTOR SHALL PERMANENTLY STABILIZE ALL SIDE SLOPES OF STYMIE POND AS SHOWN ON SHEET NO. 1403 BEFORE EXPOSING CONTRIBUTING SOIL AREAS GREATER THAN 2 ACRES.
- 2-2F. THE CONSTRUCTION OF SHEMP POND, CHUBBY POND, AND BUTCH DITCH PART 1 OF 2 SHALL OCCUR DURING STAGE 2 PHASE 2. THE CONTRACTOR SHALL PERMANENTLY STABILIZE ALL SIDE SLOPES OF SHEMP POND, CHUBBY POND, AND BUTCH DITCH PART 1 OF 2 AS SHOWN ON SHEET NOS. 1408 AND 1409 BEFORE EXPOSING CONTRIBUTING SOIL AREAS GREATER THAN 2 ACRES.

STAGE 2 PHASE 3 POND CONSTRUCTION SEQUENCING

- 2-3A. NO POND CONSTRUCTION.

STAGE 2 PHASE 4 POND CONSTRUCTION SEQUENCING

- 2-4A. THE CONSTRUCTION OF MOE DITCH PART 3 OF 3 SHALL OCCUR DURING STAGE 2 PHASE 4. THE CONTRACTOR SHALL PERMANENTLY STABILIZE ALL SIDE SLOPES OF MOE DITCH PART 3 OF 3 AS SHOWN ON SHEET NO. 1407 BEFORE EXPOSING CONTRIBUTING SOIL AREAS GREATER THAN 2 ACRES.

STAGE 3 PHASE 1 POND CONSTRUCTION SEQUENCING

- 3-1A. THE CONSTRUCTION OF BREEZY POND AND BUTCH DITCH PART 2 OF 2 SHALL OCCUR DURING STAGE 3 PHASE 1. THE CONTRACTOR SHALL PERMANENTLY STABILIZE ALL SIDE SLOPES OF BREEZY POND AND BUTCH DITCH PART 2 OF 2 AS SHOWN ON SHEET NO. 1409 BEFORE EXPOSING CONTRIBUTING SOIL AREAS GREATER THAN 2 ACRES.

STAGE 3 PHASE 2 POND CONSTRUCTION SEQUENCING

- 3-2A. THE CONSTRUCTION OF LARRY POND PART 3 OF 4 SHALL OCCUR DURING STAGE 3 PHASE 2. THE CONTRACTOR SHALL PERMANENTLY STABILIZE ALL SIDE SLOPES OF LARRY POND PART 3 OF 4 AS SHOWN ON SHEET NOS. 1391 AND 1405 BEFORE EXPOSING CONTRIBUTING SOIL AREAS GREATER THAN 2 ACRES.

STAGE 3 PHASE 3 POND CONSTRUCTION SEQUENCING

- 3-3A. THE CONSTRUCTION OF LARRY POND PART 4 OF 4 SHALL OCCUR DURING STAGE 3 PHASE 3. THE CONTRACTOR SHALL PERMANENTLY STABILIZE ALL SIDE SLOPES OF LARRY POND PART 4 OF 4 AS SHOWN ON SHEET NO. 1406 BEFORE EXPOSING CONTRIBUTING SOIL AREAS GREATER THAN 2 ACRES.
- 3-3B. THE CONSTRUCTION OF WALDO POND PART 2 OF 2 SHALL OCCUR DURING STAGE 3 PHASE 3. THE CONTRACTOR SHALL PERMANENTLY STABILIZE ALL SIDE SLOPES OF WALDO POND PART 2 OF 2 AS SHOWN ON SHEET NOS. 1392 AND 1405 BEFORE EXPOSING CONTRIBUTING SOIL AREAS GREATER THAN 2 ACRES.

STAGE 3 PHASE 4 POND CONSTRUCTION SEQUENCING

- 3-4A. NO POND CONSTRUCTION.

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CHECKED BY: SJS

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.

SIGNATURE: *Matthew A. Wassman*
PRINTED NAME: MATTHEW A. WASSMAN
DATE: MAY 27 2005 LIC. NO. 26883

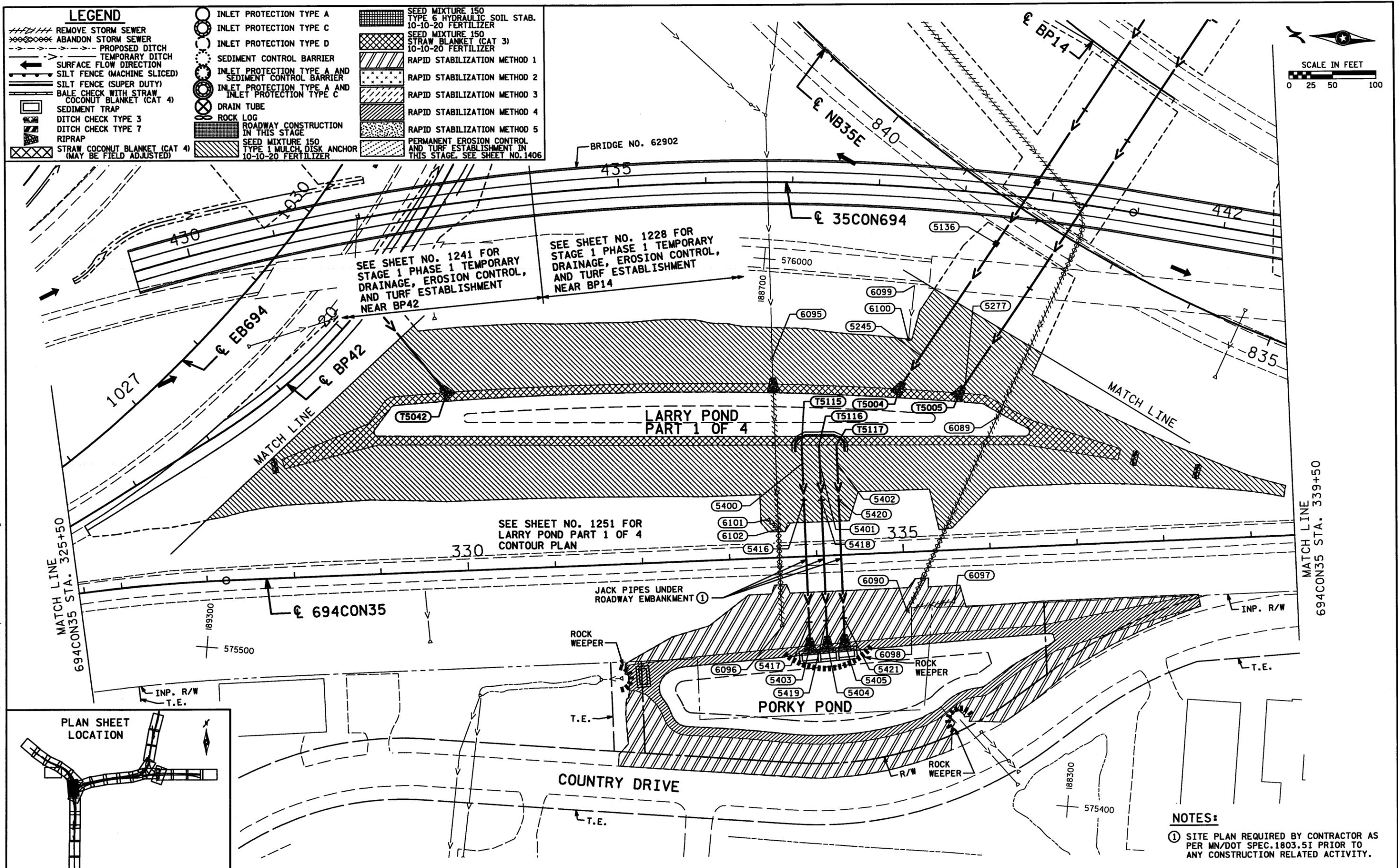


MINNESOTA DEPARTMENT OF TRANSPORTATION
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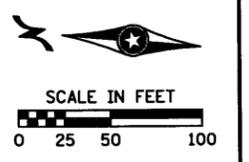


EROSION CONTROL NOTES AND DETAILS
POND CONSTRUCTION SEQUENCING NOTES

1223
1992



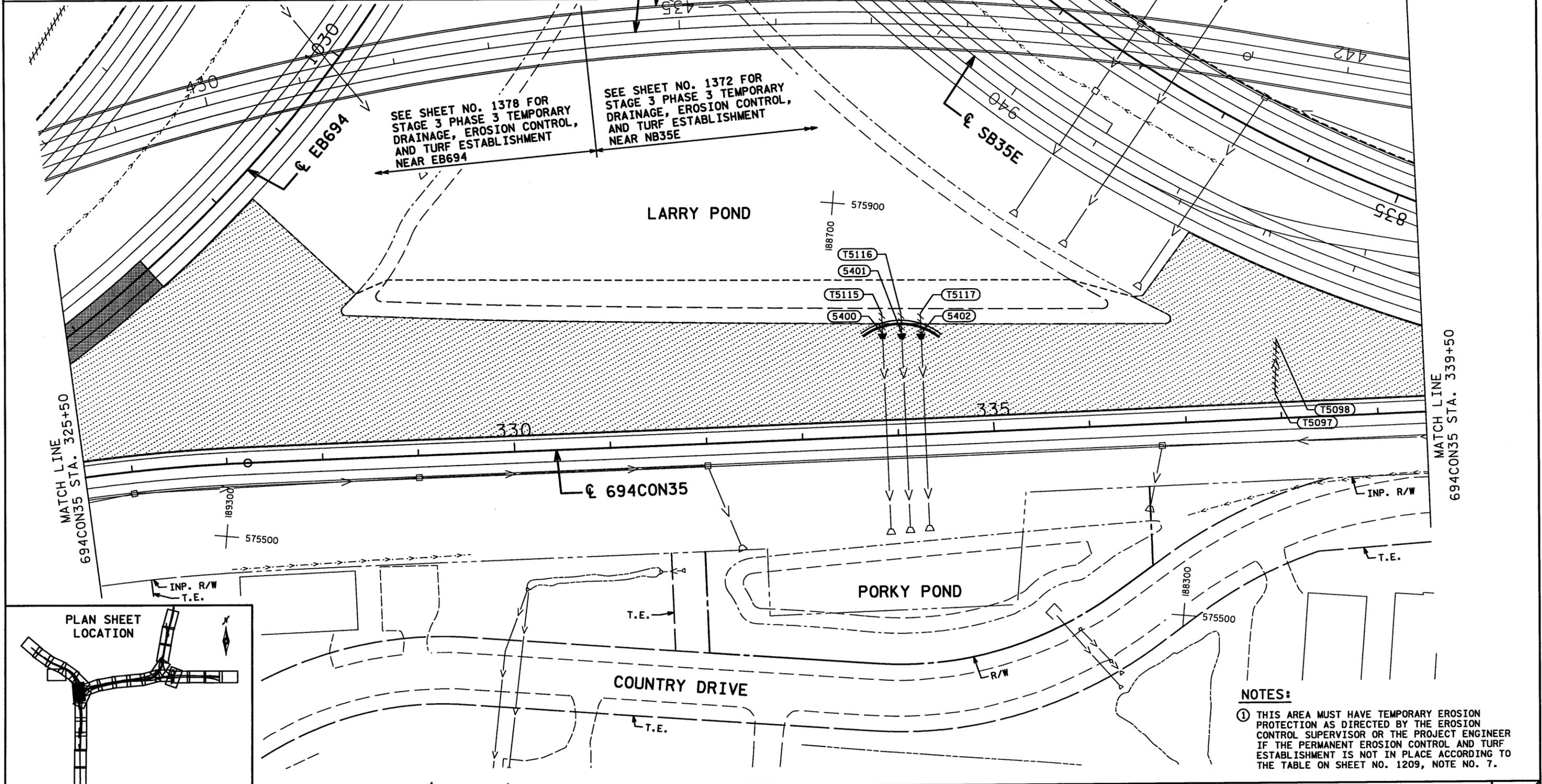
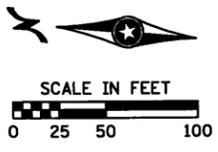
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MATCH LINE
694CON35 STA. 339+50

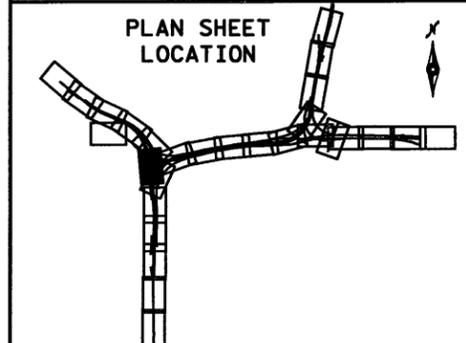
MATCH LINE
694CON35 STA. 325+50

LEGEND	
//////	REMOVE STORM SEWER
-----	ABANDON STORM SEWER
-----	PROPOSED DITCH
-----	TEMPORARY DITCH
-----	SURFACE FLOW DIRECTION
-----	SILT FENCE (MACHINE SLICED)
-----	SILT FENCE (SUPER DUTY)
-----	BALE CHECK WITH STRAW
-----	COCONUT BLANKET (CAT 4)
-----	SEDIMENT TRAP
-----	DITCH CHECK TYPE 3
-----	DITCH CHECK TYPE 7
-----	RIPRAP
-----	STRAW COCONUT BLANKET (CAT 4) (MAY BE FIELD ADJUSTED)
○	INLET PROTECTION TYPE A
○	INLET PROTECTION TYPE C
○	INLET PROTECTION TYPE D
○	SEDIMENT CONTROL BARRIER
○	INLET PROTECTION TYPE A AND SEDIMENT CONTROL BARRIER
○	INLET PROTECTION TYPE A AND INLET PROTECTION TYPE C
○	DRAIN TUBE
○	ROCK LOG
○	ROADWAY CONSTRUCTION IN THIS STAGE
○	SEED MIXTURE 150 TYPE 1 MULCH DISK ANCHOR 10-10-20 FERTILIZER
▨	SEED MIXTURE 150 TYPE 6 HYDRAULIC SOIL STAB. 10-10-20 FERTILIZER
▨	SEED MIXTURE 150 STRAW BLANKET (CAT 3) 10-10-20 FERTILIZER
▨	RAPID STABILIZATION METHOD 1
▨	RAPID STABILIZATION METHOD 2
▨	RAPID STABILIZATION METHOD 3
▨	RAPID STABILIZATION METHOD 4
▨	RAPID STABILIZATION METHOD 5
○	PERMANENT EROSION CONTROL AND TURF ESTABLISHMENT IN THIS STAGE. SEE SHEET NO. 1406



NOTES:

① THIS AREA MUST HAVE TEMPORARY EROSION PROTECTION AS DIRECTED BY THE EROSION CONTROL SUPERVISOR OR THE PROJECT ENGINEER IF THE PERMANENT EROSION CONTROL AND TURF ESTABLISHMENT IS NOT IN PLACE ACCORDING TO THE TABLE ON SHEET NO. 1209, NOTE NO. 7.



DRAWN BY: SFH
CHECKED BY: SJS

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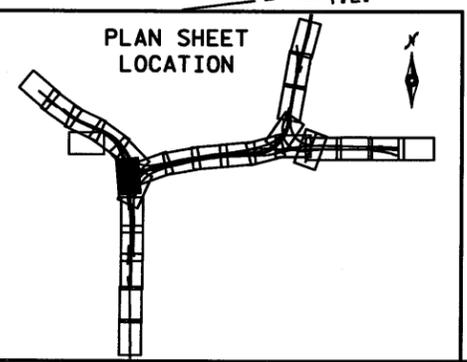
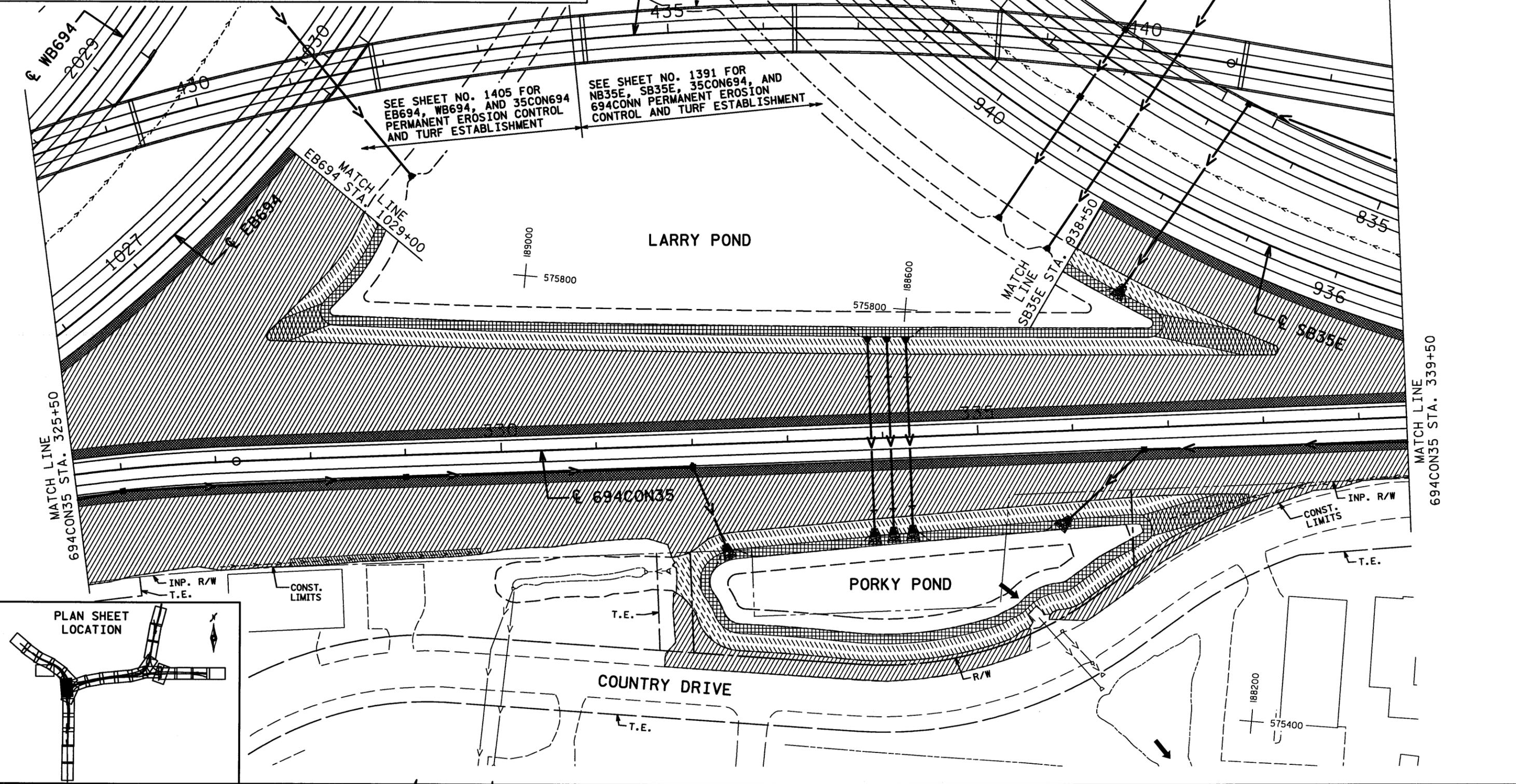
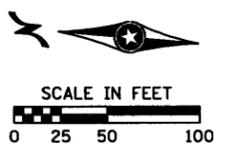


TEMPORARY DRAINAGE, EROSION CONTROL, AND TURF ESTABLISHMENT PLANS
STAGE 3 PHASE 3 / 694CON35 STA. 325+50 TO STA. 339+50
1379
1992

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LEGEND

■ PROPOSED CATCH BASIN	▨ SEED MIXTURE 250 TYPE 1 MULCH, DISK ANCHOR 22-5-10 80% WIN FERTILIZER	▩ SEED MIXTURE 310 STRAW BLANKET (CAT 3) 22-5-10 80% WIN FERTILIZER
● PROPOSED MANHOLE	▨ SEED MIXTURE 250 STRAW COCONUT BLANKET (CAT 4) 22-5-10 80% WIN FERTILIZER	▩ SEED MIXTURE 350 TYPE 1 MULCH, DISK ANCHOR 22-5-10 80% WIN FERTILIZER
▼ PROPOSED APRON	▨ SEED MIXTURE 260 STRAW BLANKET (CAT 1) 22-5-10 80% WIN FERTILIZER	▩ SEED MIXTURE 350 STRAW COCONUT BLANKET (CAT 4) 22-5-10 80% WIN FERTILIZER
→ PROPOSED STORM SEWER	▨ SEED MIXTURE 260 TYPE 1 MULCH, DISK ANCHOR 22-5-10 80% WIN FERTILIZER	▩ TYPE 9 MULCH
← SURFACE FLOW DIRECTION		
▨ RIPRAP		
- - - PROPOSED DITCH		



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STATE PROJECT NO. 6280-304 (T.H. 35E)



PERMANENT EROSION CONTROL AND TURF ESTABLISHMENT PLANS
694CON35 STA. 325+50 TO STA. 339+50

1406
1992