

MINNESOTA DEPARTMENT OF TRANSPORTATION

CONSTRUCTION PLAN FOR ROAD IMPROVEMENTS
 LOCATED ON T.H. 169 FROM T.H. 47 TO 1ST STREET & T.H. 210 FROM 8TH AVENUE TO 140 FEET EAST OF THE RIPPLE RIVER BRIDGE IN AITKIN

GOVERNING SPECIFICATIONS

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

INDEX

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2-11	GENERAL LAYOUT
12	ESTIMATED QUANTITIES
13	SOIL AND CONSTRUCTION NOTE, STANDARD PLATES & TRAFFIC CONTROL
14	SWPPP
15	TABULATED QUANTITIES
16-42	PEDESTRIAN RAMP DETAILS
43-48	STANDARD PLANS
49-64	SIGNING

STATE PROJ. NO. 0115-43
 GROSS LENGTH N/A FEET N/A MILES
 BRIDGES-LENGTH N/A FEET N/A MILES
 EXCEPTIONS-LENGTH N/A FEET N/A MILES
 NET LENGTH N/A FEET N/A MILES
 REF. POINT 252+00.103 TO REF. POINT 252+00.543

STATE PROJ. NO. 0118-21
 GROSS LENGTH N/A FEET N/A MILES
 BRIDGES-LENGTH N/A FEET N/A MILES
 EXCEPTIONS-LENGTH N/A FEET N/A MILES
 NET LENGTH N/A FEET N/A MILES
 REF. POINT 151+00.867 TO REF. POINT 152+00.369

STATE PROJ. NO. 0119-24
 GROSS LENGTH N/A FEET N/A MILES
 BRIDGES-LENGTH N/A FEET N/A MILES
 EXCEPTIONS-LENGTH N/A FEET N/A MILES
 NET LENGTH N/A FEET N/A MILES
 REF. POINT 152+00.512 TO REF. POINT 152+00.673

BEGIN S.P. 0118-21 (T.H. 210)
 STA. 251+00.00 R 1
 REF. PT. 151+00.867

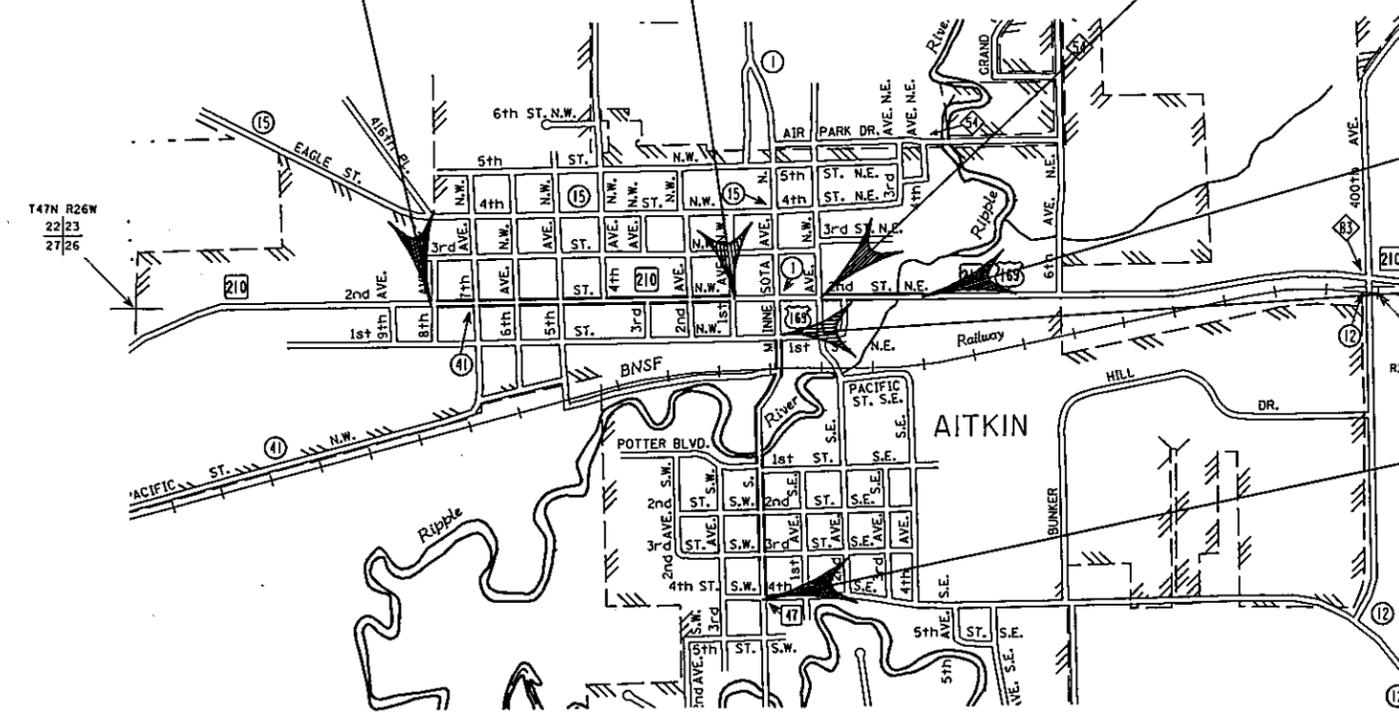
END S.P. 0118-21 (T.H. 210)
 STA. 277+50.00 R 3
 REF. PT. 152+00.369

BEGIN S.P. 0119-24 (T.H. 210)
 STA. 4+00.00 R 5
 REF. PT. 152+00.512

END S.P. 0119-24 (T.H. 210)
 STA. 12+50.00 R 5
 REF. PT. 152+00.673

END S.P. 0115-43 (T.H. 169)
 STA. 20+50.00 R 20
 REF. PT. 252+00.543

BEGIN S.P. 0115-43 (T.H. 169)
 STA. 986+50.00 R 15
 REF. PT. 252+00.103



THIS PLAN CONTAINS 64 SHEETS

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

PRINT NAME: ROBERT NIBBE LICENSE # 19948
 DATE: 12-31-2009 SIGNATURE: Robert Nibbe
 DESIGN SQUAD: MARY SCHILLING, KIM RISVOLD

RECOMMENDED FOR APPROVAL: Calvin Peterson 12/31/09 DISTRICT TRANSPORTATION ENGINEER
 RECOMMENDED FOR APPROVAL: [Signature] 12/31/09 DISTRICT MATERIALS ENGINEER
 RECOMMENDED FOR APPROVAL: Robert Nibbe 12-31-2009 DISTRICT WATER RESOURCES/HYDRAULICS ENGINEER
 RECOMMENDED FOR APPROVAL: [Signature] 12-31-2009 DISTRICT TRAFFIC ENGINEER
 RECOMMENDED FOR APPROVAL: Valerie [Signature] 2/10/2010 STATE DEPUTY ENGINEER
 OFFICE OF LAND MANAGEMENT APPROVAL: M. [Signature] 2/12/2010 OFFICE OF LAND MANAGEMENT
 APPROVED: 2/16/2010 STATE DESIGN ENGINEER

S.P. 0118-21, S.P. 0119-24 EQUATIONS

POT 269+12.07 R 1 (BK) = PC 269+11.88 R 2 (AH)
 POT 269+90.13 R 2 (BK) = PC 269+90.12 (AH) R 3
 POT 281+20.73 R 3 (BK) = POT 0+00.00 (AH) R 4
 PT 3+92.62 R 4 (BK) = PT 3+92.62 (AH) R 5
 POT 30+86.71 R 5 (BK) = PC 30+88.21 (AH) R 6

DESIGN DESIGNATION

T.H. 169
 Design ESALS 2030 = 2,219,000
 ADT (Current Year) 2010 = 12,500
 ADT (Future Year) 2030 = 20,600

S.P. 0115-43 EQUATIONS

POT 977+56.92 R 14 (BK) = POT 977+61.20 R 15 (AH)
 POT 989+68.92 R 15 (BK) = POT 989+71.70 R 16 (AH)
 POT 997+37.63 R 16 (BK) = POT 8+10.01 (AH) R 17
 POT 13+60.48 R 17 (BK) = PC 13+61.41 (AH) R 18
 PT 14+81.37 R 18 (BK) = POT 14+78.95 (AH) R 19
 PT 16+72.96 R 19 (BK) = POT 16+73.07 (AH) R 20

FOR PLANS AND UTILITIES SYMBOLS SEE TECHNICAL MANUAL

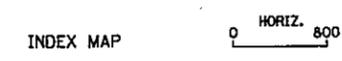
STATE PROJ. NO.	CHARGE IDENTIFIER
0115-43	T 33151
0118-21	T 33152
0119-24	T 33153



PROJECT LOCATION
 COUNTY: AITKIN
 DISTRICT: 3

PLOTTED/REVISED: 12/31/2009

DISTRICT #: DISTRICT 3 - BAXTER, MN
 PLOT NAME:
 PATH & FILENAME: \$\$\$PATHFILENAME\$\$\$



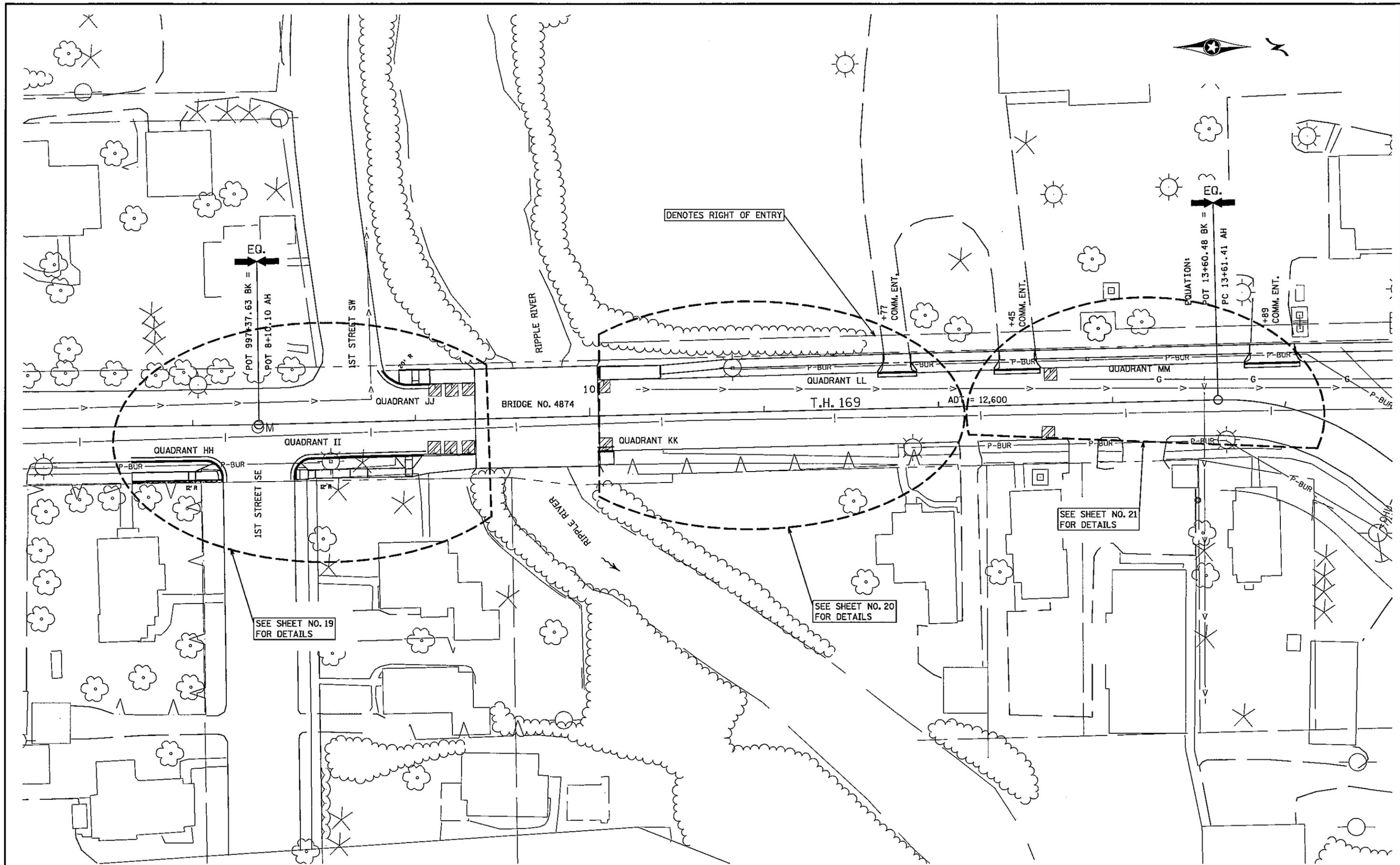
HORIZ. 800

PLAN REVISIONS		
DATE	SHEET NO.	APPROVED BY

T.H. 210
 Design ESALS 2030 = 4,220,000
 ADT (Current Year) 2010 = 10,500
 ADT (Future Year) 2030 = 15,700

Design Speed N/A MPH N/A
 Based on N/A Sight Distance N/A
 Height of eye N/A Height of object N/A
 Design Speed not achieved at:
 T (Heavy Commercial) = % STA. TO STA. MPH
 STA. TO STA. MPH

STATE PROJ. NO. 0118-21 (TH 210 = 002)
 STATE PROJ. NO. 0119-24 (TH 210 = 002)
 STATE PROJ. NO. 0115-43 (TH 169 = 035) SHEET NO. 1 OF 64 SHEETS



CERTIFIED BY *Robert Little* LIC. NO. 19948
 LICENSED PROFESSIONAL ENGINEER

FILE NAME: Projects/D3_BAX/169/0115/043/Design/d011543-g13.dgn
 STATE PROJ. NO. 0115-43, ETC. (T.H. 169)

GENERAL LAYOUT
 1/4/2010
 SHEET NO. 4 OF 64 SHEETS

STATEMENT OF ESTIMATED QUANTITIES

SHEET NO.	CHART NO.	ITEM NO.	ITEM DESCRIPTION	NOTES	UNITS	TOTAL ESTIMATED QUANTITIES	S.P. 0115-43	S.P. 0118-21	S.P. 0119-24
		2021.501	MOBILIZATION		LUMP SUM	1	1		
		2031.602	COMBINATION FIELD LABORATORY-OFFICE	(1)	EACH	1	1		
		2051.501	MAINT AND RESTORATION OF HAUL ROADS		LUMP SUM	1	1		
		2101.502	CLEARING	(2)	TREE	2	2		
		2101.507	GRUBBING	(2)	TREE	2	2		
15	A	2104.501	REMOVE CONCRETE CURB	(P)	LIN FT	727	446	281	
15	A	2104.501	REMOVE CURB AND GUTTER	(P)	LIN FT	1597	157	619	821
15	A	2104.505	REMOVE CONCRETE WALK	(P)	SQ YD	1271	404	510	357
15	A	2104.505	REMOVE PAVEMENT	(P)	SQ YD	821	432	173	216
15	A	2104.505	REMOVE CONCRETE DRIVEWAY PAVEMENT	(P)	SQ YD	217	8	42	167
15	A	2104.505	REMOVE BITUMINOUS DRIVEWAY PAVEMENT	(P)	SQ YD	291	254	37	
15	A	2104.505	REMOVE BITUMINOUS PAVEMENT	(P)	SQ YD	60	6	54	
15	A	2104.511	SAWING CONCRETE PAVEMENT (FULL DEPTH)		LIN FT	2682	981	832	869
15	A	2104.513	SAWING BITUMINOUS PAVEMENT (FULL DEPTH)		LIN FT	254	178	76	
		2104.521	SALVAGE METAL RAILING	(3)	LIN FT	24			24
49	B	2104.523	SALVAGE SIGN TYPE C		EACH	18	4	11	3
		2105.525	TOPSOIL BORROW (LV)		CU YD	123	69	49	5
		2123.610	SKID LOADER	(4)	HOUR	80	35	35	10
		2211.503	AGGREGATE BASE (CV) CLASS 6	(P)	CU YD	68	30	36	2
15	A	2231.501	BITUMINOUS PATCHING MIXTURE		TON	123	51	38	34
		2402.585	PIPE RAILING	(3)	LIN FT	42			42
		2411.501	STRUCTURAL CONCRETE (1A43)	(5)	CU YD	10	10		
		2411.501	STRUCTURAL CONCRETE (3Y43)	(5)	CU YD	9	9		
		2411.541	REINFORCEMENT BARS (EPOXY COATED)	(5)	POUND	31	31		
		2504.602	ADJUST VALVE BOX-WATER		EACH	6	1	1	4
		2506.522	ADJUST FRAME & RING CASTING	(6)	EACH	20	7	6	7
15	A	2521.501	4" CONCRETE WALK		SQ FT	19170	6900	8474	3796
15	A	2521.515	SAWING CONCRETE WALK		LIN FT	1281	259	367	655
15	A	2531.501	CONCRETE CURB & GUTTER DESIGN B424		LIN FT	99	99		
15	A	2531.501	CONCRETE CURB & GUTTER DESIGN B624		LIN FT	2518	811	899	808
15	A	2531.507	6" CONCRETE DRIVEWAY PAVEMENT		SQ YD	161	77	84	
15	A	2531.507	8" CONCRETE DRIVEWAY PAVEMENT		SQ YD	355	208		147
15	A	2531.618	TRUNCATED DOMES		SQ FT	711	279	354	78
		2563.601	TRAFFIC CONTROL SUPERVISOR		LUMP SUM	1	1		
		2563.601	TRAFFIC CONTROL		LUMP SUM	1	1		
49	B	2564.537	INSTALL SIGN TYPE C		EACH	18	4	11	3
		2572.501	TEMPORARY FENCE	(7)	LIN FT	641	329	312	
		2573.502	SILT FENCE, TYPE HEAVY DUTY	(8)	LIN FT	42	26		16
16		2573.530	STORM DRAIN INLET PROTECTION	(9)	EACH	31	10	15	6
15	A	2575.505	SODDING TYPE LAWN		SQ YD	1615	874	662	79
15	A	2575.532	FERTILIZER TYPE 2		POUND	68	36	28	4

NOTES:

- (1) REQUIRES TYPE D SERVICE
 - (2) SEE SHEETS NO. 19 & 21 FOR LOCATIONS
 - (3) SEE SHEET NO. 42 FOR LOCATIONS & DETAILS
 - (4) PROVIDED FOR SALVAGING TOPSOIL & SHAPING AT PED RAMPS AND CONCRETE WALK LOCATIONS
 - (5) SEE SHEET NO. 41 FOR LOCATIONS AND DETAILS
 - (6) INCLUDES CURB BOX REMOVAL AS NOTED ON SHEETS NO. 16-37
 - (7) PROVIDED FOR TEMPORARY PEDESTRIAN ACCESS MANAGEMENT
 - (8) SEE SHEETS NO. 19-20 & 37 FOR LOCATIONS REQUIRES MAINTENANCE
 - (9) SEE SHEET NO. 46 FOR DETAILS
 - (10) PROVIDED FOR PROPOSED WALK CONSTRUCTION. SEE SHEET NO. 42 FOR LOCATIONS
- (P) DENOTES PLAN QUANTITY

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

THE FOLLOWING UTILITIES HAVE FACILITIES WITH IN THE PROJECT LIMITS BUT WILL NOT BE IMPACTED BY THE CONSTRUCTION OF CULVERT REPLACEMENTS.

AITKIN PUBLIC UTILITIES
CITY OF AITKIN
CHARTER COMMUNICATIONS

CENTURY LINK
MINNESOTA ENERGY RESOURCES CORP.
RIVERWOOD HEALTHCARE CENTER

ESTIMATED QUANTITIES

CERTIFIED BY *Robert A. Lillie* LIC. NO. 19948
LICENSED PROFESSIONAL ENGINEER

FILE NAME: Projects/D3_BAX/169/0115/043/Design/d011543_est.dgn 1/27/2010
STATE PROJ. NO.0115-43, ETC. (T.H. 169) SHEET NO. 12 OF 64 SHEETS

SOILS AND CONSTRUCTION NOTE

BITUMINOUS AND CONCRETE REMOVAL

ANY BITUMINOUS AND OR CONCRETE REMOVED AND NOT DESIGNATED FOR USE ELSEWHERE ON THE PROJECT, SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND DISPOSED OF OFF THE R/W IN ACCORDANCE WITH SPEC. 2104 OR RECYCLED IN ACCORDANCE WITH MN/DOT SPECIFICATIONS.

GRADING

SALVAGE THE EXISTING TOPSOIL AND STOCKPILE. THIS MATERIAL WILL BE USED LATER AS SLOPE DRESSING. REPLACE THE SALVAGED TOPSOIL ON ALL DISTURBED AREAS.

ALL MATERIAL NOT UTILIZED ON THIS PROJECT SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND BE DISPOSED OF OFF THE R/W IN ACCORDANCE WITH THE APPLICABLE MN/DOT SPEC.'S.

BITUMINOUS PATCHING MIXTURE

PATCHING MATERIAL SHALL MEET THE FOLLOWING MODIFIED SPECIFICATIONS OF 2231.2

AGGREGATE GRADATION	PERCENT BY MASS
PASSING 3/8 SIEVE-----	100
PASSING NO. 8 SIEVE-----	45 - 80
PASSING NO. 200 SIEVE-----	2.0 - 7.0

BITUMINOUS MATERIAL
THE ASPHALT BINDER SHALL MEET THE REQUIREMENTS OF PG 58-28, 52-34, OR 58-34 AND BE INCORPORATED INTO THE MIXTURE AT THE RATE OF 6.5% OF THE TOTAL MIXTURE WEIGHT.
TACK COAT SHALL BE CONSIDERED INCIDENTAL.

TEMPORARY EROSION CONTROL

THE TEMPORARY EROSION CONTROL DEVICES SHOWN IN THE TABULATIONS AND DETAILS ARE SUGGESTED LOCATIONS. THE ENGINEER, AT THE TIME OF CONSTRUCTION MAY ADJUST THESE LOCATIONS TO BEST SUIT PROJECT CONDITIONS. THIS DOES NOT HOWEVER RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITIES, AS SET FORTH IN MN/DOT SPEC.'S, TO EROSION CONTROL.

PERMANENT TURF ESTABLISHMENT

REPLACE SALVAGED TOPSOIL OR TOPSOIL BORROW ON DISTURBED AREAS
PROVIDE SODDING (TYPE LAWN)
PROVIDE FERTILIZER 20-0-10, AT A RATE OF 200 LBS/ACRE

TRAFFIC CONTROL

ALL WORK MUST FOLLOW THE MN MUTCD AND THE 'TEMPORARY TRAFFIC CONTROL LAYOUT' MANUAL DATED 2007.

LAYOUT 2 SHOULDER CLOSURE
LAYOUT 13 2 FLAGGER LANE CLOSURE
LAYOUT 78 & 79 SIDEWALK CLOSURE, AND USE TOE KICK BOARDS ON TYPE III BARRIADADES TO CLOSE SIDEWALKS

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

STANDARD PLATES	
PLATE NO.	DESCRIPTION
4108F	ADJUSTING RINGS FOR CATCH BASINS AND MANHOLES
7020J	CONCRETE CURB (DESIGN B, DESIGN V, DESIGN S, DESIGN DR AND DESIGN BR)(2 SHEETS)
7100H	CONCRETE CURB AND GUTTER (DESIGN B and DESIGN V)
8000I	STANDARD BARRICADES
8401C	AT GRADE PIPE RAILING (ADJACENT TO SIDEWALK)

STORM WATER POLLUTION PREVENTION PLAN NARRATIVE

PROJECT DESCRIPTION/LOCATION

S.P. 0115-43 IS LOCATED ON T.H. 169 FROM T.H. 47 TO T.H. 210, AND ON T.H. 210 FROM 8TH STREET NW TO THE RIPPLE RIVER BRIDGE.

THE PROJECT CONSISTS OF THE FOLLOWING:

PEDESTRIAN CURB RAMP AND CONCRETE WALK CONSTRUCTION.

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 THE DISTRICTS HYDRAULICS UNIT. THE SITE MAPS SHOW THE PROJECT LIMITS, ALIGNMENT, EXISTING AND PROPOSED CONTOURS, DRAINAGE AREAS, STORM SEWER LOCATIONS, FLOW ARROWS, AND IMPERVIOUS SURFACE. IF APPLICABLE, IMPAIRED WATERS AND WETLANDS ARE ALSO SHOWN.

ENVIRONMENTALLY SENSITIVE AREAS

RIPPLE RIVER AND VARIOUS WETLANDS ARE WITHIN THE PROJECT LIMITS

LAND FEATURE CHANGES

TOTAL PROJECT AREA = 10.06 ACRES
 EXISTING IMPERVIOUS AREA = 8.55 ACRES
 PROPOSED IMPERVIOUS AREA = 0.14 ACRES
 EXISTING PERVIOUS AREA = 1.51 ACRES
 PROPOSED PERVIOUS ACRES = 0.34 ACRES
 TOTAL DISTURBED AREA = 0.48 ACRES

DRAINAGE COMPUTATIONS

COMPUTATIONS ARE KEPT ON FILE WITH THE DISTRICT HYDRAULICS UNIT. CHANGES MADE IN THE FIELD SHALL BE DISCUSSED WITH THE DISTRICT HYDRAULICS ENGINEER AND NOTED IN THE CONTRACTORS CONSTRUCTION LOG.

PROJECT CONTACTS

THE MN/DOT PROJECT ENGINEER AND CONTRACTOR ARE RESPONSIBLE FOR THE IMPLEMENTATION OF THE SWPPP AND INSTALLATION, INSPECTION AND MAINTENANCE OF THE EROSION AND SEDIMENT CONTROL BMP'S BEFORE AND DURING CONSTRUCTION. MN/DOT DISTRICT STAFF AND MEMBERS OF MN/DOT'S ENVIRONMENTAL SERVICES ARE ALSO AVAILABLE FOR ASSISTANCE. MN/DOT DISTRICT 3 MAINTENANCE IS RESPONSIBLE FOR LONG TERM OPERATION AND MAINTENANCE OF THE STORM WATER MANAGEMENT SYSTEM.
 MPCA 24 HOUR EMERGENCY NOTIFICATION: 651-649-5451 OR 800-422-0798

MN/DOT RESIDENT ENGINEER:
 TONY HUGHES
 DISTRICT 3
 7964 INDUSTRIAL PARK RD
 BAXTER, MN 56425
 (218)-828-5735

MN/DOT MAINTENANCE:
 GARY DIRLAM
 DISTRICT 3
 7694 INDUSTRIAL PARK ROAD
 BAXTER, MN 56425
 (218)-828-5705

MPCA CONTACT:
 AITKIN COUNTY
 JAMES DEXTER
 (218) 302-6632

COE CONTACT:
 AITKIN COUNTY
 ROBERT MARONEY
 (218)-829-2711

DNR CONTACT:
 PETER LEETE
 (651) 366-3634

CONSTRUCTION NOTES

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

TIMING OF BMP INSTALLATION

ALL EROSION PREVENTION AND SEDIMENT CONTROL BMP'S SHALL BE INSTALLED PRIOR TO ANY WORK THAT DISTURBS EXISTING CONDITIONS AND CREATES THE POTENTIAL FOR EROSION AND TO MINIMIZE EROSION FROM DISTURBED AREAS AND CAPTURE SEDIMENT ONSITE, AND SHALL MEET THE NPDES PERMIT PART IV CONSTRUCTION ACTIVITY REQUIREMENTS.

RECEIVING WATERS

THE RECEIVING WATERS FOR THE PROJECT IS THE RIPPLE RIVER, AND VARIOUS WETLANDS. RUNOFF FROM THE PROJECT AREA IS TRANSPORTED VIA STORM SEWER & GRASSY DITCHES TO THESE WATERS.

STORM WATER POLLUTION PREVENTION PLAN (SWPPP) NOTES

- 1) 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 BMP'S BEFORE AND DURING CONSTRUCTION.
- 2) 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.
- 3) THE CONTRACTOR SHALL PROVIDE 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
- 4) 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.
- 5) 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 CONNECTION TO A SURFACE WATER. THESE AREAS MUST BE KEPT STABILIZED AT ALL TIMES.
- 6) PIPE OUTLETS MUST BE PROVIDED WITH TEMPORARY OR PERMANENT ENERGY DISSIPATION WITHIN 24 HOURS OF CONNECTION TO A SURFACE WATER.
- 7) 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 BMP'S, SUCH THAT THE DISCHARGE DOES NOT ADVERSELY AFFECT THE RECEIVING WATER DOWNSTREAM. 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 PROJECT ENGINEER. ADEQUATE SEDIMENTATION CONTROL MEASURES ARE REQUIRED FOR DISCHARGE WATER THAT CONTAINS SUSPENDED SOLIDS.
- 8) ANY FUEL OR CHEMICAL TANK STORED ON THE PROJECT AREA MUST BE PROTECTED BY A SOIL BERM OR HAVE A POSITIVE GRADIENT AWAY FROM ANY WATER RESOURCE AREA. AS PER COE404, A CONTINGENCY PLAN MUST BE CREATED BY THE CONTRACTOR IN 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.
- 9) A WATER APPROPRIATION PERMIT WILL BE REQUIRED FROM THE MN/DNR FOR CONSTRUCTION DEWATERING EXCEEDING 10,000 GALLONS PER DAY.
- 10) ALL ERODIBLE STOCKPILES SHALL HAVE SEDIMENT CONTROL AND BE PLACED IN AREAS AWAY FROM SURFACE WATER.
- 11) CONTRACTOR SHALL BE RESPONSIBLE FOR CONTROLLING EROSION AS PER THE PLAN, PROJECT SPECIAL PROVISIONS, AND MNDOT SPECIFICATIONS, 1701, 1702, 1717, 2572, 2573, 2575.

LOCATION OF SWPPP REQUIREMENTS IN PROJECT PLAN

DESCRIPTION	TITLE	LOCATION
TEMPORARY EROSION CONTROL MEASURES	PLAN SHEETS	SHEET NO. 16-37
PERMANENT EROSION CONTROL MEASURES	PLAN SHEETS	SHEET NO. 16-37
DIRECTION OF FLOW	N/A	
FINAL STABILIZATION	PLAN SHEETS	SHEET NO. 16-37
DRAINAGE TABULATION (CULVERTS)	N/A	
STORM SEWER PROFILE SHEETS	N/A	
STORM SEWER TABULATION	N/A	
EROSION CONTROL DETAILS	STANDARD PLAN SHEETS	SHEET NO. 45-48
EROSION CONTROL TABULATION	PLAN SHEET	SHEET NO. 16
TURF ESTABLISHMENT & TABULATION	PLAN SHEET	SHEET NO. 15

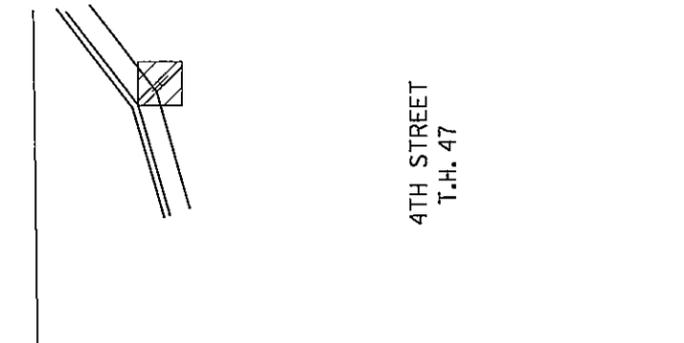
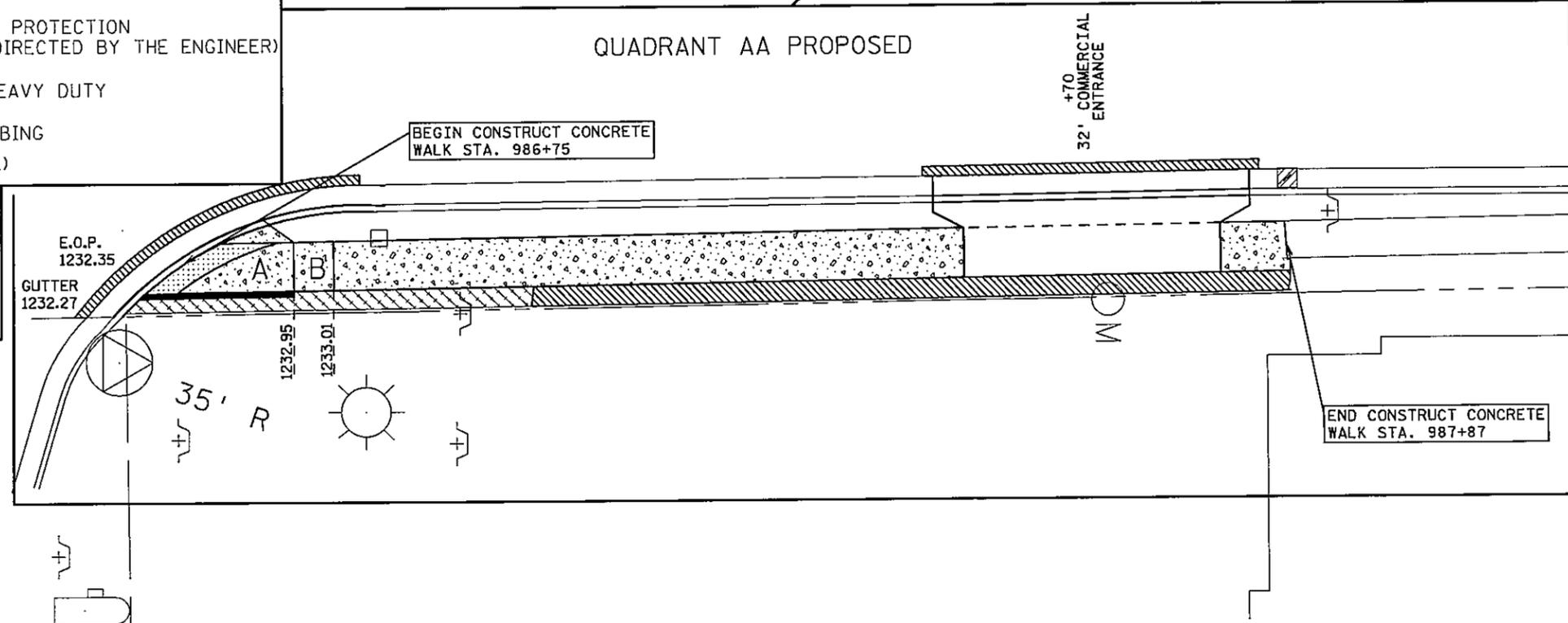
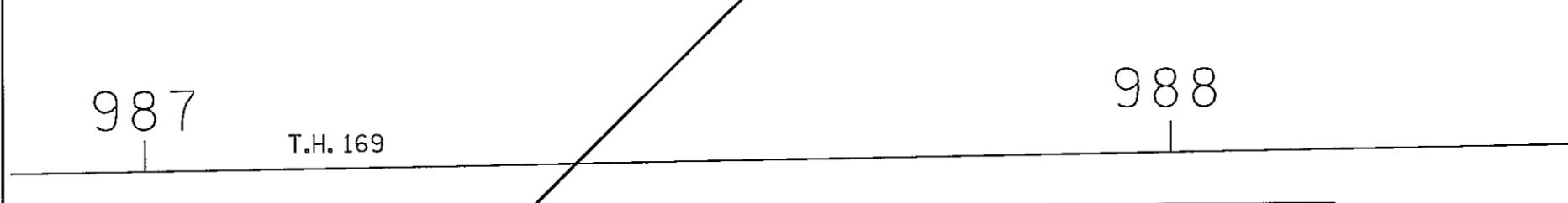
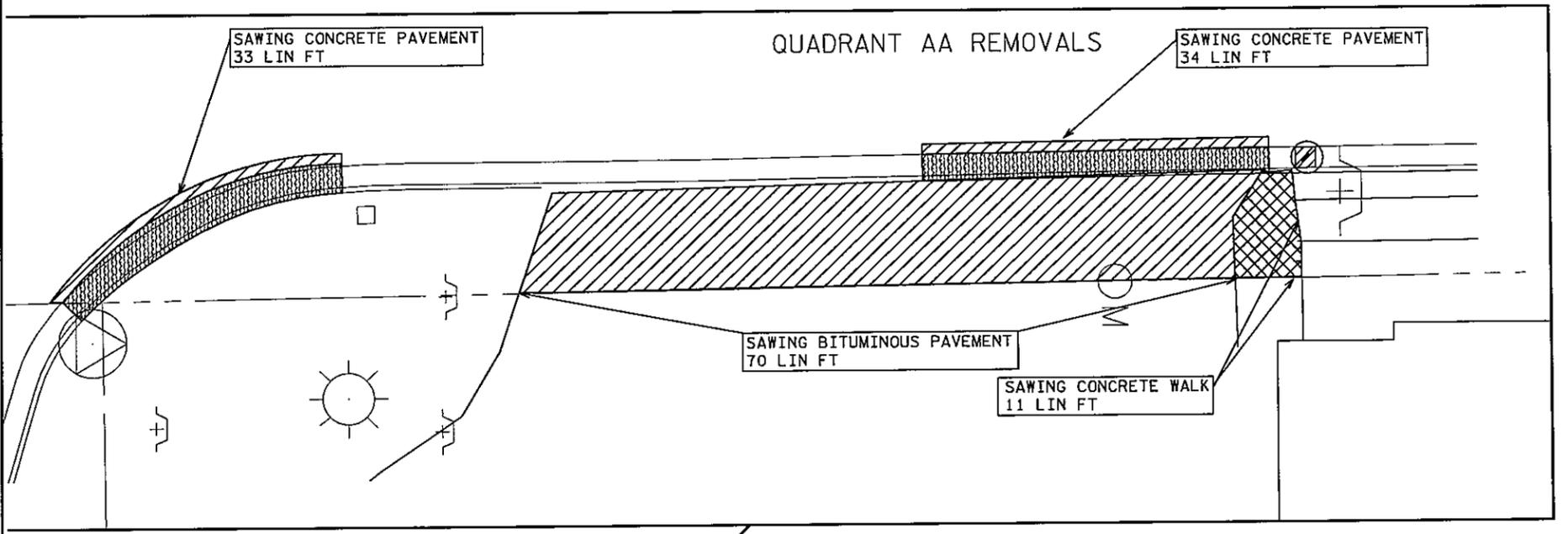
LEGEND
FOR SHEET NO. 16 - NO. 37



- DENOTES EXISTING RIGHT OF WAY
- DENOTES TEMPORARY EASEMENT
- DENOTES REMOVE CONCRETE WALK
- DENOTES REMOVE BITUMINOUS PAVEMENT AND REMOVE PAVEMENT
- DENOTES REMOVE CONCRETE DRIVEWAY PAVEMENT
- DENOTES REMOVE CURB & GUTTER
- DENOTES PROPOSED CONCRETE CURB & GUTTER
- DENOTES PROPOSED CONCRETE WALK
- DENOTES PROPOSED BITUMINOUS PATCHING
- DENOTES SODDING TYPE LAWN
- DENOTES TRUNCATED DOME
- A DENOTES RAMP
- B DENOTES LANDING
- C DENOTES TRANSITION PANEL
- DENOTES LIGHT POLE BASE
- DENOTES STORM DRAIN INLET PROTECTION (APPROX. 31 TO BE USED AS DIRECTED BY THE ENGINEER)
- HD ----- DENOTES SILT FENCE TYPE HEAVY DUTY
- DENOTES CLEARING AND GRUBBING
- DENOTES V CURB (INCIDENTAL)

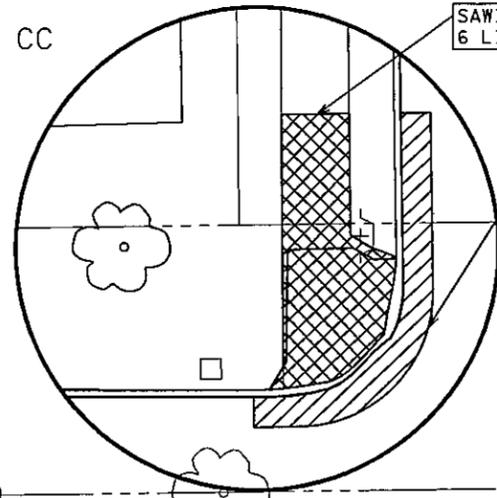
NOTE:
EDGE OF PAVEMENT (E.O.P.)
ELEVATION & GUTTER
ELEVATION IS TO CENTER
OF RAMP

0 15
SCALE IN FEET



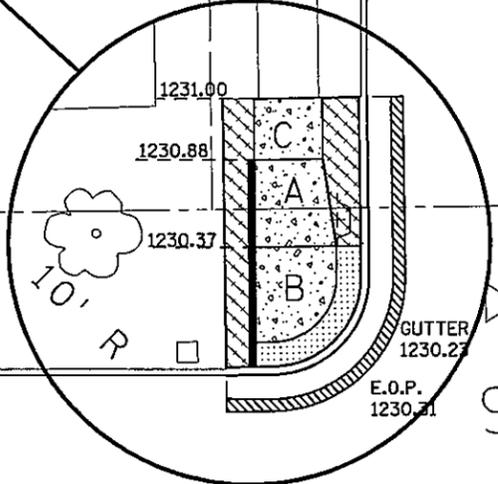
PEDESTRIAN RAMP DETAILS

QUADRANT CC
REMOVALS



SAWING CONCRETE WALK
6 LIN FT

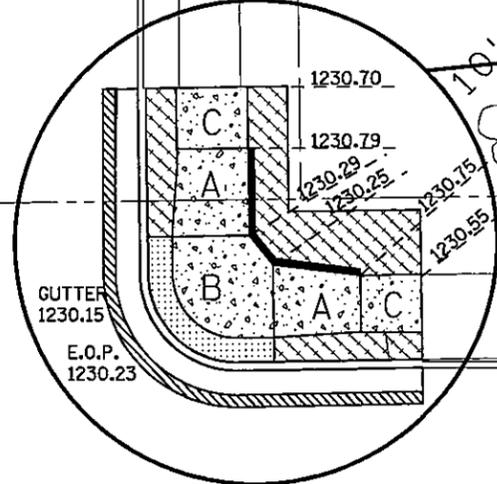
SAWING CONCRETE PAVEMENT
33 LIN FT



QUADRANT CC PROPOSED

3RD STREET SW

QUADRANT DD
REMOVALS



QUADRANT DD PROPOSED

SAWING CONCRETE PAVEMENT
30 LIN FT

SAWING CONCRETE WALK
6 LIN FT



SAWING CONCRETE WALK
6 LIN FT

989

990

991

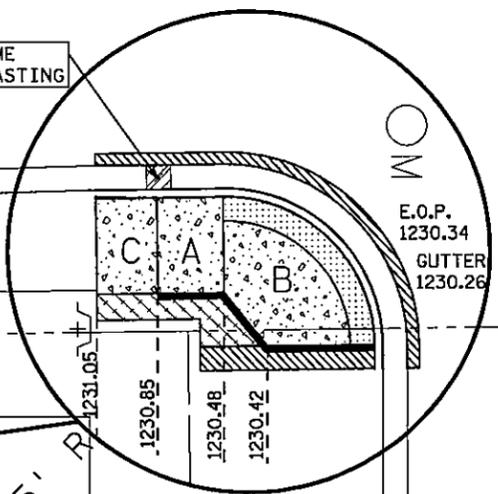
T.H. 169

QUADRANT BB PROPOSED

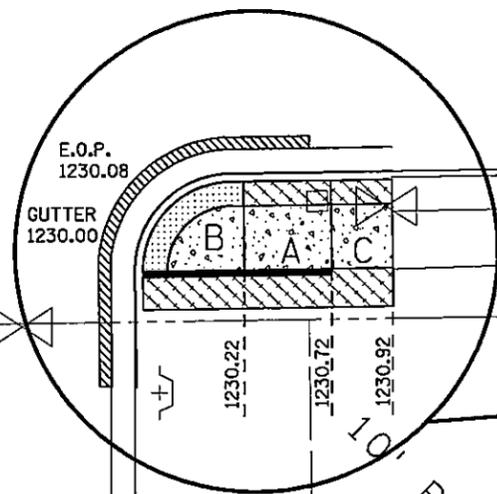
QUADRANT EE PROPOSED

NO

ADJUST FRAME
AND RING CASTING

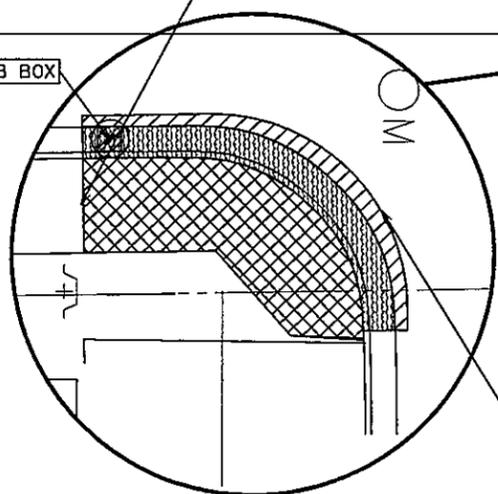


NO



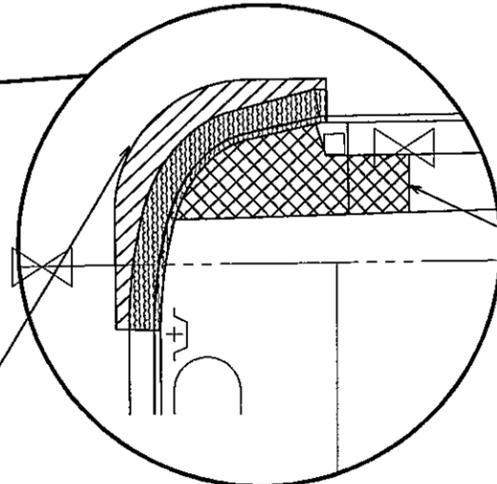
3RD STREET SE

REMOVE CURB BOX



QUADRANT BB REMOVALS

SAWING CONCRETE PAVEMENT
33 LIN FT



QUADRANT EE REMOVALS

SAWING CONCRETE WALK
6 LIN FT

SAWING CONCRETE PAVEMENT
38 LIN FT

PEDESTRIAN RAMP DETAILS

CERTIFIED BY *Robert Little* LIC. NO. 19948
LICENSED PROFESSIONAL ENGINEER

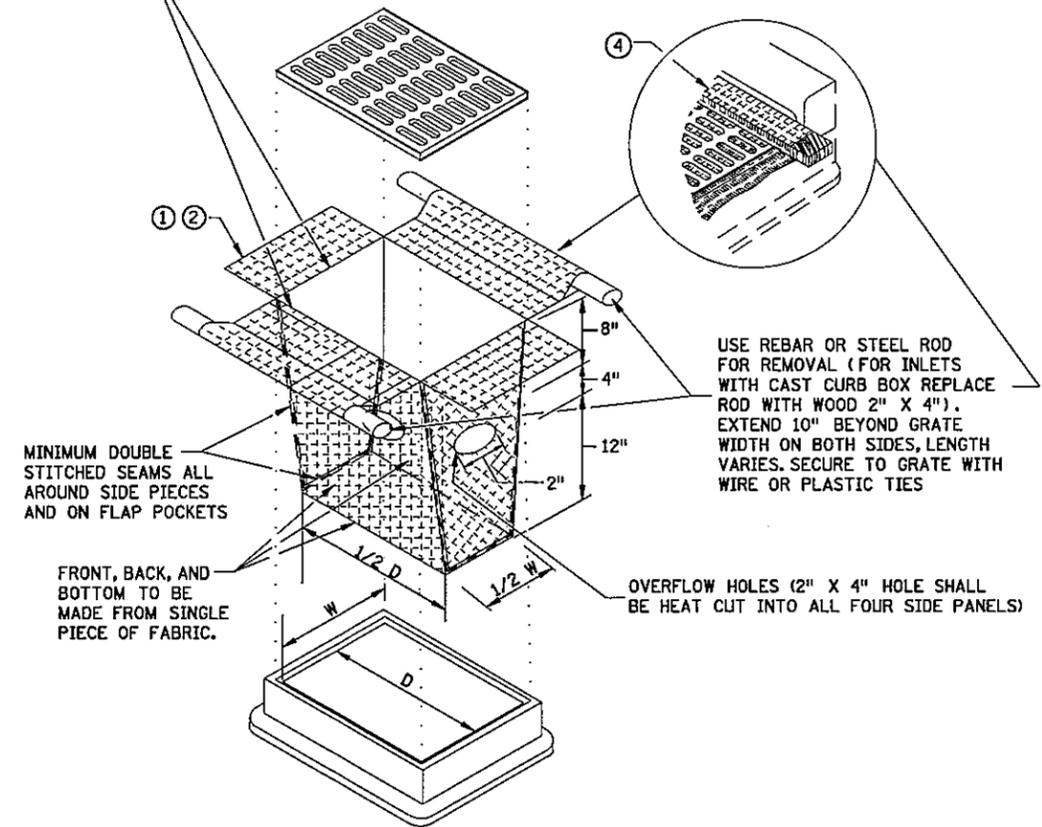
FILE NAME: Projects/D3_BAX/169/0115/043/Design/d011543_Int13.dgn

12/29/2009

STATE PROJ. NO.0115-43, ETC. (T.H. 169)

SHEET NO. 17 OF 64 SHEETS

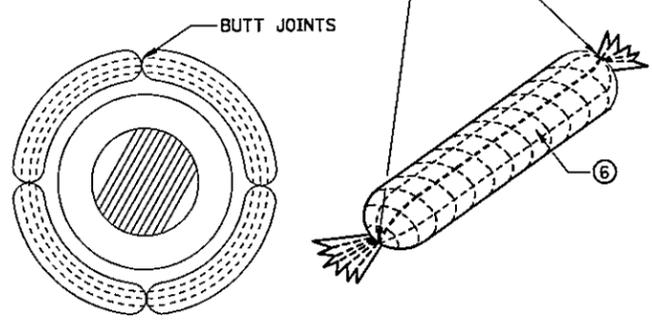
INLET SPECIFICATIONS AS PER THE PLAN
DIMENSION LENGTH AND WIDTH TO MATCH
FLAP POCKET



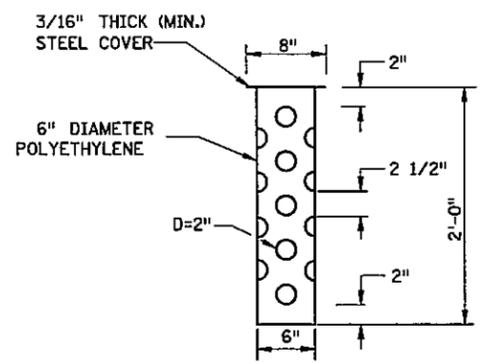
FILTER BAG INSERT ③

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

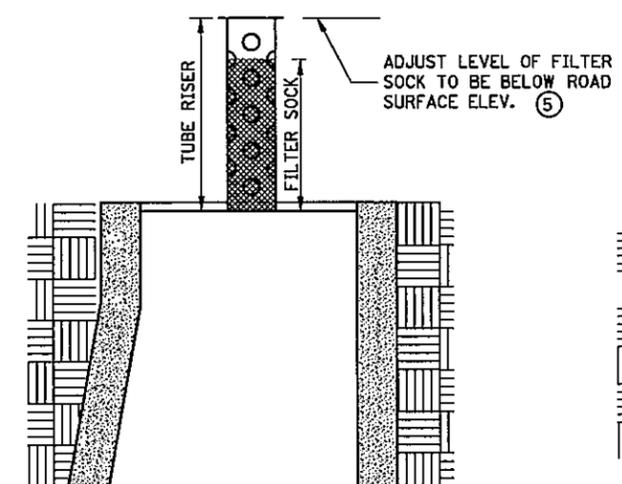
ENDS SECURELY CLOSED TO PREVENT LOSS OF OPEN GRADED AGGREGATE FILL. SECURED WITH 50 PSL ZIP TIE.



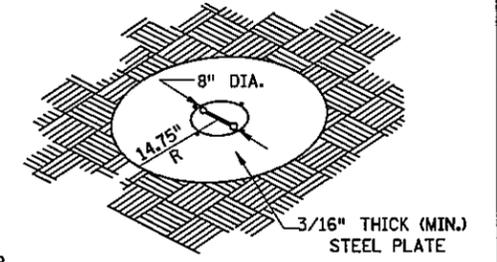
ROCK LOG/COMPOST LOG



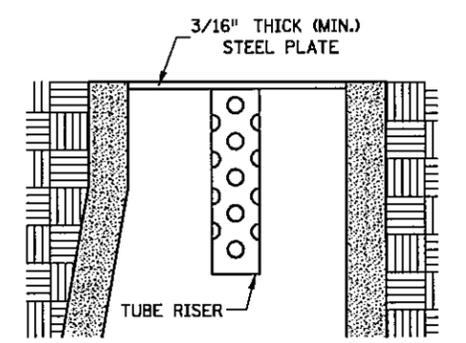
TUBE RISER



SECTION (UP POSITION)

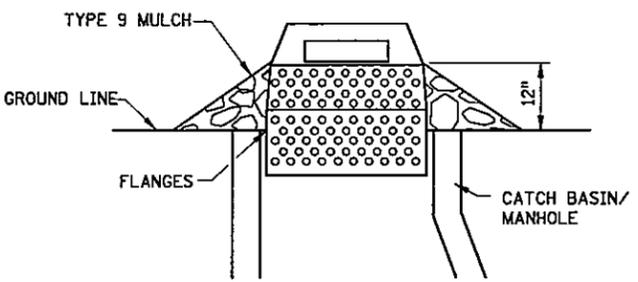


PERSPECTIVE VIEW

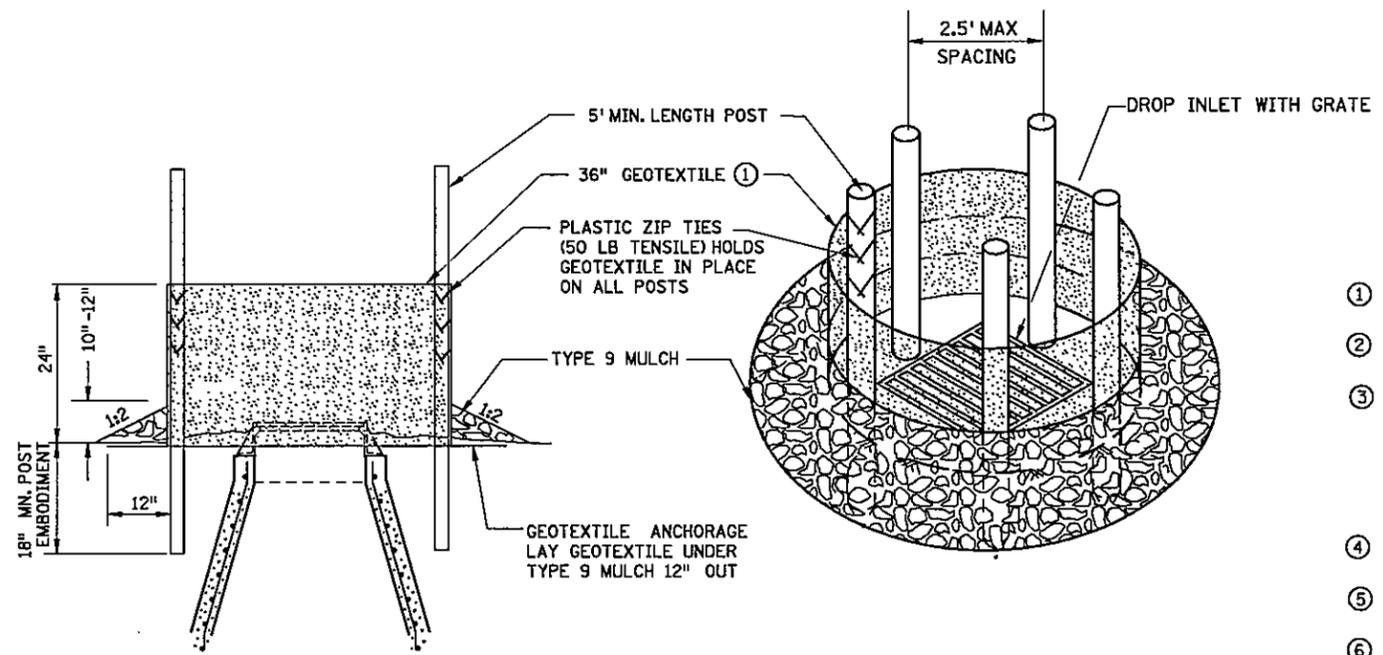


SECTION (DOWN POSITION)

POP-UP HEAD



SEDIMENT CONTROL INLET HAT



SILT FENCE RING AND ROCK FILTER BERM

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

NOTES:

- SEE SPECS. 2573, 3137, 3886 & 3891.
- MANUFACTURED ALTERNATIVES LISTED ON Mn/DOT'S APPROVED PRODUCTS LIST MAY BE SUBSTITUTED.
- ① ALL GEOTEXTILE USED FOR INLET PROTECTION SHALL BE MONOFILAMENT IN BOTH DIRECTIONS, MEETING SPEC. 3886.
- ② FINISHED SIZE, INCLUDING POCKETS WHERE REQUIRED SHALL EXTEND A MINIMUM OF 10 INCHES AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.
- ③ INSTALLATION NOTES:
DO NOT INSTALL FILTER BAG INSERT IN INLETS SHALLOWER THAN 30 INCHES, MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE. THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE OF 3 INCHES BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES. WHERE NECESSARY THE CONTRACTOR SHALL CLINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3 INCH SIDE CLEARANCE.
- ④ FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2 INCH X 4 INCH OR USE A ROCK SOCK OR SAND BAGS IN PLACE OF THE FLAP POCKETS.
- ⑤ SOCK HEIGHT MUST NOT BE SO HIGH AS TO SLOW DOWN WATER FILTRATION TO CAUSE FLOODING OF THE ROADWAY.
- ⑥ GEOTEXTILE SOCK BETWEEN 4-10 FEET LONG AND 4-6 INCH DIAMETER. SEAM TO BE JOINED BY TWO ROWS OF STITCHING WITH A PLASTIC MESH BACKING OR PROVIDE A HEAT BONDED SEAM (OR APPROVED EQUIVALENT). FILL ROCK LOG WITH OPEN GRADED AGGREGATE CONSISTING OF SOUND DURABLE PARTICLES OF COARSE AGGREGATE CONFORMING TO SPEC. 3137 TABLE 3137-1; CA-3 GRADATION.

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

STANDARD SHEET NO.
297.405 (4 OF 4)

STANDARD APPROVED:
SEPTEMBER 27, 2006

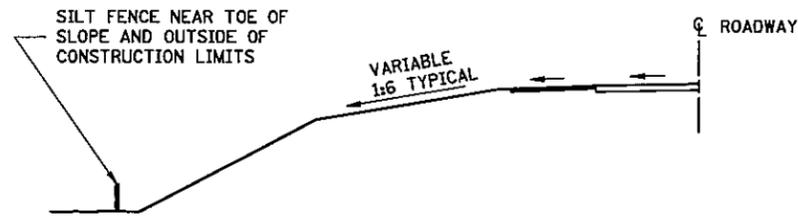
TITLE:
**TEMPORARY SEDIMENT CONTROL
STORM DRAIN INLET PROTECTION**

PLOTTED/REVISED:
12/29/2009

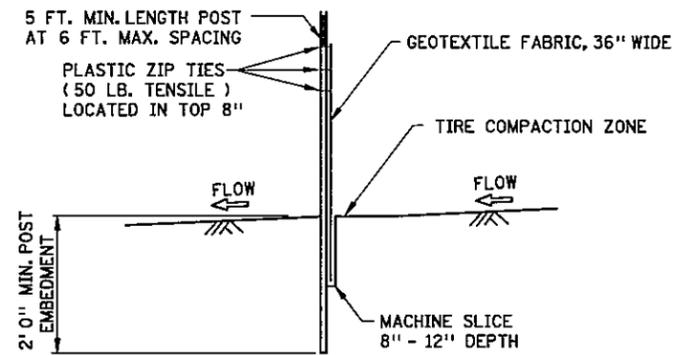
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FILE NAME:
@FILENAME@

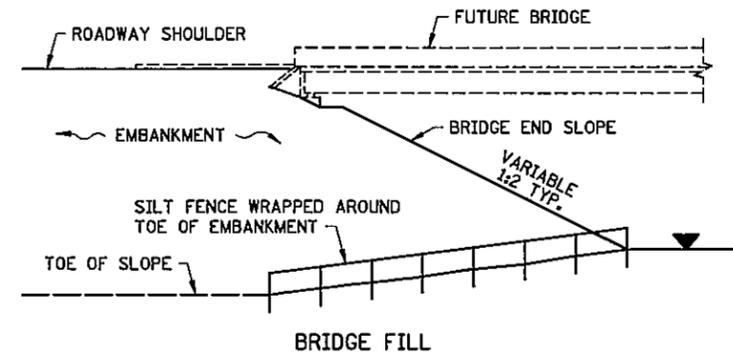
PLOTTED/REVISED:
12/29/2009



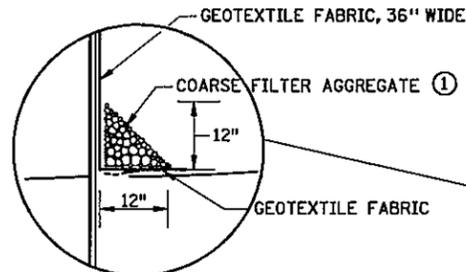
LOCATION OF SILT FENCE
AT TOE OF ROADWAY EMBANKMENT



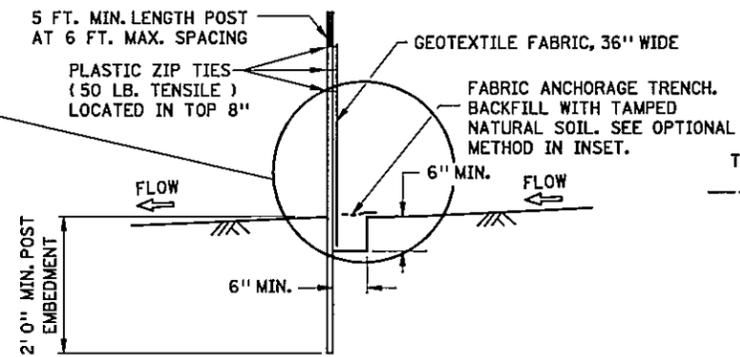
SILT FENCE, MACHINE SLICED
DESIGN GUIDELINES:
TO PROTECT AREAS FROM SHEET FLOW.
MAXIMUM CONTRIBUTING AREA: 1 ACRE.



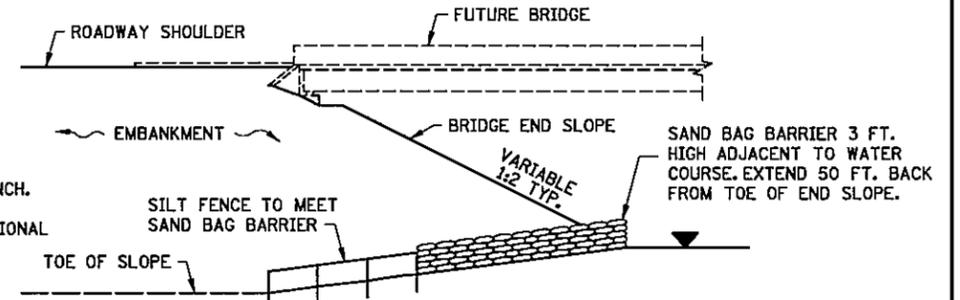
DESIGN GUIDELINES:
WATER COURSE FLOW VELOCITY: STAGNANT
CONTRIBUTING SLOPE AREA: 1/2 ACRE



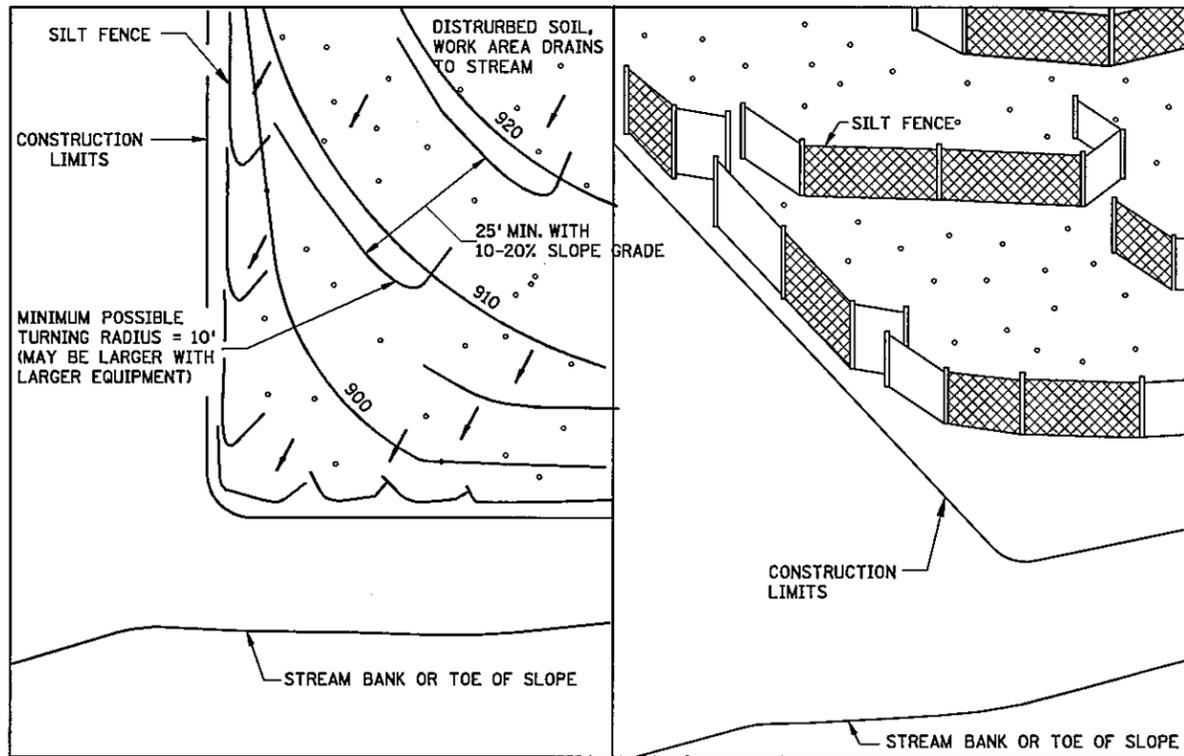
OPTIONAL METHOD
FOR SILT FENCE, HEAVY DUTY



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



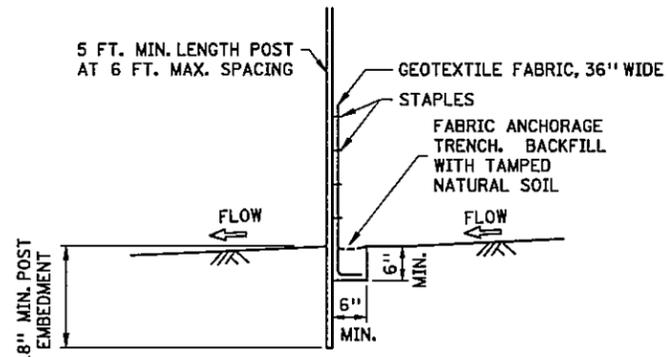
DESIGN GUIDELINES:
WATER COURSE FLOW VELOCITY: 1 TO 7 FT./SEC.
CONTRIBUTING SLOPE AREA: 1 ACRE



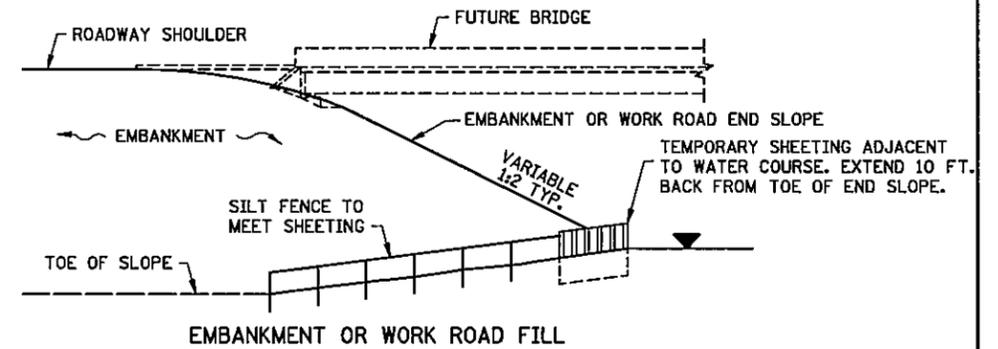
PLAN VIEW

SIDE VIEW

SILT FENCE, J-HOOK INSTALLATION



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



SILT FENCE AT BRIDGE EMBANKMENT ADJACENT TO WATER

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

NOTES:

SEE SPECS. 2573, 3149 & 3886.

① COARSE FILTER AGGREGATE (SPEC. 3149) SHALL BE INCIDENTAL.

STANDARD SHEET NO. 5-297.408 (1 OF 2)	TITLE: TEMPORARY SEDIMENT CONTROL SILT FENCE
STANDARD APPROVED: SEPTEMBER 27, 2006	
STATE PROJ. NO. 0115-43, ETC. (T.H. 169) SHEET NO. 48 OF 64 SHEETS	

DISTRICT #: DISTRICT 3 - BAXTER, MN
USER NAME: \$\$\$USER\$NAME\$\$\$
PATH & FILENAME: \$\$\$PATH\$FILENAME\$\$\$

FILE NAME:
@FILENAME@