MCLEOD COUNTY HIGHWAY DEPARTMENT

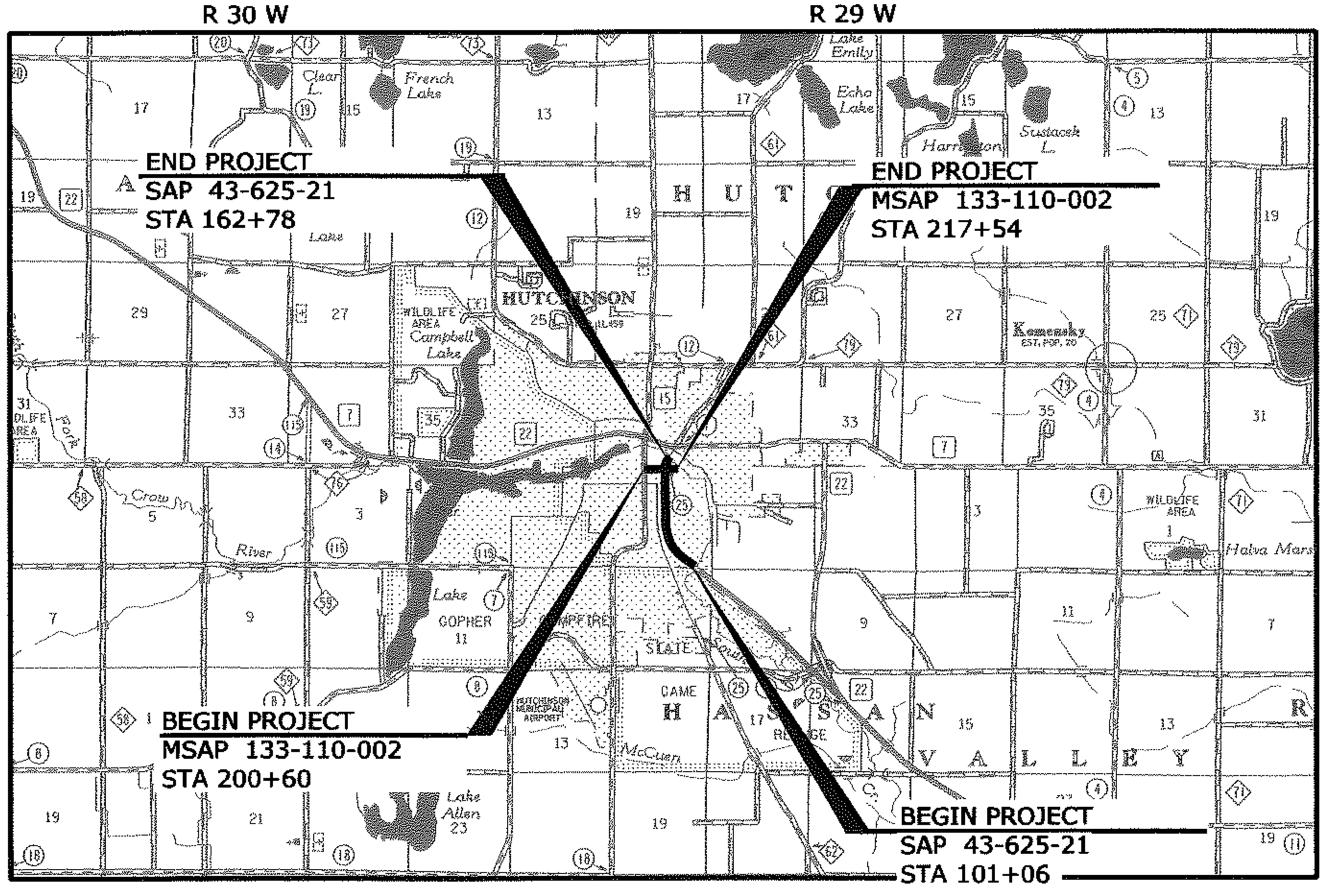
CONSTRUCTION PLAN FOR GRADING, CONCRETE SURFACING, DRAINAGE, SANITARY SEWER, WATERMAIN, LANDSCAPING AND LIGHTING

LOCATED ON CSAH 25 - ADAMS ST. SE FROM 21' NORTH OF BRIDGE NO. 43012 TO 370' NORTH OF WASHINGTON AVE. E

AND LOCATED ON WASHINGTON AVE. E FROM MAIN ST. N (TH 15) TO CSAH 25 - 633' EAST OF ADAMS ST. SE

STATE AID PROJ. NO. 43-625-21				MUNICIPAL STATE AID PROJ. NO. 133-110-002			
GROSS LENGTH	6172 FEET	1.17 MILES		GROSS LENGTH	1694 FEET	0.32 MILES	
BRIDGES-LENGTH	0 FEET	0 MILES		BRIDGES-LENGTH	0 FEET	0 MILES	
EXCEPTIONS-LENGTH	0 FEET	0 MILES		EXCEPTIONS-LENGTH	0 FEET	0 MILES	
NET LENGTH	6172 FEET	1.17 MILES		NET LENGTH	1694 FEET	0.32 MILES	

CITY LETTING NO. 1/PROJECT NO. 10-01



DESIGN DESIGNATION

Design ESALS	2045 = 1,600,000			
ADT (Current Year)	2010 = 5724	Design Speed 30 MPH		
ADT (Future Year)	2045 = 9731	Based on Stopping	Sight Distance	
DHV (Design Hr. Vol.)	= 900	Height of eye 3.5'	Height of object 2.0'	
D (Directional Distr.)	= 50 %	Design Speed not achieved at:		
T (Heavy Commercial)	= 2-4 %	Functional Class MAJOR COLLECTOR		
R - VALUE	= 20	Traffic Lanes 2		
Design Load	= 10 TON	Parking Lanes 2		

COUNTIES: McLEOD
DISTRICT: 8

SCALES

PLAN	50	
PROFILE	50 HORIZONTAL	10 VERTICAL
INDEX MAP	10,000	
GENERAL LAYOUT	200	

PLAN REVISIONS

DATE	SHEET NO.	APPROVED BY

MODEL: MnDOT District State Aid
FILE: S:\PROJECTS\TRANS\0159_McLeodCo\T-00196\Road_Design\sheets\cdT-00196_tsh.dgn
USER: kmidthun
PEN TABLE: T-00196_planset.tbl
PLOT DRIVER: HP1055_bw.plt
PLOT DATE: 4/1/2010 6:56:59 AM

GOVERNING SPECIFICATIONS

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

INDEX

THIS PLAN CONTAINS 277 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: Chad Seaman LICENSE #: 44961

DATE: 4/1/10 SIGNATURE: Chad Seaman

DESIGN SQUAD Chad Seaman, Shawn Bloch, Kelly Besser, Kim Midthun

RECOMMENDED FOR APPROVAL John Brunkhorst 4/1 2010
McLEOD COUNTY ENGINEER

RECOMMENDED FOR APPROVAL 4/1 2010
CITY OF HUTCHINSON ENGINEER

RECOMMENDED FOR APPROVAL 4/1 2010
DISTRICT STATE AID ENGINEER, REVIEWED FOR COMPLIANCE WITH STATE-AID RULES/POLICY

RECOMMENDED FOR APPROVAL 4/1 2010
STATE AID ENGINEER, APPROVED FOR STATE AID FUNDING

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

PRINT NAME: LICENSE #:

DATE: SIGNATURE:

STATEMENT OF ESTIMATED QUANTITIES

NOTES	TABS	SHEET NO.	ITEM NO.	ITEM DESCRIPTION	UNIT	TOTAL PROJECT QUANTITIES		SAP 43-625-21 PARTICIPATING		MSAP 133-110-002 PARTICIPATING		CITY OF HUTCHINSON		STORM SEWER SAP 43-625-21		STORM SEWER MSAP 133-110-002	
						ESTIMATED	FINAL	ESTIMATED	FINAL	ESTIMATED	FINAL	ESTIMATED	FINAL	ESTIMATED	FINAL	ESTIMATED	FINAL
			2021.501	MOBILIZATION	LUMP SUM	1		0.62		0.21		0.17					
			2031.501	FIELD OFFICE TYPE D	EACH	1		0.62		0.21		0.17					
	B	12	2101.502	CLEARING	TREE	147		138		9							
	B	12	2101.507	GRUBBING	TREE	147		138		9							
(15) (17)			2104.501	REMOVE WATER MAIN	LIN FT	4,333						4,333					
(15) (17)			2104.501	REMOVE STEEL CASING 16"	LIN FT	120						120					
(15) (17)			2104.501	REMOVE STEEL CASING 24"	LIN FT	30						30					
	H	16	2104.501	REMOVE SEWER PIPE (STORM)	LIN FT	5,291								3,728		1,563	
(15) (17)			2104.501	REMOVE SEWER PIPE (SANITARY)	LIN FT	4,882						4,882					
(10)(15)			2104.501	REMOVE RAILROAD TRACK	LIN FT	100				100							
	C	12	2104.501	REMOVE CURB & GUTTER	LIN FT	11,355		9,229		2,126							
	D	13	2104.503	REMOVE BRICK SIDEWALK	SQ FT	152				152							
	D	13	2104.503	REMOVE CONCRETE WALK	SQ FT	53,194		36,154		17,040							
	D	13	2104.505	REMOVE CONCRETE DRIVEWAY PAVEMENT	SQ YD	1,221		1,112		109							
	E	14	2104.505	REMOVE BITUMINOUS DRIVEWAY PAVEMENT	SQ YD	260		97		163							
	F	14	2104.505	REMOVE PAVEMENT	SQ YD	46,035		37,060		8,975							
(10)(15)			2104.509	REMOVE RAILROAD TIES	EACH	20				20							
	FF	204	2104.509	REMOVE LIGHTING UNIT	EACH	12		8		4							
	H	16	2104.509	REMOVE MANHOLE OR CATCH BASIN	EACH	58								38		20	
(15) (17)			2104.509	REMOVE MANHOLE (SANITARY)	EACH	10						10					
(15) (17)			2104.509	REMOVE GATE VALVE AND MANHOLE	EACH	2						2					
(15) (17)			2104.509	REMOVE GATE VALVE AND BOX	EACH	14						14					
(15) (17)			2104.509	REMOVE HYDRANT	EACH	10						10					
(15) (17)			2104.523	SALVAGE HYDRANT	EACH	1						1					
	FF	204	2104.523	SALVAGE LIGHTING UNIT	EACH	13		9		4							
	X	154	2104.509	SALVAGE SIGN TYPE C	EACH	91		74		17							
(1)			2104.523	SALVAGE BOLLARD	EACH	3				3							
	G	14-15	2104.511	SAWING CONCRETE PAVEMENT (FULL DEPTH)	LIN FT	554		383		171							
	G	14-15	2104.513	SAWING BITUMINOUS PAVEMENT (FULL DEPTH)	LIN FT	1,496		1,198		298							
(2)(15)(17)			2104.603	ABANDON 8" SANITARY SEWER	LIN FT	60						60					
(2)(15)(17)			2104.603	ABANDON 4" WATER MAIN	LIN FT	109						109					
(2)(15)(17)			2104.603	ABANDON 6" WATER MAIN	LIN FT	883						883					
(2)(15)(17)			2104.603	ABANDON 8" WATER MAIN	LIN FT	94						94					
(1)			2104.618	SALVAGE BRICK PAVERS	SQ FT	886		886									
	M	20	2105.604	GEOTEXTILE FABRIC TYPE V	SQ YD	2,861		186		2,675							
(23)			2105.607	EXCAVATION SPECIAL	CU YD	100		100									
(23)			2015.609	HAUL & DISPOSE OF CONTAMINATED MATERIAL	TON	200		200									
	A	11	2106.607	EXCAVATION - COMMON (P)	CU YD	25,789		20,613		5,176							
	A	11	2106.607	EXCAVATION - SUBGRADE	CU YD	2,189		2,189									
	A	11	2106.607	COMMON EMBANKMENT (CV) (P)	CU YD	2,350		2,020		330							
	A	11	2106.607	GRANULAR EMBANKMENT (CV)	CU YD	2,189		2,189									
	A	11	2106.607	SELECT GRANULAR EMBANKMENT (CV) (P)	CU YD	8,791		6,688		2,103							

REV. NO.	DATE	BY	CHK	DESCRIPTION

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.

NAME CHAD J. SEAMAN LIC. NO. 44961 DATE 4/1/2010

DESIGNED KMB
DRAWN KMB
CHECKED CJS

Stonebrooke
Engineering Responsible Solutions™

STATEMENT OF ESTIMATED QUANTITIES

PLAN PAGE 1 of 5

SAP 43-625-21 CSAH 25 (ADAMS ST. SE)
MSAP 133-110-002 & WASHINGTON AVE. E

STATEMENT OF ESTIMATED QUANTITIES

NOTES	TABS	SHEET NO.	ITEM NO.	ITEM DESCRIPTION	UNIT	TOTAL PROJECT QUANTITIES		SAP 43-625-21 PARTICIPATING		MSAP 133-110-002 PARTICIPATING		CITY OF HUTCHINSON		STORM SEWER SAP 43-625-21		STORM SEWER MSAP 133-110-002	
						ESTIMATED	FINAL	ESTIMATED	FINAL	ESTIMATED	FINAL	ESTIMATED	FINAL	ESTIMATED	FINAL	ESTIMATED	FINAL
	M	20	2118.607	AGGREGATE SURFACING CLASS 5	CU YD	963		71		892							
(6)(15)(17)			2123.610	1.5 CU YD BACKHOE	HOUR	20						20					
(18)			2130.501	WATER	MGAL	250		200		50							
(18)			2131.502	CALCIUM CHLORIDE SOLUTION	GALLON	2,500		2,000		500							
	I,J,K,L,M	17-20	2211.503	AGGREGATE BASE (CV) CLASS 5 (P)	CU YD	8,092		6,101		1,991							
	J	17	2301.531	EXPANSION JOINTS DESIGN E1-1	LIN FT	198				198							
	J	17	2301.531	EXPANSION JOINTS DESIGN E8S	LIN FT	56		56									
	J	17	2301.602	1.25" DOWEL BAR (EPOXY COATED)	EACH	2,833		2,418		415							
	J	17	2301.604	CONCRETE PAVEMENT 8.0"	SQ YD	38,685		32,194		6,491							
	I, M	17,20	2360.501	TYPE SP 9.5 WEARING COURSE MIX (2,B)	TON	634		460		174							
	I, M	17,20	2360.502	TYPE SP 12.5 NON WEARING COURSE MIX (2,B)	TON	134		134									
(15) (17)			2451.509	GRANULAR MATERIAL FOUNDATION (LV)	CU YD	100						100					
(9)			2451.607	ROCK BEDDING (CV)	CU YD	150		100		50							
	R	123	2501.515	27" RC PIPE APRON	EACH	1										1	
(25)			2501.602	PIPE TIES	EACH	6										6	
	U	124	2502.541	4" PERF PE PIPE DRAIN	LIN FT	8,618		6,817		1,801							
	R	123	2503.511	15" RC PIPE SEWER CLASS V	LIN FT	1,861								1,562		299	
	R	123	2503.511	18" RC PIPE SEWER CLASS III	LIN FT	1,290								1,014		276	
	R	123	2503.511	21" RC PIPE SEWER CLASS III	LIN FT	436								332		104	
	R	123	2503.511	24" RC PIPE SEWER CLASS III	LIN FT	973								648		325	
	R	123	2503.511	27" RC PIPE SEWER CLASS III	LIN FT	1,183								545		638	
	R	123	2503.511	30" RC PIPE SEWER CLASS III	LIN FT	78								78			
	R	123	2503.511	42" RC PIPE SEWER CLASS III	LIN FT	46								46			
	R	123	2503.521	51" SPAN RC PIPE-ARCH SEWER CLASS IIA	LIN FT	64								64			
(15) (17)			2503.511	8" PVC SANITARY SEWER PIPE SDR 35 0'-10'	LIN FT	1,754						1,754					
(15) (17)			2503.511	8" PVC SANITARY SEWER PIPE SDR 35 10'-14'	LIN FT	368						368					
(15) (17)			2503.511	10" PVC SANITARY SEWER PIPE SDR 35 0'-10'	LIN FT	78						78					
(15) (17)			2503.511	10" PVC SANITARY SEWER PIPE SDR 35 10'-14'	LIN FT	63						63					
(15) (17)			2503.511	12" PVC SANITARY SEWER PIPE SDR 35 0'-10'	LIN FT	2,555						2,555					
(3)(15)(17)			2503.511	6" PVC SANITARY SEWER SERVICE PIPE SDR 35	LIN FT	3,370						3,370					
(4)(15)(17)			2503.602	CONNECT TO EXISTING SANITARY SEWER	EACH	7						7					
	S	123	2503.602	CONNECT TO EXISTING STORM SEWER	EACH	9								4		5	
(5)(15)(17)			2503.602	CONNECT TO EXISTING SANITARY SEWER MANHOLE	EACH	1						1					
(15) (17)			2503.602	8"X6" PVC WYE	EACH	39						39					
(15) (17)			2503.602	12"X6" PVC WYE	EACH	41						41					
(15) (17)			2503.603	CLEAN AND TELEVISE SANITARY SEWER	LIN FT	7,450						7,450					
(15) (17)			2504.601	TEMPORARY WATER SERVICE (WASHINGTON AVENUE)	LUMP SUM	1						1					
(15) (17)			2504.601	TEMPORARY WATER SERVICE (ADAMS STREET)	LUMP SUM	1						1					
(15) (17)			2504.602	6" WATERMAIN OFFSET	EACH	2						2					
(15) (17)			2504.602	8" WATERMAIN OFFSET	EACH	1						1					

REV. NO.	DATE	BY	CHK	DESCRIPTION

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.

NAME CHAD J. SEAMAN LIC. NO. 44961 DATE 4/1/2010

DESIGNED KMB
DRAWN KMB
CHECKED CJS

Stonebrooke
Engineering Responsible Solutions™

STATEMENT OF ESTIMATED QUANTITIES

PLAN PAGE 2 of 5

SAP 43-625-21 CSAH 25 (ADAMS ST. SE)
MSAP 133-110-002 & WASHINGTON AVE. E

STATEMENT OF ESTIMATED QUANTITIES

NOTES	TABS	SHEET NO.	ITEM NO.	ITEM DESCRIPTION	UNIT	TOTAL PROJECT QUANTITIES		SAP 43-625-21 PARTICIPATING		MSAP 133-110-002 PARTICIPATING		CITY OF HUTCHINSON		STORM SEWER SAP 43-625-21		STORM SEWER MSAP 133-110-002	
						ESTIMATED	FINAL	ESTIMATED	FINAL	ESTIMATED	FINAL	ESTIMATED	FINAL	ESTIMATED	FINAL	ESTIMATED	FINAL
(15) (17)			2504.602	12" WATERMAIN OFFSET	EACH	4						4					
(4)(15)(17)			2504.602	CONNECT TO EXISTING WATER MAIN	EACH	18						18					
(15) (17)			2504.602	6" MJ HUB HYDRANT 8.5' BURY	EACH	7						7					
(15) (17)			2504.602	10" MJ HUB HYDRANT 10.0' BURY	EACH	4						4					
(3)(15)(17)			2504.602	1.5" CORPORATION STOP	EACH	73						73					
(3)(15)(17)			2504.602	2" CORPORATION STOP	EACH	1						1					
(15) (17)			2504.602	4" GATE VALVE AND BOX	EACH	4						4					
(15) (17)			2504.602	6" GATE VALVE AND BOX	EACH	20						20					
(15) (17)			2504.602	8" GATE VALVE AND BOX	EACH	10						10					
(15) (17)			2504.602	12" GATE VALVE AND BOX	EACH	9						9					
(15) (17)			2504.602	12" WET TAP WITH GATE VALVE	EACH	1						1					
(3)(15)(17)			2504.602	1.5" CURB STOP & BOX	EACH	68						68					
(3)(15)(17)			2504.602	2" CURB STOP & BOX	EACH	1						1					
(3)(15)(17)			2504.603	1.5" COPPER SERVICE PIPE	LIN FT	2,540						2,540					
(3)(15)(17)			2504.603	2" COPPER SERVICE PIPE	LIN FT	15						15					
(15) (17)			2504.603	4" WATERMAIN PIPE PVC C-900	LIN FT	66						66					
(15) (17)			2504.603	6" WATERMAIN PIPE PVC C-900	LIN FT	468						468					
(15) (17)			2504.603	8" WATERMAIN PIPE PVC C-900	LIN FT	593						593					
(15) (17)			2504.603	12" WATERMAIN PIPE PVC C-900	LIN FT	4,976						4,976					
(15) (17)			2504.604	2" POLYSTYRENE INSULATION	SQ YD	846						846					
(12) (19)			2504.604	4" POLYSTYRENE INSULATION	SQ YD	14								2		12	
(15) (17)			2504.608	DUCTILE IRON FITTINGS (COMPACT 153)	LB	6,845						6,845					
	S	123	2506.502	CONST DRAINAGE STRUCTURE DESIGN N	LIN FT	101.5								85.2		16.3	
	S	123	2506.502	CONST DRAINAGE STRUCTURE DESIGN 48-4020	LIN FT	296.3								174.1		122.2	
	S	123	2506.502	CONST DRAINAGE STRUCTURE DESIGN 60-4020	LIN FT	27.1								27.1			
	S	123	2506.502	CONST DRAINAGE STRUCTURE DESIGN 72-4020	LIN FT	17.4								11.7		5.7	
	S	123	2506.502	CONST DRAINAGE STRUCTURE DESIGN 84-4020	LIN FT	8.3								8.3			
	S	123	2506.502	CONST DRAINAGE STRUCTURE DESIGN 96-4020	LIN FT	33.3								24.2		9.1	
	S	123	2506.502	CONST DRAINAGE STRUCTURE DESIGN 108-4020	LIN FT	9.3										9.3	
(15) (17)			2506.501	CONST MANHOLE DESIGN 4007, 8' DEEP (43" DIAMETER)	LIN FT	92.4						92.4					
(15) (17)			2506.501	EXCESS MANHOLE DEPTH	LIN FT	13.8						13.8					
(15) (17)	S	123	2506.516	CASTING ASSEMBLY	EACH	87								62		25	
(12)			2506.522	ADJUST FRAME & RING CASTING	EACH	1				1							
(10) (22)			2506.602	SEAL MANHOLE	EACH	3						3					
	R	123	2511.501	RANDOM RIPRAP CLASS IV	CU YD	15.6										15.6	
	L	19	2521.501	4" CONCRETE WALK	SQ FT	92,291		67,992		24,299							
	G	14-15	2521.515	SAWING CONCRETE WALK	LIN FT	345		264		81							
(10) (24)	L	19	2521.603	SEAL CONCRETE WALK JOINTS (SILICONE)	LIN FT	566				566							
(10)	L	19	2521.618	4" CONCRETE WALK SPECIAL	SQ FT	4,676				4,676							
	K	18	2531.501	CONCRETE CURB & GUTTER DESIGN B612	LIN FT	140		120		20							
	K	18	2531.501	CONCRETE CURB & GUTTER DESIGN B618	LIN FT	625		400		225							
	K	18	2531.501	CONCRETE CURB & GUTTER DESIGN B624	LIN FT	10,923		8,510		2,413							
	K	18	2531.501	CONCRETE CURB & GUTTER DESIGN D418	LIN FT	131				131							
(20)	K	18	2531.501	CONCRETE CROSS GUTTER	LIN FT	239				239							
	M	20	2531.507	6" CONCRETE DRIVEWAY PAVEMENT	SQ YD	614		614									
	M	20	2531.507	8" CONCRETE DRIVEWAY PAVEMENT	SQ YD	1,351		1,057		294							

STATEMENT OF ESTIMATED QUANTITIES

NOTES	TABS	SHEET NO.	ITEM NO.	ITEM DESCRIPTION	UNIT	TOTAL PROJECT QUANTITIES		SAP 43-625-21 PARTICIPATING		MSAP 133-110-002 PARTICIPATING		CITY OF HUTCHINSON		STORM SEWER SAP 43-625-21		STORM SEWER MSAP 133-110-002	
						ESTIMATED	FINAL	ESTIMATED	FINAL	ESTIMATED	FINAL	ESTIMATED	FINAL	ESTIMATED	FINAL	ESTIMATED	FINAL
(11)			2531.618	TRUNCATED DOMES	SQ FT	592		384		208							
(8)			2540.618	INSTALL BRICK PAVERS	SQ FT	758		758									
	BB	182	2504.602	METAL WASTE RECEPTACLE	EACH	5				5							
	BB	182	2540.602	METAL BENCH	EACH	4				4							
(13)	GG	205	2545.511	LIGHTING UNIT TYPE SPECIAL 1	EACH	35		35									
(13)	GG	205	2545.511	LIGHTING UNIT TYPE SPECIAL 2	EACH	12				12							
(13)	GG	205	2545.511	LIGHTING UNIT TYPE SPECIAL 3	EACH	16				16							
	EE	203	2545.515	LIGHT BASE DESIGN E	EACH	28				28							
(14)			2545.521	2" RIGID STEEL CONDUIT	LIN FT	135				135							
	EE	203	2545.523	2" NON-METALLIC CONDUIT	LIN FT	989		546		443							
	EE	203	2545.531	#6 DUPLEX	LIN FT	6,440		4,693		1,747							
	EE	203	2545.531	#6 DUPLEX (DIRECTIONAL BORE)	LIN FT	2,498		1,992		506							
(14) (16)	EE	203	2550.512	HANDHOLE TYPE - PVC METAL COVER	EACH	14		8		6							
	S	123	2554.509	GUIDE POST TYPE B	EACH	1										1	
(10)			2563.601	TRAFFIC CONTROL	LUMP SUM	1		0.62		0.21		0.17					
	Y	154-155	2564.618	SIGN TYPE C	SQ FT	413.00		322.75		90.25							
	Z	156	2564.618	SIGN TYPE D	SQ FT	209.00		153.50		55.50							
(14)			2565.602	SPLICE LOOP DETECTOR	EACH	2				2							
(14)			2565.602	NMC LOOP DETECTOR 6'X6'	EACH	3				3							
(14)			2565.603	2/C#14	LIN FT	135				135							
	CC	182	2571.501	CONIFEROUS TREE 6' HT B&B	TREE	89		89									
	CC	182	2571.502	DECIDUOUS TREE 2" CAL B&B	TREE	136		115		21							
	CC	182	2571.502	DECIDUOUS TREE 2.5" CAL B&B	TREE	35		35									
	CC	182	2571.502	DECIDUOUS TREE 3" CAL B&B	TREE	51		38		13							
	CC	182	2571.505	DECIDOUS SHRUB NO 5 CONT	SHRUB	91				91							
(9)			2572.501	TEMPORARY FENCE	LIN FT	500		350		150							
	A	11	2572.504	SANDY LOAM FILL	CU YD	2,009		1,657		352							
	W	144	2573.502	SILT FENCE, TYPE MACHINE SLICED	LIN FT	321		321									
	W	144	2573.505	FLOTATION SILT CURTAIN TYPE MOVING WATER	LIN FT	60				60							
	W	144	2573.530	STORM DRAIN INLET PROTECTION	EACH	174		132		42							
(10)			2573.550	EROSION CONTROL SUPERVISOR	LUMP SUM	1		0.62		0.21		0.17					
(7)			2573.602	TEMPORARY ROCK CONSTRUCTION ENTRANCE	EACH	6		5		1							
	W	144	2575.501	SEEDING	ACRE	2.3		2.1		0.2							
	W	144	2575.502	SEED MIXTURE 110	LB	233		209		24							
	DD	182	2575.505	SODDING TYPE LAWN	SQ YD	11,299		10,116		1,183							

REV. NO.	DATE	BY	CHK	DESCRIPTION

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.

NAME CHAD J. SEAMAN LIC. NO. 44961 DATE 4/1/2010

DESIGNED KMB
DRAWN KMB
CHECKED CJS

Stonebrooke
Engineering Responsible Solutions™

STATEMENT OF ESTIMATED QUANTITIES
PLAN PAGE 4 of 5
SAP 43-625-21 CSAH 25 (ADAMS ST. SE)
MSAP 133-110-002 & WASHINGTON AVE. E

STATEMENT OF ESTIMATED QUANTITIES

NOTES	TABS	SHEET NO.	ITEM NO.	ITEM DESCRIPTION	UNIT	TOTAL PROJECT QUANTITIES		SAP 43-625-21 PARTICIPATING		MSAP 133-110-002 PARTICIPATING		CITY OF HUTCHINSON		STORM SEWER SAP 43-625-21		STORM SEWER MSAP 133-110-002	
						ESTIMATED	FINAL	ESTIMATED	FINAL	ESTIMATED	FINAL	ESTIMATED	FINAL	ESTIMATED	FINAL	ESTIMATED	FINAL
	W	144	2575.511	MULCH MATERIAL TYPE 1	TON	0.23		0.21		0.02							
	CC	182	2575.513	MULCH MATERIAL TYPE 6	CU YD	12				12							
	W	144	2575.519	DISK ANCHORING	ACRE	2.3		2.1		0.2							
	W	144	2575.532	FERTILIZER TYPE 1	POUND	467		418		49							
	CC	182	2575.604	GEOTEXTILE WEED BARRIER FABRIC	SQ YD	94				94							
	CC	182	2575.604	MULCH MATERIAL TYPE SPECIAL (ROCK)	SQ YD	94				94							
	AA	157	2582.501	PAVEMENT MESSAGE (LEFT ARROW) EPOXY-GROUND IN	EACH	8		4		4							
	AA	157	2582.501	PAVEMENT MESSAGE (RIGHT ARROW) EPOXY-GROUND IN	EACH	14		10		4							
	AA	157	2582.501	PAVEMENT MESSAGE (LEFT-THRU ARROW) EPOXY-GROUND IN	EACH	1		1									
	AA	157	2582.501	PAVEMENT MESSAGE (RIGHT-THRU ARROW) EPOXY-GROUND IN	EACH	1		1									
	AA	157	2582.501	PAVEMENT MESSAGE (HANDICAPPED SYMBOL) EPOXY-GROUND IN	EACH	1				1							
	AA	157	2582.502	4" SOLID LINE WHITE-EPOXY (GROUND IN)	LIN FT	12,978		10,970		2,008							
	AA	157	2582.502	4" SOLID LINE YELLOW-EPOXY (GROUND IN)	LIN FT	2,200		2,030		170							
(21)	AA	157	2582.502	4" BROKEN LINE YELLOW-EPOXY (GROUND IN)	LIN FT	610		610									
	AA	157	2582.502	4" DOUBLE SOLID LINE YELLOW-EPOXY (GROUND IN)	LIN FT	4,180		3,330		850							
	AA	157	2582.502	24" SOLID LINE YELLOW-EPOXY (GROUND IN)	LIN FT	340		300		40							
	AA	157	2582.503	CROSSWALK MARKING-EPOXY (GROUND IN)	SQ FT	2,770		1,430		1,340							

NOTES:

(1) SEE REMOVAL PLAN. LOCATED ON EBWASH AT STATIONS 281+00, 284+00, AND 288+00, 42' RT.
(2) INCLUDES PLUGGING ENDS AND SAND FILL.
(3) QUANTITY IS ESTIMATED. CONTRACTOR SHALL LOCATE AND RECONNECT EXISTING SANITARY SEWER & WATER SERVICES OR CONSTRUCT NEW SERVICES AS DIRECTED BY THE ENGINEER. ALL MATERIALS AND LABOR FOR RECONNECTION TO EXISTING SEWER AND WATER SERVICES SHALL BE CONSIDERED INCIDENTAL.
(4) FOR LOCATING, VERIFYING SIZE, AND CONNECTING TO EXISTING WATERMAIN OR SANITARY SEWER. INCLUDES ALL REQUIRED SLEEVES, RESTRAINTS AND FITTINGS TO MAKE CONNECTION.
(5) USED TO CORE AND BOOT EXISTING SANITARY SEWER MANHOLE.
(6) FOR MISCELLANEOUS EXPLORATION. INCLUDES OPERATOR AND LABORER.
(7) SEE TEMPORARY EROSION CONTROL PLAN FOR LOCATIONS.
(8) SEE PAVING PLAN. LOCATED ON NBADAMS AT STATIONS 145+50, 35' RT AND 155+17, 52' LT.
(9) TO BE USED AS DIRECTED BY THE ENGINEER FOR STORM SEWER INSTALLATION. PROVISIONS OF SPEC 1903 SHALL NOT APPLY.
(10) SEE SPECIAL PROVISIONS.
(11) PEDESTRIAN RAMPS-SEE CONSTRUCTION AND LANDSCAPE PLANS FOR LOCATIONS.
(12) SEE DRAINAGE PLAN FOR LOCATIONS.
(13) SEE LIGHTING PLAN FOR DETAILS.
(14) SEE REVISED SIGNAL PLAN FOR LOCATIONS.
(15) PROVISIONS OF SPEC 1903 SHALL NOT APPLY.
(16) INCLUDES TWO HANDHOLES FOR LOOP DETECTORS ON WASHINGTON.
(17) SEE SANITARY SEWER AND WATERMAIN PLAN.
(18) FOR DUST CONTROL AS DIRECTED BY THE ENGINEER. APPLICATION TO ACHIEVE REQUIRED DENSITY INCIDENTAL TO PAY ITEMS. PROVISIONS OF SPEC 1903 SHALL NOT APPLY.
(19) TO BE USED AT WATERMAIN AND SANITARY CROSSINGS. PROVISIONS OF SPEC 1903 SHALL NOT APPLY.
(20) SEE MISCELLANEOUS DETAILS.
(21) LENGTH DOES NOT INCLUDE GAPS.
(22) MH 5223, CB 5224, AND MH 5225.
(23) CONTAMINATED SOILS IF ENCOUNTERED. PROVISIONS OF SPEC. 1903 SHALL NOT APPLY.
(24) TO BE USED FOR JOINTS BETWEEN WALK AND BUILDING FACES.
(25) TIE THE THREE END SECTIONS (INCLUDING APRON) OF THE PIPE SEWER OUTLET BETWEEN MH 5225 AND AP 5226.

REV. NO.	DATE	BY	CHK	DESCRIPTION

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.

NAME CHAD J. SEAMAN LIC. NO. 44961 DATE 4/1/2010

DESIGNED KMB
DRAWN KMB
CHECKED CJS

Stonebrooke
Engineering Responsible Solutions™

STATEMENT OF ESTIMATED QUANTITIES

PLAN PAGE 5 of 5

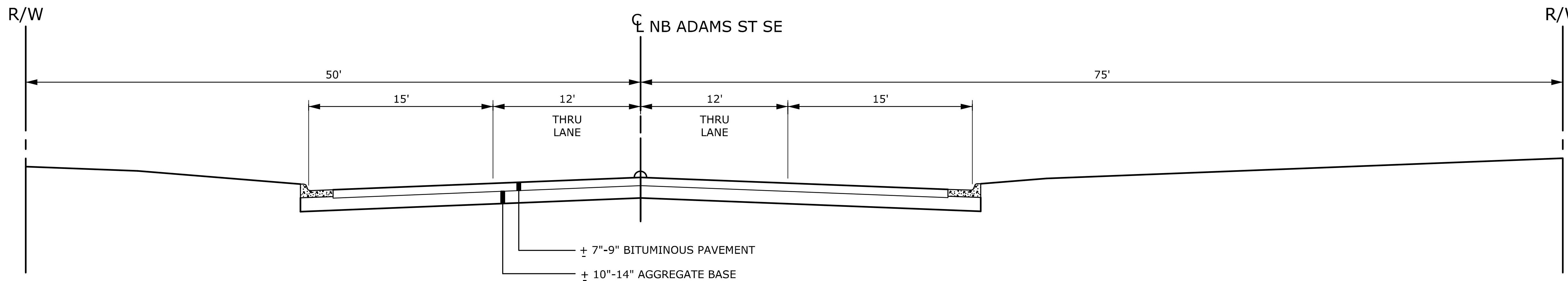
SAP 43-625-21 CSAH 25 (ADAMS ST. SE)
MSAP 133-110-002 & WASHINGTON AVE. E

MODEL: 5 - Estimated Quantities
FILE: S:\PROJECTS\TRANS\0159_McLeodCo\T-00196\Road_Design\sheets\cdT-00196_est.dgn
PLOT DATE: 4/7/2010 3:15:58 PM
USER: kmidthun
PEN TABLE: T-00196_planset.tbl
PLOT DRIVER: pdf_bw.plt

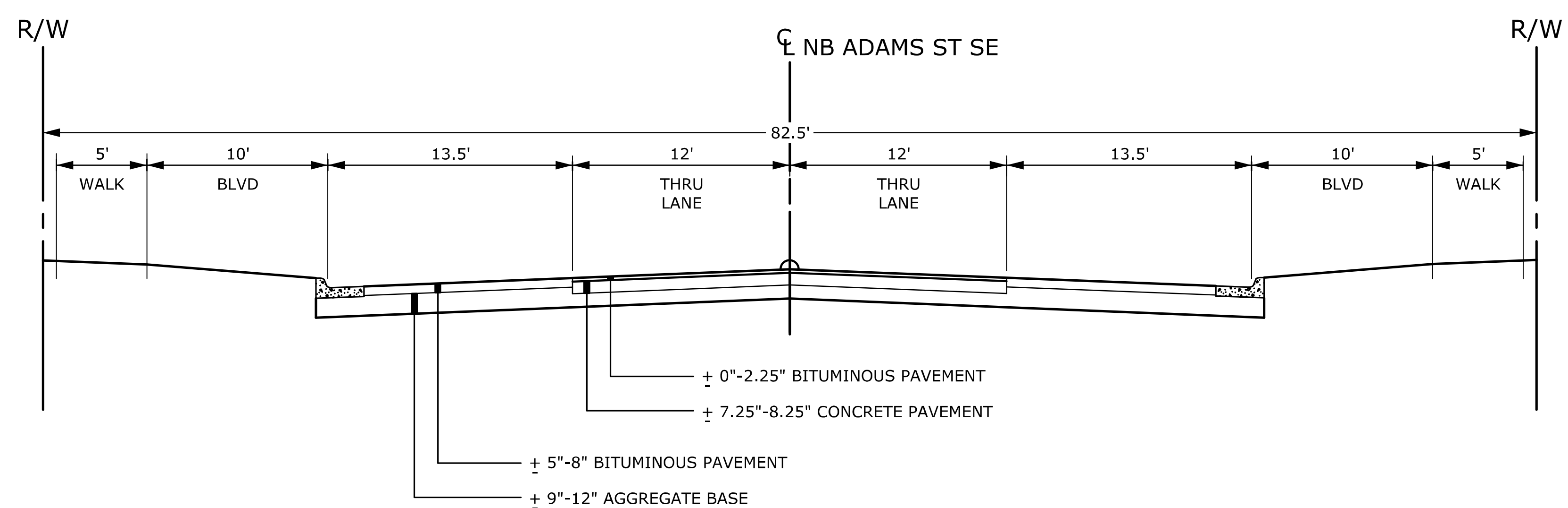
SOILS AND CONSTRUCTION NOTES

1. THE GRADING GRADE IS DEFINED AS THE BOTTOM OF THE SELECT GRANULAR.
2. SELECT GRADING MATERIAL ON THIS PROJECT SHALL CONSIST OF ALL SOILS ENCOUNTERED WITH THE EXCEPTION OF TOPSOIL, DEBRIS, ORGANIC MATERIAL, AND OTHER UNSTABLE MATERIAL.
3. SELECT GRANULAR MATERIAL SHALL MEET THE REQUIREMENTS OF Mn/DOT SPECIFICATION 3149.2B2.
4. UNLESS OTHERWISE REQUIRED, THE GRADING SUBGRADE IN ANY NEW EMBANKMENT CONSTRUCTION SHALL BE CONSTRUCTED ENTIRELY WITH SELECT GRADING MATERIAL.
5. OBTAIN COMPACTION ON THE GRADING PORTIONS OF PERMANENT CONSTRUCTION IN ACCORDANCE WITH THE SPECIFIED DENSITY METHOD REQUIREMENTS.
6. OBTAIN COMPACTION ON THE AGGREGATE BASE PORTIONS OF PERMANENT CONSTRUCTION IN ACCORDANCE WITH THE SPECIFIED DENSITY METHOD.
7. TEST ROLLING WILL BE REQUIRED AS PER Mn/DOT SPEC. 2111.3.
8. UNLESS OTHERWISE SPECIFICALLY ALLOWED OR REQUIRED BY THE CONTRACT, BITUMINOUS AND CONCRETE ITEMS, EXCLUDING REINFORCED CONCRETE PIPE, DISTURBED BY CONSTRUCTION SHALL BE HAULED TO THE HUTCHINSON AREA TRANSPORTATION SERVICES (HATS) FACILITY LOCATED AT 1400 ADAMS ST. SE., HUTCHINSON MINNESOTA AND CRUSHED TO MEET THE REQUIREMENTS OF CLASS 7 PER Mn/DOT SPEC 3138. THE HAULING AND CRUSHING OF THE MATERIALS SHALL BE INCIDENTAL TO THE REMOVAL ITEMS.
9. WHEN REMOVING BITUMINOUS, FULL DEPTH SAWCUTS WILL BE MADE PERPENDICULAR TO THE ROADWAY CENTERLINE AND ALONG EXISTING LONGITUDINAL PAVEMENT JOINTS. LOCATIONS TO BE DETERMINED BY THE ENGINEER.
10. OBTAIN COMPACTION ON GRADING AND AGGREGATE BASE PORTIONS OF TEMPORARY CONSTRUCTION IN ACCORDANCE WITH THE QUALITY COMPACTION METHOD REQUIREMENTS.
11. FOR PURPOSES OF THESE RECOMMENDATIONS, TEMPORARY CONSTRUCTION IS DEFINED AS CONSTRUCTION PERFORMED UNDER THIS CONTRACT TO BE REMOVED PRIOR TO COMPLETION OF THIS PROJECT.
12. STABILIZING AGGREGATE SHALL BE INCORPORATED INTO THE SUBGRADE TO ACHIEVE SATISFACTORY SURFACE STABILITY, IF DEEMED NECESSARY BY THE ENGINEER, IN ACCORDANCE WITH Mn/DOT SPEC. 2105.3G. USE AN APPLICATION RATE OF 200 ± POUNDS PER SQUARE YARD. IF STABILIZING AGGREGATE IS REQUIRED IT SHALL BE PAID FOR AS EXTRA WORK.
13. PROVIDE 1:20 (V:H) TAPERS WHEN CHANGING SUBCUT DEPTHS.
14. PROVIDE A FULL DEPTH SAWCUT WHERE PLACING NEW PAVEMENT NEXT TO INPLACE PAVEMENT TO ENSURE A UNIFORM JOINT.
15. WHERE CONNECTING NEW SURFACING ADJACENT TO ANY INPLACE PAVEMENTS TO BE WIDENED, CUT VERTICALLY TO THE BOTTOM OF THE INPLACE SURFACING OR TO THE BOTTOM OF THE NEW SURFACING DESIGN, WHICHEVER IS DEEPER, THEN AT A 1:2 (V:H) SLOPE TO THE BOTTOM OF THE RECOMMENDED SUBGRADE EXCAVATION.
16. WHERE CONNECTING TO THE INPLACE ROADWAYS AT THE TERMINI OF PROPOSED NEW CONSTRUCTION, CUT VERTICALLY TO THE BOTTOM OF THE INPLACE SURFACING OR TO THE TOP OF THE GRADING SUBGRADE, WHICHEVER IS DEEPER, THEN AT A 1:20 (V:H) TAPER TO THE BOTTOM OF THE RECOMMENDED SUBGRADE EXCAVATION.
17. WHERE MATCHING INTO INPLACE CROSSROADS, CUT VERTICALLY TO THE BOTTOM OF THE INPLACE SURFACING OR TO THE TOP OF THE GRADING SUBGRADE, WHICHEVER IS DEEPER, THEN AT A 1:4 (V:H) SLOPE TO THE BOTTOM OF THE RECOMMENDED SUBGRADE EXCAVATION.
18. AS A PRECAUTIONARY MEASURE FROM A SOILS STANDPOINT, TRAFFIC LANES TO BE USED DURING CONSTRUCTION MUST BE DELINEATED TO KEEP VEHICLES A SAFE DISTANCE AWAY FROM THE ADJACENT EXCAVATION. THE DELINEATION SHOULD COINCIDE WITH POINTS ESTABLISHED BY PROJECTING A 1:2 (V:H) OR FLATTER SLOPE BETWEEN THE EDGE OF THE TRAFFIC SURFACE AND THE BOTTOM OF THE EXCAVATION.
19. IF GRANULAR EMBANKMENTS OR BACKFILL JOIN PLASTIC SOIL EMBANKMENTS OR BACKFILL, PROVIDE A 1:20 (V:H) TRANSITION TAPER BETWEEN THE CHANGE IN MATERIAL TO PREVENT AN ABRUPT SOILS DIFFERENTIAL. THE 1:20 (V:H) TAPER SHALL BE CONSTRUCTED SO THAT THE GRANULAR BACKFILL MATERIAL OVERLAYS THE ADJACENT PLASTIC SOIL BACKFILL.
20. IN ANY PROPOSED WIDENING CONSTRUCTION, THE CONTRACTOR SHOULD STRIVE TO SUBSTANTIALLY MATCH THE SOILS INPLACE IN THE UPPER 5 FEET OF THE ROADWAYS TO BE WIDENED. GRANULAR BACKFILL SHALL NOT BE PERMITTED ADJACENT TO INPLACE NON-GRANULAR SOILS IN ORDER TO PREVENT AN ABRUPT SOILS DIFFERENTIAL.
21. ACCESS TO RESIDENTIAL AND COMMERCIAL PROPERTIES SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION. SEE SPECIAL PROVISIONS.
22. BITUMINOUS SURFACES SHALL BE EXEMPT FROM SURFACE SMOOTHNESS REQUIREMENTS OF Mn/DOT SPECIFICATION 2360.7C. THE REQUIREMENTS OF Mn/DOT SPECIFICATION 2360.7B SHALL STILL APPLY.
23. PROVIDE BITUMINOUS TACK COAT, Mn/DOT SPECIFICATION 2357, BETWEEN ALL BITUMINOUS COURSES AND PRIOR TO PLACING ANY BITUMINOUS MIXTURES ON THE EXISTING PAVEMENT. ALL SURFACES SHALL BE CLEANED PRIOR TO THE APPLICATION OF THE BITUMINOUS TACK . THE BITUMINOUS TACK COAT MATERIAL SHALL BE APPLIED AT A UNIFORM RATE OF .03 TO 0.05 GAL/SY BETWEEN BITUMINOUS LAYERS AND 0.07 TO 0.10 GAL/SY ON CONCRETE OR MILLED BITUMINOUS SURFACES PRIOR TO BEING OVERLAID. THE APPLICATION RATES ARE FOR UNDILUTED EMULSIONS (AS SUPPLIED FROM THE REFINERY) OR MC AND RC LIQUID ASPHALT. THE ASPHALT EMULSION MAY BE FURTHER DILUTED IN THE FIELD IN ACCORDANCE WITH Mn/DOT SPECIFICATION 2357. THE ENGINEER MAY WAIVE THE TACK COAT REQUIREMENT WHEN MULTIPLE LIFTS ARE PAVED ON THE SAME DAY.
24. IN AREAS TO BE DISTURBED, THE TOPSOIL SHALL BE STRIPPED AND STOCKPILED FOR REUSE AS SLOPE DRESSING. SLOPE DRESSING ON THIS PROJECT IS DEFINED AS THE INPLACE TOPSOIL OR OTHER SOIL PLACED DURING PRIOR CONSTRUCTION TO PROVIDE A MEDIUM FOR ESTABLISHING TURF.
25. THE CONSTRUCTION LIMITS AS SHOWN IN THE PLANS REPRESENT THE POINT OF INTERSECTION BETWEEN THE REQUIRED FILL OR CUT SLOPE AND THE EXISTING GROUND LINE AS DEPICTED ON THE CROSS SECTIONS. THE CONSTRUCTION LIMITS DO NOT INCLUDE AREAS REQUIRED FOR SLOPE ROUNDING.
26. ANY DEBRIS WHICH MAY BE ENCOUNTERED DURING GRADING SHALL BE DISPOSED OF BY THE CONTRACTOR OFF THE PROJECT RIGHT OF WAY IN A SUITABLE DISPOSAL AREA AS APPROVED BY THE ENGINEER.
27. PIPE SEWERS CONNECTING MANHOLES AND CATCH BASINS SHALL BE IN ACCORDANCE Mn/DOT SPECIFICATION 2503. BACKFILL SHALL CONSIST OF UNIFORM SUITABLE GRADING MATERIAL MATCHING ADJACENT SOILS UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
28. DISPOSITION OF EXCAVATED MATERIAL SHALL BE IN ACCORDANCE WITH Mn/DOT SPECIFICATION 2105.3D.
29. 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, (651) 454-0002 OR (800) 252-1166.
30. ALL SALVAGED MATERIALS SHALL BE DELIVERED TO THE HUTCHINSON AREA TRANSPORTATION SERVICES (HATS) FACILITY LOCATED AT 1400 ADAMS ST. SE., HUTCHINSON MINNESOTA. THE HAULING OF THE SALVAGED MATERIALS SHALL BE INCIDENTAL TO THE SALVAGED PAY ITEMS.
31. THE GRADE SHALL BE SHAPED AND COMPACTED TO SEAL THE SURFACE AND PROVIDE DRAINAGE AT THE END OF EACH DAY.
32. WHENEVER THE WORD "INCIDENTAL" IS USED IN THIS PLAN, IT SHALL MEAN THIS WORK WILL BE INCIDENTAL TO CONSTRUCTION FOR WHICH NO DIRECT COMPENSATION WILL BE MADE.
33. ADVANCE NOTICE SIGNING SHALL BE IN PLACE A MINIMUM OF 2 WEEKS PRIOR TO ROAD CLOSURE.
34. WATER, GAS, ELECTRIC, TELEPHONE, SEWER, AND TV CABLE LINES SHOWN ON THE DRAWINGS AND CROSS SECTIONS ARE PLOTTED FROM THE BEST INFORMATION AVAILABLE AT THE TIME OF PLAN PREPARATION, BUT MAY NOT REFLECT ACTUAL LOCATIONS OR ELEVATIONS. THE CONTRACTOR SHALL VERIFY LOCATION OF ALL UTILITIES BEFORE BEGINNING CONSTRUCTION WHICH MAY BE AFFECTED BY A UTILITY CONFLICT. THE CONTRACTOR SHALL GIVE 48 HOURS NOTICE TO THE UTILITY OWNERS OF ALL KNOWN UTILITIES BEFORE STARTING ANY OPERATIONS AFFECTING THOSE PROPERTIES OR BEGINNING EXCAVATION IN THE VICINITY OF THOSE PROPERTIES. THE CONTRACTOR'S ATTENTION IS DIRECTED TO SECTION 1507 IN THE MN/DOT STANDARD SPECIFICATIONS.
35. THE SUBSURFACE UTILITY INFORMATION ON THIS PLAN IS UTILITY QUALITY LEVEL D. THIS QUALITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF CI/ASCE 38-.2, ENTITLED "STANDARD GUIDELINES FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA".
36. ANY DE-WATERING, STREET SWEEPING, AND ANY USE OF TRENCH BOX, SHEETING, SHORING, OR OTHER METHODS OR MEANS ARE CONSIDERED TO BE INCIDENTAL AND NO DIRECT COMPENSATION WILL BE MADE.
37. COMPACTION ON GRADING AND AGGREGATE BASE PORTIONS OF THE PERMANENT CONSTRUCTION SHALL BE ACHIEVED BY THE "MODIFIED PENETRATION INDEX METHOD".
38. ACCESS TO THE PROJECT FROM MAIN STREET IS PROHIBITED.
39. NOTIFICATION FOR TESTING: THE CONTRACTOR SHALL NOTIFY THE PROJECT REPRESENTATIVE A MINIMUM 24 HOURS IN ADVANCE OF PERFORMING ANY WORK THAT WILL REQUIRE TESTING. THIS IS TO ALLOW TIME TO SCHEDULE THE TESTING FIRM. FAILURE TO GIVE ADEQUATE NOTICE WILL RESULT IN WORK BEING CONSIDERED UNAUTHORIZED.
40. WORK HOURS: NO PERSON SHALL ENGAGE IN OR PERMIT CONSTRUCTION ACTIVITIES INVOLVING THE USE OF ANY KIND OF ELECTRIC, DIESEL, OR GAS-POWERED MACHINE OR OTHER POWER EQUIPMENT EXCEPT BETWEEN THE HOURS OF 7:00 A.M. AND 10:00 P.M. ON ANY WEEKDAY OR BETWEEN THE HOURS OF 9:00 A.M. AND 9:00 P.M. ON ANY WEEKEND OR HOLIDAY. NO WORK SHALL BE DONE ON SUNDAY OR ANY HOLIDAY, UNLESS SPECIAL APPROVAL IS GRANTED BY THE ENGINEER. IF THE CONTRACTOR DESIRES TO WORK ON A SATURDAY, HE MUST NOTIFY THE ENGINEER AT LEAST 1 WEEK IN ADVANCE TO ALLOW FOR SCHEDULING A PROJECT REPRESENTATIVE. IF PROPER NOTICE IS NOT GIVEN, THE ENGINEER RESERVES THE RIGHT TO LIMIT OPERATIONS TO MONDAY THROUGH FRIDAY.

EXISTING ADAMS ST SE - SO. BRIDGE TO FAIR AVE. SE.



EXISTING ADAMS ST SE - FAIR AVE. SE. TO WASHINGTON AVE. E.



NOTE: EXISTING TYPICAL SECTIONS FOR INFORMATION ONLY.
ACTUAL DEPTHS AND THICKNESS MAY VARY FROM WHAT IS SHOWN.

REV. NO.	DATE	BY	CHK	DESCRIPTION

NOT TO SCALE

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.

NAME CHAD J. SEAMAN LIC. NO. 44961 DATE 4/1/2010

DESIGNED KMB
DRAWN KJM
CHECKED CJS

Stonebrooke
Engineering Responsible Solutions™

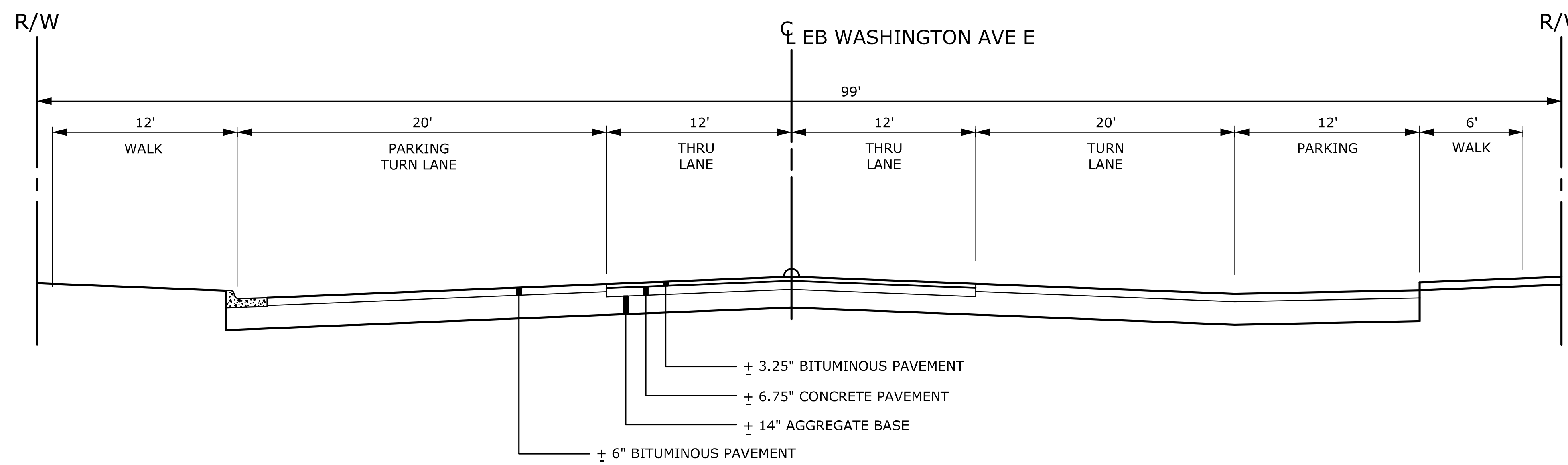
TYPICAL SECTIONS
EXISTING ADAMS ST. PLAN PAGE 1 of 7
SAP 43-625-21 CSAH 25 (ADAMS ST. SE)
MSAP 133-110-002 & WASHINGTON AVE. E

SHEET 24 OF 262

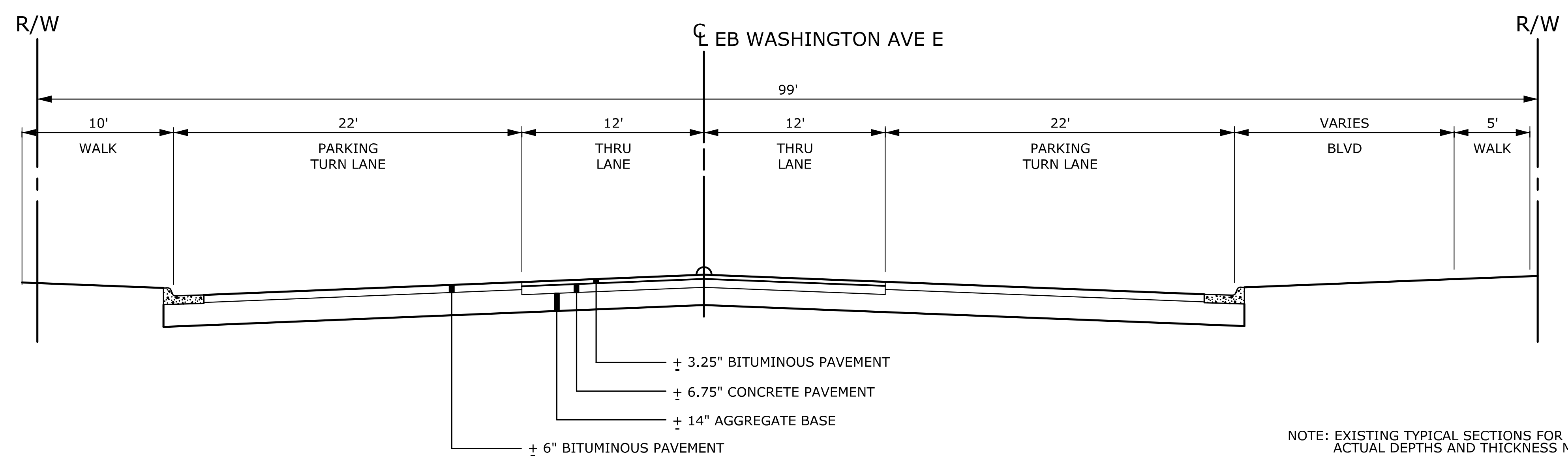
PLOT DRIVER: pdf_bw.plt PEN TABLE: T-00196_planset.tbl USER: kmidthun
PLOT DATE: 4/7/2010 3:16:47 PM FILE: S:\PROJECTS\TRANS\0159_McLeodCo\T-00196\Road_Design\sheets\cdT-00196_ts.dgn MODEL: 1 - Typical Sections

PLOT DRIVER: pdf_bw.plt
PEN TABLE: T-00196_planset.tbl
USER: kmidthun
PLOT DATE: 4/7/2010 3:16:48 PM
FILE: S:\PROJECTS\TRANS\0159_McLeodCo\T-00196\Road_Design\sheets\cdT-00196_ts.dgn
MODEL: 2 - Typical Sections

EXISTING WASHINGTON AVE. E. - MAIN ST. N. TO HASSAN ST. SE.



EXISTING WASHINGTON AVE. E. - HASSAN ST. SE. TO ADAMS ST. SE.



NOTE: EXISTING TYPICAL SECTIONS FOR INFORMATION ONLY.
ACTUAL DEPTHS AND THICKNESS MAY VARY FROM WHAT IS SHOWN.

REV. NO.	DATE	BY	CHK	DESCRIPTION

NOT TO SCALE

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.

NAME CHAD J. SEAMAN LIC. NO. 44961 DATE 4/1/2010

DESIGNED KMB
DRAWN KJM
CHECKED CJS

Stonebrooke
Engineering Responsible Solutions™

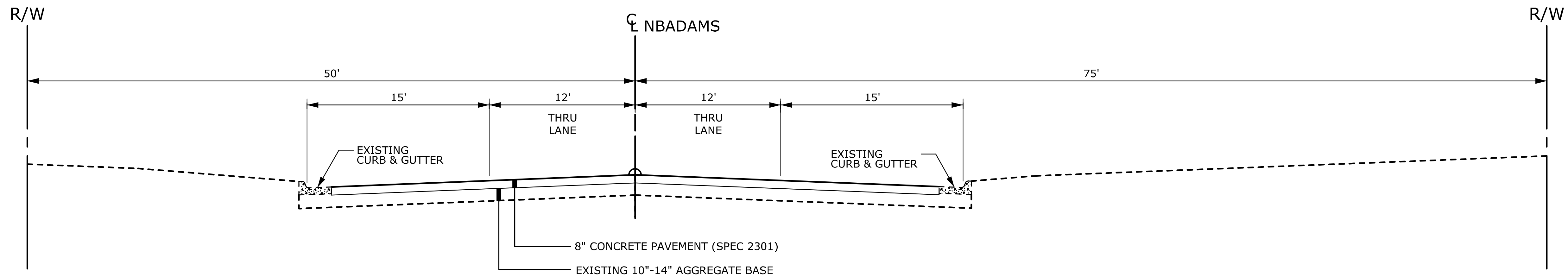
TYPICAL SECTIONS
EXISTING WASHINGTON AVE — PLAN PAGE 2 of 7
SAP 43-625-21 — CSAH 25 (ADAMS ST. SE)
MSAP 133-110-002 — & WASHINGTON AVE. E

PLOT DRIVER: pdf_bw.plt
PEN TABLE: T-00196_planset.tbl
USER: kmidthun

PLOT DATE: 4/7/2010 3:16:50 PM
FILE: S:\PROJECTS\TRANS\0159_McLeodCo\T-00196\Road_Design\sheets\cdT-00196_ts.dgn
MODEL: 3 - Typical Sections

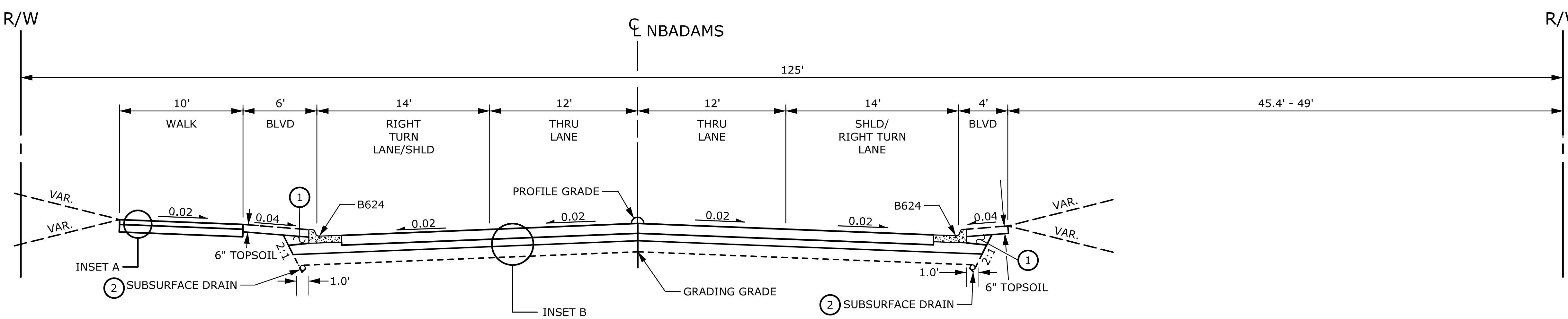
CSAH 25 (ADAMS ST. SE)

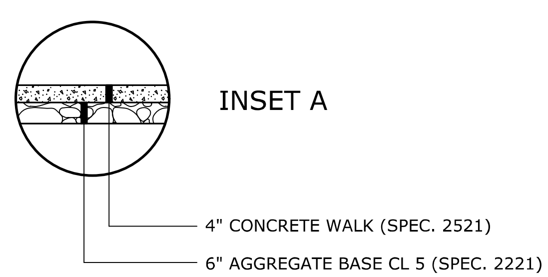
NB STA 101+06 TO NB STA 121+21

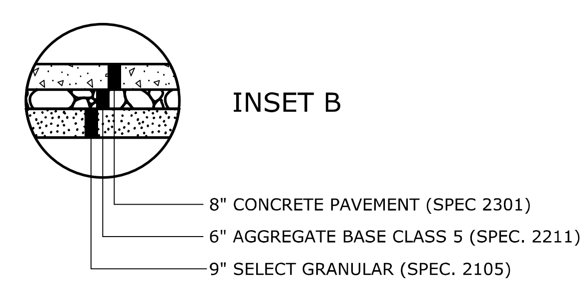


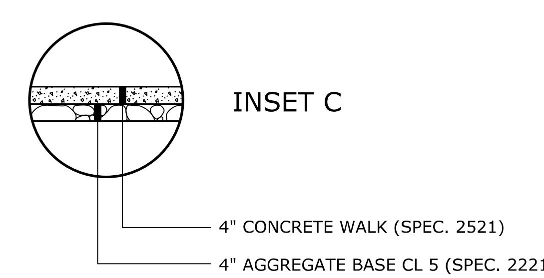
CSAH 25 (ADAMS ST. SE)

NB STA 121+21 TO NB STA 126+74









NOTES:

ALL CROSS SLOPES ARE FT/FT.

1 COMMON EMBANKMENT MATERIAL.

2 SEE MISCELLEANOUS DETAILS SHEET. SEE DRAINAGE PLAN FOR LOCATIONS.

REV. NO.	DATE	BY	CHK	DESCRIPTION

NOT TO SCALE

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.

NAME CHAD J. SEAMAN LIC. NO. 44961 DATE 4/1/2010

DESIGNED KMB
DRAWN KJM
CHECKED CJS

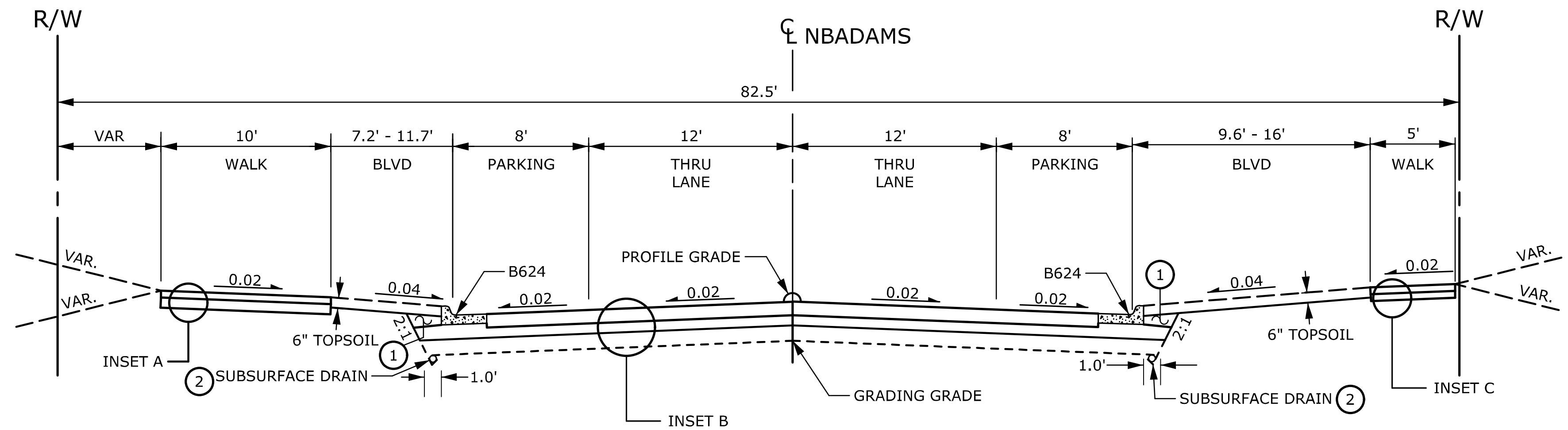
Stonebrooke
Engineering Responsible Solutions

TYPICAL SECTIONS
PROPOSED ADAMS ST. PLAN PAGE 3 of 7
SAP 43-625-21 CSAH 25 (ADAMS ST. SE)
MSAP 133-110-002 & WASHINGTON AVE. E

SHEET 26 OF 262

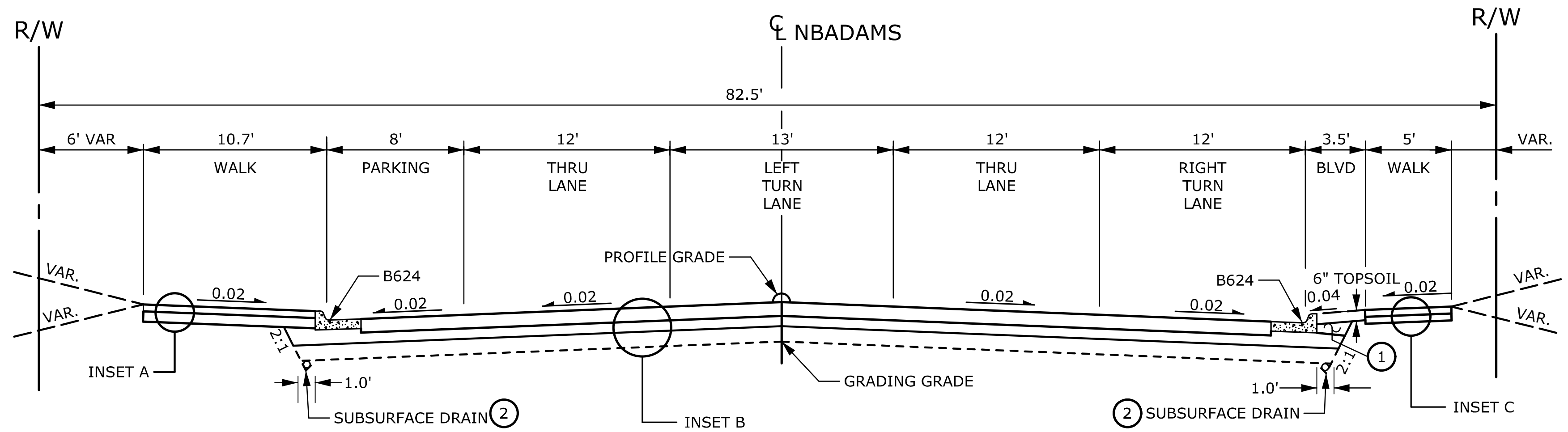
CSAH 25 (ADAMS ST. SE)

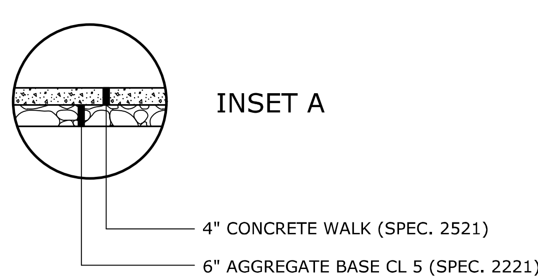
NB STA 126+74 TO NB STA 133+37
NB STA 143+35 TO NB STA 154+89



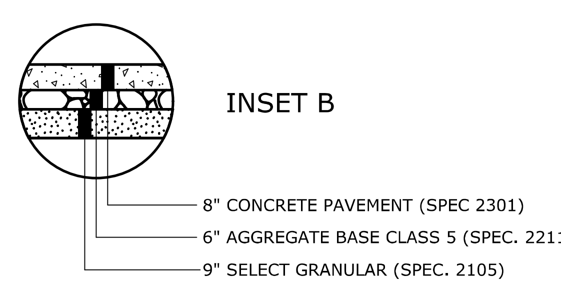
CSAH 25 (ADAMS ST. SE)

NB STA 136+62 TO NB STA 138+35

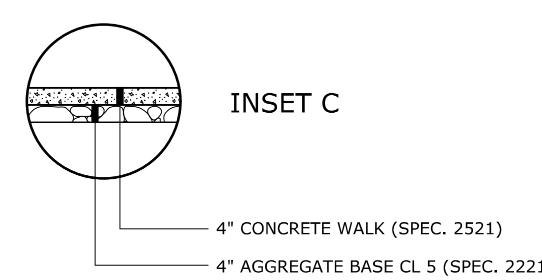




INSET A



INSET B



INSET C

NOTES:

ALL CROSS SLOPES ARE FT/FT.

1. COMMON EMBANKMENT MATERIAL.

2. SEE MISCELLEANOUS DETAILS SHEET. SEE DRAINAGE PLAN FOR LOCATIONS.

REV. NO.	DATE	BY	CHK	DESCRIPTION

NOT TO SCALE

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.

NAME CHAD J. SEAMAN LIC. NO. 44961 DATE 4/1/2010

DESIGNED KMB
DRAWN KJM
CHECKED CJS

Stonebrooke
Engineering Responsible Solutions™

TYPICAL SECTIONS
PROPOSED ADAMS ST. PLAN PAGE 4 of 7
SAP 43-625-21 CSAH 25 (ADAMS ST. SE)
MSAP 133-110-002 & WASHINGTON AVE. E

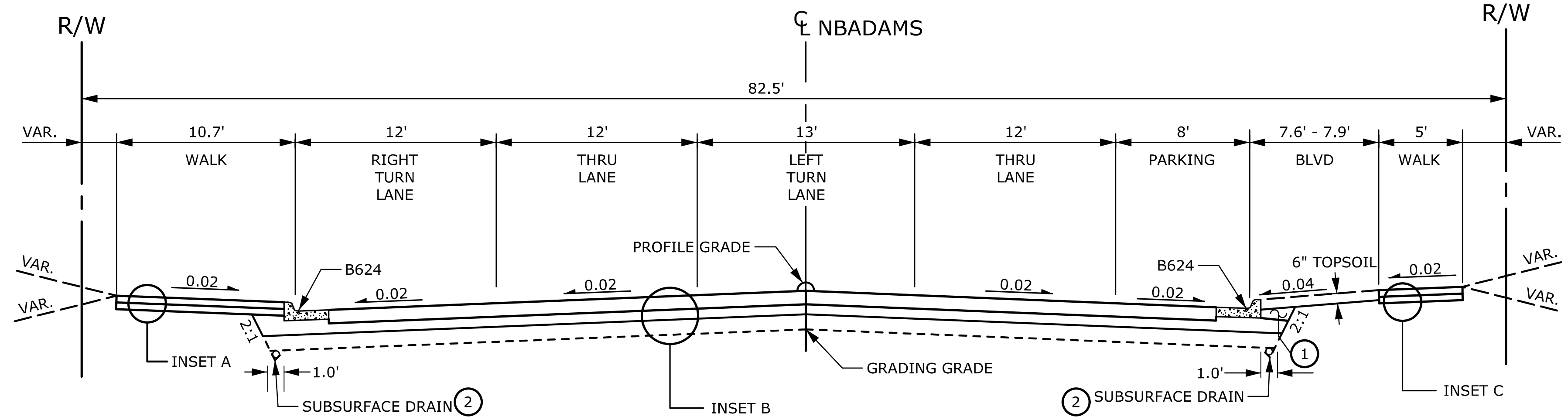
SHEET 27 OF 262

PLOT DRIVER: pdf_bw.plt
PEN TABLE: T-00196_planset.tbl
USER: kmidthun
PLOT DATE: 4/7/2010 3:16:51 PM
FILE: S:\PROJECTS\TRANS\0159_McLeodCo\T-00196\Road_Design\sheets\cdT-00196_ts.dgn
MODEL: 4 - Typical Sections

PLOT DRIVER: pdf_bw.plt
PLOT DATE: 4/7/2010 3:16:53 PM
PEN TABLE: T-00196_planset.tbl
FILE: S:\PROJECTS\TRANS\0159_McLeodCo\T-00196\Road_Design\sheets\cdT-00196_ts.dgn
USER: kmidthun
MODEL: 5 - Typical Sections

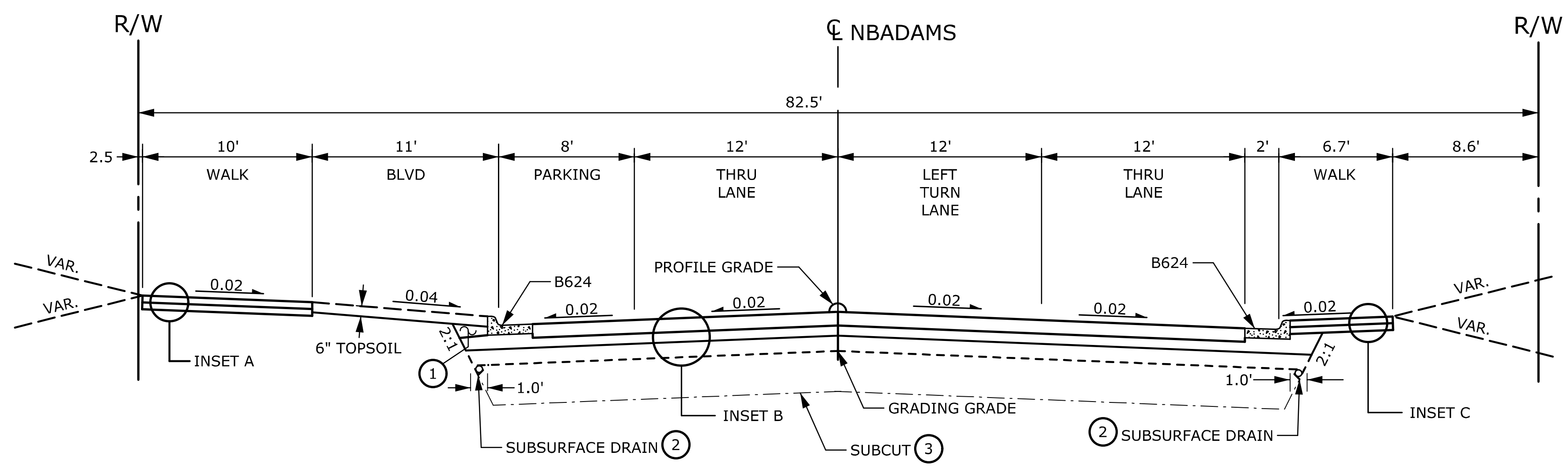
CSAH 25 (ADAMS ST. SE)

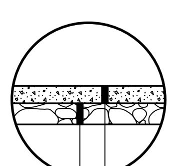
NB STA 138+35 TO NB STA 140+10



CSAH 25 (ADAMS ST. SE)

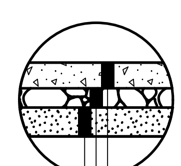
NB STA 157+07 TO NB STA 159+05





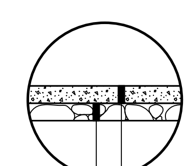
INSET A

- 4" CONCRETE WALK (SPEC. 2521)
- 6" AGGREGATE BASE CL 5 (SPEC. 2221)



INSET B

- 8" CONCRETE PAVEMENT (SPEC 2301)
- 6" AGGREGATE BASE CLASS 5 (SPEC. 2211)
- 9" SELECT GRANULAR (SPEC. 2105)



INSET C

- 4" CONCRETE WALK (SPEC. 2521)
- 4" AGGREGATE BASE CL 5 (SPEC. 2221)

NOTES:

ALL CROSS SLOPES ARE FT/FT.

1. COMMON EMBANKMENT MATERIAL.
2. SEE MISCELLEANOUS DETAILS SHEET. SEE DRAINAGE PLAN FOR LOCATIONS.
3. SEE CONSTRUCTION PLAN & PROFILE SHEETS FOR ADDITIONAL INFORMATION

REV. NO.	DATE	BY	CHK	DESCRIPTION

NOT TO SCALE

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.

NAME CHAD J. SEAMAN LIC. NO. 44961 DATE 4/1/2010

DESIGNED KMB
DRAWN KJM
CHECKED CJS

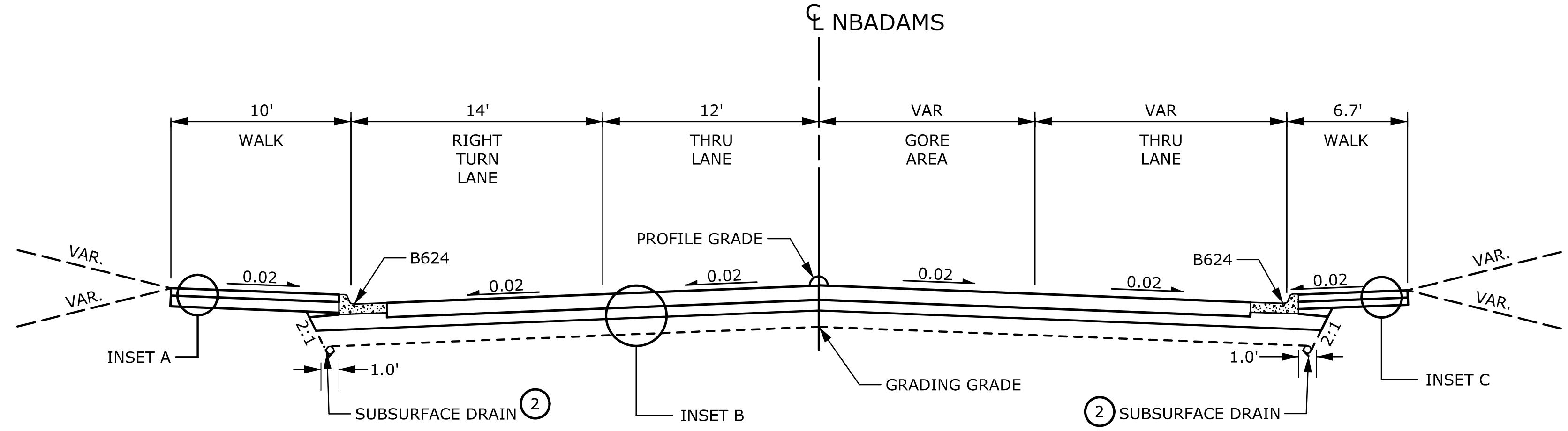
Stonebrooke
Engineering Responsible Solutions™

TYPICAL SECTIONS
PROPOSED ADAMS ST. PLAN PAGE 5 of 7
SAP 43-625-21 CSAH 25 (ADAMS ST. SE)
MSAP 133-110-002 & WASHINGTON AVE. E

SHEET 28 OF 262

CSAH 25 (ADAMS ST. SE)

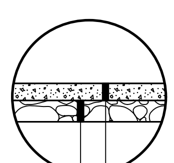
NB STA 159+41 TO NB STA 160+51



NOTES:

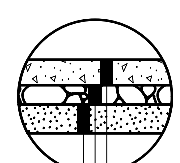
ALL CROSS SLOPES ARE FT/FT.

1. COMMON EMBANKMENT MATERIAL.
2. SEE MISCELLEANOUS DETAILS SHEET. SEE DRAINAGE PLAN FOR LOCATIONS.



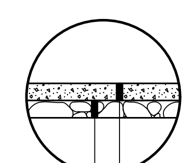
INSET A

- 4" CONCRETE WALK (SPEC. 2521)
- 6" AGGREGATE BASE CL 5 (SPEC. 2221)



INSET B

- 8" CONCRETE PAVEMENT (SPEC 2301)
- 6" AGGREGATE BASE CLASS 5 (SPEC. 2211)
- 9" SELECT GRANULAR (SPEC. 2105)



INSET C

- 4" CONCRETE WALK (SPEC. 2521)
- 4" AGGREGATE BASE CL 5 (SPEC. 2221)

REV. NO.	DATE	BY	CHK	DESCRIPTION

NOT TO SCALE

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.

NAME CHAD J. SEAMAN LIC. NO. 44961 DATE 4/1/2010

DESIGNED KMB
DRAWN KJM
CHECKED CJS

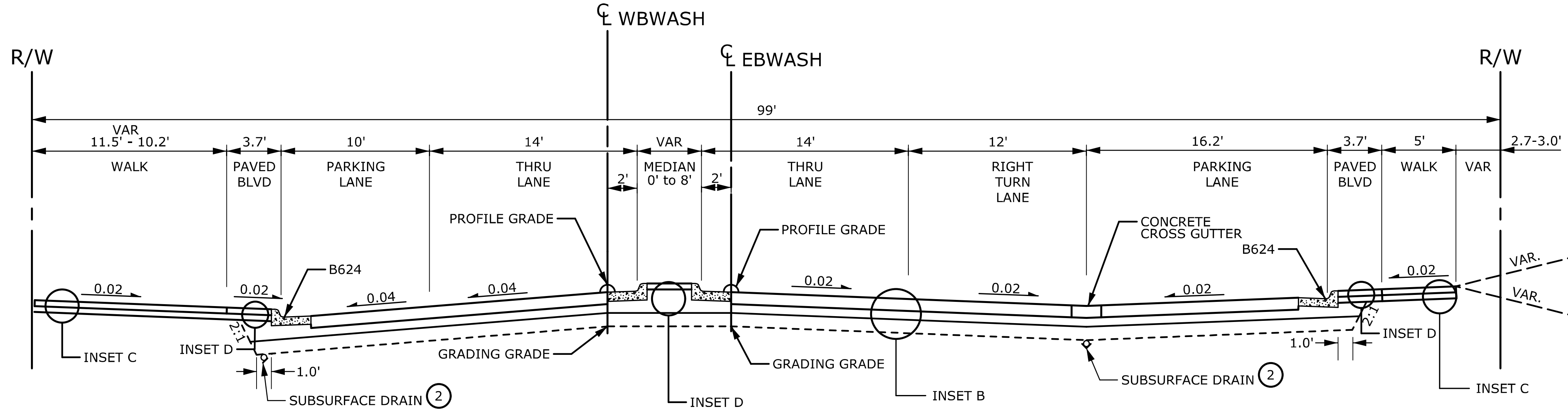
Stonebrooke
Engineering Responsible Solutions™

TYPICAL SECTIONS
PROPOSED ADAMS ST. PLAN PAGE 6 of 7
SAP 43-625-21 CSAH 25 (ADAMS ST. SE)
MSAP 133-110-002 & WASHINGTON AVE. E

SHEET 29 OF 262

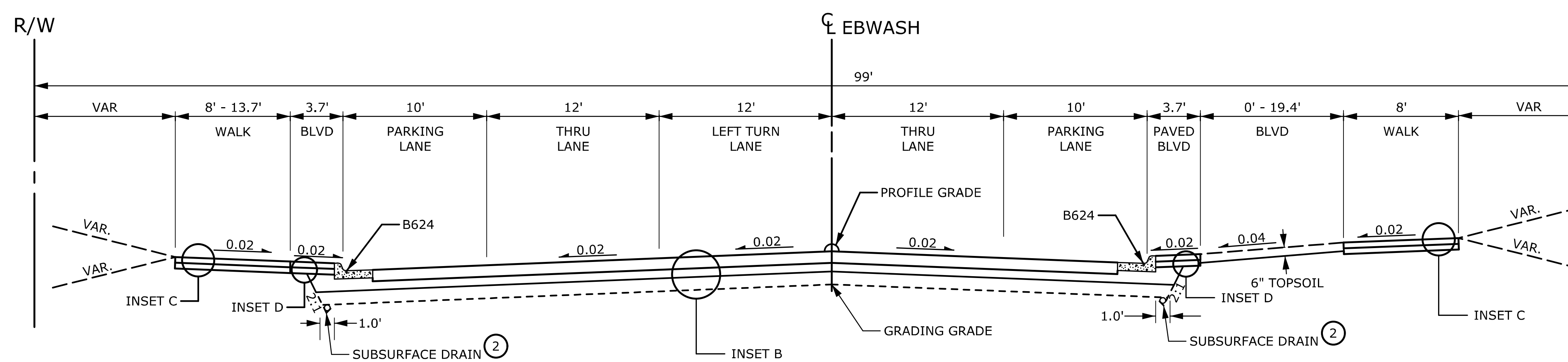
WASHINGTON AVE. E.

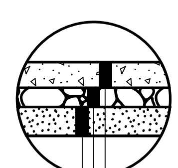
EB STA 201+41 TO EB STA 204+00



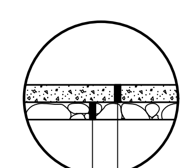
WASHINGTON AVE. E.

EB STA 204+00 TO EB STA 209+65

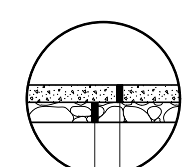




INSET B



INSET C



INSET D

NOTES:

ALL CROSS SLOPES ARE FT/FT.

(2) SEE MISCELLEANOUS DETAILS SHEET. SEE DRAINAGE PLAN FOR LOCATIONS.

REV. NO.	DATE	BY	CHK	DESCRIPTION

NOT TO SCALE

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.

NAME CHAD J. SEAMAN LIC. NO. 44961 DATE 4/1/2010

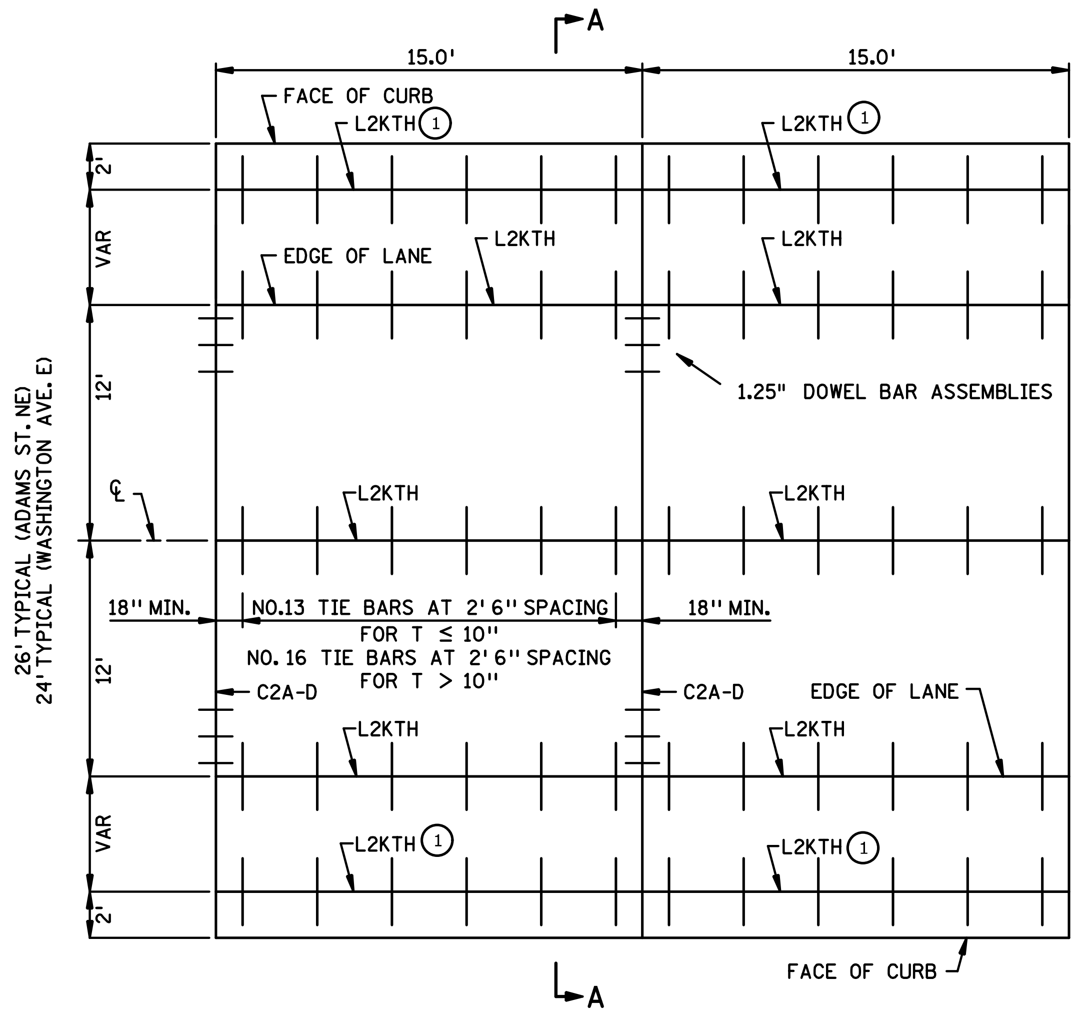
DESIGNED KMB
DRAWN KJM
CHECKED CJS

Stonebrooke
Engineering Responsible Solutions™

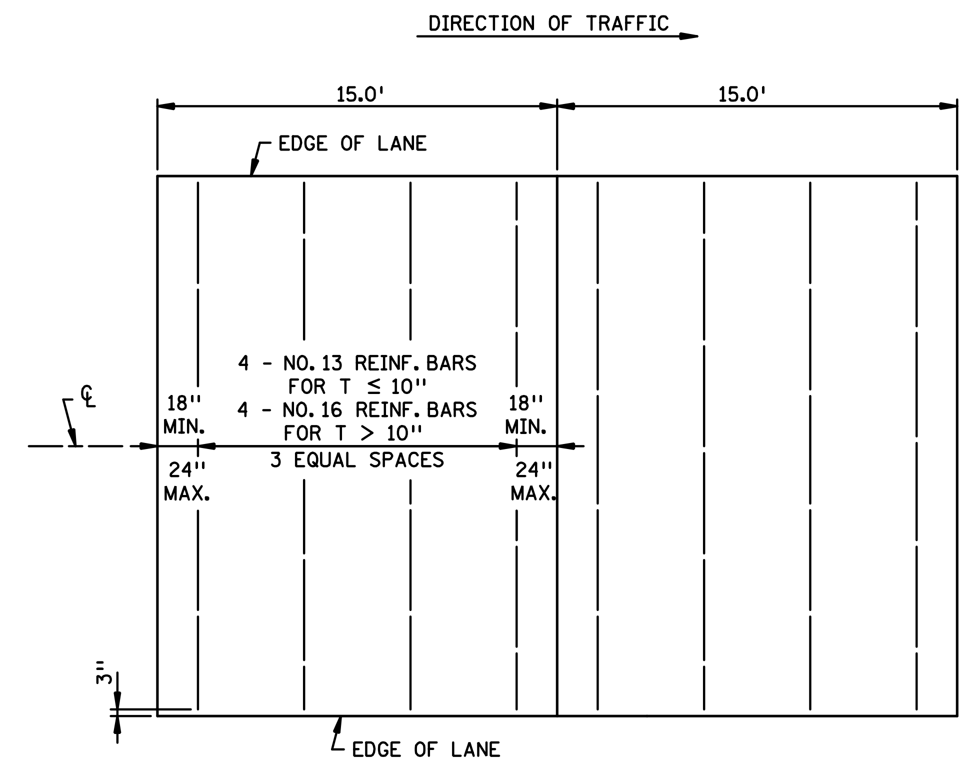
TYPICAL SECTIONS
PROPOSED WASHINGTON AVE. PLAN PAGE 7 of 7
SAP 43-625-21 CSAH 25 (ADAMS ST. SE)
MSAP 133-110-002 & WASHINGTON AVE. E

SHEET 30 OF 262

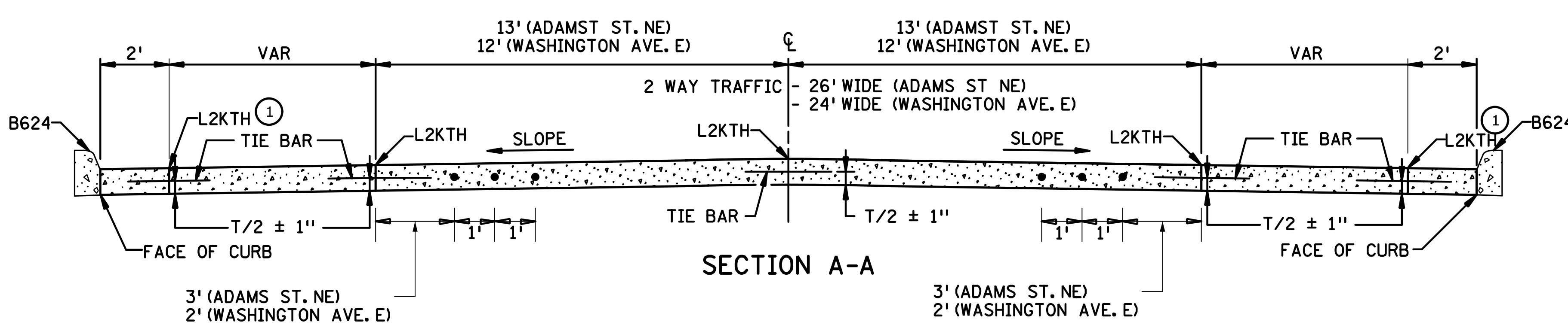
PLOT DRIVER: pdf_bw.plt
PLOT DATE: 4/7/2010 3:16:56 PM
PEN TABLE: T-00196_planset.tbl
FILE: S:\PROJECTS\TRANS\0159_McLeodCo\T-00196\Road_Design\sheets\cdT-00196_ts.dgn
USER: kmidthun
MODEL: 7 - Typical Sections



MAINLINE PAVEMENT
DOWELED



SUPPLEMENTAL PANEL REINFORCEMENT



SECTION A-A

(1) TIED JOINT SOUTH OF OAKLAND AVE. WHERE EXISTING CURB & GUTTER TO REMAIN INPLACE.

DRILL AND GROUT TIE BAR INTO EXISTING CURB & GUTTER INCIDENTAL.

GENERAL NOTES:

ALL REBARS ARE IN METRIC DESIGNATIONS

SEE TYPICAL SECTIONS AND PLAN SHEETS FOR CROSS SLOPES AND PAVEMENT THICKNESS, T.

WHEN RIGID PAVEMENT ADJOINS FLEXIBLE PAVEMENT, BRIDGE APPROACHES, R. R. CROSSINGS OR OTHER TYPES OF FREE ENDS, THE FOLLOWING MODIFICATIONS SHALL BE MADE: THE FIRST OR LAST 10 JOINTS SHALL BE DOWELED CONTRACTION JOINTS, C4E-D.

DOWEL BAR ASSEMBLIES, WHEN REQUIRED, SHALL BE SIMILAR TO THOSE SHOWN ON STANDARD PLATE 1103.

ALL REINFORCING BARS SHALL BE EPOXY COATED IN ACCORDANCE WITH SPEC. 3301 AND SHALL MEET THE REQUIREMENTS OF GRADE 60 FOR AASHTO M-31 OR M-53. FOR ADDITIONAL REINFORCEMENT OVER CULVERTS, SEE STANDARD PLATE 1070.

TIE BARS:
USE NO. 13 BARS 2' 6" LONG, AT 2' 6" SPACING.

SUPPLEMENTAL PANEL REINFORCEMENT:
PLACE IN PANELS WHERE PAVEMENT WIDTH EXCEEDS 15.0' WITHOUT A LONGITUDINAL JOINT, AND IN THE MIDDLE LANE(S) WHERE TIED PAVEMENT WIDTH EXCEEDS 4 LANES. USE NO. 13 BARS FOR PAVEMENT THICKNESS 10" OR LESS. USE NO. 16 BARS FOR PAVEMENT THICKNESS GREATER THAN 10". PLACEMENT DEPTH SHALL BE PLANNED T/2 ± 1".

NO MORE THAN TWO LANES SHALL BE PAVED AT THE SAME TIME.

REV. NO.	DATE	BY	CHK	DESCRIPTION

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.

NAME CHAD J. SEAMAN LIC. NO. 44961 DATE 4/1/2010

DESIGNED CJS
DRAWN KJM
CHECKED CJS

Stonebrooke
Engineering Responsible Solutions™

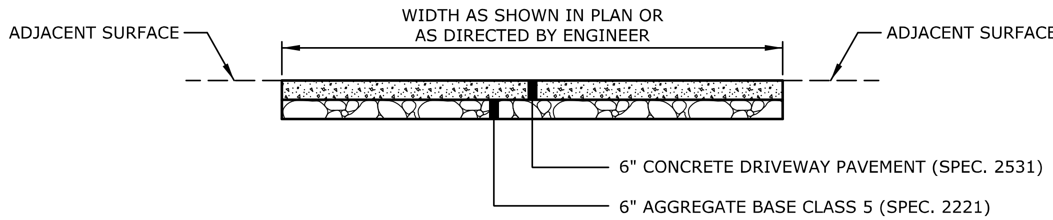
MISCELLANEOUS DETAILS
PLAN PAGE 1 of 5
SAP 43-625-21 CSAH 25 (ADAMS ST. SE)
MSAP 133-110-002 & WASHINGTON AVE. E

SHEET 31 OF 262

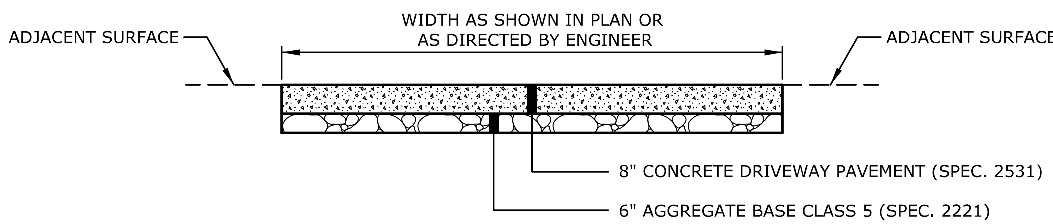
PLOT DRIVER: pdf_bw.plt
PLOT DATE: 4/7/2010 3:17:11 PM
PEN TABLE: T-00196_planset.tbl
FILE: S:\PROJECTS\TRANS\0159_McLeodCo\T-00196\Road_Design\sheets\cdT-00196_dd.dgn
USER: kmidthun
MODEL: 1 - Misc Details

ROADWAY & DRIVEWAY TYPICAL SECTIONS

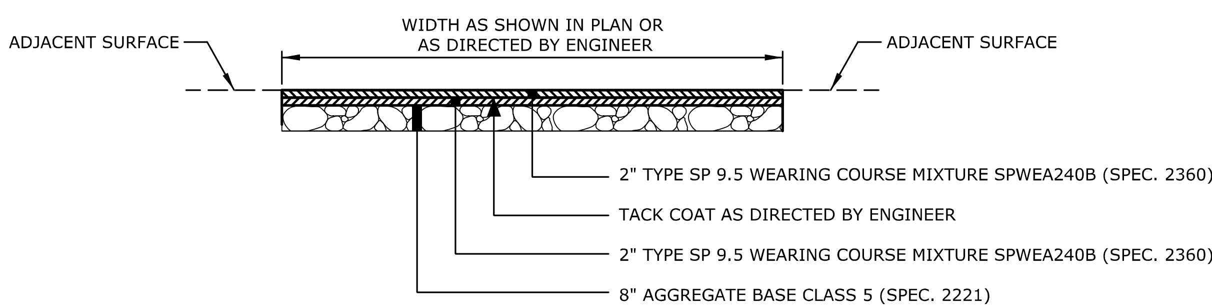
6" CONCRETE DRIVEWAY PAVEMENT



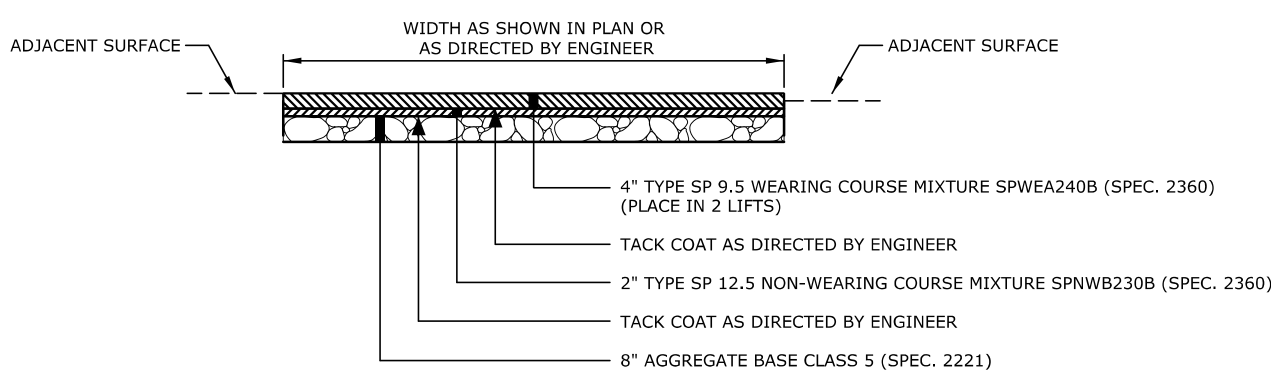
8" CONCRETE DRIVEWAY PAVEMENT



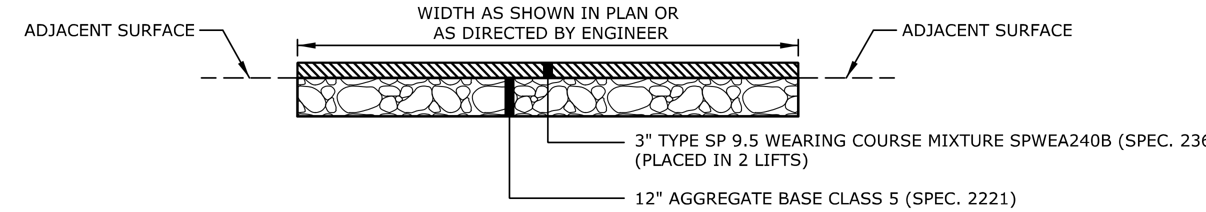
4" BITUMINOUS DRIVEWAY PAVEMENT



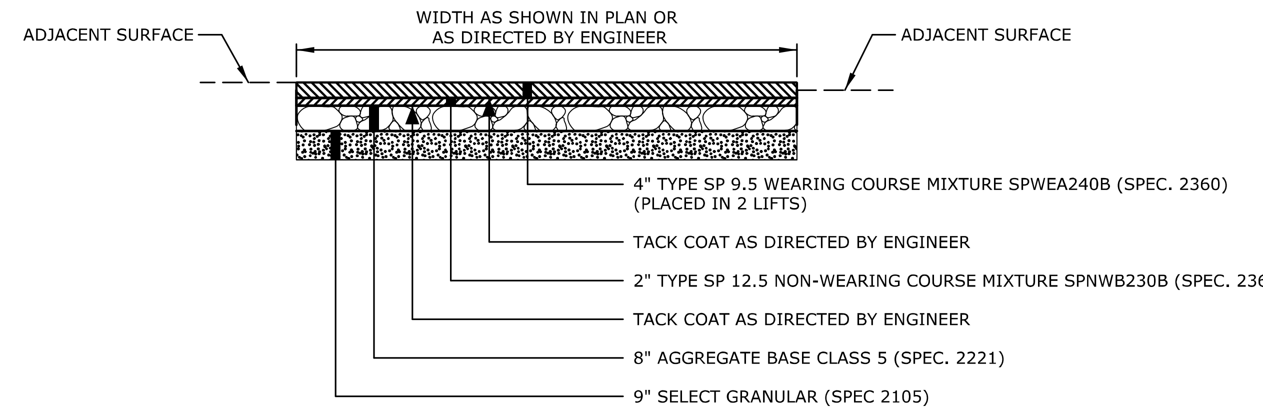
6" BITUMINOUS DRIVEWAY PAVEMENT



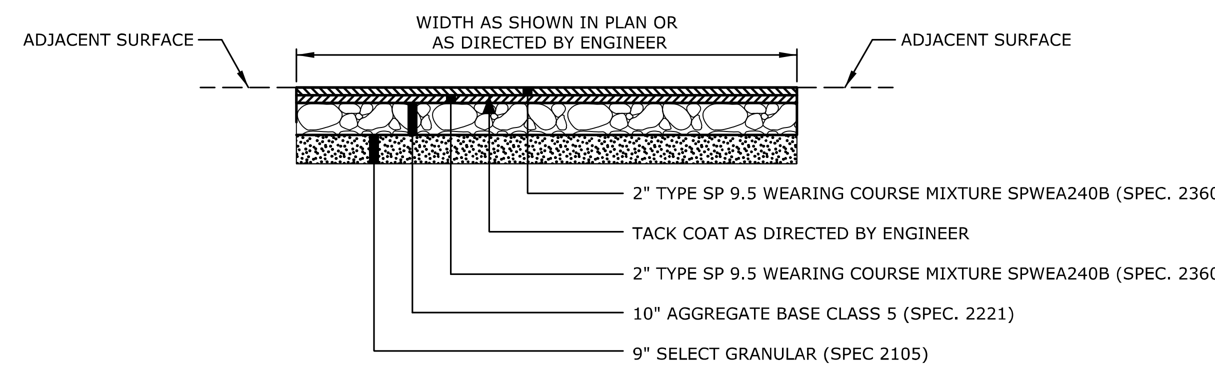
3" BITUMINOUS ALLEY PAVEMENT



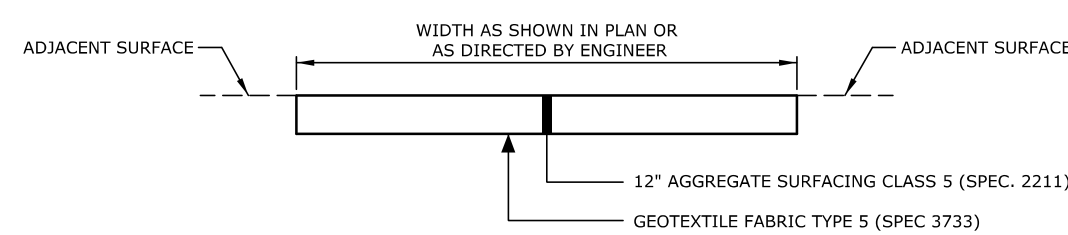
6" BITUMINOUS ROADWAY PAVEMENT



4" BITUMINOUS ROADWAY PAVEMENT



12" AGGREGATE SURFACING



NOTES:

1. SEE CONCRETE PAVING, DRIVEWAYS, AND SUPERELEVATION SHEETS FOR LOCATIONS.
2. USE STANDARD PLATE NO. 7035 - "CONCRETE WALK & CURB RETURNS AT ENTRANCES" FOR ALL ENTRANCES.
3. SEE LANDSCAPE PLAN FOR JOINT LAYOUTS ON ENTRANCES.

REV. NO.	DATE	BY	CHK	DESCRIPTION

NOT TO SCALE

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.

NAME CHAD J. SEAMAN LIC. NO. 44961 DATE 4/1/2010

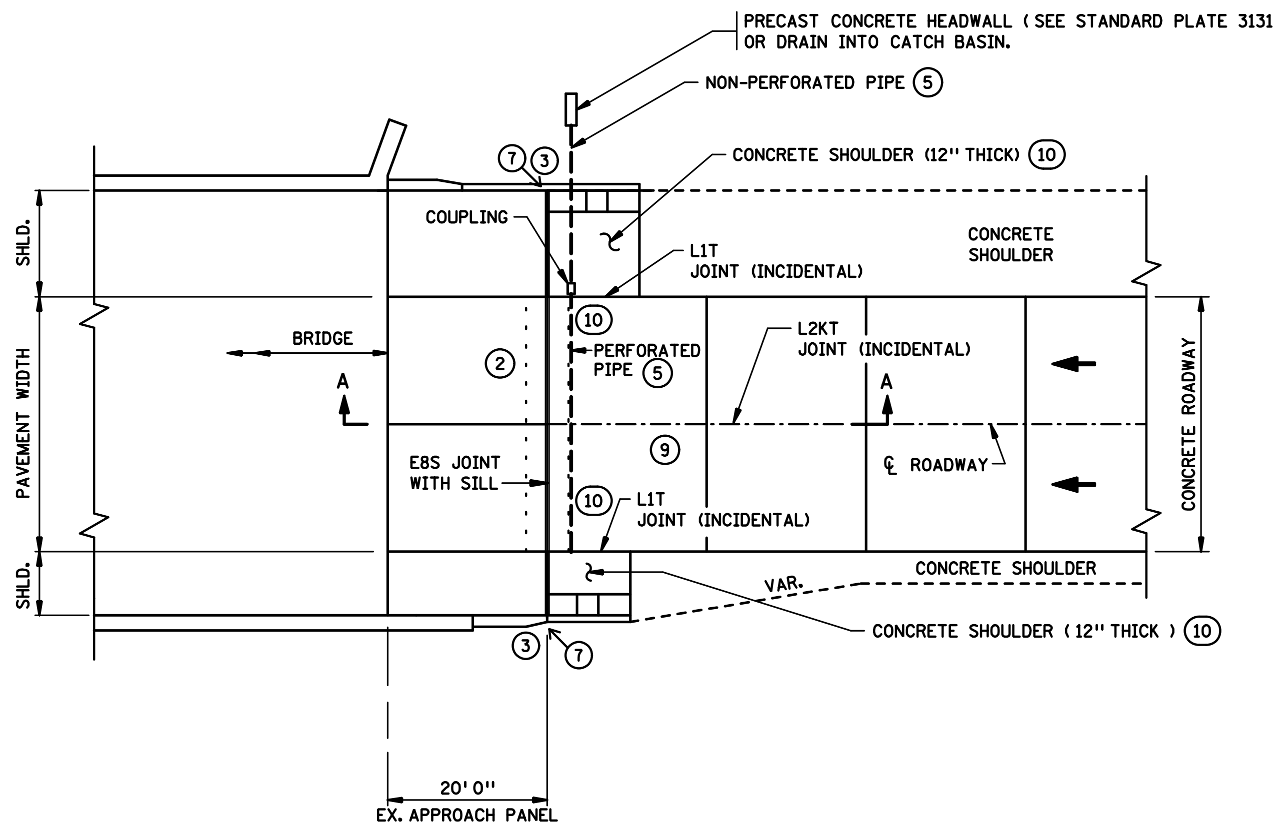
DESIGNED CJS
DRAWN KJM
CHECKED CJS

Stonebrooke
Engineering Responsible Solutions™

MISCELLANEOUS DETAILS
PAVEMENT SECTIONS
PLAN PAGE 2 of 5
SAP 43-625-21 CSAH 25 (ADAMS ST. SE)
MSAP 133-110-002 & WASHINGTON AVE. E

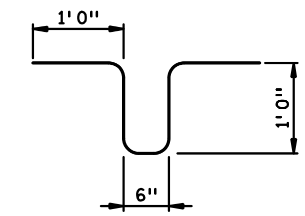
SHEET 32 OF 262

PLOT DRIVER: pdf_bw.plt
PLOT DATE: 4/7/2010 3:17:12 PM
PEN TABLE: T-00196_planset.tbl
FILE: S:\PROJECTS\TRANS\0159_McLeodCo\T-00196\Road_Design\sheets\cdT-00196_dd.dgn
USER: kmidthun
MODEL: 2 - Misc Details



DIVIDED-URBAN ROADWAY PLAN

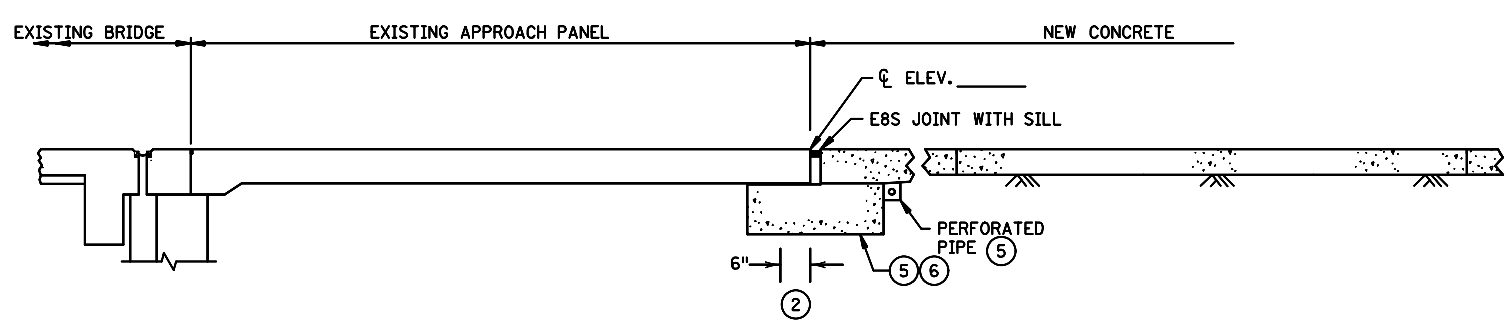
PARALLEL & NONPARALLEL WINGWALLS



S1301E

NOTES:

1. ALL REINFORCEMENT IN APPROACH PANEL, SILL AND CURB SHALL BE GRADE 60 AND EPOXY COATED AS PER SPEC. 3301.
2. CONTRACTOR SHALL UNDERMINE EXISTING APPROACH PANEL TO POUR SILL. THE EXISTING APPROACH PANEL APRON SHALL SIT ON A MINIMUM OF 6 INCHES OF FULL DEPTH CONCRETE SILL.
3. E8S JOINT AND CONCRETE SILL SHALL EXTEND FROM CURB TO CURB.
4. ~~L2KT OR L1T LONGITUDINAL JOINT IS REQUIRED. SEE STANDARD PAVEMENT JOINT SHEET FOR DETAILS.~~
5. SEE SHEET 29 FOR REQUIRED MISCELLANEOUS DETAILS NOT SHOWN.
6. 18" x 4' 0" CONCRETE SILL UNDER TRAFFIC LANES ONLY WHEN MAINLINE ROADWAY PAVEMENT IS CONCRETE. CONCRETE SILL AND CURBING IF REQUIRED IS INCLUDED IN APPROACH PANEL PAY ITEM.
7. CONTRACTOR SHALL CONSTRUCT 4 INCH GAP IN EXISTING CURB AND GUTTER AT THE E8S JOINT LOCATION (INCIDENTAL). REMOVAL & REPLACEMENT OF OF ANY CURB & GUTTER REQUIRED TO CONSTRUCT SILL & CONSTRUCTION JOINT ON THE CURB & GUTTER SHALL BE INCIDENTAL TO THE SILL CONSTRUCTION.
8. APPROACH SLAB THICKNESS SHOWN INCLUDES ANY CONCRETE OVERLAY THAT MAY BE REQUIRED. CHECK BRIDGE PLANS FOR OVERLAYS. CONCRETE OVERLAYS TO BE INCLUDED IN BRIDGE QUANTITIES AND DONE AT THE SAME TIME BY BRIDGE CONTRACTOR.
9. SEE SHEET 8 FOR BRIDGE APPROACH ROADWAY INFORMATION.
10. EXTRA DEPTH CONCRETE AT SILL SHALL BE INCIDENTAL.



SECTION A-A

(SOME REINFORCEMENT NOT SHOWN)

REV. NO.	DATE	BY	CHK	DESCRIPTION

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.

NAME CHAD J. SEAMAN LIC. NO. 44961 DATE 4/1/2010

DESIGNED CJS
DRAWN KJM
CHECKED CJS

Stonebrooke
Engineering Responsible Solutions™

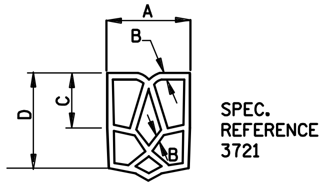
MISCELLANEOUS DETAILS
APPROACH PANEL JOINT
PLAN PAGE 5 of 5
SAP 43-625-21 CSAH 25 (ADAMS ST. SE)
MSAP 133-110-002 & WASHINGTON AVE. E

SHEET 35 OF 262

PLOT DRIVER: pdf_bw.plt PLOT DATE: 4/7/2010 3:17:16 PM
PEN TABLE: T-00196_planset.tbl FILE: S:\PROJECTS\TRANS\0159_McLeodCo\T-00196\Road_Design\sheets\cdT-00196_dd.dgn
USER: kmidthun MODEL: 5 - Misc Details

REQUIRED DIMENSIONS

JOINT TYPE	TRANSVERSE
NOMINAL SEALER SIZE	11/16" USE IN ALL 3/8" JOINTS
A	0.69" + 0.13" - 0.05"
B	0.08" ± 0.02"
C	0.25" MIN.
D	0.63" MIN.



TYPICAL SHAPE FOR SATISFACTORY INSTALLATION IN JOINT (5 CELL MIN.)

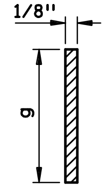
NOTES:

"A" DIMENSION SHALL APPLY AT ANY POINT THROUGHOUT "C" DEPTH. IN ITS FINAL POSITION, THE TOP CORNERS OF THE PREFORMED JOINT SEALER SHALL BE PLACED NOT LESS THAN 1/8 IN., NOR MORE THAN 5/16 IN. BELOW THE PAVEMENT SURFACE.

SHARP INTERNAL CORNERS WILL NOT BE PERMITTED. ALL CORNERS SHALL BE PROVIDED WITH SUITABLE FILLET. CURRENTLY APPROVED CONFIGURATIONS ARE ON FILE IN THE MATERIALS ENGINEERING SECTION, MINNESOTA DEPARTMENT OF TRANSPORTATION.

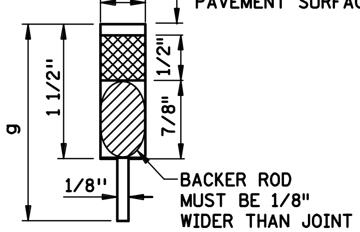
CONTRACTION JOINT SEALER

PREFORMED ELASTIC TYPE



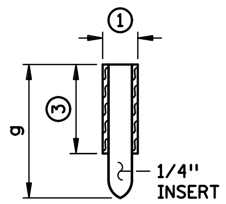
DETAIL A

FORMED & SAWED



DETAIL B ②

SAWED



DETAIL C

FORMED

(INSERT TO BE REMOVED)

CONTRACTION JOINT CLASS DESIGNATION, DETAIL & SEALER SPEC. TABLE

CLASS DESIGNATION WITHOUT DOWELS	CLASS DESIGNATION WITH DOWELS	JOINT DETAIL	JOINT SEALER SPEC.
C1A	C1A-D	A	UNSEALED
C2A	C2A-D	A	3725
C2B	C2B-D	B	3725
C2X	C2X-D	B OR C	3725
C3D	C3D-D	D	3721
C3X	C3X-D	C OR D	3721
C4E	C4E-D	E	3722

LEGEND

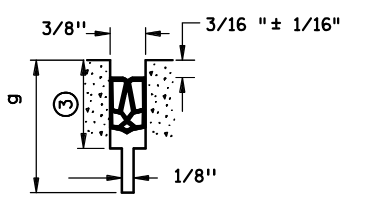
C = CONTRACTION JOINT
NO. = SEALANT TYPE
1 = UNSEALED
2 = 3725
3 = 3721
4 = 3722
LETTER = DETAIL
X = MORE THAN 1 DETAIL
-D = DOWEL BARS

EXAMPLE

C2B-D

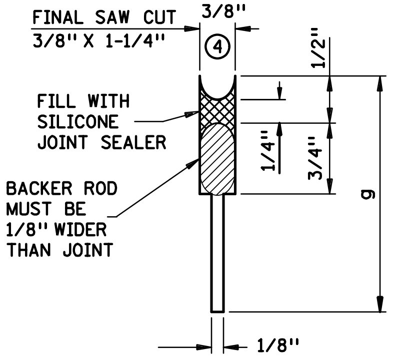
DOWEL BAR DIAMETER TABLE

PAVEMENT THICKNESS T	DOWEL BAR DIAMETER
6" - 6 1/2"	1"
7" - 10"	1 1/4"
10 1/2" - 14"	1 1/2"



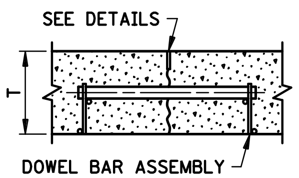
DETAIL D

SAWED



DETAIL E

SAWED



SECTION AT JOINT

NOTES:

① DESIGN C3X OR C3X-D - PRIOR TO INSTALLING PREFORMED JOINT SEALER IN THE FORMED JOINT (DETAIL C), THE JOINT SHALL BE WIDENED TO A NOMINAL WIDTH OF 3/8" BY SAWING ALONG THE FULL LENGTH OF THE FORMED JOINT.

DESIGN C2X OR C2X-D - PRIOR TO SEALING FORMED JOINT (DETAIL C) WITH HOT POUR SEALER THE JOINT SHALL BE WIDENED TO A NOMINAL WIDTH OF 1/2". SAW ALONG THE FULL LENGTH OF THE FORMED JOINT TO DEPTH OF 3/4" (+ 1/8", - 1/16"). THE SEALER SHALL BE FILLED TO THE SAME DEPTH AS SHOWN IN DETAIL B.

② DESIGN C2B OR C2B-D - PRIOR TO SEALING JOINT (DETAIL B) WITH HOT POUR JOINT SEALER, A 5/8" DIA. CLOSED CELL BACKER ROD SHALL BE PLACED SUCH THAT THE TOP OF THE BACKER ROD IS 5/8" BELOW THE SURFACE OF THE PAVEMENT.

③ WHEN USING PREFORMED JOINT SEALER, THE DEPTH SHALL BE 1/4" MORE THAN THE PREFORMED SEALER, WHEN COMPRESSED, TO FIT THE JOINT DESIGN WIDTH.

④ THE JOINT FACES SHALL BE CLEANED AND DRIED BY SANDBLASTING AND AIR BLASTING. PRIOR TO SEALING THE JOINT, A 1/2" DIA. CLOSED CELL BACKER ROD SHALL BE PLACED SUCH THAT THE TOP OF THE BACKER ROD IS 1/2" BELOW THE SURFACE OF THE PAVEMENT. NON SELF-LEVELING SILICONE SHALL BE TOOLED INTO THE JOINT MAINTAINING A SEALANT BEAD THICKNESS OF 1/4".

GENERAL NOTES:

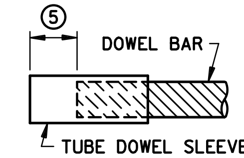
SEE STANDARD PLATE 1103, DOWEL BAR ASSEMBLY.
SEE STANDARD PLATE 1150, CONSTRUCTION OF HEADER JOINTS. SEE STANDARD PLANS 5-297.217 AND 5-297.219, CONCRETE MAINLINE/RAMP PAVEMENT.

SEE PAVING LAYOUTS IN THE PLANS FOR JOINT CLASS DESIGNATION TO BE USED AND SPECIAL REINFORCEMENT REQUIRED.

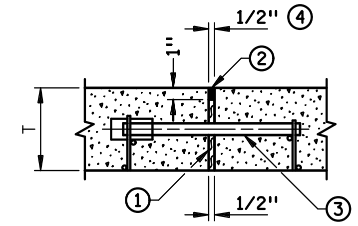
FOR UNBONDED OVERLAYS, THE JOINT DEPTH "g" SHALL BE T/3.
FOR CONCRETE PAVEMENT, THE JOINT DEPTH "g" SHALL BE T/4.

CONTRACTION JOINTS

DESIGN C

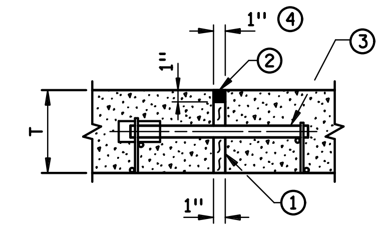


DOWEL BAR SLEEVE DETAIL



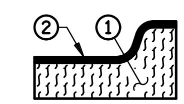
E1D-1 (W/DOWELS) E1-1 (W/O DOWELS)

DETAIL A



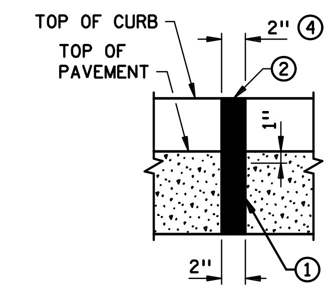
E2D-1 (W/DOWELS) E2-1 (W/O DOWELS)

DETAIL C



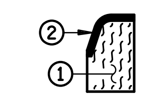
SECTION THRU CURB

E2-1



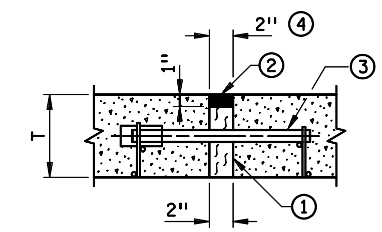
E4-1 (W/O DOWELS)

DETAIL D



SECTION THRU CURB

E4-1



E4D-1 (W/DOWELS)

DETAIL E

EXPANSION JOINTS

CLASS DESIGNATION WITH DOWELS	CLASS DESIGNATION WITHOUT DOWELS	JOINT DETAIL	JOINT SEALER SPEC.
E1D-1	E1-1	A	3723
E2D-1	E2-1	C	3723
	E4-1	D	3723
E4D-1		E	3723
	E8S-1	⑥	3725

LEGEND

E = EXPANSION JOINT
NO. = JOINT REFERENCE ④
D = DOWEL BARS
S = CONCRETE SILL
-1 = HOT POURED SEAL

EXAMPLE

E1D-1
HOT POURED SEAL
DOWEL BARS
JOINT REFERENCE
EXPANSION JOINT

NOTES:

① PREFORMED JOINT FILLER MATERIAL, SPEC. 3702.

② JOINT SEALER SPEC. 3723. TOP OF SEALER, FLUSH TO 1/8" BELOW TOP OF PAVEMENT SURFACE. MAKE TOP OF SEALER FOR CURB SECTION E JOINTS FLUSH WITH SURFACE ± 1/8".

③ DOWEL BAR ASSEMBLY, SEE STANDARD PLATE 1103.

④ THE FIRST NUMBER IN THE JOINT DESIGNATION IS EQUAL TO HALF OF THE JOINT NUMBER IN 1/2" INTERVALS (I.E. E1 = 1/2", E2 = 1", E4 = 2", AND E8 = 4").

⑤ SPACE FROM END OF DOWEL BAR TO END OF SLEEVE TO BE EQUAL TO EXPANSION JOINT WIDTH.

⑥ SEE STANDARD PLAN 5-297.223 FOR E8S JOINT DETAIL.

EXPANSION JOINTS

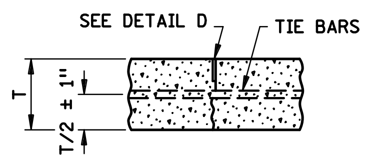
DESIGN E

STANDARD SHEET NO.	TITLE:
5-297.221 (1 OF 2)	PAVEMENT JOINTS
STANDARD APPROVED: JUNE 6, 2005	CONTRACTION (DESIGN C) AND EXPANSION (DESIGN E)

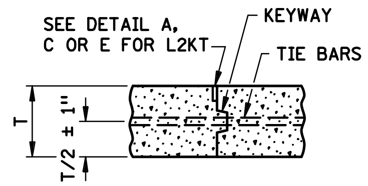
SAP 43-625-21
MSAP 133-110-002

CSAH 25 (ADAMS ST. SE) & WASHINGTON AVE. E

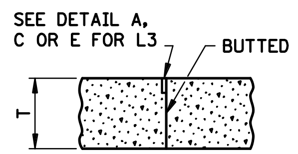
FILE NAME S2211F05.SPN
USER: kmidthun
MODEL: Std Plan 1
FILE: S:\PROJECTS\TRANS\0159_McLeodCo\T-00196\Road_Design\stdpln\s2211f05_spn.dgn
PLOT DRIVER: pdf_bw.plt
PEN TABLE: T-00196_planset.tbl
PLOT DATE: 4/7/2010



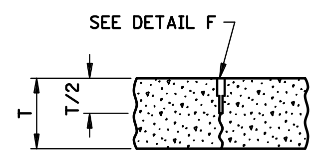
L1 & L1T



L2KT



L3



L4

LONGITUDINAL JOINT CLASS DESIGNATION, DETAIL & SEALER SPECIFICATION TABLE

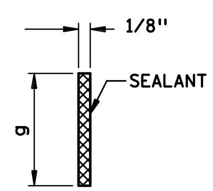
CLASS DESIGNATION				JOINT DETAIL	JOINT SEALER SPECIFICATION
WITHOUT TIE BARS	WITH TIE BARS	WITH KEYWAY & TIE BARS	BUTTED		
L1H	L1TH			B	3723
		L2KTH		D OR E	3723
		L2KTS		C	3722
			L3H	D OR E	3723
			L3S	C	3722
L4S				F	3722

LEGEND

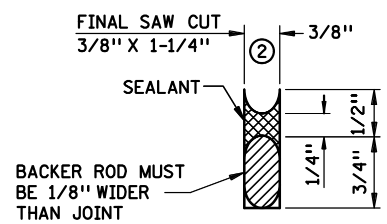
L = LONGITUDINAL JOINT
NO. = JOINT REFERENCE
K = KEYWAY
T = TIE BARS
U = UNSEALED
H = HOT POUR (SEALANT)
S = SILICONE (SEALANT)

JOINT REFERENCE NUMBERS

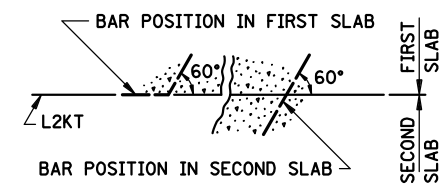
1 = SAWED TO A DEPTH OF T/3
2 = KEYED CONSTRUCTION JOINT
3 = BUTTED CONSTRUCTION JOINT
4 = SAWED TO A DEPTH OF T/2



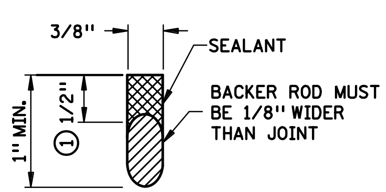
DETAIL B
(SAWED & SEALED WITH SPEC. 3723)



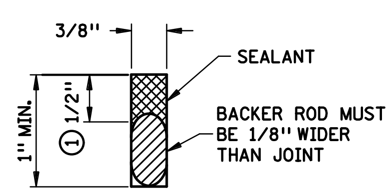
DETAIL C
(SAWED AND SEALED WITH SPEC. 3722)



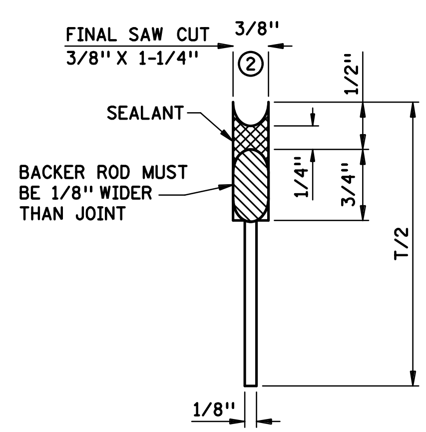
TIE BAR BENDING DETAIL



DETAIL D
(FORMED & SEALED WITH SPEC. 3723)



DETAIL E
(SAWED & SEALED WITH SPEC. 3723)



DETAIL F
(SAWED AND SEALED WITH SPEC. 3722)

LONGITUDINAL JOINT NOTES:

ALL REBARS ARE IN METRIC DESIGNATIONS

THE TIE BAR SPACING FOR ALL L2KT JOINTS SHALL BE 2' - 6" CENTER TO CENTER AND BENT 60° AS SHOWN, EXCEPT WHEN NOTED OTHERWISE IN THE PLANS.

TIE BARS IN THE L2KT JOINTS SHALL BE THE SAME SIZE AND LENGTH AS USED FOR THE L1T JOINTS, WHEN TYING PAVEMENT TO PAVEMENT. TIE BARS IN THE L2KT JOINTS SHALL BE NO. 13 X 2' - 6", WHEN TYING CURB & GUTTER TO PAVEMENT.

ALL TIE BARS SHALL MEET THE REQUIREMENTS OF GRADE 60 FOR AASHTO M-31 OR M-53.

NORMALLY, TIED PAVEMENT WIDTHS SHALL NOT EXCEED FOUR LANES, EXCEPT BRIDGE APPROACH PANELS AND PAVEMENT TAPERS.

JOINT WIDTH TOLERANCE IS + 1/16 IN. TO - 1/32 IN.

FOR CONCRETE PAVEMENT THE JOINT DEPTH "g" SHALL BE T/3 INCHES.

SPEC. 3723 SEALER - TOP OF SEALER FLUSH TO - 3/16 IN. BELOW TOP OF PAVEMENT SURFACE.

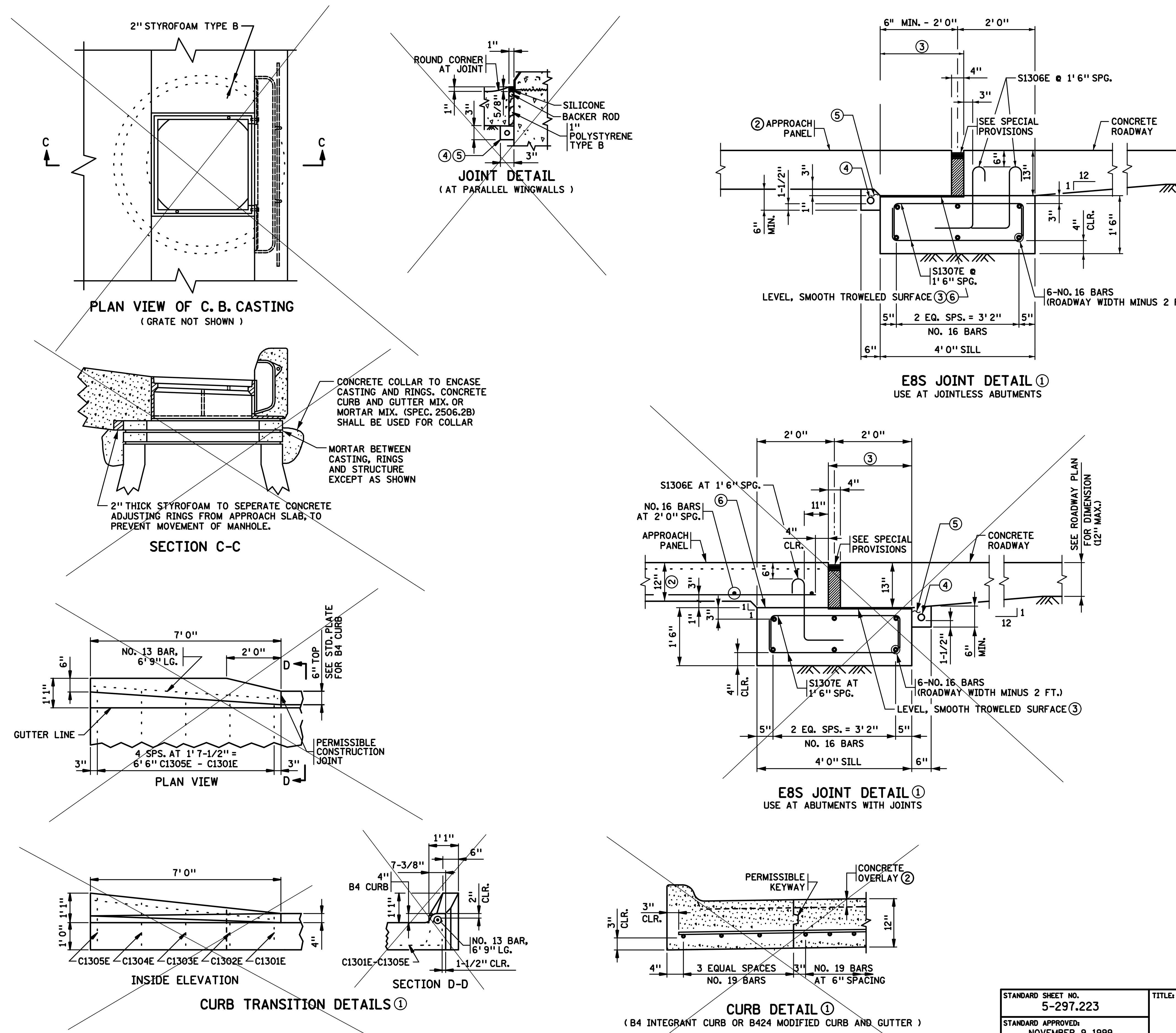
1. THE JOINT FACES SHALL BE CLEANED AND DRIED BY SANDBLASTING AND AIR BLASTING. PRIOR TO SEALING THE JOINT, A CLOSED CELL BACKER ROD CAPABLE OF WITHSTANDING SEALANT TEMPERATURES OF 400 DEGREES F, WITH A DIAMETER 1/8 IN. LARGER THAN THE JOINT OPENING, MAY BE PLACED 1/2 IN. BELOW THE TOP OF THE PAVEMENT.
2. THE JOINT FACES SHALL BE CLEANED AND DRIED BY SANDBLASTING AND AIR BLASTING. PRIOR TO SEALING THE JOINT. A 1/2 IN. DIAMETER CLOSED CELL BACKER ROD SHALL BE PLACED SUCH THAT THE TOP OF THE BACKER ROD IS 1/2 IN. BELOW THE SURFACE OF THE PAVEMENT. NON-SELF-LEVELING SILICONE SHALL BE TOOLED INTO THE JOINT MAINTAINING A SEALANT BEAD THICKNESS OF 1/4 IN.

GENERAL NOTES:

SEE STANDARD PLATE 1103, DOWEL BAR ASSEMBLY. SEE STANDARD PLATE 1141, PAVEMENT KEYWAY. SEE STANDARD PLANS 5-297.217 AND 5-297.219 FOR CONCRETE MAINLINE AND RAMP PAVEMENT.

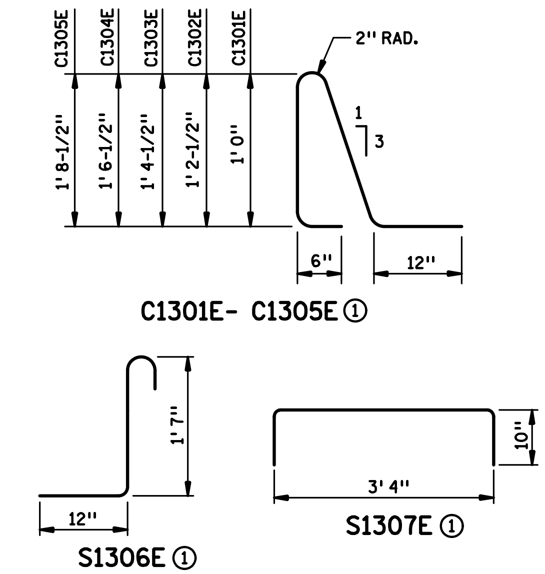
SEE PAVING LAYOUTS IN THE PLANS FOR JOINT CLASS DESIGNATIONS TO BE USED & SPECIAL REINFORCEMENT REQUIRED.

USER: kmidthun
MODEL: Std Plan 2
FILE: S:\PROJECTS\TRANS\0159_McLeodCo\T-00196\Road_Design\stdpln\s2212f05_spn.dgn
PLOT DRIVER: pdf_bw.plt
PEN TABLE: T-00196_planset.tbl
PLOT DATE: 4/7/2010
FILE NAME S2212F05_SPN.DGN



SUMMARY OF QUANTITES FOR BRIDGE APPROACH PANEL

CONCRETE MIX NO. 3X42	CU. YD.
REINFORCEMENT BARS	LBS.
CURB DESIGN B4 INTEGRANT	LIN. FT.
CURB DESIGN B424	LIN. FT.



NOTES:

ALL REBARS ARE IN METRIC DESIGNATIONS

① ALL REINFORCEMENT IN APPROACH PANEL, SILL AND CURB SHALL BE GRADE 60 AND EPOXY COATED AS PER SPEC. 3301.

② EXISTING BRIDGE APPROACH PANEL.

③ PLACE PLASTIC SHEETING SPEC. 3756 AS APPROVED BY THE ENGINEER TO BREAK BOND. COVER AREA SHOWN IN DETAIL.

④ 2 INCH OR 4 INCH NOMINAL DIA. THERMOPLASTIC PIPE, AS PER ASTM D1785M, SCHEDULE 40. SLOPE PIPE TO DITCH. FURNISHING AND INSTALLING DRAIN SYSTEM SHALL BE INCIDENTAL, WITH NO DIRECT PAYMENT. WRAP PERFORATED PIPE WITH GEOTEXTILE AS PER SPEC. 3733. 1/8 INCH PER 12 INCH MINIMUM SLOPE.

⑤ BACKFILL WITH FINE AGGREGATE, SPEC. 3149, MODIFIED TO 0-3% PASSING A NO. 200 SIEVE.

⑥ REQUIRED CONSTRUCTION JOINT.

REVISION DATE 2-7-2000

STANDARD SHEET NO. 5-297.223

STANDARD APPROVED: NOVEMBER 9, 1999

TITLE: BRIDGE APPROACH PANEL
CONCRETE MAINLINE ROADWAY
(MISCELLANEOUS DETAILS)

SAP 43-625-21
MSAP 133-110-002

CSAH 25 (ADAMS ST. SE)
& WASHINGTON AVE. E

PLOT DRIVER: pdf_bw.plt
PEN TABLE: T-00196_planset.tbl
USER: kmidthun
PLOT DATE: 4/7/2010 3:17:26 PM
FILE: S:\PROJECTS\TRANS\0159_McLeodCo\T-00196\Road_Design\stdpln\S223__spn_conc_details5.dgn
MODEL: std plan 3 - Conc Detail 5