

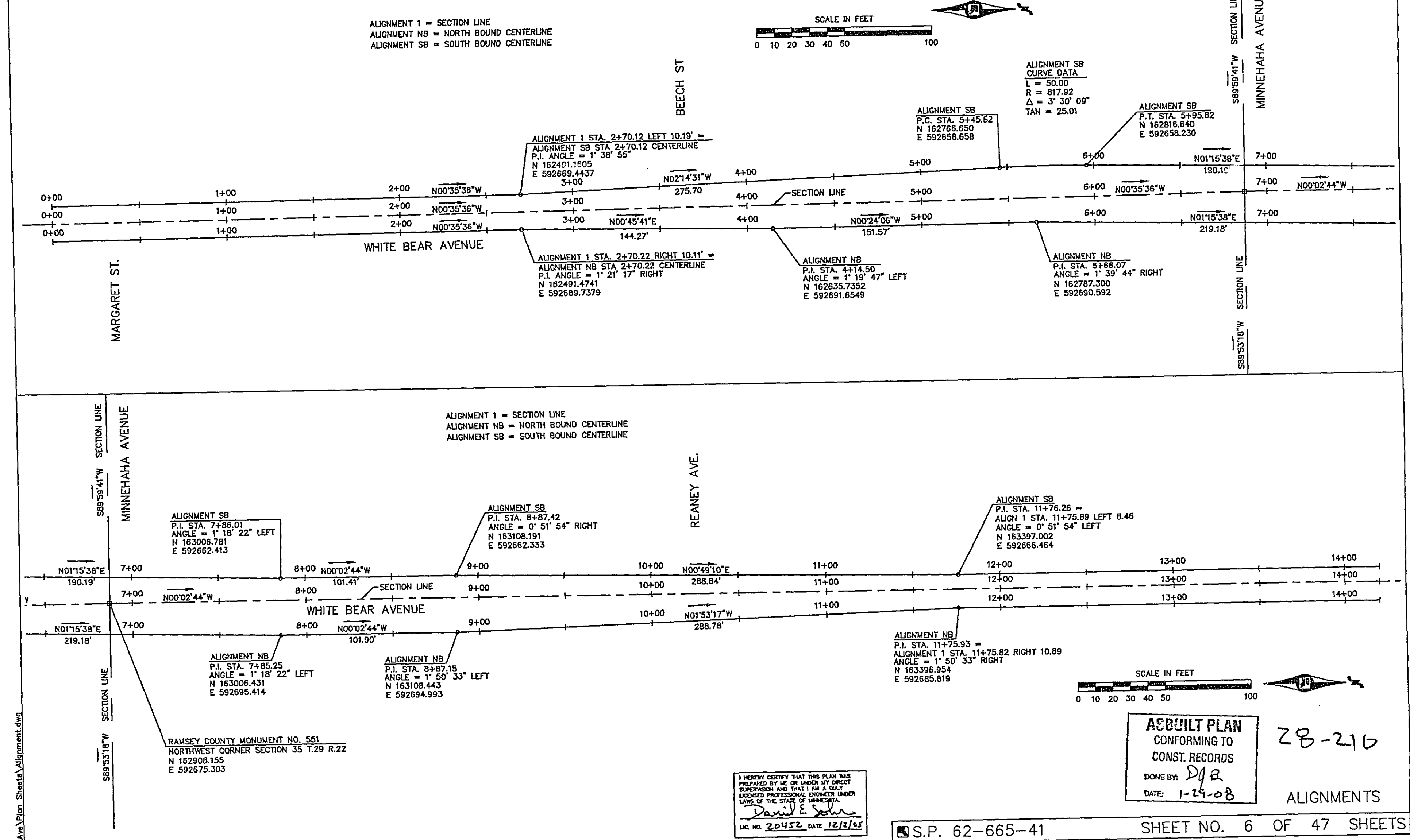
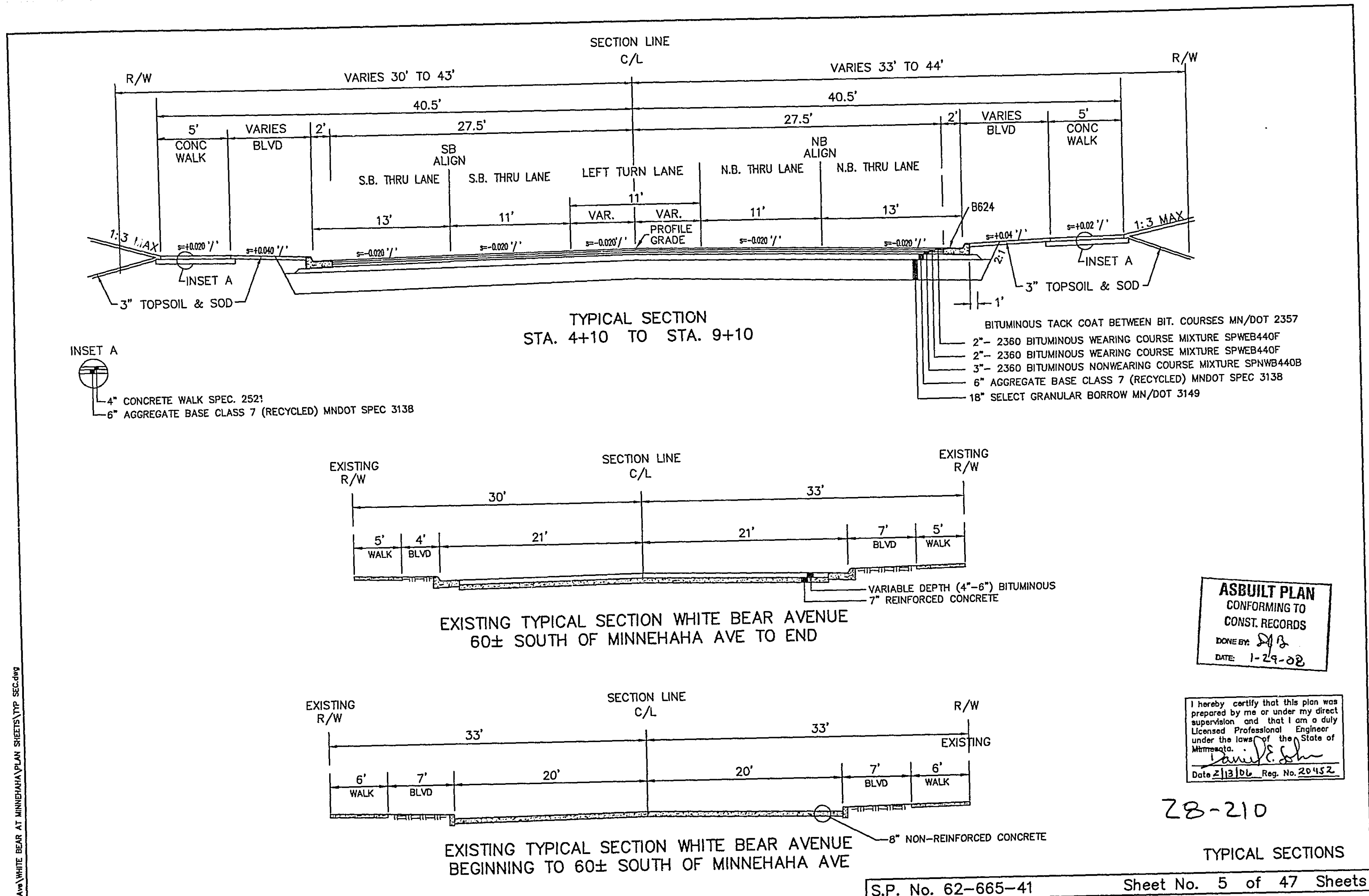


CHART L

EXISTING STRUCTURES CHART																			
STATION EXISTING C/L	LOCATION EXISTING C/L	NO.	TYPE	CASTING ASSEMBLY TYPE	PROPOSED PROFILE ELEVATION	ELEVATION		REMOVE STRUCTURE EACH	SALVAGE CASTING	ADJUST FRAME & RING CASTING EACH	RECONSTR. CB OR MH LT	INSTALL CASTING ASSEMBLY EACH	REMOVE CONCRETE PIPE LT	DRAINS TO	ABANDON STRUCTURE EACH	ABANDON SEWER PIPE LT	RCP PIPE SIZE	REMARKS	
						ORIGINAL GRATE OR RING	NEW GRATE OR RING												
WHITE BEAR AVE - BEECH ST TO REANEY AVE																			
10+62	LT 19	1	CB STORM	6"		948.8		946.9	1				35	4			18"		
10+42	LT 36	2	CB STORM	6"		949.7		947.8	1				30	3			12"		
10+12	LT 36	3	CB STORM	6"		950.0		947.4	1				25	4			12"		
10+28	LT 20	4	MH STORM	11"		950.2		945.8	1					32			15"		
10+21	LT 15	5	MH SANITARY	13"	950.03	950.1	949.7	UNKNOWN		1				5			12"		
7+45	LT 20	6	CB STORM	7"		947.8		945.8	1					45	20		12"		
7+40	LT 20	7	CB STORM	7"		947.8		945.7	1					9	13		12"	SEE SPECIAL PROVISIONS	
7+23	LT 19	8	MH SANITARY	11"		947.8		945.7	1					30	1	42	12"	SEE SPECIAL PROVISIONS	
7+11	LT 19	9	MH SANITARY	13"		948.2		941.7	1								12"		
4+03	LT 20	10	CB STORM	7"		943.9		941.9	1				45	12			12"		
3+72	LT 36	11	MH SANITARY	7"	944.64	943.8	943.8	UNKNOWN		1				13			15"		
3+65	LT 36	12	MH STORM	11"	944.65	943.9	943.7	938.7		1				45	12		15"	WEST	
3+59	LT 47	13	MH SANITARY	7"	944.65	943.7	943.6	UNKNOWN									12"		
3+25	LT 20	14	CB STORM	12"	LP=4	944.8		938.8	1					20	18		15"		
0+53	RT 35	15	CB STORM	7"		947.4		943.6									15"	NORTH	
0+80	RT 17	16	MH STORM	9"		947.0		941.7	1					75	18		18"		
3+09	RT 20	17	CB STORM	7"		944.0		941.5	1					45	29		15"		
3+27	RT 18	18	MH STORM	7"	944.78	944.2	944.3	938.5		1							18"		
4+03	RT 20	19	CB STORM	7"		944.0		940.4	1					45	29		15"		
7+30	RT 22	20	CB STORM	5"		947.8		944.6	1					40	1		12"		
10+42	RT 21	21	CB STORM	4"		948.6		947.5	1								15"		
3+40	RT 4	22	MH SANITARY	7"	944.71	944.6	944.5	UNKNOWN		1				13			15"		
1+53	LT 0	23	MH STORM	11"	944.65	944.6	944.7	938.4		1				12			12"		
4+11	LT 0	24	MH SANITARY	11"	944.75	944.8	944.8	UNKNOWN		1				11			15"		
5+07	LT 0	25	MH SANITARY	11"	945.89	946.0	945.9	UNKNOWN		1				24			15"		
5+72	RT 11	26	MH GAS	8"		948.5		938.6									15"	ADJUST BY OTHERS	
8+80	RT 75	27	MH SANITARY	7"		947.8		937.2									15"	EAST	
8+88	RT 62	28	MH STORM	11"	948.45	948.0	948.0	942.0		1				23			15"		
8+88	RT 25	29	MH STORM	7"	948.45	948.1	948.0	942.4		1				28			15"		
8+88	LT 57	30	MH SANITARY	11"	948.43	947.9	947.9	935.7		1							15"	ADJUST BY OTHERS	
8+70	LT 19	31	MH TELEPHONE	11"		948.1		948.1									15"		
10+12	RT 44	32	MH STORM	9"	949.94	949.3	949.3	943.0		1							15"	EAST	
TOTALS									12		13		410		2	55			

28-210

ASBUILT PLAN
CONFORMING TO
CONST. RECORDS
DONE BY: DJB
DATE: 1-29-08

I HEREBY CERTIFY THAT THE PLAN WAS
PREPARED BY ME OR UNDER MY DIRECT
SUPERVISION AND THAT I AM A LICENSED LAND
SURVEYOR IN THE STATE OF MINNESOTA.
J. B. BROWN
REG. NO. 204322, DATE 11/1/87

EXISTING STRUCTURES CHART

S.P. NO. 62-665-41 SHEET 10 OF 47 SHEETS

CHART M

PROPOSED STORM SEWER STRUCTURE CHART

STATION CONST. C/L = SECTION LINE	OFFSET DISTANCES ARE FROM SECTION LINE	NO.	TYPE	DESIGN	CASTING ASSEMBLY	ELEVATION			CONST. HEIGHT LF INCLUDES 2' SUMP	F & I R.C. PIPE SEWER				DRAINS TO		REMARKS
						PROFILE GRADE SECTION LINE	NEW GRATE OR RING	CB OR MH INVERT = BOTTOM OF SUMP		15" CLASS V	18" CLASS V	21" CLASS	24" CLASS	STRUCT. NO.	INVERT ELEV.	
WHITE BEAR AVENUE																
3+08	RT 22.8	101	CB	TYPE 7A	B-5	944.95	944.4	937.40	7.4		20			18	939.20	
3+24	LT 23.6	102	CB	TYPE 7A	B-5	944.80	944.2	936.78	7.6	45				12	936.73	
3+70	RT 24.7	103	CB	TYPE 7A	B-5	944.64	944.0	937.42	8.8	45				18	939.20	
3+79	LT 26.1	104	MH	A OR F	A-7	944.65	944.1	938.32	5.9	20				12	938.12	NO SUMP
4+03	LT 26.1	105	CB	TYPE 7A	B-5	944.71	944.1	936.57	7.7	25				104	938.32	
7+50	RT 31.9	106	CB	TYPE 7A	B-5	948.64	947.9	942.50	5.6		60			29	944.20	
7+60	RT 32.1	106A	CB	TYPE 7A	B-5	948.66	947.9	942.60	5.5	10				106	944.20	
7+50	LT 26.1	107	CB	TYPE 7A	B-5	948.64	948.0	942.80	5.4	55				106	944.50	
7+80	LT 25.9	108	CB	TYPE 7A	B-5	948.66	948.0	942.90	5.3	10				107	944.60	
10+11	LT 37.1	109	CB	TYPE 7A	B-5	949.99	950.0	945.00	5.0	25				113	946.88	
10+44	LT 36.3	110	CB	TYPE 7A	B-5	950.17	950.0	945.15	5.0	30				109	947.00	
10+58	RT 28.4	111	CB	TYPE 7A	B-5	950.23	949.8	944.65	5.0	50				112	946.50	
10+73	LT 21.7	112	CB	TYPE 7A	B-5	950.37	949.8	944.50	5.5	45				113	946.38	
10+27	LT 19.9	113	MH	C OR G	A-7	950.07	949.8	945.78	4.4					32	943.01	NO SUMP. REPLACES MH 4. BUILD OVER EX. PIPE
TOTALS					14				82.1	360	80					

CASTING ASSEMBLIES - CASTINGS SHALL BE PAID FOR BY THE OWNER (SPEC. REF. 2500)

A-7 = (MH) = ROUND CASTING MNDOT 700-7, STD. PLATE 4101 COVER CASTING MNDOT 716, STD. PLATE 4110
B-5 = (CB) = NEENAH R-3067-V OR APPROVED EQUAL QTY OF ST. PAUL STANDARD PLATE 2016F

SUMMARY
PROPOSED STORM SEWER

DRAINAGE STRUCTURES 82.1 LF

15" RCP 360 LF

18" RCP 80 LF

CASTING ASSEMBLIES 14 EACH

ASBUILT PLAN
CONFORMING TO
CONST. RECORDS

DONE BY: DJB
DATE: 1-29-08

I HEREBY CERTIFY THAT THIS PLAN WAS
PREPARED BY ME OR UNDER MY CLOSE
SUPERVISION AND THAT I AM A
REGISTERED PROFESSIONAL ENGINEER UNDER
LAWS OF THE STATE OF MINNESOTA.
Daniel E. Sullivan
REG. NO. 62612 DATE 10/18/07

28-210

PROPOSED STORM SEWER STRUCTURE CHART

S.P. NO. 62-665-41

SHEET 11 OF 47 SHEETS

E:\road\projects\148-ave\Whitebear at Wampanoag\PLAN SHEETS\StormSewer

While Bear at Minnehaha\PLAN SHEETS\Earthwork chart.dwg

*AVERAGE END EARTHWORK COMPUTATIONS DATED 7/25/05

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.

Samuel E. Soler

Date 12/2/05 Reg. No. 20452

S.P. No. 62-665-41

Sheet No. 12 of 47 Sheets

EARTHWORK SUMMARY	
WHITE BEAR AVENUE	
COMMON EXCAVATION: (SEE NOTES BELOW)	
4,671 C.Y. (EV) - 1591 C.Y. CONC. & BIT (EV) =	3,080C.Y. (EV)
COMMON BORROW (CV)	59 C.Y. (CV)
SELECT GRANULAR BORROW (P)	3,400 C.Y. (CV)
TOPSOIL BORROW (LV)	198 C.Y. (LV)

THE 1591 C.Y. OF CONCRETE & BITUMINOUS SUBTRACTED FROM COMMON EXCAVATION IS BEING PAID AS ITEM 2104.505 "REMOVE CONCRETE PAVEMENT" BY THE SQUARE YARD. THIS INCLUDES EXISTING BITUMINOUS ROADWAYS, CONCRETE ROADWAYS, AND BITUMINOUS OVERLAYS.

EXCESS COMMON EXCAVATION SHALL BECOME THE PROPERTY OF THE CONTRACTOR. THE COST FOR DISPOSAL SHALL BE THE CONTRACTOR'S RESPONSIBILITY AND NO ADDITIONAL COMPENSATION WILL BE PAID OUTSIDE THE PRICE BID FOR COMMON EXCAVATION.

EARTHWORK TABULATION & SUMMARY

28-210

ASBUILT PLAN
CONFORMING TO
CONST. RECORDS
DONE BY: *213*
DATE: *1-29-08*

WB-Awo\dwg\White Bear at Minnetonka\PLAN SHEETS\chairs.dwg

CHART B									
PERMANENT PAVEMENT MARKINGS				POLYPREFORM TAPE					
LOCATION	4" SOLID LINE WHITE (TAPE)	4" BROKEN LINE WHITE (TAPE)	4" DOUBLE LINE YELLOW (TAPE)	12" SOLID LINE WHITE (TAPE)	12" SOLID LINE YELLOW (TAPE)	PAVEMENT MESSAGES			
	LEFT TURN ARROW	RIGHT TURN ARROW	ONLY		(TAPE)		(TAPE)		(TAPES)
	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	EACH	EACH	EACH	
WHITE BEAR AVE AT MINNEHAHA	210	375	950	700	75	4			
TOTAL	210	375	950	700	75	4	0	0	

PERMANENT PAVEMENT MARKINGS				POLYPREFORM TAPE				
LOCATION	4"	4"	12"	12"	PAVEMENT MESSAGES			
	SOLID LINE WHITE (TAPE) LIN. FT.	BROKEN LINE WHITE (TAPE) LIN. FT.	DOUBLE LINE YELLOW (TAPE) LIN. FT.	SOLID LINE YELLOW (TAPE) LIN. FT.	SOLID LINE WHITE (TAPE) LIN. FT.	LEFT TURN ARROW (TAPE) EACH	RIGHT TURN ARROW (TAPE) EACH	ONLY (TAPE) EACH
WHITE BEAR	210	375	950	700	75	4		
AVE AT								
MINNEHAHA								
TOTAL	210	375	950	700	75	4	0	0

THE FOLLOWING LIST SHOWS THE CONTACT PERSONS AT THE
UTILITY COMPANIES INVOLVED IN THIS PROJECT.

ST. PAUL SANITARY SEWER 651-266-6234

ST. PAUL WATER	DOLLY LUDO.
----------------	-------------

XCEL ELECTRIC JASON McRO
651 - 229 - 5500
FAX 651 - 229 - 5500

XCEL	GAS
------	-----

COMCAST CABLE T.V.

QWEST TELEPHONE

ST. PAUL TRAFFIC SIGNALS

NATURAL GAS				
STATION	LOCATION	ITEM	OWNER	REMARKS
2-00	RT. 13	6" MAIN	XBEL	LEAVE AS IS
2-48	RT. 12	6" MAIN	XBEL	LEAVE AS IS
3-10	RT. 14, LT. 1	2" MAIN	XBEL	CROSSING
5-00	RT. 11	6" MAIN	XBEL	LEAVE AS IS
5-10	RT. 11	6" MAIN	XBEL	LEAVE AS IS
6-10	RT. 8	2" MAIN	XBEL	ABANDONED CROSSING
6-60	RT. 11, TO LT. 8	2" MAIN	XBEL	CROSSING
8-00	RT. 9	8" MAIN	XBEL	ABANDONED
8-10	RT. 10	8" MAIN	XBEL	LEAVE AS IS
9-00	RT. 8	8" MAIN	XBEL	ABANDONED
9-10	RT. 6	6" MAIN	XBEL	LEAVE AS IS
10-10	RT. 7	6" MAIN	XBEL	END OF LINE
10-17	RT. 10 TO LT. & RT. 11, 25 TO LT. 8	8" MAIN	XBEL	CROSSING
10-30		8" MAIN	XBEL	LEAVE AS IS

NOTE: STATIONING AND DISTANCES RT. AND LT. FROM SECTION LINE

[illegible]

ASBUILT PLAN
CONFORMING TO
CONST. RECORDS
DONE BY: *[Signature]*
DATE: 1-29-03

28-216

CHARTS A- E

S.P. No. 62-665-41

SHEET NO. 13 OF 47 SHEETS

NOTE: 6" CONCRETE PAVEMENT QUANTITY INCLUDES RESIDENTIAL ENTRANCES
AND PEDESTRIAN CURB RAMPS.

AGGREGATE & BITUMINOUS SUMMARY FOR ROADWAY & ENTRANCES									
STATION TO STATION	LOCATION	AGG.	BITUMINOUS MIXTURE						TACK COAT
		B.C. CL. 7	SELECT GRANULAR	TYPE SPWB440F	TYPE SPHWB440F	TYPE SPNBW440B	TYPE LWWJ503SB	TON	
STA. 2+17 to STA. 11+60	LT & RT	1,111							
ROADWAY									
HO. # 680	RT	2							
HO. # 686-690	RT	3					1.2	0.3	
HO. # 694-698	RT	8					2.2	0.5	
HO. # 710	RT	6							
HO. # 704	RY	6							
BLOS # 1768	RT	3							
STA. 5+50 (ALLEY)	Lt	4					4.6	1.1	
STA. 6+20	Lf	5							
STA. 6+50 (ALLEY)	Ry	3					2.9	0.7	
STA. 8+60 (ALLEY)	Lf	3					5.9	1.3	
STA. 2+17 to STA. 11+60	LT & RT	110							
4' SIDEWALK									
PEDESTRIAN RAMPS	LT & RY	31							
STA. 5+60 to 6+60 (LOT)	Lf	7					9.5	2.2	
STA. 7+20 to STA. 7+80 (LOT)	Lt	4					5.6	1.3	
TOTAL		1,304	3,400	717	717	1,075	36.9	800.4	

TURF ESTABLISHMENT AND EROSION CONTROL						
TURF ESTABLISHMENT		SOD TYPE LAWN		COMMERCIAL FERTILIZER ANALYSIS	EROSION CONTROL	
STATION TO STATION	LOCATION	SGD	TYPE	ANALYSIS	RZET PROTECTION TYPE ROCK LOG	6" BORDOL UNFRT
		SGD	YD.	LB.		
STA. 2+17 TO STA. 6+40	LT BLVD	132.7	9.6			
STA. 2+17 TO STA. 6+40	RT BLVD	258.9	18.7			
STA. 7+40 TO STA. 11+55	LT BLVD	253.9	18.4			
STA. 7+40 TO STA. 11+55	RT BLVD	253.6	18.4			
HD #17/65	LT	60.0	6.0			
BLDG # 735	LT	44.7	1.0			
HD #688 TO HD # 694	RT	8.8	6.0			
HD # 698 TO HD # 710	RT	65.0	4.7			
STA. 6+40 TO STA. 10+40	RT	40.0	3.1			
STA. 10+40 TO STA. 11+60	RT	73.8	5.3			
STA. 2+17 TO STA. 11+60	LT & RT				369	150
TOTAL		1258.7	91.2		369	150

COMMERCIAL FERTILIZER ANALYSIS 22-05-10 COMPUTED AT AN APPLICATION RATE = 350# PER ACRE

CHARTS F,G,&I

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.

Daniel E. Sahr

Date 12/2/05 Reg. No. 20452

ASBUILT PLAN
CONFORMING TO
CONST. RECORDS
DONE BY: *DJS*
DATE: *1-29-03*

CLEARING AND GRUBBING					
STATION TO STATION	LOCATION	CLEARING		GRUBBING	
BASED OFF SECTION LINE		TREE		TREE	REMARK
		2+35	RT	1	
2+75	RT	1		1	
2+78	LT	1		1	
3+12	LT	1		1	
3+39	RT	1		1	
3+60	RT	1		1	
3+94	RT	1		1	
4+08	LT	1		1	
4+46	LT	1		1	
4+53	RT	1		1	
4+80	LT	1		1	
4+91	RT	1		1	
6+03	RT	1		1	
6+21	RT	1		1	
6+40	RT	1		1	
7+80	LT	1		1	
8+00	LT	1		1	
9+86	RT	1		1	
9+18	RT	1		1	
9+20	RT	1		1	
9+26	LT	0		1	STUMP
9+38	RT	1		1	
9+50	RT	2		1	TWIN
9+65	RT	1		1	
9+68	RT	1		1	
9+97	RT	1		1	
10+35	RT	1		1	
10+67	LT	1		1	
10+88	LT	0		1	STUMP
10+98	LT	1		1	
11+05	RT	0		1	STUMP
11+29	LT	1		1	
11+57	LT	1		1	
TOTAL		31		33	

REMOVALS CHART										
STATION TO STATION	LOCATION	BIT PAVE S.Y.	CONCRETE CURB L.F.	CONC WALK S.F.	CONC DW S.Y.	CONC PAVE S.Y.	SAW CONC PAVE L.F.	SAW BIT PAVE L.F.	GUARDRAIL L.F.	WALLS L.F.
STA. 2+17 TO MINNEHAHA	RT		460	342						
MINNEHAHA TO REANEY	RT		365	217						
REANEY TO BUSH	RT		140	55						
STA. 2+42 TO BEECH ST.	LT		120							
BEECH TO MINNEHAHA	LT		340	191						
MINNEHAHA TO REANEY	LT		330	206						
REANEY TO BUSH	LT		140							
STA. 2+17 TO STA. 11+60	LT & RT				4,105	944				
BEECH STREET	LT	44			111	14	28			
MINNEHAHA WEST	RT				220	19	36			
MINNEHAHA EAST	LT				117	15	32			
REANEY WEST	RT									
REANEY EAST	RT				74	14	28			
STA. 2+17 & STA. 11+60	LT & RT				78	14	28			
						85				
HO # 680	RT				6.8					
HO # 686 - 690	RT	8			7					
HO # 694-698	RT				40					24
HO # 704	RT				44.4					32
STA. 6+20	LT				40.4					35
HO # 710	RT	18			12					
HO # 728-732	RT	31								
HO # 735	LT	67								
HO # 1766	RT	158								
HO # 1775	LT				12		60			
STA. 3+25	LT	34			46					
STA. 7+70	RT	37			18.6					
STA. 8+50	RT	36			25.3					
STA. 8+60	LT	33			28.8					
S.W. CORNER MINNEHAHA	LT				22.2					
STA. 7+20 TO STA. 7+60	LT							58		45
STA. 8+60 TO STA. 8+60	LT							98	86	
STA. 8+50	LT									6
TOTAL		486	1895	1071	303.3	4714	1151	308	86	123

NOTE: BITUMINOUS PAVEMENT REMOVAL QUANTITY INCLUDES
BITUMINOUS PAVEMENT, BITUMINOUS ENTRANCES AND BITUMINOUS WALK

NOTE: CONCRETE WALK REMOVAL QUANTITY INCLUDES STAIR REMOVAL

NOTE: BITUMINOUS OVERLAY REMOVAL INCIDENTAL TO CONCRETE PAVEMENT REMOVAL

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.

Daniel E. Soler

Date 12/2/05 Reg. No. 20452

CHARTS J & K

S.P. No. 62-665-41

SHEET NO. 15 OF 47 SHEETS

TOTAL WALL AREA = 860 S.F.
FACE OF WALL IS AT BACK EDGE OF SIDEWALK

