Appendix A - Repair Requirements

Sewer Details																Pre-Lining Repairs																							
DWG	Sheet	Sewer Asset	Street Name	Location	Manholes				Length	Size		Shape	Flow Type	Material	Pre-Repair Inspection Required	Sewer Services	Lump Sum Anulus Grouting per Location		Patching			Removal of Intruding Connections		Removal Roots and Grease		Solid Debris Cutting / Other				Sewer Service Grouting - Man Entry for Sewers >750mm		External Point Repair (EPR) By Contractor		Manhole Stabilization Grouting	
					Upstream	Depth	Downstream	Depth		Height	Width						Anulus Grouting	Description	Patch Tender <=1m	Patch Tender >=1m	Description	Intrud Conn Tender	Description	Root Tender	Description	Tender 1st 3m	Tender >3m (m)	Tender at joints	Description	Service Grouting	Description	Length	Description	Manhole Grouting	Description
12873	3	S-MA20014040	ASSINIBOINE AV	1ST MH E OF KENNEDY ST TO MH AT EDMONTON ST	S-MH20012719	3.76	S-MH20012730	4.36	77.1	750		CIRCULAR	Combined	BRICK	No	22						1	70.8 M TBD @ 3 DS;														
12874	4	S-MA20014041	ASSINIBOINE AV	MH AT EDMONTON ST TO 1ST MH E OF EDMONTON ST	S-MH20012730	4.36	S-MH20012741	4.14	63.4	750		CIRCULAR	Combined	BRICK	No	17						3	23.0 M TBD @ 3 DS; 44.7 M TBD @ 2 DS; 46.8 M TBD @ 10 DS;	1.0	9.1-19.6 M RFB @ 9-3 DS;												
12875	5	S-MA40006769	BRAZIER ST	MH AT LEIGHTON AVE TO MH AT ROBERTA AVE	S-MH40006241	4.81	S-MH40006192	5.00	80.9	600		CIRCULAR	Combined	CONCRETE	Yes	7										1	0.0	10	1.2 M DAE(J) @ 3-5, 7-9 DS; 2.1 M DAE(J) 2-5, 7-10 DS; 2.8 M DAE(J) @ 3-5, 7-9 DS; 6.7 M DAE(J) @ 8-9 DS; 9.8 M DAE(J) @ 8-9 DS; 32.2 M DAE(J) @ 4-7 DS; 34.8 M DAE @ 8-10 DS; 38.8 M DAE(J) @ 8-4 DS;						
12876	6	S-MA00007848	BULLER ST	MH AT MAGNUS AVE TO MH AT MANITOBA AVE	S-MH00007821	4.36	S-MH00007813	4.54	97.7	600		CIRCULAR	Combined	CONCRETE	No	7										1	43.6	1	11.3-15.3 M DAE @ 7-5 DS; 17.0-27.7 M DAE @ 7-5 DS; 29.1-32.1 M DAE @ 7-5 DS; 34.3-37.3 M DAE @ 7-5 DS; 39.2 M DAE(J) @ 7-5 DS; 44.7 M DAE @ 7-11, 2-5 DS; 49.1-50.1 M DAE @ 7-5 DS; 54.0-59.0 M DAE @ 7-5 DS; 60.7-64.2 M DAE @ 7-5 DS; 66.0-71.1 M DAE @ 7-5 DS; 72.4 M DAE @ 7-10, 2-5 DS; 73.4 M DAE @ 7-5 DS; 75.8-79.5 M DAE @ 7-5 DS; 80.7-83.5 M DAE @ 7-5 DS; 85.6 M DAE @ 7-5 DS; 86.8 M DAE @ 7-10, 2-5 DS; 88.3 M DAE @ 7-5 DS; 91.9 M DAE @ 7-10 DS; 92.9-95.6 M DAE @ 7-5 DS;						
12877	7	S-MA00010487	COLLEGE AV	2ND MH W OF MCPHILLIPS ST - 1ST MH W OF MCPHILLIPS STREET	S-MH00008324	4.72	S-MH00008329	5.28	95.7	600		CIRCULAR	Combined	CONCRETE	No	20			1		94.2 M BSV @ 6-10 DS;	2	2.7 M TBD @ 10 DS; 17.3 M TBD @ 2 DS;	1.0	30.4 M RFC @ 10 DS; 41.4 M RFJ @ 2 DS; 89.9 M RFJ @ 1-4 DS; 90.7 M RFJ @ 1-5 DS;	1	0.0	2	14.6 M DAE @ 2-5 DS; 17.3 M DAE @ 2-5 US; 29.6 M DAE @ 2-5 DS; 50.0 M DAE(J) @ 8-11 DS; 50.7 M DAE(J) @ 2-5 DS; 69.3 M DAE @ 2-5 DS;						
12878	8	S-MA40007798	GREY ST (W OF CL)	1ST MH N OF NOTTINGHAM AVE TO MH AT WYNTEN CR	S-MH40007098	4.81	S-MH40007093	5.25	66.6	600		CIRCULAR	Combined	CONCRETE	No	9										1	0.0	22	2.0 M DAE (J) @ 3-5, 7-11 DS; 5.6 M DAE(J) @ 3-5, 7-10 DS; 7.6 M DAE(J) @ 2-5, 7-10 DS; 9.5 M DAE(J) @ 3-5, 7-11 DS; 11.6 M DAE(J) @ 7-5 DS; 13.5 M DAE(J) @ 7-5 DS; 15.4 M DAE(J) @ 2-5 DS; 17.3 M DAE(J) @ 7-5 DS; 19.2 M DAE(J) @ 7-5 DS; 21.2 M DAE(J) @ 7-5 DS; 23.0 M DAE(J) @ 7-5 DS; 24.2-24.9 M DAE @ 7-5 DS; 26.8 M DAE(J) @ 7-5 DS; 28.7 M DAE(J) @ 3-5, 7-9 DS; 30.4 M DAE @ 7-5 DS; 32.6 M DAE(J) @ 7-9, 2-5 DS; 34.5 M DAE(J) @ 2-5 DS; 36.5 M DAE(J) @ 7-10, 3-5 DS; 38.4 M DAE(J) @ 2-5, 7-9 DS; 40.3 M DAE(J) @ 3-5, 7-9 DS; 53.6 M DAE(J) @ 3-5, 7-9 DS; 54.3 M DAE @ 2-5 DS; 59.4 M DAE(J) @ 3-5, 7-9 DS; 61.2 M DAE(J) @ 3-5, 7-10 DS; 61.2 M DAE(J) @ 3-5, 7-9 DS;						
12879	9	S-MA70033682	HIGGINS AV (CL)	1ST MH E OF MCFARLANE ST TO IST MH W OF MORDAUNT	S-MH70001454	4.30	S-MH20012292	4.37	103.2	600		CIRCULAR	Combined	CONCRETE	No	25										1	82.6	0	0.0-3.3 DAE @ 2-5, 7-10 US; 3.7-4.0 M DAE @ 3-5, 7-9 US; 5.8-12.1 @ DAE @ 2-5, 7-10 US; 13.0 M DAE @ 3-5, 7-9 US; 14.1-19.4 M DAE @ 2-5, 7-10 US; 20.1 M DAE @ 2-5, 7-10 US; 21.7 M DAE @ 3-5, 7-9 US; 22.6 M DAE @ 7-10 US; 23.6-26.0 M DAE @ 2-5, 7-10 US; 30.1 M DAE @ 3-5, 30.6 M DAE @ 2-5, 7-10 US; 32.4-35.6 M DAE @ 3-5, 7-10 US; 36.1 M DAE @ 7-10 US; 36.7-39.00 M DAE @ 2-5, 7-11 US; 40.2 M @ 7-10 US; 41.5-100.0 M DAE @ 7-5 US; 101.0-102.6 M DAE @ 2-5, 7-10 US;						
12880	10	S-MA00012875	MCKENZIE ST	MH AT DUFFERIN TO MH AT STELLA (CL)	S-MH00011507	4.01	S-MH00011550	4.02	124.4	750		CIRCULAR	Combined	CONCRETE	No	20						2	15.5 M TBD @ 10 DS; 67.1 M TBD @ 10 DS;			1	100.0	1	0.0-3.0 M DAE @ 8-4 DS; 21.6 M DAE(J) @ 9-5 DS; 24.0-65.0 M DAE @ 7-5 DS; 65.0-124.0 M DAE @ 7-5 DS;						
12881	11	S-MA00014265	MCKENZIE STREET (CL)	MH AT FLORA TO MH AT SELKIRK	S-MH00012705	4.50	S-MH00012800	4.84	88.6	900		CIRCULAR	Combined	BRICK	No	9										1	0.9	0	20.1 M DAE @ 2-5 US; 25.7 M DAE @ 4 US; 46.6 M DAE @ 4 US; 50.3 M DAE @ 4 US; 55.1 DAE @ 4 US; 62.1-64.5 M DAE @ 3-4 US;						
12882	12	S-MA20014174	NAVY WAY	1ST MH N OF ASSINIBOINE AVE TO NODE ON ASSINIBOINE AVE	S-MH20012820	3.88	S-MH20012819	3.72	28.2	750		CIRCULAR	Combined	BRICK	No	2			1	1.0	23.8-25.8 M MMM @ 7-10 DS; (BRICKWORK STABILIZATION REQUIRED)																
12883	13	S-MA20014176	NAVY WAY	2ND MH N OF ASSINIBOINE AVE TO 1ST MH N OF ASSINIBOINE	S-MH20012848	4.22	S-MH20012820	3.88	68.0	750		CIRCULAR	Combined	BRICK	No	13			1		10.3 M BSV @ 8-10 DS; (VOID IN PIPE WALL, MISSING BRICKS, SOIL VISIBLE AROUND SERVICE CONNECTION)	1	30.1 M TBD @ 10 DS;														
12884	14	S-MA20014213	SMITH ST / NAVY WY	2ND MH S OF BROADWAY TO 2ND MH N OF ASSINIBOINE	S-MH20012847	4.47	S-MH20012848	4.22	16.6	750		CIRCULAR	Combined	BRICK	No	2																					
12885	15	S-MA50015183	PARKVILLE DR	MH AT PULBERRY ST - 1ST MH W PULBERRY STREET	S-MH50012192	2.95	S-MH50012193	3.02	81.2	1050		CIRCULAR	Storm	CONCRETE	No	0			1	0.0	76.6 M BSV @ 10-2 DS; (PATCH VOIDS AROUND CROSS-BORE)					1.0	70.0	0	7.3-80.0 M DSC @ 4-8 DS (SOLID DEBRIS ACCUMULATION AT INVERT);						
12886	16	S-MA50013396	ST MARY'S RD	MH AT ESSEX AVE TO MH AT ELLESMERE AVE	S-MH50010761	5.61	S-MH50010762	5.67	93.2	900	1350	EGG	Combined	CONCRETE	No	27			1	2.0	55.0-58.0 BSV @ 3-7 DS;					1.0	2.0	5	11.40 M DAE(J) @ 7-5 DS; 19.0-20.0 M DAE @ 4-5 DS; 32.6 M DAE(J) @ 7-11 DS; 40.7-42.7 M DAE @ 3-11 DS; 50.0-51.0 M DAE @ 4-5, 7-11 DS; 53.7 M DAE(J) @ 7-9 DS; 57.5-58.5 M DAE @ 2-5 DS; 65.0 M DAE(J) @ 2-5 DS; 66.0 DAE @ 12-12						
12887	17	S-MA00013973	SUTHERLAND AV	MH AT ARGYLE ST TO MH AT EUCLID AVE (CL)	S-MH00012459	4.69	NEW MANHOLE	4.69	91.4	600		CIRCULAR	Combined	BRICK	No	26						2	54.3 M TBD @ 3 DS; 61.6 M TBD @ 2 DS;			1	11.8	0	11.6 M DAE @ 2 DS; 24.7 M DAE @ 7-9 DS; 30.1 M DAE @ 3-5 DS; 38.5 M DAE @ 2-5 DS; 59.2 M DAE @ 3-4, 8-9 DS; 61.6-66.7 M DAE @ 2-4, 8-10 DS; 69.1 M DAE @ 2-5 DS; 80.0-84.6 M DAE @ 2-4 DS; 84.6-87.6 M DAE @ 2-4 DS; 92.8 M DSC @ 3-7 DS; (HARD COMPACTED MATERIAL IN INVERT OF PIPE, APPEARS TO BE ASPHALT)						
12888	18	S-MA70001102	SUTHERLAND AV	MH AT ANGUS ST TO MH AT HIGGINS AVE	S-MH70000474	2.74	S-MH00014103	2.22	176.3	900		CIRCULAR	Combined	CONCRETE	No	0								1.0	168.5-170.0 RFB @ 12-4 US;	1	101.3	0	0.0-80.0 M DAE @ 3-5, 7-9 US; 103.0-127.0 DAE @ 3-5, 7-9 US; 171.64M @ 3-4, 8-9 US;						
12889	19	S-MA20010055	WALL ST	2ND MH S TO 3RD MH S WELLINGTON AVE	S-MH20009184	3.78	S-MH20008699	4.73	95.4	600		CIRCULAR	Combined	CONCRETE	No	10										1	0.0	0	7.8 M DAE @ 7-10 DS; 8.7 M DAE @ 2-5 DS; 33.4 M DAE @ 7-9 DS;						
12890	20	S-MA20004294	WESTWOOD DR	1ST MH S OF PORTAGE AVE TO MH AT PORTAGE AVE	S-MH20003955	7.32	S-MH20003944	7.89	104.3	750		CIRCULAR	Sanitary	CONCRETE	No	1										1	0.9	6	5.8 M DAE @ 12 US; 7.5 M DAE @ 12 US; 9.4 M DAE @ 12 US; 10.4 M DAE(J) @ 9-3 US; 11.4 M DAE @ 12 US; 13.4 M DAE @ 12 US; 17.2 M DAE @ 12 US; 18.0 M DAE(J) @ 8-4 US; 19.9 M DAE(J) @ 8-4 US; 21.0 M DAE @ 12 US; 21.8 M DAE(J) @ 8-10 US; 22.8 M DAE @ 12 US; 27.5 M DAE(J) @ 1-4 US; 42.0 M DAE @ 12 US; 58.0 M DAE(J) @ 9-10 US; 59.3 M DAE @ 10-3 US; 63.0 M DAE @ 12 US; 64.9 M DAE @ 12 US; 67.0 M DAE @ 12 US;						
12891	21	S-MA20004295	PARKING LOT (W OF WESTWOOD DR)	1ST MH S OF PORTAGE AVE - 2ND MH S OF PORTAGE AVE	S-MH20003944	7.64	S-MH20003945	7.77	25.9	750		CIRCULAR	Sanitary	CONCRETE	No	0										1	0.0	5	5.9 M DAE @ 12 DS; 6.5 M DAE(J) @ 8-11 DS; 8.5 M DAE(J) @ 11-4 DS; 9.5 M DAE @ 12 DS; 10.4 M DAE(J) @ 10-3 DS; 11.6 M DAE @ 12 DS; 14.1 M DAE(J) @ 8-4 DS; 15.3 M DAE @ 12 DS; 21.9 M DAE(J) @ 10-12 DS;						
12892	22	S-MA20004312	PORTAGE AV N OF CL	MH AT PARKHILL ST TO MH AT WESTWOOD DR	S-MH20003960	7.64	S-MH20003955	7.73	37.7	750		CIRCULAR	Sanitary	CONCRETE	No	2								1.0	19.8-24.5 DAGS @ 3, 9 DS;	1	0.0	0	13.7 M DAE @ 9-11 DS;						
12893	23	S-MA70023404	WILLIAM AV	3RD W SHERBROOK ST - FLOW E	S-MH20016445	4.25	S-MH20016444	4.77	78.3	600		CIRCULAR	Combined	BRICK	No	13						2	16.8 M TBD @ 2 DS; 16.9 M TBD @ 11 DS;			1	0.0	0	41.5 M DAE @ 7-10 DS;						
12894	24	S-MA00013996	POINT DOUGLAS AV	MH AT DISRAELI FR (EPL) TO MH AT GOMEZ ST (CL)	S-MH00012480	5.80	S-MH00012481	5.39	82.6	600		CIRCULAR	Combined	BRICK	No	13	1	77.7-81.7 M TBD @ 12-6 DS; (ABANDONED WYE CONNECTION AT 77.7-81.7 M DS. LINE THROUGH AND GROUT ANULUS)	1	0.0	0.0-0.6 M BSV @ 2-5, 7-10 DS;					1	74.4	0	0.0-39.0 M DAE @ 8-4 DS; 42.4-45.0 M DAE @ 8-4 DS; 45.8-46.8 M DAE @ 8-3 DS; 47.5-53.2 M DAE @ 8-10 DS; 53.2-56.5 M DAE @ 8-3 DS; 57.2-66.4 M DAE @ 8-4 DS; 66.4-71.5 M DAE @ 2-4 DS; 71.5-78.0 M DAE @ 2-4, 8-10 DS; 78.0-81.5 M DAE @ 7-10 DS; 81.5-83.0 M DAE @ 2-4, 8-10 DS;						