

## Appendix D: Pipeline and Manhole Assessment Summary

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**Table D-1. Pipeline Assessment Summary**

Investigation Area	Figure No. <sup>1</sup>	Status	UMH	DMH	Pipe Size (in)	GIS Length (ft)	Survey Length (ft)	Pipe Type	Date Performed	Assessment	Structural Score	Operational Score	Recommendation	Structural Cond Rating	Operational Cond Rating
1	7	Complete	1303081104	1303081105	48	72	69	RCP	19-Oct-15	Surface aggregate visible throughout with some areas of projecting aggregate.	3	1	Re-inspect within 5 years.	Moderate	Mild
1	7	Complete	1303081105	1303081401	48	469	466	RCP	22-Oct-15	Aggregate visible and surface spalling throughout. Camera under water for 25 ft.	2	2	Re-inspect within 10 years.	Mild	Mild
2	17	Complete	1903091116	1903091514	30	251	248	RCP	15-Oct-15	Surface aggregate visible and projecting throughout. Possible reinforcement visible at 35 ft downstream of SSMH 1903091116. Settled gravel observed.	3	2	Re-inspect within 5 years.	Moderate	Mild
2	17	Complete	1903091510	1903091509	30	287	284	RCP	15-Oct-15	Surface aggregate projecting throughout with isolated areas of rust indicating potential exposed reinforcement. Settled gravel observed.	3	2	Re-inspect within 5 years.	Moderate	Mild
2	17	Complete	1903091511	1903091510	30	260	257	RCP	15-Oct-15	Surface aggregate projecting throughout with isolated areas of rust indicating potential exposed reinforcement. Gravel deposits observed.	3	2	Re-inspect within 5 years.	Moderate	Mild
2	17	Complete	1903091512	1903091511	30	277	274	RCP	15-Oct-15	Surface aggregate visible throughout with areas of projecting and missing aggregate. Settled gravel observed throughout.	3	2	Re-inspect within 5 years.	Moderate	Mild
2	17	Complete	1903091513	1903091512	30	118	115	RCP	15-Oct-15	Surface aggregate visible throughout with areas of aggregate projecting or missing. One isolated area of reinforcement visible.	3	1	Re-inspect within 5 years.	Moderate	Mild
2	17	Complete	1903091514	1903091513	30	124	122	RCP	15-Oct-15	Surface aggregate visible and projecting aggregate throughout. Settled gravel observed.	3	2	Re-inspect within 5 years.	Moderate	Mild
3	22	Complete	2903091315	2903091310	18	374	374	RCP	20-Oct-15	Surface aggregate visible throughout and projecting or missing in some areas. Possible small hole at 330 ft downstream of MH 2803091623.	4	1	Rehabilitate pipe soon to prevent further deterioration.	Moderate	Mild
4	24	Complete	2803091623	2803091629	30	693	691	RCP	21-Oct-15	Surface aggregate visible and projecting throughout.	3	1	Re-inspect within 5 years.	Moderate	Mild
4	24	Complete	2803091629	3303090406	30	380	378	RCP	23-Oct-15	Surface aggregate visible and projecting near crown.	3	1	Re-inspect within 5 years.	Moderate	Mild
4	23	Complete	3303090401	3303090402	30	307	304	RCP	23-Oct-15	Surface aggregate projecting and visible throughout. Reinforcement also visible.	4	2	Rehabilitate pipe soon to prevent further deterioration of RCP.	Severe	Mild
4	23	Incomplete	3303090404	3303090401	30	258									
4	23 & 24	Incomplete	3303090406	3303090404	30	79									
5	12	Complete	1703091315	1703091316	30	110	107	CMP	16-Oct-15	Surface corroded with coating missing. Thickness of CMP unknown. Settled deposits observed.	4	2	Rehabilitate soon due to unknown thickness and extent of corrosion (outside of pipe).	Severe	Mild
6	38	Complete	0604091505	0604091604	60	1540	1430	RCP	18-Nov-15	Surface spalling and aggregate visible throughout. Possible areas of projecting aggregate.	3	1	Re-inspect within 5 years to monitor for further deterioration.	Moderate	Mild
6	38	MSA	0604091604	0504091306	60	1068	17	RCP	18-Nov-15						
7	38	New Reach	0604091603	0604091611	24	71	67	VCP	22-Oct-15	Line in overall good condition. Appears to be VCP due to color and lay length.	1	1	Re-inspect within 10 years.	Mild	Mild



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7	38	MSA	0604091611	0604091612	36	314	54	RCP	22-Oct-15	Within the first 54 ft, surface roughness of pipe increased. However, remaining 310 ft uninspected due to debris.	2	4	Could not complete inspection due to debris within pipe. The first 54 ft in mild condition; however, remainder of pipe may have increased corrosion based on reach downstream.	Mild	Severe
7	38	New Reach	0604091612	0604091613	24	45	38	RCP	22-Oct-15	Rebar missing and wall missing at SSMH0604091603C. Rebar visible and corroded in some areas.	5	1	Rehabilitate pipe soon to prevent further deterioration of RCP.	Severe	Mild
7	38	New Reach	0604091613	0604091614	24	60	52	RCP	22-Oct-15	Surface roughness increased throughout with some areas of visible and projecting aggregate (near flow line).	3	1	Re-inspect within 5 years.	Moderate	Mild
7	38	MSA	0604091614	0504091306	24	235	134	RCP	22-Oct-15	Surface aggregate visible with some areas of projecting and missing aggregate for the first 102 feet. Remainder of reach lined. Inspection couldn't be completed due to alignment change.	4	1	Rehabilitate the first 102 ft to prevent further deterioration of RCP.	Severe	Mild
8	38	Incomplete	0504091303	0504091307	33	259									
8	38	Incomplete	0804090101	0504091303	33	208									
8	38	Incomplete	0804090102	0804090101	33	570									
9	38	Incomplete	0504091304	0504091302	66	656									
9	33 & 38	Complete	0504091401	0504091304	66	906	906	RCP	18-Nov-15	Surface spalling near crown. Crown is rust colored, but not rebar visible. Surface roughness increased below flow line.	3	1	Re-inspect within 5 years to monitor for further deterioration.	Moderate	Mild
10	38	Incomplete	0504091306	0504091307	60	232									
11	38	Incomplete	0504091308	0504091306	60	730									
12	19	Complete	2503090101	2503090102	36	312	309	RCP	14-Oct-15	Surface aggregate projecting and spalling throughout.	3	1	Re-inspect within 5 years.	Moderate	Mild
12	19	MSA	2503090102	2503090103	36	252	223	RCP	14-Oct-15	Inspection not completed due to debris. Surface aggregate projecting and spalling throughout.	3	3	Clean pipe to remove debris, re-inspect within 5 years.	Moderate	Moderate
13	8	Complete	1803090207	1803090201	33	600	597	RCP	19-Oct-15	Surface roughness increased throughout. Some aggregate visible.	2	1	Re-inspect within 10 years.	Mild	Mild
14	15	Complete	2303090808	2303090809	33	269	263	RCP	19-Oct-15	Surface roughness increased throughout. Some aggregate visible.	2	1	Re-inspect within 10 years.	Mild	Mild
14	15	Complete	2303090809	2303090810	33	498	495	RCP	19-Oct-15	Spalling and surface aggregate visible observed.	2	1	Re-inspect within 10 years.	Mild	Mild
15	23	Complete	2903091417	2903091426	27	203	202	RCP	20-Oct-15	Surface aggregate projecting and spalling throughout with areas of missing aggregate. Settled gravel observed.	4	1	Rehabilitate pipe soon to prevent further deterioration.	Severe	Mild
15	23	Complete	2903091426	2903091501	27	258	258	RCP	20-Oct-15	Surface projecting and surface spalling throughout. Some areas of missing aggregate. Settled gravel observed.	4	1	Rehabilitate pipe soon to prevent further deterioration.	Severe	Mild



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15	23	MSA	2903091501	2903091416	27	350	327	RCP	20-Oct-15	Aggregate projecting and spalling throughout with some aggregate missing. Debris/obstacle prevented full inspection.	4	4	Clean pipe to remove debris, rehabilitate soon to prevent further deterioration of pipe.	Severe	Severe
16	28	Complete	3303090611	3303090614	27	562	561	RCP	20-Oct-15	Surface roughness increased throughout with surface aggregate projecting and missing wall within flow line, especially near downstream manhole, SSMH 3303090614.	4	1	Rehabilitate pipe soon to prevent further deterioration of RCP.	Severe	Mild
17	25	Incomplete	3503090401	3503090402	45	643				Surface aggregate visible throughout. Missing coding and video link.					
18	16	Complete	2503080301	2503080304	27	659	657	RCP	14-Oct-15	Surface reinforcement visible throughout, except from 638 ft to 658 ft upstream of SSMH2503080304 where reinforcement is corroded. Settled debris observed.	5	2	Rehabilitate pipe soon to prevent further deterioration of RCP.	Severe	Mild
19	17	Complete	3003090104	3003090105	27	153	147	RCP	15-Oct-15	Surface reinforcement visible from 1 to 3 o'clock throughout with reinforcement projecting and corroded near upstream manhole.	4	1	Rehabilitate pipe soon to prevent further deterioration of RCP.	Severe	Mild
19	17	Complete	3003090105	3003090201	27	481	455	RCP	15-Oct-15	Surface aggregate visible throughout. Surface reinforcement visible throughout with some areas of corrosion. However, it could also be lined CMP.	4	1	Rehabilitate reach soon to prevent further deterioration of RCP.	Severe	Mild
20	17	MSA	1903091002	1903091003	18	448	428	RCP	14-Oct-15	Full inspection not achieved with inspection from either direction due to debris within flow. Fine roots through barrel in many areas affecting structural integrity. Surface aggregate visible throughout with areas of projecting and missing aggregate.	5	3	Clean pipe and complete full inspection. Rehabilitate soon to prevent further deterioration of RCP.	Severe	Moderate
20	12	Complete	1903091003	1903091015	18	37	33	RCP	14-Oct-15	Surface aggregate visible throughout with some areas of projecting aggregate and visible reinforcement at downstream manhole.	3	1	Re-inspect within 5 years.	Moderate	Mild
20	12 & 17	Complete	1903091011	1903091004	18	332	330	RCP	14-Oct-15	Aggregate visible throughout with areas of projecting aggregate. Two isolated areas of reinforcement visible.	3	1	Re-inspect within 5 years.	Moderate	Mild
20	12	Complete	1903091015	1903091011	18	81	78	RCP	14-Oct-15	Surface aggregate visible throughout with areas of projecting aggregate.	3	1	Re-inspect within 10 years.	Moderate	Mild
21	4	Complete	1203080910	1203080912	39	449	446	RCP	15-Oct-15	Aggregate visible throughout. Settled gravel observed.	2	2	Re-inspect within 10 years.	Mild	Mild
21	4	MSA	1203080912	1203081401	39	214	230	RCP	15-Oct-15	From footage that could be completed, aggregate visible and surface spalling throughout. Full length could not be completed due to debris.	2	3	Clean pipe to remove debris, re-inspect within 10 years.	Mild	Moderate
21	4	Complete	1203081305	1203081306	39	133	326	RCP	16-Oct-15	Surface aggregate visible and spalling throughout. Settled gravel observed.	2	2	Re-inspect within 10 years.	Mild	Mild
21	4	Complete	1203081401	1203081402	39	41	76	RCP	16-Oct-15	Surface aggregate visible throughout with areas of projecting aggregate. Some settled gravel observed.	3	2	Re-inspect within 5 years.	Moderate	Mild
21	4	Complete	1203081402	1203081305	39	78	129	RCP	16-Oct-15	Surface aggregate visible throughout with some areas of projecting aggregate. Settled gravel observed.	3	2	Re-inspect within 10 years.	Moderate	Mild



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22	12	Complete	2003090102	2003090101	18	140	137	RCP	16-Oct-15	Surface aggregate visible throughout with areas of projecting aggregate.	3	1	Re-inspect within 5 years.	Moderate	Mild
22	12	Complete	2003090103	2003090102	18	320	317	RCP	16-Oct-15	Surface aggregate visible throughout with areas of projecting aggregate.	3	1	Re-inspect within 5 years.	Moderate	Mild
22	12	Complete	2003090104	2003090103	18	332	331	RCP	16-Oct-15	Surface aggregate visible and projecting throughout.	3	1	Re-inspect within 5 years.	Moderate	Mild
22	12	Complete	2003090126	2003090104	18	155	151	RCP	16-Oct-15	Surface aggregate visible and projecting throughout.	3	1	Re-inspect within 5 years.	Moderate	Mild
23	12	Complete	1703091316	2003090101	21	905	903	RCP	16-Oct-15	Some aggregate visible and spalling throughout. Settled gravel observed.	2	2	Re-inspect within 10 years.	Mild	Mild
24	35	Complete	0804090903	0804090902	33	52	50	RCP	12-Oct-15	Aggregate visible and spalling throughout.	2	1	Re-inspect within 10 years.	Mild	Mild
24	35	Complete	0804090904	0804090925	33	154	151	RCP	12-Oct-15	Aggregate visible and spalling throughout.	2	1	Re-inspect within 10 years.	Mild	Mild
24	35	Complete	0804090905	0804090904	33	159	157	RCP	12-Oct-15	Surface roughness increased and aggregate visible throughout.	2	1	Re-inspect within 10 years.	Mild	Mild
24	35	Complete	0804090925	0804090903	33	151	149	RCP	12-Oct-15	Aggregate visible and surface spalling throughout. Some gravel deposits observed.	2	2	Re-inspect within 10 years.	Mild	Mild
25	24	Complete	2803090810	2803090811	24	110	103	RCP	13-Oct-15	Surface reinforcement visible. Missing wall and attached deposits throughout. Hole with void visible at 16 ft downstream of SSMH2803090810. Pipe appears to surcharge.	5	3	Rehabilitate pipe soon to prevent further deterioration of RCP.	Severe	Moderate
25	24	Complete	2803090811	2803091222	24	369	365	RCP	13-Oct-15	Reinforcement visible in several locations with some corroded. Aggregate projecting throughout.	5	1	Rehabilitate pipe soon to prevent further deterioration of RCP.	Severe	Mild
25	24	Complete	2803091222	2803091221	24	361	357	RCP	13-Oct-15	Aggregate visible and surface spalling throughout.	2	1	Re-inspect within 10 years.	Mild	Mild
26	36	Complete	0804090404	0504091605	30	160	156	RCP	12-Oct-15	Surface aggregate visible throughout. Reinforcement visible at 47 ft downstream of SSMH0804090404; 36however, appears to be a manufacturer's defect. Reinforcement is not corroded.	3	1	Re-inspect within 5 years to monitor concrete corrosion.	Moderate	Mild
26	36	MSA	0804090405	0804090404	30	497	197	RCP	12-Oct-15	Surface aggregate visible with some areas of projecting aggregate.	3	3	Clean pipe to remove debris, then reinspect within 5 years to monitor degree of corrosion.	Moderate	Moderate
27	5	Complete	0803091302	0803091323	30	279	269	RCP	16-Oct-15	Aggregate visible and surface spalling throughout.	2	1	Re-inspect within 10 years.	Mild	Mild
27	5	Complete	0803091323	0803091301	30	487	485	RCP	19-Oct-15	Surface roughness increased throughout. Some aggregate visible. Settled gravel deposits observed.	2	2	Re-inspect within 10 years.	Mild	Mild
28	28	New Reach	3303090705	3303090711	48	38	23	RCP	19-Nov-15	Surface reinforcement visible at downstream manhole.	4	1	Rehabilitate pipe soon to prevent further deterioration of RCP.	Severe	Mild
28	29	Complete	3303090802	3303091207	48	115	114	RCP	18-Nov-15	Surface aggregate projecting throughout.	3	1	Re-inspect within 5 years to monitor RCP for further deterioration.	Moderate	Mild



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Investigation Area	Figure No. <sup>1</sup>	Status	UMH	DMH	Pipe Size (in)	GIS Length (ft)	Survey Length (ft)	Pipe Type	Date Performed	Assessment	Structural Score	Operational Score	Recommendation	Structural Cond Rating	Operational Cond Rating
28	28	New Reach	3303091106	3303091101	48	144	14	RCP	19-Nov-15	Surface reinforcement visible around 100 ft downstream of SSMH3303091101. Surface aggregate visible and projecting throughout.	4	1	Rehabilitate pipe soon to prevent further deterioration of RCP.	Severe	Mild
28	28	New Reach	3303091206	3303091104	48	216	212	RCP	19-Nov-15	Surface aggregate visible and projecting throughout.	3	1	Re-inspect within 5 years to monitor RCP for further deterioration.	Moderate	Mild
28	29	New Reach	3303091204	3303091209	45	260	257	RCP	19-Nov-15	Surface aggregate visible and projecting throughout.	3	1	Re-inspect within 5 years to monitor RCP for further deterioration.	Moderate	Mild
28	28 & 29	Complete	3303091208	3303091206	45	247	239	RCP	19-Nov-15	Surface aggregate visible and projecting throughout.	3	1	Re-inspect within 5 years to monitor RCP for further deterioration.	Moderate	Mild
28	29	Complete	3303091207	3303091204	45	66	63	RCP	18-Nov-15	Surface aggregate projecting throughout.	3	1	Re-inspect within 5 years to monitor RCP for further deterioration.	Moderate	Mild
28	28	New Reach	3303090711	3303090710	48	58	66	RCP	19-Nov-15	Surface reinforcement visible throughout. Unable to see whether reinforcement is corroded.	4	1	Rehabilitate pipe soon to prevent further deterioration of RCP.	Severe	Mild
28	28	Complete	3303091101	3303090705	48	78	73	RCP	19-Nov-15	Surface aggregate visible and projecting throughout.	3	1	Re-inspect within 5 years to monitor RCP for further deterioration.	Moderate	Mild
28	28	New Reach	3303091104	3303091106	48	379	392	RCP	19-Nov-15	Reinforcement visible, aggregate projecting, and aggregate visible throughout.	4	1	Rehabilitate pipe soon to prevent further deterioration of RCP.	Severe	Mild
28	29	New Reach	3303091209	3303091208	45	444	464	RCP	19-Nov-15	Surface aggregate visible and projecting throughout.	3	1	Re-inspect within 5 years to monitor RCP for further deterioration.	Moderate	Mild
29	33	MSA	0504091502	0504091207	30	567	289	RCP	23-Oct-15	Surface reinforcement visible with projecting aggregate and missing aggregate also observed. Full inspection could not be completed due to debris.	4	3	Clean pipe to remove debris, rehabilitate to prevent further corrosion.	Severe	Moderate
29	33	MSA	0504091503	0504091502	30	314	34	RCP	23-Oct-15	Visible and projecting aggregate observed in the portion able to investigate. Debris prevented full inspection of reach.	3	3	Clean pipe to remove debris and complete inspection.	Moderate	Moderate

Notes:

1. Figure number corresponds to Appendices E and F figures



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**Table D-2. Manhole Assessment Summary**

Status	Figure No. <sup>1</sup>	Manhole ID	Date Performed	Assessment	Recommendation	Condition Rating
<b>Complete</b>						
Complete	18	SSMH000000032	3-Nov-15	Overall, in good condition. Station lined with some peeling at inlet to station.	Re-Assess within 10 years.	Mild
Complete	2	SSMH0103080901	6-Nov-15	Overall, in good condition.	Re-Assess within 10 years.	Mild
Complete	2	SSMH0103081114	6-Nov-15	Manhole coated. Liner peeling off pipe overlap, but overall in good condition.	Re-Assess within 10 years.	Mild
Complete	32	SSMH0104081002	7-Oct-15	Bench has exposed aggregate. Walls in good condition.	Re-Assess within 10 years.	Mild
Complete	32	SSMH0104081203	7-Oct-15	Penetration test resulted in 1/8 inch to 1/2 inch scratch. Strong odor detected.	Re-Assess within 5 years.	Moderate
Complete	32	SSMH0104081601	7-Oct-15	Projecting aggregate on wall, cone, and bench. Penetration test resulted in scratch 1/8 inch to 1/2 inch. No indentation from hammer test.	Re-Assess within 5 years.	Moderate
Complete	2	SSMH0203081204	6-Nov-15	Hammer test produced no significant indentation. Scratch test not completed. Surface roughness increased throughout.	Re-Assess within 10 years.	Mild
Complete	2	SSMH0203081601	6-Nov-15	Overall, manhole in good condition. Surface roughness increased on bench only. No scratch or indentation during penetration and hammer tests. One of the adjacent pipes is full of grease and debris.	Re-Assess within 10 years.	Mild
Complete	1	SSMH0303081605	6-Nov-15	Overall, manhole in good condition.	Re-Assess within 10 years.	Mild
Complete	28	SSMH0404090108	9-Oct-15	Overall, in good condition. Possible soil visible/separated joint on downstream pipe.	Re-Assess within 10 years.	Mild
Complete	28	SSMH0404090202	9-Oct-15	Overall, in good condition.	Re-Assess within 10 years.	Mild
Complete	28	SSMH0404090206	9-Oct-15	Surface roughness increased and exposed aggregate on bench, but overall in good condition.	Re-Assess within 10 years.	Mild
Complete	33	SSMH0504090906	8-Oct-15	Grease on bench with an estimate of 2 inches of debris. Penetration test resulted in scratch 1/8 inch to 1/2 inch deep. Surface roughness increased on bench.	Re-Assess within 5 years.	Moderate
Complete	34	SSMH0504091106	8-Oct-15	Hole for bolt stripped out. Manhole surcharged. Reinforcement visible and corroded in wall and aggregate projecting.	Rehabilitate soon.	Severe
Complete	34	SSMH0504091201	8-Oct-15	Overall, in good condition. Manhole is epoxy coated.	Re-Assess within 10 years.	Mild
Complete	34	SSMH0504091203	8-Oct-15	Penetration test and hammer test resulted in determination of severe corrosion. Sediment estimate approximately 3 inches. Missing wall and corroded reinforcement observed.	Rehabilitate soon.	Severe
Complete	34	SSMH0504091203	20-Nov-15	Chimney and bench have exposed aggregate. Walls in good condition.	Re-Assess within 10 years.	Mild
Complete	34	SSMH0504091204	8-Oct-15	Overall, in good condition. Epoxy coated.	Re-Assess within 10 years.	Mild
Complete	34	SSMH0504091209	8-Oct-15	Overall, in good condition. Manhole is plastic lined.	Re-Assess within 10 years.	Mild
Complete	38	SSMH0504091304	18-Nov-15	Scratch between 1/8 inch and 1/2 inch during penetration test. Surface roughness increased within interior with aggregate projecting and missing on bench. Possibly coated.	Re-Assess within 5 years.	Moderate
Complete	38	SSMH0504091306	22-Oct-15	Plastic lined. Overall, in good condition.	Re-Assess within 10 years.	Mild
Complete	38	SSMH0504091307	22-Oct-16	Manhole is plastic lined. Overall, in good condition.	Re-Assess within 10 years.	Mild
Complete	38	SSMH0504091308	18-Nov-15	Manhole lined; however, lining detached at pipe interface.	Re-Assess within 5 years.	Moderate
Complete	34	SSMH0504091502	8-Oct-15	No scratch and no significant indentation during penetration and hammer tests approx. 5 ft down, respectively. Approximately 5 inches of sediment observed with grease on bench. Surface aggregate projecting in lower wall with aggregate missing near bench.	Rehabilitate soon.	Severe
Complete	34	SSMH0504091503	20-Nov-15	Overall, manhole in good condition. Surface roughness increased on bench and some aggregate visible on upper wall. No scratch or indentation during penetration and hammer tests.	Re-Assess within 10 years.	Mild
Complete	34	SSMH0504091601	8-Oct-15	No scratch or indentation from penetration and hammer tests, respectively. Aggregate visible throughout with aggregate projecting towards bench.	Re-Assess within 5 years.	Moderate
Complete	3	SSMH0603090903	6-Nov-15	Surface roughness increased throughout with aggregate visible on bench.	Re-Assess within 10 years.	Mild
Complete	3	SSMH0603091023	6-Nov-15	Overall, in good condition. Manhole plastic lined.	Re-Assess within 10 years.	Mild
Complete	32	SSMH0604091307	27-Oct-15	Penetration resulted in scratch less than 1/8 inch. No hammer test completed due to odor. Surface roughness increased throughout with aggregate projecting near mouths of pipes.	Re-Assess within 10 years.	Mild
Complete	33	SSMH0604091402	7-Oct-15	Penetration test resulted in 1/8 inch to 1/2 inch deep scratch. Aggregate visible and projecting on bench.	Re-Assess within 5 years.	Moderate
Complete	33	SSMH0604091403	7-Oct-15	Bolted cover style frame and cover but it is not bolted down. Penetration test resulted in 1/8 inch to 1/2 inch scratch. Aggregate visible and projecting with aggregate missing near pipe mouth.	Rehabilitate soon.	Severe
Complete	33	SSMH0604091505	23-Oct-15	Penetration test resulted in scratch 1/8 inch to 1/2 inch deep. Hammer test resulted in insignificant indentation. Appears to be partially coated. Surface roughness increased throughout.	Re-Assess within 5 years.	Moderate
Complete	33	SSMH0604091506	7-Oct-15	Unable to see lower portion of manhole due to surcharging. Epoxy coated and failing near pipe interface and at rim. Projecting and missing aggregate on bench and in channel.	Re-Assess within 5 years.	Moderate
Complete	33	SSMH0604091521	7-Oct-15	Manhole plastic lined. However, projecting aggregate at top of manhole and on bench. Linear appears to be defective at rim.	Re-Assess within 5 years.	Moderate
Complete	33	SSMH0604091522	8-Oct-15	Aggregate projecting and missing on bench. Area where liner is split open with wrinkled liner at the base. Remainder of manhole plastic lined.	Re-Assess within 5 years.	Moderate
Complete	38	SSMH0604091615	18-Nov-15	Estimated 10 inches of debris in manhole. Grease and ragging observed. Aggregate visible and projecting.	Clean manhole and associated pipes. Monitor pipes and manholes for cleaning. Re-Assess within 5 years.	Moderate
Complete	5	SSMH0703090633	5-Nov-15	Surface roughness increased throughout, but overall in good condition.	Re-Assess within 10 years.	Mild
Complete	5	SSMH0703091008	5-Nov-15	Surface increased roughness throughout.	Re-Assess within 10 years.	Mild
Complete	35	SSMH0704090832	6-Oct-15	Plastic lined and coated. Overall, in good condition.	Re-Assess within 10 years.	Mild
Complete	5	SSMH0803090904	6-Nov-15	Ragging with 4 inches of debris observed. However, overall in good condition.	Remove and monitor debris. Reinspect within 10 years.	Mild



**Table D-2. Manhole Assessment Summary**

Status	Figure No. <sup>1</sup>	Manhole ID	Date Performed	Assessment	Recommendation	Condition Rating
<b>Complete</b>						
Complete	35 & 38	SSMH0804090101	20-Nov-15	Overall, manhole in good condition. Surface roughness increased near rim. No scratch or indentation during penetration and hammer tests.	Re-Assess within 10 years.	Mild
Complete	35 & 38	SSMH0804090102	20-Nov-15	Some spalling and aggregate visible in upper wall; otherwise, manhole in overall good condition. No scratch or indentation during penetration and hammer tests.	Re-Assess within 10 years.	Mild
Complete	35	SSMH0804090103	6-Oct-15	Projecting aggregate throughout. Storm cover drain on sanitary sewer manhole.	Re-Assess within 5 years.	Moderate
Complete	36	SSMH0804090404	12-Oct-15	Aggregate visible in upper manhole with surface roughness increased in the remainder of the manhole.	Re-Assess within 10 years.	Mild
Complete	35	SSMH0804090901	6-Oct-15	Surface roughness increased with aggregate visible on bench.	Re-Assess within 10 years.	Mild
Complete	35	SSMH0804090905	12-Oct-15	Overall, manhole in good condition. Surface roughness increased with aggregate visible on bench near pipe interface. No scratch or indentation during penetration and hammer tests.	Re-Assess within 10 years.	Mild
Complete	35	SSMH0804090910	6-Oct-15	Overall, manhole in good condition. Surface roughness increased throughout. No scratch or indentation during penetration and hammer tests. Ragging on bench.	Re-Assess within 10 years.	Mild
Complete	36	SSMH0804091203	6-Oct-15	Penetration test resulted in less than 1/8 inch deep scratch with no indentation during hammer test. Aggregate visible throughout with areas of projecting aggregate.	Re-Assess within 5 years.	Moderate
Complete	36	SSMH0804091206	7-Oct-15	Overall, in good condition.	Re-Assess within 10 years.	Mild
Complete	37	SSMH0804091604	5-Oct-15	Overall, in good condition.	Re-Assess within 10 years.	Mild
Complete	6	SSMH0903091029	6-Nov-15	Surface roughness increased throughout with aggregate visible on bench.	Re-Assess within 10 years.	Mild
Complete	9	SSMH0903091517	5-Nov-15	Overall, in good condition.	Re-Assess within 10 years.	Mild
Complete	36	SSMH0904090507	6-Oct-15	Overall, manhole in good condition. Surface roughness increased throughout. No scratch or indentation during penetration and hammer tests.	Re-Assess within 10 years.	Mild
Complete	36	SSMH0904090607	6-Oct-15	Bench has projecting and missing aggregate.	Re-Assess within 5 years.	Moderate
Complete	37	SSMH0904091302	6-Oct-15	Manhole lined. Overall, in good condition.	Re-Assess within 10 years.	Mild
Complete	10	SSMH1003091321	4-Nov-15	Bench has projecting aggregate. Lower wall has exposed aggregate.	Re-Assess within 5 years.	Moderate
Complete	4	SSMH1103080801	5-Nov-15	Surface roughness increased throughout with aggregate visible on bench.	Re-Assess within 10 years.	Mild
Complete	4	SSMH1203080313	5-Nov-15	Aggregate visible and projecting below force main discharge on wall and bench. Scratch test resulted in 1/8 inch to 1/2 deep scratch. Hammer test resulted in insignificant dent.	Re-Assess within 5 years.	Moderate
Complete	4	SSMH1203080518	5-Nov-15	Aggregate visible on bench. Remainder of manhole in good condition.	Re-Assess within 10 years.	Mild
Complete	4	SSMH1203080744	5-Nov-15	Overall, in good condition except some projecting aggregate on bench.	Re-Assess within 10 years.	Mild
Complete	4	SSMH1203080910	15-Oct-15	Surface roughness increased with aggregate visible on bench.	Re-Assess within 10 years.	Mild
Complete	4	SSMH1203081307	5-Nov-15	Aggregate visible on lower wall.	Re-Assess within 10 years.	Mild
Complete	7	SSMH1203081309	5-Nov-15	Aggregate visible and projecting. No indentation on hammer test and less than 1/8 inch deep scratch from penetration test.	Re-Assess within 5 years.	Moderate
Complete	7	SSMH1203081533	5-Nov-15	Overall, in good condition.	Re-Assess within 10 years.	Mild
Complete	7	SSMH1303081104	19-Oct-15	Aggregate visible on bench, but overall in good condition.	Re-Assess within 10 years.	Mild
Complete	7	SSMH1303081401	6-Nov-15	Overall, in good condition.	Re-Assess within 10 years.	Mild
Complete	15	SSMH1303091521	4-Nov-15	Surface roughness increased with aggregate visible on bench.	Re-Assess within 10 years.	Mild
Complete	10	SSMH1403090519	4-Nov-15	Overall, in good condition.	Re-Assess within 10 years.	Mild
Complete	15	SSMH1403091305	4-Nov-15	Aggregate visible on bench.	Re-Assess within 10 years.	Mild
Complete	15	SSMH1403091431	4-Nov-15	Surface roughness increased with aggregate visible on bench.	Re-Assess within 10 years.	Mild
Complete	9	SSMH1603090506	5-Nov-15	Surface roughness increased within manhole.	Re-Assess within 10 years.	Mild
Complete	9	SSMH1603091109	5-Nov-15	Projecting aggregate on lower wall and on bench.	Re-Assess within 10 years.	Mild
Complete	8	SSMH1703090105	5-Nov-15	Overall, in good condition some areas of aggregate visible.	Re-Assess within 10 years.	Mild
Complete	9	SSMH1703090817	5-Nov-15	Aggregate projecting.	Re-Assess within 5 years.	Moderate
Complete	12	SSMH1703091313	3-Nov-15	Aggregate visible on bench.	Re-Assess within 10 years.	Mild
Complete	12	SSMH1703091315	4-Nov-15	Aggregate visible on bench.	Re-Assess within 10 years.	Mild
Complete	13	SSMH1703091405	3-Nov-15	Exposed aggregate on lower wall and bench.	Re-Assess within 10 years.	Mild
Complete	8	SSMH1803090201	5-Nov-15	Overall, in good condition.	Re-Assess within 10 years.	Mild
Complete	8	SSMH1803090214	5-Nov-15	Aggregate projecting in some areas. Spalling throughout.	Re-Assess within 10 years.	Mild
Complete	8	SSMH1803090221	5-Nov-15	Overall, in good condition.	Re-Assess within 10 years.	Mild
Complete	8	SSMH1803091007	5-Nov-15	Aggregate visible and projecting within manhole. Incoming 9 o'clock pipe filled with roots and roots within manhole.	Clean roots from incoming pipe at 9 o'clock and manhole. Re-Assess within 5 years.	Moderate
Complete	12	SSMH1803091415	5-Nov-15	Aggregate visible and projecting on bench.	Re-Assess within 10 years.	Mild
Complete	12	SSMH1903090427	3-Nov-15	Aggregate visible on bench.	Re-Assess within 10 years.	Mild
Complete	12	SSMH1903090637	3-Nov-15	Aggregate visible on bench.	Re-Assess within 10 years.	Mild
Complete	12	SSMH1903090801	3-Nov-15	Aggregate projecting in cone, wall, and bench.	Re-Assess within 5 years.	Moderate
Complete	12	SSMH1903090811	3-Nov-15	Aggregate visible and projecting near frame; however, remainder in fair condition.	Re-Assess within 10 years.	Mild



Table D-2. Manhole Assessment Summary

Status	Figure No. <sup>1</sup>	Manhole ID	Date Performed	Assessment	Recommendation	Condition Rating
Complete	12	SSMH1903091002	14-Oct-15	Most of the manhole in fair condition, except that there is spalling and corroded reinforcement at a lateral.	Repair manhole wall at incoming lateral soon.	Severe
Complete	17	SSMH1903091004	30-Oct-15	Aggregate visible on lower wall and bench.	Re-Assess within 10 years.	Mild
Complete	17	SSMH1903091401	30-Oct-15	Overall, in good condition.	Re-Assess within 10 years.	Mild
Complete	17	SSMH1903091504	30-Oct-15	Overall in good condition.	Re-Assess within 10 years.	Mild
Complete	17	SSMH1903091507	30-Oct-15	Epoxy coated. Overall, in good condition.	Re-Assess within 10 years.	Mild
Complete	17	SSMH1903091509	30-Oct-15	Aggregate projecting and visible on lower wall and bench.	Re-Assess within 5 years.	Moderate
Complete	17	SSMH1903091512	15-Oct-15	Projecting aggregate in chimney. Projecting aggregate on lower wall and bench. Root intrusion.	Re-Assess within 5 years.	Moderate
Complete	12	SSMH2003090124	3-Nov-15	Projecting aggregate bench/lower wall.	Re-Assess within 5 years. Treat/remove roots.	Moderate
Complete	12	SSMH2003090125	3-Nov-15	Projecting aggregate on lower wall and bench.	Re-Assess within 5 years.	Moderate
Complete	12	SSMH2003090126	16-Oct-15	Aggregate visible on bench.	Re-Assess within 10 years.	Mild
Complete	12	SSMH2003090204	6-Nov-15	Wall and bench have projecting aggregate; however, no scratch or indentation during penetration and hammer tests.	Re-Assess within 5 years.	Moderate
Complete	12	SSMH2003090515	6-Nov-15	Projecting aggregate on lower wall and on bench.	Re-Assess within 5 years.	Moderate
Complete	12	SSMH2003090602	3-Nov-15	Cementitious coating over brick. Coating deteriorating in lower manhole, with small mortar missing with one area of possible missing brick near lateral.	Re-Assess within 5 years.	Moderate
Complete	13	SSMH2103090405	3-Nov-15	Walls spalling with reinforcement visible in the lower wall. Projecting aggregate in the chimney.	Perform spot repairs and/or rehabilitate soon.	Severe
Complete	18	SSMH2103091218	6-Nov-15	Circumferential crack in wall and aggregate visible on bench.	Re-Assess within 10 years.	Mild
Complete	14	SSMH2203090329	4-Nov-15	Overall, in good condition.	Re-Assess within 10 years.	Mild
Complete	15	SSMH2303090724	4-Nov-15	Aggregate visible on bench.	Re-Assess within 10 years.	Mild
Complete	15	SSMH2303090808	19-Oct-15	Projecting aggregate lower in the manhole below lateral.	Re-Assess within 5 years.	Moderate
Complete	19	SSMH2303091501	29-Oct-15	Aggregate projecting.	Re-Assess within 5 years.	Moderate
Complete	19	SSMH2303091611	28-Oct-15	Aggregate visible on lower wall and bench.	Re-Assess within 10 years.	Mild
Complete	19	SSMH2303091619	29-Oct-15	Overall, in good condition.	Re-Assess within 10 years.	Mild
Complete	19	SSMH2303091620	28-Oct-15	Reinforcement visible and projecting. Heavy spalling.	Rehabilitate or replace immediately.	Severe
Complete	11	SSMH2403080201	30-Oct-15	Overall, in good condition.	Re-Assess within 10 years.	Mild
Complete	11	SSMH2403080603	30-Oct-15	Overall, in good condition.	Re-Assess within 10 years.	Mild
Complete	11	SSMH2403081001	30-Oct-15	Aggregate exposed on bench.	Re-Assess within 10 years.	Mild
Complete	16	SSMH2403081311	30-Oct-15	Aggregate visible on lower wall. Multiple cracks in chimney.	Re-Assess within 10 years.	Mild
Complete	16	SSMH2403081312	3-Nov-15	Lined; however, projecting aggregate on bench.	Re-Assess within 5 years.	Moderate
Complete	15	SSMH2403090112	4-Nov-15	Overall, in good condition.	Re-Assess within 10 years.	Mild
Complete	15	SSMH2403090301	4-Nov-15	Overall, in good condition.	Re-Assess within 10 years.	Mild
Complete	15	SSMH2403090605	4-Nov-15	Overall, in good condition.	Re-Assess within 10 years.	Mild
Complete	16	SSMH2503080105	30-Oct-15	Coated, defective liner at the top of the manhole, on bench, and near pipes.	Re-Assess within 5 years to monitor coating condition.	Moderate
Complete	16	SSMH2503080107	30-Oct-15	Overall, in good condition. Manhole is coated.	Re-Assess within 10 years.	Mild
Complete	16	SSMH2503080113	30-Oct-15	Aggregate visible and projecting on bench, but walls in good condition.	Re-Assess within 10 years.	Mild
Complete	16	SSMH2503080201	30-Oct-15	Overall, in good condition.	Re-Assess within 10 years.	Mild
Complete	16	SSMH2503080304	14-Oct-15	Aggregate visible on bench. Projecting aggregate at pipe mouth.	Re-Assess within 10 years.	Mild
Complete	16	SSMH2503080415	30-Oct-15	Manhole coated and in overall good condition.	Re-Assess within 10 years.	Mild
Complete	21	SSMH2503080606	27-Oct-15	Aggregate projecting on grade ring with aggregate visible on bench.	Re-Assess within 10 years.	Mild
Complete	19	SSMH2503090101	14-Oct-15	Debris on bench. Otherwise, manhole in overall good condition.	Re-Assess within 10 years.	Mild
Complete	19	SSMH2503090102	14-Oct-15	Manhole walls coated. However, bench has projecting and missing aggregate.	Re-Assess within 5 years.	Moderate
Complete	19	SSMH2503090106	27-Oct-15	Manhole coated with Insecta. Appears to be in good condition.	Re-Assess within 10 years.	Mild
Complete	25	SSMH2503090527	27-Oct-15	Aggregate visible and projecting on bench.	Re-Assess within 5 years.	Moderate
Complete	25	SSMH2503091304	18-Nov-15	Aggregate visible on bench.	Re-Assess within 10 years.	Mild
Complete	25	SSMH2503091305	18-Nov-15	Some portions of the wall appear to be coated or lined. Overall, manhole in good condition. No scratch or indentation during scratch and hammer tests.	Re-Assess within 10 years.	Mild
Complete	19	SSMH2603090301	29-Oct-15	Overall, in good condition.	Re-Assess within 10 years.	Mild
Complete	19	SSMH2603090401	28-Oct-15	Aggregate visible on lower wall and bench. Roots coming in at lateral with infiltration.	Remove roots and repair to prevent infiltration, then re-assess in 5 years.	Moderate
Complete	19	SSMH2603090402	28-Oct-15	Aggregate visible on bench.	Re-Assess within 10 years.	Mild





Table D-2. Manhole Assessment Summary

Status	Figure No. <sup>1</sup>	Manhole ID	Date Performed	Assessment	Recommendation	Condition Rating
Complete	25	SSMH2603090904	27-Oct-15	Overall, in good condition.	Re-Assess within 10 years.	Mild
Complete	18	SSMH2703090125	29-Oct-15	Overall, manhole in good condition.	Re-Assess within 10 years.	Mild
Complete	18	SSMH2703090208	29-Oct-15	Overall, in good condition.	Re-Assess within 10 years.	Mild
Complete	18	SSMH2703090304	27-Oct-15	Overall, in good condition.	Re-Assess within 10 years.	Mild
Complete	18	SSMH2703090501	29-Oct-15	Overall, in good condition.	Re-Assess within 10 years.	Mild
Complete	18	SSMH2703090503	3-Nov-15	Overall, in good condition. Manhole is coated.	Re-Assess within 10 years.	Mild
Complete	24	SSMH2703091312	28-Oct-15	Aggregate visible and projecting on lower wall and bench.	Re-Assess within 5 years.	Moderate
Complete	24	SSMH2703091414	28-Oct-15	Aggregate visible on bench.	Re-Assess within 10 years.	Mild
Complete	24	SSMH2803090806	28-Oct-15	Aggregate projecting and some aggregate missing on bench.	Rehabilitate soon.	Severe
Complete	24	SSMH2803090809	13-Oct-15	Aggregate projecting and missing. Heavy spalling throughout manhole.	Rehabilitate soon.	Severe
Complete	24	SSMH2803090810	13-Oct-15	Surface spalling and surface roughness increased within manhole. Some root intrusion visible.	Re-Assess within 10 years.	Mild
Complete	24	SSMH2803090811	13-Oct-15	Aggregate projecting and missing. Missing mortar medium in brick near bench.	Rehabilitate soon.	Severe
Complete	23	SSMH2803091005	29-Oct-15	Coating starting to come off brick walls with missing mortar (small) in lower manhole. Projecting and visible aggregate on bench.	Re-Assess within 5 years.	Moderate
Complete	24	SSMH2803091221	13-Oct-15	Aggregate visible and projecting within manhole.	Re-Assess within 5 years.	Moderate
Complete	24	SSMH2803091609	28-Oct-15	Aggregate visible and projecting on bench and lower wall.	Re-Assess within 5 years.	Moderate
Complete	24	SSMH2803091629	28-Oct-15	Aggregate visible in lower and bench. Spalling near top of manhole.	Re-Assess within 5 years.	Moderate
Complete	22	SSMH2903090908	29-Oct-15	Manhole severely corroded with reinforcement visible and corroded with missing wall.	Rehabilitate soon.	Severe
Complete	22	SSMH2903090924	28-Oct-15	Overall, in good condition.	Re-Assess within 10 years.	Mild
Complete	22	SSMH2903091005	29-Oct-15	Overall, in good condition.	Re-Assess within 10 years.	Mild
Complete	23	SSMH2903091106	29-Oct-15	Aggregate visible in channel. Lots of roaches.	Re-Assess within 10 years.	Mild
Complete	22	SSMH2903091311	20-Oct-15	Brick walls with cementitious coating. Liner in some areas failed with some areas of missing mortar between bricks.	Re-Assess within 5 years.	Moderate
Complete	22	SSMH2903091315	20-Oct-15	Some projecting aggregate near mouth of pipe.	Re-Assess within 10 years.	Mild
Complete	23	SSMH2903091426	20-Oct-15	Projecting aggregate on chimney, grade rings and bench. Infiltration stain in lower wall at joint.	Re-Assess within 5 years.	Moderate
Complete	17	SSMH3003090105	15-Oct-15	Aggregate visible and projecting near lower wall/bench.	Re-Assess within 5 years.	Moderate
Complete	16	SSMH3003090113	30-Oct-15	Aggregate visible and projecting on bench. Aggregate visible in chimney.	Re-Assess within 5 years.	Moderate
Complete	17	SSMH3003090203	6-Nov-15	Overall, manhole in good condition. Less than 1/8 inch scratch and no indentation during penetration and hammer tests.	Re-Assess within 10 years.	Mild
Complete	22	SSMH3003091422	27-Oct-15	Overall, in good condition; however, some areas where bench as aggregate visible with coating/lining defective.	Re-Assess within 10 years.	Mild
Complete	22	SSMH3003091424	27-Oct-15	Aggregate missing and projecting in chimney/cone. Surface spalling and aggregate projecting in lower wall and bench.	Re-Assess within 5 years.	Moderate
Complete	22	SSMH3003091425	27-Oct-15	Overall, in good condition; however, aggregate visible on bench.	Re-Assess within 10 years.	Mild
Complete	22	SSMH3003091521	6-Nov-15	Some brick exposed with small missing mortar in one section of the manhole. No scratch or indentation during scratch and hammer tests.	Re-Assess within 10 years.	Mild
Complete	20	SSMH3003100106	29-Oct-15	Some aggregate visible on bench.	Re-Assess within 10 years.	Mild
Complete	20	SSMH3003100501	29-Oct-15	Overall, in good condition.	Re-Assess within 10 years.	Mild
Complete	26	SSMH3003101301	18-Nov-15	Overall, manhole in good condition. Surface roughness increased on bench with aggregate visible on adjustment ring. No scratch or indentation during penetration and hammer tests.	Re-Assess within 10 years.	Mild
Complete	22	SSMH3103090211	27-Oct-15	Overall, in good condition.	Re-Assess within 10 years.	Mild
Complete	22	SSMH3103090214	27-Oct-15	Overall, in good condition.	Re-Assess within 10 years.	Mild
Complete	27	SSMH3103090514	9-Oct-15	Aggregate visible near pipe mouth.	Re-Assess within 10 years.	Mild
Complete	27	SSMH3103090607	9-Oct-15	Aggregate visible on wall.	Re-Assess within 10 years.	Mild
Complete	27	SSMH3103090614	27-Oct-15	Overall, in good condition.	Re-Assess within 10 years.	Mild
Complete	27	SSMH3103091218	8-Oct-15	Aggregate visible and projecting on lower wall.	Re-Assess within 5 years.	Moderate
Complete	31	SSMH3103101501	26-Oct-15	Overall, in good condition.	Re-Assess within 10 years.	Mild
Complete	22	SSMH3203090103	28-Oct-15	Cementitious coating over brick. In lower areas of manhole, mortar missing medium to large. Cementitious coating deteriorating over brick.	Re-Assess within 5 years.	Moderate
Complete	23	SSMH3203090204	19-Nov-15	Surface roughness increased throughout. Manhole surcharges with grease and ragging visible at time of inspection.	Clean manhole to and associated reaches to remove grease and rags. Monitor manhole and pipes for cleaning. Re-Assess within 5 years.	Moderate
Complete	28	SSMH3203090712	19-Nov-15	Overall, manhole in good condition. Surface roughness increased within manhole. No scratch or indentation during penetration and hammer tests.	Re-Assess within 10 years.	Mild
Complete	28	SSMH3203090808	9-Oct-15	Aggregate projecting near pipe mouth; otherwise, overall in good condition.	Re-Assess within 10 years.	Mild
Complete	27	SSMH3203090907	27-Oct-15	Brick covered with cementitious coating. Coating deteriorating with brick exposed in lower half of the manhole. Missing brick with void and soil visible.	Rehabilitate immediately.	Severe
Complete	28	SSMH3203091004	9-Oct-15	Cementitious coating over brick. Overall, manhole in good condition. Roots observed in manhole.	Re-Assess within 10 years.	Mild
Complete	28	SSMH3203091219	9-Oct-15	Exterior manhole broken at surface. Aggregate missing and projecting. Reinforcement visible and corroding.	Rehabilitate immediately.	Severe
Complete	23	SSMH3303090403	21-Oct-15	Overall, in good condition.	Re-Assess within 10 years.	Mild



Table D-2. Manhole Assessment Summary						
Status	Figure No. <sup>1</sup>	Manhole ID	Date Performed	Assessment	Recommendation	Condition Rating
<b>Complete</b>						
Complete	23	SSMH3303090530	28-Oct-15	Overall, in good condition.	Re-Assess within 10 years.	Mild
Complete	23	SSMH3303090531	28-Oct-15	Aggregate visible within manhole with aggregate projecting and missing on bench.	Rehabilitate soon	Severe
Complete	28	SSMH3303090609	27-Oct-15	Aggregate visible and projecting on bench.	Re-Assess within 5 years.	Moderate
Complete	28	SSMH3303090611	20-Oct-15	Overall, manhole in good condition. No scratch or indentation during scratch and penetration tests.	Re-Assess within 10 years.	Mild
Complete	28	SSMH3303090701	21-Oct-15	Surface roughness increased throughout with some spalling. Penetration and hammer tests resulted in insignificant results.	Re-Assess within 10 years.	Mild
Complete	28	SSMH3303090705	21-Oct-15	Manhole lined. Strong odor.	Re-Assess within 10 years.	Mild
Complete	28	SSMH3303090709	21-Oct-15	Manhole full of grease and surcharged to height of 41 inches from rim. Reinforcement within manhole projecting and corroded.	Rehabilitate soon.	Severe
Complete	29	SSMH3303090802	21-Oct-15	Overall, in good condition.	Re-Assess within 10 years.	Mild
Complete	28	SSMH3303091002	27-Oct-15	Aggregate visible and projecting in chimney. Increased surface roughness below chimney.	Re-Assess within 5 years.	Moderate
Complete	28	SSMH3303091004	21-Oct-15	Reinforcement visible and corroded and wall heavily deteriorated and soft. Heavy grease in manhole.	Replace immediately.	Severe
Complete	28	SSMH3303091005	9-Oct-15	Plastic lined. Manhole surcharged at time of inspection.	Re-Assess within 10 years.	Mild
Complete	28	SSMH3303091101				
Complete	24	SSMH3403090412	9-Oct-15	Bench eroded from incoming lateral; however, remainder of manhole in good condition.	Consider repairing bench to improve hydraulics. Otherwise, re-assess within 10 years.	Moderate
Complete	29	SSMH3403090503	9-Oct-15	Chimney off alignment from frame/lower manhole.	Re-Assess within 10 years.	Mild
Complete	29	SSMH3403090813	27-Oct-15	Overall, in good condition.	Re-Assess within 10 years.	Mild
Complete	29	SSMH3403090817	26-Oct-15	Plastic lined. Overall, in good condition.	Re-Assess within 10 years.	Mild
Complete	29	SSMH3403091303	26-Oct-15	Overall, in good condition; however, there is some aggregate visible on the bench.	Re-Assess within 10 years.	Mild
Complete	29	SSMH3403091503	26-Oct-15	Overall, in good condition.	Re-Assess within 5 years.	Mild
Complete	25	SSMH3503090401	13-Oct-15	Surface roughness increased throughout with visible aggregate on bench.	Re-Assess within 10 years.	Mild
Complete	30	SSMH3503090802	26-Oct-15	Aggregate visible on bench and lower wall.	Re-Assess within 10 years.	Mild
Complete	30	SSMH3503090808	26-Oct-15	Projecting aggregate on bench and near laterals with coating deteriorating. Walls plastic lined, but a little blistered.	Re-Assess within 10 years.	Mild
Complete	29	SSMH3503090901	26-Oct-15	Manhole coated. Overall, in good condition.	Re-Assess within 10 years.	Mild
Complete	30	SSMH3503091001	26-Oct-15	Projecting aggregate.	Re-Assess within 5 years.	Moderate
Complete	30	SSMH3503091001	26-Oct-15	Aggregate visible and projecting especially near bench.	Re-Assess within 5 years.	Moderate
Complete	26	SSMH3603090404	27-Oct-15	Overall, in good condition.	Re-Assess within 10 years.	Mild
Complete	31	SSMH3603090803	26-Oct-15	Aggregate visible on chimney.	Re-Assess within 10 years.	Mild
Complete	30	SSMH3603090903	26-Oct-15	Overall, in good condition.	Re-Assess within 10 years.	Mild
Complete	30	SSMH3603091004	26-Oct-15	Aggregate visible on bench.	Re-Assess within 10 years.	Mild
Complete	30	SSMH3603091102	26-Oct-15	Aggregate visible throughout with projecting aggregate on bench and lower wall.	Re-Assess within 5 years.	Moderate
Complete	30	SSMH3603091303	27-Oct-15	Overall, in good condition, except hole or missing wall at lateral. Possibly there since lateral was installed.	Repair manhole wall around lateral, then re-assess within 10 years.	Moderate
<b>Incomplete/Not Found</b>						
Incomplete	36	SSMH0904091008	6-Oct-15	Located within train track easement. Unable to access.		
Incomplete	18	SSMH2703090522		Taken off per City direction.		
Incomplete	24	SSMH2803090810		No form or video. Other manholes inspected in its place.		
Incomplete	28	SSMH3303090706	21-Oct-15	Can't access; unable to lift lid.		
Incomplete	30	SSMH3503091102	25-Oct-15	Unable to inspect because located within train track easement.		
Not Found	17	SSMH2903090215				
Not Found	26	SSMH3003100904	27-Oct-15			
Not Found	28	SSMH3303090626	20-Oct-15			
Not Found	29	SSMH3403090703	26-Oct-15	Appears to be buried.		

Notes:

- Figure number corresponds to Appendices E and F figures. Manholes are not assigned operational ratings; therefore, no manhole ratings are displayed on the Appendix F figures.



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