

# Inspection Report

Produced on behalf of – CITY

Site location – Broadway Hill

Survey reference – 1

Date – 3/25/2021, 7/9/2021

Adirondack Septic Tank, Inc.

4720 NY-30, Amsterdam, NY/Montgomery

12010, USA

518-842-1322



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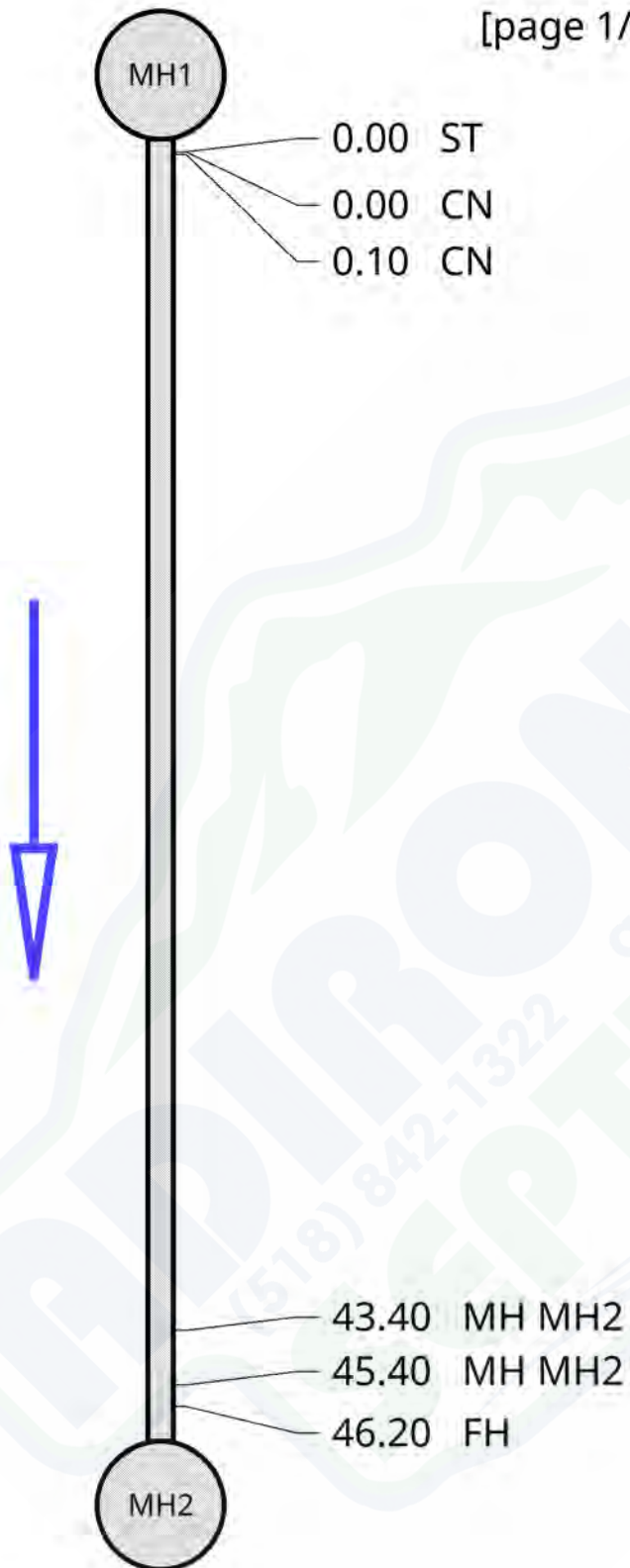
# 1 Drain / Sewer Survey

## 1.1 Survey Header

1.1.1	Surveyed by (Operator)	JZ/DZ
1.1.2	Contract no.	
1.1.3	Job no.	1
1.1.4	Catchment (Drainage area)	
1.1.5	Division	
1.1.6	District	
1.1.7	Pipeline length ref	--
1.1.8	Date	250321
1.1.9	Time	13:08
1.1.10	Location	BROADWAY HILL
1.1.11	Start manhole no.	MH1
1.1.12	Start depth	6'0"
1.1.13	Start cover level	
1.1.14	Start invert level	
1.1.15	Finish manhole no.	MH2
1.1.16	Finish depth	--
1.1.17	Finish cover level	
1.1.18	Finish invert level	
1.1.19	Use of Drain	F
1.1.20	Direction	D
1.1.21	Size 1 (diameter/height)	12"
1.1.22	Size 2 (width)	12"
1.1.23	Shape	C
1.1.24	Material	PVC
1.1.25	Lining	
1.1.26	Pipe length	
1.1.27	Total length	46.2'
1.1.28	Year laid	
1.1.29	Video cassette number	
1.1.30	Comments: General	
1.1.31	Purpose	A
1.1.32	Sewer category	B
1.1.33	Pre-cleaning	N
1.1.34	Weather	1
1.1.35	Location code	C
1.1.36	Further location details	

1.2 Diagram

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### 1.3 Observations

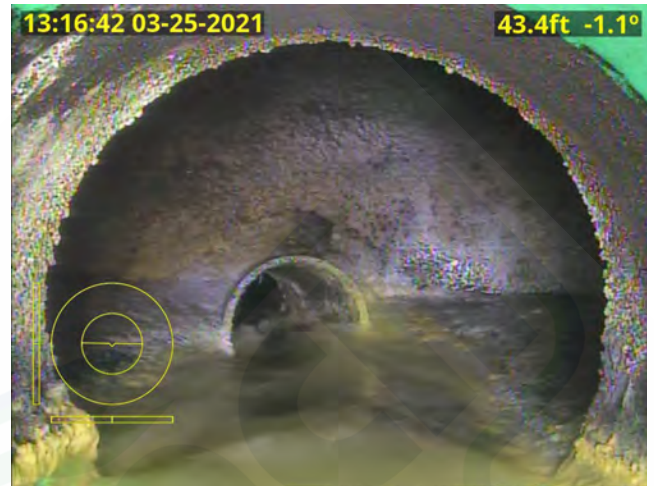
Video Ref	Dist (ft)	Cont Defect	Code	Photo Ref	Diameter/ Dimension	Clock		Intrusion		Remarks
						At	To	%	mm	
0:00:03	0.0		ST	survey00000078/20 21_03_25- 13_11_59_422.jpg 						
0:00:22	0.0		CN	survey00000078/20 21_03_25- 13_12_24_592.jpg 	6"	03				
0:00:46	0.1		CN	survey00000078/20 21_03_25- 13_12_58_757.jpg 	CN	12				
0:04:15	43.4		MH	survey00000078/20 21_03_25- 13_16_42_320.jpg 						MH2
0:04:44	45.4		MH	survey00000078/20 21_03_25- 13_17_19_726.jpg 						MH2
0:05:07	46.2		FH	survey00000078/20 21_03_25- 13_17_52_894.jpg 						

## 1.4 Photographs

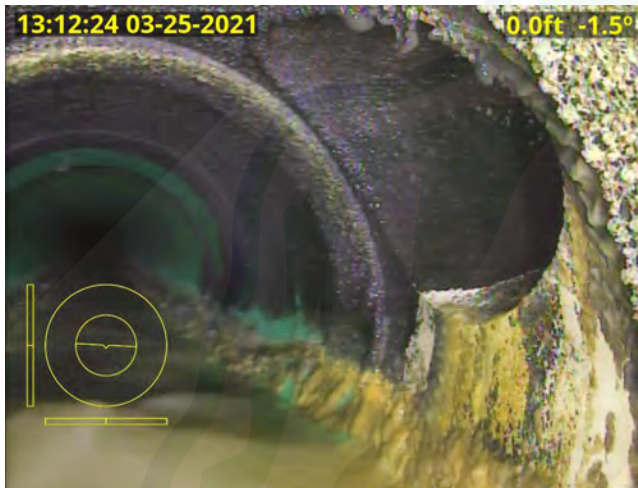
ST survey0000078/2021\_03\_25-13\_11\_59\_422.jpg



MH survey0000078/2021\_03\_25-13\_16\_42\_320.jpg



CN survey0000078/2021\_03\_25-13\_12\_24\_592.jpg



MH survey0000078/2021\_03\_25-13\_17\_19\_726.jpg



CN survey0000078/2021\_03\_25-13\_12\_58\_757.jpg



FH survey0000078/2021\_03\_25-13\_17\_52\_894.jpg







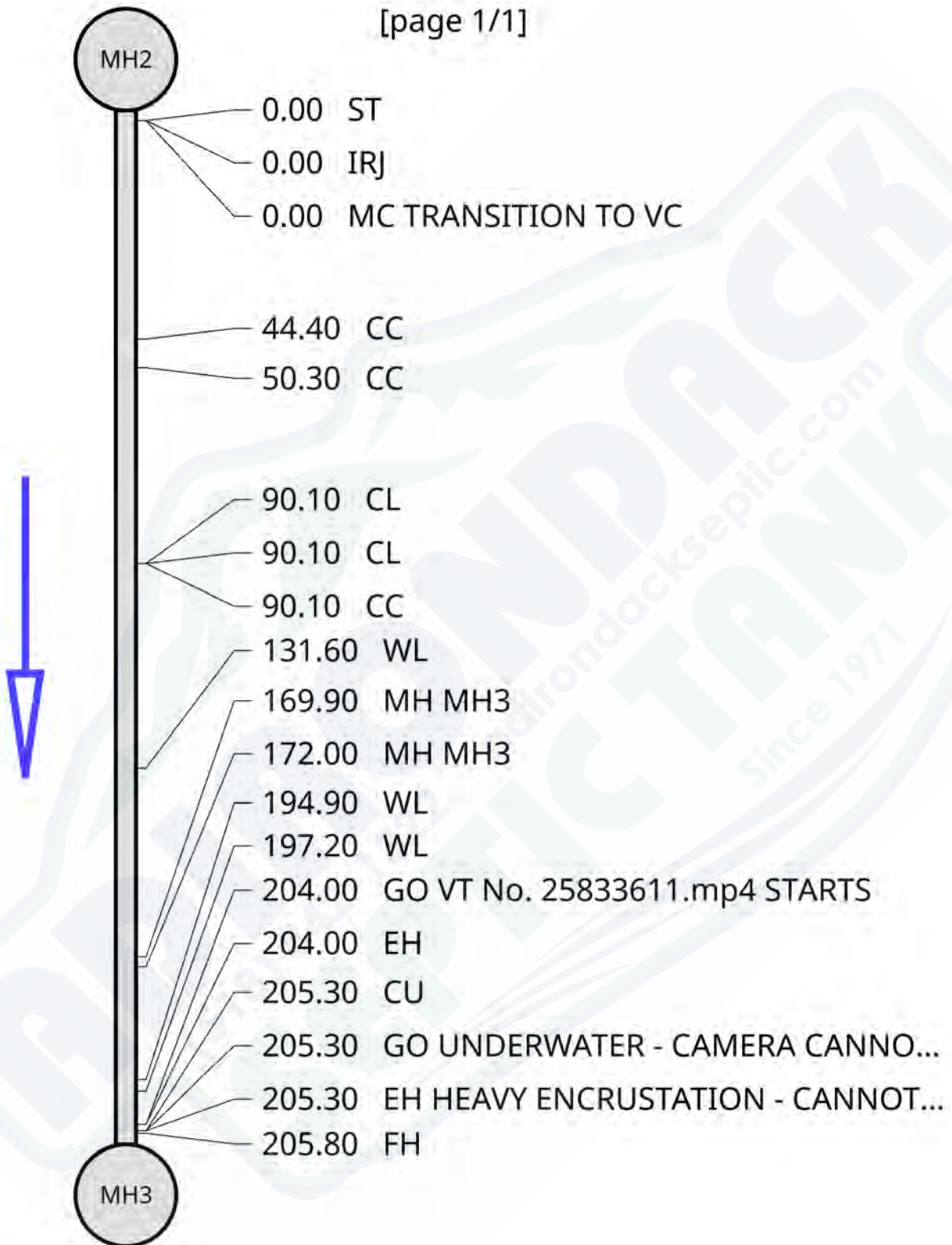
## 2 Drain / Sewer Survey

### 2.1 Survey Header

2.1.1	Surveyed by (Operator)	JZ/DZ
2.1.2	Contract no.	
2.1.3	Job no.	2
2.1.4	Catchment (Drainage area)	
2.1.5	Division	
2.1.6	District	
2.1.7	Pipeline length ref	--
2.1.8	Date	090721
2.1.9	Time	07:55
2.1.10	Location	BROADWAY HILL
2.1.11	Start manhole no.	MH2
2.1.12	Start depth	5'11"
2.1.13	Start cover level	
2.1.14	Start invert level	
2.1.15	Finish manhole no.	MH3
2.1.16	Finish depth	6'10"
2.1.17	Finish cover level	
2.1.18	Finish invert level	
2.1.19	Use of Drain	F
2.1.20	Direction	D
2.1.21	Size 1 (diameter/height)	8"
2.1.22	Size 2 (width)	8"
2.1.23	Shape	C
2.1.24	Material	PVC
2.1.25	Lining	
2.1.26	Pipe length	
2.1.27	Total length	205.8'
2.1.28	Year laid	
2.1.29	Video cassette number	
2.1.30	Comments: General	
2.1.31	Purpose	A
2.1.32	Sewer category	B
2.1.33	Pre-cleaning	N
2.1.34	Weather	1
2.1.35	Location code	B
2.1.36	Further location details	


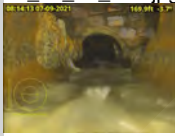

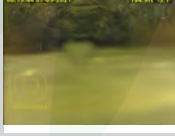
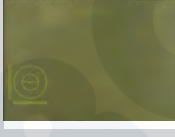



## 2.2 Diagram

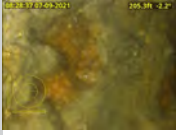

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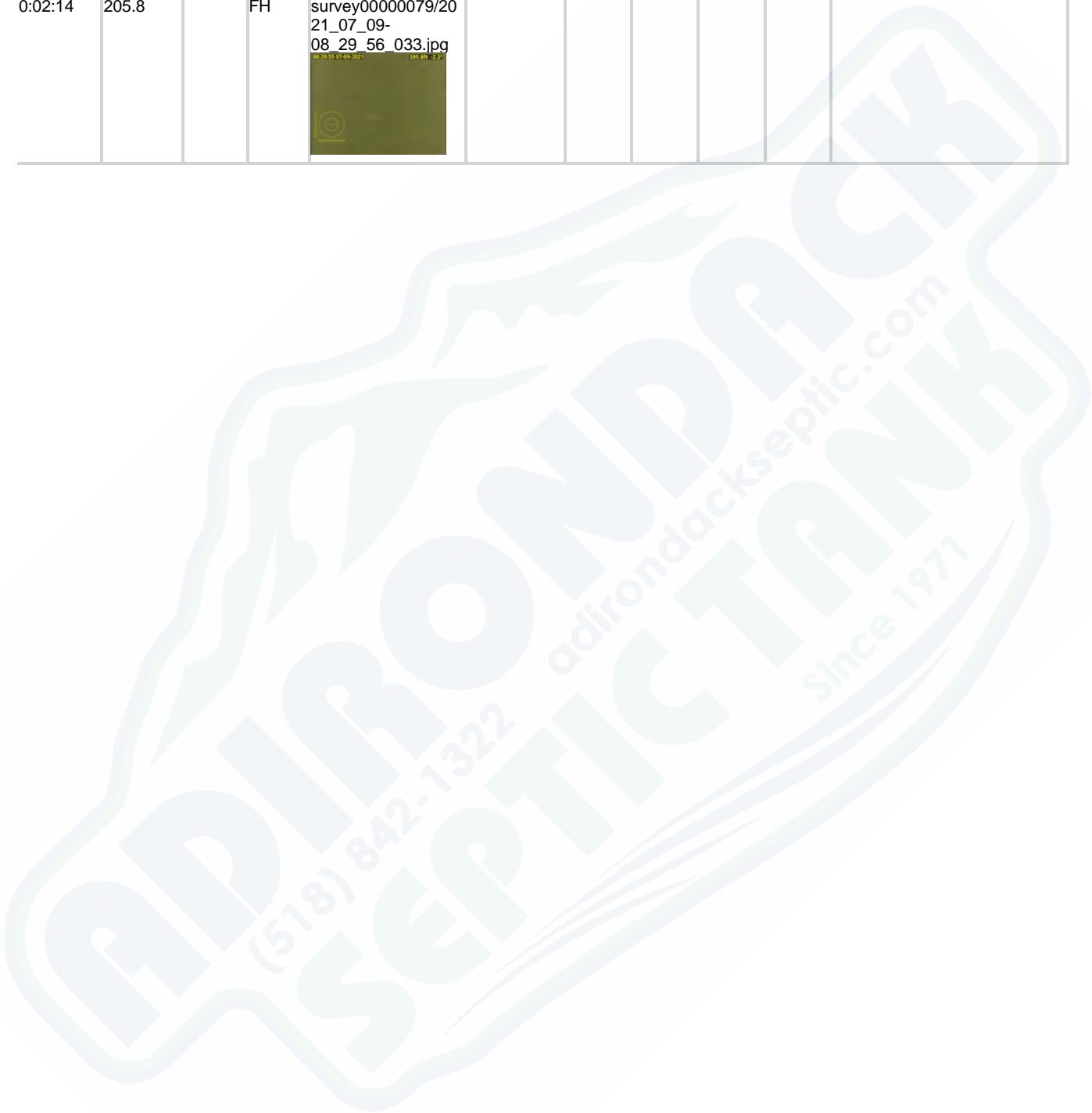


## 2.3 Observations

Video Ref	Dist (ft)	Cont Defect	Code	Photo Ref	Diameter/ Dimension	Clock		Intrusion		Remarks
						At	To	%	mm	
0:00:06	0.0		ST	survey00000079/20 21_07_09- 07_57_57_683.jpg 						
0:00:12	0.0		IRJ	survey00000079/20 21_07_09- 07_58_16_513.jpg 		10	11			
0:00:15	0.0		MC	survey00000079/20 21_07_09- 07_58_55_474.jpg 						TRANSITION TO VC
0:04:39	44.4		CC	survey00000079/20 21_07_09- 08_03_44_120.jpg 		01	05			
0:05:33	50.3		CC	survey00000079/20 21_07_09- 08_04_53_313.jpg 		03	10			
0:08:12	90.1		CL	survey00000079/20 21_07_09- 08_07_42_997.jpg 		11				
0:08:27	90.1		CL	survey00000079/20 21_07_09- 08_08_08_824.jpg 		11				
0:08:30	90.1		CC	survey00000079/20 21_07_09- 08_08_20_079.jpg 		03	05			
0:11:05	131.6		WL	survey00000079/20 21_07_09-				50%		

Video Ref	Dist (ft)	Cont Defect	Code	Photo Ref	Diameter/ Dimension	Clock		Intrusion		Remarks
						At	To	%	mm	
				08_11_15_672.jpg 						
0:13:54	169.9		MH	survey00000079/20 21_07_09- 08_14_13_957.jpg 						MH3
0:14:33	172.0		MH	survey00000079/20 21_07_09- 08_15_02_488.jpg 						MH3
0:19:03	194.9		WL	survey00000079/20 21_07_09- 08_19_44_938.jpg 				50%		
0:19:19	197.2		WL	survey00000079/20 21_07_09- 08_20_25_644.jpg 				>75%		
0:00:06	204.0		GO							VT No. 25833611.mp4 STARTS
0:00:29	204.0		EH	survey00000079/20 21_07_09- 08_27_20_199.jpg 		09	03			
0:21:05	205.3		CU	survey00000079/20 21_07_09- 08_22_33_022.jpg 						
0:21:05	205.3		GO	survey00000079/20 21_07_09- 08_22_52_812.jpg 						UNDERWATER - CAMERA CANNOT ADVANCE
0:01:27	205.3		EH	survey00000079/20 21_07_09- 08_28_37_125.jpg		12	12	-		HEAVY ENCRUSTATION - CANNOT ADVANCE

Video Ref	Dist (ft)	Cont Defect	Code	Photo Ref	Diameter/ Dimension	Clock		Intrusion		Remarks
						At	To	%	mm	
										
0:02:14	205.8		FH	survey00000079/20 21_07_09- 08_29_56_033.jpg 						



## 2.4 Photographs

ST survey0000079/2021\_07\_09-07\_57\_57\_683.jpg



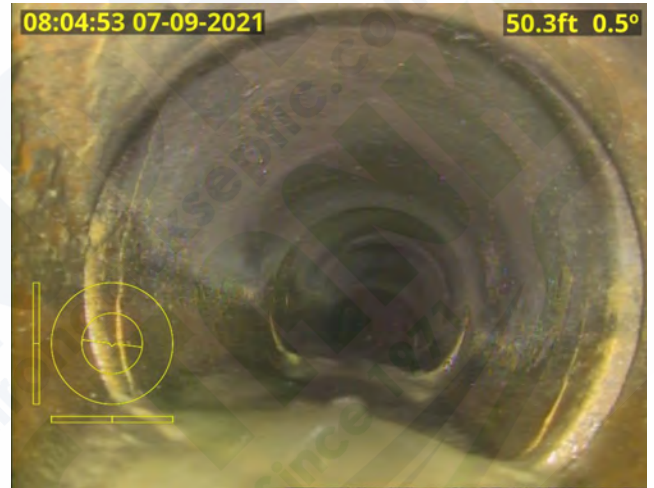
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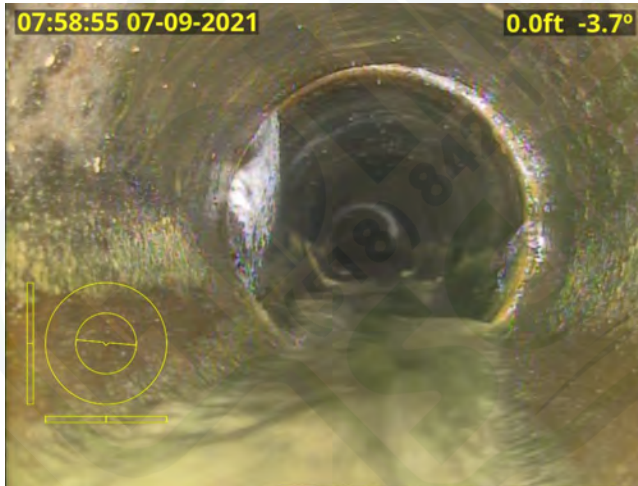
IRJ survey0000079/2021\_07\_09-07\_58\_16\_513.jpg



CC survey0000079/2021\_07\_09-08\_04\_53\_313.jpg



MC survey0000079/2021\_07\_09-07\_58\_55\_474.jpg



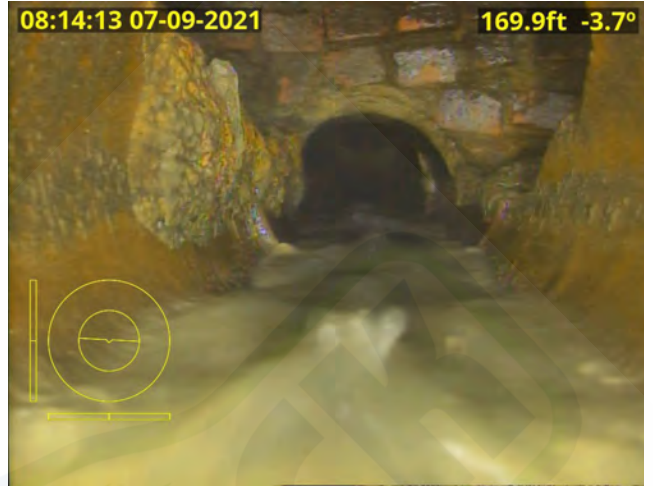
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CL survey00000079/2021\_07\_09-08\_08\_08\_824.jpg



MH survey00000079/2021\_07\_09-08\_14\_13\_957.jpg



CC survey00000079/2021\_07\_09-08\_08\_20\_079.jpg



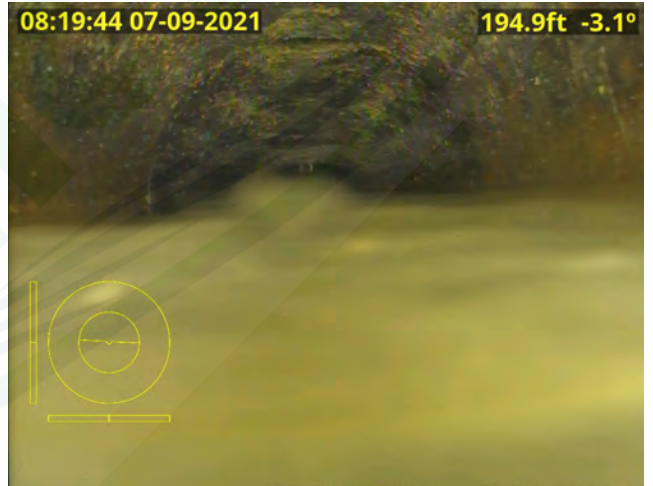
MH survey00000079/2021\_07\_09-08\_15\_02\_488.jpg



WL survey00000079/2021\_07\_09-08\_11\_15\_672.jpg



WL survey00000079/2021\_07\_09-08\_19\_44\_938.jpg



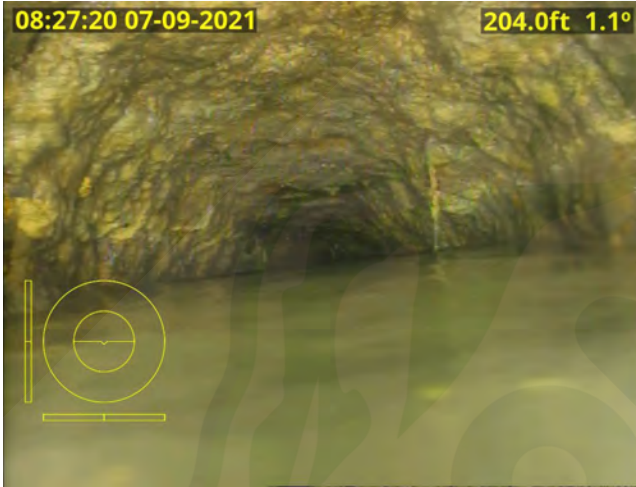
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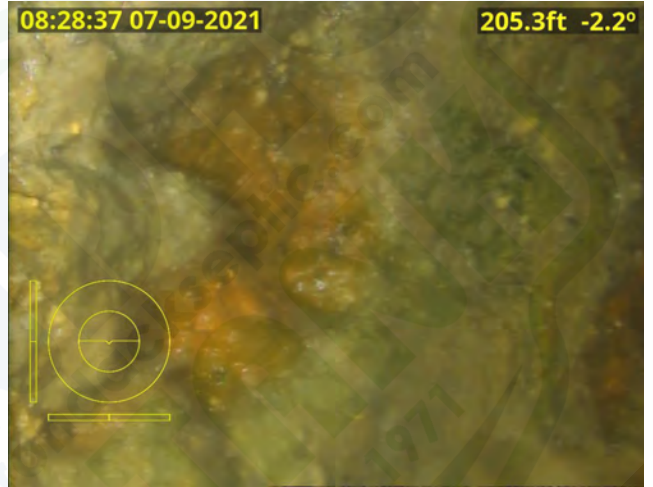
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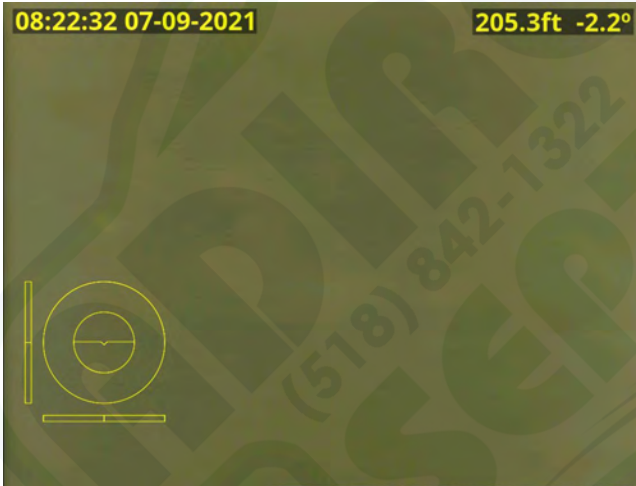
EH survey00000079/2021\_07\_09-08\_27\_20\_199.jpg



EH survey00000079/2021\_07\_09-08\_28\_37\_125.jpg



CU survey00000079/2021\_07\_09-08\_22\_33\_022.jpg



FH survey00000079/2021\_07\_09-08\_29\_56\_033.jpg







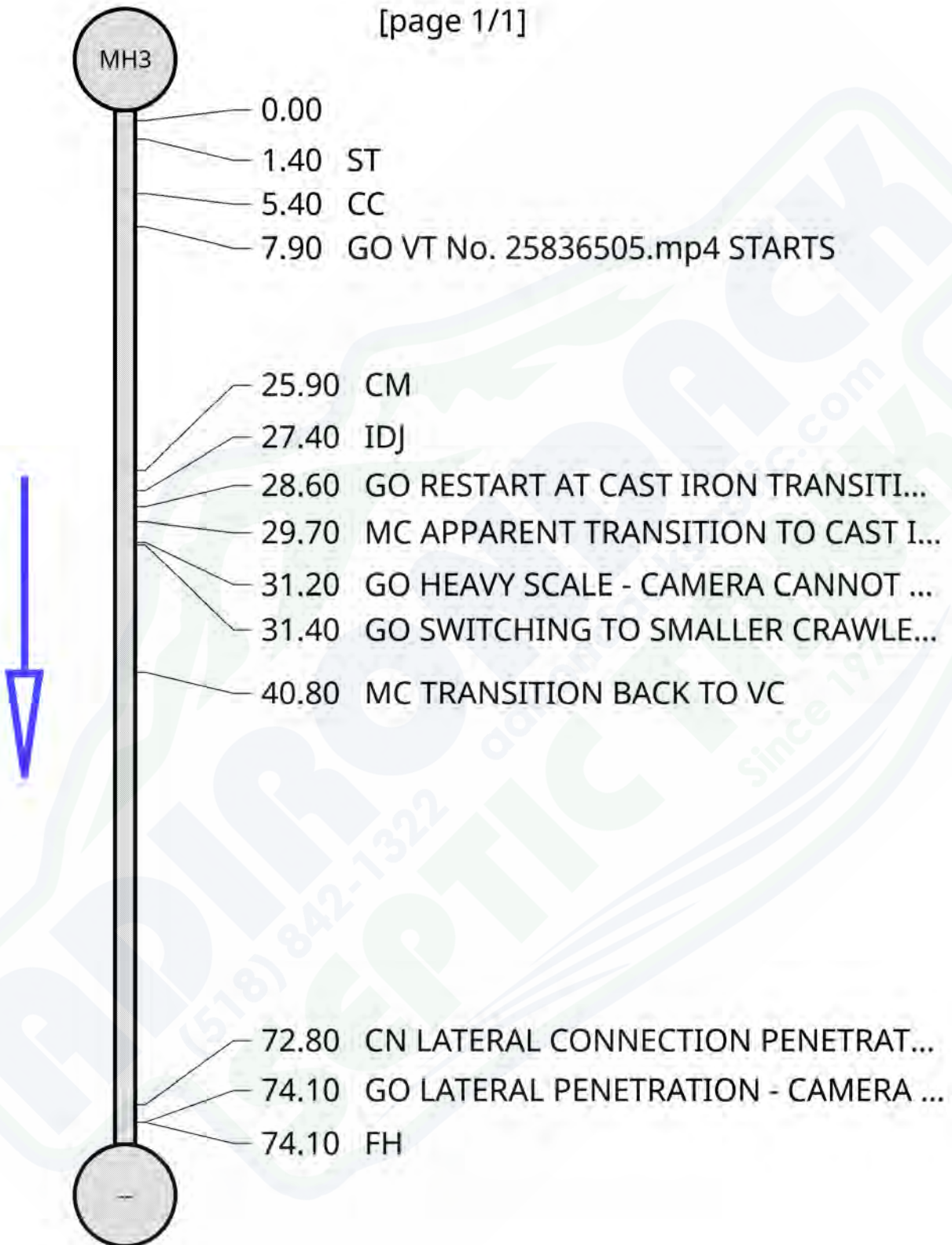
### 3 Drain / Sewer Survey

#### 3.1 Survey Header

3.1.1	Surveyed by (Operator)	JZ/DZ
3.1.2	Contract no.	
3.1.3	Job no.	3
3.1.4	Catchment (Drainage area)	
3.1.5	Division	
3.1.6	District	
3.1.7	Pipeline length ref	--
3.1.8	Date	090721
3.1.9	Time	08:45
3.1.10	Location	BROADWAY HILL
3.1.11	Start manhole no.	MH3
3.1.12	Start depth	6'10"
3.1.13	Start cover level	
3.1.14	Start invert level	
3.1.15	Finish manhole no.	--
3.1.16	Finish depth	--
3.1.17	Finish cover level	
3.1.18	Finish invert level	
3.1.19	Use of Drain	F
3.1.20	Direction	D
3.1.21	Size 1 (diameter/height)	8"
3.1.22	Size 2 (width)	8"
3.1.23	Shape	C
3.1.24	Material	VC
3.1.25	Lining	
3.1.26	Pipe length	
3.1.27	Total length	74.1'
3.1.28	Year laid	
3.1.29	Video cassette number	
3.1.30	Comments: General	
3.1.31	Purpose	A
3.1.32	Sewer category	B
3.1.33	Pre-cleaning	Y
3.1.34	Weather	1
3.1.35	Location code	C
3.1.36	Further location details	


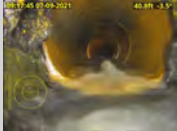
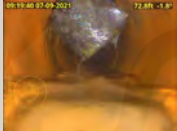

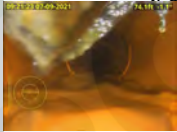
### 3.2 Diagram

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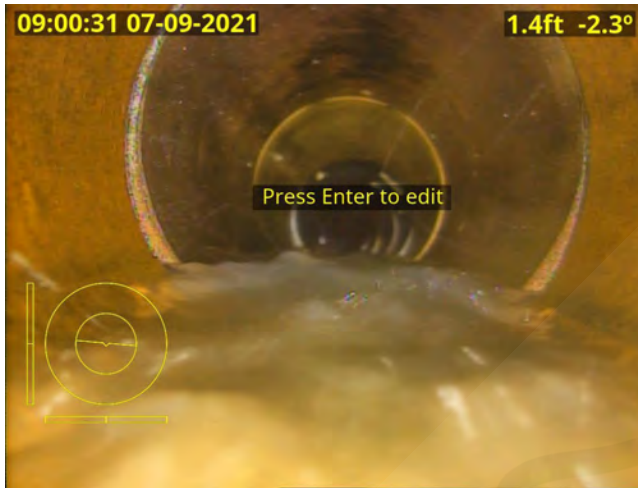
### 3.3 Observations

Video Ref	Dist (ft)	Cont Defect	Code	Photo Ref	Diameter/ Dimension	Clock		Intrusion		Remarks
						At	To	%	mm	
0:00:02	1.4		ST	survey00000086/20 21_07_09- 09_00_31_401.jpg 						
0:01:05	5.4		CC	survey00000086/20 21_07_09- 09_01_41_594.jpg 		08	11			
0:00:03	7.9		GO							VT No. 25836505.mp4 STARTS
0:02:35	25.9		CM	survey00000086/20 21_07_09- 09_03_23_773.jpg 		08	12			
0:02:49	27.4		IDJ	survey00000086/20 21_07_09- 09_03_48_462.jpg 		09	11			
0:01:28	28.6		GO	survey00000086/20 21_07_09- 09_16_32_636.jpg 						RESTART AT CAST IRON TRANSITION
0:03:36	29.7		MC	survey00000086/20 21_07_09- 09_04_53_044.jpg 						APPARENT TRANSITION TO CAST IRON
0:05:33	31.2		GO	survey00000086/20 21_07_09- 09_07_06_196.jpg 						HEAVY SCALE - CAMERA CANNOT ADVANCE
0:05:47	31.4		GO	survey00000086/20 21_07_09- 09_07_37_840.jpg						SWITCHING TO SMALLER CRAWLER BODY

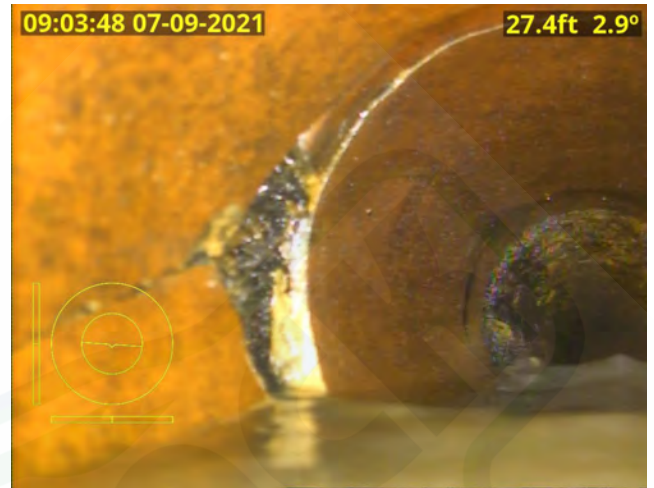
Video Ref	Dist (ft)	Cont Defect	Code	Photo Ref	Diameter/ Dimension	Clock		Intrusion		Remarks
						At	To	%	mm	
										
0:02:15	40.8		MC	survey00000086/20 21_07_09- 09_17_45_190.jpg 						TRANSITION BACK TO VC
0:04:00	72.8		CN	survey00000086/20 21_07_09- 09_19_40_935.jpg 	4"	11				LATERAL CONNECTION PENETRATED INTO SEWER MAIN BLOCKING APPROX. 50%
0:04:13	74.1		GO	survey00000086/20 21_07_09- 09_20_58_956.jpg 						LATERAL PENETRATION - CAMERA CANNOT ADVANCE
0:04:15	74.1		FH	survey00000086/20 21_07_09- 09_21_23_667.jpg 						

### 3.4 Photographs

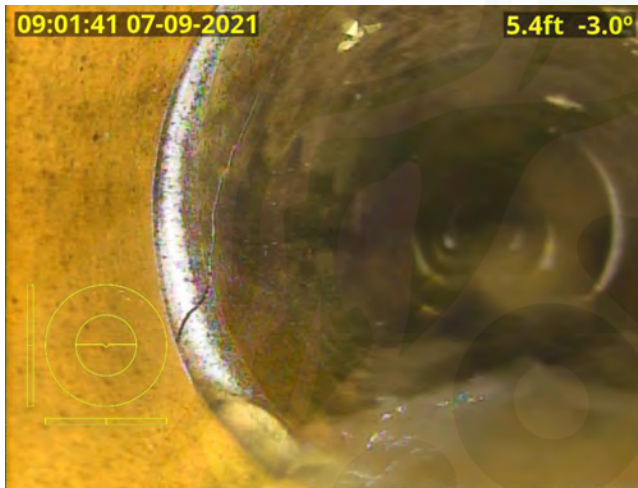
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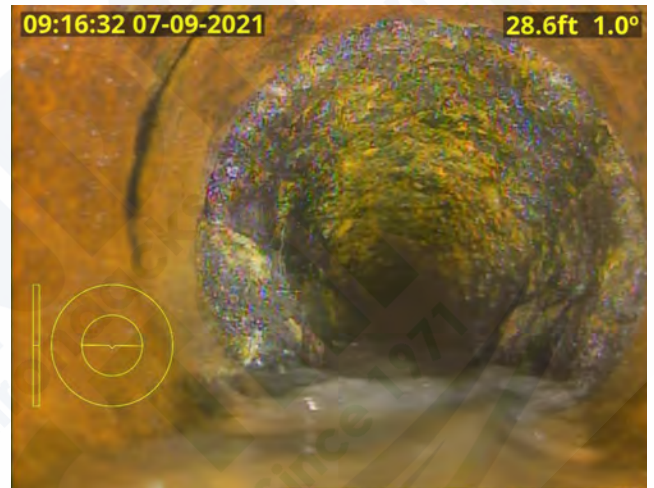
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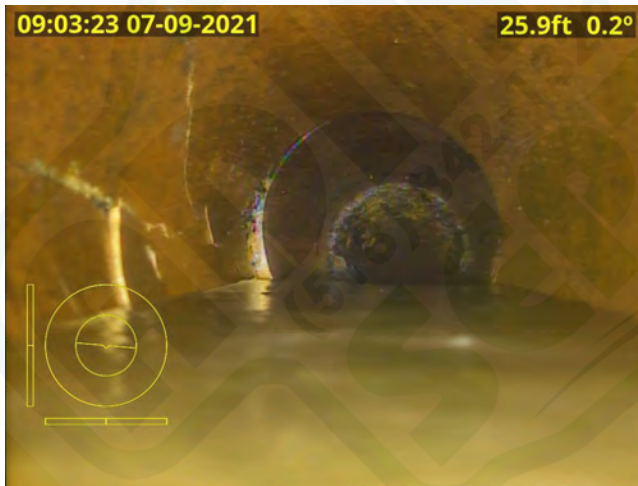
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GO survey0000086/2021\_07\_09-09\_16\_32\_636.jpg



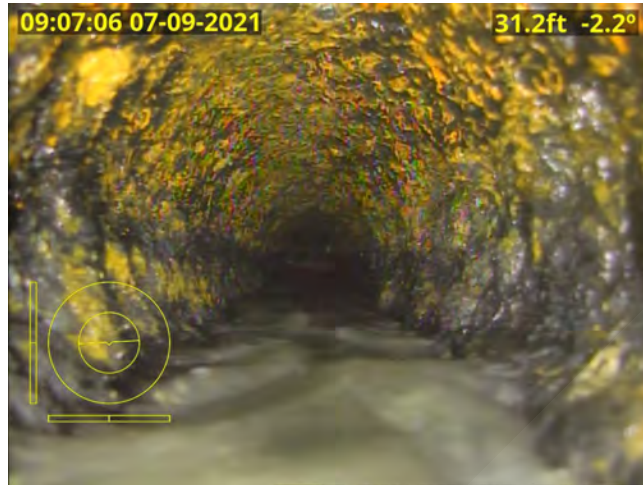
CM survey0000086/2021\_07\_09-09\_03\_23\_773.jpg



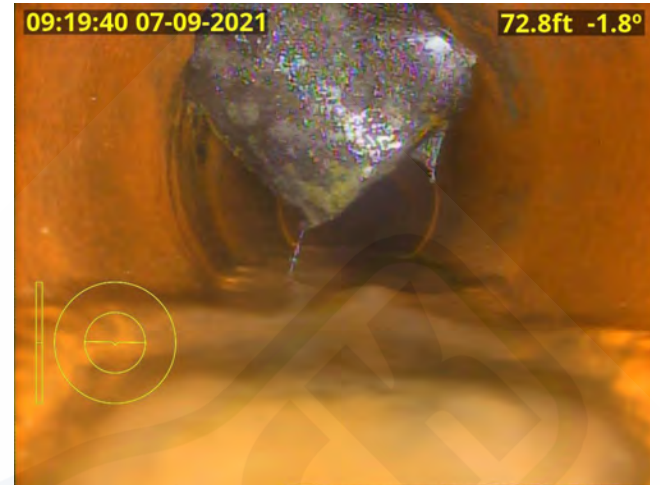
MC survey0000086/2021\_07\_09-09\_04\_53\_044.jpg



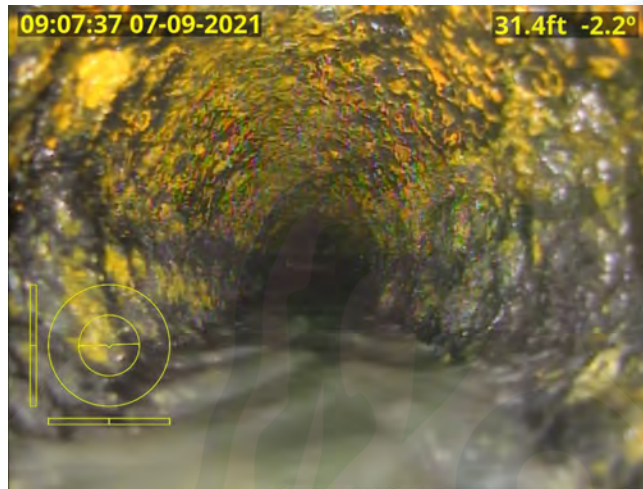
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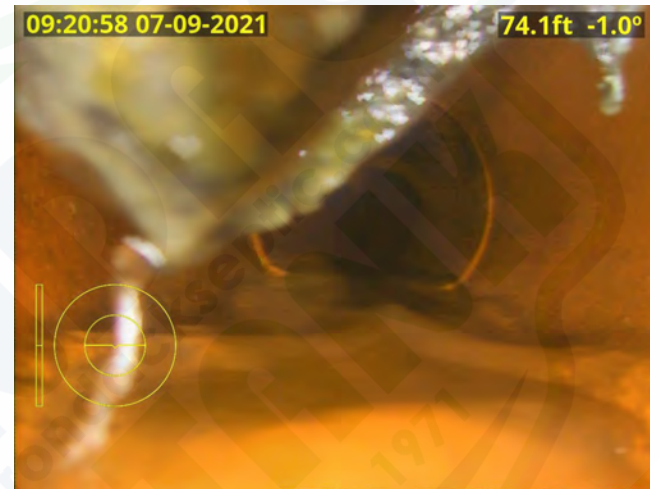
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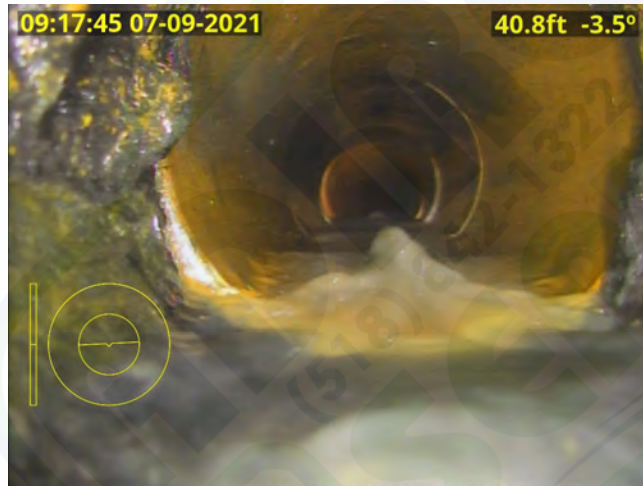
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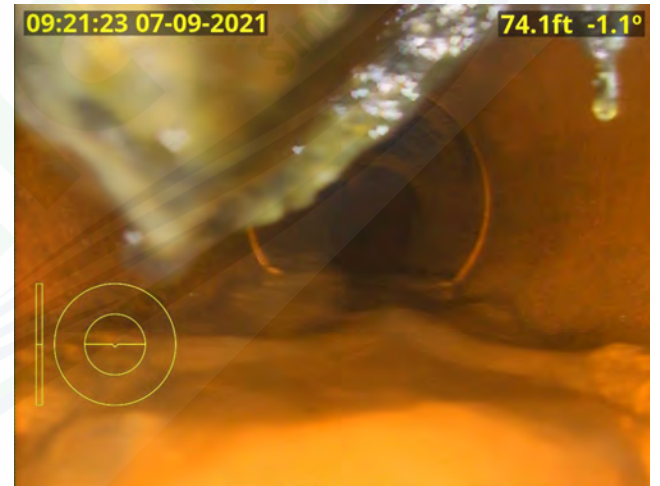
GO survey00000086/2021\_07\_09-09\_20\_58\_956.jpg



MC survey00000086/2021\_07\_09-09\_17\_45\_190.jpg



FH survey00000086/2021\_07\_09-09\_21\_23\_667.jpg







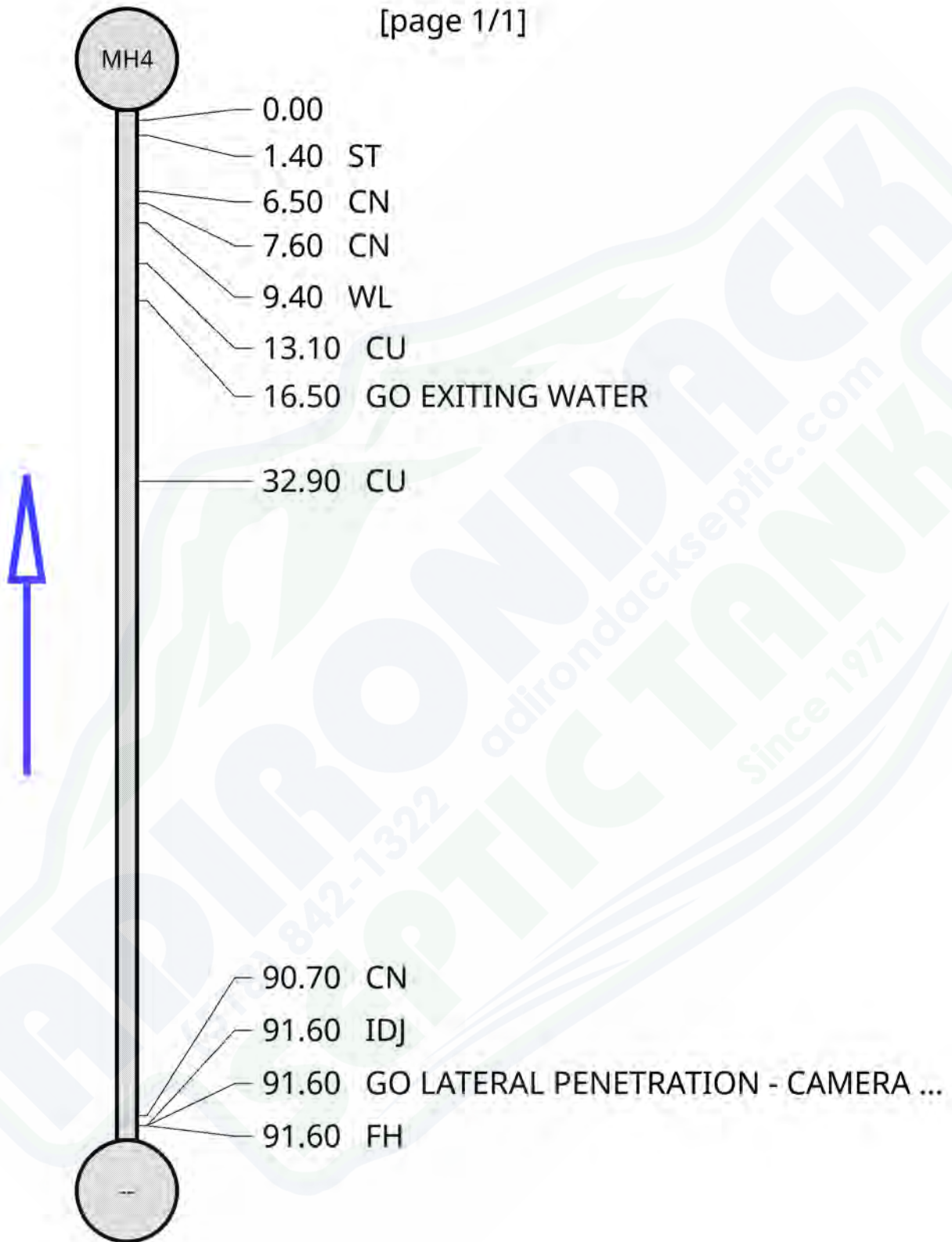
## 4 Drain / Sewer Survey

### 4.1 Survey Header

4.1.1	Surveyed by (Operator)	JZ/DZ
4.1.2	Contract no.	
4.1.3	Job no.	4
4.1.4	Catchment (Drainage area)	
4.1.5	Division	
4.1.6	District	
4.1.7	Pipeline length ref	--
4.1.8	Date	090721
4.1.9	Time	09:35
4.1.10	Location	BROADWAY HILL
4.1.11	Start manhole no.	MH4
4.1.12	Start depth	6'6"
4.1.13	Start cover level	
4.1.14	Start invert level	
4.1.15	Finish manhole no.	--
4.1.16	Finish depth	--
4.1.17	Finish cover level	
4.1.18	Finish invert level	
4.1.19	Use of Drain	F
4.1.20	Direction	U
4.1.21	Size 1 (diameter/height)	8"
4.1.22	Size 2 (width)	8"
4.1.23	Shape	C
4.1.24	Material	VC
4.1.25	Lining	
4.1.26	Pipe length	
4.1.27	Total length	91.6'
4.1.28	Year laid	
4.1.29	Video cassette number	
4.1.30	Comments: General	
4.1.31	Purpose	A
4.1.32	Sewer category	B
4.1.33	Pre-cleaning	Y
4.1.34	Weather	1
4.1.35	Location code	C
4.1.36	Further location details	

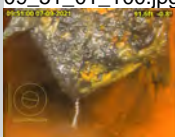


4.2 Diagram

[page 1/1]



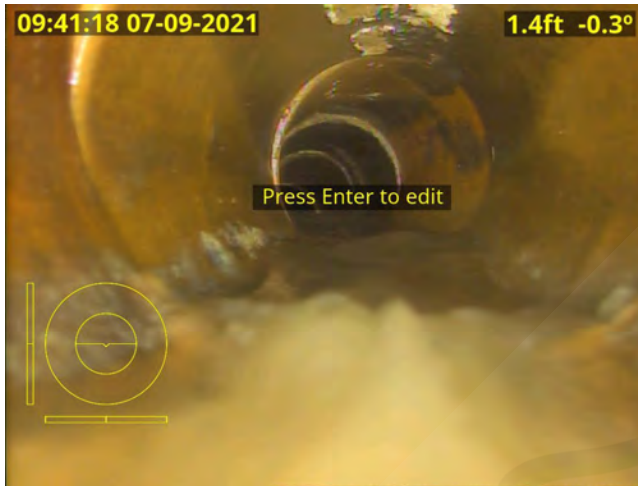
### 4.3 Observations

Video Ref	Dist (ft)	Cont Defect	Code	Photo Ref	Diameter/ Dimension	Clock		Intrusion		Remarks
						At	To	%	mm	
0:00:02	1.4		ST	survey00000087/20 21_07_09- 09_41_18_932.jpg 						
0:00:36	6.5		CN	survey00000087/20 21_07_09- 09_41_58_820.jpg 	4"	02				
0:00:53	7.6		CN	survey00000087/20 21_07_09- 09_42_36_426.jpg 	4"	12				
0:01:23	9.4		WL	survey00000087/20 21_07_09- 09_43_21_520.jpg 				50%		
0:01:53	13.1		CU	survey00000087/20 21_07_09- 09_43_59_848.jpg 						
0:03:05	16.5		GO	survey00000087/20 21_07_09- 09_45_17_291.jpg 						EXITING WATER
0:04:12	32.9		CU	survey00000087/20 21_07_09- 09_46_38_702.jpg 						
0:07:50	90.7		CN	survey00000087/20 21_07_09- 09_50_21_984.jpg 	4"	01				
0:08:13	91.6		IDJ	survey00000087/20 21_07_09-		11	03			

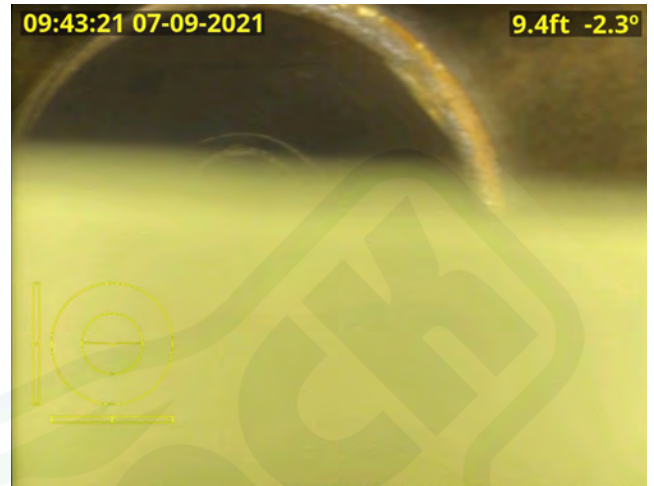
Video Ref	Dist (ft)	Cont Defect	Code	Photo Ref	Diameter/ Dimension	Clock		Intrusion		Remarks
						At	To	%	mm	
				09_51_01_100.jpg 						
0:08:22	91.6		GO	survey00000087/20 21_07_09- 09_51_48_614.jpg 						LATERAL PENETRATION - CAMERA CANNOT ADVANCE
0:08:29	91.6		FH	survey00000087/20 21_07_09- 09_52_24_703.jpg 						

## 4.4 Photographs

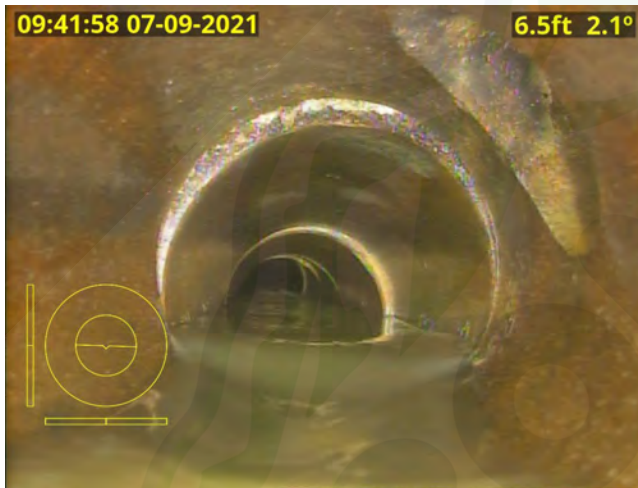
ST survey0000087/2021\_07\_09-09\_41\_18\_932.jpg



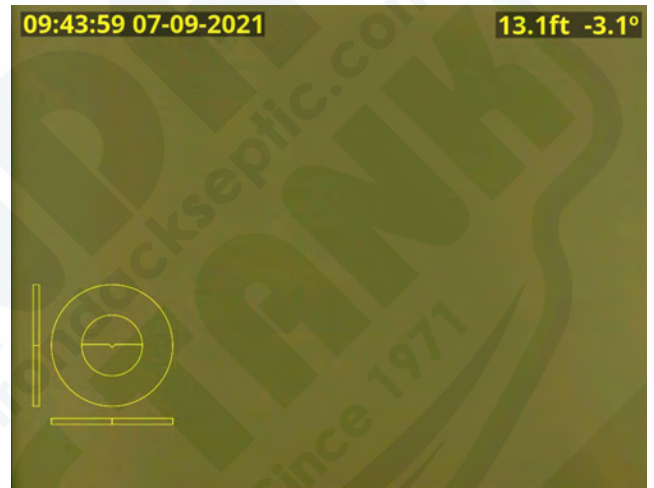
WL survey0000087/2021\_07\_09-09\_43\_21\_520.jpg



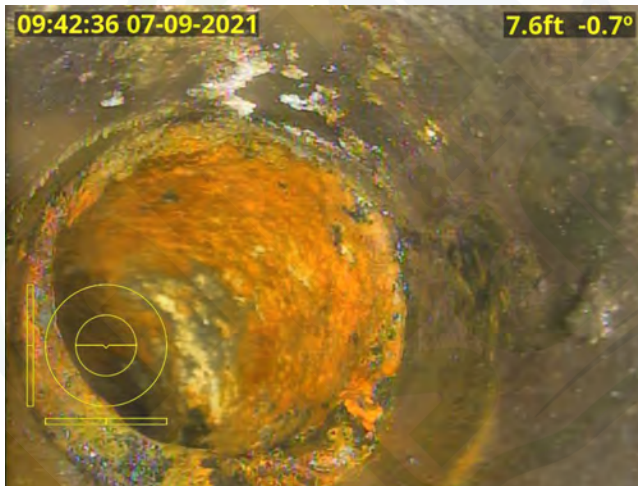
CN survey0000087/2021\_07\_09-09\_41\_58\_820.jpg



CU survey0000087/2021\_07\_09-09\_43\_59\_848.jpg



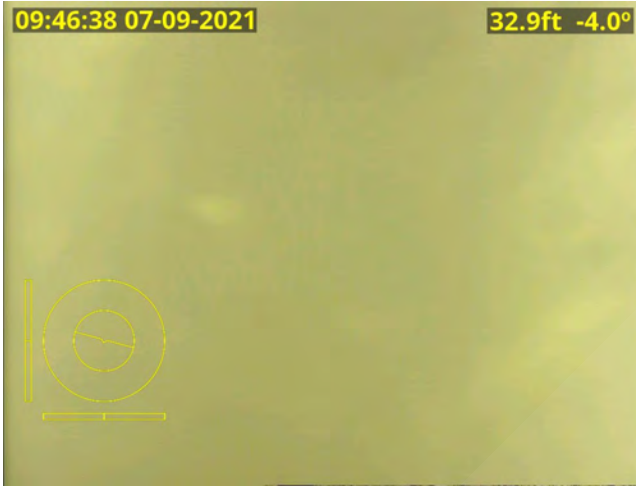
CN survey0000087/2021\_07\_09-09\_42\_36\_426.jpg



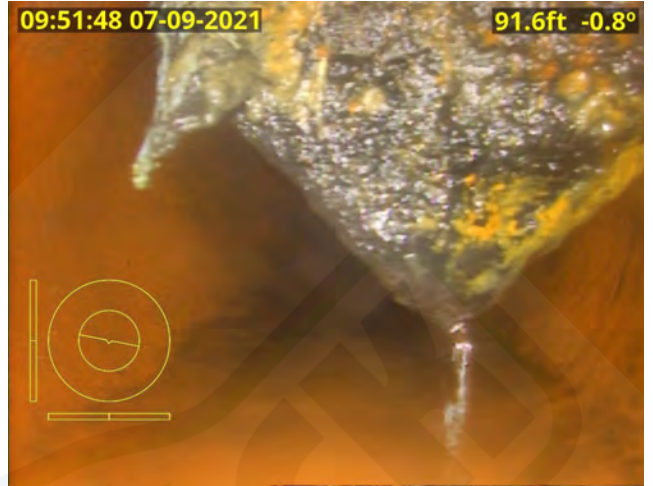
GO survey0000087/2021\_07\_09-09\_45\_17\_291.jpg



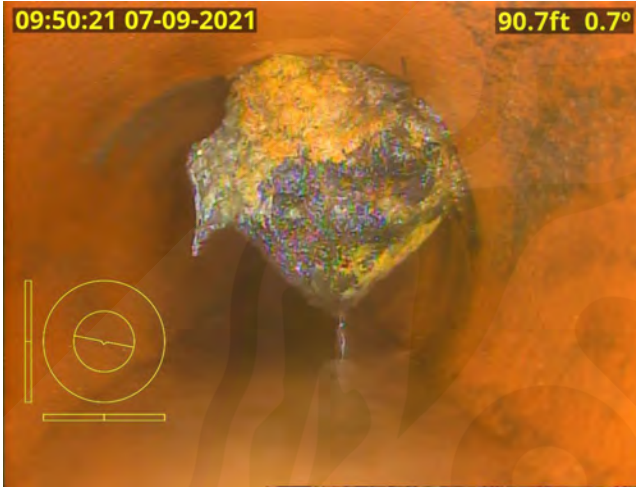
CU survey00000087/2021\_07\_09-09\_46\_38\_702.jpg



GO survey00000087/2021\_07\_09-09\_51\_48\_614.jpg



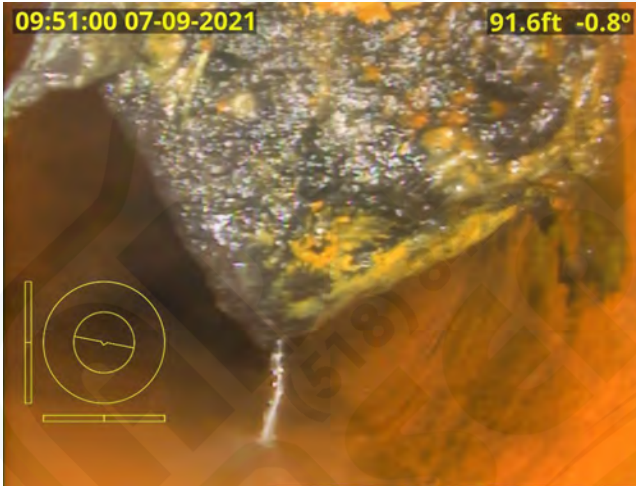
CN survey00000087/2021\_07\_09-09\_50\_21\_984.jpg



FH survey00000087/2021\_07\_09-09\_52\_24\_703.jpg



IDJ survey00000087/2021\_07\_09-09\_51\_01\_100.jpg





## 5 Drain / Sewer Survey

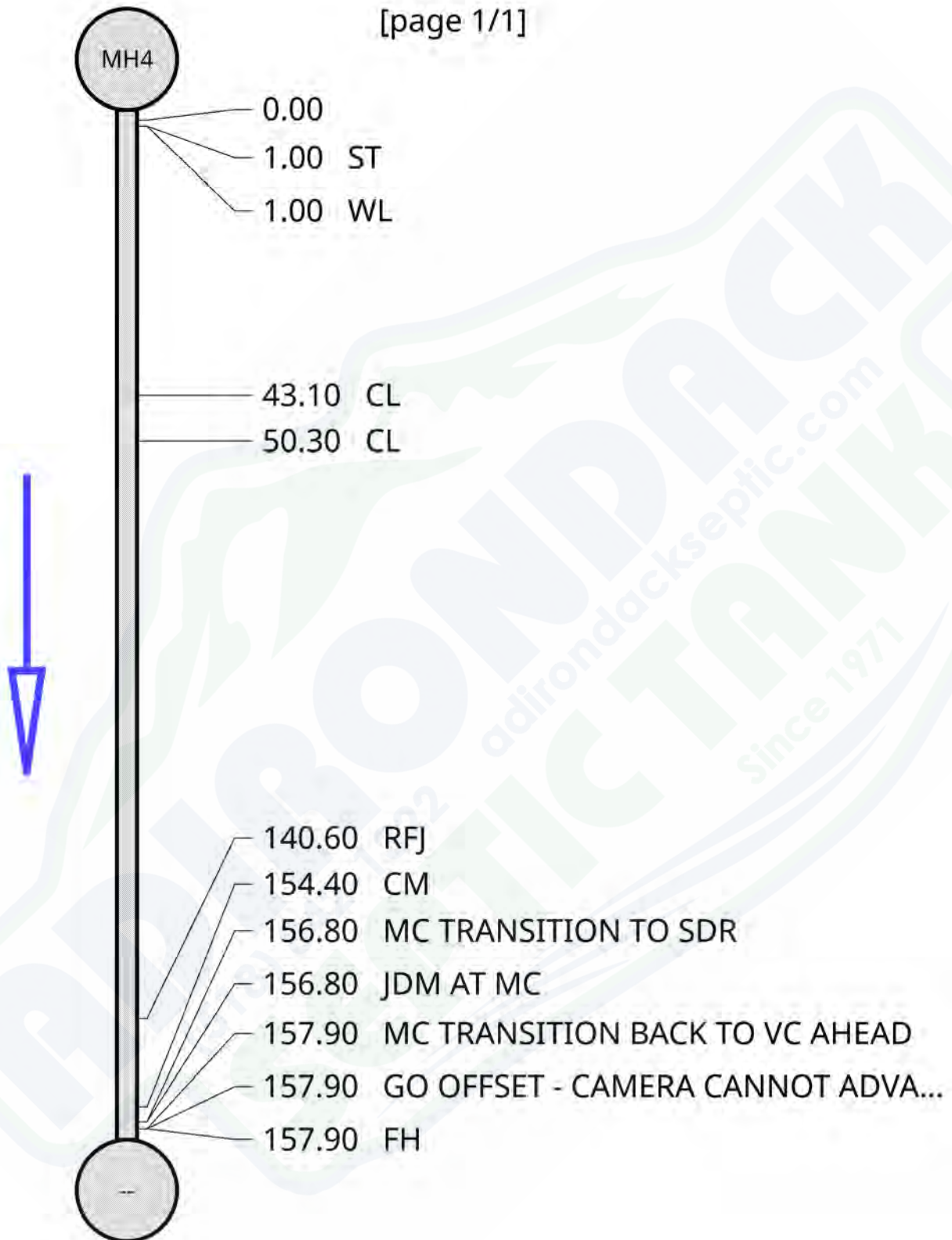
### 5.1 Survey Header

5.1.1	Surveyed by (Operator)	JZ/DZ
5.1.2	Contract no.	
5.1.3	Job no.	5
5.1.4	Catchment (Drainage area)	
5.1.5	Division	
5.1.6	District	
5.1.7	Pipeline length ref	--
5.1.8	Date	090721
5.1.9	Time	09:57
5.1.10	Location	
5.1.11	Start manhole no.	MH4
5.1.12	Start depth	6'6"
5.1.13	Start cover level	
5.1.14	Start invert level	
5.1.15	Finish manhole no.	--
5.1.16	Finish depth	--
5.1.17	Finish cover level	
5.1.18	Finish invert level	
5.1.19	Use of Drain	F
5.1.20	Direction	D
5.1.21	Size 1 (diameter/height)	8"
5.1.22	Size 2 (width)	8"
5.1.23	Shape	C
5.1.24	Material	VC
5.1.25	Lining	
5.1.26	Pipe length	
5.1.27	Total length	157.9'
5.1.28	Year laid	
5.1.29	Video cassette number	
5.1.30	Comments: General	
5.1.31	Purpose	A
5.1.32	Sewer category	B
5.1.33	Pre-cleaning	Y
5.1.34	Weather	1
5.1.35	Location code	C
5.1.36	Further location details	






5.2 Diagram

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### 5.3 Observations

Video Ref	Dist (ft)	Cont Defect	Code	Photo Ref	Diameter/ Dimension	Clock		Intrusion		Remarks
						At	To	%	mm	
0:00:03	1.0		ST	survey00000088/20 21_07_09- 09_59_46_133.jpg 						
0:00:13	1.0		WL	survey00000088/20 21_07_09- 10_00_02_343.jpg 				50%		
0:05:00	43.1		CL	survey00000088/20 21_07_09- 10_04_57_326.jpg 		12				
0:05:56	50.3		CL	survey00000088/20 21_07_09- 10_05_59_206.jpg 		03				
0:10:32	140.6		RFJ	survey00000088/20 21_07_09- 10_10_43_383.jpg 						
0:11:20	154.4		CM	survey00000088/20 21_07_09- 10_11_37_346.jpg 		11	01			
0:12:21	156.8		MC	survey00000088/20 21_07_09- 10_12_51_903.jpg 						TRANSITION TO SDR
0:12:24	156.8		JDM	survey00000088/20 21_07_09- 10_13_05_261.jpg 						AT MC
0:12:55	157.9		MC	survey00000088/20 21_07_09-						TRANSITION BACK TO VC

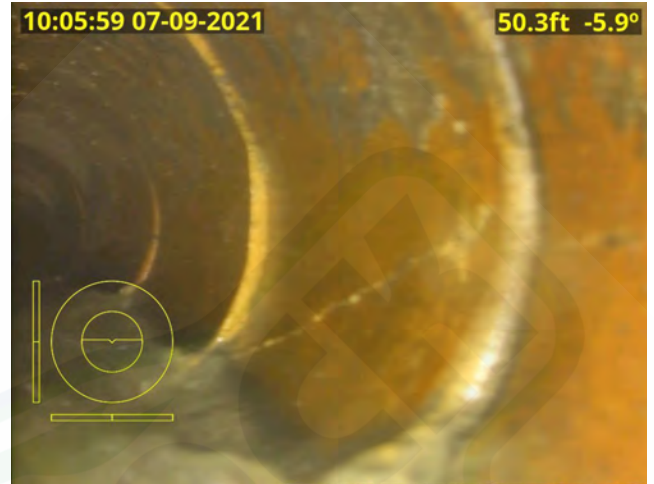
Video Ref	Dist (ft)	Cont Defect	Code	Photo Ref	Diameter/ Dimension	Clock		Intrusion		Remarks
						At	To	%	mm	
				10_13_47_290.jpg 						AHEAD
0:13:05	157.9		GO	survey00000088/20 21_07_09- 10_15_05_612.jpg 						OFFSET - CAMERA CANNOT ADVANCE
0:13:05	157.9		FH	survey00000088/20 21_07_09- 10_15_26_533.jpg 						

## 5.4 Photographs

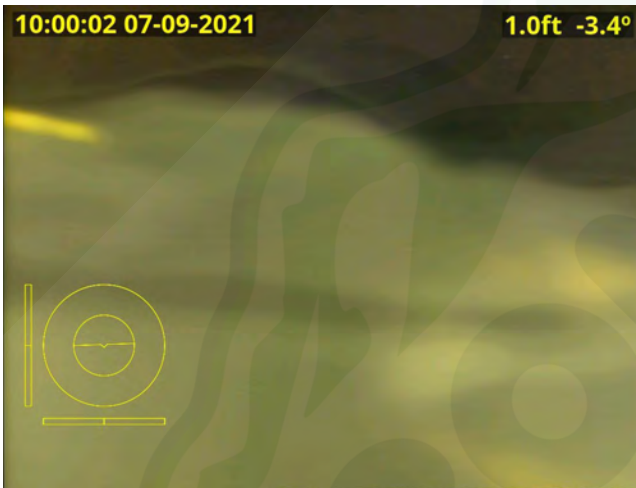
ST survey0000088/2021\_07\_09-09\_59\_46\_133.jpg



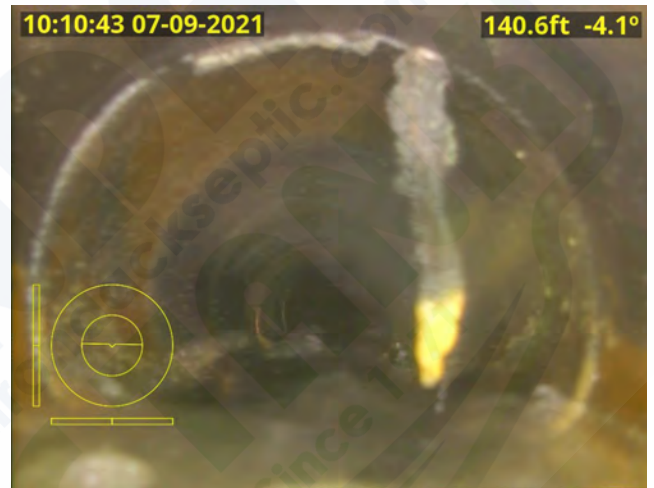
CL survey0000088/2021\_07\_09-10\_05\_59\_206.jpg



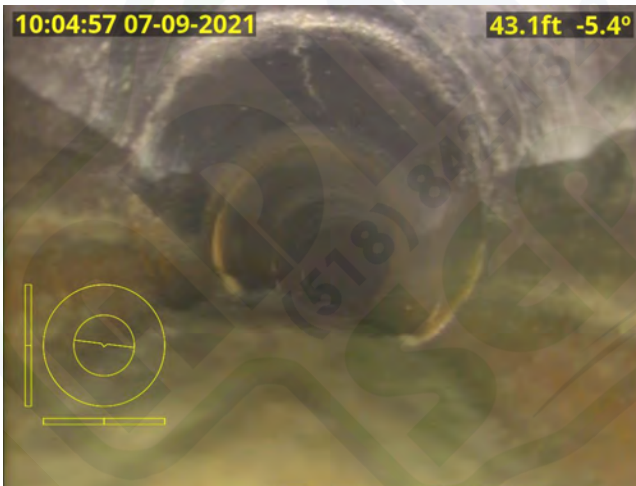
WL survey0000088/2021\_07\_09-10\_00\_02\_343.jpg



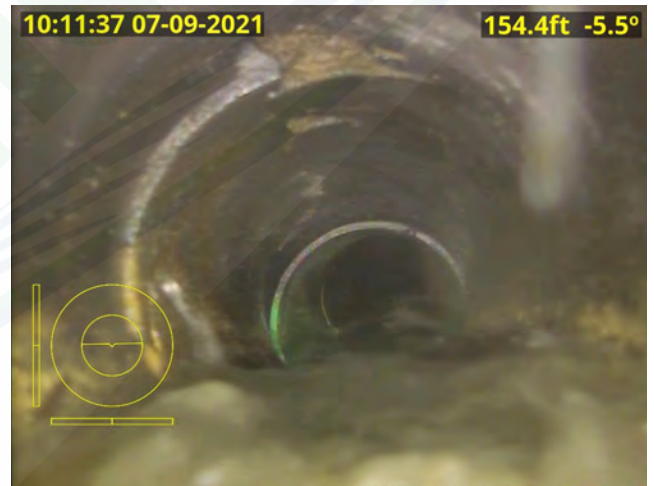
RFJ survey0000088/2021\_07\_09-10\_10\_43\_383.jpg



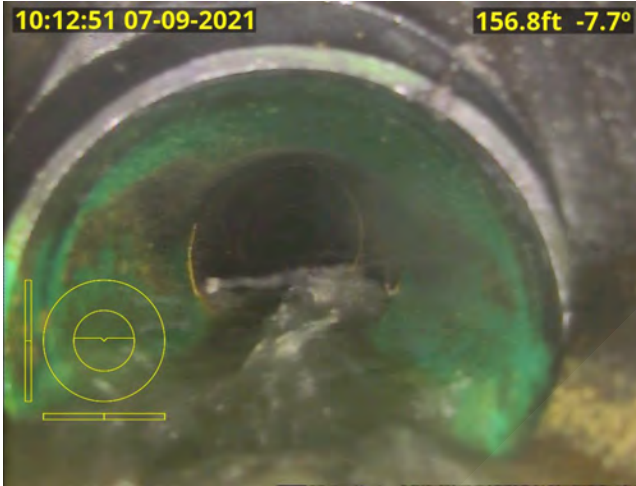
CL survey0000088/2021\_07\_09-10\_04\_57\_326.jpg



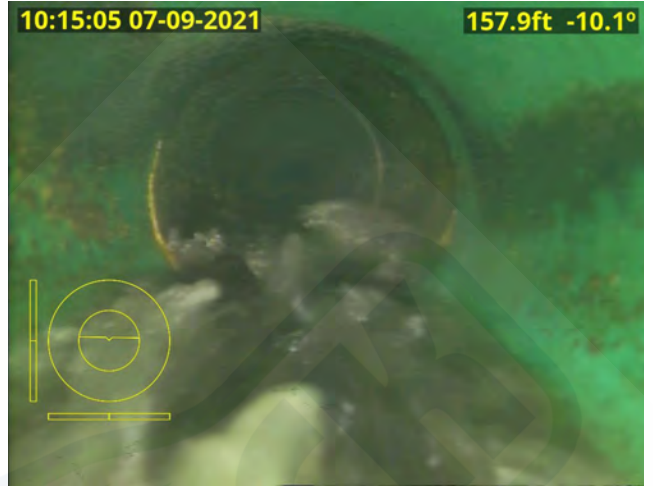
CM survey0000088/2021\_07\_09-10\_11\_37\_346.jpg



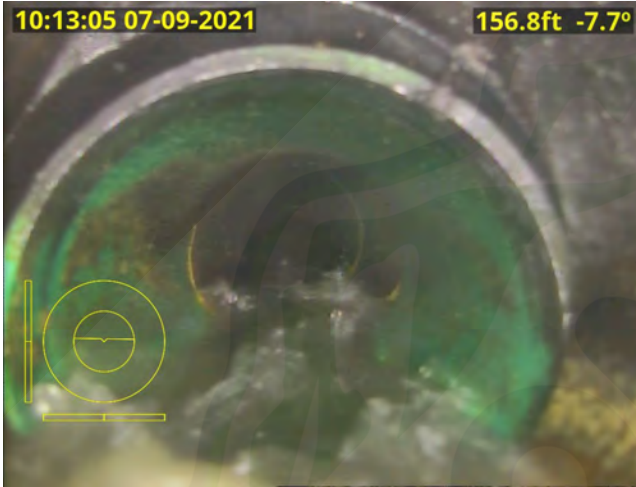
MC survey0000088/2021\_07\_09-10\_12\_51\_903.jpg



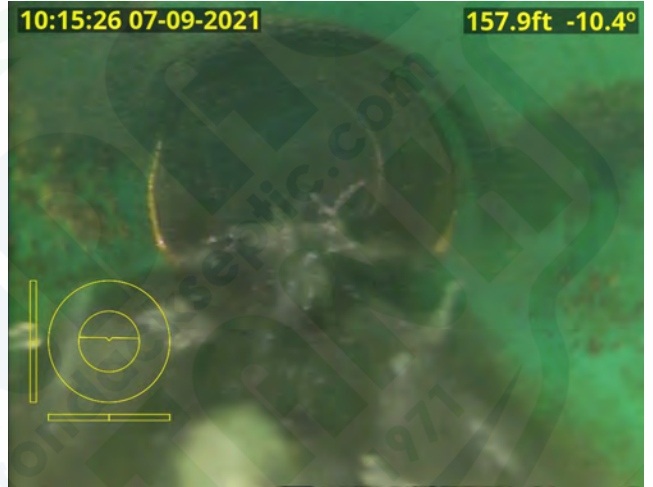
GO survey0000088/2021\_07\_09-10\_15\_05\_612.jpg



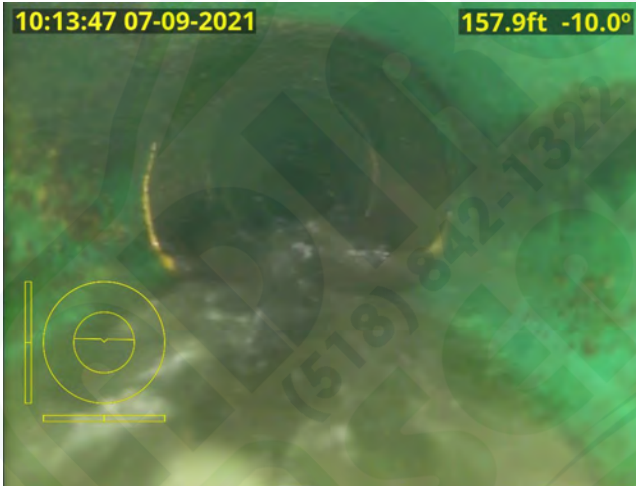
JDM survey0000088/2021\_07\_09-10\_13\_05\_261.jpg



FH survey0000088/2021\_07\_09-10\_15\_26\_533.jpg



MC survey0000088/2021\_07\_09-10\_13\_47\_290.jpg



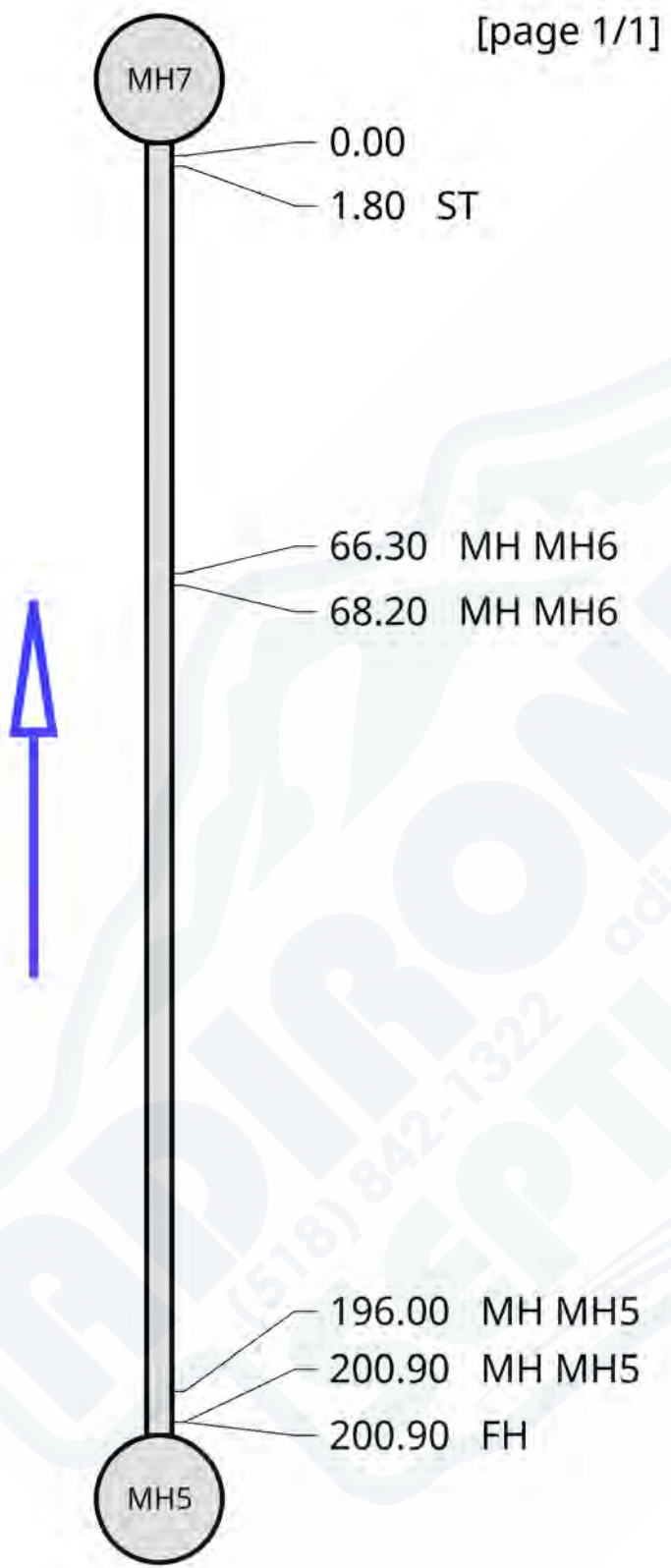


## 6 Drain / Sewer Survey

### 6.1 Survey Header

6.1.1	Surveyed by (Operator)	JZ/DZ
6.1.2	Contract no.	
6.1.3	Job no.	5
6.1.4	Catchment (Drainage area)	
6.1.5	Division	
6.1.6	District	
6.1.7	Pipeline length ref	--
6.1.8	Date	090721
6.1.9	Time	10:29
6.1.10	Location	BROADWAY HILL
6.1.11	Start manhole no.	MH7
6.1.12	Start depth	6'4"
6.1.13	Start cover level	
6.1.14	Start invert level	
6.1.15	Finish manhole no.	MH5
6.1.16	Finish depth	5'03"
6.1.17	Finish cover level	
6.1.18	Finish invert level	
6.1.19	Use of Drain	F
6.1.20	Direction	U
6.1.21	Size 1 (diameter/height)	8"
6.1.22	Size 2 (width)	8"
6.1.23	Shape	C
6.1.24	Material	VC
6.1.25	Lining	
6.1.26	Pipe length	
6.1.27	Total length	200.9
6.1.28	Year laid	
6.1.29	Video cassette number	
6.1.30	Comments: General	
6.1.31	Purpose	A
6.1.32	Sewer category	B
6.1.33	Pre-cleaning	Y
6.1.34	Weather	1
6.1.35	Location code	C
6.1.36	Further location details	

6.2 Diagram



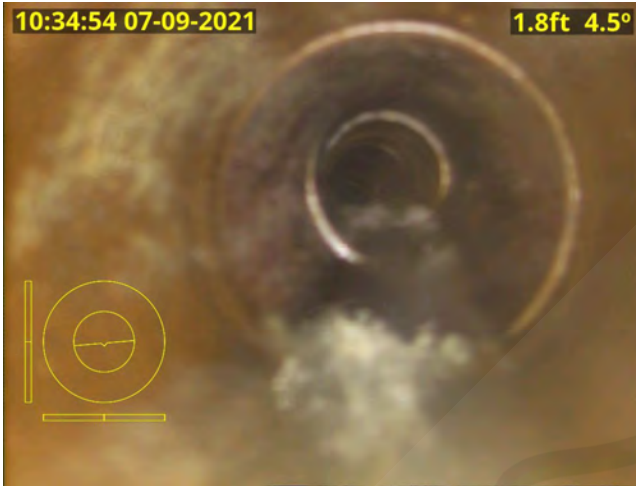


### 6.3 Observations

Video Ref	Dist (ft)	Cont Defect	Code	Photo Ref	Diameter/ Dimension	Clock		Intrusion		Remarks
						At	To	%	mm	
0:00:06	1.8		ST	survey00000089/20 21_07_09- 10_34_54_731.jpg 						
0:03:03	66.3		MH	survey00000089/20 21_07_09- 10_37_59_399.jpg 						MH6
0:04:08	68.2		MH	survey00000089/20 21_07_09- 10_39_23_478.jpg 						MH6
0:10:16	196.0		MH	survey00000089/20 21_07_09- 11_07_58_851.jpg 						MH5
0:10:40	200.9		MH	survey00000089/20 21_07_09- 11_08_48_791.jpg 						MH5
0:10:56	200.9		FH	survey00000089/20 21_07_09- 11_09_20_748.jpg 						

## 6.4 Photographs

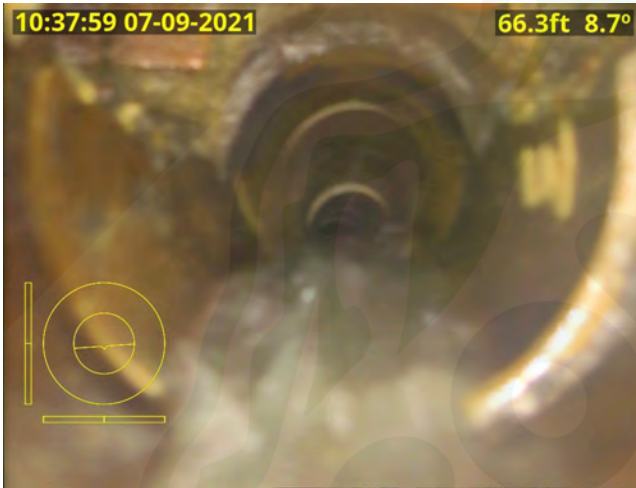
ST survey00000089/2021\_07\_09-10\_34\_54\_731.jpg



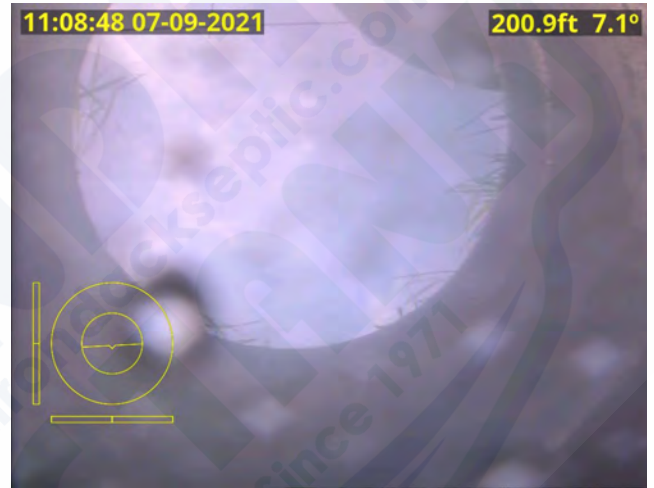
MH survey00000089/2021\_07\_09-11\_07\_58\_851.jpg



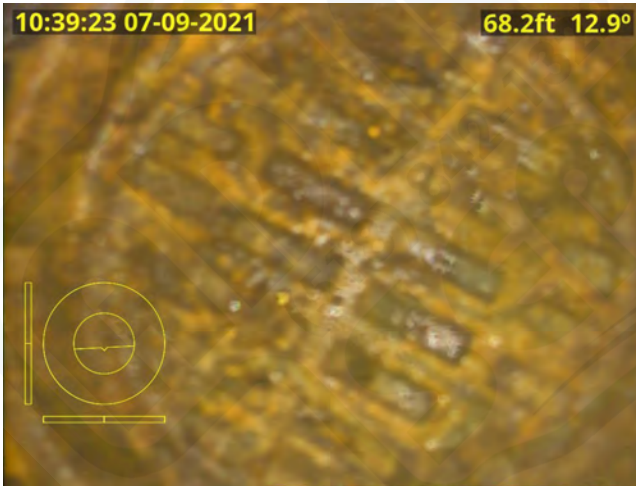
MH survey00000089/2021\_07\_09-10\_37\_59\_399.jpg



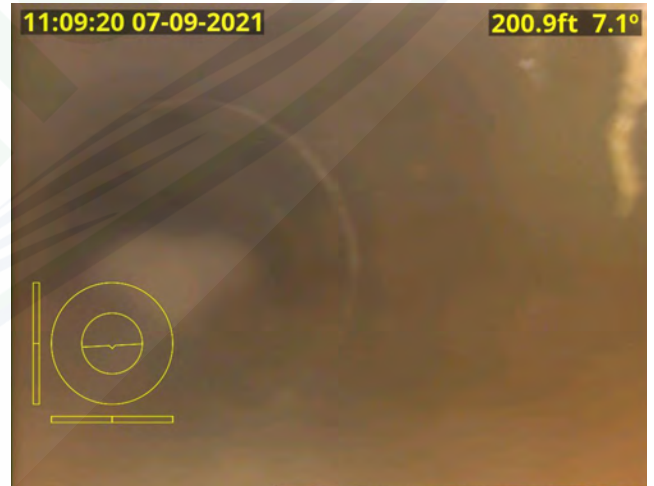
MH survey00000089/2021\_07\_09-11\_08\_48\_791.jpg



MH survey00000089/2021\_07\_09-10\_39\_23\_478.jpg



FH survey00000089/2021\_07\_09-11\_09\_20\_748.jpg





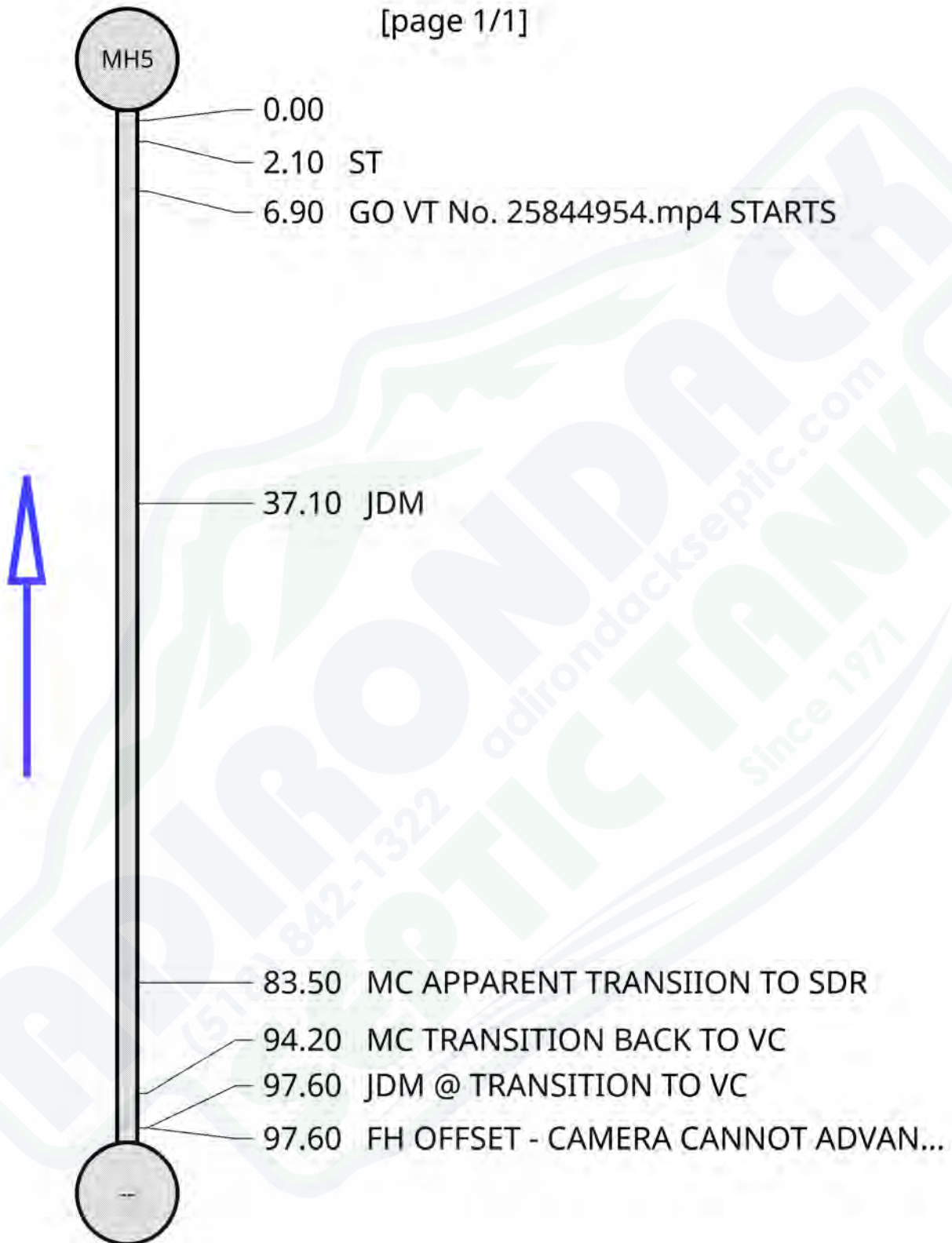
## 7 Drain / Sewer Survey

### 7.1 Survey Header





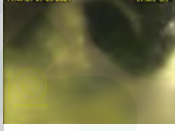
7.1.1	Surveyed by (Operator)	JZ/DZ
7.1.2	Contract no.	
7.1.3	Job no.	6
7.1.4	Catchment (Drainage area)	
7.1.5	Division	
7.1.6	District	
7.1.7	Pipeline length ref	--
7.1.8	Date	090721
7.1.9	Time	11:18
7.1.10	Location	BROADWAY HILL
7.1.11	Start manhole no.	MH5
7.1.12	Start depth	5'03"
7.1.13	Start cover level	
7.1.14	Start invert level	
7.1.15	Finish manhole no.	--
7.1.16	Finish depth	--
7.1.17	Finish cover level	
7.1.18	Finish invert level	
7.1.19	Use of Drain	F
7.1.20	Direction	U
7.1.21	Size 1 (diameter/height)	8"
7.1.22	Size 2 (width)	8"
7.1.23	Shape	C
7.1.24	Material	VC
7.1.25	Lining	
7.1.26	Pipe length	
7.1.27	Total length	97.6'
7.1.28	Year laid	
7.1.29	Video cassette number	
7.1.30	Comments: General	
7.1.31	Purpose	A
7.1.32	Sewer category	B
7.1.33	Pre-cleaning	Y
7.1.34	Weather	1
7.1.35	Location code	C
7.1.36	Further location details	

7.2 Diagram

[page 1/1]



### 7.3 Observations

Video Ref	Dist (ft)	Cont Defect	Code	Photo Ref	Diameter/ Dimension	Clock		Intrusion		Remarks
						At	To	%	mm	
0:00:04	2.1		ST	survey00000090/20 21_07_09- 11_35_58_867.jpg 						
0:00:03	6.9		GO							VT No. 25844954.mp4 STARTS
0:01:48	37.1		JDM	survey00000090/20 21_07_09- 11_37_51_893.jpg 						
0:05:54	83.5		MC	survey00000090/20 21_07_09- 11_42_07_910.jpg 						APPARENT TRANSITION TO SDR
0:08:43	94.2		MC	survey00000090/20 21_07_09- 11_45_10_413.jpg 						TRANSITION BACK TO VC
0:10:28	97.6		JDM	survey00000090/20 21_07_09- 11_47_05_775.jpg 						@ TRANSITION TO VC
0:10:31	97.6		FH	survey00000090/20 21_07_09- 11_47_27_881.jpg 						OFFSET - CAMERA CANNOT ADVANCE

## 7.4 Photographs

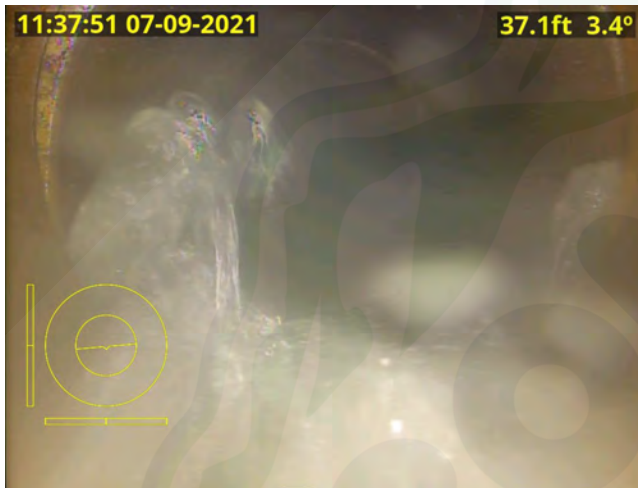
ST survey00000090/2021\_07\_09-11\_35\_58\_867.jpg



MC survey00000090/2021\_07\_09-11\_45\_10\_413.jpg



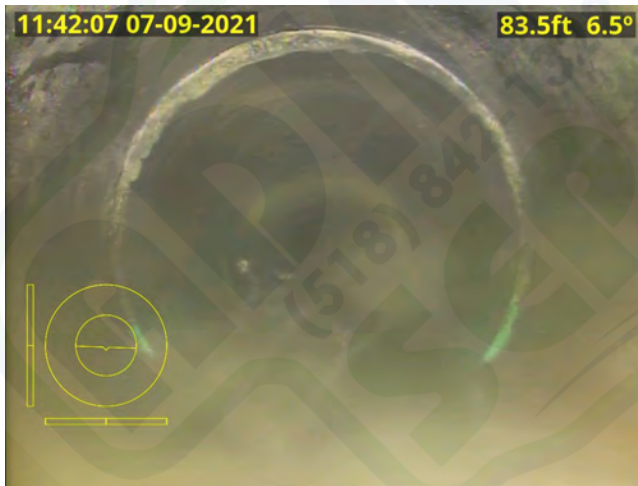
JDM survey00000090/2021\_07\_09-11\_37\_51\_893.jpg



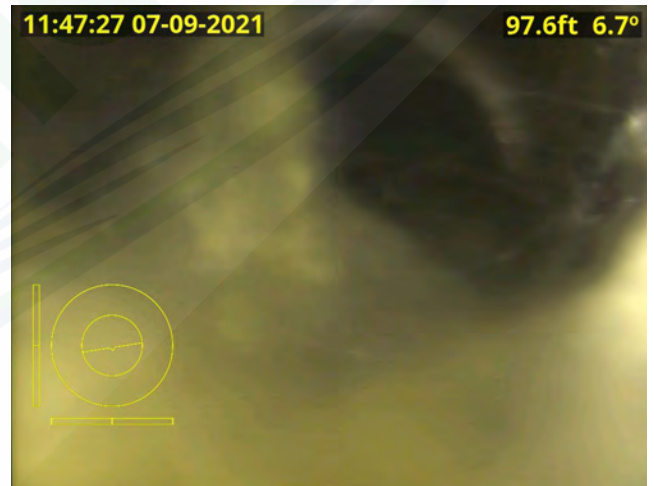
JDM survey00000090/2021\_07\_09-11\_47\_05\_775.jpg



MC survey00000090/2021\_07\_09-11\_42\_07\_910.jpg



FH survey00000090/2021\_07\_09-11\_47\_27\_881.jpg







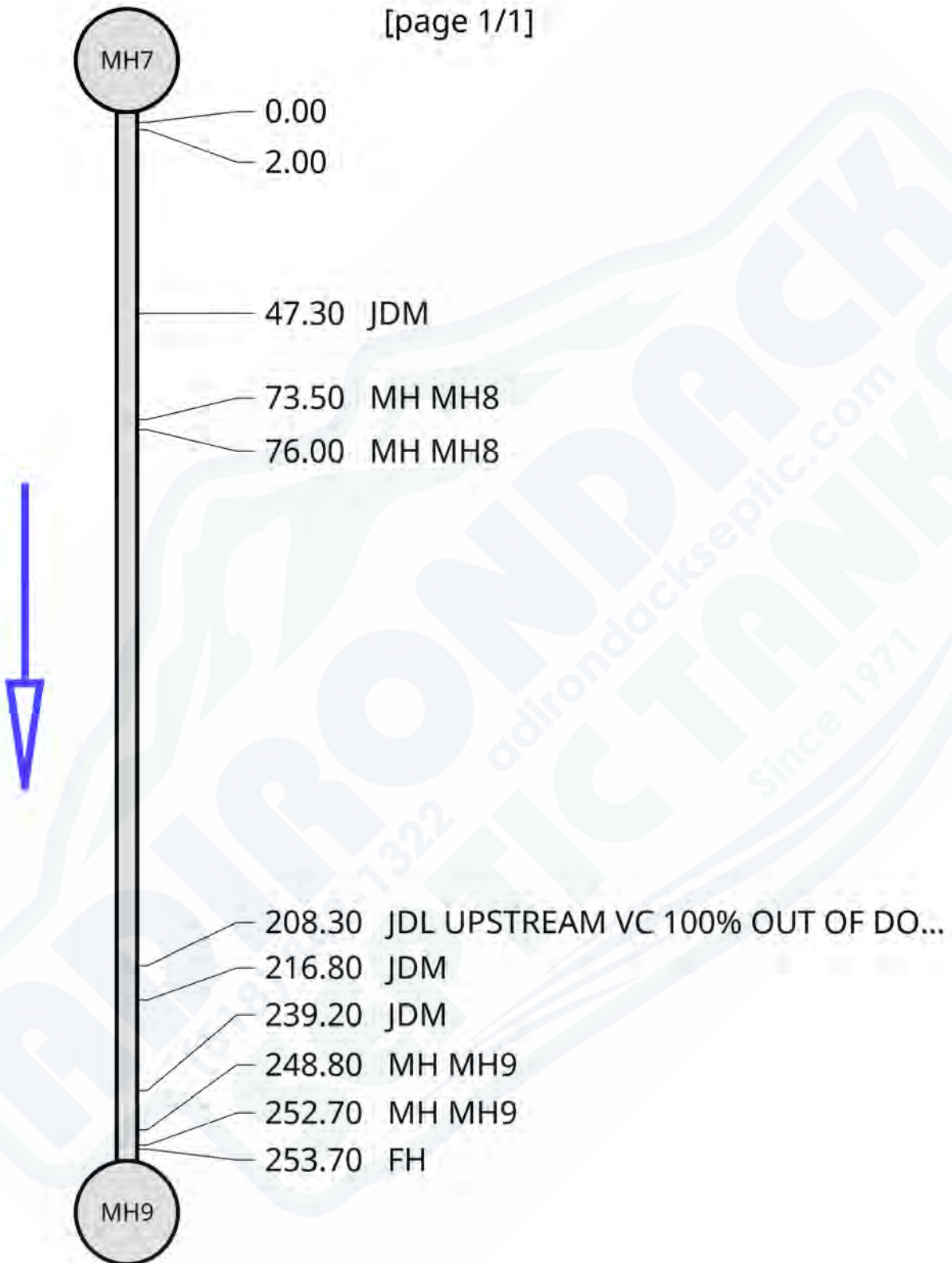
## 8 Drain / Sewer Survey

### 8.1 Survey Header


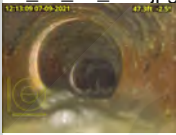

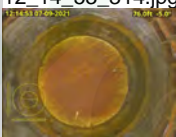

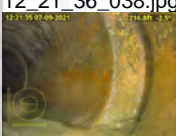


8.1.1	Surveyed by (Operator)	JZ/DZ
8.1.2	Contract no.	
8.1.3	Job no.	8
8.1.4	Catchment (Drainage area)	
8.1.5	Division	
8.1.6	District	
8.1.7	Pipeline length ref	--
8.1.8	Date	090721
8.1.9	Time	11:57
8.1.10	Location	BROADWAY HILL
8.1.11	Start manhole no.	MH7
8.1.12	Start depth	6'4"
8.1.13	Start cover level	
8.1.14	Start invert level	
8.1.15	Finish manhole no.	MH9
8.1.16	Finish depth	4'5"
8.1.17	Finish cover level	
8.1.18	Finish invert level	
8.1.19	Use of Drain	F
8.1.20	Direction	D
8.1.21	Size 1 (diameter/height)	8"
8.1.22	Size 2 (width)	8"
8.1.23	Shape	C
8.1.24	Material	VC
8.1.25	Lining	
8.1.26	Pipe length	
8.1.27	Total length	253.7'
8.1.28	Year laid	
8.1.29	Video cassette number	
8.1.30	Comments: General	
8.1.31	Purpose	A
8.1.32	Sewer category	B
8.1.33	Pre-cleaning	Y
8.1.34	Weather	1
8.1.35	Location code	
8.1.36	Further location details	



## 8.2 Diagram

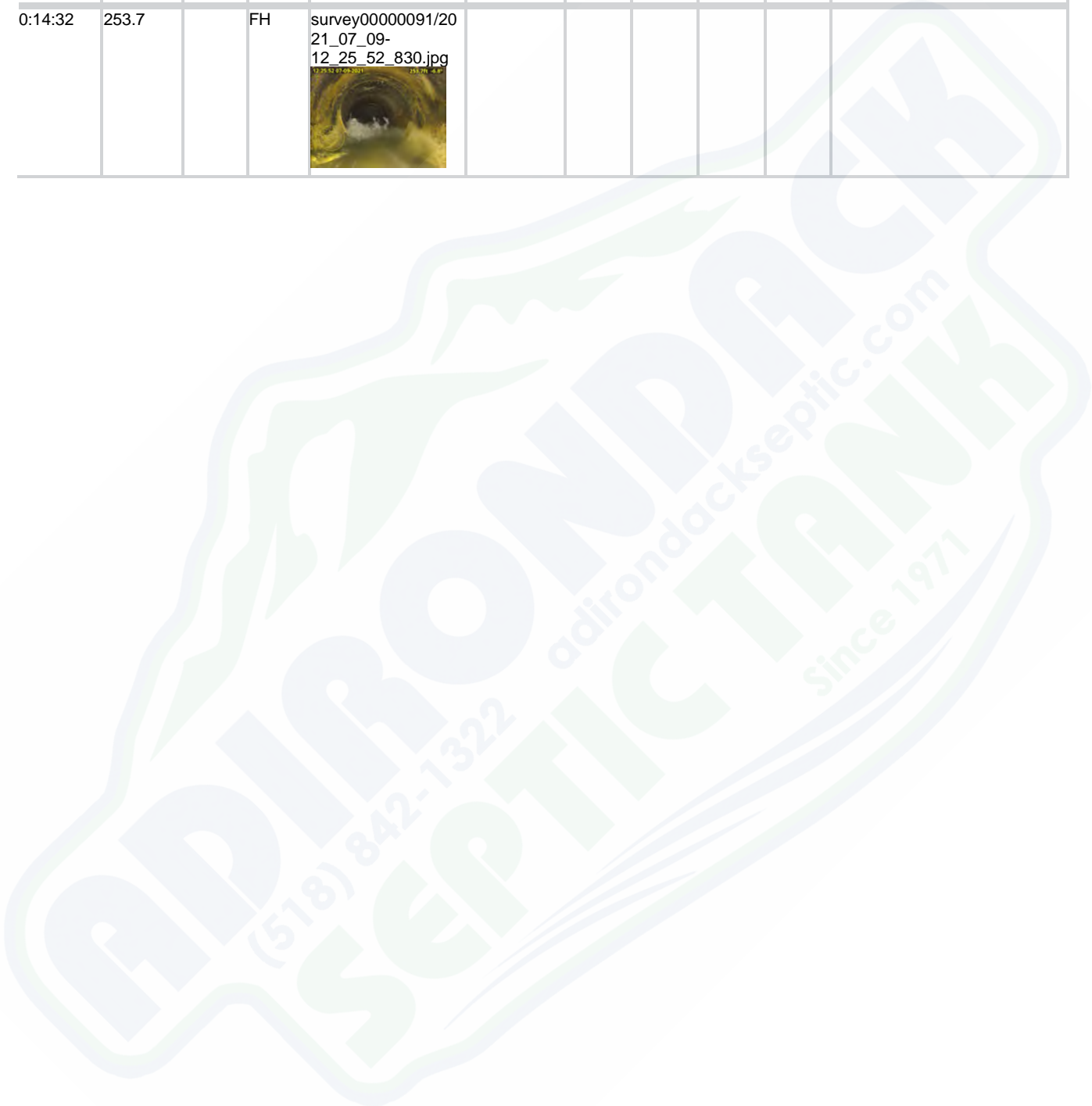
[page 1/1]



### 8.3 Observations

Video Ref	Dist (ft)	Cont Defect	Code	Photo Ref	Diameter/ Dimension	Clock		Intrusion		Remarks	
						At	To	%	mm		
0:00:02	2.0			survey00000091/20 21_07_09- 12_09_36_926.jpg 							
0:03:30	47.3		JDM	survey00000091/20 21_07_09- 12_13_09_604.jpg 							
0:04:34	73.5		MH	survey00000091/20 21_07_09- 12_14_23_229.jpg 						MH8	
0:04:55	76.0		MH	survey00000091/20 21_07_09- 12_14_53_314.jpg 							MH8
0:10:02	208.3		JDL	survey00000091/20 21_07_09- 12_20_11_140.jpg 							UPSTREAM VC 100% OUT OF DOWNSTREAM SOCKET
0:10:48	216.8		JDM	survey00000091/20 21_07_09- 12_21_36_038.jpg 							
0:12:26	239.2		JDM	survey00000091/20 21_07_09- 12_23_22_105.jpg 							
0:13:21	248.8		MH	survey00000091/20 21_07_09- 12_24_24_386.jpg 							MH9
0:13:53	252.7		MH	survey00000091/20 21_07_09-							MH9

Video Ref	Dist (ft)	Cont Defect	Code	Photo Ref	Diameter/ Dimension	Clock		Intrusion		Remarks
						At	To	%	mm	
				12_25_03_789.jpg 						
0:14:32	253.7		FH	survey00000091/20 21_07_09- 12_25_52_830.jpg 						

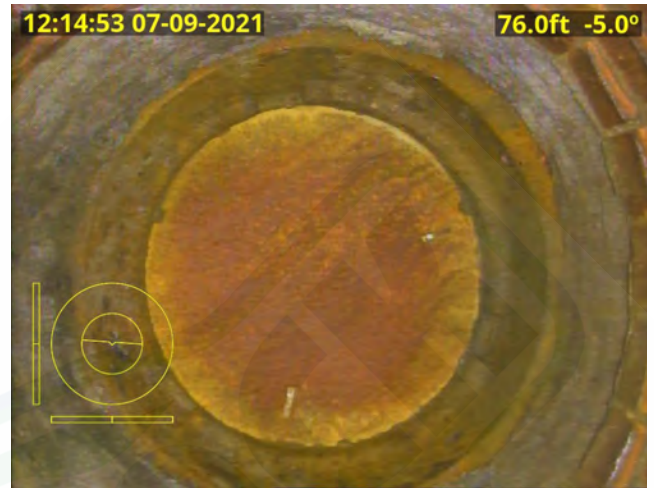


## 8.4 Photographs

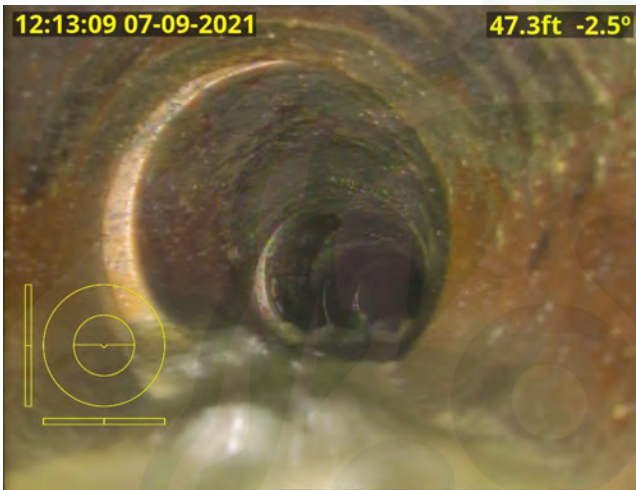
survey00000091/2021\_07\_09-12\_09\_36\_926.jpg



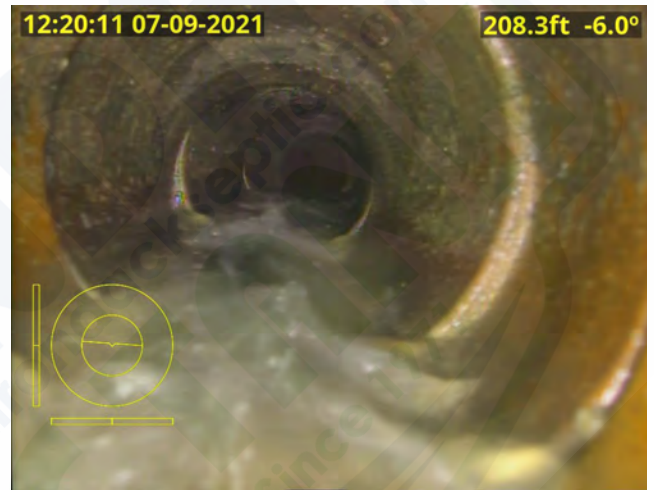
MH survey00000091/2021\_07\_09-12\_14\_53\_314.jpg



JDM survey00000091/2021\_07\_09-12\_13\_09\_604.jpg



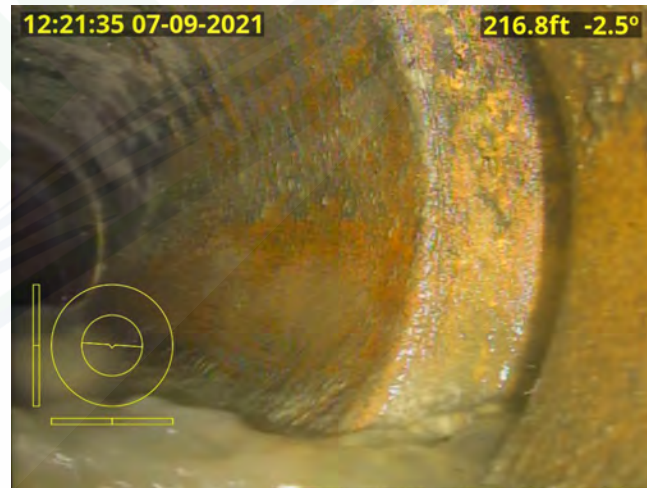
JDL survey00000091/2021\_07\_09-12\_20\_11\_140.jpg



MH survey00000091/2021\_07\_09-12\_14\_23\_229.jpg



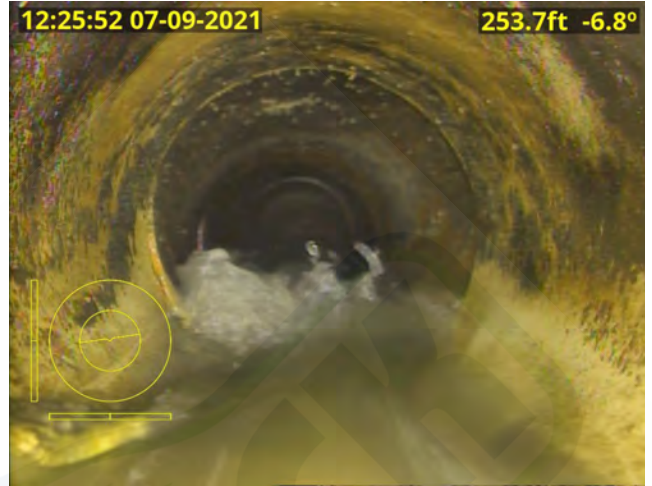
JDM survey00000091/2021\_07\_09-12\_21\_36\_038.jpg



JDM survey00000091/2021\_07\_09-12\_23\_22\_105.jpg



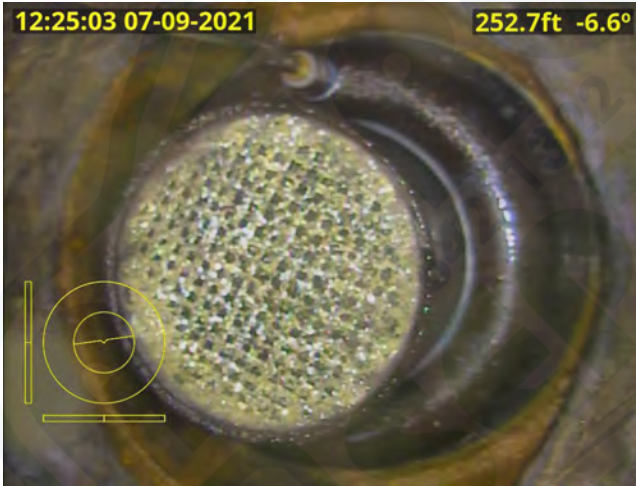
FH survey00000091/2021\_07\_09-12\_25\_52\_830.jpg



MH survey00000091/2021\_07\_09-12\_24\_24\_386.jpg



MH survey00000091/2021\_07\_09-12\_25\_03\_789.jpg





## 9 Drain / Sewer Survey

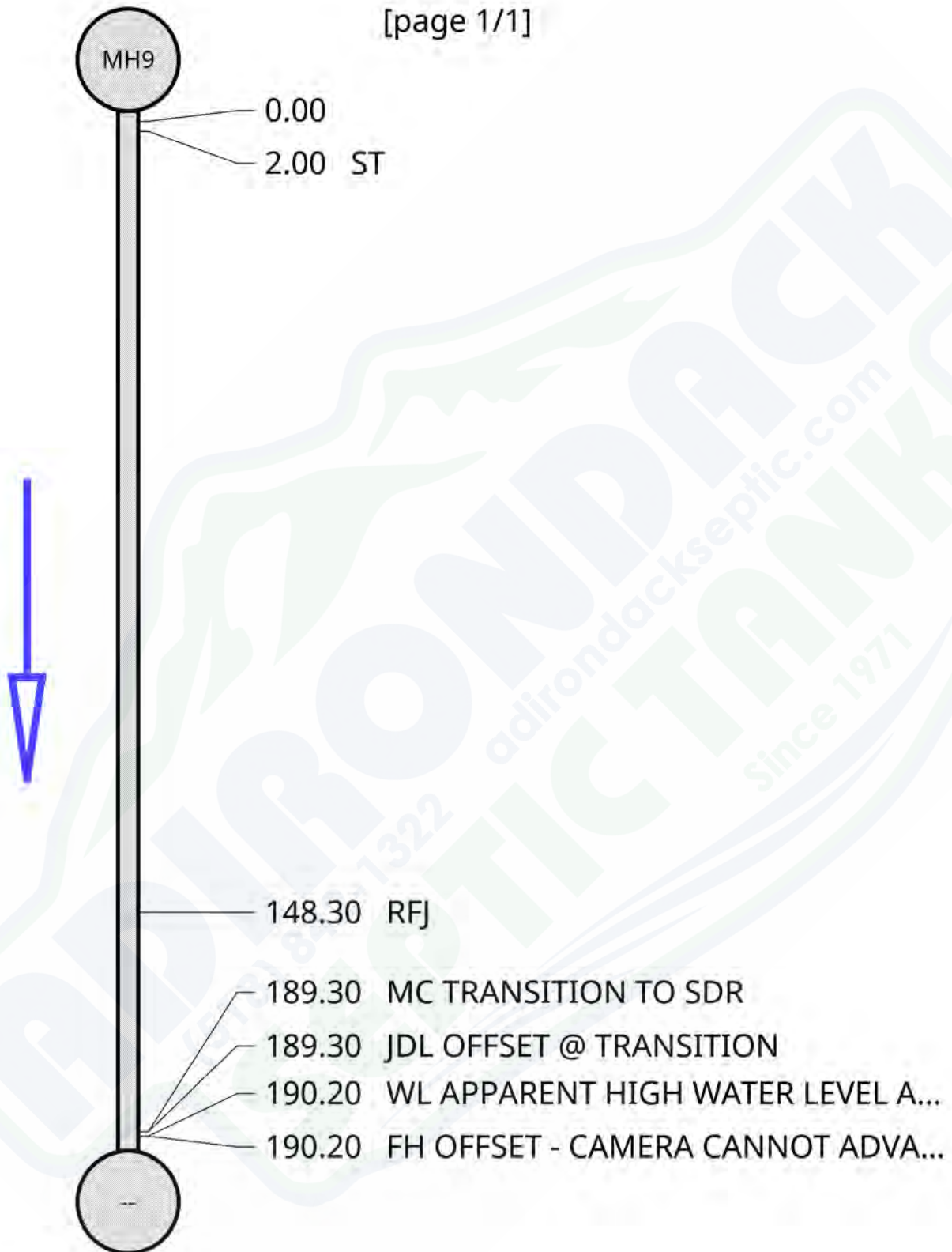
### 9.1 Survey Header

9.1.1	Surveyed by (Operator)	JZ/DZ
9.1.2	Contract no.	
9.1.3	Job no.	8
9.1.4	Catchment (Drainage area)	
9.1.5	Division	
9.1.6	District	
9.1.7	Pipeline length ref	--
9.1.8	Date	090721
9.1.9	Time	12:28
9.1.10	Location	BROADWAY HILL
9.1.11	Start manhole no.	MH9
9.1.12	Start depth	4'5"
9.1.13	Start cover level	
9.1.14	Start invert level	
9.1.15	Finish manhole no.	--
9.1.16	Finish depth	--
9.1.17	Finish cover level	
9.1.18	Finish invert level	
9.1.19	Use of Drain	F
9.1.20	Direction	D
9.1.21	Size 1 (diameter/height)	8"
9.1.22	Size 2 (width)	8"
9.1.23	Shape	C
9.1.24	Material	VC
9.1.25	Lining	
9.1.26	Pipe length	
9.1.27	Total length	190.2
9.1.28	Year laid	
9.1.29	Video cassette number	
9.1.30	Comments: General	
9.1.31	Purpose	A
9.1.32	Sewer category	B
9.1.33	Pre-cleaning	N
9.1.34	Weather	1
9.1.35	Location code	C
9.1.36	Further location details	









9.2 Diagram

[page 1/1]



### 9.3 Observations

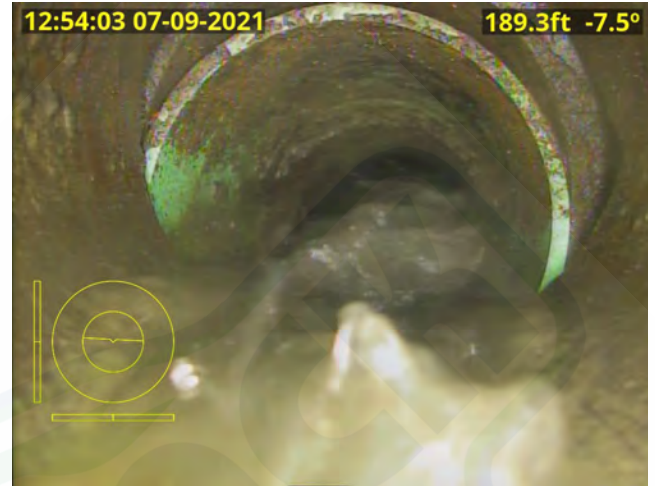
Video Ref	Dist (ft)	Cont Defect	Code	Photo Ref	Diameter/ Dimension	Clock		Intrusion		Remarks
						At	To	%	mm	
0:00:02	2.0		ST	survey00000092/20 21_07_09- 12_43_02_580.jpg 						
0:07:40	148.3		RFJ	survey00000092/20 21_07_09- 12_50_51_128.jpg 						
0:10:32	189.3		MC	survey00000092/20 21_07_09- 12_53_47_985.jpg 						TRANSITION TO SDR
0:10:34	189.3		JDL	survey00000092/20 21_07_09- 12_54_03_413.jpg 						OFFSET @ TRANSITION
0:14:38	190.2		WL	survey00000092/20 21_07_09- 12_58_23_226.jpg 				>50%		APPARENT HIGH WATER LEVEL AHEAD
0:14:43	190.2		FH	survey00000092/20 21_07_09- 12_58_50_387.jpg 						OFFSET - CAMERA CANNOT ADVANCE

## 9.4 Photographs

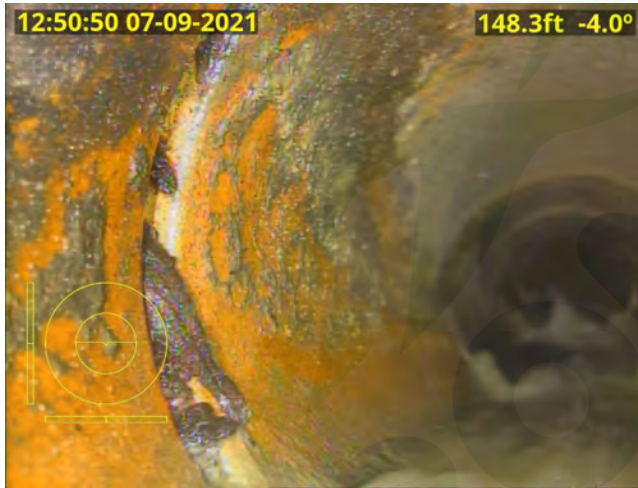
ST survey00000092/2021\_07\_09-12\_43\_02\_580.jpg



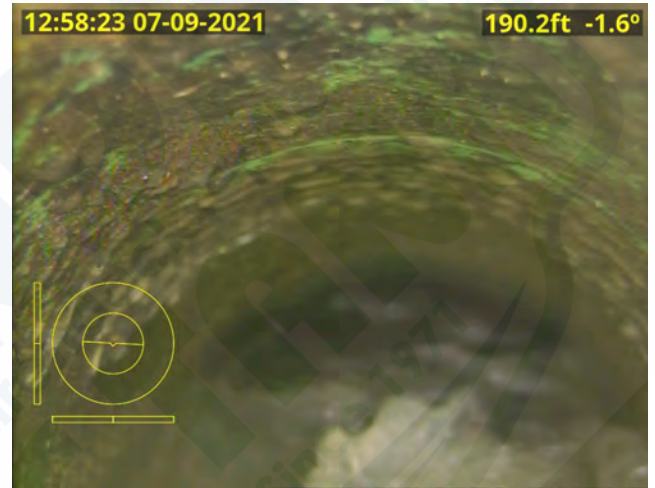
JDL survey00000092/2021\_07\_09-12\_54\_03\_413.jpg



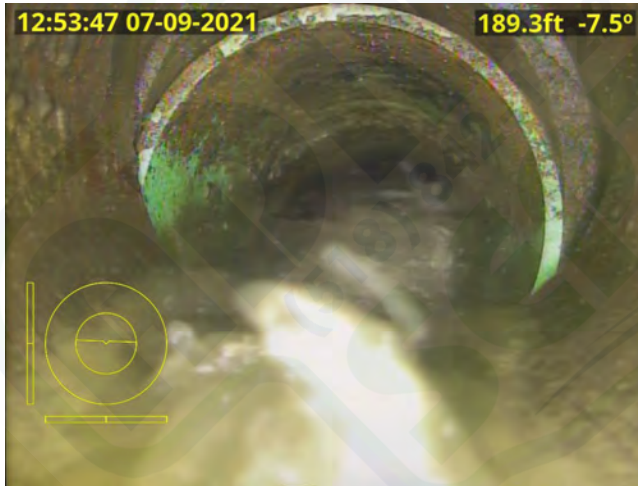
RFJ survey00000092/2021\_07\_09-12\_50\_51\_128.jpg



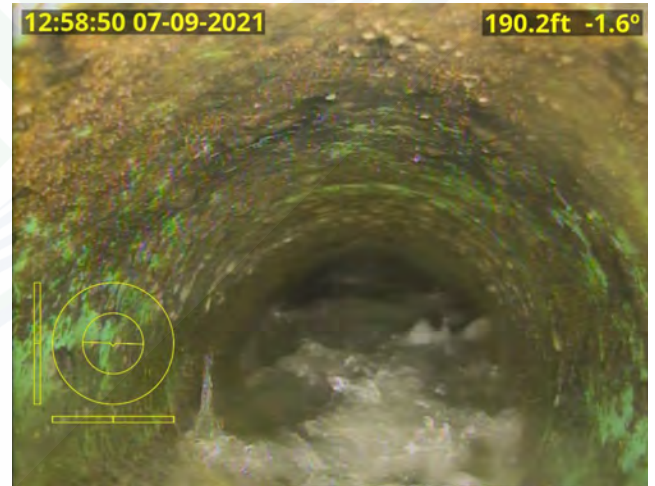
WL survey00000092/2021\_07\_09-12\_58\_23\_226.jpg



MC survey00000092/2021\_07\_09-12\_53\_47\_985.jpg

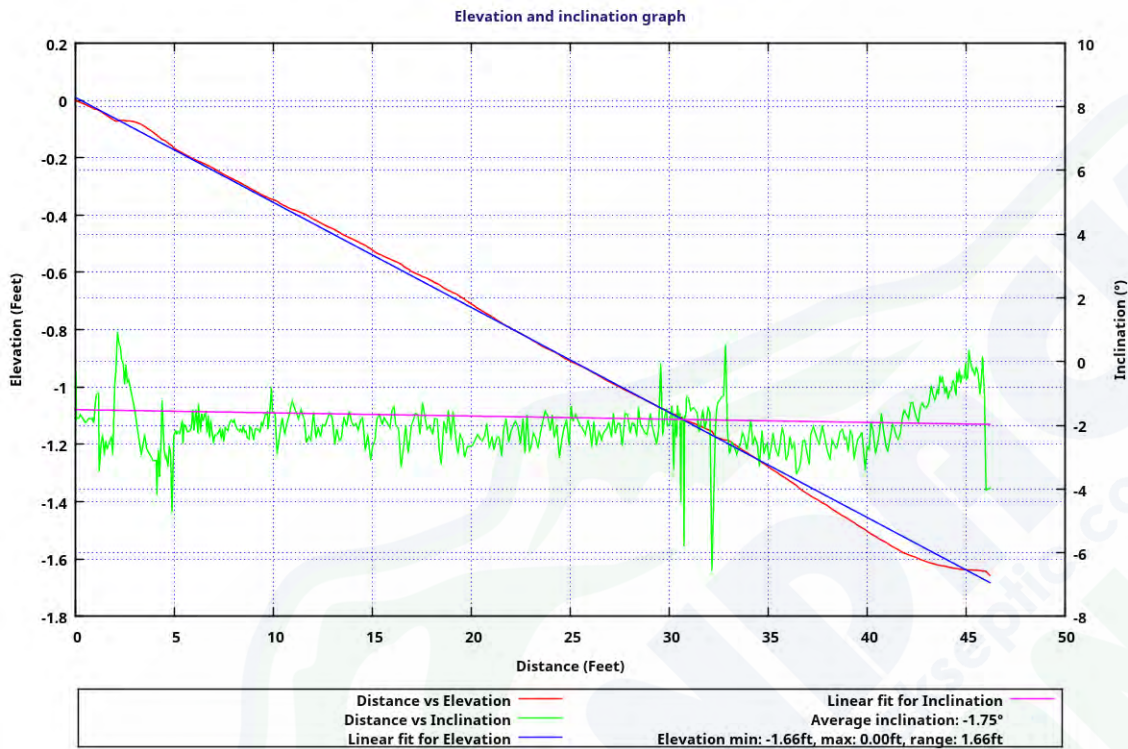


FH survey00000092/2021\_07\_09-12\_58\_50\_387.jpg

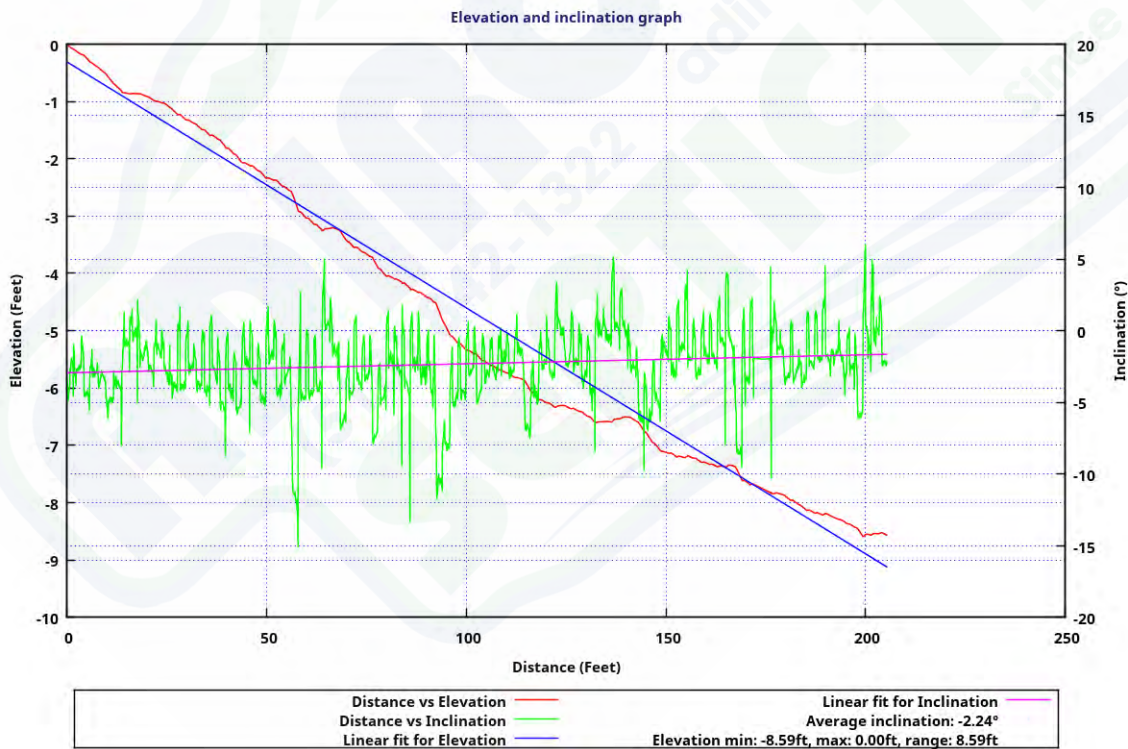


# 10 Inclination & Elevation Graphing

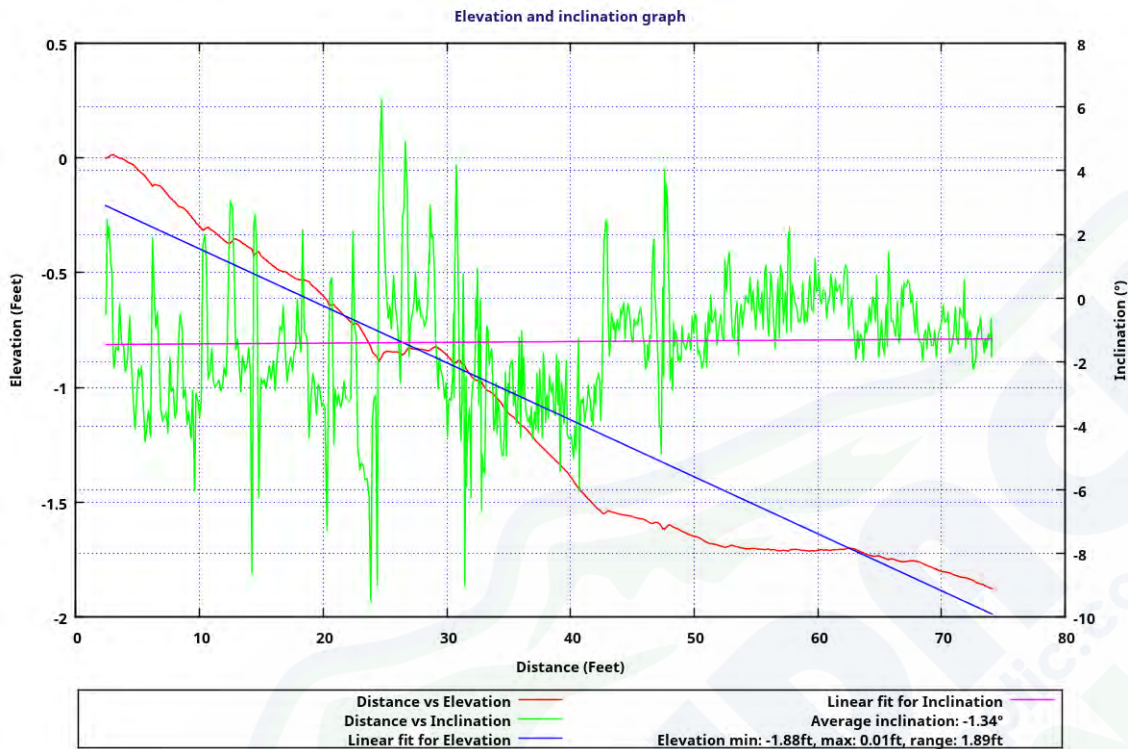
## 10.1 MH1\_D\_MH2



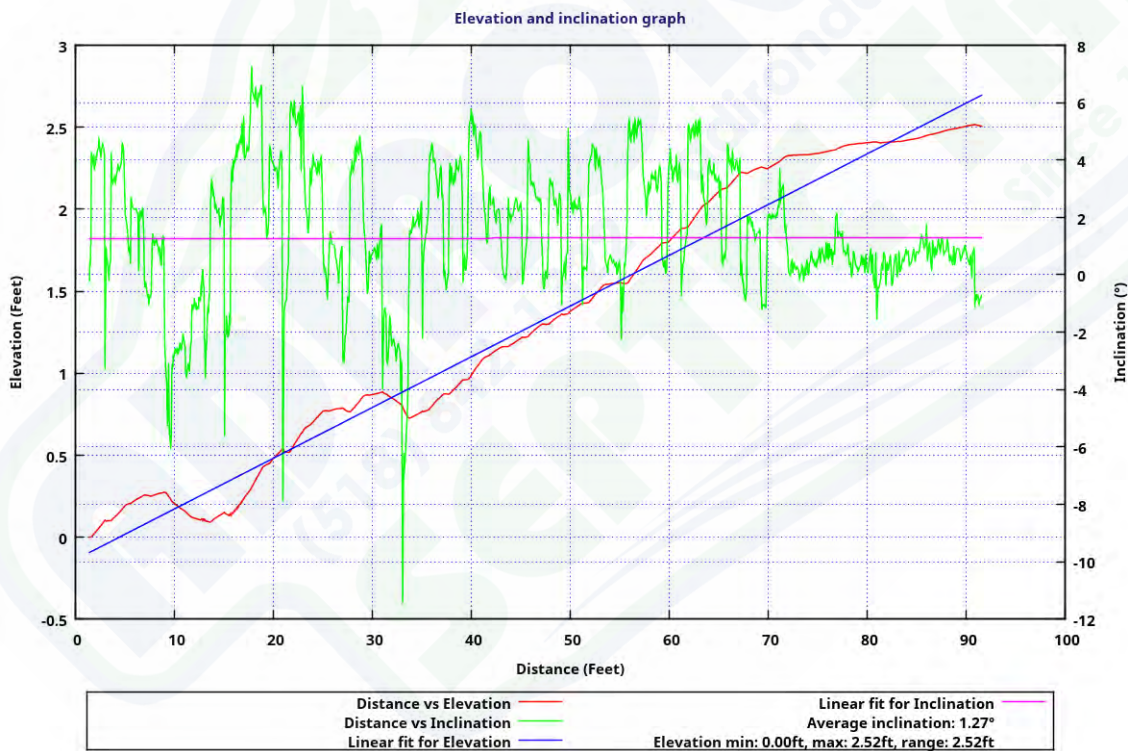
## 10.2 MH2\_D\_MH3



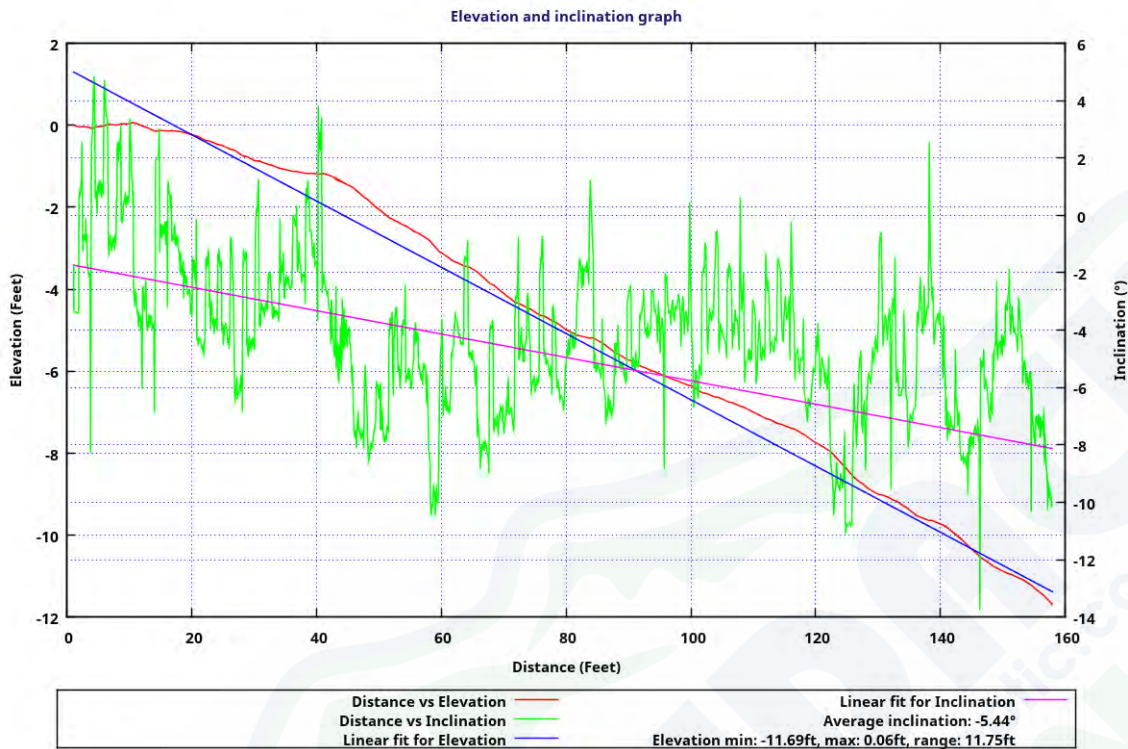
### 10.3 MH3\_D\_--



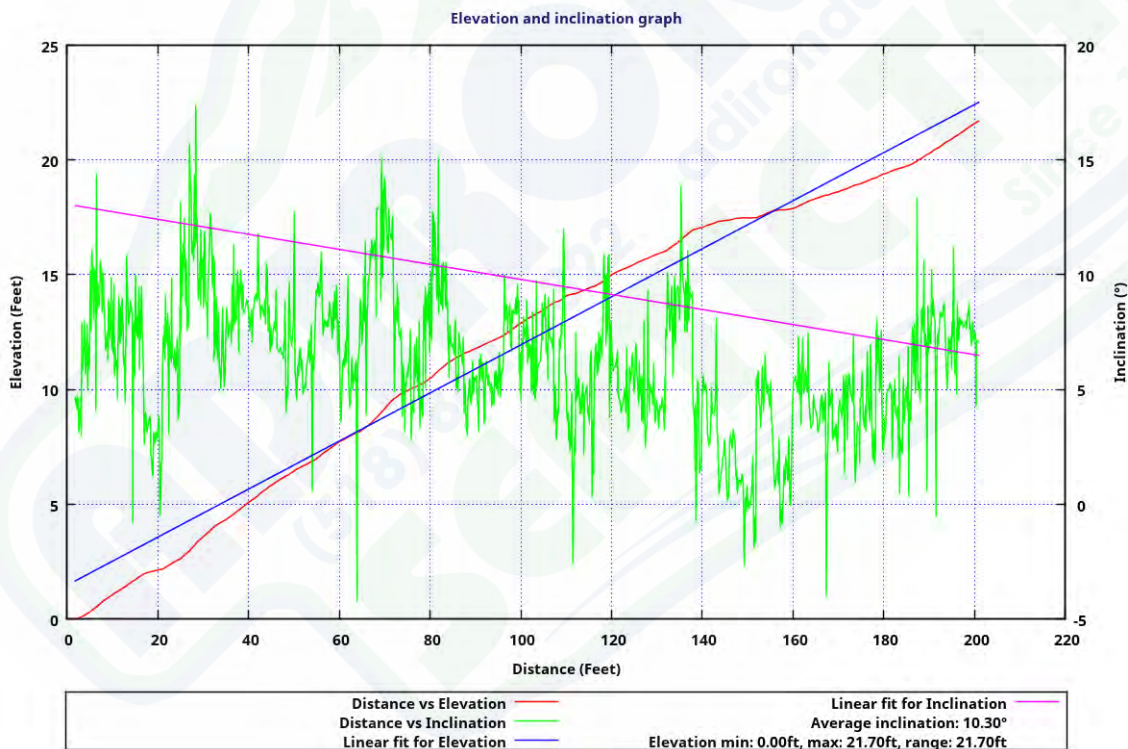
### 10.4 MH4\_U\_--



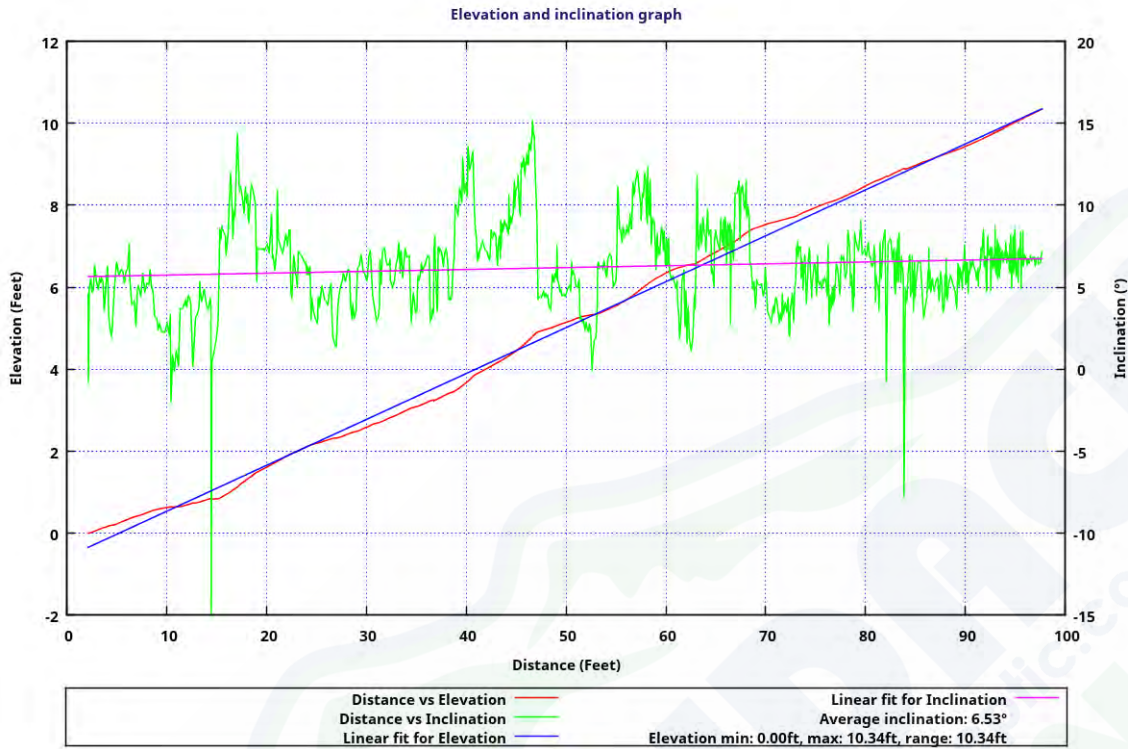
## 10.5 MH4\_D\_--



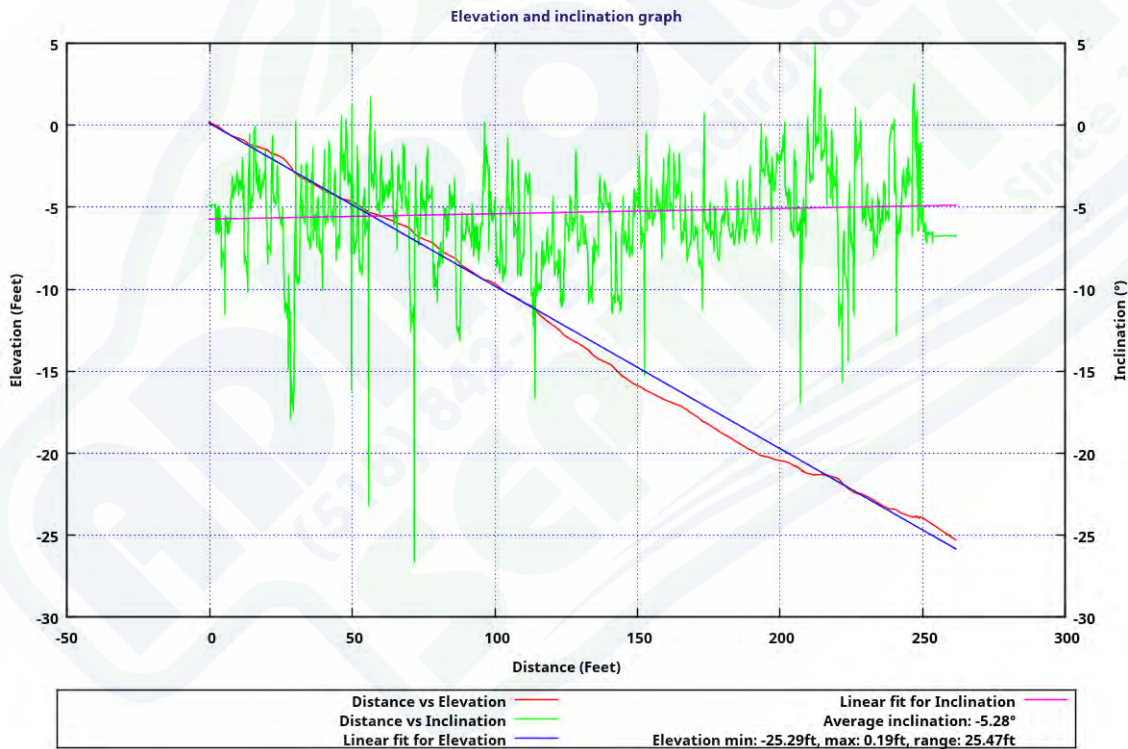
## 10.6 MH7\_U\_MH6\_U\_MH5



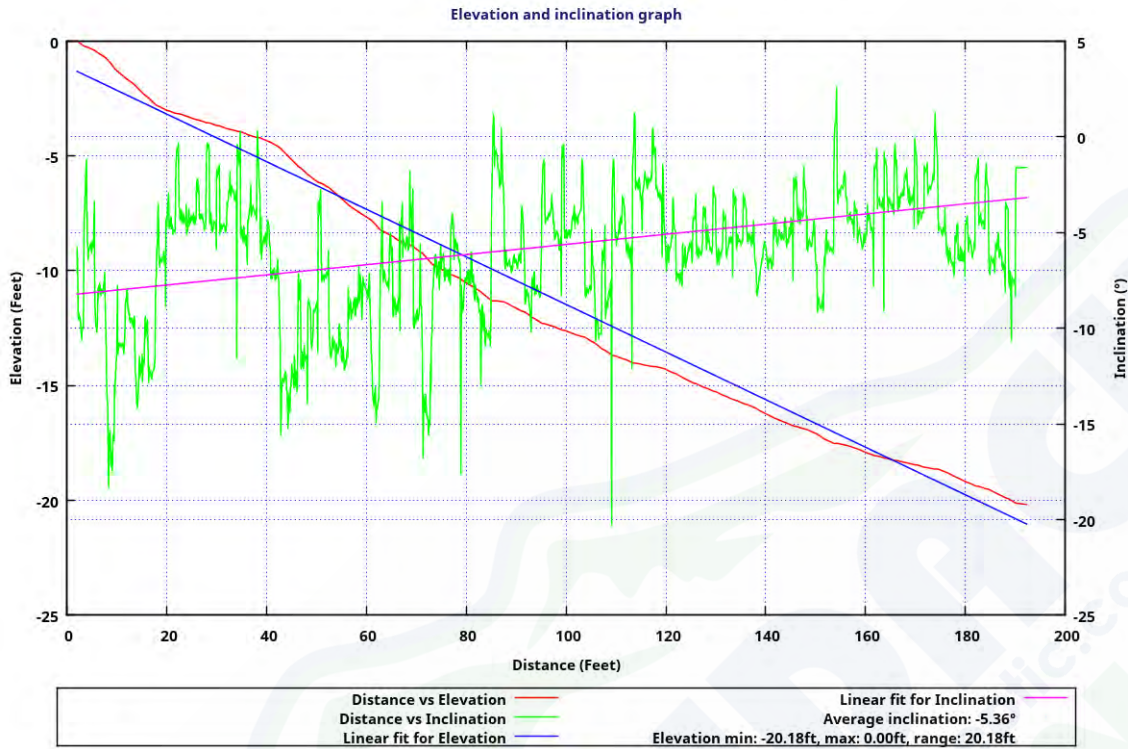
### 10.7 MH5\_U\_--



### 10.8 MH7\_D\_MH8\_D\_MH9



10.9 MH9\_D\_--







**WRC MSCC Third Edition Coding:**

B	BROKEN PIPE	ESH	SCALE HEAVY
BR	BRANCH MAJOR	ESL	SCALE LIGHT
CC	CRACK CIRCUMFERENTIAL	ESM	SCALE MEDIUM
CL	CRACK LONGINTUDINAL	FC	FRACTURE CIRCUMFERENTIAL
CM	CRACKS MULTIPLE	FH	FINISH SURVEY
CN	CONNECTION	FL	FRACTURE LONGITUDINAL
CNI	CONNECTON, INTRUSION	FM	FRACTURE MULTIPLE
CU	CAMERA UNDER WATER	GO	GENERAL OBSERVATION
CX	CONNECTION DEFECTIVE	GP	GENERAL PHOTOGRAPH
CXI	CONNECTION DEFECTIVE, INTRUSION	H	HOLE
D	DEFROMED SEWER	ID	INFILTRATION DRIPPER
DB	DISPLACED BRICKS	IDJ	INFILTRATION DRIPPER AT JOINT
DC	DIMENSION CHANGES	IG	INFILTRATION GUSHER
DE	DEBRIS	IGJ	INFILTRATION GUSHER AT JOINT
DEG	DEBRIS GREASE	IS	INFILTRATION SEEPER
DES	DEBRIS SILT	ISJ	INFILTRATION SEEPER AT JOINT
DI	DROPPED INVERT	JDL	JOINT DISPLACED LARGE
EH	ENCRUSTATION HEAVY	JDM	JOINT DISPLACED MEDIUM
EHJ	ENCRUSTATION HEAVY AT JOINT	JN	JUNCTION
EL	ENCRUSTATION LIGHT	JX	JUNCTION DEFECTIVE
ELJ	ENCRUSTATION LIGHT AT JOINT	LC	LINING OF SEWER CHANGES
EM	ENCRUSTATION MEDIUM	LD	LINE OF SEWER DEVIATES DOWN
EMJ	ENCRUSTATION MEDIUM AT JOINT	LL	LINE OF SEWER DEVIATES LEFT
		LN	LINING DEFECT
		LR	LINE OF SEWER DEVIATES RIGHT
		LU	LINE OF SEWER DEVIATES UP
		MB	MISSING BRICKS
		MC	MATERIAL OF SEWER CHANGES
		MH	MANHOLE/NODE
		MM	MORTAR MISSING MEDIUM

MS MORTAR MISSING SURFACE  
 MT MORTAR MISSING TOTAL  
 OB OBSTRUCTION  
 OJL OPEN JOINT LARGE  
 OJM OPEN JOINT MEDIUM  
 PC LENGTH OF PIPE CHANGES  
 RF ROOTS FINE  
 RFJ ROOTS FINE AT JOINT  
 RM ROOTS MASS  
 RMJ ROOTS MASS AT JOINT  
 RT ROOTS TAP  
 RTJ ROOTS TAP AT JOINT  
 SA SURVERY ABANDONED  
 SC SHAPE OF SEWER CHANGES  
 SSL SURFACE DAMAGE, SPALLING LARGE  
 SSM SURFACE DAMAGE, SPALLING MEDIUM  
 SSS SURFACE DAMAGE, SPALLING SLIGHT  
 ST START SURVEY  
 SWL SURFACE DAMAGE, WEAR LARGE  
 SWM SURFACE DAMAGE, WEAR MEDIUM  
 SWS SURFACE DAMAGE, WEAR SLIGHT  
 V VERMIN  
 WL WATER LEVEL  
 X SEWER COLLAPSED

**Survey Header Coding:**

**Use of sewer:**

C COMBINED  
 F FOUL  
 S SURVEY WATER

T TRADE EFFLUENT  
 W WATERCOURSE (CULVERTED)  
 X OTHER  
 Z NOT KNOWN

**Direction:**

D SURVERY DOWNSTREAM  
 U SURVERY UPSTREAM

**Shape:**

A ARCHED (WITH FLAT BOTTOM)  
 B BARREL  
 C CIRCULAR  
 E EGG SHAPED  
 H HORSESHOE (INVERTED U)  
 O OVAL  
 X OTHER

**Material:**

AC ASBESTOES CEMENT  
 AK ALKATHENE  
 BR BRICK  
 CC CONCRETE BOX CULVERT  
 CI CAST IRON  
 CO CONCRETE  
 CSB CONCRETE SEGMENTS (BOLTED)  
 CSU CONCRETE SEGMENTS (UNBOLTED)  
 DI DUCTILE IRON  
 GRC GLASS REINFORCED CEMENT  
 GRP GLASS REINFORCED PLASTIC  
 MAC MASONRY (REGULAR)  
 MAR MASONRY (RANDOM)  
 PE POLYEHTYLENE

PF PITCH FIBRE  
PP POLYPROPYLENE  
PSC PLASTIC/STEEL COMPOSITE  
PVC POLYVINYL CHLORIDE  
RPM REINFORCED PLASTIC MATRIX  
SI SPUN IRON  
ST STEEL  
VC VITRIFIED CLAY  
XXX OTHER  
ZZZ NOT KNOWN

**Lining:**

SAME CODING AS MATERIAL

**Purpose:**

A SPECIFIC PROBLEMS ON SEWER SYTEM RELATED TO STRUCTURAL OR SERVICE CONDITION DEFECTS  
B SPECIFIC PROBLEMS ON SEWER SYTEM RELATED TO INFILTRATION  
C ASSESSMENT OF COMPLETE REMEDIAL OF RENOVATION WORKS  
D PRE-ADOPTION  
E PRE-ACCEPTANCE  
F SAMPLE SURVEY TO DETERMINE ASSET CONDITON  
G ASSOCIATED WITH FUTURE CAPITAL SCHEME INCLUDING DRAINAGE AREA PLANNING  
H RESURVEY FOR ANY REASON  
X OTHER  
Z NOT KNOWN

**Sewer category:**

A MOST CRITICAL  
B LESS CRITICAL

C NON-CRITICAL  
Z NOT KNOWN

**Pre-cleaning:**

N NO  
Y YES  
Z NOT KNOWN

**Weather:**

1 DRY  
2 HEAVY RAIN  
3 LIGHT RAIN  
4 SHOWERS  
5 SNOW

**Location code:**

A MAIN ROAD – URBAN  
B MAIN ROAD – SUBURBAN  
C LIGHT ROAD  
D FOOTPATH OR VERGE  
E FIELDS  
F GARDENS