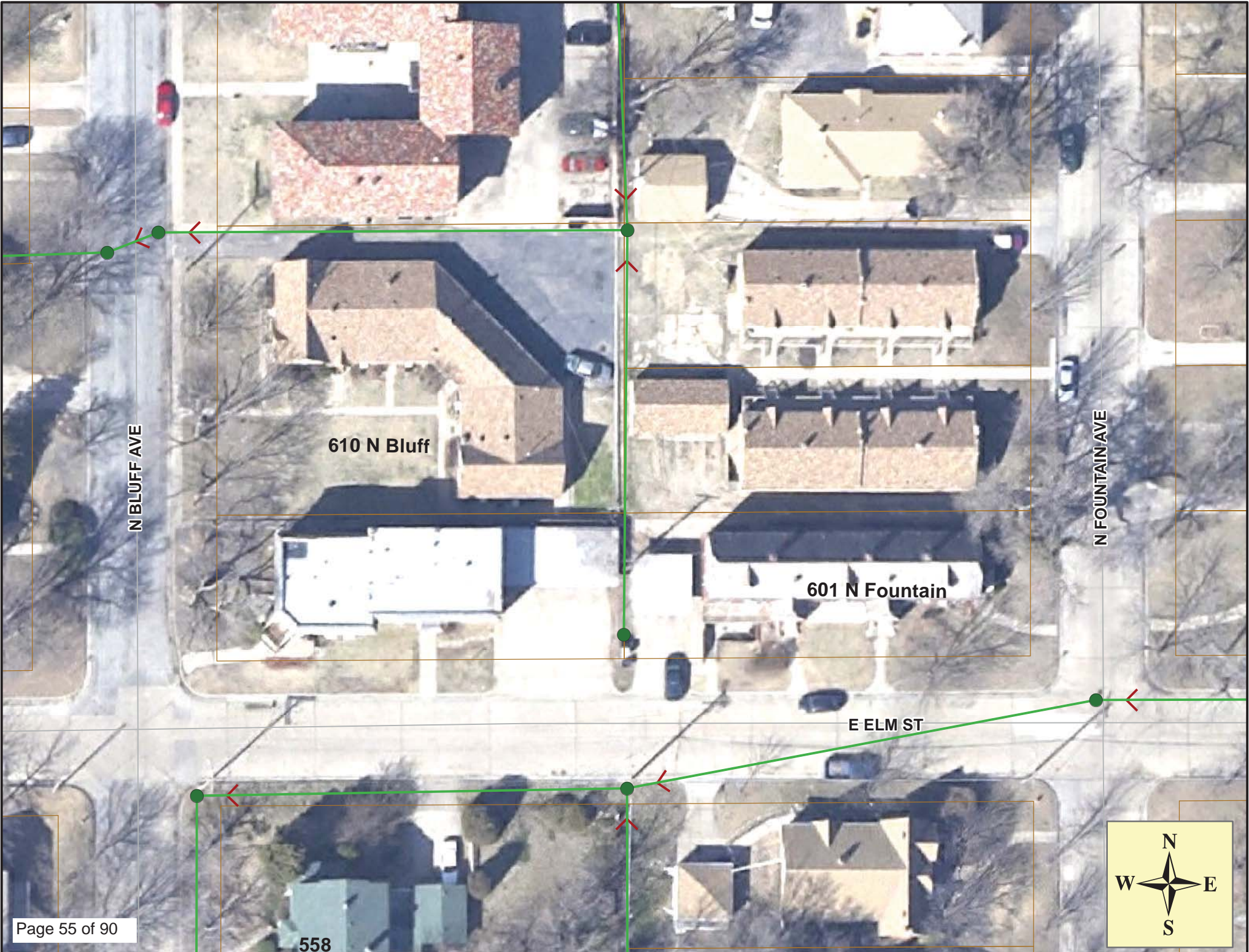


Install 141 lf of 8" Cured-in-Place Liner from MH 5748-113 to MH 5748-110

MH 5748-110
605 N. Fountain
Approx depth = 16.4 ft

MH 5748-113
601 N. Fountain
Approx depth = 13.8 ft

SITE 9



N BLUFF AVE

610 N Bluff

601 N Fountain

N FOUNTAIN AVE

E ELM ST

558



Video Inspection Master Report

1/2/2013

2:34 PM

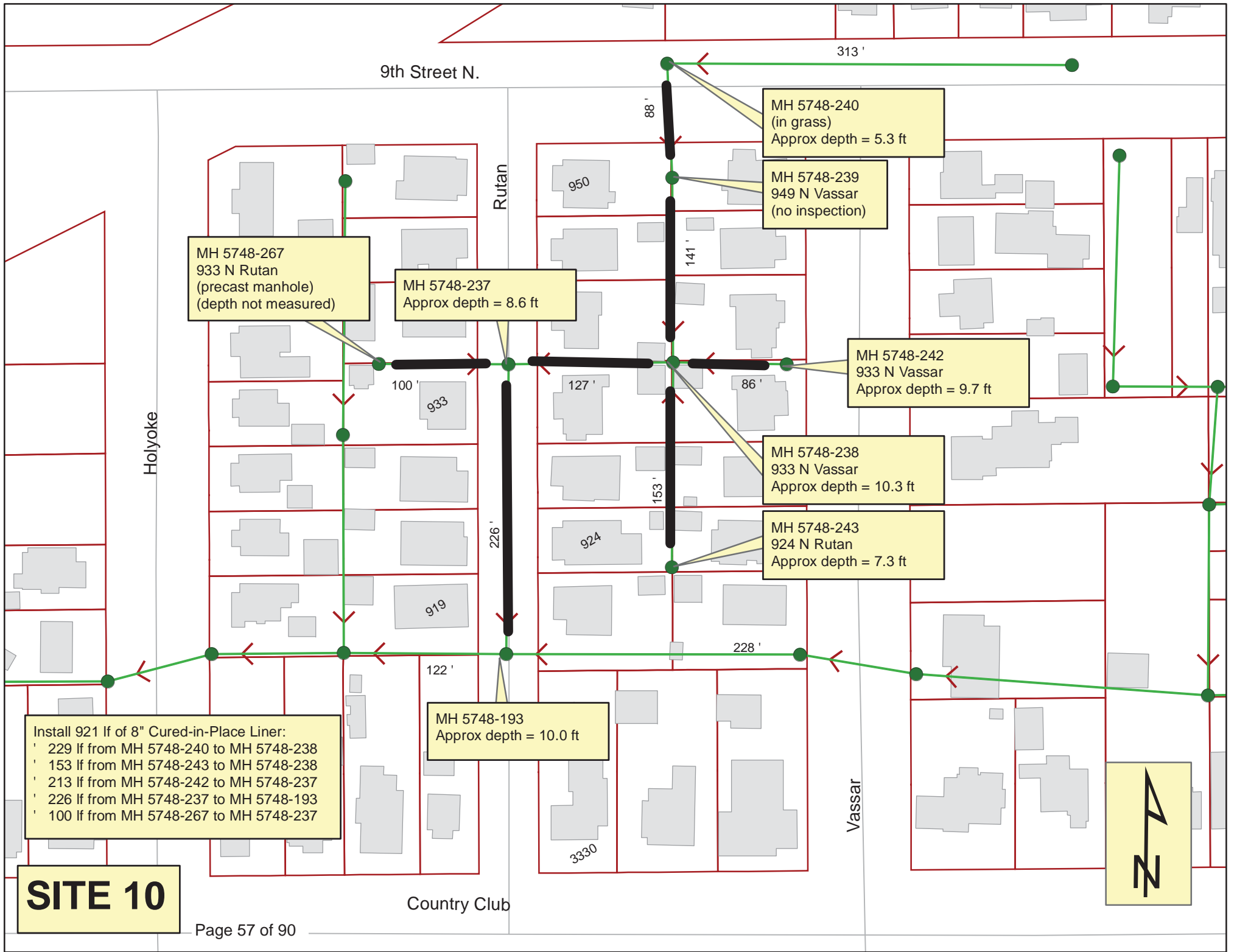
US Structure: 5748-113 601 N FOUNTAIN AVE Date Insp: 6/7/2012 Basin: EC02A
 DS Structure: 5748-110 605 N FOUNTAIN AVE Dir Televised: Downstream To Upstream

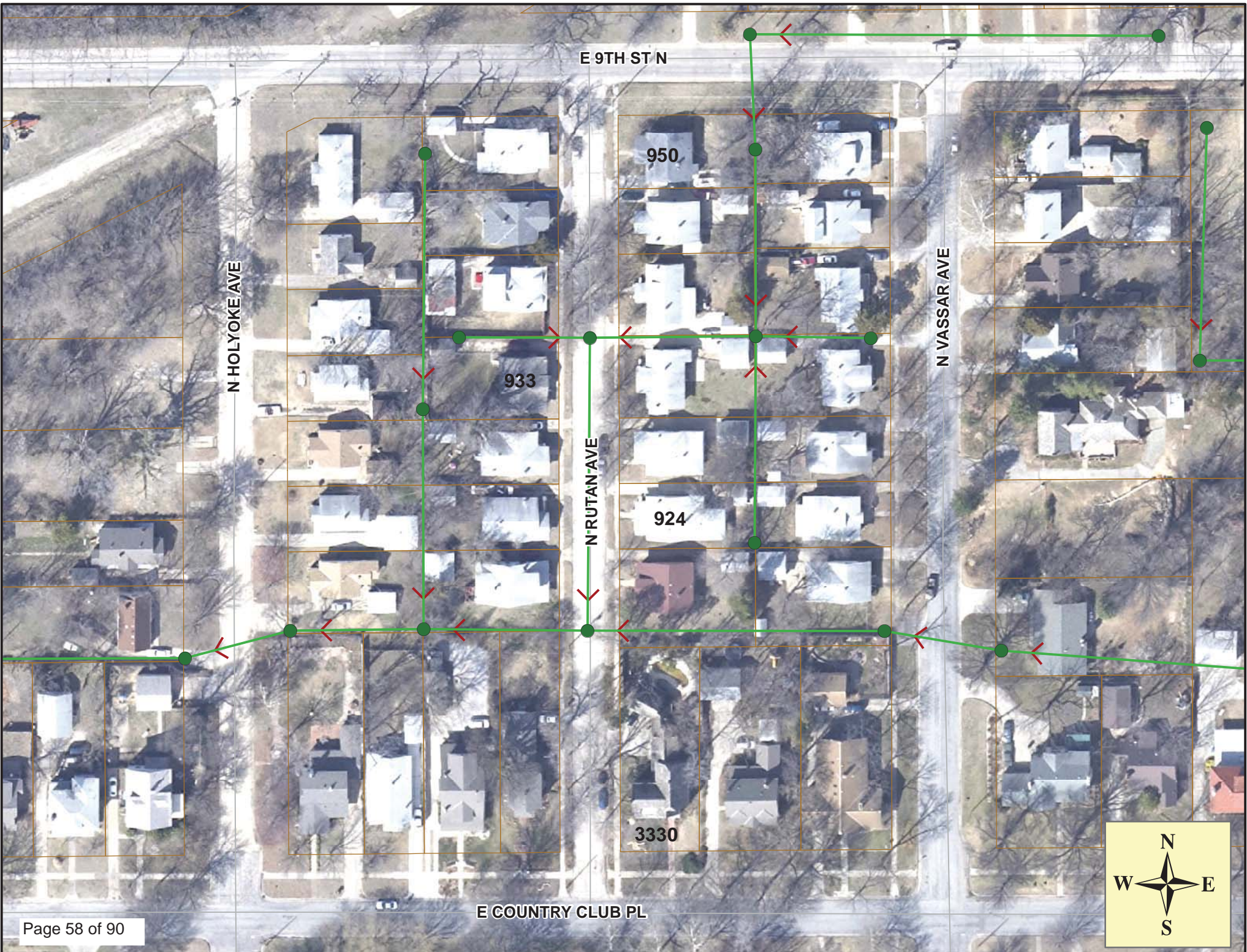
Pipe Information

Shape: Round Length Status: Project No. : C-244
 Dia/Ht: 8 Material: VCP Index:
 Length: 141.0 Slope: 0.794 Surface:

Obs. #	VTR Counter	Distance	Location	Description	Rating	Obsrvd (gpm)	Ratings			Remain (gpm)
							Est. (gpm)	Struct	Clean	
1		0.0	5748-110	DS Manhole	1					
2		0.0	Joint	Offset	3					
3		8.1	Joint	Offset	3					
4		10.6	605 N FOUNTAIN	Break-In Conn / PVC	1					
5		13.4		Wye Service	1					
6		13.6	Joint	Offset	3					
7		36.7		Wye Service	1					
8		39.2		Wye Service	1					
9		39.4		Infiltration (slow drips)	2					
10		62.1		Wye Service	1					
11		64.7		Wye Service	1					
12		65.8	610 N BLUFF	Break-In Conn	2					
13		67.6	Joint	Offset	3					
14		88.1	603 N FOUNTAIN	Wye Service	2					
15		90.6		Wye Service	1					
16		103.4		Begin CIPP internal sleeve repair	1					
17		108.5	4024 E ELM	Break-In Conn	1					
18		109.4		End CIPP internal sleeve repair	1					
19		113.5	601 N FOUNTAIN	Break-In Conn	3					(crooked & slightly protruding)
20		114.3		Crack-Horizontal	2					
21		116.2		Wye Service	1					
22		131.7		Wye Service	1					
23		134.3		Wye Service	1					
24		134.7		Broken Pipe	4					(missing pipe in crown – top third)
25		140.6	5748-113	US Manhole	3					

(Pipe has mineral deposits at the joints from infiltration)





E 9TH ST N

N HOLYOKE AVE

N VASSAR AVE

N RUTAN AVE

E COUNTRY CLUB PL

950

933

924

3330



Television Inspection Master Report

6/27/2011

9:02 AM

US Structure: 5748-240 3300 E 9TH ST Date Insp: 2/5/2010 Basin: EC02A

DS Structure: 5748-239 949 N VASSAR ST Dir Televised: Upstream To Downstream

Pipe Information

Shape: Round Length Status: Project No. : F-186
 Dia/Ht: 8 Material: VCP Index:
 Length: 87.8 Slope: 0.001 Surface:

Inspection Information

Crew: 690 Percent Full: Tape ID: DVD #0556

Obs. #	VTR Counter	Distance	Location	Description	Rating	Obsrvd (gpm)	Ratings			Remain (gpm)
							Est. (gpm)	Struct	Clean	
1		0.0		5748-240 US Manhole						
2		0.0	Joint	Offset	3	0.010	20	0	0.010	
3		0.0	Joint	Offset	3	0.010	20	0	0.010	
4		7.2	Joint	Offset	3	0.010	20	0	0.010	
5		10.2	Joint	Offset	3	0.010	20	0	0.010	
6		13.3	Joint	Offset	3	0.010	20	0	0.010	
7		19.4	Joint	Offset	3	0.010	20	0	0.010	
8		28.8	Joint	Offset	3	0.010	20	0	0.010	
9		31.8	Joint	Offset	3	0.010	20	0	0.010	
10		35.0	Joint	Offset	2	0.000	0	0	0.000	
11		38.0	Joint	Offset	2	0.000	0	0	0.000	
12		41.0	Joint	Offset	3	0.010	20	0	0.010	
13		47.0	Joint	Offset	3	0.010	20	0	0.010	
14		53.3	Joint	Offset	3	0.010	20	0	0.010	
15		53.3		Roots	2	0.004	2	4	0.004	
16		56.3		Roots	2	0.004	2	4	0.004	
17		59.4		Roots	2	0.004	2	4	0.004	
18		62.5	Joint	Offset	3	0.010	20	0	0.010	
19		65.6	Joint	Offset	3	0.010	20	0	0.010	
20		68.5		Roots	3	0.008	5	8	0.008	
21		71.7	Joint	Offset	3	0.010	20	0	0.010	
22		71.7		Roots	2	0.004	2	4	0.004	
23		74.8	Joint	Offset	3	0.010	20	0	0.010	
24		83.1		Crack-Radial	3	0.004	5	0	0.004	
25		84.3		Roots	4	0.010	10	25	0.010	
26		87.1		5748-239 DS Manhole	3	0.000	0	0	0.000	



Television Inspection Master Report

6/27/2011

9:02 AM

US Structure: 5748-239 949 N VASSAR ST Date Insp: 2/5/2010 Basin: EC02A
 DS Structure: 5748-238 933 N VASSAR AVE Dir Televised: Upstream To Downstream

Pipe Information

Project No. : C-163 Dia: 8 Material: VCP Length: 141.0 Slope: 0.400 DVD #0556

Obs. #	VTR Counter	Distance	Location	Description	Rating	Obsrvd (gpm)	Ratings			Remain (gpm)
							Est. (gpm)	Struct	Clean	
1		0.0		5748-239 US Manhole						
2		1.2		Crack-Radial	4		0.008	10	0	0.008
3		3.5	Joint	Offset	3		0.010	20	0	0.010
4		3.5		Broken Pipe	3		0.010	60	0	0.010
5		4.3	949 N VASSAR AVE	Break-In Conn	2		0.002	0	0	0.002
6		5.9	Joint	Offset	3		0.010	20	0	0.010
7		5.9		Roots	2		0.004	2	4	0.004
8		6.3		Broken Pipe	2		0.008	44	0	0.008
9		6.9	950 N RUTAN AVE	Wye Service	1		0.000	0	0	0.000
10		11.0		Roots	3		0.008	5	8	0.008
11		18.6		Roots	2		0.004	2	4	0.004
12		21.1		Roots	3		0.008	5	8	0.008
13		23.6		Roots	3		0.008	5	8	0.008
14		31.1		Roots	2		0.004	2	4	0.004
15		36.3		Roots	2		0.004	2	4	0.004
16		41.5		Roots	2		0.004	2	4	0.004
17		54.8	SEALED OFF/ ball of roots	Wye Service	2		0.000	0	0	0.000
18		60.2	946 N RUTAN AVE / jagged clay	Break-In Conn	4		0.008	60	0	0.008
19		65.2	SEALED OFF	Wye Service	1		0.000	0	0	0.000
20		66.5	Joint	Offset	3		0.010	20	0	0.010
21		74.8		Crack-Horizontal	2		0.002	2	0	0.002
22		75.8		Broken Pipe	4		0.030	78	0	0.030
23		76.2	945 N VASSAR AVE / roots	Break-In Conn	5		0.010	400	0	0.010
24		89.8		Crack-Radial	2		0.002	2	0	0.002
25		104.7		Roots	3		0.008	5	8	0.008
26		107.2		Roots	2		0.004	2	4	0.004
27		109.9		Roots	2		0.004	2	4	0.004
28		112.3		Roots	2		0.004	2	4	0.004
29		115.0		Roots	2		0.004	2	4	0.004
30		116.1	SEALED OFF	Wye Service	1		0.000	0	0	0.000
31		117.5	Joint	Offset	3		0.010	20	0	0.010
32		118.6	SEALED OFF	Wye Service	1		0.000	0	0	0.000
33		122.4	Joint	Offset	3		0.010	20	0	0.010
34		122.4		Roots	2		0.004	2	4	0.004
35		125.1	Joint	Offset	3		0.010	20	0	0.010
36		136.7		Crack-Radial	3		0.004	5	0	0.004
37		141.4		5748-238 DS Manhole	2					

Television Inspection Master Report

6/27/2011

9:01 AM

US Structure: 5748-238 933 N VASSAR AVE Date Insp: 2/5/2010 Basin: EC02A

DS Structure: 5748-237 939 N RUTAN AVE Dir Televised: Downstream To Upstream

Pipe Information

Shape: Round Length Status: Project No.: C-162
 Dia/Ht: 8 Material: VCP Index:
 Length: 107.5 Slope: 0.400 Surface:

Inspection Information

Crew: 690 Percent Full: Tape ID: DVD #0556

Obs. #	VTR Counter	Distance	Location	Description	Rating	Obsrvd (gpm)	Ratings			Remain (gpm)
							Est. (gpm)	Struct	Clean	
1		0.0		5748-237 DS Manhole	TV against the flow					
2		7.9	Joint	Offset	3	0.010	20	0	0.010	
3		10.2		Roots	3	0.008	5	8	0.008	
4		15.5		Roots	3	0.008	5	8	0.008	
5		18.0		Roots	3	0.008	5	8	0.008	
6		20.6		Roots	4	0.010	10	25	0.010	
7		22.9	SEALED OFF	Wye Service	2	0.000	0	0	0.000	
8		23.1		Roots	4	0.010	10	25	0.010	
9		25.5	SEALED OFF	Wye Service	1	0.000	0	0	0.000	
10		48.2	SEALED OFF	Wye Service	1	0.000	0	0	0.000	
11		50.7	SEALED OFF	Wye Service	1	0.000	0	0	0.000	
12		73.6	934 N RUTAN AVE	S Wye Service	3					
13		76.0	940 N RUTAN AVE	N Wye Service	2	0.000	0	0	0.000	
14		99.0	SEALED OFF	Wye Service	1	0.000	0	0	0.000	
15		101.6	SEALED OFF	Wye Service	1	0.000	0	0	0.000	
16		104.5		Crack-Horizontal	3	0.004	5	0	0.004	
17		106.0		Observation Hole	2	0.000	0	0	0.000	
18		122.3		Crack-Horizontal	3	0.004	5	0	0.004	
19		126.8		5748-238 US Manhole	2	0.000	0	0	0.000	

Some roots are heavy.



Television Inspection Master Report

6/27/2011

8:56 AM

US Structure: 5748-237 939 N RUTAN AVE Date Insp: 2/5/2010 Basin: EC02A

DS Structure: 5748-193 918 N RUTAN AVE Dir Televised: Upstream To Downstream

Pipe Information

Project No. : C-162 Dia: 8 Material: VCP Length: 226.0 Slope: 0.400 DVD #0556

Obs. #	VTR Counter	Distance	Location	Description	Rating	Obsrvd (gpm)	Ratings			Remain (gpm)
							Est. (gpm)	Struct	Clean	
1		0.0		US Manhole 5748-237	1	0.000	0	0	0.000	
2		0.0		Broken Pipe	3	0.010	60	0	0.010	
3		13.7		Broken Pipe	2	0.008	44	0	0.008	
4		22.6	SEALED OFF	Wye Service	1	0.000	0	0	0.000	
5		25.3	SEALED OFF	Wye Service	1	0.000	0	0	0.000	
6		33.2		Roots	3	0.008	5	8	0.008	
7		38.6		Roots	2	0.004	2	4	0.004	
8		41.1		Roots	2	0.004	2	4	0.004	
9		46.2		Roots	3	0.008	5	8	0.008	
10		48.0	SEALED OFF	Wye Service	1	0.000	0	0	0.000	
11		48.8		Roots	2	0.004	2	4	0.004	
12		49.4	SEALED OFF/ ball of roots	Wye Service	3	cannot see the sealoff				
13		51.5		Roots	2	0.004	2	4	0.004	
14		58.9		Roots	4	0.010	10	25	0.010	
15		61.4		Roots	3	0.008	5	8	0.008	
16		71.6		Roots	3	0.008	5	8	0.008	
17		73.5	SEALED OFF	Wye Service	1	0.000	0	0	0.000	
18		74.1		Roots	3	0.008	5	8	0.008	
19		76.1	SEALED OFF	Wye Service	2	(seal is broken / roots)				
20		86.9		Roots	2	0.004	2	4	0.004	
21		99.0	SEALED OFF	Wye Service	1	0.000	0	0	0.000	
22		101.5	SEALED OFF	Wye Service	2	(seal is broken / roots)				
23		108.1		Observation Hole	2	0.000	0	0	0.000	
24		124.3	SEALED OFF	Wye Service	1	0.000	0	0	0.000	
25		126.7	SEALED OFF	Wye Service	1	0.000	0	0	0.000	
26		149.8	SEALED OFF	Wye Service	1	0.000	0	0	0.000	
27		152.6	SEALED OFF	Wye Service	3	0.000	2	0	0.000	
28		177.9	SEALED OFF	Wye Service	1	0.000	0	0	0.000	
29		180.5	SEALED OFF	Wye Service	1	0.000	0	0	0.000	
30		202.8	SEALED OFF	Wye Service	3	0.000	2	0	0.000	
31		205.5	SEALED OFF	Wye Service	2	0.000	0	0	0.000	
32		218.0		PVC beings / pipe deflects right / Offset Joint	1	0.000	0	0	0.000	
		222.0		Pipe deflects to the right even more / camera does not get all the way into the manhole					-LML	
33		226.0		DS Manhole 5748-192					NO LIVE TAPS ON THIS LINE	

Television Inspection Master Report

6/27/2011

8:57 AM

US Structure: 5748-243
DS Structure: 5748-238

924 N RUTAN AVE
933 N VASSAR AVE

Date Insp: 2/5/2010
Dir Televised: Upstream To Downstream

Basin: EC02A

Pipe Information

Shape:	Round	Length Status:		Project No. :	C-163
Dia/Ht:	8	Material:	VCP	Index:	
Length:	154.0	Slope:	0.400	Tape ID:	DVD #0556

Obs. #	VTR Counter	Distance	Location	Description	Rating	Obsrvd (gpm)	Ratings			Remain (gpm)
							Est. (gpm)	Struct	Clean	
1		0.0		5748-243 US Manhole	1	0.000	0	0	0.000	
2		4.0	924 N RUTAN AVE	W Wye Service	1	0.000	0	0	0.000	
3		21.9	923 N VASSAR AVE	E Wye Service	1	roots inside				
4		46.4		Roots	2	0.004	2	4	0.004	
5		48.9		Roots	2	0.004	2	4	0.004	
6		56.7	Joint	Offset	3	0.010	20	0	0.010	
7		57.7	928 N RUTAN AVE	Wye Service	2	roots inside				
8		59.9	927 N VASSAR AVE	Wye Service	2	roots inside				
9		64.5		Crack-Radial	2	0.002	2	0	0.002	
10		73.2		Broken Pipe	2	0.008	44	0	0.008	
11		74.5		Crack-Radial	2	0.002	2	0	0.002	
12		79.5	Joint	Offset	3	0.010	20	0	0.010	
13		82.0	Joint	Offset	3	0.010	20	0	0.010	
14		92.4		Crack-Radial	3	0.004	5	0	0.004	
15		126.7	SEALED OFF	Wye Service	1	0.000	0	0	0.000	
16		140.4		Broken Pipe	3	0.010	60	0	0.010	
17		145.1		Crack-Radial	3	0.004	5	0	0.004	
18		147.9	Joint	Offset	3	0.010	20	0	0.010	
19		147.9		Crack-Horizontal	3	0.004	5	0	0.004	
20		149.7		Broken Pipe / Shifting Pipe	3	0.010	60	0	0.010	
21		150.7		5748-238 DS Manhole	2	Inside Drop				



Television Inspection Master Report

6/27/2011

9:00 AM

US Structure: 5748-242 933 N VASSAR AVE Date Insp: 2/5/2010 Basin: EC02A
 DS Structure: 5748-238 933 N VASSAR AVE Dir Televised: Downstream To Upstream

Pipe Information

Shape: Round Length Status: Project No. : C-162
 Dia/Ht: 8 Material: VCP Index:
 Length: 85 Slope: 0.400

Inspection Information

Crew: 690 Percent Full: Tape ID: DVD #0556

Obs. #	VTR Counter	Distance	Location	Description	Rating	Obsrvd (gpm)	Ratings		Remain (gpm)
							Est. (gpm)	Clean	
1		0.0		5748-238 DS Manhole					
									TV AGAINST THE FLOW
2		12.9	Joint	Offset	3	0.010	20	0	0.010
3		20.5	Joint	Offset	3	0.010	20	0	0.010
4		22.4	933 N VASSAR AVE	PVC Break-In Conn S	2	0.002	0	0	0.002
5		25.5	939 N VASSAR AVE	Wye Service N	2	0.000	0	0	0.000
6		35.8	Joint	Offset	3	0.010	20	0	0.010
7		40.9	Joint	Offset	3	0.010	20	0	0.010
8		48.4	SEALED OFF	Wye Service	1	0.000	0	0	0.000
9		51.0	SEALED OFF	Wye Service	1	0.000	0	0	0.000
10		51.1	Joint	Offset	3	0.010	20	0	0.010
11		61.3	Joint	Offset	3	0.010	20	0	0.010
12		66.3	Joint	Offset	2	0.000	0	0	0.000
13		73.9	SEALED OFF	Wye Service	1	0.000	0	0	0.000
14		76.3	SEALED OFF / LEAKING	Wye Service	2	0.000	0	0	0.000
15		82.0	Crown	Break-In Conn	1	0.001	0	0	0.001
				(Televisor says this is not active, but you cannot tell from the video – needs verified)					
16		82.0	Invert	Crack-Horizontal	3	0.004	5	0	0.004
17		85.6		5748-242 US Manhole	2	0.000	0	0	0.000



Video Inspection Master Report

3/5/2013

1:49 PM

EC02A

US Structure: **5748-267**

Date Insp: **9/26/2012**

Basin:

Dir Televised: **Downstream To Upstream**

DS Structure: **5748-237**

939 N RUTAN AVE

Pipe Information

Shape: **Round**
Dia/Ht: **8**

Length Status: **TV Inspections**
Material: **VCP**

Project No. : **C-163**
Index:

Length: **100.0**

Slope: **0.220**

Surface:

Obs. #	VTR Counter	Distance	Location	Description	Rating	Obsrvd (gpm)	Ratings		Remain (gpm)
							Est. (gpm)	Struct Clean	
1		0.0		DS Manhole 5748-237	1	(in Rutan Street)			
2		21.7		Sealed Off Wye	0				
3		22.2		Roots	2				
4		24.4		Sealed Off Wye	2				
5		29.6		Roots	2				
6		32.6		Roots	1				
7		35.1		Roots	2				
8		37.6		Roots	2				
9		42.6		Roots	2				
10		47.2		Sealed Off Wye	1				
11		49.9		Sealed Off Wye	1				
12		50.0		Roots	2				
13		55.4		Roots	1				
14		60.5		Roots	0				
15		65.8		Roots	1				
16		70.1		Roots	1				
17		72.5		Sealed Off Wye	1				
18		72.9		Roots	1				
19		75.0		Sealed Off Wye	1				
20		75.5		Roots	2				
21		82.7		Mat. Chngs to PVC	1				
22		95.5	Manhole Tap	PVC Break-In Conn	1	939 N RUTAN			
23		95.5	Manhole Tap	PVC Break-In Conn	1	933 N RUTAN			
24		96.4		5748-267 US Manhole	1	This is a precast manhole			

Lots of roots at joints. Wye seals are leaking and letting in roots. -LML