

8th St. North

Crestway

Terrace

Murdock

Pershing

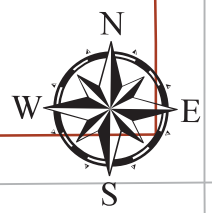
MH 5748-388
859 N. Pershing
Approx MH depth = 11.5 ft

MH 5748-387
839 N. Pershing
Approx MH depth = 13.0 ft

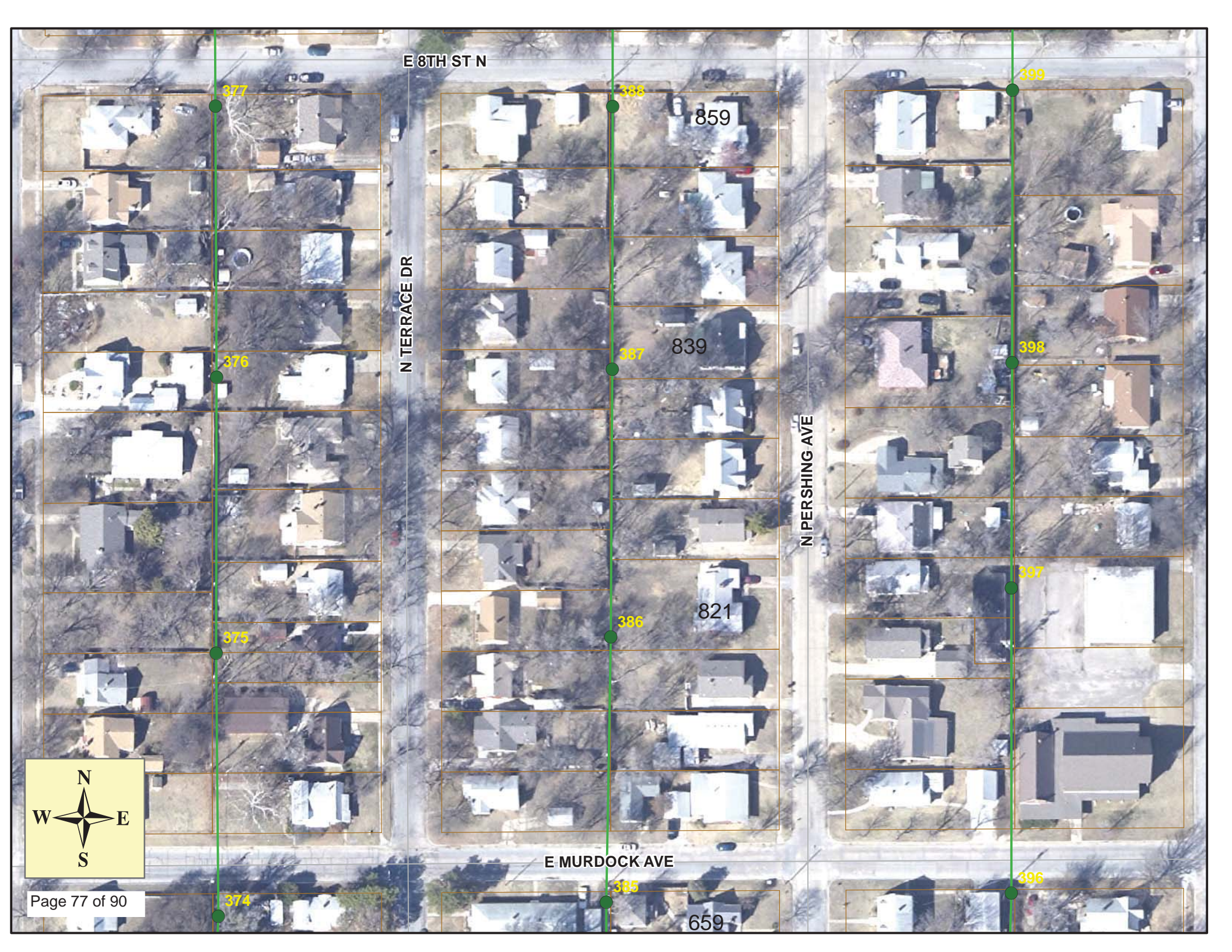
MH 5748-386
821 N. Pershing
Approx MH depth = 12.0 ft

MH 5748-385
659 N. Pershing
Approx MH depth = 11.2 ft

Install 661 lf of 8" Cured-in-Place Liner
from MH 5748-388 to MH 5748-385



SITE 13



E 8TH ST N

N TERRACE DR

N PERSHING AVE

E MURDOCK AVE

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Television Inspection Master Report

9/2/2011

2:54 PM

US Structure: 5748-388 859 N PERSHING AVE Date Insp: 2/25/2011 Basin: E04E
 DS Structure: 5748-387 839 N PERSHING AVE Dir Televised: Upstream To Downstream

Pipe Information

Project No. : C-047 Dia: 8 Material: VCP Length: 220.2 Slope: 0.003

Obs. #	VTR Counter	Distance	Location	Description	Rating	Obsrvd (gpm)	Ratings			Remain (gpm)
							Est. (gpm)	Struct	Clean	
1		0.0		5748-388 US Manhole	1	0.000	0	0	0.000	
2		0.0		Pipe immediately dips downward Sag begins	1	0.000	1	0	0.000	
		3.0		Offset Joint / pipe heads upward slowly						
		8.0		Sag ends						
THE UPSTREAM 10 LF OF PIPE WAS REPLACED BY SEWER MAINTENANCE SINCE THIS LOG WAS MADE. - LML										
3		9.8		Sealed Off Wye	1	0.000	0	0	0.000	
4		11.9	859 N PERSHING / PVC	Break-In Conn (crown)	1	0.001	0	0	0.001	
5		34.1	850 N TERRACE	Break-In Conn	4	0.008	60	0	0.008	
6		37.8		Sealed Off Wye	1	0.000	0	0	0.000	
7		60.4		Sealed Off Wye	1	0.000	0	0	0.000	
8		63.0		Sealed Off Wye	2	0.000	0	0	0.000	
9		85.8	848 N TERRACE	Wye Service	1	0.000	0	0	0.000	
10		88.2		Sealed Off Wye	2	0.000	0	0	0.000	
11		90.7	853 N PERSHING	Break-In Conn	2	0.002	0	0	0.002	
12		92.9		Grease	1	0.000	0	0	0.000	
13		111.0		Sealed Off Wye	1	0.000	0	0	0.000	
14		113.3		Sealed Off Wye	1	0.000	0	0	0.000	
15		134.8		Crack-Radial	5	0.010	18	0	0.010	
16		136.3		Sealed Off Wye	2	0.000	0	0	0.000	
17		139.0		Sealed Off Wye	1	0.000	0	0	0.000	
18		140.6		Grease	1	0.000	0	0	0.000	
19		145.5		Grease	3	0.000	0	5	0.000	
20		148.7	846 N TERRACE	Break-In Conn	4	0.008	60	0	0.008	
(root growth around this tap could be causing the grease to collect upstream) (replace this tap after CIPP is installed)										
21		161.9		Sealed Off Wye	1	0.000	0	0	0.000	
22		164.2	847 N PERSHING	Wye Service	2	0.000	0	0	0.000	
23		174.3		Grease	2	0.000	0	0	0.000	
24		187.1		Sealed Off Wye / roots	5	0.000	0	0	0.000	
25		188.3	842 N TERRACE	Break-In Conn	5	0.010	400	0	0.010	
26		189.1		Sealed Off Wye	5	0.000	0	0	0.000	
27		190.9		Crack-Horizontal	3	0.004	5	0	0.004	
28		212.3		Sealed Off Wye	1	0.000	0	0	0.000	
29		215.2	839 N PERSHING	Wye Service full of roots	5	0.000	400	0	0.000	
30		218.8		5748-387 DS Manhole	1	0.000	0	0	0.000	

Television Inspection Master Report

9/2/2011

2:54 PM

US Structure: 5748-387 839 N PERSHING AVE Date Insp: 2/25/2011 Basin: E04E
 DS Structure: 5748-386 821 N PERSHING AVE Dir Televised: Upstream To Downstream

Pipe Information

Project No. : C-047 Dia: 8 Material: VCP Length: 221.5 Slope: 0.400

Obs. #	VTR Counter	Distance	Location	Description	Rating	Obsrvd (gpm)	Ratings			Remain (gpm)
							Est. (gpm)	Struct	Clean	
1		0.0		5748-387 US Manhole	1		0.000	0	0	0.000
2		17.5		Crack-Horizontal	3		0.004	5	0	0.004
3		22.8	838 N TERRACE / PVC	Break-In Conn	1		0.001	0	0	0.001
4		24.9		Crack-Horizontal	2		0.002	2	0	0.002
5		25.6		Sealed Off Wye	1		0.000	0	0	0.000
6		27.5		Crack-Horizontal	1		0.001	1	0	0.001
7		30.2		Crack-Horizontal	2		0.002	2	0	0.002
8		45.6		Crack-Radial	2		0.002	2	0	0.002

9		48.0	Cracked pipe	Sealed Off Wye	3		0.000	0	0	0.000
10		50.3	Cracks in invert and side of pipe	Sealed Off Wye	4		0.000	0	0	0.000
11		54.3	835 N PERSHING	Break-In Conn	5		0.010	400	0	0.010
12		56.6	832 N TERRACE	Break-In Conn	5		0.010	400	0	0.010

(both taps are amongst broken pipe and missing pipe, including cracks in the invert / shifting pipe)

Pipe was replaced from 40' to 61' by Sewer Maintenance since this tv log was made. Including the replacement of the tap connections within the repair. -LML

13		75.3		Sealed Off Wye	1		0.000	0	0	0.000
14		76.7	829 N PERSHING	Break-In Conn	4		0.008	60	0	0.008
15		100.5		Sealed Off Wye	1		0.000	0	0	0.000
16		103.4		Sealed Off Wye	1		0.000	0	0	0.000
17		103.4		Crack-Horizontal	2		0.002	2	0	0.002
18		119.4	825 N TERRACE	Break-In Conn	4					(service may be replace by Sewer Maintenance)
19		125.8		Sealed Off Wye	1		0.000	0	0	0.000
20		127.3	828 N TERRACE	Break-In Conn	5					(service may be replace by Sewer Maintenance)
21		128.5		Sealed Off Wye	5		0.000	0	0	0.000
22		151.0		Sealed Off Wye	1		0.000	0	0	0.000
23		153.9		Sealed Off Wye	1		0.000	0	0	0.000
24		175.0	820 N TERRACE	Extended Tap	3					(service may be replaced by Sewer Maintenance)
25		179.3		Sealed Off Wye	1		0.000	0	0	0.000 -LML
26		200.8		Sealed Off Wye	5		0.000	0	0	0.000
27		200.8	818 N TERRACE	Break-In Conn	5					(service may be replace by Sewer Maintenance)
28		204.6	821 N PERSHING	Wye Service	1		0.000	0	0	0.000
29		222.4		5748-286 DS Manhole	1		0.000	0	0	0.000

(There are more cracks in the pipe than what is reflected on this tv log) -LML

Television Inspection Master Report

9/2/2011

2:54 PM

US Structure: 5748-386
DS Structure: 5748-385

821 N PERSHING AVE
4517 MURDOCK ST

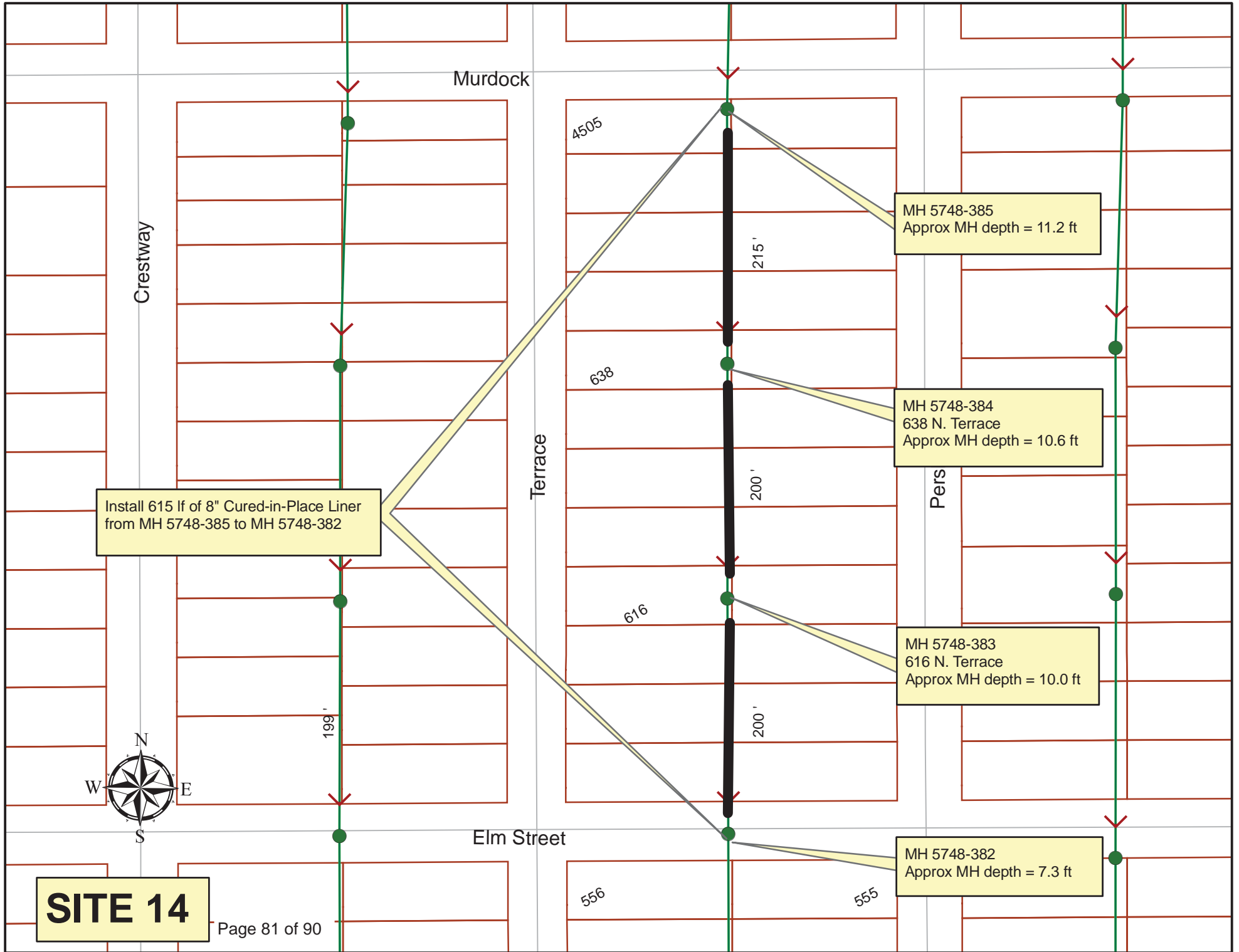
Date Insp: 2/28/2011
Dir Televised: Downstream To Upstream

Basin: E04E

Pipe Information

Shape:	Round	Length Status:		Project No. :	C-047
Dia/Ht:	8	Material:	VCP	Index:	
Length:	219.5	Slope:	0.400	Surface:	

Obs. #	VTR Counter	Distance	Location	Description	Rating	Ratings				
						Obsrvd (gpm)	Est. (gpm)	Struct	Clean	Remain (gpm)
1		0.0		5748-385 DS Manhole	1		0.000	0	0	0.000
2		48.0		Broken Pipe	4	Fixed by Sewer Maintenance since TV -LML				
3		63.2		Sealed Off Wye	1		0.000	0	0	0.000
4		65.8		Sealed Off Wye	1		0.000	0	0	0.000
5		84.8		Crack-Horizontal	2		0.002	2	0	0.002
6		88.4	4510 E MURDOCK	Break-In Conn	1		0.001	0	0	0.001
7		91.1	802 N TERRACE	Break-In Conn	1		0.001	0	0	0.001
8		107.1	4510 E MURDOCK	Break-In Conn	5	Fixed by Sewer Maintenance since TV -LML				
9		114.8		Sealed Off Wye	1		0.000	0	0	0.000
10		117.1		Sealed Off Wye	1		0.000	0	0	0.000
11		127.5	803 N PERSHING	Extended Tap	3	Fixed by Sewer Maintenance since TV -LML				
12		142.6	806 N TERRACE	Break-In Conn	1		0.001	0	0	0.001
13		163.2		Sealed Off Wye	1		0.000	0	0	0.000
14		165.9		Sealed Off Wye	1		0.000	0	0	0.000
15		181.3		Broken Pipe	5	Fixed by Sewer Maintenance since TV -LML				
16		184.4		Broken Pipe	2		0.008	44	0	0.008
17		186.2	805 N PERSHING	Break-In Conn	5	Fixed by Sewer Maintenance since TV -LML				
18		188.5		Sealed Off Wye / broken seal	1		0.000	0	0	0.000
19		191.0	812 N TERRACE	Break-In Conn / roots	4		0.008	60	0	0.008
20		213.7		Sealed Off Wye	1		0.000	0	0	0.000
21		216.6		Sealed Off Wye	1		0.000	0	0	0.000
22		219.0		5748-386 US Manhole	1		0.000	0	0	0.000



Install 615 lf of 8" Cured-in-Place Liner from MH 5748-385 to MH 5748-382

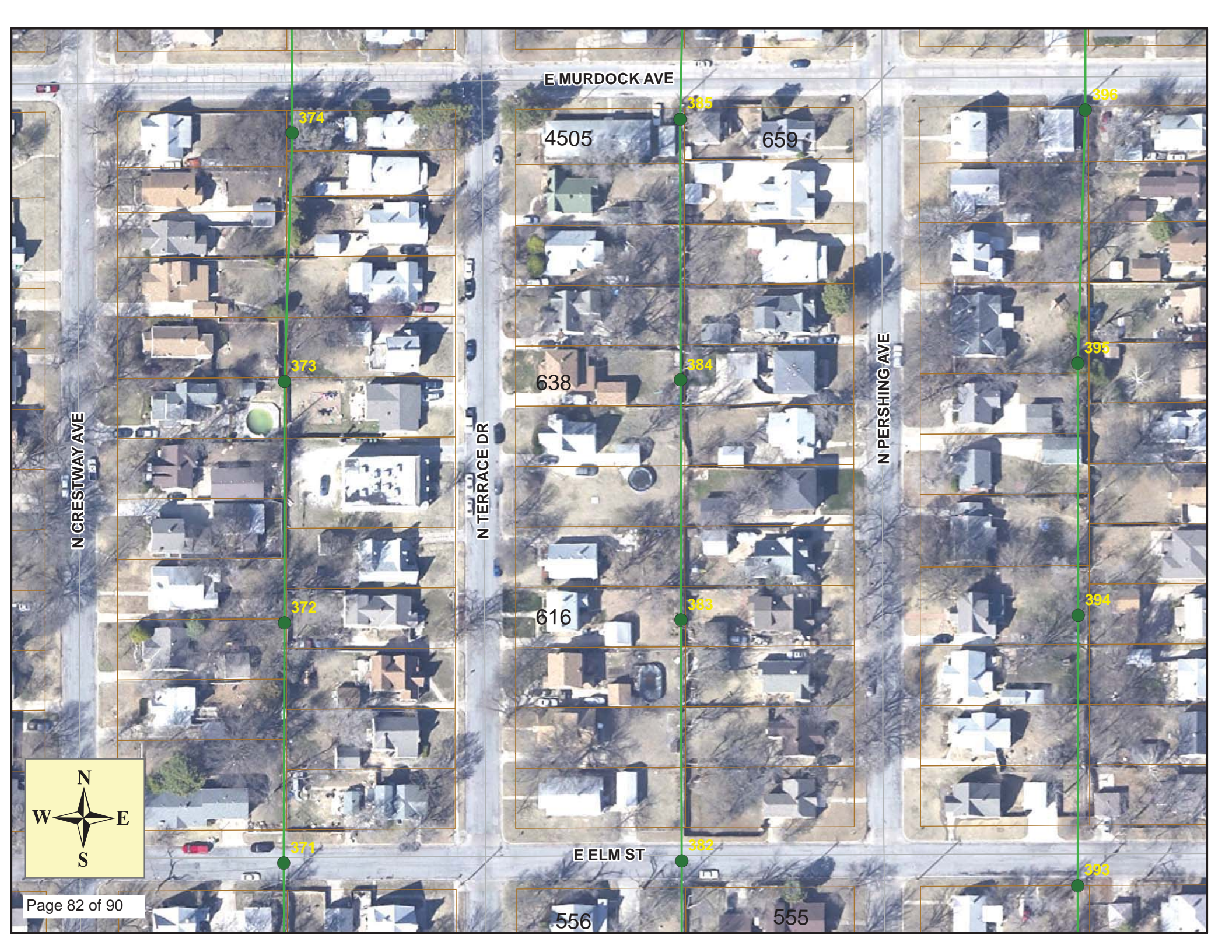
MH 5748-385
Approx MH depth = 11.2 ft

MH 5748-384
638 N. Terrace
Approx MH depth = 10.6 ft

MH 5748-383
616 N. Terrace
Approx MH depth = 10.0 ft

MH 5748-382
Approx MH depth = 7.3 ft

SITE 14



E MURDOCK AVE

N CRESTWAY AVE

N TERRACE DR

N PERSHING AVE

E ELM ST



Television Inspection Master Report

9/2/2011

2:54 PM

US Structure: 5748-385 4517 MURDOCK ST Date Insp: 2/28/2011 Basin: E04E
 DS Structure: 5748-384 638 N TERRACE DR Dir Televised: Upstream To Downstream

Pipe Information

Project No. : C-027 Dia: 8 Material: VCP Length: 215.9 Slope: 0.400

Obs. #	VTR Counter	Distance	Location	Description	Rating	Obsrvd (gpm)	Est. (gpm)	Struct	Clean	Remain (gpm)
1		0.0		5748-385 US Manhole	1		0.000	0	0	0.000
2		10.7	4505 E MURDOCK	Wye Service	1		0.000	0	0	0.000
3		11.9		Sealed Off Wye	1		0.000	0	0	0.000
4		34.0	Offset left/right > 1"	Material Chngs to PVC	3		0.000	0	0	0.000
5		34.7	4505 E MURDOCK	PVC Break-In Conn	1		0.001	0	0	0.001
6		35.5	Offset	Mat. Chngs back to VCP	3	Offset sideways and vertically Need to repair the prior repair before CIPP can be installed				

4-26-13: This repair will be made by Sewer Maintenance within the next month (before CIPP begins). -LML

7		39.2	659 N PERSHING	Wye Service	1		0.000	0	0	0.000
8		60.4	652 N TERRACE	Wye Service	3		0.000	2	0	0.000
9		63.5		Sealed Off Wye	4		0.000	0	0	0.000
10		77.2	651 N PERSHING	Break-In Conn	3		0.004	2	0	0.004
11		87.8		Sealed Off Wye	1		0.000	0	0	0.000
12		90.9		Sealed Off Wye	1		0.000	0	0	0.000
13		102.0	642 N TERRACE / roots	Break-In Conn	3		0.004	2	0	0.004
14		102.4		Roots	2		0.004	2	4	0.004
15		105.1		Roots	2		0.004	2	4	0.004
16		107.8		Roots	1		0.002	1	1	0.002
17		110.4		Roots	1		0.002	1	1	0.002
18		114.7		Sealed Off Wye	1		0.000	0	0	0.000
19		117.2		Sealed Off Wye	1		0.000	0	0	0.000
20		125.9		Roots	1		0.002	1	1	0.002
21		128.8		Roots	1		0.002	1	1	0.002
22		129.6	647 N PERSHING	Break-In Conn	4		0.008	60	0	0.008
23		134.0		Roots	1		0.002	1	1	0.002
24		140.8		Sealed Off Wye	1		0.000	0	0	0.000
25		142.6		Sealed Off Wye	1		0.000	0	0	0.000
26		167.2		Sealed Off Wye	1		0.000	0	0	0.000
27		169.7		Sealed Off Wye	1		0.000	0	0	0.000
28		169.8	643 N PERSHING	Break-In Conn	3		0.004	2	0	0.004
29		178.7	640 N TERRACE	Break-In Conn	2		0.002	0	0	0.002
30		192.0		Sealed Off Wye	1		0.000	0	0	0.000
31		196.0		Sealed Off Wye	1		0.000	0	0	0.000
32		215.3		DS Manhole 5748-384	1		0.000	0	0	0.000

Television Inspection Master Report

9/2/2011

2:54 PM

US Structure: 5748-384 638 N TERRACE DR Date Insp: 2/28/2011 Basin: E04E
 DS Structure: 5748-383 616 N TERRACE DR Dir Televised: Upstream To Downstream

Pipe Information

Shape: Round Length Status: Project No. : C-027
 Dia/Ht: 8 Material: VCP Index:
 Length: 199.3 Slope: 0.400 Surface: Rear Easement

Obs. #	VTR Counter	Distance	Location	Description	Rating	Obsrvd (gpm)	Ratings			Remain (gpm)
							Est. (gpm)	Struct	Clean	
1		0.0		5748-384 US Manhole	1	0.000	0	0	0.000	
2		3.8		Sealed Off Wye	1	0.000	0	0	0.000	
3		3.9	638 N TERRACE	Break-In Conn	3	0.004	2	0	0.004	
4		6.5	633 N PERSHING / roots	Wye Service	3	0.000	2	0	0.000	
5		30.0		Sealed Off Wye	1	0.000	0	0	0.000	
6		32.6		Sealed Off Wye	1	0.000	0	0	0.000	
7		55.9	632 N TERRACE / PVC	Break-In Conn	1	0.001	0	0	0.001	
8		58.2	627 N PERSHING	Break-In Conn	1	0.001	0	0	0.001	
9		81.1		Sealed Off Wye	1	0.000	0	0	0.000	
10		84.0		Sealed Off Wye	1	0.000	0	0	0.000	
11		106.2		Sealed Off Wye	1	0.000	0	0	0.000	
12		108.3	623 N PERSHING	Break-In Conn	2	0.002	0	0	0.002	
13		132.5		Sealed Off Wye	1	0.000	0	0	0.000	
14		135.2		Sealed Off Wye	1	0.000	0	0	0.000	

15	156.9			Roots	3	0.008	5	8	0.008
16	158.4	622 N TERRACE / roots		Wye Service	3	0.000	2	0	0.000
17	161.2	621 N PERSHING		Break-In Conn	5	0.010	400	0	0.010

(tap is broken off the main) There is also a sag from 153 ft to 165 ft.

Both taps have been replaced by Sewer Maintenance. -LML

18	179.1			Crack-Horizontal	1	0.001	1	0	0.001
19	185.1			Sealed Off Wye	1	0.000	0	0	0.000
20	186.8			Sealed Off Wye	1	0.000	0	0	0.000
21	199.7			5748-383 DS Manhole	1	0.000	0	0	0.000

Television Inspection Master Report

9/2/2011

2:54 PM

US Structure: 5748-383 616 N TERRACE DR Date Insp: 2/28/2011 Basin: E04E
 DS Structure: 5748-382 556 N TERRACE ST Dir Televised: Upstream To Downstream

Pipe Information

Shape: Round Length Status: Project No. : C-027
 Dia/Ht: 8 Material: VCP Index:
 Length: 200.3 Slope: 0.400 Surface: Rear Easement

Obs. #	VTR Counter	Distance	Location	Description	Rating	Obsrvd (gpm)	Ratings			Remain (gpm)
							Est. (gpm)	Struct	Clean	
1		0.0		5748-383 US Manhole	1	0.000	0	0	0.000	
2		10.5	616 N TERRACE	Break-In Conn	3	0.004	2	0	0.004	
3		13.8	619 N PERSHING	PVC Break-In Conn	1	0.001	0	0	0.001	
4		38.1	610 N TERRACE	Wye Service	2	0.000	0	0	0.000	
5		40.7		Sealed Off Wye	1	0.000	0	0	0.000	
6		64.3		Sealed Off Wye	1	0.000	0	0	0.000	
7		66.8	615 N PERHING	Wye Service	2	0.000	0	0	0.000	
8		89.5		Sealed Off Wye	1	0.000	0	0	0.000	
9		92.4	605 N PERSHING	Break-In Conn / cracks	3	0.004	2	0	0.004	
10		94.6		Crack-Horizontal	3	0.004	5	0	0.004	
11		97.4		Crack-Horizontal	2	0.002	2	0	0.002	
12		105.3		Crack-Horizontal	2	0.002	2	0	0.002	
13		108.1		Crack-Horizontal	2	0.002	2	0	0.002	
14		113.0		Crack-Horizontal	3	0.004	5	0	0.004	
15		115.4	606 N TERRACE	Break-In Conn	5	0.010	400	0	0.010	
				(some pipe missing around the tap, but wait to replace until after CIPP has been installed)						
16		118.1		Sealed Off Wye	4	0.000	0	0	0.000	
17		143.3	602 N TERRACE	Wye Service / full of roots	5	0.000	400	0	0.000	
18		145.5		Sealed Off Wye	1	0.000	0	0	0.000	
19		148.5	601 N PERSHING	Break-In Conn	2	0.002	0	0	0.002	
20		169.4		Sealed Off Wye	1	0.000	0	0	0.000	
21		170.7		Sealed Off Wye	1	0.000	0	0	0.000	
22		201.7		5748-382 DS Manhole	1	0.000	0	0	0.000	