

13TH ST. NORTH

MH # 5648-178
Replace Manhole Frame & Cover
Approx depth = 6.9 ft

6-1

1356

2513

MH # 5648-177
Remove Manhole

Remove and replace 613 lf of 8" pipe
from MH 5648-178 to MH 5648-175

MH # 5648-xxx
Construct Shallow Manhole over existing
sanitary sewer line approx. 300 lf south
of MH 5648-178. Approx depth = < 7.0 ft

MH # 5648-176
Remove Manhole

GROVE

POPLAR

Unpaved Alley

GREEN

ESTELLE

205'

202'

2518

1303

Remove and replace 15 lf of Concrete Approach (N)
Remove and replace 16 lf of Concrete Pavement

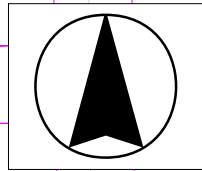
12TH ST. NORTH

MH # 5648-175
Approx depth = 6.5 ft

206'

245'

SITE 6



6-2

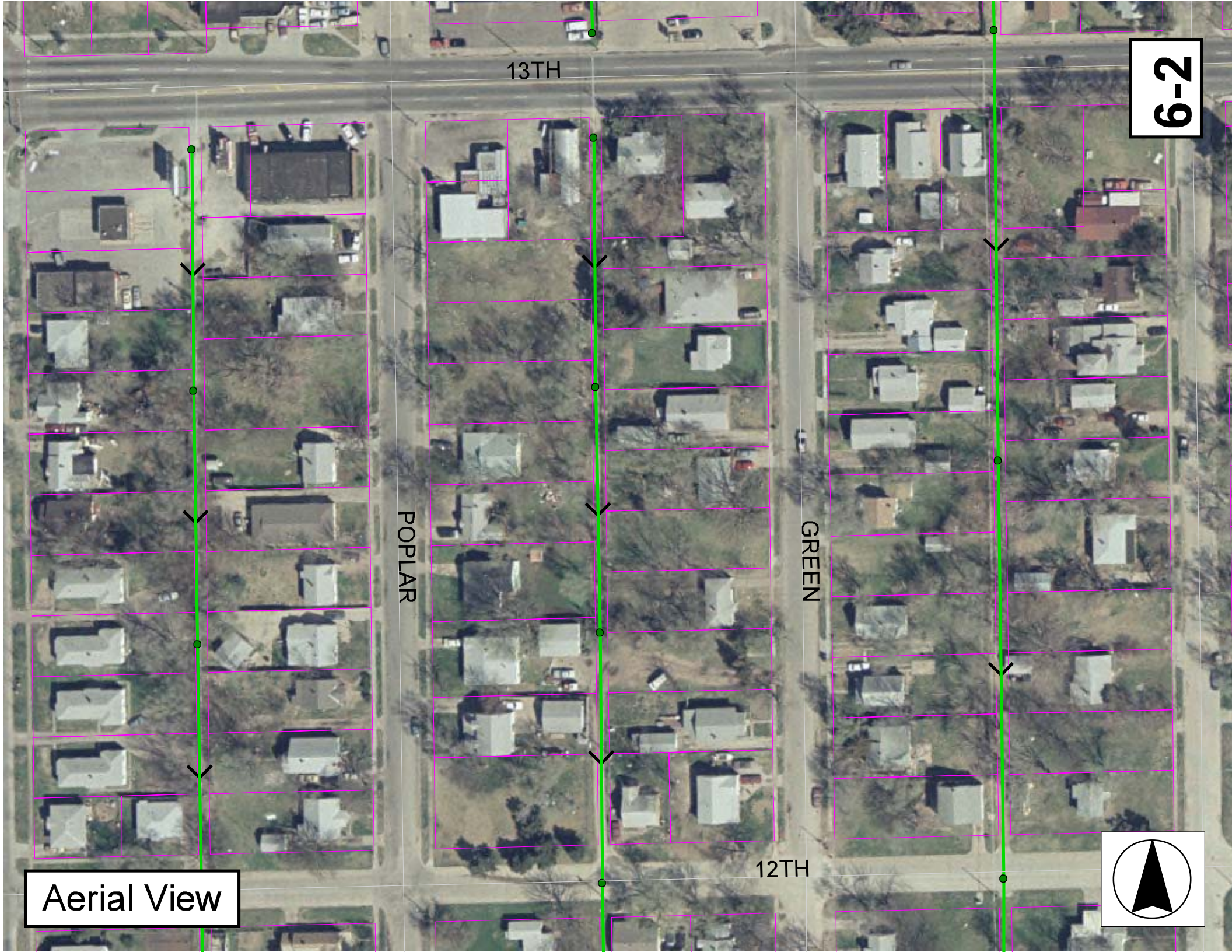
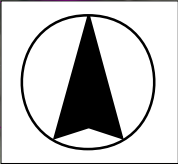
13TH

POPLAR

GREEN

12TH

Aerial View



Television Inspection Master Report

12/8/2003
3:43:05PM

US Manhole: 5648-178
DS Manhole: 5648-177

2513 E 13TH ST
1339 N GREEN ST

Date Insp: 4/10/2003

Basin: EC02B

Dir Televised: Upstream To Downstream

Pipe Information

Shape:	Round	Length Status:	Project No.:	C-180
Dia/Ht Width:	8 0	Material:	VCP	Index:
Length:	205.9	Slope:	0.155	Surface:
Pipe Sec Length:	Comment:			

Inspection Information

Crew:	696	Percent Full:	10	Tape ID:	V-3896
Weather:	Sunny	Purpose:	TV Existing Line	Counter Start:	0.00.00.
Surface Cond:	N/A	Flow:	Normal Flow	Counter Stop:	0.49.52.
Dyed Test:	No				

Obs. #	VTR Counter Comment	Dist	Location	Description	Rating	Obsrvd (gpm)	Est. (gpm)	Ratings		
								Struct	Clean	Remain (gpm)
1		0.0	US Manhole 5648-178	2513 E 13TH ST						
2		1.0	Crown	Crack-Horizontal	2		0.002	2	0	0.002
3		3.0	East	Pipe Seal (means the wye is sealed off just outside of the main)						
4		4.0	Crown	Crack-Horizontal	2		0.002	2	0	0.002
5		6.0	West	Pipe Seal	1		0.000	0	0	0.000
6		19.0	East	Wye Service	1		0.000	0	0	0.000
7		19.0	Wye Service	Offset	2		0.000	0	0	0.000
8		21.0	West	Pipe Seal	1		0.000	0	0	0.000
9		22.0	Crown	Crack-Horizontal	1		0.001	1	0	0.001
10		28.0	Quad 3 / L-Lt	Crack-Radial	1		0.001	1	0	0.001
11		33.0	Quad 4 / U-Lt	Crack-Horizontal	2		0.002	2	0	0.002
12		35.0	Quad 1 / U-Rt	Crack-Horizontal	1		0.001	1	0	0.001
13		37.0	Quad 3 / L-Lt	Broken Pipe	5		0.060	100	0	0.060
14		40.0	Quad 4 / U-Lt	Roots	2		0.004	2	4	0.004
15		41.0	East	Wye Service	1		0.000	0	0	0.000
16		41.0	Wye Service	Roots	3		0.008	5	8	0.008
17		44.0	West	Pipe Seal	1		0.000	0	0	0.000
18		45.0	Crown	Crack-Horizontal	1		0.001	1	0	0.001
19		55.0	Crown	Crack-Radial	1		0.001	1	0	0.001
20		57.0	Quad 4 / U-Lt	Crack-Radial	1		0.001	1	0	0.001
21		60.0	Quad 1 / U-Rt	Crack-Horizontal	1		0.001	1	0	0.001
22		63.0	Crown	Crack-Radial	1		0.001	1	0	0.001
23		65.0	Crown	Crack-Horizontal	1		0.001	1	0	0.001
24		66.0	East	Pipe Seal	1		0.000	0	0	0.000
25		68.0	Crown	Crack-Horizontal	1		0.001	1	0	0.001
26		68.0	Quad 2 / L-Rt	Roots	1		0.002	1	1	0.002
27		68.0	West	Break-In Conn	1		0.001	0	0	0.001
28		68.0	Break-In-Connection	Roots	4		0.010	10	25	0.010
29	EMPTY LOT	70.0	Joint	Roots	2		0.004	2	4	0.004
30		70.0	Quad 1 / U-Rt	Crack-Radial	1		0.001	1	0	0.001
31		73.0	Crown	Crack-Radial	2		0.002	2	0	0.002
32		75.0	Quad 2 / L-Rt	Crack-Radial	1		0.001	1	0	0.001
33		80.0	West	Break-In Conn	1		0.001	0	0	0.001
34		80.0	Invert	Crack-Radial	2		0.002	2	0	0.002
35		80.0	Quad 2 / L-Rt	Roots	2		0.004	2	4	0.004

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Television Inspection Master Report

12/8/2003
3:43:05PM

US Manhole: 5648-178 2513 E 13TH ST Date Insp: 4/10/2003 Basin: EC02B
DS Manhole: 5648-177 1339 N GREEN ST

36	85.0	Quad 3 / L-Lt	Broken Pipe	5	0.060	100	0	0.060
37	87.0	West	Wye Service	1	0.000	0	0	0.000
38	88.0	Crown	Broken Pipe	5	0.060	100	0	0.060
39	90.0	Quad 2 / L-Rt	Crack-Radial	1	0.001	1	0	0.001
40	91.0	East	Pipe Seal	1	0.000	0	0	0.000
41	94.0	West	Wye Service	1	0.000	0	0	0.000
42	94.0	Wye Service	Roots	3	0.008	5	8	0.008
43	108.0	Quad 1 / U-Rt	Crack-Radial	1	0.001	1	0	0.001
44	110.0	West	Break-In Conn	1	0.001	0	0	0.001
45	110.0	Crown	Crack-Horizontal	1	0.001	1	0	0.001
46	113.0	Crown	Crack-Horizontal	1	0.001	1	0	0.001
47	117.0	East	Wye Service	1	0.000	0	0	0.000
48	117.0	Wye Service	Roots & offset outside of the main					
49	118.0	Crown	Crack-Horizontal	1	0.001	1	0	0.001
50	120.0	West	Wye Service	1	0.000	0	0	0.000
51	120.0	Quad 2 / L-Rt	Crack-Radial	1	0.001	1	0	0.001
52	128.0	Quad 3 / L-Lt	Crack-Radial	1	0.001	1	0	0.001
53	136.0	Quad 2 / L-Rt	Crack-Horizontal	2	0.002	2	0	0.002
54	141.0	Quad 1 / U-Rt	Crack-Radial	2	0.002	2	0	0.002
55	142.0	East	Pipe Seal	1	0.000	0	0	0.000
56	145.0	West	Pipe Seal	1	0.000	0	0	0.000
57	146.0	Quad 2 / L-Rt	Crack-Radial	1	0.001	1	0	0.001
58	149.0	Quad 2 / L-Rt	Crack-Radial	1	0.001	1	0	0.001
59	151.0	Crown	Crack-Horizontal	1	0.001	1	0	0.001
60	153.0	Quad 3 / L-Lt	Crack-Radial	1	0.001	1	0	0.001
61	166.0	Quad 4 / U-Lt	Crack-Horizontal	1	0.001	1	0	0.001
62	167.0	East	Pipe Seal	1	0.000	0	0	0.000
63	169.0	Quad 3 / L-Lt	Crack-Horizontal	1	0.001	1	0	0.001
64	170.0	West	Wye Service	1	0.000	0	0	0.000
65	176.0	Crown	Crack-Horizontal	1	0.001	1	0	0.001
66	193.0	East	Wye Service / broken outside of the main					
67	194.0	Crown	Crack-Radial	1	0.001	1	0	0.001
68	195.0	West	Pipe Seal	1	0.000	0	0	0.000
69	204.0	DS Manhole 5648-177						

Looks like poor grade on the pipe

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Television Inspection Master Report

12/8/2003
3:43:05PM

US Manhole: 5648-177
DS Manhole: 5648-176

1339 N GREEN ST
1321 N GREEN ST

Date Insp: 4/10/2003

Basin: EC02B

Dir Televised: Upstream To Downstream

Pipe Information

Shape:	Round	Length Status:	Project No.:	C-180
Dia/Ht Width:	8 0	Material:	VCP	Index:
Length:	202.5	Slope:	0.149	Surface:
Pipe Sec Length:	Comment:			

Obs. #	VTR Counter	Dist	Location	Description	Rating	Obsrvd (gpm)	Est. (gpm)	Ratings Struct	Clean	Remain (gpm)
1		0.0	US Manhole 5648-177 TO 176 IN ALLEY 1339 N. GREEN ST N.							
2		0.0	Quad 3 / L-Lt	Crack-Radial	1		0.001	1	0	0.001
3		1.0	Quad 4 / U-Lt	Broken Pipe	2		0.008	44	0	0.008
4		13.0	Invert	Crack-Radial	2		0.002	2	0	0.002
5		14.0	East	Wye / roots	1		0.000	0	0	0.000
6		16.0	West	Break-In Conn	2		0.002	0	0	0.002
7		16.0	Break-In-Connection	Broken Pipe	2		0.008	44	0	0.008
8		18.0	Quad 3 / L-Lt	Broken Pipe	2		0.008	44	0	0.008
9		30.0	Quad 4 / U-Lt	Broken Pipe	2		0.008	44	0	0.008
13		30.0	Quad 4 / U-Lt	Crack-Radial	1		0.001	1	0	0.001
10		32.0	East	Break-In Conn (NEEDS REPLACED)						
11		32.0	Break-In-Connection	Roots	3		0.008	5	8	0.008
12		33.0	Invert	Crack-Horizontal	1		0.001	1	0	0.001
14		40.0	East	Pipe Seal	1		0.000	0	0	0.000
15		42.0	West	Pipe Seal	1		0.000	0	0	0.000
16		46.0	Quad 4 / U-Lt	Crack-Radial	2		0.002	2	0	0.002
17		53.0	Quad 2 / L-Rt	Crack-Radial	1		0.001	1	0	0.001
18		61.0	Quad 3 / L-Lt	Crack-Radial	2		0.002	2	0	0.002
19		63.0	Crown	Crack-Radial	1		0.001	1	0	0.001
20		65.0	East	Pipe Seal	1		0.000	0	0	0.000
21		66.0	Quad 4 / U-Lt	Crack-Radial	1		0.001	1	0	0.001
22		67.0	West	Wye Service	1		0.000	0	0	0.000
23		68.0	Quad 2 / L-Rt	Crack-Radial	1		0.001	1	0	0.001
24		74.0	Quad 4 / U-Lt	Crack-Radial	1		0.001	1	0	0.001
25		76.0	Crown	Crack-Horizontal	1		0.001	1	0	0.001
26		81.0	Quad 3 / L-Lt	Crack-Horizontal	1		0.001	1	0	0.001
27		84.0	Quad 1 / U-Rt	Crack-Radial	1		0.001	1	0	0.001
28		91.0	East	Wye Service	1		0.000	0	0	0.000
29		93.0	West	Pipe Seal	1		0.000	0	0	0.000
30		94.0	Quad 2 / L-Rt	Crack-Radial	1		0.001	1	0	0.001
31		99.0	Quad 3 / L-Lt	Crack-Radial	1		0.001	1	0	0.001
32		104.0	Quad 3 / L-Lt	Crack-Horizontal	1		0.001	1	0	0.001
33		106.0	Quad 2 / L-Rt	Crack-Horizontal	1		0.001	1	0	0.001
34		116.0	East	Pipe Seal	1		0.000	0	0	0.000
35		117.0	Quad 4 / U-Lt	Crack-Horizontal	1		0.001	1	0	0.001
36		118.0	West	Wye Service	1		0.000	0	0	0.000
37		119.0	Quad 2 / L-Rt	Crack-Radial	1		0.001	1	0	0.001
38		124.0	Quad 2 / L-Rt	Crack-Radial	1		0.001	1	0	0.001
39		127.0	Quad 4 / U-Lt	Crack-Radial	1		0.001	1	0	0.001
40		134.0	Quad 2 / L-Rt	Crack-Radial	1		0.001	1	0	0.001
41		141.0	East	Wye Service	1		0.000	0	0	0.000

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Television Inspection Master Report

12/8/2003
3:43:05PM

US Manhole: 5648-177 1339 N GREEN ST **Date Insp:** 4/10/2003 **Basin:** EC02B
DS Manhole: 5648-176 1321 N GREEN ST

42	143.0	West	Pipe Seal	1	0.000	0	0	0.000
43	144.0	Invert	Crack-Radial	1	0.001	1	0	0.001
44	152.0	Crown	Crack-Horizontal	1	0.001	1	0	0.001
45	160.0	Quad 4 / U-Lt	Crack-Horizontal	1	0.001	1	0	0.001
46	162.0	Invert	Crack-Radial	1	0.001	1	0	0.001
47	165.0	Quad 1 / U-Rt	Crack-Horizontal	2	0.002	2	0	0.002
48	166.0	East	Pipe Seal	1	0.000	0	0	0.000
49	168.0	West	Pipe Seal	1	0.000	0	0	0.000
50	180.0	Crown	Crack-Horizontal	1	0.001	1	0	0.001
51	182.0	Quad 2 / L-Rt	Broken Pipe	2	0.008	44	0	0.008
52	187.0	East	Break-In Conn	1	0.001	0	0	0.001
53	187.0	Quad 3 / L-Lt	Broken Pipe	1	0.004	30	0	0.004
54	191.0	East	Pipe Seal	1	0.000	0	0	0.000
55	194.0	West	Wye Service	1	0.000	0	0	0.000
56	200.0	DS Manhole	5648-176					

Looks like poor grade

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Television Inspection Master Report

12/8/2003
3:43:05PM

US Manhole: 5648-176
DS Manhole: 5648-175

1321 N GREEN ST
2518 E 12TH S

Date Insp: 4/11/2003

Basin: EC02B

Dir Televised: Upstream To Downstream

Pipe Information

Shape:	Round	Length Status:	Project No.:	C-180
Dia/Ht Width:	8 0	Material:	VCP	Index:
Length:	206.0	Slope:	0.150	Surface:
Pipe Sec Length:	Comment:			

Obs. #	VTR Counter Comment	Dist	Location	Description	Rating	Obsrvd (gpm)	Est. (gpm)	Ratings Struct	Clean	Remain (gpm)
1		0.0	US Manhole	5648-176 TO 175 1321 N GREEN ST						
2		0.0	Quad 2 / L-Rt	Broken Pipe	2		0.008	44	0	0.008
3		3.0	Invert	Broken Pipe	2		0.008	44	0	0.008
4		7.0	Quad 2 / L-Rt	Broken Pipe	2		0.008	44	0	0.008
5		12.0	Invert	Broken Pipe	2		0.008	44	0	0.008
6		16.0	East	Break-In Conn	1		0.001	0	0	0.001
7		17.0	Crown	Crack-Horizontal	2		0.002	2	0	0.002
8		18.0	West	Pipe Seal	1		0.000	0	0	0.000
9		20.0	Quad 4 / U-Lt	Broken Pipe	5		0.060	100	0	0.060
10		22.0	Invert	Crack-Radial	2		0.002	2	0	0.002
11		25.0	Invert	Crack-Radial	2		0.002	2	0	0.002
12		30.0	Quad 1 / U-Rt	Crack-Radial	1		0.001	1	0	0.001
13		34.0	Invert	Broken Pipe	2		0.008	44	0	0.008
14		41.0	East	Pipe Seal	1		0.000	0	0	0.000
26	92	42.0	Quad 1 / U-Rt	Crack-Radial						0.000
15		44.0	West	Wye Service / broken outside of the main						
16		44.0	Wye Service	Broken Pipe	2		0.008	44	0	0.008
17		45.0	Quad 3 / L-Lt	Broken Pipe	5		0.060	100	0	0.060
18		54.0	Quad 3 / L-Lt	Crack-Horizontal	2		0.002	2	0	0.002
19		57.0	Quad 2 / L-Rt	Crack-Horizontal	2		0.002	2	0	0.002
20		65.0	Invert	Crack-Radial	2		0.002	2	0	0.002
21		66.0	East	Pipe Seal	1		0.000	0	0	0.000
22		69.0	West	Pipe Seal	1		0.000	0	0	0.000
23		70.0	Invert	Crack-Horizontal	2		0.002	2	0	0.002
24		88.0	Quad 4 / U-Lt	Crack-Radial	1		0.001	1	0	0.001
25		90.0	Quad 4 / U-Lt	Crack-Horizontal	1		0.001	1	0	0.001
		91.0	East	Wye						
27		92.0	Quad 2 / L-Rt	Crack-Radial	1		0.001	1	0	0.001
28		94.0	West	Wye Service	1		0.000	0	0	0.000
29		100.0	Invert	Crack-Radial	1		0.001	1	0	0.001
30		105.0	Invert	Crack-Radial	2		0.002	2	0	0.002
31		110.0	Quad 4 / U-Lt	Crack-Horizontal	2		0.002	2	0	0.002
32		115.0	Quad 3 / L-Lt	Crack-Horizontal	1		0.001	1	0	0.001
33		117.0	East	Wye Service	1		0.000	0	0	0.000
34		117.0	Break-In-Connection	Roots / Protruding PVC service						
35		120.0	West	Pipe Seal	1		0.000	0	0	0.000
36		128.0	Quad 1 / U-Rt	Crack-Radial	1		0.001	1	0	0.001
37		141.0	Quad 3 / L-Lt	Crack-Horizontal	2		0.002	2	0	0.002
38		142.0	East	Wye Service	1		0.000	0	0	0.000
39		142.0	Wye Service	Roots	4		0.010	10	25	0.010

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Television Inspection Master Report

12/8/2003
3:43:05PM

US Manhole: 5648-176 1321 N GREEN ST **Date Insp:** 4/11/2003 **Basin:** EC02B
DS Manhole: 5648-175 2518 E 12TH S

40	143.0	Quad 3 / L-Lt	Crack-Horizontal	2	0.002	2	0	0.002
41	145.0	West	Wye Service	1	0.000	0	0	0.000
42	151.0	Crown	Crack-Horizontal	1	0.001	1	0	0.001
43	153.0	Crown	Crack-Horizontal	1	0.001	1	0	0.001
44	166.0	Quad 4 / U-Lt	Crack-Radial	1	0.001	1	0	0.001
45	168.0	East	Pipe Seal	1	0.000	0	0	0.000
46	170.0	West	Pipe Seal	1	0.000	0	0	0.000
47	179.0	Invert	Crack-Radial	1	0.001	1	0	0.001
48	181.0	Quad 4 / U-Lt	Crack-Horizontal	2	0.002	2	0	0.002
49	184.0	Quad 2 / L-Rt	Crack-Horizontal	2	0.002	2	0	0.002
50	186.0	Quad 1 / U-Rt	Crack-Horizontal	2	0.002	2	0	0.002
51	189.0	Quad 3 / L-Lt	Broken Pipe	5	0.060	100	0	0.060
52	191.0	Quad 4 / U-Lt	Crack-Horizontal	2	0.002	2	0	0.002
53	196.0	Quad 2 / L-Rt	Crack-Horizontal	2	0.002	2	0	0.002
54	205.0	DS Manhole 5648-175						

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