

Remove and Replace 9 lf of Pavement
Remove and Replace 6 lf of Concrete Approach

MH # 5549-211
Reconstruct Manhole
Approx depth = 3.0 ft

MH # 5549-208
Reconstruct Manhole
Approx depth = 4.8 ft

Remove and replace 708 lf of 8" pipe,
from MH 5549-211 to MH 5549-204

Remove and Replace 10 lf of Concrete Approach
Remove and Replace 35 lf of Pavement

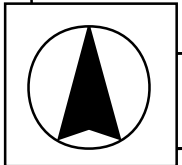
MH # 5549-205
Remove Manhole
(buried / not measured)

Cleanout

Point Repair:
Remove 30 lf of 8" clay and cast iron pipe,
from MH 5549-204 to 30 lf south of the manhole.
Replace with 30 lf of C-900 pipe. Sanitary sewer
goes through a storm water sewer manhole in
14th Street. Any damage to storm system shall
be repaired and shall be incidental to the Site.

MH # 5549-204
Reconstruct Manhole
Approx depth = 3.4 ft

SITE 6



6-2



15TH

14TH

TOPEKA

EMPORIA

BROADWAY

Aerial View



Television Inspection Master Report

9/11/2007
1:34:34PM

US Manhole: 5549-211 409 E 15TH ST Date Insp: 6/7/2006 Basin: C03D
 DS Manhole: 5549-208 1525 N EMPORIA ST Dir Televised: Upstream To Downstream

Pipe Information

Shape: Round Length Status: Project No.: A-287
 Dia/Ht Width: 8 0 Material: VCP Index:
 Length: 338.0 Slope: 0.249 Surface:

Inspection Information

Crew: 694 Percent Full: Tape ID: DVD #0168
 Weather: Sunny Purpose: TV Existing Line Counter Start: 13:05
 Surface Cond: Alley Unpaved Flow: Counter Stop:

Obs. #	VTR Counter	Distance	Location	Description	Obs Rating	Obsrvd (gpm)	Est. (gpm)	Ratings Struct	Clean	Remain (gpm)
1	00:00:00	0.0	US Manhole	5549-211	1		0.000	0	0	0.000
2	00:00:00	0.0	Invert / pipe missing	Broken Pipe	4		0.030	78	0	0.030
3	00:00:00	5.0	West	Sealed Off Wye / Roots	3		0.000	0	0	0.000
4	00:00:00	7.2	East	Sealed Off Wye / Roots	4		0.000	0	0	0.000
5	00:00:00	18.8	Upper Right	Crack-Horizontal	2		0.002	2	0	0.002
6	00:00:00	29.3	West	Sealed Off Wye / Roots	3		0.000	0	0	0.000
7	00:00:00	31.3	East	Wye Service	3		0.000	2	0	0.000
REMARK: 1559 N. EMPORIA / ROOTS / service is PVC just outside of main										
8	00:00:00	54.0	West	Wye Service	4		0.000	60	0	0.000
REMARK: 409 E. 15TH ST. N. / ROOTS										
9	00:00:00	56.0	East	Sealed Off Wye / Roots	3		0.000	0	0	0.000
10	00:00:00	78.3	West	Sealed Off Wye / Roots	4		0.000	0	0	0.000
11	00:00:00	80.8	East	Sealed Off Wye / Debris	3		0.000	0	0	0.000
12	00:00:00	91.2	West	Wye Service	1		0.000	0	0	0.000
REMARK: 1544 N. TOPEKA / DYE TEST										
13	00:00:00	103.1	West	Sealed Off Wye / Debris	3		0.000	0	0	0.000
14	00:00:00	107.2	Crown	Observation Hole	1		0.000	0	0	0.000
15	00:00:00	127.4	West	Sealed Off Wye / Debris	3		0.000	0	0	0.000
16	00:00:00	129.6	East	Wye Service	1		0.000	0	0	0.000
REMARK: 1545 N. EMPORIA										
17	00:00:00	144.8	Crown	Broken pipe	3		0.004	2	0	0.004
18	00:00:00	152.0	West	Wye Service	1		0.000	0	0	0.000
REMARK: 1540 N. TOPEKA										
19	00:00:00	153.8	East	Sealed Off Wye / debris	3		0.000	0	0	0.000
20	00:00:00	157.2	Upper Right	Crack-Radial	3		0.004	5	0	0.004
21	00:00:00	176.0	West	Sealed Off Wye / debris	3		0.000	0	0	0.000

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Television Inspection Master Report

9/11/2007
1:34:34PM

US Manhole: 5549-211 409 E 15TH ST Date Insp: 6/7/2006 Basin: C03D
 DS Manhole: 5549-208 1525 N EMPORIA ST Dir Televised: Upstream To Downstream

22	00:00:00	178.1	East	Wye Service	1	0.000	0	0	0.000
					REMARK: 1543 N. EMPORIA				
23	00:00:00	200.3	West	Wye Service	1	0.000	0	0	0.000
					REMARK: 1536 N. TOPEKA				
24	00:00:00	202.3	East	Sealed Off Wye / debris	3	0.000	0	0	0.000
25	00:00:00	225.0	West	Wye Service	4	0.000	60	0	0.000
					REMARK: BALL OF ROOTS / APPEARS SEALED				
26	00:00:00	226.9	East	Wye Service	3	0.000	2	0	0.000
					REMARK: 1539 N. EMPORIA / ROOTS				
27	00:00:00	228.1	Invert	Sag begins	2	0.000	2	0	0.000
28	00:00:00	230.8	Crown / cracks	Observation Hole	3	0.003	0	0	0.003
29	00:00:00	248.0	Invert	Sag ends	2	0.000	2	0	0.000
30	00:00:00	249.2	West	Wye Service	1	0.000	0	0	0.000
					REMARK: 1532 N. TOPEKA				
31	00:00:00	251.3	East	Wye Service	1	0.000	0	0	0.000
					REMARK: 1535 N. EMPORIA				
32	00:00:00	268.9	Upper Left	Crack-Radial	3	0.004	5	0	0.004
33	00:00:00	275.9	West	Sealed Off Wye / Roots	3	0.000	0	0	0.000
34	00:00:00	277.8	East	Sealed Off Wye / debris	3	0.000	0	0	0.000
35	00:00:00	295.5	Lower Left	Crack-Horizontal	3	0.004	5	0	0.004
36	00:00:00	300.1	West	Wye Service	1	0.000	0	0	0.000
					REMARK: 1530 N. TOPEKA				
37	00:00:00	302.6	East	Sealed Off Wye / debris	3	0.000	0	0	0.000
38	00:00:00	303.6	Upper Right	Crack-Radial	3	0.004	5	0	0.004
39	00:00:00	311.2	Invert	Sag begins	2	0.000	2	0	0.000
40	00:00:00	325.1	West	Wye Service	3	0.000	2	0	0.000
					REMARK: APPEARS SEALED / ball of roots / grease collected				
41	00:00:00	326.6	East	Break-In Conn	1	0.001	0	0	0.001
					REMARK: 1529 N. EMPORIA / PVC				
42	00:00:00	339.2	Invert	Sag ends	2	0.000	2	0	0.000
43	00:00:00	342.4	DS Manhole	5549-208 / brick trough	1	0.000	0	0	0.000

Television Inspection Master Report

9/11/2007
1:34:34PM

US Manhole: 5549-208 1525 N EMPORIA ST Date Insp: 6/8/2006 Basin: C03D
DS Manhole: 5549-205 Dir Televised: Upstream To Downstream

Pipe Information

Shape: Round Length Status: Project No.: A-287
Dia/Ht Width: 8 Material: VCP Index:
Length: 335.2 Slope: 0.251 Surface:
Pipe Sec Length: Comment: POINT REPAIR BY SEWER MAINTENANCE FROM 197' TO 202' NORTH OF MH 5549-205. WORK DONE AFTER DRAIN LAYER EXPOSED MAIN FOR LATERAL REPAIR. BREAK NOT DRAIN LAYERS FAULT. CONNECTION FOR 1516 N. TOPEKA AT 198' NORTH OF MH. WORK COMPLETED 01-19-2006 TGC #####

Inspection Information

Crew: 694 Percent Full: Tape ID: DVD #0168
Weather: Sunny Purpose: TV Existing Line Counter Start: 11:50
Surface Cond: Alley Unpaved Flow: Counter Stop:

Obs. #	VTR Counter	Distance	Location	Description	Obs Rating	Obsrvd (gpm)	Est. (gpm)	Ratings Struct	Clean	Remain (gpm)
1	00:00:00	0.0	US Manhole	5549-208	1		0.000	0	0	0.000
2	00:00:00	5.0	West	Sealed Off Wye West	3		0.003	0	0	0.003
3	00:00:00	7.0	East (debris & broken pipe)	Sealed Off Wye East	4		0.004	0	0	0.004
4	00:00:00	29.3	West	Wye Service 4" Clay Wye Connection	1		0.000	0	0	0.000
					REMARK: 1526 N. TOPEKA					
5	00:00:00	30.5	Joint	PVC begins						
6	00:00:00	32.3	East	Break-In Conn 4" Predco Saddle	1		0.001	0	0	0.001
					REMARK: 1525 N. EMPORIA / PVC					
7	00:00:00	33.6	Joint	PVC ends	1		0.000	0	0	0.000
8	00:00:00	54.0	West	Wye Service 4" Clay Wye Connection	1		0.000	0	0	0.000
					REMARK: 1522 N. TOPEKA					
9	00:00:00	57.8	East	Sealed Off Wye East	3		0.003	0	0	0.003
10	00:00:00	60.8	Upper Right	Broken Pipe	4		0.030	78	0	0.030
11	00:00:00	63.0	Lower Left	Broken Pipe	2		0.008	44	0	0.008
12	00:00:00	78.1	West	Sealed Off Wye West	3		0.003	0	0	0.003
13	00:00:00	80.3	East	Sealed Off Wye East	3		0.003	0	0	0.003
14	00:00:00	102.4	West	Wye Service 4" Clay Wye Connection	1		0.000	0	0	0.000
					REMARK: 1520 N. TOPEKA					
15	00:00:00	103.2	Crown	REMARK: POINT REPAIR MADE						
16	00:00:00	104.5	East	Sealed Off Wye East	1		0.000	0	0	0.000
17	00:00:00	110.8	East	Break-In Conn 4" Break In Connection	1		0.001	0	0	0.001
					REMARK: 1515 N. EMPORIA					
18	00:00:00	116.6	Joint	PVC begins / OFFSET						
19	00:00:00	116.6	Invert	Sag (prior PVC repair has fallen and sits lower than the clay pipe)						
20	00:00:00	119.8	Joint	PVC ends / OFFSET						
21	00:00:00	126.6	West	Sealed Off Wye West	1		0.000	0	0	0.000
22	00:00:00	128.7	East	Sealed Off Wye East	4		0.004	0	0	0.004
23	00:00:00	136.2	Upper Left	Broken Pipe	4		0.030	78	0	0.030
24	00:00:00	151.0	West	Sealed Off Wye West	3		0.003	0	0	0.003

Television Inspection Master Report

9/11/2007
1:34:34PM

US Manhole: 5549-208 1525 N EMPORIA ST Date Insp: 6/8/2006 Basin: C03D
DS Manhole: 5549-205 Dir Televised: Upstream To Downstream

25	00:00:00	153.5	East	Sealed Off Wye East	3	0.003	0	0	0.003
26	00:00:00	168.2	Joint	PVC begins					
27	00:00:00	171.8	West	Break-In Conn	1	0.001	0	0	0.001
				4" Predco Saddle	REMARK: 1516 N. TOPEKA / PVC				
28	00:00:00	172.8	Joint	PVC ends					
29	00:00:00	175.2	West	Sealed Off Wye West	3	0.003	0	0	0.003
30	00:00:00	176.4	Crown	Crack-Radial	3	0.004	5	0	0.004
31	00:00:00	177.3	East	Sealed Off Wye East	3	0.003	0	0	0.003
32	00:00:00	185.0	Crown	REMARK: POINT REPAIR MADE					
33	00:00:00	199.4	West	Wye Service	1	0.000	0	0	0.000
				4" Clay Wye Connection	REMARK: 1514 N. TOPEKA				
34	00:00:00	201.3	East	Break-In Conn	1	0.001	0	0	0.001
				4" Break In Connection	REMARK: 1513 N. EMPORIA				
35	00:00:00	219.8	Upper Left	Broken Pipe	5	0.060	100	0	0.060
36	00:00:00	223.5	West	Sealed Off Wye West	3	0.003	0	0	0.003
37	00:00:00	225.4	East	Wye Service	1	0.000	0	0	0.000
				4" Clay Wye Connection	REMARK: 1511 N. EMPORIA / PVC				
38	00:00:00	228.5	Crown	Broken Pipe	3	0.010	60	0	0.010
39	00:00:00	229.5	Crown	Observation Hole	1	0.000	0	0	0.000
40	00:00:00	236.5	Invert	Sag ends	2	0.000	2	0	0.000
41	00:00:00	247.7	West	Wye Service	1	0.000	0	0	0.000
				4" Clay Wye Connection	REMARK: 1512 N. TOPEKA				
42	00:00:00	249.6	East	Sealed Off Wye East	1	0.000	0	0	0.000
43	00:00:00	262.6	Invert	Sag begins	2	0.000	2	0	0.000
44	00:00:00	265.1	Crown	Broken Pipe	3	0.010	60	0	0.010
45	00:00:00	271.6	West	Sealed Off Wye West	3	0.003	0	0	0.003
46	00:00:00	272.1	Upper Left	REMARK: INFILTRATION / DYE TEST					
47	00:00:00	273.6	East	Wye Service	1	0.000	0	0	0.000
				4" Clay Wye Connection	REMARK: 1507-09 N. EMPORIA / DYE TEST				
48	00:00:00	275.2	Offset Joint	Stopped Inspection	4	DUE TO OFFSET			

Television Inspection Master Report

9/11/2007
1:34:34PM

US Manhole: 5549-208
DS Manhole: 5549-205

1525 N EMPORIA ST

Date Insp: 6/8/2006
Dir Televised: Downstream To Upstream

Basin: C03D

REVERSE SETUP:

Obs. #	VTR Counter	Distance	Location	Description	Obs Rating	Obsrvd (gpm)	Est. (gpm)	Ratings Struct	Clean	Remain (gpm)
1				Continued Inspection:						
2	00:00:00	0.0	DS Manhole	5549-205TV AGAINST THE FLOW						
3	00:00:00	10.1	East	Break-In Conn	1		0.001	0	0	0.001
4	00:00:00	17.4	East	4" Break In Connection Sealed Off Wye East	3		0.003	0	0	0.003
5	00:00:00	19.1	West	4" Clay Wye Connection Wye Service	1		0.000	0	0	0.000
6	00:00:00	41.1	East	4" Clay Wye Connection Sealed Off Wye East	1		0.000	0	0	0.000
7	00:00:00	43.1	West	4" Clay Wye Connection Sealed Off Wye West	3		0.003	0	0	0.003
8	00:00:00	62.5		Stopped Inspection Same place as above	1		0.000	0	0	0.000

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Television Inspection Master Report

9/11/2007
1:34:34PM

US Manhole: 5549-205

Date Insp: 6/9/2006

DS Manhole: 5549-204

418 E 14TH ST N

Dir Televised: Upstream To Downstream

Pipe Information

Shape:	Round	Length Status:	Project No.:	A-287
Dia/Ht Width:	8 0	Material:	Index:	
Length:	31.8	Slope:	Surface:	
				0.250

Inspection Information

Crew:	694	Percent Full:	Tape ID:	DVD #0168
Weather:	Sunny	Purpose:	Counter Start:	08:04
Surface Cond:	Alley Unpaved	Flow:	Counter Stop:	
				TV Existing Line

Obs. #	VTR Counter	Distance	Location	Description	Obs Rating	Obsrvd (gpm)	Est. (gpm)	Ratings		
								Struct	Clean	Remain (gpm)
1	00:00:00	0.0	US Manhole	5549-205	1		0.000	0	0	0.000
2	00:00:00	1.0	Invert	REMARK: CAVITY IN MANHOLE BOTTOM						
3	00:00:00	5.0	West	Wye Service 4" Clay Wye Connection	1		0.000	0	0	0.000
				REMARK: 1500 N. TOPEKA & 416 E. 14TH ST. N. / DYE TEST						
4	00:00:00	7.5	East	Sealed Off Wye East 4" Clay Wye Connection	1		0.000	0	0	0.000
5	00:00:00	29.2	West	Sealed Off Wye West 4" Clay Wye Connection	1		0.000	0	0	0.000
6	00:00:00	31.9	DS Manhole	5549-204	1		0.000	0	0	0.000

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Television Inspection Master Report

9/11/2007
1:34:34PM

US Manhole: 5549-204 418 E 14TH ST N Date Insp: 6/9/2006 Basin: C03D
 DS Manhole: 5549-201 1427 N EMPORIA AVE Dir Televised: Upstream To Downstream

Pipe Information

Shape: Round Length Status: Project No.: A-287
 Dia/Ht Width: 8 Material: VCP Index:
 Length: 305.2 Slope: 0.252 Surface:
 Pipe Sec Length: Comment: TWO POINT REPAIRS BY SEWER MAINTENANCE. FIRST FROM 76' TO 80' SOUTH OF #204. SECOND FROM 87' TO 93' SOUTH OF #204. CONNECTION FOR 1454 N TOPEKA AT 89' SOUTH OF #204. WORK COMPLETED 07-03-2003 TGC ##### POINT REPAIR BY SEWER MAINTENANCE FROM 143' TO 151' SOUTH OF #204. TAP FOR 1454 N TOPEKA IS AT 149' S OF #204. WORK COMPLETED 07-03-2003 TGC #####

Inspection Information

Crew: 694 Percent Full: Tape ID: DVD #0168
 Weather: Sunny Purpose: TV Existing Line Counter Start: 08:54
 Surface Cond: Alley Unpaved Flow: Counter Stop:

Obs. #	VTR Counter	Distance	Location	Description	Obs Rating	Obsrvd (gpm)	Est. (gpm)	Ratings Struct	Clean	Remain (gpm)
1	00:00:00	0.0	US Manhole	5549-204	1		0.000	0	0	0.000
2	00:00:00	22.0	Joint	Sag begins	2		0.000	2	0	0.000
3	00:00:00	23.4	Joint	MATERIAL CHANGES TO CAST IRON PIPE						
4	00:00:00	25.9	Invert	Sag ends	2		0.000	2	0	0.000
5	00:00:00	27.6	Joint	CAST IRON PIPE ENDS						
6	00:00:00	28.2		Stopped Inspection	5		0.000	0	0	0.000

REMARK: STOPPED DUE TO CORROSION AND/OR MINERAL DEPOSITS IN CAST IRON PIPE

NEED TO REPLACE THE UPSTREAM 30 LF OF PIPE TO REMOVE CAST IRON
 REPLACE WITH 30' OF C-900 PIPE THROUGH STORM WATER SEWER IN 14TH STREET

6-9