

# Asset Management Plan Sanitary Sewer System



August 2016

Project No. 675-223

ENGINEERING ■ PLANNING ■ URBAN DESIGN

## Distribution List

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1	1	TRUE Consulting

## Revision Log

Revision #	Revised by	Date	Issue / Revision Description
1	DPG	2016-02-12	Issued for Submission
2	DPG	2016-08-02	Updated Capital Works to AM Plan

## Report Submission

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\\true.bc.ca\Data\Clients\600-699\675\675-223\05 Reports\Sanitary Sewer Phasing Plan\675-223-Village of Clinton-Asset Management Plan Sanitary Sewer Collection-2016-08-02.docx

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## List of Acronyms

TRUE	TRUE Consulting
AC	Asbestos Cement (Pipe Material)
PVC	Polyvinyl Chloride (Pipe Material)
VCT	Vitrified Clay Tile (Pipe Material)



# Executive Summary

Revision 2 of this document represents the Village of Clinton's efforts to move forward with implementing long-term Asset Management practices. This long-term planning document is intended to provide guidance for the upkeep and replacement of the Village's Sanitary Sewer Collection System. Revision 1 of this document, originally dated 2016-02-12, was entitled *"Sanitary Sewer System Capital Works Plan"*.

In general, the collection system is comprised of approximately 8 km of pipeworks, installed between 1960 and 2010. The majority of this system is constructed using Asbestos Concrete and Vitrified Clay Tile pipes.

TRUE has evaluated the Village's collection system based upon age, criticality, and physical condition (as determined by a video inspection process undertaken by the Village in 2015). From this evaluation, a risk / priority ranking has been assigned to each pipe asset, creating a long term timeline for the guidance of pipe upkeep and replacement.

As Asset Management is considered to be an evolving practice, so to is this document. The Village should strive to keep the information in this document up-to-date with any changes to the Sewer System, or to the Village's evaluation method(s).

# 1.0 Introduction

In 2015, TRUE Consulting was retained by the Village of Clinton to complete at Capital Works Plan for both the water and sanitary sewer systems. The Sanitary Sewer Capital Works Plan relied heavily on the Village's existing Tangible Capital Assets inventory as well as recently completed sanitary sewer system video inspection completed by Northern Lites Technology Ltd. The video inspections were completed in August and September 2015. The existing inventory table for the sanitary sewer system was created as part of the Village's 2008 PSAB infrastructure inventory project. The inventory contains critical information on the sanitary sewer system, such as material and age of each pipe. This information, in conjunction with the results of the sanitary sewer video inspection, was used to create a phasing plan within the Sanitary Sewer Capital Works Plan.

In 2016, TRUE was retained to assist the Village with further pursuing long-term Asset Management practices, as required under the current Federal Gas Tax Funding Agreement. TRUE and the Village have expanded upon the 2015 Capital Works Plan to include analysis of risk / priority of individual collection assets, as well as an evaluation of capacity for the system.

## 1.1 Scope

For this Asset Management Plan, the existing sanitary sewer collection network has been assessed in terms of physical capacity as well as overall perceived risk / priority. The results, which have been input and updated on the Village's Truvian Mapping system, provides a suggestion for the order in which the Village should consider maintaining and renewing their sanitary collection system.

It is important to note that the capacity of the existing wastewater treatment systems has not been considered. Considerations for the treatment system capacity is a recommended next step such that the Village can further refine its Asset Management Planning.

## 2.0 Background

In 2008, a Tangible Capital Assets inventory of the sanitary sewer collection system was created. This generated a database of the wastewater collection system which included physical data pertaining to each pipe, such as; material, type, diameter, length, year installed. Figure 2-1 illustrates the sanitary sewer collection system, categorized by age. As shown, the majority of the sanitary sewer collection system was installed in the 1960s, and is comprised of Asbestos Cement (AC) and Vitrified Clay Tile (VCT) pipe. The network is an aging asset that requires ongoing maintenance to maximize the remaining lifetime of the asset. Table 2-1 following shows the breakdown of the network by material and age.

**TABLE 2-1: BREAKDOWN OF SANITARY SEWER COLLECTION SYSTEM BY MATERIAL AND AGE**

Material	Year Installed					Grand Total	Percentage of Total Length
	1960s	1970s	1990s	2000s	Unknown		
<b>AC</b>	2,260	360			165	2,785	34%
<b>PVC</b>			75	195		270	3%
<b>VCT</b>	5,075				35	5,110	62%
<b>Unknown</b>					80	80	1%
<b>Grand Total</b>	<b>7,335</b>	<b>360</b>	<b>75</b>	<b>195</b>	<b>280</b>	<b>8,245</b>	<b>100%</b>

## 2.1 Pipe Criticality

A criticality analysis was completed by TRUE, to identify the approximate population that would be out of service in the event of a system break of each individual collection main. The majority of the sanitary sewer collection network is comprised of pipes that service less than 40% of the total population. However, approximately 30% of the mains service approximately 60% of the municipality and these pipes are therefore the Village's most critical sanitary sewer assets.

**TABLE 2-2: PIPE CRITICALITY**

Criticality of sewer main	Description	Total Length By Criticality	Percentage of Total Length
<b>5</b>	100% of the Village is out of service*	540	6%
<b>4</b>	80% of the Village is out of service*	840	10%
<b>3</b>	60% of the Village is out of service*	1,085	13%
<b>2</b>	40% of the Village is out of service*	2,295	28%
<b>1</b>	<20% of the Village is out of service*	3,485	42%
	<b>Grand Total</b>	<b>8,245</b>	<b>100%</b>

*\*Based on approximate service area*

## 2.2 Renewal of Collection System

In 2013 and 2014, some sections of the sanitary sewer system were repaired as a part of the Village's ongoing renewal/maintenance activities. A summary of the pipes that were recently re-lined is provided following:

**TABLE 2-3: SANITARY SEWER COLLECTION NETWORK REPAIRS COMPLETED IN 2013 AND 2014**

Asset ID	Inspection Date	Street	Start	End	Description of Works (from Northern Lites Technology)
<b>SS.033</b>	27-Jul-13	Carson St.	MH.027	MH.026	1-1 metre point repair
<b>SS.035</b>	27-Jul-13	Carson St.	MH.051	MH.049	Inspection shows location of repair completed in 2013; 2-1 metre point repairs
<b>SS.036</b>	27-Jul-13	Carson St.	MH.051	MH.052	Inspection shows location of repairs (2) completed in 2013; 2 - 1 metre point repairs; pressure grouted 4 service connections for root control
<b>SS.037</b>	27-Jul-13	Carson St.	MH.052	MH.053	Inspection shows location of repair completed in 2013; 1-1 metre point repair
<b>SS.062</b>	27-Jul-13	McDonald Avenue	MH.061	MH.060	1-2.5 metre point repair
<b>SS.030</b>	29-Jul-14	Cariboo Hwy.	MH.040	MH.035	2-2 metre and 1-4 metre repair
<b>SS.031</b>	29-Jul-14	Cariboo Hwy.	MH.040	MH.047	3-2 metre repair
<b>SS.027</b>	29-Jul-14	Cariboo Hwy.	MH.036	MH.022	1-2 metre repair
<b>SS.028</b>	29-Jul-14	Cariboo Hwy.	MH.023	MH.022	1-2 metre repair

## 2.3 2015 Video Inspection

In 2015, video inspection was completed for the majority of the Village's sanitary sewer collection system. The current conditions for the collection system was evaluated from this video inspection and a priority ranking for each pipe segment was given (high, medium, or low). High priority rating was assigned based on poor condition whereas medium priority was assigned based on fair condition, and low priority was assigned based on good condition. No priority ranking was assigned to approximately 50% of the Village's collection mains, for which the condition is assumed to be very good. A complete copy of the Sanitary Sewer Video Inspections can be found in Appendix A at the end of this report.

A summary of the sanitary sewer pipes by priority (and condition) can be found in Table 2-4.

**TABLE 2-4: 2015 SANITARY SEWER VIDEO INSPECTION RESULTS**

2015 Video Inspection Rating Priority	Condition based on 2015 Priority	Length	Percentage of Total Length
<b>High</b>	Poor	945	11%
<b>Medium</b>	Fair	1,320	16%
<b>Low</b>	Good	1,290	16%
<b>No rating provided</b>	Very Good	4,690	57%
<b>Total</b>		<b>8,245</b>	<b>100%</b>

## 2.4 Sanitary Capacity Analysis

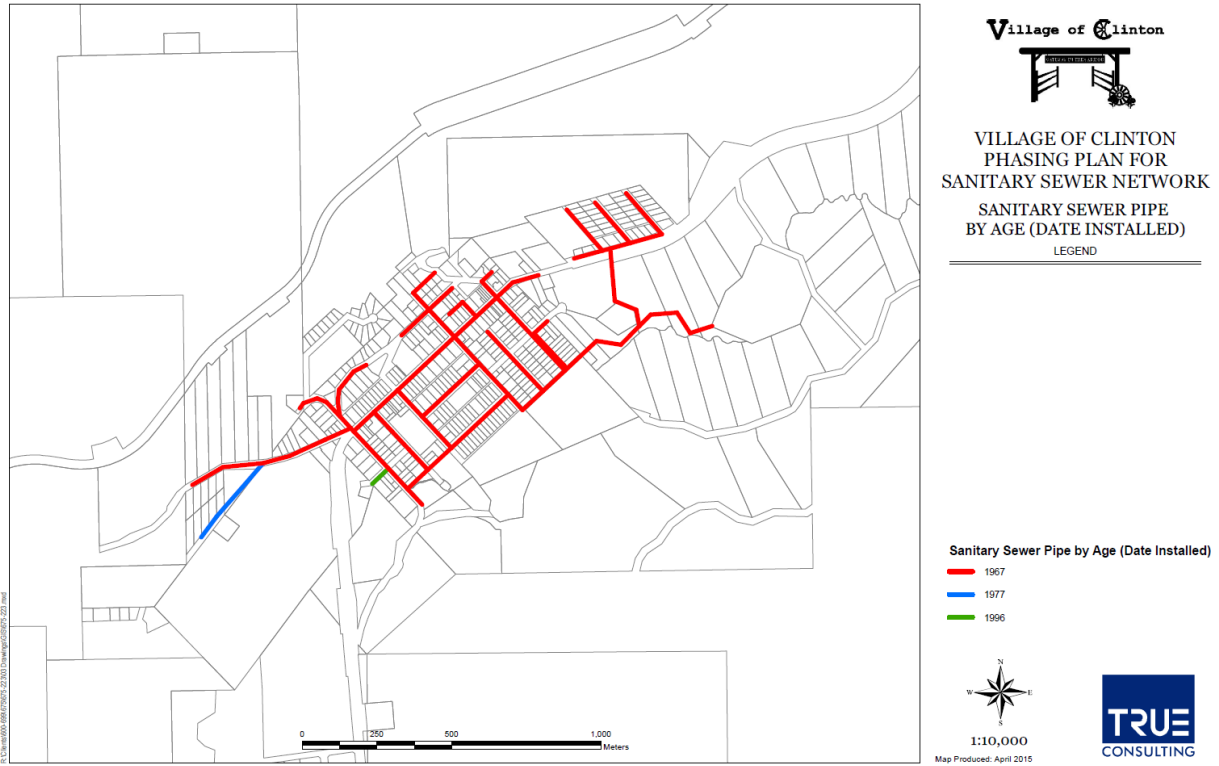
A capacity analysis was carried out to determine if there are potentially any existing deficient pipes with the Village's collection network. This analysis was conducted using a "worst case scenario" methodology. This methodology assumed that the flow produced by the entire Village would be conveyed by the pipe with the lowest capacity. The smallest and flattest (least slope) pipe combination was chosen for evaluation. This pipe has the theoretical lowest capacity. Reviewing the historic record drawings of the collection system, this combination was determined to be a 200mm diameter AC pipe with a slope of 0.33%. Following the MMCD guidelines, it was determined that this pipe can convey 0.009 m<sup>3</sup>/s at 50% full.

The design flow was determined based on MMCD guidelines, using a population of 630 capita. The infiltration portion of the flow has been disregarded due to the understanding that the Village's highly granular soils easily convey groundwater well below the level of the buried pipes, resulting in a very low probability that infiltration would ever occur. A design flow of 0.0073 m<sup>3</sup>/s was determined using the MMCD value of 300 L/cap/d and a calculated peaking factor of 3.3.

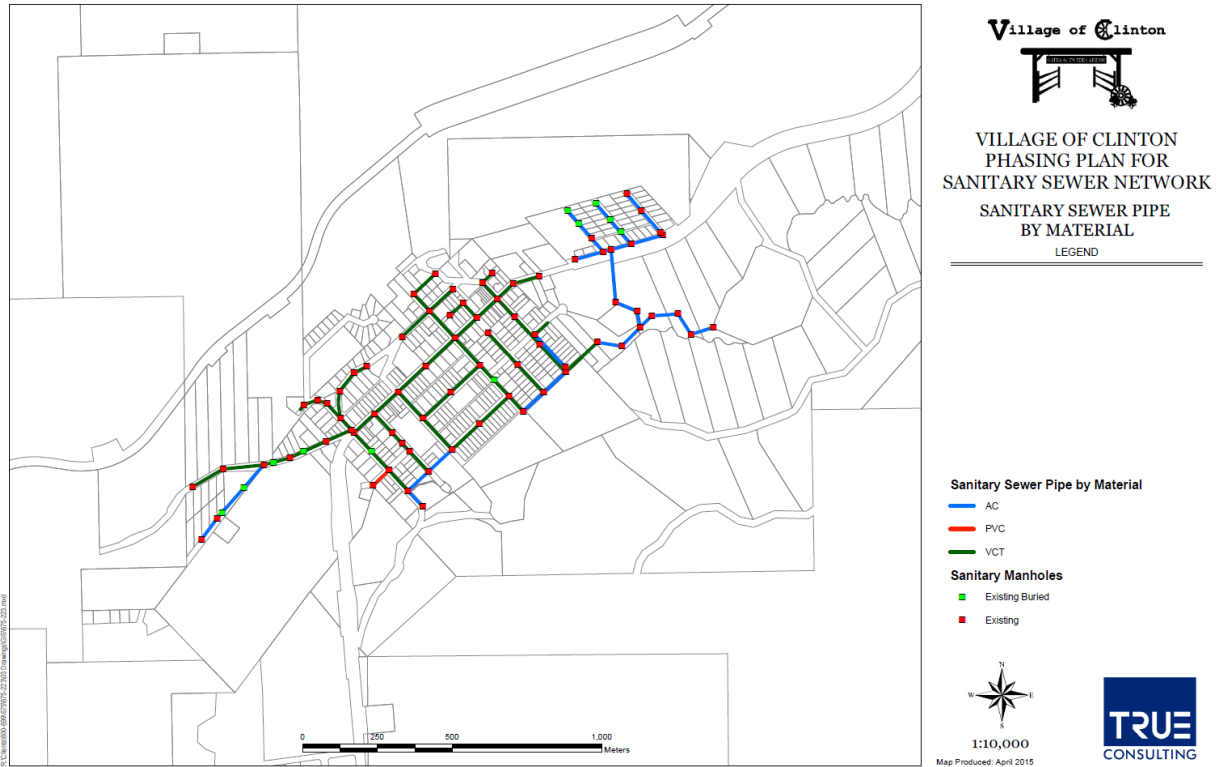
**TABLE 2-5. SANITARY SEWER PIPE CAPACITY AND MINIMUM DESIGN REQUIREMENTS**

Location	Evaluated Minimum Capacity (m <sup>3</sup> /s)	Minimum Design Flow (m <sup>3</sup> /s)	Actual Velocity (m/s)	Minimum Design Velocity (m/s)
<b>SS.005</b>	0.009	0.0073	0.6	0.6

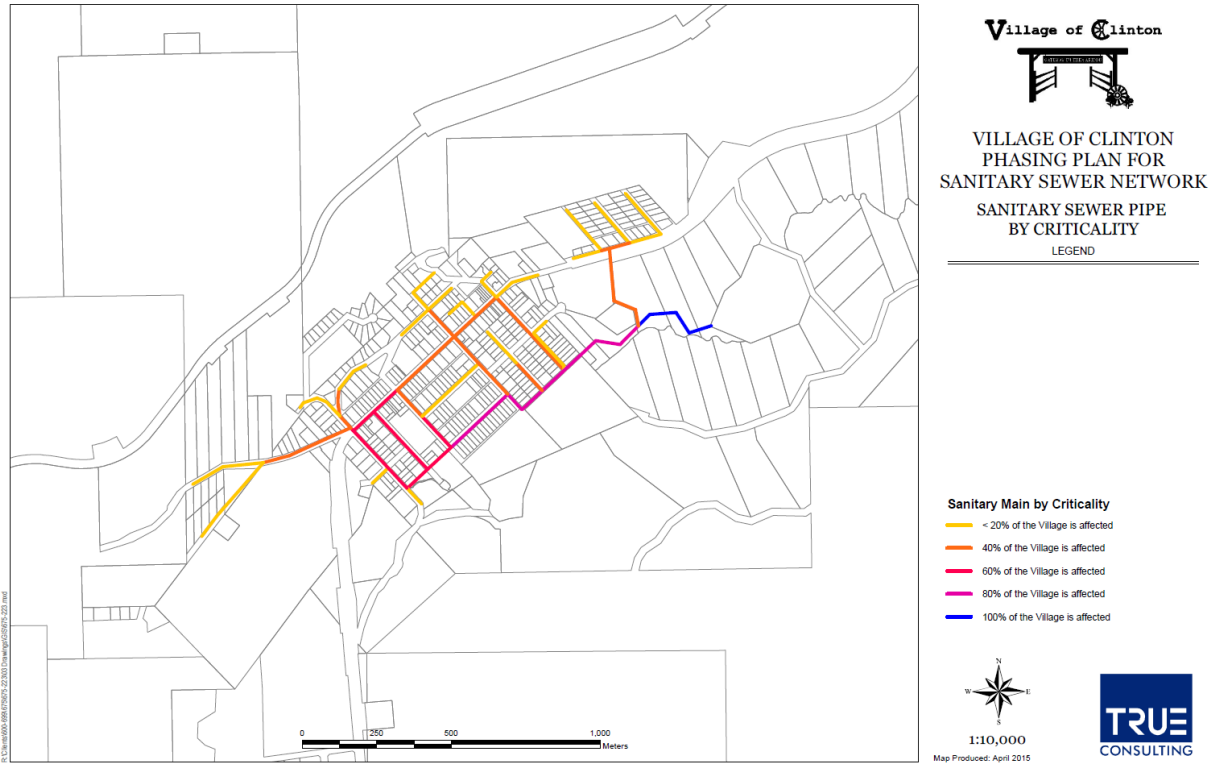
As seen, at 50% full, the sanitary sewer has the capacity to handle flows in the worst case scenario (i.e. the lowest capacity pipe, supporting the entire population of the entire Village). This absolute demand analysis demonstrates that the sanitary network has the capacity to support the Village of Clinton. It is noteworthy that this analysis suggests the system may be able to handle an increase in demand of nearly 25% (ie: 0.009 / 0.073 = 123%)



**FIGURE 2-1: PIPE BY AGE**

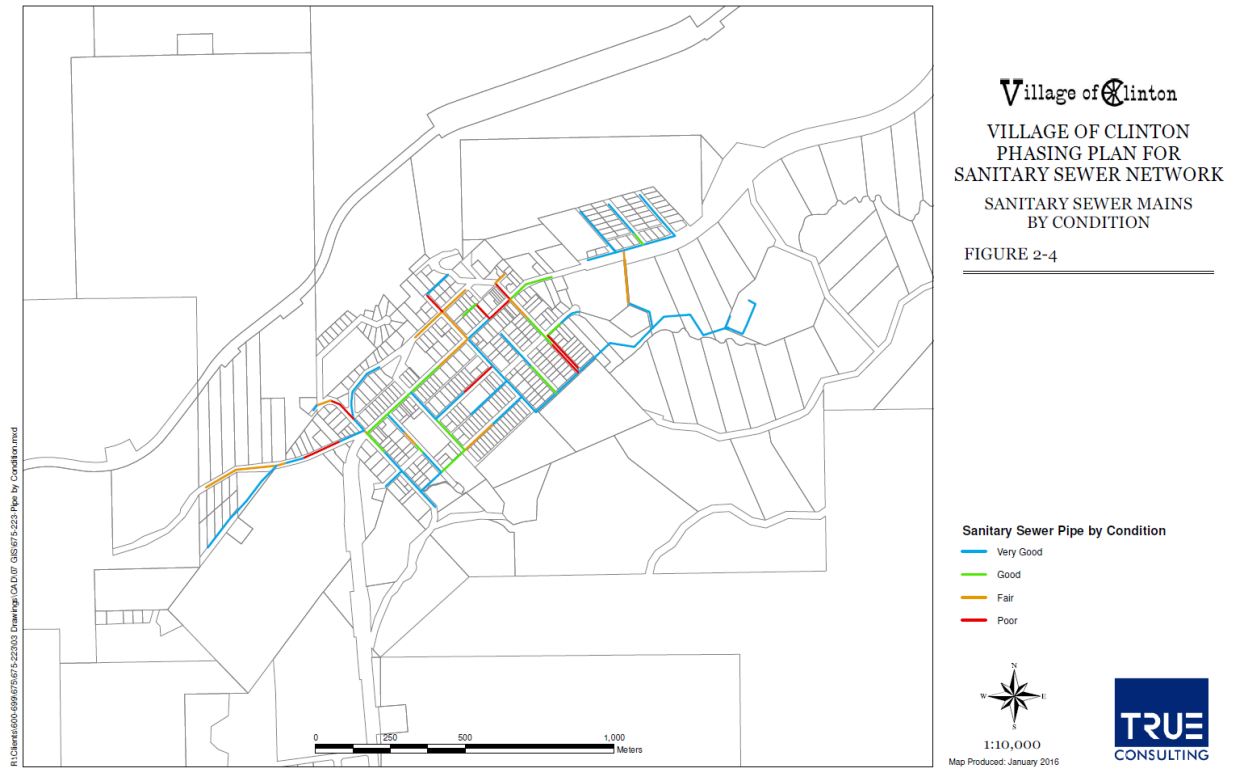


**FIGURE 2-2: PIPE BY MATERIAL**



**FIGURE 2-3: SANITARY SEWER PIPE BY CRITICALITY**





**FIGURE 2-4: SANITARY SEWER PIPE BY CONDITION**

## 3.0 Asset Management Plan

The process of making Asset Management decisions requires a balance between deciding which assets to renew, which assets to upgrade, and where capital expansion should occur to add new assets. Generally, these three typical scenarios are driven by:

- Aging and failing assets require replacement or renewal
- Assets providing deficient services, although not near the end of life, require upgrades or replacements
- Areas where the community may grow requires expansion of service networks

The challenge is to balance the needs of these three factors with the available time and resources of the Village in order to produce the most fiscally and social responsible decisions.

The purpose of this section is to summarize the conclusions drawn from the available asset attribute information. This information is known to be incomplete. As this information is updated and expanded upon, the conclusions found in this section will be subject to change.

The following content was developed during the development of the 2015 Water System Capital Works Plan based on criticality, material, and install year. It has not been substantially updated in August 2016 due to negligible changes in the results.

From the information discussed in Section 2.0 above, a Capital Works Plan was formulated based on the following criteria.

- Condition of pipe (from 2015 inspection)
- Pipe criticality rating
- Pipe material type/age

A summary table outlining the criticality and conditions of the assets is provided below. The goal for this Sewer Capital Works Plan is to approach the system with more urgency for the high priority (very poor condition) and high criticality pipes such that the dollars spent on the renewal/maintenance of the pipes within the sanitary sewer collection systems is optimized. Using this methodology, the Village should therefore start with the medium priority (fair condition) pipe with a criticality rating of 4, followed by the high priority (very poor condition) pipes with a criticality rating of 2 and medium priority (fair condition) pipes with a criticality rating of 3, and so on.

This final evaluation provides the basis of the following five phases of works. These phases simply represent an order in which works could be pursued. However, not all phases represent work that must be completed at this time. The Village should develop an evaluation of acceptable levels of service in order to determine at what phase it is in fact necessary to perform the works. This level of service evaluation is not within the scope of this report.

**TABLE 3-1: NUMBER OF PIPES BY CRITICALITY AND CONDITION**

Condition vs Criticality		Pipe Criticality				
		5	4	3	2	1
Condition	High Priority (Very Poor Condition)	-	-	-	4	7
	Medium Priority (Fair Condition)	-	1	2	5	6
	Low Priority (Good Condition)	-	-	6	3	5
	No Rating Provided (Very Good Condition)	11	7	5	13	28

## 3.1 Assessment Summary

Based on the discussion provided above on the priority rankings and the pipe criticalities, the following phases have been identified:

Phase 1 (Red):

- High Priority – Criticality of 5

Phase 2 (Orange):

- High Priority – Criticality of 4
- Medium Priority – Criticality of 5 and 4

Phase 3 (Yellow):

- High Priority – Criticality of 3 and 2
- Medium Priority – Criticality of 3
- Low Priority – Criticality of 5 and 4

Phase 4 (Green):

- High Priority – Criticality of 1
- Medium Priority – Criticality of 2
- Low Priority – Criticality of 3

Phase 5 (Blue)

- Medium Priority – Criticality of 1
- Low Priority – Criticality of 2 and 1
- No Rating Provided – Criticality of 5, 4, 3, 2 and 1

### 3.1.1 Phase 1 (Red):

There are no pipes that currently fall within the Phase 1 criteria.

### 3.1.2 Phase 2 (Orange):

The following pipe falls within the Phase 2 criteria for both criticality and priority (condition), listed below.

**TABLE 3-2: MEDIUM PRIORITY - CRITICALITY 4 INSPECTION RESULTS**

ID	Street/R.O.W.	Start	End	Criticality of Main	Diameter (mm)	Year Installed	2015 Inspection Priority	2015 Inspection Recommendations
SS.012	Soues St.	MH.033	MH.032	4	250	1967	Medium	(Med) Grout 4 services to stop infiltration

### 3.1.3 Phase 3 (Yellow):

The following pipes fall within the Phase 3 criteria for both criticality and priority (condition), listed below.

**TABLE 3-3: HIGH PRIORITY AND CRITICALITY 2 - INSPECTION RESULTS**

ID	Street/R.O.W.	Start	End	Criticality of Main	Diameter (mm)	Year Installed	2015 Inspection Priority	2015 Inspection Recommendations
SS.024	Cariboo HWY	MH.015	MH.023	2	200	1967	High	(High) 2 - 1 metre point repairs on broken and fractured pipe
SS.053	Kelly Lake Rd.	MH.055	MH.090	2	200	1967	High	(High) Broken Pipe; (Med) Fractured Pipe; (Low) Pressure grout joints to stop root intrusion
SS.063	McDonald Ave.	MH.012	MH.007	2	200	1967	High	(High) 1 - 1 meter point repair (Med) remove large deposits and grout 3 services and joints
SS.088	Kelly Lake Rd.	MH.090	MH.054	2	200	1967	High	(High) Remove roots and grout joint to stop root intrusion

**TABLE 3-4: MEDIUM PRIORITY - CRITICALITY 3 INSPECTION RESULTS**

ID	Street/R.O.W.	Start	End	Criticality of Main	Diameter (mm)	Year Installed	2015 Inspection Priority	2015 Inspection Recommendations
SS.032	Cariboo HWY	MH.048	MH.047	3	200	1967	Medium	(Med) Grout fractured pipe
SS.096	Smith Ave.	MH.039	MH.082	3	200	1967	Medium	(Med) 1 - 1 metre point repair on fractured pipe

### 3.1.4 Phase 4 (Green):

The following pipes fall within the Phase 4 criteria for both criticality and priority (condition), listed below.

**TABLE 3-5: HIGH PRIORITY AND CRITICALITY 1 - INSPECTION RESULTS**

ID	Street/R.O.W.	Start	End	Criticality of Main	Diameter (mm)	Year Installed	2015 Inspection Priority	2015 Inspection Recommendations
SS.020	Cariboo Cres.	MH.050	MH.049	1	200	1967	High	(High) Remove roots, 1 - 2 metre point repair on fractured pipe grout pipe to stop intrusion
SS.021	Cariboo Cres.	MH.062	MH.050	1	200	1967	High	(High) Remove roots from service and grout service
SS.050	Government St.	MH.030	MH.021	1	200	1967	High	(High) 1 - 1 metre point repair on broken pipe
SS.060	Lebourdais Ave.	MH.028	MH.026	1	200	1967	High	(High) 1 - 1 meter point repair on fractured pipe
SS.062	McDonald Ave	MH.061	MH.060	1	200	1967	High	(High) remove roots and grout service connection
SS.066	McDonald Ave.	MH.018	MH.015	1	200	1967	High	(High) 3 - 1 metre point repairs on fractured pipe and hole
SS.069	ROW - 1509 Carson/Cariboo HWY	MH.024	MH.023	1	200	1967	High	(High) 1 - 1 meter point repair on fractured pipe

**TABLE 3-6: MEDIUM PRIORITY - CRITICALITY 2 INSPECTION RESULTS**

ID	Street/R.O.W.	Start	End	Criticality of Main	Diameter (mm)	Year Installed	2015 Inspection Priority	2015 Inspection Recommendations
SS.027	Cariboo HWY	MH.022	MH.036	2	200	1967	Medium	(Med) 1 - 1 metre point repair on fractured pipe
SS.054	Kelly Lake Rd.	MH.057	MH.084	2	200	1967	Medium	(Med) 1 - 3 metre point repair and 2 - 1 metre repairs
SS.059	Lebourdais Ave.	MH.026	MH.022	2	200	1967	Medium	(Med) Grout 1 fracture pipe & 1 - 1 metre point repair
SS.065	McDonald Ave.	MH.015	MH.014	2	200	1967	Medium	(Med) 2 - 1 metre point repairs on fractured pipe
SS.072	ROW - Hugo servicing	MH.066	MH.065	2	200	1967	Medium	(Med) Steel pipe should be relined

**TABLE 3-7: LOW PRIORITY – CRITICALITY 3 INSPECTION RESULTS**

ID	Street/R.O.W.	Start	End	Criticality of Main	Diameter (mm)	Year Installed	2015 Inspection Priority	2015 Inspection Recommendations
SS.013	ROW - Smith/Dewdney	MH.037	MH.033	3	250	1967	Low	(Low) Grout two fractured pipes
SS.030	Cariboo HWY	MH.035	MH.040	3	200	1967	Low	(Low) minor cracks - reinspect in 5 years
SS.031	Cariboo HWY	MH.047	MH.040	3	200	1967	Low	(Low) minor cracks - reinspect in 5 years
SS.038	Dewdney Ave.	MH.034	MH.033	3	200	1967	Low	(Low) Grout one fractured pipe
SS.074	Smith Ave.	MH.082	MH.038	3	200	1967	Low	(Low) Grout one fractured pipe
SS.086	Cariboo Ave.	MH.047	MH.046	3	200	1967	Low	(Low) minor crack in pipe - review pipe in 5 years

### 3.1.5 Phase 5 (Blue):

The following pipes fall within the Phase 5 criteria for both criticality and priority (condition), listed below.

**TABLE 3-8: MEDIUM PRIORITY - CRITICALITY 1 INSPECTION RESULTS**

ID	Street/R.O.W.	Start	End	Criticality of Main	Diameter (mm)	Year Installed	2015 Inspection Priority	2015 Inspection Recommendations
SS.022	Cariboo Cres.	MH.063	MH.062	1	200	1967	Medium	(Med) Grout 1 fracture and hole in pipe
SS.033	Carson St.	MH.027	MH.026	1	200	1967	Medium	(Med) Remove roots and grout service connection
SS.034	Carson St.	MH.031	MH.026	1	200	1967	Medium	(Med) 2 - 2 metre point repairs on fractured pipe
SS.055	Kelly Lake Rd.	MH.058	MH.057	1	200	1967	Medium	(Med) 1 - 1 metre point repair on fractured pipe
SS.056	Kelly Lake Rd.	MH.059	MH.058	1	200	1967	Medium	(Med) 2 - 2 metre point repairs on fractured pipes
SS.067	McDonald Cres.	MH.019	MH.018	1	200	1967	Medium	(Med) 1 - 2 metre point repair on fractured pipe & grout 2 other fractures

**TABLE 3-9: LOW PRIORITY – CRITICALITY 2 INSPECTION RESULTS**

ID	Street/R.O.W.	Start	End	Criticality of Main	Diameter (mm)	Year Installed	2015 Inspection Priority	2015 Inspection Recommendations
SS.029	Cariboo HWY	MH.036	MH.035	2	200	1967	Low	(Low) minor cracks - reinspect in 5 years
SS.044	Foster Ave.	MH.010	MH.008	2	200	1967	Low	(Low) Grout to leaking service connections
SS.064	McDonald Ave.	MH.014	MH.012	2	200	1967	Low	(Low) hole that has been repaired

**TABLE 3-10: LOW PRIORITY – CRITICALITY 1 INSPECTION RESULTS**

ID	Street/R.O.W.	Start	End	Criticality of Main	Diameter (mm)	Year Installed	2015 Inspection Priority	2015 Inspection Recommendations
SS.025	Cariboo HWY	MH.016	MH.015	1	200	1967	Low	(Low) Grout two fractured pipes
SS.026	Cariboo HWY	MH.017	MH.016	1	200	1967	Low	(Low) Grout two fractured pipes
SS.043	Fir Ave	MH.077	MH.070	1	200	1967	Low	(Low) Grout small hole in pipe
SS.068	ROW - 402 Lebourdais/1509 Carson	MH.025	MH.024	1	200	1967	Low	(Low) Grout one fractured pipe
SS.080	Tingley St.	MH.075	MH.061	1	200	1967	Low	(Low) hole that has been repaired



## 4.0 Recommendations and Next Steps

The Asset Management Plan - Sanitary Sewer provides the Village with the basic information needed to continue the renewal/maintenance activities for the collection system on the basis of completing the more critical and higher priority pipes first. This system will allow the Village to better use available funds for the initial phases, and ultimately create a plan for renewal/maintenance of the less critical pipes with lower priorities.

From the summary of recommendations provided in the 2015 Sanitary Sewer Video inspection, it was recommended that the repairs for the high priority pipes be completed within a timeframe of 24 months or sooner, repairs for the medium priority pipes be completed within a timeframe of 60 months or sooner and that the conditions of the low priority pipes be reviewed within a timeframe of 60 months.

As the Village moves towards an Asset Management approach for maintenance and planning of the sanitary sewer collection system, it is recommended that the Village update the pipe conditions on a regular basis, and thus update the assessment of the pipes for each of the phases identified in Section 3.1.

## 5.0 References

“Municipal Road Network Phasing Plan: Village of Clinton,” TRUE Consulting (675-222 – Revision R2). September 2014.

“Sanitary Sewer Inspections 2015 – Village of Clinton”, Northern Lites Technology Ltd, 2015

## APPENDIX A

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### Referenced Reports

# **VIDEO INSPECTION REPORT**

Prepared for

**VILLAGE OF CLINTON**

**Sanitary Sewer Post Relining  
Inspections**

**Job #2013-61**

**July 2013**

Prepared by



4937 Old Summit Lake Road  
Prince George, BC.  
V2K 5S5

1-250-962-9382

**NORTHERN LITES**  
TECHNOLOGY LTD.  
CCTV & HIGH PRESSURE CLEANING

RECEIVED  
Aug 16/13

Village of Clinton  
1423 Cariboo Hwy  
Clinton, BC.  
V0K 1K0

July 27, 2013

Job #2013-61

Invoice #13-61

Attention: Accounts Payable.

RE: Installation of cure-in-place liners and pressure grouting of services connections for roots.

---

Carson Rd. MH 52 to 53 – 1 -1 meter point repair	3,000.00
Carson Rd. MH 52 to 51 - 2 – 1 meter point repairs	5,600.00
Pressure grouted 4 service connection for root control (4 services @ \$750.00/ per)	3,000.00
Carson Rd. MH 51 to 49 – 2 – 1 meter point repairs	5,600.00
Carson Rd. MH 27 to 26 – 1 – 1 meter point repair	3,000.00
Macdonald Rd. MH 7A to 13 – 1 – 2.5 meter point repair	4,800.00
Pre-cleaning, inspections & root cutting	3,000.00
Shared Mobilization to Clinton	1,700.00
	<hr/>
Sub Total	29,700.00
GST	1,485.00
TOTAL OF THIS INVOICE	\$ 31,185.00

TERMS: NET 30 DAYS.

2% Per Month (24% per annual) will be charges on all overdue amounts.

GST #889316022RT.

Northern Lites Technology Ltd.  
4937 old Summit Lake Rd.  
Prince George, BC.  
V2K 5S5  
PH: 1-800-661-6177

13X: SS.062 (MH.013 to MH.007A)  
27X: SS.033 (MH.026 to MH.027)  
51X: SS.035 (MH.049 to MH.051)  
51X: SS.035 (MH.051 to MH.049) - opposite direction  
52X: SS.036 (MH.051 to MH.052)  
53X: SS.037 (MH.052 to MH.053)  
13X: SS.062 (MH.007A to MH.013) - opposite direction

## Project Summary

### 2013 repairs and inspection

Main ID	Date	Address	Start MH	Finish MH	Pipe	Asset length	Surveyed Length
13X	7/26/2013	McDonald Ave	7A	13	AC		125.9
27X	7/26/2013	Carson St.	26	27	VC		1.8
51X	7/26/2013	Carson St.	49	51	VC	91.5	1.8
51X	7/26/2013	Carson St.	51	49	VC	91.5	91.4
52X	7/26/2013	Carson St.	51	52	VC	75.7	75.7
53X	7/26/2013	Carson St.	52	53	VC		1.2
13X	7/26/2013	McDonald Ave	13	7A	AC		82.9

Number of inspections: 7

**Subtotal** 258.7 m 380.7 m

**Total** 258.7 m 380.7 m

# WRc Sewer Report

Inspected by: <b>Guy Adams</b>	Contract No:	Job number: <b>2013-041</b>	Catchment:	Division:	District:	PLR: <b>51X</b>
Start date/time: <b>26.07.13 10:14</b>	Road name: <b>Carson St.</b>					Place name: <b>Clinton</b>
Start Manhole No. <b>49</b>	Depth: <b>2.70</b>	Cover:	Invert:	Finish Manhole No. <b>51</b>	Depth: <b>2.50</b>	Cover:
Use: <b>F</b>	Direction: <b>U</b>	Size 2:	Size 1: <b>200</b>	Shape: <b>C</b>	Material: <b>VC</b>	Lining:
VT No: <b>00003</b>		Comments:				
Purpose: <b>C</b>	Category:	Pre-cleanse: <b>Y</b>	Weather: <b>1</b>	Location: <b>C</b>	Location details: <b>To Cariboo Ave.</b>	

Video No.	Photo No.	Distance:	Continuous Defect	Letters	Diameter / Dimension	Numbers	Intrusion	Remarks
				code		at	to	%
								mm

0000		0.0		ST					
0000		0.0		MH					49
0001		0.0		WL				5	
0004	001	0.2		GO					Start of repair
0013		1.8		SA					

# WRc Sewer Report

Inspected by: <b>Guy Adams</b>	Contract No:	Job number: <b>2013-041</b>	Catchment:	Division:	District:	PLR: <b>51X</b>
Start date/time: <b>26.07.13 10:23</b>	Road name: <b>Carson St.</b>					Place name: <b>Clinton</b>
Start Manhole No. <b>51</b>	Depth: <b>2.50</b>	Cover:	Invert:	Finish Manhole No. <b>49</b>	Depth: <b>2.70</b>	Cover: Invert:
Use: <b>F</b>	Direction: <b>D</b>	Size 2:	Size 1: <b>200</b>	Shape: <b>C</b>	Material: <b>VC</b>	Lining: Pipe length: <b>1.8</b> Total length: <b>91.5</b> Year laid:
VT No: <b>00004</b>	Comments:					
Purpose: <b>H</b>	Category:	Pre-cleanse: <b>Y</b>	Weather: <b>1</b>	Location: <b>C</b>	Location details: <b>To Cariboo Ave.</b>	

Video No.	Photo No.	Distance	Continuous Defect	Letters	Diameter / Dimension	Numbers	Intrusion	Remarks
				code		at to	% mm	

0000		0.0		ST				
0000		0.0		MH				51
0001		0.0		WL			10	
0012		13.5		JN	100	9		
0044	001	40.6		GO				Start of repair
0052		41.7		GO				End repair
0074		58.9		JN	150	9		
0103		89.9		GO				Start of repair
0105		89.9		GO				Opposite end of previous rpt
0115		91.2		GO				End repair
0121		91.4		MH				49
0123		91.4		FH				



# WRc Sewer Report

Inspected by: <b>Guy Adams</b>	Contract No:	Job number: <b>2013-041</b>	Catchment:	Division:	District:	PLR: <b>52X</b>
Start date/time: <b>26.07.13 10:42</b>	Road name: <b>Carson St.</b>					Place name: <b>Clinton</b>
Start Manhole No. <b>51</b>	Depth: <b>2.50</b>	Cover:	Invert:	Finish Manhole No. <b>52</b>	Depth: <b>2.40</b>	Cover:
Use: <b>F</b>	Direction: <b>U</b>	Size 2:	Size 1: <b>200</b>	Shape: <b>C</b>	Material: <b>VC</b>	Lining:
VT No: <b>00005</b>		Comments:				
Purpose: <b>C</b>	Category:	Pre-cleanse: <b>Y</b>	Weather: <b>1</b>	Location: <b>C</b>	Location details: <b>From 1315 Carson</b>	

Video No.	Photo No.	Distance	Continuous Defect	Letters	Diameter / Dimension	Numbers	Intrusion	Remarks
				code		at	to	% mm

0000		0.0		ST				
0000		0.0		MH				51
0001		0.0		WL			5	
0004		6.8		CN	100	2		Grouted
0015		14.0		JN	100	9		Live
0023		23.8		JN	100	3		Live
0031		26.5		CN	100	9		Grouted
0041		27.0		GO				Start of repair
0044		28.1		GO				End repair
0071		49.1		CN	100	10		Grouted
0082		60.3		GO				Start of repair
0085		61.4		GO				End repair
0091		61.6		JN	100	10		
0095		65.4		CN	100	2		
0102		66.3		JX	100	2		RF. Grouted
0114		75.7		MH				52

Video No.	Photo No.	Distance (m)	Continuous Defect	Letters	Diameter / Dimension	Numbers Clock		Intrusion		Remarks
				code		at	to	%	mm	
0121		75.7		FH						

# WRc Sewer Report

SS.037 (MH.052 to MH.053)  
Inspected July 26, 2013

Inspected by: <b>Guy Adams</b>	Contract No:	Job number: <b>2013-041</b>	Catchment:	Division:	District:	PLR: <b>53X</b>
Start date/time: <b>26.07.13 10:57</b>	Road name: <b>Carson St.</b>					Place name: <b>Clinton</b>
Start Manhole No. <b>52</b>	Depth: <b>2.40</b>	Cover:	Invert:	Finish Manhole No. <b>53</b>	Depth:	Cover:
Use: <b>F</b>	Direction: <b>U</b>	Size 2:	Size 1: <b>200</b>	Shape: <b>C</b>	Material: <b>VC</b>	Lining:
VT No: <b>00006</b>	Comments:		Pipe length: <b>1.8</b>	Total length:	Year laid:	
Purpose: <b>C</b>	Category:	Pre-cleanse: <b>Y</b>	Weather: <b>1</b>	Location: <b>C</b>	Location details: <b>To 1315 Carson</b>	

Video No.	Photo No.	Distance	Continuous Defect	Letters	Diameter / Dimension	Numbers	Intrusion	Remarks
				code		at	to	%
								mm

0000		0.0		ST					
0000		0.0		MH					52
0001		0.0		WL				5	
0003		0.2		GO					Start of repair
0012		1.2		GO					End repair
0013		1.2		FH					

RECEIVED  
Aug 1/14

# **VIDEO INSPECTION REPORT**

Prepared for

**VILLAGE OF CLINTON**

**Sanitary Sewer Post Relining  
Inspections**

**Job #2014-63**

**July 2014**

Prepared by



4937 Old Summit Lake Road  
Prince George, BC.  
V2K 5S5

1-250-962-9382



RECEIVED  
Aug 1/14

Village of Clinton  
1423 Cariboo Hwy  
Clinton, BC.  
V0K 1K0

July 29, 2014

Job #2014-64

Invoice #14-64

Attention: Accounts Payable.

RE: Installation of cure-in-place liners on Hyw 97 & cleaning catch basins in the village.

Shared Mobilization to Clinton	1,900.00
Pre-cleaning, inspections & root cutting	2,000.00
Cariboo Hwy MH 40 to 35 installed 2 – 2 meter & 1 – 4 meter	12,800.00
Cariboo Hwy MH 40 to 47 installed 3 – 2 meter	9,800.00
Cariboo Hwy MH 36 to 22 installed 1 – 2 meter	3,500.00
Cariboo Hwy MH 23 to 22 installed 1 – 2 meter	3,500.00
Traffic control for all repairs	2,000.00
Cleaning of storm catch basins & cleaning storm sewer by Wolf Cry Pub on Cariboo Hwy & video inspection. (10 hours @ \$225.00/Hr.)	2,225.00
<hr/>	
Sub Total	37,725.00
GST	1,886.25
TOTAL OF THIS INVOICE	\$ 39,611.25

TERMS: NET 30 DAYS.

2% Per Month (24% per annual) will be charges on all overdue amounts.

GST #889316022RT.

4937 Old Summit Lake Road, Prince George, V2K 5S5 - Bus (250) 962-9382. Fax (250) 962-9371.

Northern Lites Technology Ltd.  
 4937 old Summit Lake Rd.  
 Prince George, BC.  
 V2K 5S5  
 PH: 1-800-661-6177

## Project Summary

### 2014 repairs

Main ID	Date	Address	Start MH	Finish MH	Pipe	Asset length	Surveyed Length
MH47X	7/28/2014	Highway 97	MH47	MH40	VC	94.3	94.3
MH35X	7/28/2014	Highway 97	MH35	MH40	VC	107.6	107.6
MH35X	7/28/2014	Highway 97	MH35	MH40	VC	107.6	63.8
MH23X	7/28/2014	Highway 97	MH22	MH23	VC		100.7
MH23X	7/28/2014	Highway 97	MH22	MH23	VC		71.3
MH36X	7/29/2014	Highway 97	MH22	MH36	VC		0.5
MH36X	7/29/2014	Highway 97	MH22	MH36	VC		0.6
Wolfs cryX	7/29/2014	Highway 97	North	Wolfs cry	ST	60.0	32.2

Number of inspections: 8

**Subtotal** 369.5 m 471.0 m

**Total** 369.5 m 471.0 m

# WRc Sewer Report

Inspected by: <b>Guy Adams</b>	Contract No:	Job number: <b>2014-063</b>	Catchment:	Division:	District:	PLR: <b>MH47X</b>
Start date/time: <b>28.07.14 22:53</b>	Road name: <b>Highway 97</b>					Place name: <b>Clinton</b>
Start Manhole No. <b>MH47</b>	Depth:	Cover:	Invert:	Finish Manhole No. <b>MH40</b>	Depth:	Cover:
Use: <b>F</b>	Direction: <b>D</b>	Size 2:	Size 1: <b>200</b>	Shape: <b>C</b>	Material: <b>VC</b>	Lining:
VT No: <b>00001</b>	Comments:			Pipe length:	Total length: <b>94.3</b>	Year laid:
Purpose: <b>C</b>	Category:	Pre-cleanse: <b>Y</b>	Weather: <b>1</b>	Location: <b>A</b>	Location details:	

Video No.	Photo No.	Distance	Continuous Defect	Letters	Diameter / Dimension	Numbers	Intrusion	Remarks
				code		at	to	%
0000		0.0		ST				
0000		0.0		MH				47
0001		0.0		WL			5	
0003		63.0	S1	GO				Start of repair
0003		64.9	F1	GO				Start of repair
0020		69.9	S2	GO				Start of repair
0020		72.1	F2	GO				Start of repair
0031		93.1	S3	GO				Start of repair
0031		94.0	F3	GO				Start of repair
0040		94.0		MH				40
0042		94.3		FH				

# WRC Sewer Report

Inspected by: <b>Guy Adams</b>	Contract No:	Job number: <b>2014-063</b>	Catchment:	Division:	District:	PLR: <b>MH35X</b>
Start date/time: <b>28.07.14 23:00</b>	Road name: <b>Highway 97</b>					Place name: <b>Clinton</b>
Start Manhole No. <b>MH35</b>	Depth:	Cover:	Invert:	Finish Manhole No. <b>MH40</b>	Depth:	Cover:
Use: <b>F</b>	Direction: <b>D</b>	Size 2:	Size 1: <b>200</b>	Shape: <b>C</b>	Material: <b>VC</b>	Lining:
VT No: <b>00002</b>	Comments					Pipe length:
Purpose: <b>A</b>	Category	Pre-cleanse: <b>Y</b>	Weather: <b>1</b>	Location: <b>A</b>	Location details: <b>See above</b>	Total length: <b>107.6</b>
						Year laid:

Video No.	Photo No.	Distance	Continuous Defect	Letters	Diameter / Dimension	Numbers	Intrusion	Remarks
				code		at	to	%
								mm

0000		0.0		ST					
0000		0.0		MH					35
0001		0.0		WL				5	
0030		23.5		JN	100	3			Live.
0050		35.7		JN	100	9			Live. RFJ in service.
0074		52.5	S1	FM		12	12		
0074		55.6	F1	FM		12	12		
0093		57.3		FM		12	12		For 1.2M
0105		61.0		FM		12	12		For 1.1M
0124		70.5		CN	100	9			Live.
0135		71.9		FC		12	12		
0142		72.7		FM		9	3		At joint
0161		82.0		FM		12	12		
0164		82.4		JN	100	3			Live.
0183		94.8		JN	100	3			Live.
0202		106.9		FC		10	3		At joint



Video No.	Photo No.	Distance (m)	Continuous Defect	Letters	Diameter / Dimension	Numbers		Intrusion		Remarks
				code		at	to	%	mm	
0213		107.6		MH						40
0214		107.6		FH						

# WRc Sewer Report

Inspected by: <b>Guy Adams</b>	Contract No:	Job number: <b>2014-063</b>	Catchment:	Division:	District:	PLR: <b>MH35X</b>
Start date/time: <b>28.07.14 23:23</b>	Road name: <b>Highway 97</b>					Place name: <b>Clinton</b>
Start Manhole No. <b>MH35</b>	Depth:	Cover:	Invert:	Finish Manhole No. <b>MH40</b>	Depth:	Cover:
Use: <b>F</b>	Direction: <b>D</b>	Size 2:	Size 1: <b>200</b>	Shape: <b>C</b>	Material: <b>VC</b>	Lining:
VT No: <b>00003</b>	Pipe length:					Total length: <b>107.6</b>
Purpose: <b>C</b>					Category:	Year laid:
Pre-cleanse: <b>Y</b>	Weather: <b>1</b>	Location: <b>A</b>	Location details: <b>See above</b>			
Comments						

Video No.	Photo No.	Distance	Continuous Defect	Letters	Diameter / Dimension	Numbers	Clock	Intrusion	Remarks
				code		at	to	% mm	

0000		0.0		ST					
0000		0.0		MH					35
0001		0.0		WL				5	
0003		52.0	S1	GO					Start of repair
0003		56.0	F1	GO					Start of repair
0014		57.4	S2	GO					Start of repair
0014		59.6	F2	GO					Start of repair
0024		61.3	S3	GO					Start of repair
0024		63.4	F3	GO					Start of repair
0034		63.8		SA					End of repairs

# WRc Sewer Report

Inspected by: <b>Guy Adams</b>	Contract No:	Job number: <b>2014-63</b>	Catchment:	Division:	District:	PLR: <b>MH23X</b>
Start date/time: <b>28.07.14 23:33</b>	Road name: <b>Highway 97</b>					Place name: <b>Clinton</b>
Start Manhole No. <b>MH22</b>	Depth:	Cover:	Invert:	Finish Manhole No. <b>MH23</b>	Depth:	Cover:
Use: <b>F</b>	Direction: <b>U</b>	Size 2:	Size 1: <b>200</b>	Shape: <b>C</b>	Material: <b>VC</b>	Lining:
VT No: <b>00004</b>	Comments					
Purpose: <b>A</b>	Category	Pre-cleanse: <b>Y</b>	Weather: <b>1</b>	Location: <b>A</b>	Location details: <b>See above</b>	
Pipe length:	Total length:	Year laid:				

Video No.	Photo No.	Distance	Continuous Defect	Letters	Diameter / Dimension	Numbers	Intrusion	Remarks
				code		at	to	%
								mm

0000		0.0		ST					
0000		0.0		MH					22
0001		0.0		WL				5	
0021		22.0		JN	100	2			Live.
0055		50.0		SSL	125	2			
0070		51.4		JN	100	10			
0074		51.4	S1	DES				10	
0074		56.5	F1	DES				10	
0084		59.5	S2	DES				5	
0095		63.8		JN	100	2			Live.
0084		64.0	F2	DES				5	
0111		68.8		FM		12	12		
0122		70.4		CNI	100	9		10	live
0150		81.6		JN	100	3			Appears unused
0160		84.5	S3	DES				5	
0163		86.3		JN	100	2			Appears unused

Video No.	Photo No.	Distance (m)	Continuous Defect	Letters code	Diameter / Dimension	Numbers Clock at to		Intrusion % mm		Remarks
0165		86.3		WL				30		
0172		88.5		WL				10		
0160		89.0	F3	DES				5		
0182		93.0		WL				25		
0183		93.0	S4	DES				10		
0183		96.5	F4	DES				10		
0191		96.5		WL				5		
0201		100.6		MH						23
0205		100.7		FH						

# WRc Sewer Report

Inspected by: <b>Guy Adams</b>	Contract No:	Job number: <b>2014-63</b>	Catchment:	Division:	District:	PLR: <b>MH23X</b>
Start date/time: <b>28.07.14 23:57</b>	Road name: <b>Highway 97</b>					Place name: <b>Clinton</b>
Start Manhole No. <b>MH22</b>	Depth:	Cover:	Invert:	Finish Manhole No. <b>MH23</b>	Depth:	Cover:
Use: <b>F</b>	Direction: <b>U</b>	Size 2:	Size 1: <b>200</b>	Shape: <b>C</b>	Material: <b>VC</b>	Lining:
VT No: <b>00005</b>	Comments					
Purpose: <b>C</b>	Category:	Pre-cleanse: <b>Y</b>	Weather: <b>1</b>	Location: <b>A</b>	Location details: <b>See above</b>	
Pipe length:	Total length:	Year laid:				

Video No.	Photo No.	Distance	Continuous Defect	Letters code	Diameter / Dimension	Numbers Clock at to	Intrusion % mm	Remarks
0000		0.0		ST				
0000		0.0		MH				22
0001		0.0		WL			5	
0004		69.0	S1	GO				Start of repair
0004		71.0	F1	GO				Start of repair
0015		71.3		SA				Past repair

# WRc Sewer Report

Inspected by: <b>Guy Adams</b>	Contract No:	Job number: <b>2014-063</b>	Catchment:	Division:	District:	PLR: <b>MH36X</b>
Start date/time: <b>29.07.14 00:02</b>	Road name: <b>Highway 97</b>					Place name: <b>Clinton</b>
Start Manhole No. <b>MH22</b>	Depth:	Cover:	Invert:	Finish Manhole No. <b>MH36</b>	Depth:	Cover:
Use: <b>F</b>	Direction: <b>U</b>	Size 2:	Size 1: <b>200</b>	Shape: <b>C</b>	Material: <b>VC</b>	Lining:
VT No: <b>00006</b>	Comments					
Purpose: <b>A</b>	Category	Pre-cleanse: <b>Y</b>	Weather: <b>1</b>	Location: <b>A</b>	Location details: <b>See above</b>	
Pipe length:	Total length:	Year laid:				

Video No.	Photo No.	Distance	Continuous Defect	Letters	Diameter / Dimension	Numbers	Intrusion	Remarks
				code		at	to	%
								mm

0000		0.0		ST					
0000		0.0		MH					22
0001		0.0		WL				5	
0002		0.1		B		12	12		
0013		0.5		SA					

# WRc Sewer Report

Inspected by: <b>Guy Adams</b>	Contract No:	Job number: <b>2014-063</b>	Catchment:	Division:	District:	PLR: <b>MH36X</b>
Start date/time: <b>29.07.14 00:05</b>	Road name: <b>Highway 97</b>					Place name: <b>Clinton</b>
Start Manhole No. <b>MH22</b>	Depth:	Cover:	Invert:	Finish Manhole No. <b>MH36</b>	Depth:	Cover:
Use: <b>F</b>	Direction: <b>U</b>	Size 2:	Size 1: <b>200</b>	Shape: <b>C</b>	Material: <b>VC</b>	Lining:
VT No: <b>00007</b>	Comments					Pipe length:
Purpose: <b>C</b>	Category	Pre-cleanse: <b>Y</b>	Weather: <b>1</b>	Location: <b>A</b>	Location details: <b>See above</b>	Total length:
						Year laid:

Video No.	Photo No.	Distance	Continuous Defect	Letters code	Diameter / Dimension	Numbers Clock at	to	Intrusion %	mm	Remarks
0000		0.0		ST						
0000		0.0		MH						22
0001		0.0		WL				5		
0002		0.1	S1	GO						Start of repair
0002		0.6	F1	GO						Start of repair
0011		0.6		SA						

# WRc Sewer Report

Inspected by: <b>Guy Adams</b>	Contract No:	Job number: <b>2014-063</b>	Catchment:	Division:	District:	PLR: <b>Wolfs cryX</b>			
Start date/time: <b>29.07.14 00:08</b>	Road name: <b>Highway 97</b>		Place name: <b>Clinton</b>						
Start Manhole No. <b>North</b>	Depth:	Cover:	Invert:	Finish Manhole No. <b>Wolfs cry</b>	Depth:	Cover:	Invert:		
Use: <b>S</b>	Direction: <b>U</b>	Size 2:	Size 1: <b>300</b>	Shape: <b>C</b>	Material: <b>ST</b>	Lining:	Pipe length:	Total length: <b>60.0</b>	Year laid:
VT No: <b>00008</b>	Comments								
Purpose: <b>A</b>	Category	Pre-cleanse: <b>Y</b>	Weather: <b>1</b>	Location: <b>A</b>	Location details: <b>See above</b>				

Video No.	Photo No.	Distance	Continuous Defect	Letters code	Diameter / Dimension	Numbers Clock at	to	Intrusion % mm	Remarks
0000		0.0		ST					
0000		0.0		MH					North
0001		0.0		WL				5	
0044		0.1	S1	DES				10	Varies
0052		0.1	S2	SWM		3	9		
0005		2.7	S3	H		3			Void visible
0024		2.7	S4	H		9			
0005		10.0	F3	H		3			Void visible
0024		10.0	F4	H		9			
0061		31.4		CNI	200	9		80	DES in CNI
0044		31.4	F1	DES				10	Varies
0052		31.4	F2	SWM		3	9		
0080		32.2		SA					Cannot pass CNI



ATT: Karl.

## WRc Sewer Report

Inspected by: **Guy Adams** Contract No: **2013-041** Job number: **2013-041** Catchment:  Division:  District:  PLR: **13X**  
 Start date/time: **26.07.13 11:00** Road name: **McDonald Ave** Place name: **Clinton**  
 Start Manhole No. **13** Depth:  Cover:  Invert:  Finish Manhole No. **7A** Depth: **2.20** Cover:  Invert:   
 Use: **F** Direction: **D** Size 2:  Size 1: **200** Shape: **C** Material: **AC** Lining:  Pipe length: **3.1** Total length:  Year laid:   
 VT No: **00007** Comments:   
 Purpose: **C** Category:  Pre-cleanse: **Y** Weather: **1** Location: **C** Location details: **.From Tingley St.**

Video No.	Photo No.	Distance	Continuous Defect	Letter code	Diameter / Dimension	Numbers at	to	Intrusion %	mm	Remarks
0000		0.0		ST						
0000		0.0		MH						13
0001		0.0		WL				5		
0003	001	79.8		GO						Start of repair
0012		81.9		GO						End repair
0015		82.9		SA						Past repair

# Summary and Recommendations

## Sanitary sewer inspections 2015

### Village of Clinton

Location	MH to MH	Repair location	Pipe size	Recommendation	Priority
Teal St.	62 to 61	20.5 & 22.1	200mm	Grout two holes in pipe	med
Easement of Teal St.	61 to 60	16.4	200mm	Remove roots from service and grout service	med
Kelly Lake Rd.	59 to 58	7.0 & 61.7	200mm	2 - 2 meter point repairs on fractured pipes	med
Kelly Lake Rd.	58 to 57	104	200mm	1 - 1 meter point repair on fractured pipe	med
Kelly Lake Rd.	57 to 55A	various	200mm	1 - 3 meter point repair and 2 - 1 meter repairs	med
Kelly Lake Rd.	55 to 54A	various	200mm	1 - 2 meter point repair on broken pipe	high
				1- 1 meter point repair on fractured pipe	med
				pressure grout joints to stop root intrusion	low
Kelly Lake Rd.	54 to 54A	21.4	200mm	remove roots and grout joint to stop root intrusion	high
Cariboo Ave	50A to 50B	31.6 & 33.1	200mm	Grout 1 fracture and hole in pipe	med
Cariboo Ave	50A to 50	28.1	200mm	Remove roots from service and grout service	high
Cariboo Ave	50 to 49	2	200mm	remove roots - 1-2 meter point repair on fractured pipe	high
				grout pipe joints to stop root intrusion	
Cariboo Ave	48 to 47	1.7	200mm	Grout fractured pipe	med
Cariboo Ave	46 to 45	1.4	200mm	1 - 1 meter point repair & grout 1 fractured pipe	med
Cariboo Ave	45 to 44	various	200mm	remove mineral deposits & grout factured pipe &	med
				grout 5 service connections	
Cariboo Ave.	46 to 47	63	200mm	minor crack in pipe - review pipe in 5 years	low
Carson St.	31 to 26	28.2 & 53.1	200mm	2 -2 meter point repairs on fractured pipe	med
Carson St.	27 to 26	75	200mm	remove roots and grout service connection	med
LeBourdais Ave.	28 to 26	31	200mm	1 -1 meter point repair on Fractured pipe	high
LeBourdais Ave.	26 to 22	48.4 & 52.7	200mm	grout 1 fracture pipe & 1 -1 meter point repair	med
Hyw 97	23 to 15	62 & 83.1	200mm	2 - 1 meter point repairs on broken and fractured pipe	high
Hyw 97	36 to 35	22.3 & 65.2	200mm	minor cracks - reinspect in 5 years	low
Hwy 97	36 to 22	81.9	200mm	1 -1 meter point repair on Fractured pipe	med
Hwy 97	40 to 35	various	200mm	minor cracks - reinspect in 5 years	low



Hwy 97	40 to 47	various	200mm	minor cracks - reinspect in 5 years	low
Cariboo Ave.	50 to Stub 01	19.2	150mm	1 -1 meter point repair on Fractured pipe - MH or cleanout	Med
				would have to be installed to provide access to the line	
Cariboo Ave.	41 to 42	14 & 52.7	200mm	grout 2 service connections to stop infiltration	low
Smith Rd.	39 to 38A	19	200mm	1 -1 meter point repair on fractured pipe	med
Smith Rd.	38A to 38	35.4	200mm	grout one fractured pipe	low
Dewdney Ave.	34 to 33	2.5	200mm	grout one fractured pipe	low
MacDonald Ave.	18 to 15	various	200mm	3 - 1 meter point repairs on fractured pipe and hole	high
MacDonald Ave.	18 to 19	various	200mm	1 -2 meter point reapiir on fractured pipe & grout 2 other	med
				fractures	
MacDonald Ave.	14 to 15Y	72.6 & 81.	200mm	2 - 1 meter point repairs on fractured pipes	med
Laneway from Carson	24 to 23	65	200mm	1 - 1 meter point repair on broken pipe	high
Laneway from Carson	24 to 25	58.1	200mm	grout 1 fractured pipe	low
Hyw 97	16 to 17	42.6 & 55.2	200mm	grout 2 fractured pipe	low
Hyw 97	16 to 15	19.6 & 48.9	200mm	grout 2 fractured pipe	low
Government St.	30 to 21	135.4	200mm	1 -1 meter point repair on broken pipe	High
Fir Ave.	70 to 69	9.8	200mm	grout small hole in pipe	low
Foster Ave.	10 to 8	40.7 & 58.8	200mm	Grout to leaking service connections	low
Foster Ave.	10 to 11	64.3	200mm	minor crack at service connection	low
MacDonald Ave.	14 to 12	24.7	200mm	hole that has been repaired	low
Tingley Rd.	13A to 13	5.9	200mm	hole that has been repaired	low
MacDonald Ave.	13 to 7A	86.6	200mm	remove roots and grout service connection	high
MacDonald Ave.	12 to 7	16.6	200mm	1 - 1 meter point repair	high
MacDonald Ave.	7A		200mm	Large mineral deposits on MH 7A & 7 - remove deposits	
				grout both manholes	
Mcdonald Ave.	7 to 12	various	200mm	remove large deposits and grout 3 services and joints	med
Smith Ave.	37 to 33	21.8 & 37.9	250mm	grout 2 fractured pipe	low
Soues St.	33 to 32	various	250mm	Grout 4 services to stop infiltration	med
Hyw 97 crossing	67 to 4B	full length	250mm	Steel pipe should be relined.	med

#### Colour Code

High Priority - Marked in Red - Repair should be completed in the next 24 months or sooner

Medium Priority - Marked in Blue - Repairs should be completed in next 60 months

Low Priority - Marked in Green - Review lines in 60 months.

Northern Lites Technology Ltd.  
4937 old Summit Lake Rd.  
Prince George, BC.  
V2K 5S5  
PH: 1-800-661-6177

## Project Summary

### 2015 sani inspections

Main ID	Date	Address	Start MH	Finish MH	Pipe	Asset length	Surveyed Length
MH 63X	8/27/2015	Teal St.	MH 62	MH 63	AC	120.0	92.9
MH 62X	8/27/2015	Teal St.	MH 62	MH 61	AC	29.3	29.3
MH 61X	8/27/2015	Easement from Teal St.	MH 61	MH 60	AC	107.1	107.1
MH 60X	8/27/2015	Kelly Lk. Rd.	MH 60	MH 57	AC	110.7	105.8
MH 59X	8/27/2015	Kelly Lk. Rd.	MH 59	MH 58	VC	116.8	116.8
MH 58X	8/28/2015	Kelly Lk Rd.	MH 58	MH 57	VC	131.2	131.2
MH 60X	8/28/2015	Kelly Lk. Rd.	MH 57	MH 60	AC	110.7	4.9
MH 57X	8/28/2015	Kelly Lk. Rd.	MH 57	MH 55A	VC	34.9	34.9
MH 55AX	8/28/2015	Kelly Lk Rd.	MH 55A	MH 55	VC	57.4	57.4

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Main ID	Date	Address	Start MH	Finish MH	Pipe	Asset length	Surveyed Length
MH 55X	8/28/2015	Kelly Lk Rd.	MH 55	MH 54A	VC	49.9	49.9
MH 54AX	8/28/2015	Kelly Lk Rd.	MH 54	MH 54A	VC	100.0	21.4
MH 54X	8/28/2015	Kelly Lk Rd.	MH 54	MH 48	VC	91.1	91.1
MH 50BX	8/28/2015	Cariboo Ave.	MH 50A	MH 50B	AC	48.2	48.2
MH 50AX	8/28/2015	Cariboo Ave.	MH 50A	MH 50	AC	29.9	28.4
MH 50AX	8/28/2015	Cariboo Ave.	MH 50	MH 50A	AC	29.9	1.0
MH 50X	8/28/2015	Cariboo Ave.	MH 50	MH 49	VC	65.7	65.7
MH 53X	8/28/2015	Carson St.	MH 52	MH 53	VC	49.8	49.8
mh 52X	8/28/2015	Carsom St.	MH 52	MH 51	VC	74.3	74.3
MH 49X	8/28/2015	Cariboo Ave.	MH 49	MH 48	VC	51.7	51.7
MH 51X	8/28/2015	Carson St.	MH 51	MH 49	VC	90.8	90.8



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Main ID	Date	Address	Start MH	Finish MH	Pipe	Asset length	Surveyed Length
MH 48X	8/28/2015	Cariboo Ave.	MH 48	MH 47	VC	13.3	13.3
MH 46X	8/28/2015	Cariboo Ave.	MH 46	MH 45	AC	83.9	83.9
MH 45X	8/28/2015	Cariboo Ave.	MH 45	MH 44	AC	90.9	90.9
MH 47X	8/28/2015	Cariboo Ave.	MH 46	MH 47	AC	84.7	84.7
MH 31X	8/28/2015	Carson St.	MH 31	MH 26	VC	121.8	121.8
MH 27X	8/29/2015	Carson St.	MH 27	MH 26	VC	106.0	106.0
MH 29X	8/29/2015	Engeman Lane	MH 28	MH 29	VC	97.6	97.6
MH 28X	8/29/2015	LeBourdais Ave.	MH 28	MH 26	VC	72.5	72.5
MH 26X	8/29/2015	LeBourdais Ave.	MH 26	MH 22	VC	124.7	124.7
MH 23X	8/29/2015	Hwy 97	MH 23	MH 22	VC	98.2	98.2
MH 15X	8/29/2015	Hwy 97	MH 23	MH 15	VC	92.1	92.1

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Main ID	Date	Address	Start MH	Finish MH	Pipe	Asset length	Surveyed Length
MH 36X	8/29/2015	Hwy 97	MH 36	MH 35	VC	126.8	126.8
MH 22Y	8/29/2015	Hwy 97	MH 36	MH 22	VC	130.6	130.6
MH 35Y	8/29/2015	Hwy 97	MH 40	MH 35	VC	106.7	106.7
MH 47Y	8/29/2015	Hwy 97	MH 40	MH 47	VC	91.9	91.9
Stub S01X	8/29/2015	Cariboo Ave	MH 50	Stub S01	VC	45.0	30.2
MH 42X	8/31/2015	Cariboo Ave.	MH 41	MH 42	AC	70.8	52.7
MH 39X	8/31/2015	Smith Ave.	MH 39	MH 38A	VC	48.2	48.2
MH 38AX	8/31/2015	Smith Ave.	MH 38A	MH 38	VC	36.0	36.0
MH 38X	8/31/2015	Smith Ave.	MH 38	MH 37	AC	92.3	92.3
MH 40X	8/31/2015	Smith Ave.	MH 39	MH 40	VC	83.7	83.7
MH 34X	8/31/2015	Dewdney Ave.	MH 34	MH 33	VC	141.2	141.2



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Main ID	Date	Address	Start MH	Finish MH	Pipe	Asset length	Surveyed Length
MH 35X	8/31/2015	Dewdney Ave.	MH 34	MH 35	VC	120.3	120.3
MH 22X	8/31/2015	Le Bourdais Ave.	MH 21	MH 22	VC	119.0	119.0
MH 18X	8/31/2015	McDonald Ave.	MH 18	MH 15	VC	72.2	72.2
MH 19X	8/31/2015	McDonald Cres	MH 18	MH 19	VC	43.6	43.6
MH 15Y	8/31/2015	McDonald Ave.	MH 14	MH 15	VC	81.9	81.9
MH 24X	8/31/2015	Lane from rear 1509 Carson	MH 24	MH 23	VC	65.7	65.7
MH 25X	8/31/2015	Easement rear of 1509 Carson	MH 24	MH 25	VC	58.8	58.8
MH 17X	8/31/2015	Hwy 97	MH 16	MH 17	VC	85.9	85.9
MH 16X	8/31/2015	Hwy 97	MH 16	MH 15	VC	72.2	72.2
MH 30X	9/1/2015	Government St.	MH 30	MH 34	VC	123.1	123.1
MH 30Y	9/1/2015	Government St.	MH 30	MH 21	VC	135.6	135.6

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Main ID	Date	Address	Start MH	Finish MH	Pipe	Asset length	Surveyed Length
MH 21X	9/1/2015	LeBourdais Ave.	MH 20A	MH 21	VC	68.2	68.2
MH 20AX	9/1/2015	LeBourdais Ave.	MH 20A	MH 20	VC	72.1	72.1
Stub S02X	9/1/2015	Lane below Government St.	MH 20A	Stub S02	AC	140.0	94.9
MH 74X	9/1/2015	Spruce Ave.	MH 74	MH 73	AC	82.5	82.5
MH 75X	9/1/2015	Spruce Ave.	MH 74	MH 75	AC	80.1	80.1
MH 73X	9/1/2015	Spruce Ave.	MH 72	MH 73	AC	12.8	12.8
MH 71X	9/1/2015	Fir Ave.	MH 70	MH 71	AC	57.6	57.6
MH 70X	9/1/2015	Fir Ave.	MH 70	MH 69	AC	69.1	69.1
MH 69X	9/1/2015	Fir Ave.	MH 69	MH 68	AC	47.3	47.3
MH 66X	9/1/2015	Elm Ave.	MH 65	MH 66	AC	54.7	54.7
Stub S03X	9/1/2015	Elm Ave.	MH 66	Stub S03	AC	47.1	47.1

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Main ID	Date	Address	Start MH	Finish MH	Pipe	Asset length	Surveyed Length
MH 65X	9/1/2015	Elm Ave.	MH 65	MH 64	AC	71.9	71.9
MH 10X	9/1/2015	Foster Ave.	MH 10	MH 8	AC	126.4	126.4
MH 11X	9/1/2015	Foster Ave.	MH 10	MH 11	VC	125.0	91.1
MH 14X	9/1/2015	McDonald Ave.	MH 14	MH 12	VC	121.7	121.7
MH 13BX	9/2/2015	Tingley St.	MH 13B	MH 13A	PVC	42.6	42.6
MH 13AX	9/2/2015	Tingley	MH 13A	MH 13	AC	51.2	51.2
MH 13X	9/2/2015	McDonald Ave.	MH 13	MH 7A	AC	137.1	137.1
MH 12X	9/2/2015	McDonald Ave.	MH 12	MH 7	AC	127.4	17.0
MH 7AX	9/2/2015	McDonald Ave.	MH 7A	MH 7B	AC	14.6	14.6
MH 12X	9/2/2015	McDonald Ave.	MH 7	MH 12	AC	127.4	110.4
MH 72X	9/2/2015	Frontage Rd.	MH 72	MH 68	AC	112.1	112.1

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Main ID	Date	Address	Start MH	Finish MH	Pipe	Asset length	Surveyed Length
MH 68X	9/2/2015	Frontage Rd.	MH 68	MH 67	AC	74.4	74.4
MH 64X	9/2/2015	Frontage Rd.	MH 67	MH 64	AC	22.6	22.6
MH 63AX	9/2/2015	Frontage Rd.	MH 64	MH 63A	AC	88.8	88.8
MH 41X	9/2/2015	Cariboo Ave.	MH 41	MH 37	AC	92.3	92.3
MH 37X	9/2/2015	Smith Ave.	MH 37	MH 33	AC	106.7	54.4
MH 33X	9/2/2015	Soues St.	MH 33	MH 32	AC	124.8	124.8
MH 32X	9/2/2015	Soues St.	MH 32	MH 20	AC	132.4	111.8
MH 67X	9/2/2015	Frontage Rd.	MH 67	MH 4B	ST		35.4
MJH 4BX	9/2/2015	Field easement	MH 4B	MH 4A	AC	69.9	69.6
MH 4AX	9/2/2015	Field easement	MH 4	MH 4A	AC	57.1	57.1
MH 3X	9/3/2015	Field easement	MH 3	MH 2	AC	85.2	64.8



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Main ID	Date	Address	Start MH	Finish MH	Pipe	Asset length	Surveyed Length
MH 37X	9/9/2015	Smith Ave.	MH 37	MH 33	AC	106.7	106.7
MH 32X	9/9/2015	Soues St.	MH 20	MH 32	AC	132.4	44.2
MH 20X	9/9/2015	LeBoudais Ave	MH 20	MH 9	AC	70.0	70.0
MH 9X	9/9/2015	LeBourdais Ave.	MH 9	MH 8	AC	93.1	93.1
MH 8X	9/10/2015	Foster Ave.	MH 8	MH 7	AC	100.3	100.1
MH 7X	9/10/2015	McDonald Ave.	MH 7	MH 6	AC		2.5
MH 6X	9/10/2015	Tingley St.	MH 6	MH 5	AC	85.2	85.2
MH 5X	9/10/2015	Easement behind cemetery	MH 5	MH 4	AC	117.2	117.2
MH 7X	9/10/2015	McDonald Ave.	MH 6	MH 7	AC		17.4
MH 7X	9/10/2015	McDonald Ave.	MH 7	MH 6	AC		4.3
MH 4X	9/10/2015	Easement off W subdivision Rd.	MH 4	MH 3	AC	42.7	42.7

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Main ID	Date	Address	Start MH	Finish MH	Pipe	Asset length	Surveyed Length
MH 3X	9/10/2015	Field easement	MH 3	MH 2	AC	85.2	85.2
Number of inspections: 98				<b>Subtotal</b>		<b>7,912.5 m</b>	<b>7,304.0 m</b>
				<b>Total</b>		<b>7,912.5 m</b>	<b>7,304.0 m</b>

# WRc Sewer Report

Asset ID: SS.022  
Criticality: 1 (Low)  
From MH-63 to MH-62

Inspected by: R Morris	Contract No:	Job number: 2015-061	Catchment:	Division:	District:	PLR: MH 63X
Start date/time: 27.08.15 14:22	Road name: Teal St.					Place name: Clinton
Start Manhole No. MH 62	Depth: 2.30	Cover:	Invert:	Finish Manhole No. MH 63	Depth:	Cover:
Use: F	Direction: U	Size 2:	Size 1: 200	Shape: C	Material: AC	Lining:
VT No: 00001			Comments	Pipe length:	Total length: 120.0	Year laid:
Purpose: A	Category	Pre-cleanse: Y	Weather: 1	Location: D	Location details: From 1000 Teal	

Video No.	Photo No.	Distance	Continuous Defect	Letters	Diameter / Dimension	Numbers		Intrusion	Remarks
				code		at	to	%	mm

0000		0.0		ST					
0000		0.0		MH					MH 62
0001		0.0		WL				5	
0050		39.1		CN	100	2			Live.
0061		39.9		ELJ		9		1	Dry
0084		60.1		JN	100	3			Live.
0091		60.3	S1	ELJ		3	9	5	Soft, wet. Varies
0091		92.9	F1	ELJ		3	9	5	Soft, wet. Varies
0160		92.9		SA					No traction. USMH buried

# WRc Sewer Report

Asset ID: SS.  
Criticality: 1 (Low)  
From MH- to MH-

Inspected by: <b>R Morris</b>	Contract No:	Job number: <b>2015-061</b>	Catchment:	Division:	District:	PLR: <b>MH 62X</b>
Start date/time: <b>27.08.15 14:55</b>	Road name: <b>Teal St.</b>					Place name: <b>Clinton</b>
Start Manhole No. <b>MH 62</b>	Depth: <b>2.30</b>	Cover:	Invert:	Finish Manhole No. <b>MH 61</b>	Depth: <b>2.50</b>	Cover:
Use: <b>F</b>	Direction: <b>D</b>	Size 2:	Size 1: <b>200</b>	Shape: <b>C</b>	Material: <b>AC</b>	Lining:
VT No: <b>00002</b>	Pipe length: <b>4.0</b>					Total length: <b>29.3</b>
Purpose: <b>A</b>	Category:	Pre-cleanse: <b>Y</b>	Weather: <b>1</b>	Location: <b>D</b>	Location details: <b>From 1006 Teal</b>	Year laid:
Comments						

Video No.	Photo No.	Distance	Continuous Defect	Letters code	Diameter / Dimension	Numbers Clock at to	Intrusion % mm	Remarks
0000		0.0		ST				
0000		0.0		MH				MH 62
0001		0.0		WL			5	
0002		0.1		LL				Slight
0004		0.6		LL				Slight
0010		0.6		LD				Slight
0015		7.4		JN	100	10		Live.
0040	001	20.5		SSL	100	8		RF from same
0050	003	22.1		SSL	100	7		RF from same
0064		29.0		MH				MH 61. RF on barrel. Buried
0073		29.3		FH				



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## Observation Report with Still Images

PLR: MH 62X Project Name: 2015 sani inspections Start date/time: 8/27/2015 2:55:19 PM Weather: 1 Inspected by: R Morris

Upstream node: MH 62 Depth US: 2.3 Downstream node: MH 61 Depth DS: 2.5 Total length: 29.3 Extra:

Comments

### Observations

Distance	Length	Code	Reversed	Clock Pos.	Severity	Comment
0.0		MH	No	/		MH 62
0.0		ST	No	/		
0.0		WL	No	/		
0.1		LL	No	/		Slight
0.6		LL	No	/		Slight
0.6		LD	No	/		Slight
7.4		JN	No	10 /		Live.
20.5		SSL	No	8 /		RF from same



22.1

SSL



No

7 /

RF from same

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## Observations

Distance	Length	Code	Reversed	Clock Pos.	Severity	Comment
						
29.0	MH	No	/			MH 61. RF on barrel. Buried
29.3	FH	No	/			

# WRc Sewer Report

Inspected by: R Morris	Contract No:	Job number: 2015-061	Catchment:	Division:	District:	PLR: MH 61X
Start date/time: 27.08.15 15:08	Road name: Easement from Teal St.					Place name: Clinton
Start Manhole No. MH 61	Depth: 2.50	Cover:	Invert:	Finish Manhole No. MH 60	Depth:	Cover:
Use: F	Direction: D	Size 2:	Size 1: 200	Shape: C	Material: AC	Lining:
VT No: 00003	Pipe length: 4.0		Total length: 107.1		Year laid:	
Comments						
Purpose: A	Category	Pre-cleanse: Y	Weather: 1	Location: E	Location details: From east of 1008 Teal	

Video No.	Photo No.	Distance	Continuous Defect	Letters	Diameter / Dimension	Numbers	Intrusion	Remarks
				code		at	to	%
								mm

0000		0.0		ST					
0000		0.0		MH					MH 61. RF on barrel. Buried
0002		0.0		WL				5	
0014		5.6		JN	100	10			Live.
0031		16.4		CX	100	3			Live. RM from Service
0053		29.5	S1	ELJ		3	9	5	Soft, wet. Varies
0053		49.5	F1	ELJ		3	9	5	Soft, wet. Varies
0121		93.6	S2	ISJ		3	9		Dry, stained. Varies
0130		96.0		WL				15	
0134		101.0		WL				5	
0121		106.5	F2	ISJ		3	9		Dry, stained. Varies
0142		106.9		MH					MH 60
0000		107.1		FH					

# WRc Sewer Report

Inspected by: R Morris	Contract No:	Job number: 2015-061	Catchment:	Division:	District:	PLR: MH 60X
Start date/time: 27.08.15 15:31	Road name: Kelly Lk. Rd.					Place name: Clinton
Start Manhole No. MH 60	Depth:	Cover:	Invert:	Finish Manhole No. MH 57	Depth: 3.80	Cover:
Use: F	Direction: D	Size 2:	Size 1: 200	Shape: C	Material: AC	Lining:
VT No: 00004	Comments					Pipe length: 4.0
Purpose: A	Category	Pre-cleanse: Y	Weather: 1	Location: B	Location details: Easement from Teal St.	
Total length: 110.7						
Year laid:						

Video No.	Photo No.	Distance	Continuous Defect	Letters	Diameter / Dimension	Numbers	Intrusion	Remarks
				code		at	to	%
								mm

0000		0.0		ST					
0000		0.0		MH					MH 60
0001		0.0		WL				5	
0043		17.4	S1	ISJ		3	9		Stained, dry
0105		28.8		JN	100	9			Appears unused
0161		90.0		WL				10	
0170		94.0		WL				5	
0043		105.7	F1	ISJ		3	9		Stained, dry
0201		105.8		SA					No traction



# WRc Sewer Report

Inspected by: R Morris	Contract No:	Job number: 2015-061	Catchment:	Division:	District:	PLR: MH 59X
Start date/time: 27.08.15 16:20	Road name: Kelly Lk. Rd.					Place name: Clinton
Start Manhole No. MH 59	Depth: 5.70	Cover:	Invert:	Finish Manhole No. MH 58	Depth: 3.70	Cover:
Use: F	Direction: D	Size 2:	Size 1: 200	Shape: C	Material: VC	Lining:
VT No: 00005	Pipe length: 1.8					Total length: 116.8
Comments:						
Purpose: A	Category	Pre-cleanse: Y	Weather: 1	Location: B	Location details: From 1001 Kelly Lk. Rd.	

Video No.	Photo No.	Distance	Continuous Defect	Letters	Diameter / Dimension	Numbers	Intrusion	Remarks
				code		at	to	%
								mm

0000		0.0		ST					
0000		0.0		MH					MH 59. Wet benching
0001		0.0		WL				5	
0011	001	7.0		FM		6	12		From joint DS 1M
0042	002	8.5		FM		12	12		
0063		16.0		JX	100	10			Live RF from service
0073		16.7		RFJ				5	Trace.
0100		23.9		JN	100	3			Live.
0112		28.3		MC					To PVC
0113		28.3		JDM					
0141		53.9		JN	100	2			Live
0150		54.6		WL				15	
0152		55.0		JN	100	12			Live.
0162		55.4		MC					To VC
0164		55.4		WL				5	
0173	003	61.7		FM		12	12		RF from same

Video No.	Photo No.	Distance (m)	Continous Defect	Letters code	Diameter / Dimension	Numbers Clock at to		Intrusion % mm		Remarks
0192	004	72.3		CC		9	11			At joint
0210		81.7		JN	100	2				Live.
0220		84.4		JN	100	10				Live.
0244		109.6		JN	100	3				Appears unused. DES
0262		116.6		MH						MH 58
0270		116.8		FH						

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## Observation Report with Still Images

PLR: MH 59X Project Name: 2015 sani inspections Start date/time: 8/27/2015 4:20:29 PM Weather: 1 Inspected by: R Morris

Upstream node: MH 59 Depth US: 5.7 Downstream node: MH 58 Depth DS: 3.7 Total length: 116.8 Extra:

Comments

### Observations

Distance	Length	Code	Reversed	Clock Pos.	Severity	Comment
0.0		ST	No	/		
0.0		MH	No	/		MH 59. Wet benching
0.0		WL	No	/		
7.0		FM	No	6 / 12		From joint DS 1M



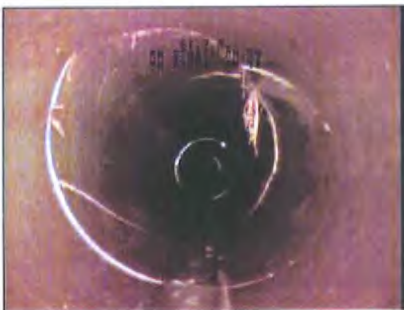
8.5 FM No 12 / 12



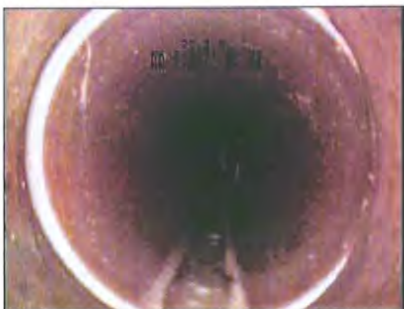
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## Observations

Distance	Length	Code	Reversed	Clock Pos.	Severity	Comment
16.0		JX	No	10 /		Live RF from service
16.7		RFJ	No	/		Trace.
23.9		JN	No	3 /		Live.
28.3		MC	No	/		To PVC
28.3		JDM	No	/		
53.9		JN	No	2 /		Live
54.6		WL	No	/		
55.0		JN	No	12 /		Live.
55.4		MC	No	/		To VC
55.4		WL	No	/		
61.7		FM	No	12 / 12		RF from same



72.3	CC	No	9 / 11	At joint
------	----	----	--------	----------



81.7	JN	No	2 /	Live.
84.4	JN	No	10 /	Live.
109.6	JN	No	3 /	Appears unused. DES
116.6	MH	No	/	MH 58
116.8	FH	No	/	



# WRc Sewer Report

Inspected by: R Morris	Contract No:	Job number: 2015-061	Catchment:	Division:	District:	PLR: MH 58X
Start date/time: 28.08.15 07:25	Road name: Kelly Lk Rd.					Place name: Clinton
Start Manhole No. MH 58	Depth: 3.70	Cover:	Invert:	Finish Manhole No. MH 57	Depth: 3.80	Cover:
Use: F	Direction: D	Size 2:	Size 1: 200	Shape: C	Material: VC	Lining:
VT No: 00006	Comments:					Year laid:
Purpose: A	Category:	Pre-cleanse: Y	Weather: 1	Location: B	Location details: From 1008 Kelly Lk Rd.	
Pipe length: 1.8	Total length: 131.2					

Video No.	Photo No.	Distance	Continuous Defect	Letters code	Diameter / Dimension	Numbers Clock at to	Intrusion % mm	Remarks
0000		0.0		ST				
0000		0.0		MH				MH 58
0001		0.0		WL			5	
0004		3.3	S1	EL		2 10	5	Soft, wet. Varies
0004		18.0	F1	EL		2 10	5	Soft, wet. Varies
0031		24.0		JN	100	10		Live. Light flow
0044		32.4		JN	100	10		Capped
0082		66.9		JN	100	10		Live.
0112		92.3		JN	100	3		Appears unused
0131	001	104.0		FM		1 6		At joint
0153		107.7		JN	100	11		Live.
0183		131.0		MH				MH 57. Light stain on ring
0194		131.2		FH				

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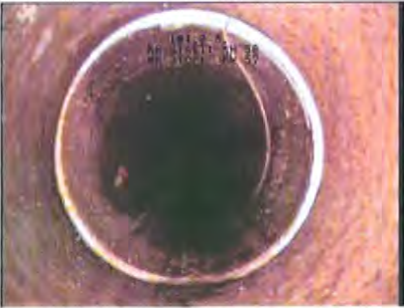
## Observation Report with Still Images

PLR: MH 58X Project Name: 2015 sani inspections Start date/time: 8/28/2015 7:25:28 AM Weather: 1 Inspected by: R Morris

Upstream node: MH 58 Depth US: 3.7 Downstream node: MH 57 Depth DS: 3.8 Total length: 131.2 Extra:

Comments

### Observations

Distance	Length	Code	Reversed	Clock Pos.	Severity	Comment
0.0		ST	No	/		
0.0		MH	No	/		MH 58
0.0		WL	No	/		
3.3	14.7	EL	No	2 / 10		Soft, wet. Varies
24.0		JN	No	10 /		Live. Light flow
32.4		JN	No	10 /		Capped
66.9		JN	No	10 /		Live.
92.3		JN	No	3 /		Appears unused
104.0		FM	No	1 / 6		At joint
						
107.7		JN	No	11 /		Live.
131.0		MH	No	/		MH 57. Light stain on ring
131.2		FH	No	/		

# WRc Sewer Report

Inspected by: R Morris	Contract No:	Job number: 2015-061	Catchment:	Division:	District:	PLR: MH 60X
Start date/time: 28.08.15 08:10	Road name: Kelly Lk. Rd.					Place name: Clinton
Start Manhole No. MH 57	Depth: 3.80	Cover:	Invert:	Finish Manhole No. MH 60	Depth:	Cover:
Use: F	Direction: U	Size 2:	Size 1: 200	Shape: C	Material: AC	Lining:
VT No: 00007	Pipe length: 4.0					Total length: 110.7
Purpose: H	Category:	Pre-cleanse: Y	Weather: 1	Location: B	Location details: Easement from Teal St.	

Video No.	Photo No.	Distance	Continuous Defect	Letters	Diameter / Dimension	Numbers	Intrusion	Remarks
				code		Clock		
						at	to	%
								mm

0000		0.0		ST					
0000		0.0		MH					MH 57
0001		0.0		WL				5	
0005		4.9		SA					At previous report



# WRc Sewer Report

Inspected by: <b>R Morris</b>	Contract No:	Job number: <b>2015-061</b>	Catchment:	Division:	District:	PLR: <b>MH 57X</b>
Start date/time: <b>28.08.15 08:17</b>	Road name: <b>Kelly Lk. Rd.</b>					Place name: <b>Clinton</b>
Start Manhole No. <b>MH 57</b>	Depth: <b>3.80</b>	Cover:	Invert:	Finish Manhole No. <b>MH 55A</b>	Depth:	Cover:
Use: <b>F</b>	Direction: <b>D</b>	Size 2:	Size 1: <b>200</b>	Shape: <b>C</b>	Material: <b>VC</b>	Lining:
VT No: <b>00008</b>	Comments		Pipe length: <b>1.8</b>	Total length: <b>34.9</b>	Year laid:	
Purpose: <b>A</b>	Category	Pre-cleanse: <b>Y</b>	Weather: <b>1</b>	Location: <b>B</b>	Location details: <b>From 1112 Kelly Lk Rd</b>	

Video No.	Photo No.	Distance	Continuous Defect	Letters	Diameter / Dimension	Numbers	Intrusion	Remarks
				code		at	to	% mm
0000		0.0		ST				
0000		0.0		MH				MH 57
0001		0.0		WL			5	
0002	001	0.1		FM		12	12	From MH interface
0025		8.2		RFJ			5	
0032	002	8.2		FM		12	5	At joint
0045		10.0		RFJ			10	
0051	003	10.0		FM		3	9	
0072		15.9		JN	100	10		Live. Light flow
0095	004	34.3		FM		12	12	To MH interface
0104		34.8		MH				MH 55A. Buried
0114		34.9		FH				

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## Observation Report with Still Images

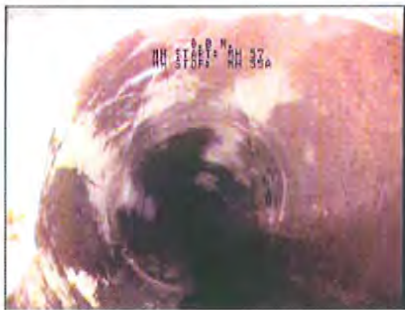
PLR: MH 57X Project Name: 2015 sani inspections Start date/time: 8/28/2015 8:17:12 AM Weather: 1 Inspected by: R Morris

Upstream node: MH 57 Depth US: 3.8 Downstream node: MH 55A Depth DS: Total length: 34.9 Extra:

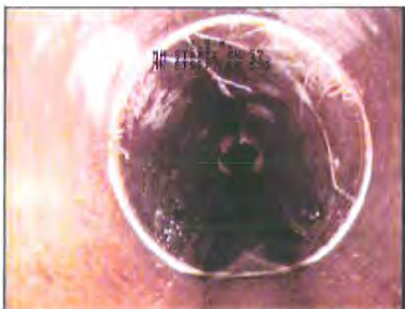
Comments

### Observations

Distance	Length	Code	Reversed	Clock Pos.	Severity	Comment
0.0		ST	No	/		
0.0		MH	No	/		MH 57
0.0		WL	No	/		
0.1		FM	No	12 / 12		From MH interface

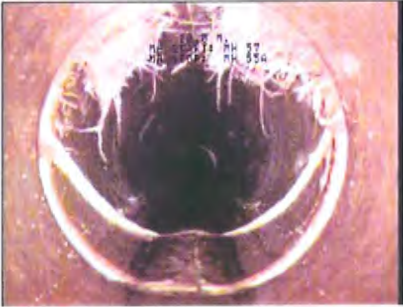
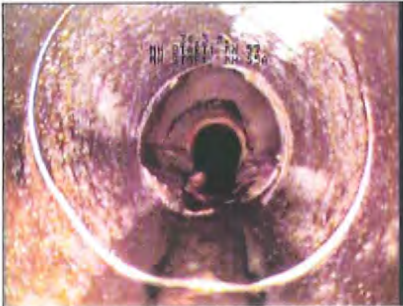


8.2 RFJ No /  
 8.2 FM No 12 / 5 At joint



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## Observations

Distance	Length	Code	Reversed	Clock Pos.	Severity	Comment
10.0	RFJ	No	/			
10.0	FM	No	3 / 9			
						
15.9	JN	No	10 /			Live. Light flow
34.3	FM	No	12 / 12			To MH interface
						
34.8	MH	No	/			MH 55A. Buried
34.9	FH	No	/			



# WRc Sewer Report

Inspected by: R Morris	Contract No:	Job number: 2015-061	Catchment:	Division:	District:	PLR: MH 55AX
Start date/time: 28.08.15 08:38	Road name: Kelly Lk Rd.					Place name: Clinton
Start Manhole No. MH 55A	Depth:	Cover:	Invert:	Finish Manhole No. MH 55	Depth: 3.40	Cover:
Use: F	Direction: D	Size 2:	Size 1: 200	Shape: C	Material: VC	Lining:
VT No: 00009	Comments			Pipe length: 1.8	Total length: 57.4	Year laid:
Purpose: A	Category	Pre-cleanse: Y	Weather: 1	Location: B	Location details: From 1116 Kelly Lk Rd	

Video No.	Photo No.	Distance	Continuous Defect	Letters	Diameter / Dimension	Numbers	Intrusion	Remarks
				code		at	to	%
								mm

0000		0.0		ST					
0000		0.0		MH					MH 55A. Buried
0001		0.0		WL				5	
0030		23.7		JN	100	9			Capped
0062		57.1		MH					MH 55.
0070		57.4		FH					

# WRc Sewer Report

Inspected by: <b>R Morris</b>	Contract No:	Job number: <b>2015-061</b>	Catchment:	Division:	District:	PLR: <b>MH 55X</b>
Start date/time: <b>28.08.15 08:59</b>	Road name: <b>Kelly Lk Rd.</b>					Place name: <b>Clinton</b>
Start Manhole No. <b>MH 55</b>	Depth: <b>3.40</b>	Cover:	Invert:	Finish Manhole No. <b>MH 54A</b>	Depth:	Cover:
Use: <b>F</b>	Direction: <b>D</b>	Size 2:	Size 1: <b>200</b>	Shape: <b>C</b>	Material: <b>VC</b>	Lining:
VT No: <b>00010</b>	Comments:					Pipe length: <b>1.8</b>
Purpose: <b>A</b>	Category:	Pre-cleanse: <b>Y</b>	Weather: <b>1</b>	Location: <b>B</b>	Total length: <b>49.9</b>	
Location details: <b>From 1118 Kelly Lk Rd.</b>						
Year laid:						

Video No.	Photo No.	Distance	Continuous Defect	Letters	Diameter / Dimension	Numbers	Intrusion	Remarks
				code		Clock		
						at	to	% mm

0000		0.0		ST					
0000		0.0		MH					MH 55
0001		0.0		WL				5	
0002	001	0.5		FC		2	10		At joint. Pipe displaced
0030		15.8		JN	100	9			Live.
0043		25.9		JN	100	9			Appears unused
0053		28.4		RFJ				5	
0070		41.4		RTJ				15	Root tail continues 0.5M
0082	002	48.8		B		12	12		RF from same
0091		49.7		MH					MH 54A. Buried. DES. Roots
0102		49.9		FH					

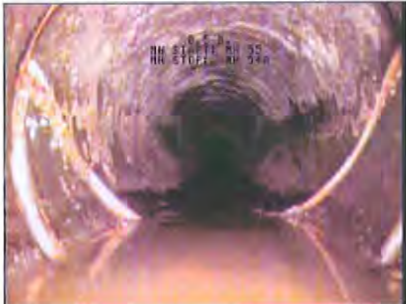


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## Observation Report with Still Images

PLR: MH 55X	Project Name: 2015 sani inspections	Start date/time: 8/28/2015 8:59:38 AM	Weather: 1	Inspected by: R Morris
Upstream node: MH 55	Depth US: 3.4	Downstream node: MH 54A	Depth DS: 49.9	Total length: 49.9
Extra:				
Comments				

### Observations

Distance	Length	Code	Reversed	Clock Pos.	Severity	Comment
0.0		ST	No	/		
0.0		MH	No	/		MH 55
0.0		WL	No	/		
0.5		FC	No	2 / 10		At joint. Pipe displaced
						
15.8		JN	No	9 /		Live.
25.9		JN	No	9 /		Appears unused
28.4		RFJ	No	/		
41.4		RTJ	No	/		Root tail continues 0.5M
48.8		B	No	12 / 12		RF from same

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## Observations

Distance	Length	Code	Reversed	Clock Pos.	Severity	Comment
						
49.7	MH	No	/			MH 54A. Buried. DES. Roots
49.9	FH	No	/			

# WRc Sewer Report

Inspected by: R Morris	Contract No:	Job number: 2015-061	Catchment:	Division:	District:	PLR: MH 54AX
Start date/time: 28.08.15 09:34	Road name: Kelly Lk Rd.					Place name: Clinton
Start Manhole No. MH 54	Depth: 2.50	Cover:	Invert:	Finish Manhole No. MH 54A	Depth:	Cover:
Use: F	Direction: U	Size 2:	Size 1: 200	Shape: C	Material: VC	Lining:
VT No: 00011	Comments					Pipe length: 1.8
Purpose: A	Category	Pre-cleanse: Y	Weather: 1	Location: B	Location details: From 12900 Kelly Lk Rd.	
Total length: 100.0						
Year laid:						

Video No.	Photo No.	Distance	Continuous Defect	Letters	Diameter / Dimension	Numbers	Intrusion	Remarks
				code		at	to	%
								mm
0000		0.0		ST				
0000		0.0		MH				MH 54
0001		0.0		WL			5	
0020		17.8		JN	100	2		Live.
0024		19.8		RF			20	Root tail
0042		21.4		SA				Cannot pass roots

# WRc Sewer Report

Inspected by: R Morris	Contract No:	Job number: 2015-061	Catchment:	Division:	District:	PLR: MH 54X
Start date/time: 28.08.15 09:42	Road name: Kelly Lk Rd.					Place name: Clinton
Start Manhole No. MH 54	Depth: 2.50	Cover:	Invert:	Finish Manhole No. MH 48	Depth: 2.20	Cover:
Use: F	Direction: D	Size 2:	Size 1: 200	Shape: C	Material: VC	Lining:
VT No: 00012	Comments					Pipe length: 1.8
Purpose: A	Category	Pre-cleanse: Y	Weather: 1	Location: D	Location details: Easement to Cariboo Ave.	
Total length: 91.1						
Year laid:						

Video No.	Photo No.	Distance	Continuous Defect	Letters	Diameter / Dimension	Numbers	Intrusion	Remarks
				code		at	to	%
								mm
0000		0.0		ST				
0000		0.0		MH				MH 54
0001		0.0		WL			5	
0013		15.6		JN	150	9		Capped
0062		72.4		MC				To PVC
0063		72.4		JDL				
0072		78.3		MC				To VC
0090		90.7		JN	200	6		Outside drop
0095		90.9		MH				MH 48
0105		91.1		FH				



# WRc Sewer Report

Inspected by: R Morris	Contract No:	Job number: 2015-061	Catchment:	Division:	District:	PLR: MH 50BX
Start date/time: 28.08.15 10:24	Road name: Cariboo Ave.					Place name: Clinton
Start Manhole No. MH 50A	Depth: 1.90	Cover:	Invert:	Finish Manhole No. MH 50B	Depth:	Cover:
Use: F	Direction: U	Size 2:	Size 1: 200	Shape: C	Material: AC	Lining:
VT No: 00013	Pipe length: 4.0					Total length: 48.2
Comments						
Purpose: A	Category	Pre-cleanse: Y	Weather: 1	Location: C	Location details: Across from 407 Cariboo	

Video No.	Photo No.	Distance	Continuous Defect	Letters	Diameter / Dimension	Numbers	Intrusion	Remarks
				code		at	to	%
								mm
0000		0.0		ST				
0000		0.0		MH				
0002		0.0		WL				5
0032	001	31.6		SSL		1		
0045	002	33.1		FC		12	12	
0065		48.1		MH				
0081		48.2		FH				

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## Observation Report with Still Images

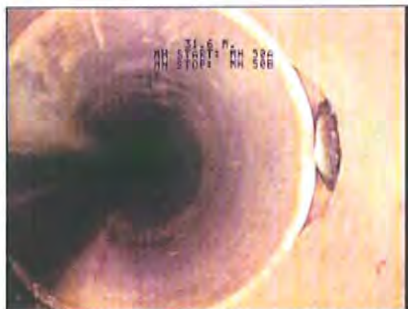
PLR: MH 50BX Project Name: 2015 sani inspections Start date/time: 8/28/2015 10:24:35 AM Weather: 1 Inspected by: R Morris

Upstream node: MH 50B Depth US: Downstream node: MH 50A Depth DS: 1.9 Total length: 48.2 Extra:

Comments

### Observations

Distance	Length	Code	Reversed	Clock Pos.	Severity	Comment
0.0		MH	Yes	/		MH 50A. No MH # on plan
0.0		ST	Yes	/		
0.0		WL	Yes	/		
31.6		SSL	Yes	1 /		At joint. Gasket visible



33.1

FC

Yes

12 / 12

RF from same



# WRc Sewer Report

Inspected by: R Morris	Contract No:	Job number: 2015-061	Catchment:	Division:	District:	PLR: MH 50AX
Start date/time: 28.08.15 10:41	Road name: Cariboo Ave.					Place name: Clinton
Start Manhole No. MH 50A	Depth: 1.90	Cover:	Invert:	Finish Manhole No. MH 50	Depth: 3.00	Cover:
Use: F	Direction: D	Size 2:	Size 1: 200	Shape: C	Material: AC	Lining:
VT No: 00014	Comments					Pipe length: 4.0
Purpose: A	Category	Pre-cleanse: Y	Weather: 1	Location: C	Location details: To 405 Cariboo	Total length: 29.9
						Year laid:

Video No.	Photo No.	Distance	Continuous Defect	Letters	Diameter / Dimension	Numbers	Intrusion	Remarks
				code		Clock		
						at	to	%
								mm

0000		0.0		ST					
0000		0.0		MH					MH 50A. No MH # on plan
0002		0.0		WL				5	
0030		28.1		CX	100	11			RM from same
0044		28.4		SA					Cannot pass RM from CX



# WRc Sewer Report

Inspected by: R Morris	Contract No:	Job number: 2015-061	Catchment:	Division:	District:	PLR: MH 50AX
Start date/time: 28.08.15 10:55	Road name: Cariboo Ave.					Place name: Clinton
Start Manhole No. MH 50	Depth: 3.00	Cover:	Invert:	Finish Manhole No. MH 50A	Depth: 1.90	Cover:
Use: F	Direction: U	Size 2:	Size 1: 200	Shape: C	Material: AC	Lining:
VT No: 00015	Pipe length: 4.0					Total length: 29.9
Comments						
Purpose: H	Category:	Pre-cleanse: Y	Weather: 1	Location: C	Location details: To 405 Cariboo	

Video No.	Photo No.	Distance	Continuous Defect	Letters	Diameter / Dimension	Numbers	Clock	Intrusion	Remarks
				code		at	to	% mm	
0000		0.0		ST					
0000		0.0		MH					MH 50
0001		0.0		WL				5	
0003		0.3		RM					Root tail from previous report
0012		1.0		SA					0.5M from previous report



# WRc Sewer Report

Inspected by: R Morris	Contract No:	Job number: 2015-061	Catchment:	Division:	District:	PLR: MH 50X
Start date/time: 28.08.15 11:01	Road name: Cariboo Ave.					Place name: Clinton
Start Manhole No. MH 50	Depth: 3.00	Cover:	Invert:	Finish Manhole No. MH 49	Depth: 2.90	Cover:
Use: F	Direction: D	Size 2:	Size 1: 200	Shape: C	Material: VC	Lining:
VT No: 00016	Pipe length: 1.8					Total length: 65.7
Comments						
Purpose: A	Category	Pre-cleanse: Y	Weather: 1	Location: C	Location details: From 405 Cariboo	


Video No.	Photo No.	Distance	Continuous Defect	Letters	Diameter / Dimension	Numbers	Clock	Intrusion	Remarks
				code		at	to	% mm	
0000		0.0		ST					
0000		0.0		MH					MH 50
0001		0.0		WL				5	
0003	001	2.0		FM		12	12		RF from same
0020		4.4	S1	RFJ				5	Trace. Varies
0032		14.0		JN	100	10			Live.
0041		18.7		JN	100	3			Appears unused. DES
0020		22.0	F1	RFJ				5	Trace. Varies
0065		42.3		JN	100	3			Appears unused
0080		42.5		MC					To AC
0084		47.6		JN	100	4			Live.
0093		47.9		MC					To VC
0101		52.3		JN	150	3			Appears unused
0122		65.5		MH					MH 49. Barrel wet
0132		65.7		FH					

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## Observation Report with Still Images

PLR: MH 50X	Project Name: 2015 sani inspections	Start date/time: 8/28/2015 11:01:53 AM	Weather: 1	Inspected by: R Morris
Upstream node: MH 50	Depth US: 3.0	Downstream node: MH 49	Depth DS: 2.9	Total length: 65.7
Extra:				
Comments				

### Observations

Distance	Length	Code	Reversed	Clock Pos.	Severity	Comment
0.0		MH	No	/		MH 50
0.0		ST	No	/		
0.0		WL	No	/		
2.0		FM	No	12 / 12		RF from same
						
4.4	17.6	RFJ	No	/		Trace. Varies
14.0		JN	No	10 /		Live.
18.7		JN	No	3 /		Appears unused. DES
42.3		JN	No	3 /		Appears unused
42.5		MC	No	/		To AC
47.6		JN	No	4 /		Live.
47.9		MC	No	/		To VC
52.3		JN	No	3 /		Appears unused
65.5		MH	No	/		MH 49. Barrel wet
65.7		FH	No	/		

# WRc Sewer Report

Inspected by: <b>R Morris</b>	Contract No:	Job number: <b>2015-061</b>	Catchment:	Division:	District:	PLR: <b>MH 53X</b>
Start date/time: <b>28.08.15 11:40</b>	Road name: <b>Carson St.</b>				Place name: <b>Clinton</b>	
Start Manhole No. <b>MH 52</b>	Depth: <b>2.40</b>	Cover:	Invert:	Finish Manhole No. <b>MH 53</b>	Depth:	Cover:
Use: <b>F</b>	Direction: <b>U</b>	Size 2:	Size 1: <b>200</b>	Shape: <b>C</b>	Material: <b>VC</b>	Lining:
VT No: <b>00017</b>	Comments:			Pipe length: <b>1.8</b>	Total length: <b>49.8</b>	Year laid:
Purpose: <b>A</b>	Category:	Pre-cleanse: <b>Y</b>	Weather: <b>1</b>	Location: <b>C</b>	Location details: <b>From 1317 Carson</b>	

Video No.	Photo No.	Distance	Continuous Defect	Letters code	Diameter / Dimension	Numbers Clock		Intrusion		Remarks
						at	to	%	mm	
0000		0.0		ST						
0010		0.0		MH						MH 52
0011		0.0		WL				5		
0012		0.1		GO						Point repair for 1.2M
0035		20.1		JN	100	9				Appears unused
0045		26.7		JN	100	9				Capped
0052		27.6		JN	100	3				Capped
0055		28.5		JX	100	10				Capped. RF from cap
0065		29.3		JN	100	2				Capped
0071		29.4		RFJ				5		
0073		29.9		JN	100	2				Appears unused
0081		30.9		JN	100	1				Capped
0085		31.4		OJM						
0094		35.4		RFJ				5		
0102	001	35.4		CM		10	2			At joint
0115		49.5		MH						MH 53. Buried



Video No.	Photo No.	Distance (m)	Continous Defect	Letters	Diameter / Dimension	Numbers Clock		Intrusion		Remarks
				code		at	to	%	mm	
0124		49.8		FH						

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## Observation Report with Still Images

PLR: MH 53X Project Name: 2015 sani inspections Start date/time: 8/28/2015 11:40:04 AM Weather: 1 Inspected by: R Morris

Upstream node: MH 53 Depth US: MH 52 Downstream node: Depth DS: 2.4 Total length: 49.8 Extra:

Comments

### Observations

Distance	Length	Code	Reversed	Clock Pos.	Severity	Comment
0.0		ST	Yes	/		
0.0		MH	Yes	/		MH 52
0.0		WL	Yes	/		
0.1		GO	Yes	/		Point repair for 1.2M
20.1		JN	Yes	9 /		Appears unused
26.7		JN	Yes	9 /		Capped
27.6		JN	Yes	3 /		Capped
28.5		JX	Yes	10 /		Capped. RF from cap
29.3		JN	Yes	2 /		Capped
29.4		RFJ	Yes	/		
29.9		JN	Yes	2 /		Appears unused
30.9		JN	Yes	1 /		Capped
31.4		OJM	Yes	/		
35.4		RFJ	Yes	/		
35.4		CM	Yes	10 / 2		At joint

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## Observations

Distance	Length	Code	Reversed	Clock Pos.	Severity	Comment
						
49.5	MH	Yes	/			MH 53. Buried
49.8	FH	Yes	/			

# WRc Sewer Report

Inspected by: R Morris	Contract No:	Job number: 2015-061	Catchment:	Division:	District:	PLR: mh 52X
Start date/time: 28.08.15 11:59	Road name: Carsom St.					Place name: Clinton
Start Manhole No. MH 52	Depth: 2.40	Cover:	Invert:	Finish Manhole No. MH 51	Depth: 2.40	Cover:
Use: F	Direction: D	Size 2:	Size 1: 200	Shape: C	Material: VC	Lining:
VT No: 00018	Pipe length: 1.8					Total length: 74.3
Comments						
Purpose: A	Category	Pre-cleanse: Y	Weather: 1	Location: C	Location details: From 1313 Carson	

Video No.	Photo No.	Distance	Continuous Defect	Letters	Diameter / Dimension	Numbers	Clock	Intrusion	Remarks
				code		at	to	% mm	
0000		0.0		ST					
0000		0.0		MH					MH 52
0001		0.0		WL				5	
0010		8.8		JN	100	9			Live. RFJ in service
0015		9.5		CN	100	11			Live.
0024		13.2		JN	100	2			Live.
0032		13.4		GO					Point repair for 1.0M
0044		25.4		CN	100	2			Live.
0070		46.2		GO					Point repair for 1.3M
0074		47.9		JN	100	3			Appears unused. DE in same
0090		50.4		JN	100	9			Live.
0095		55.2		JN	100	2			Live. Light flow
0113		67.3		JX	100	10			Appears unused. 100% DE
0132		74.2		MH					MH 51. Stained on barrel
0143		74.3		FH					



# WRc Sewer Report

Inspected by: R Morris	Contract No:	Job number: 2015-061	Catchment:	Division:	District:	PLR: MH 49X
Start date/time: 28.08.15 12:39	Road name: Cariboo Ave.					Place name: Clinton
Start Manhole No. MH 49	Depth: 2.90	Cover:	Invert:	Finish Manhole No. MH 48	Depth: 2.20	Cover:
Use: F	Direction: D	Size 2:	Size 1: 200	Shape: C	Material: VC	Lining:
VT No: 00019	Pipe length: 1.8					Total length: 51.7
Comments						
Purpose: A	Category	Pre-cleanse: Y	Weather: 1	Location: C	Location details: To north side Hwy 97	

Video No.	Photo No.	Distance	Continuous Defect	Letters	Diameter / Dimension	Numbers	Intrusion	Remarks
				code		at	to	%
								mm

0000		0.0		ST					
0000		0.0		MH					MH 49
0001		0.0		WL				5	
0015		19.0		CN	100	10			Live.
0040		38.3		JN	100	10			Appears unused
0054		51.6		MH					MH 48. Ramp. Riser wet
0070		51.7		FH					



# WRc Sewer Report

Inspected by: R Morris	Contract No:	Job number: 2015-061	Catchment:	Division:	District:	PLR: MH 51X
Start date/time: 28.08.15 12:58	Road name: Carson St.					Place name: Clinton
Start Manhole No. MH 51	Depth: 2.40	Cover:	Invert:	Finish Manhole No. MH 49	Depth: 2.90	Cover:
Use: F	Direction: D	Size 2:	Size 1: 200	Shape: C	Material: VC	Lining:
VT No: 00020	Pipe length: 1.8					Total length: 90.8
Comments						
Purpose: A	Category	Pre-cleanse: Y	Weather: 1	Location: C	Location details: To Cariboo Ave.	

Video No.	Photo No.	Distance	Continuous Defect	Letters	Diameter / Dimension	Numbers	Clock	Intrusion	Remarks
				code		at	to	% mm	
0000		0.0		MH					MH 51
0000		0.0		ST					
0001		0.0		WL				5	
0002		1.4		RFJ				5	
0014		12.9		JN	100	9			Appears unused
0023		15.2		RFJ				25	
0044		40.1		GO					Point repair for 1M
0061		58.7		JN	150	9			Capped with wood. Leaking
0092		89.4		GO					Point repair to MH
0100		90.6		MH					MH 49
0104		90.8		FH					

## WRc Sewer Report

Inspected by: R Morris	Contract No:	Job number: 2015-061	Catchment:	Division:	District:	PLR: MH 48X			
Start date/time: 28.08.15 13:34	Road name: Cariboo Ave.					Place name: Clinton			
Start Manhole No. MH 48	Depth: 2.20	Cover:	Invert:	Finish Manhole No. MH 47	Depth:	Cover:	Invert:		
Use: F	Direction: D	Size 2:	Size 1: 200	Shape: C	Material: VC	Lining:	Pipe length: 1.8	Total length: 13.3	Year laid:
VT No: 00021	Comments								
Purpose: A	Category	Pre-cleanse: Y	Weather: 1	Location: A	Location details: Across Hwy 97				


Video No.	Photo No.	Distance	Continuous Defect	Letters code	Diameter / Dimension	Numbers Clock		Intrusion		Remarks
						at	to	%	mm	
0000		0.0		MH						MH 48. FM on riser
0000		0.0		ST						
0002		0.0		WL				10		
0004	001	1.7		FC		7	11			At joint
0023		13.1		MH						MH 47. DE (steel rod)
0035		13.3		FH						

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## Observation Report with Still Images

PLR: MH 48X	Project Name: 2015 sani inspections	Start date/time: 8/28/2015 1:34:22 PM	Weather: 1	Inspected by: R Morris
Upstream node: MH 48	Depth US: 2.2	Downstream node: MH 47	Depth DS: 13.3	Total length: 13.3
Extra:				
Comments				

### Observations

Distance	Length	Code	Reversed	Clock Pos.	Severity	Comment
0.0		MH	No	/		MH 48. FM on riser
0.0		ST	No	/		
0.0		WL	No	/		
1.7		FC	No	7 / 11		At joint
						
13.1		MH	No	/		MH 47. DE (steel rod)
13.3		FH	No	/		



# WRc Sewer Report

Inspected by: R Morris	Contract No:	Job number: 2015-061	Catchment:	Division:	District:	PLR: MH 46X
Start date/time: 28.08.15 13:52	Road name: Cariboo Ave.					Place name: Clinton
Start Manhole No. MH 46	Depth: 2.80	Cover:	Invert:	Finish Manhole No. MH 45	Depth: 2.50	Cover:
Use: F	Direction: D	Size 2:	Size 1: 200	Shape: C	Material: AC	Lining:
VT No: 00022	Pipe length: 1.8					Total length: 83.9
Comments						
Purpose: A	Category	Pre-cleanse: Y	Weather: 1	Location: C	Location details: To Bell	

Video No.	Photo No.	Distance	Continuous Defect	Letters	Diameter / Dimension	Numbers	Intrusion	Remarks
				code		at	to	%
								mm

0000		0.0		ST					
0000		0.0		MH					MH 46
0001		0.0		WL				5	Varies to 10%
0002	001	1.4		FM		12	12		
0012		8.4		JN	100	2			Appears unused
0020		9.4		JN	100	9			Appears unused
0034		21.0		LD					Slight
0040		21.2		JN	100	8			Appears unused
0043		22.0		LU					Grade reduces
0050		22.3		CNI	100	10		50	Appears unused
0070		39.1		JN	100	2			Appears unused
0082		47.4		JN	100	10			Appears unused
0090		48.3		JN	100	2			Live.
0103		63.0		CN	100	11			Live
0130	002	83.4		FC		12	12		
0134		83.7		MH					MH 45

Video No.	Photo No.	Distance (m)	Continous Defect	Letters code	Diameter / Dimension	Numbers Clock at	to	Intrusion %	mm	Remarks
0142		83.9		FH						


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## Observation Report with Still Images

PLR: MH 46X	Project Name: 2015 sani inspections	Start date/time: 8/28/2015 1:52:19 PM	Weather: 1	Inspected by: R Morris
Upstream node: MH 46	Depth US: 2.8	Downstream node: MH 45	Depth DS: 2.5	Total length: 83.9
Extra:				

Comments

### Observations

Distance	Length	Code	Reversed	Clock Pos.	Severity	Comment
0.0		ST	No	/		
0.0		MH	No	/		MH 46
0.0		WL	No	/		Varies to 10%
1.4		FM	No	12 / 12		
						
8.4		JN	No	2 /		Appears unused
9.4		JN	No	9 /		Appears unused
21.0		LD	No	/		Slight
21.2		JN	No	8 /		Appears unused
22.0		LU	No	/		Grade reduces
22.3		CNI	No	10 /		Appears unused
39.1		JN	No	2 /		Appears unused
47.4		JN	No	10 /		Appears unused
48.3		JN	No	2 /		Live.
63.0		CN	No	11 /		Live

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## Observations

Distance	Length	Code	Reversed	Clock Pos.	Severity	Comment
83.4	FC	No		12 / 12		
						
83.7	MH	No		/		MH 45
83.9	FH	No		/		



# WRc Sewer Report

Inspected by: R Morris	Contract No:	Job number: 2015-061	Catchment:	Division:	District:	PLR: MH 45X
Start date/time: 28.08.15 14:13	Road name: Cariboo Ave.					Place name: Clinton
Start Manhole No. MH 45	Depth: 2.50	Cover:	Invert:	Finish Manhole No. MH 44	Depth:	Cover:
Use: F	Direction: D	Size 2:	Size 1: 200	Shape: C	Material: AC	Lining:
					Pipe length: 4.0	Total length: 90.9
VT No: 00023	Comments					
Purpose: A	Category	Pre-cleanse: Y	Weather: 1	Location: C	Location details: From Bell	

Video No.	Photo No.	Distance	Continuous Defect	Letters code	Diameter / Dimension	Numbers Clock at to	Intrusion % mm	Remarks
0000		0.0		ST				
0000		0.0		MH				MH 45
0001		0.0		WL			5	Varies to 10%
0002		0.1		EL		5 7	10	
0010		1.0		CNI	100	3		30 Live.
0020		3.9		CN	100	11		Appears unused
0043		23.1		CN	100	2		Live.
0054		31.0		CX	100	10		Live. Light flow. Saddle leak
0074		37.8		CX	100	10		Live. EM at interface
0101		50.8		CN	100	12		Live. Dripping
0114		54.6		DES			5	
0123		61.4		CX	100	2		Live. 30% DE from service
0133		63.0		WL			20	
0140	001	64.6		FC		12 12		EM, IG from same
0154		64.9		CX	100	9		Live. EM, ID from same
0171		64.9		GO				EM in service

Video No.	Photo No.	Distance (m)	Continuous Defect	Letters code	Diameter / Dimension	Numbers Clock at to		Intrusion % mm		Remarks
0175		64.9		WL				5		
0181		68.9		CX	100	2				Live. EL from service
0195		77.6		CN	100	9				Live. Trickle flow
0214		90.6		MH						MH 44. Not cleaned yet
0223		90.6		GO						EL on barrel
0230		90.9		FH						

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## Observation Report with Still Images

PLR: MH 45X	Project Name: 2015 sani inspections	Start date/time: 8/28/2015 2:13:24 PM	Weather: 1	Inspected by: R Morris
Upstream node: MH 45	Depth US: 2.5	Downstream node: MH 44	Depth DS: 90.9	Total length: 90.9
Extra:				

Comments

### Observations

Distance	Length	Code	Reversed	Clock Pos.	Severity	Comment
0.0		ST	No	/		
0.0		MH	No	/		MH 45
0.0		WL	No	/		Varies to 10%
0.1		EL	No	5 / 7		
1.0		CNI	No	3 /		Live.
3.9		CN	No	11 /		Appears unused
23.1		CN	No	2 /		Live.
31.0		CX	No	10 /		Live. Light flow. Saddle leak
37.8		CX	No	10 /		Live. EM at interface
50.8		CN	No	12 /		Live. Dripping
54.6		DES	No	/		
61.4		CX	No	2 /		Live. 30% DE from service
63.0		WL	No	/		
64.6		FC	No	12 / 12		EM, IG from same





# WRc Sewer Report

Inspected by: R Morris	Contract No:	Job number: 2015-061	Catchment:	Division:	District:	PLR: MH 47X
Start date/time: 28.08.15 14:52	Road name: Cariboo Ave.					Place name: Clinton
Start Manhole No. MH 46	Depth: 2.80	Cover:	Invert:	Finish Manhole No. MH 47	Depth:	Cover:
Use: F	Direction: U	Size 2:	Size 1: 200	Shape: C	Material: AC	Lining:
VT No: 00024	Comments		Pipe length: 1.8	Total length: 84.7	Year laid:	
Purpose: A	Category	Pre-cleanse: Y	Weather: 1	Location: A	Location details: From Hwy 97	


Video No.	Photo No.	Distance	Continuous Defect	Letters code	Diameter / Dimension	Numbers Clock at to	Intrusion % mm	Remarks
0000		0.0		ST				
0000		0.0		MH				MH 46
0001		0.0		WL			5	
0004		3.5		JN	100	2		Appears unused
0023		23.2		JN	150	3		Appears unused
0042		37.2		JN	100	2		Appears unused
0054		45.5		JN	100	10		Live. Light flow
0075	001	63.0		CL		3		At joint
0110		84.5		MH				MH 46. DE (steel rod)
0120		84.7		FH				

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## Observation Report with Still Images

PLR:	Project Name:	Start date/time:	Weather:	Inspected by:	
MH 47X	2015 sani inspections	8/28/2015 2:52:33 PM	1	R Morris	
Upstream node:	Depth US:	Downstream node:	Depth DS:	Total length:	Extra:
MH 47		MH 46	2.8	84.7	
Comments					

### Observations

Distance	Length	Code	Reversed	Clock Pos.	Severity	Comment
0.0		ST	Yes	/		
0.0		MH	Yes	/		MH 46
0.0		WL	Yes	/		
3.5		JN	Yes	2 /		Appears unused
23.2		JN	Yes	3 /		Appears unused
37.2		JN	Yes	2 /		Appears unused
45.5		JN	Yes	10 /		Live. Light flow
63.0		CL	Yes	3 /		At joint
						
84.5		MH	Yes	/		MH 46. DE (steel rod)
84.7		FH	Yes	/		

# WRc Sewer Report

Inspected by: R Morris	Contract No:	Job number: 2015-061	Catchment:	Division:	District:	PLR: MH 31X
Start date/time: 28.08.15 15:28	Road name: Carson St.					Place name: Clinton
Start Manhole No. MH 31	Depth: 2.90	Cover:	Invert:	Finish Manhole No. MH 26	Depth: 4.20	Cover:
Use: F	Direction: D	Size 2:	Size 1: 200	Shape: C	Material: VC	Lining:
VT No: 00025	Comments:		Pipe length: 1.8	Total length: 121.8	Year laid:	
Purpose: A	Category:	Pre-cleanse: Y	Weather: 1	Location: C	Location details: To LeBourdais Ave.	

Video No.	Photo No.	Distance	Continuous Defect	Letters	Diameter / Dimension	Numbers	Clock	Intrusion	Remarks
				code		at	to	%	mm

0000		0.0		ST					
0000		0.0		MH					MH 31
0001		0.0		WL				5	
0011		11.5		WL				10	
0014		17.0		WL				5	
0023		21.2		JN	100	4			Live. Backgraded
0041	001	28.2		CM		9	3		
0052	002	30.9		FM		12	12		At joint
0063		38.7		JN	100	3			Live.
0072		41.2		JN	100	9			Live.
0085	003	53.1		FM		5	2		At joint. Spiral
0105	004	53.1		CM		6	4		
0130		67.7		WL				10	
0130		67.7		JN	100	3			Live.
0134		68.3		WL				5	Varies to 10%
0164	005	102.1		CM		10	2		At joint



Video No.	Photo No.	Distance (m)	Continuous Defect	Letters code	Diameter / Dimension	Numbers Clock at to		Intrusion % mm		Remarks
0181		112.2		CN	100	12				Live.
0194		121.0		MC						To AC
0201		121.1		JN	200	6				Outside drop
0211		121.5		MH						MH 26
0215		121.8		FH						

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## Observation Report with Still Images

PLR: MH 31X Project Name: 2015 sani inspections Start date/time: 8/28/2015 3:28:07 PM Weather: 1 Inspected by: R Morris

Upstream node: MH 31 Depth US: 2.9 Downstream node: MH 26 Depth DS: 4.2 Total length: 121.8 Extra:

Comments

### Observations

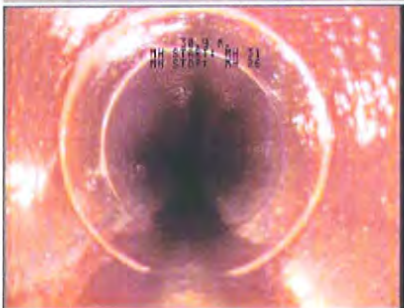
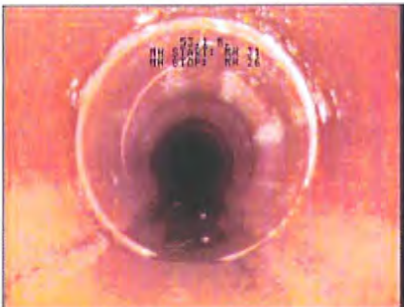
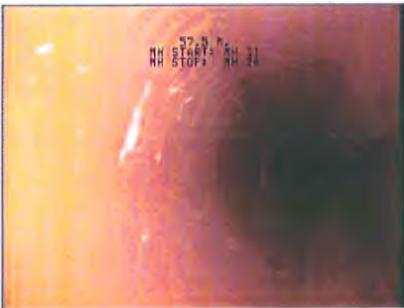
Distance	Length	Code	Reversed	Clock Pos.	Severity	Comment
0.0		MH	No	/		MH 31
0.0		ST	No	/		
0.0		WL	No	/		
11.5		WL	No	/		
17.0		WL	No	/		
21.2		JN	No	4 /		Live. Backgraded
28.2		CM	No	9 / 3		



30.9 FM No 12 / 12 At joint

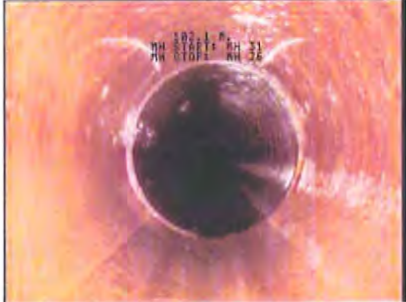
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 Prince George, BC.  
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## Observations

Distance	Length	Code	Reversed	Clock Pos.	Severity	Comment
						
38.7	JN	No		3 /		Live.
41.2	JN	No		9 /		Live.
53.1	FM	No		5 / 2		At joint. Spiral
						
53.1	CM	No		6 / 4		
						
67.7	WL	No		/		
67.7	JN	No		3 /		Live.
68.3	WL	No		/		Varies to 10%
102.1	CM	No		10 / 2		At joint

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## Observations

Distance	Length	Code	Reversed	Clock Pos.	Severity	Comment
						
112.2	CN	No	12 /			Live.
121.0	MC	No	/			To AC
121.1	JN	No	6 /			Outside drop
121.5	MH	No	/			MH 26
121.8	FH	No	/			



# WRc Sewer Report

Inspected by: R Morris	Contract No:	Job number: 2015-061	Catchment:	Division:	District:	PLR: MH 27X
Start date/time: 29.08.15 07:29	Road name: Carson St.					Place name: Clinton
Start Manhole No. MH 27	Depth: 3.70	Cover:	Invert:	Finish Manhole No. MH 26	Depth: 4.20	Cover:
Use: F	Direction: D	Size 2:	Size 1: 200	Shape: C	Material: VC	Lining:
VT No: 00026	Pipe length: 1.8					Total length: 106.0
Purpose: A	Category:	Pre-cleanse: Y	Weather: 4	Location: C	Location details: To LeBourdais	
Comments:						

Video No.	Photo No.	Distance	Continuous Defect	Letters	Diameter / Dimension	Numbers	Intrusion	Remarks
				code		at	to	%
								mm

0000		0.0		ST					
0000		0.0		MH					MH 27
0001		0.0		WL				5	Varies to 10%
0023		23.8		JN	100	2			Appears unused
0043	001	35.8		CL		3			Joint to service
0050		36.0		CN	100	3			Live.
0060		37.6		WL				15	
0063		39.0		WL				5	Vaaries to 10%
0072	002	46.5		FM		8	6		At joint
0095		56.0		JN	150	3			Live
0122		75.0		CXI	100	12		25	Live. RF from interface
0165		104.2		GO					Point repair for 1M
0174		105.4		JN	200	6			Outside drop
0183		105.9		MH					MH 26
0193		106.0		FH					

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## Observation Report with Still Images

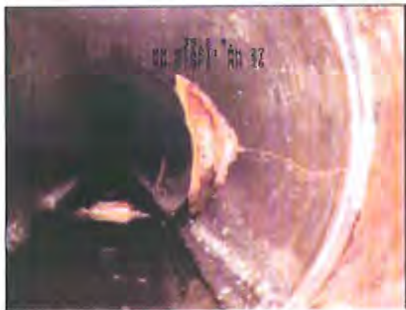
PLR: MH 27X Project Name: 2015 sani inspections Start date/time: 8/29/2015 7:29:02 AM Weather: 4 Inspected by: R Morris

Upstream node: MH 27 Depth US: 3.7 Downstream node: MH 26 Depth DS: 4.2 Total length: 106.0 Extra:

Comments

### Observations

Distance	Length	Code	Reversed	Clock Pos.	Severity	Comment
0.0		ST	No	/		
0.0		MH	No	/		MH 27
0.0		WL	No	/		Varies to 10%
23.8		JN	No	2 /		Appears unused
35.8		CL	No	3 /		Joint to service

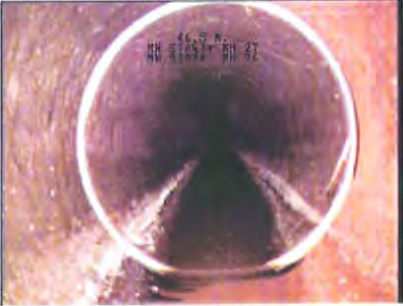


36.0		CN	No	3 /		Live.
37.6		WL	No	/		
39.0		WL	No	/		Vaaries to 10%
46.5		FM	No	8 / 6		At joint



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## Observations

Distance	Length	Code	Reversed	Clock Pos.	Severity	Comment
						
56.0	JN	No	3 /			Live
75.0	CXI	No	12 /			Live. RF from interface
104.2	GO	No	/			Point repair for 1M
105.4	JN	No	6 /			Outside drop
105.9	MH	No	/			MH 26
106.0	FH	No	/			

# WRc Sewer Report

Inspected by: R Morris	Contract No:	Job number: 2015-061	Catchment:	Division:	District:	PLR: MH 29X
Start date/time: 29.08.15 08:03	Road name: Engeman Lane					Place name: Clinton
Start Manhole No. MH 28	Depth: 3.00	Cover:	Invert:	Finish Manhole No. MH 29	Depth: 2.90	Cover:
Use: F	Direction: U	Size 2:	Size 1: 200	Shape: C	Material: VC	Lining:
VT No: 00027	Pipe length: 1.8		Total length: 97.6		Year laid:	
Comments						
Purpose: A	Category	Pre-cleanse: Y	Weather: 4	Location: C	Location details: To LeBourdais	

Video No.	Photo No.	Distance	Continuous Defect	Letters code	Diameter / Dimension	Numbers Clock at to	Intrusion % mm	Remarks
0000		0.0		ST				
0000		0.0		MH				MH 28
0001		0.0		WL			5	Varies to 10%
0015		16.1		JN	100	3		Live.
0025		22.2		CN	100	10		Appears unused
0035		26.6		CN	100	12		Live.
0090		80.0		RFJ			1	Trace.
0100		86.9		CN	100	2		Live.
0112		91.1		RFJ			5	
0121		97.4		MH				MH 29
0131		97.6		FH				

# WRc Sewer Report

Inspected by: R Morris	Contract No:	Job number: 2015-061	Catchment:	Division:	District:	PLR: MH 28X
Start date/time: 29.08.15 08:22	Road name: LeBourdais Ave.					Place name: Clinton
Start Manhole No. MH 28	Depth: 3.00	Cover:	Invert:	Finish Manhole No. MH 26	Depth: 4.20	Cover: Invert:
Use: F	Direction: D	Size 2:	Size 1: 200	Shape: C	Material: VC	Lining: Pipe length: 1.8 Total length: 72.5 Year laid:
VT No: 00028	Comments					
Purpose: A	Category	Pre-cleanse: Y	Weather: 4	Location: C	Location details: To Carson	

Video No.	Photo No.	Distance	Continuous Defect	Letters	Diameter / Dimension	Numbers	Intrusion	Remarks
				code		Clock at to	% mm	

0000		0.0		ST				
0000		0.0		MH				MH 28
0001		0.0		WL			5	
0004		4.3		JN	100	2		Live.
0041	001	31.0		FM		2 9		At joint. Pipe displaced
0092		71.6		MC				To AC
0094		71.9		JN	200	6		Outside drop
0102		72.3		MH				MH 26
0111		72.5		FH				

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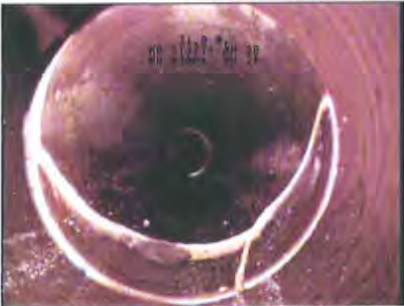
## Observation Report with Still Images

PLR: MH 28X Project Name: 2015 sani inspections Start date/time: 8/29/2015 8:22:15 AM Weather: 4 Inspected by: R Morris

Upstream node: MH 28 Depth US: 3.0 Downstream node: MH 26 Depth DS: 4.2 Total length: 72.5 Extra:

Comments

### Observations

Distance	Length	Code	Reversed	Clock Pos.	Severity	Comment
0.0		ST	No	/		
0.0		MH	No	/		MH 28
0.0		WL	No	/		
4.3		JN	No	2 /		Live.
31.0		FM	No	2 / 9		At joint. Pipe displaced
						
71.6		MC	No	/		To AC
71.9		JN	No	6 /		Outside drop
72.3		MH	No	/		MH 26
72.5		FH	No	/		



# WRc Sewer Report

Inspected by: R Morris	Contract No:	Job number: 2015--061	Catchment:	Division:	District:	PLR: MH 26X
Start date/time: 29.08.15 09:05	Road name: LeBourdais Ave.					Place name: Clinton
Start Manhole No. MH 26	Depth: 4.20	Cover:	Invert:	Finish Manhole No. MH 22	Depth:	Cover:
Use: F	Direction: D	Size 2:	Size 1: 200	Shape: C	Material: VC	Lining:
VT No: 00029	Pipe length: 1.8		Total length: 124.7		Year laid:	
Comments						
Purpose: A	Category	Pre-cleanse: Y	Weather: 4	Location: A	Location details: To Hwy 97	

Video No.	Photo No.	Distance	Continuous Defect	Letters	Diameter / Dimension	Numbers	Intrusion	Remarks
				code		Clock		
						at	to	% mm
0000		0.0		ST				
0000		0.0		MH				MH 26
0001		0.0		WL			5	
0021		16.9		JN	100	2		Live.
0054	001	48.4		FC		8	4	
0070		48.9		CN	100	10		Appears unused
0081	002	52.7		FM		3	1	At joint
0093		56.5		JN	100	9		Appears unused
0101		57.3		JN	100	3		Live.
0131		90.1		JN	100	10		Live.
0143		96.7		JN	100	3		Live.
0173		124.1		JN	200	6		Outside drop
0181		124.6		MH				MH 22
0191		124.7		FH				




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## Observation Report with Still Images

PLR:	Project Name:	Start date/time:	Weather:	Inspected by:	
MH 26X	2015 sani inspections	8/29/2015 9:05:35 AM	4	R Morris	
Upstream node:	Depth US:	Downstream node:	Depth DS:	Total length:	Extra:
MH 26	4.2	MH 22		124.7	
Comments					

### Observations

Distance	Length	Code	Reversed	Clock Pos.	Severity	Comment
0.0		ST	No	/		
0.0		MH	No	/		MH 26
0.0		WL	No	/		
16.9		JN	No	2 /		Live.
48.4		FC	No	8 / 4		
						
48.9		CN	No	10 /		Appears unused
52.7		FM	No	3 / 1		At joint

## Observations

Distance	Length	Code	Reversed	Clock Pos.	Severity	Comment
						
56.5	JN	No		9 /		Appears unused
57.3	JN	No		3 /		Live.
90.1	JN	No		10 /		Live.
96.7	JN	No		3 /		Live.
124.1	JN	No		6 /		Outside drop
124.6	MH	No		/		MH 22
124.7	FH	No		/		

# WRc Sewer Report

Inspected by: R Morris	Contract No:	Job number: 2015-061	Catchment:	Division:	District:	PLR: MH 23X
Start date/time: 29.08.15 10:12	Road name: Hwy 97					Place name: Clinton
Start Manhole No. MH 23	Depth: 2.80	Cover:	Invert:	Finish Manhole No. MH 22	Depth:	Cover:
Use: F	Direction: D	Size 2:	Size 1: 200	Shape: C	Material: VC	Lining:
VT No: 00030	Pipe length: 1.8		Total length: 98.2		Year laid:	
Comments						
Purpose: A	Category	Pre-cleanse: Y	Weather: 4	Location: A	Location details: To LeBourdais	

Video No.	Photo No.	Distance	Continuous Defect	Letters	Diameter / Dimension	Numbers	Intrusion	Remarks
				code		Clock		
						at	to	% mm

0000		0.0		ST					
0000		0.0		MH					MH 23
0001		0.0		WL				10	
0004		2.0		WL				5	
0012		5.4		WL				35	
0020		7.3		WL				5	
0025		12.9		WL				30	
0030		13.2		JN	100	10			Appears unused. DES
0035		15.9		WL				5	
0042		17.9		JN	100	10			Appears unused. DES
0052		24.0		WL				25	
0060		28.5		WL				40	
0062		28.9		CNI	100	3		25	Live.
0071		29.3		GO					Point repair for 2M
0081		29.3		WL				10	
0085		35.1		JN	100	10			Appears unused

Video No.	Photo No.	Distance (m)	Continous Defect	Letters	Diameter / Dimension	Numbers Clock		Intrusion		Remarks
				code		at	to	%	mm	
0093		35.1		WL				20		
0100		41.3		WL				5		Continues to vary to 10%
0105		47.2		JN	100	2				Appears unused. JDL in same
0121	001	48.2		H	100	11				Repaired? CL from same
0160		76.2		JN	100					Appears unused
0183		98.0		MH						MH 22. DE on bench
0193		98.2		FH						



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## Observation Report with Still Images

PLR: MH 23X Project Name: 2015 sani inspections Start date/time: 8/29/2015 10:12:44 AM Weather: 4 Inspected by: R Morris

Upstream node: MH 23 Depth US: 2.8 Downstream node: MH 22 Depth DS: Total length: 98.2 Extra:

Comments

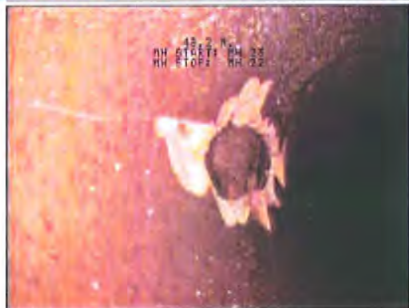
### Observations

Distance	Length	Code	Reversed	Clock Pos.	Severity	Comment
0.0		ST	No	/		
0.0		MH	No	/		MH 23
0.0		WL	No	/		
2.0		WL	No	/		
5.4		WL	No	/		
7.3		WL	No	/		
12.9		WL	No	/		
13.2		JN	No	10 /		Appearas unused. DES
15.9		WL	No	/		
17.9		JN	No	10 /		Appears unused. DES
24.0		WL	No	/		
28.5		WL	No	/		
28.9		CNI	No	3 /		Live.
29.3		GO	No	/		Point repair for 2M
29.3		WL	No	/		
35.1		JN	No	10 /		Appears unused
35.1		WL	No	/		
41.3		WL	No	/		Continues to vary to 10%
47.2		JN	No	2 /		Appears unused. JDL in same
48.2		H	No	11 /		Repaired? CL from same



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## Observations

Distance	Length	Code	Reversed	Clock Pos.	Severity	Comment
						
76.2	JN	No	/			Appears unused
98.0	MH	No	/			MH 22. DE on bench
98.2	FH	No	/			

# WRc Sewer Report

Inspected by: R Morris	Contract No:	Job number: 2015-061	Catchment:	Division:	District:	PLR: MH 15X
Start date/time: 29.08.15 10:38	Road name: Hwy 97					Place name: Clinton
Start Manhole No. MH 23	Depth: 2.80	Cover:	Invert:	Finish Manhole No. MH 15	Depth: 2.70	Cover:
Use: F	Direction: U	Size 2:	Size 1: 200	Shape: C	Material: VC	Lining:
VT No: 00031	Comments		Pipe length: 1.8	Total length: 92.1	Year laid:	
Purpose: A	Category	Pre-cleanse: Y	Weather: 4	Location: A	Location details: From McDonald	

Video No.	Photo No.	Distance	Continuous Defect	Letters	Diameter / Dimension	Numbers		Intrusion	Remarks
				code		at	to	%	mm
0000		0.0		ST					
0000		0.0		MH					MH 23
0001		0.0		WL				5	
0011	001	13.5		CX	100	3			Live. CC from same.
0025	002	15.8		FL		6	8		From joint
0044		25.9		JN	100	3			Live.
0064		43.7		JN	100	10			Live.
0072		46.1		JN	100	3			Live.
0090		61.7		CNI	100	10		15	Live.
0094		62.0		JN	100	2			Appears unused
0101	003	62.0		B		5	1		At joint
0115		64.6		JN	100	9			Capped
0135	004	83.1		FC		12	12		
0145		91.9		MH					MH 15
0154		92.1		FH					

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## Observation Report with Still Images

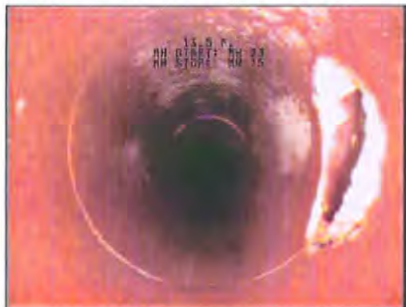
PLR: MH 15X Project Name: 2015 sani inspections Start date/time: 8/29/2015 10:38:26 AM Weather: 4 Inspected by: R Morris

Upstream node: MH 15 Depth US: 2.7 Downstream node: MH 23 Depth DS: 2.8 Total length: 92.1 Extra:

Comments

### Observations

Distance	Length	Code	Reversed	Clock Pos.	Severity	Comment
0.0		MH	Yes	/		MH 23
0.0		ST	Yes	/		
0.0		WL	Yes	/		
13.5		CX	Yes	3 /		Live. CC from same.

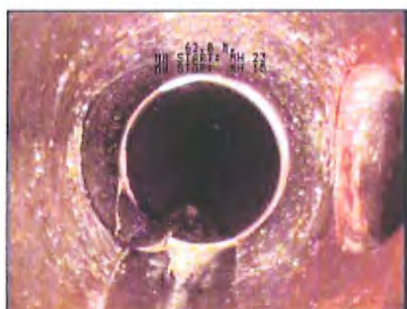


15.8 FL Yes 6 / 8 From joint



## Observations

Distance	Length	Code	Reversed	Clock Pos.	Severity	Comment
25.9		JN	Yes	3 /		Live.
43.7		JN	Yes	10 /		Live.
46.1		JN	Yes	3 /		Live.
61.7		CNI	Yes	10 /		Live.
62.0		JN	Yes	2 /		Appears unused
62.0		B	Yes	5 / 1		At joint



64.6	JN	Yes	9 /		Capped
83.1	FC	Yes	12 / 12		



91.9	MH	Yes	/		MH 15
92.1	FH	Yes	/		



# WRc Sewer Report

Inspected by: <b>R Morris</b>	Contract No:	Job number: <b>2015-061</b>	Catchment:	Division:	District:	PLR: <b>MH 36X</b>
Start date/time: <b>29.08.15 11:20</b>	Road name: <b>Hwy 97</b>					Place name: <b>Clinton</b>
Start Manhole No. <b>MH 36</b>	Depth: <b>2.60</b>	Cover:	Invert:	Finish Manhole No. <b>MH 35</b>	Depth: <b>2.70</b>	Cover:
Use: <b>F</b>	Direction: <b>D</b>	Size 2:	Size 1: <b>200</b>	Shape: <b>C</b>	Material: <b>VC</b>	Lining:
VT No: <b>00032</b>			Comments:	Pipe length: <b>1.8</b>	Total length: <b>126.8</b>	Year laid:
Purpose: <b>A</b>	Category:	Pre-cleanse: <b>Y</b>	Weather: <b>3</b>	Location: <b>A</b>	Location details: <b>To Dewdney</b>	

Video No.	Photo No.	Distance	Continuous Defect	Letters	Diameter / Dimension	Numbers	Intrusion	Remarks
				code		at	to	% mm

0000		0.0		ST					
0000		0.0		MH					MH 36
0001		0.0		WL				5	
0011		11.1		JN	150	3			Live.
0023		21.1		JN	100	9			Live
0042	001	22.3		CL		9	1		Spiral
0070		44.0		JN	150	3			Live. Light flow
0080		46.8		JN	100	10			Live.
0093		60.8		JN	100	10			Appears unused
0103	002	65.2		CM		5	10		At joint
0115		69.2		JN	100	2			Live. Light flow
0130		75.6		JN	100	9			Live.
0143		85.9		JN	100	9			Live.
0151		86.7		JN	100	3			Live.
0165		101.1		CNI	100	2		15	Live.
0174		104.3		JN	100	3			Capped



Video No.	Photo No.	Distance (m)	Continous Defect	Letters code	Diameter / Dimension	Numbers Clock at to		Intrusion % mm		Remarks
0182		105.1		JN	100	10				Appears unused
0210		121.1		JN	100	3				Live.
0221		126.6		MH						MH 35
0225		126.8		FH						

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## Observation Report with Still Images

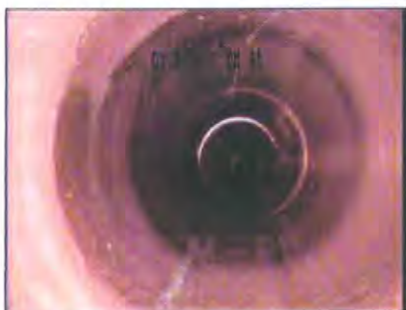
PLR: MH 36X Project Name: 2015 sani inspections Start date/time: 8/29/2015 11:20:57 AM Weather: 3 Inspected by: R Morris

Upstream node: MH 36 Depth US: 2.6 Downstream node: MH 35 Depth DS: 2.7 Total length: 126.8 Extra:

Comments

### Observations

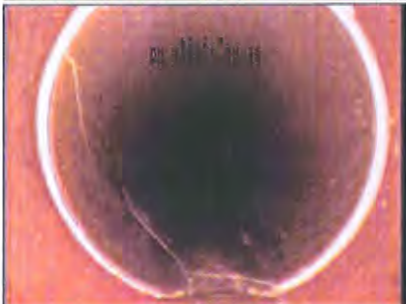
Distance	Length	Code	Reversed	Clock Pos.	Severity	Comment
0.0		ST	No	/		
0.0		MH	No	/		MH 36
0.0		WL	No	/		
11.1		JN	No	3 /		Live.
21.1		JN	No	9 /		Live
22.3		CL	No	9 / 1		Spiral



44.0		JN	No	3 /		Live. Light flow
46.8		JN	No	10 /		Live.
60.8		JN	No	10 /		Appears unused
65.2		CM	No	5 / 10		At joint

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## Observations

Distance	Length	Code	Reversed	Clock Pos.	Severity	Comment
						
69.2	JN	No		2 /		Live. Light flow
75.6	JN	No		9 /		Live.
85.9	JN	No		9 /		Live.
86.7	JN	No		3 /		Live.
101.1	CNI	No		2 /		Live.
104.3	JN	No		3 /		Capped
105.1	JN	No		10 /		Appears unused
121.1	JN	No		3 /		Live.
126.6	MH	No		/		MH 35
126.8	FH	No		/		

# WRc Sewer Report

Inspected by: R Morris	Contract No:	Job number: 2015-061	Catchment:	Division:	District:	PLR: MH 22Y
Start date/time: 29.08.15 11:52	Road name: Hwy 97					Place name: Clinton
Start Manhole No. MH 36	Depth: 2.60	Cover:	Invert:	Finish Manhole No. MH 22	Depth:	Cover:
Use: F	Direction: U	Size 2:	Size 1: 200	Shape: C	Material: VC	Lining:
VT No: 00033	Comments		Pipe length: 1.8	Total length: 130.6	Year laid:	
Purpose: A	Category	Pre-cleanse: Y	Weather: 3	Location: A	Location details: From LeBourdais	

Video No.	Photo No.	Distance	Continuous Defect	Letters	Diameter / Dimension	Numbers		Intrusion	Remarks
				code		at	to	%	mm
0000		0.0		ST					
0000		0.0		MH					MH 36
0001		0.0		WL				5	Varies to 15%
0002		1.5		JN	100	9			Appears unused
0011		4.3		JN	100	2			Live.
0035		25.9		JN	100	9			Live.
0052		36.2		JN	100	2			Live.
0065		44.5		JN	100	9			Appears unused
0093		66.2		JN	100	2			Capped
0102		70.7		JN	100	9			Live.
0120	001	81.9		FM		5	10		At joint
0141		97.7		JN	100	10			Live. JDL, Trickle flow
0174		128.4		GO					Point repair to MH
0183		130.4		MH					MH 22
0190		130.6		FH					



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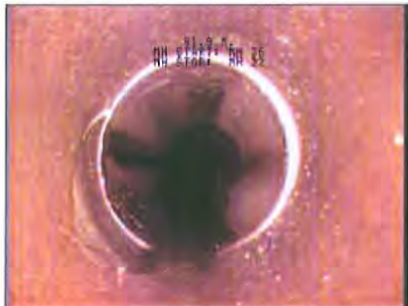
## Observation Report with Still Images

PLR: MH 22Y Project Name: 2015 sani inspections Start date/time: 8/29/2015 11:52:02 AM Weather: 3 Inspected by: R Morris

Upstream node: MH 22 Depth US: Downstream node: MH 36 Depth DS: 2.6 Total length: 130.6 Extra:

Comments

### Observations

Distance	Length	Code	Reversed	Clock Pos.	Severity	Comment
0.0		ST	Yes	/		
0.0		MH	Yes	/		MH 36
0.0		WL	Yes	/		Varies to 15%
1.5		JN	Yes	9 /		Appears unused
4.3		JN	Yes	2 /		Live.
25.9		JN	Yes	9 /		Live.
36.2		JN	Yes	2 /		Live.
44.5		JN	Yes	9 /		Appears unused
66.2		JN	Yes	2 /		Capped
70.7		JN	Yes	9 /		Live.
81.9		FM	Yes	5 / 10		At joint
						
97.7		JN	Yes	10 /		Live. JDL, Trickle flow
128.4		GO	Yes	/		Point repair to MH
130.4		MH	Yes	/		MH 22



# WRc Sewer Report

Inspected by: R Morris	Contract No:	Job number: 2015-061	Catchment:	Division:	District:	PLR: MH 35Y
Start date/time: 29.08.15 12:32	Road name: Hwy 97		Place name: Clinton			
Start Manhole No. MH 40	Depth: 2.70	Cover:	Invert:	Finish Manhole No. MH 35	Depth: 2.70	Cover:
Use: F	Direction: U	Size 2:	Size 1: 200	Shape: C	Material: VC	Lining:
VT No: 00034		Comments:		Pipe length: 1.8	Total length: 106.7	Year laid:
Purpose: A	Category:	Pre-cleanse: Y	Weather: 3	Location: A	Location details: To Smith	

Video No.	Photo No.	Distance	Continuous Defect	Letters	Diameter / Dimension	Numbers	Intrusion	Remarks
				code		at	to	% mm

0000		0.0		ST					
0000		0.0		MH					MH 40
0001		0.0		WL				5	
0013		12.3		JN	100	10			Live.
0030		24.5		JN	100	9			Live.
0033	001	24.9		SSL	75	10			Pinhole in same
0043	002	24.9		CL		7	11		From SSL
0060	003	34.9		CC		12	12		
0063		36.3		CN	100	3			Live.
0072	004	39.0		CC		12	12		
0080		43.6		GO					Point repair for 2M
0084		47.5		GO					Point repair for 2M
0092		50.8		GO					Point repair for 4M
0111		70.4		JN	100	3			Appears unused. RFJ in service
0124		82.7		JN	100	9			Live.
0145		106.5		MH					MH 35

Video No.	Photo No.	Distance (m)	Continous Defect	Letters	Diameter / Dimension	Numbers Clock		Intrusion		Remarks
				code		at	to	%	mm	
0153		106.7		FH						

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## Observation Report with Still Images

PLR: MH 35Y Project Name: 2015 sani inspections Start date/time: 8/29/2015 12:32:27 PM Weather: 3 Inspected by: R Morris

Upstream node: MH 35 Depth US: 2.7 Downstream node: MH 40 Depth DS: 2.7 Total length: 106.7 Extra:




Comments

### Observations

Distance	Length	Code	Reversed	Clock Pos.	Severity	Comment
0.0		MH	Yes	/		MH 40
0.0		ST	Yes	/		
0.0		WL	Yes	/		
12.3		JN	Yes	10 /		Live.
24.5		JN	Yes	9 /		Live.
24.9		SSL	Yes	10 /		Pinhole in same
						
24.9		CL	Yes	7 / 11		From SSL

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## Observations

Distance	Length	Code	Reversed	Clock Pos.	Severity	Comment
						
34.9	CC	Yes	12 / 12			
						
36.3	CN	Yes	3 /			Live.
39.0	CC	Yes	12 / 12			
						
43.6	GO	Yes	/			Point repair for 2M
47.5	GO	Yes	/			Point repair for 2M
50.8	GO	Yes	/			Point repair for 4M
70.4	JN	Yes	3 /			Appears unused. RFJ in service
82.7	JN	Yes	9 /			Live.
106.5	MH	Yes	/			MH 35
106.7	FH	Yes	/			



# WRc Sewer Report

Inspected by: R Morris	Contract No:	Job number: 2015-061	Catchment:	Division:	District:	PLR: MH 47Y
Start date/time: 29.08.15 12:57	Road name: Hwy 97					Place name: Clinton
Start Manhole No. MH 40	Depth: 2.70	Cover:	Invert:	Finish Manhole No. MH 47	Depth:	Cover:
Use: F	Direction: U	Size 2:	Size 1: 200	Shape: C	Material: VC	Lining:
VT No: 00035	Comments:		Pipe length: 1.8	Total length: 91.9	Year laid:	
Purpose: A	Category:	Pre-cleanse: Y	Weather: 3	Location: A	Location details: From Cariboo Ave.	

Video No.	Photo No.	Distance	Continuous Defect	Letters	Diameter / Dimiension	Numbers	Intrusion	Remarks
				code		Clock		
						at	to	%
								mm

0000		0.0		ST					
0000		0.0		MH					MH 40
0001		0.0		WL				5	
0003		0.1		GO					Point repair for 1M
0022		18.5		JN	100	2			Appears unused
0034		18.8		GO					Point repair for 2M
0043	001	21.4		CM		9	3		
0053		26.0		GO					Point repair for 2M
0060		28.5		JN	100	10			Live
0064	002	29.6		CM		12	12		
0081	003	38.0		CL		10			From joint
0085		40.5		JN	100	2			Live.
0094	004	45.3		CM		12	12		
0104		48.9		JN	100	3			Appears unused
0114		53.4		JN	100	10			Live.
0132	005	61.4		CM		10			



Video No.	Photo No.	Distance (m)	Continous Defect	Letters code	Diameter / Dimension	Numbers Clock at to		Intrusion % mm		Remarks
0141		63.5		JN	100	3				Live
0162		77.7		JN	100	2				Appears unused
0175		91.5		OB				5		Steel rod in MH
0182		91.8		MH						MH 47
0184		91.9		FH						

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## Observation Report with Still Images

PLR: MH 47Y Project Name: 2015 sani inspections Start date/time: 8/29/2015 12:57:09 PM Weather: 3 Inspected by: R Morris

Upstream node: MH 47 Depth US: Downstream node: MH 40 Depth DS: 2.7 Total length: 91.9 Extra:


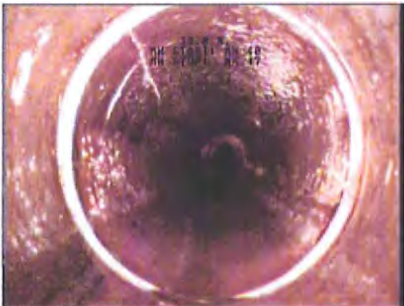

Comments

### Observations

Distance	Length	Code	Reversed	Clock Pos.	Severity	Comment
0.0		MH	Yes	/		MH 40
0.0		ST	Yes	/		
0.0		WL	Yes	/		
0.1		GO	Yes	/		Point repair for 1M
18.5		JN	Yes	2 /		Appears unused
18.8		GO	Yes	/		Point repair for 2M
21.4		CM	Yes	9 / 3		
						
26.0		GO	Yes	/		Point repair for 2M
28.5		JN	Yes	10 /		Live
29.6		CM	Yes	12 / 12		

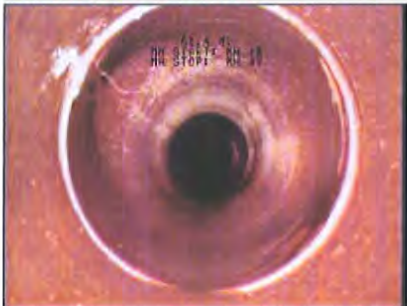
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## Observations

Distance	Length	Code	Reversed	Clock Pos.	Severity	Comment
						
38.0	CL	Yes	10 /			From joint
						
40.5	JN	Yes	2 /			Live.
45.3	CM	Yes	12 / 12			
						
48.9	JN	Yes	3 /			Appears unused
53.4	JN	Yes	10 /			Live.
61.4	CM	Yes	10 /			

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## Observations

Distance	Length	Code	Reversed	Clock Pos.	Severity	Comment
						
63.5	JN	Yes	3 /			Live
77.7	JN	Yes	2 /			Appears unused
91.5	OB	Yes	/			Steel rod in MH
91.8	MH	Yes	/			MH 47
91.9	FH	Yes	/			



# WRc Sewer Report

Inspected by: R Morris	Contract No:	Job number: 2015-061	Catchment:	Division:	District:	PLR: Stub S01X
Start date/time: 29.08.15 14:12	Road name: Cariboo Ave					Place name: Clinton
Start Manhole No. MH 50	Depth: 3.00	Cover:	Invert:	Finish Manhole No. Stub S01	Depth:	Cover:
Use: F	Direction: U	Size 2:	Size 1: 150	Shape: C	Material: VC	Lining:
VT No: 00036	Pipe length: 1.8		Total length: 45.0		Year laid:	
Comments						
Purpose: A	Category	Pre-cleanse: Y	Weather: 4	Location: F	Location details: Easement to Cariboo	

Video No.	Photo No.	Distance	Continuous Defect	Letters	Diameter / Dimension	Numbers	Intrusion	Remarks
				code		at	to	% mm

0000		0.0		MH					MH 50
0000		0.0		ST					
0001		0.0		WL				5	
0011		7.5		WL				15	
0012		7.5		DES				5	
0021		9.0		WL				5	
0024	001	19.2		FM		12	12		RF from same
0041		29.9		MC					To PVC
0042		29.9		JDL					
0044		30.2		SA					At JDL



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## Observation Report with Still Images

PLR: Stub S01X Project Name: 2015 sani inspections Start date/time: 8/29/2015 2:12:29 PM Weather: 4 Inspected by: R Morris

Upstream node: Stub S01 Depth US: Downstream node: MH 50 Depth DS: 3.0 Total length: 45.0 Extra:

Comments

### Observations

Distance	Length	Code	Reversed	Clock Pos.	Severity	Comment
0.0		MH	Yes	/		MH 50
0.0		ST	Yes	/		
0.0		WL	Yes	/		
7.5		WL	Yes	/		
7.5		DES	Yes	/		
9.0		WL	Yes	/		
19.2		FM	Yes	12 / 12		RF from same



29.9	MC	Yes	/		To PVC
29.9	JDL	Yes	/		
30.2	SA	Yes	/		At JDL

# WRc Sewer Report

Inspected by: <b>R Morris</b>	Contract No:	Job number: <b>2015-061</b>	Catchment:	Division:	District:	PLR: <b>MH 42X</b>
Start date/time: <b>31.08.15 10:25</b>	Road name: <b>Cariboo Ave.</b>					Place name: <b>Clinton</b>
Start Manhole No. <b>MH 41</b>	Depth: <b>2.70</b>	Cover:	Invert:	Finish Manhole No. <b>MH 42</b>	Depth:	Cover:
Use: <b>F</b>	Direction: <b>U</b>	Size 2:	Size 1: <b>200</b>	Shape: <b>C</b>	Material: <b>AC</b>	Lining:
VT No: <b>00037</b>		Comments:				
Purpose: <b>A</b>	Category:	Pre-cleanse: <b>Y</b>	Weather: <b>1</b>	Location: <b>C</b>	Location details: <b>To creek at park</b>	
Pipe length: <b>4.0</b>		Total length: <b>70.8</b>		Year laid:		

Video No.	Photo No.	Distance	Continuous Defect	Letters	Diameter / Dimension	Numbers	Intrusion	Remarks
				code		Clock		
						at	to	%
								mm

0000		0.0		ST					
0000		0.0		MH					MH 41
0001		0.0		WL				60	
0005		2.3		WL				15	
0012		5.0		WL				5	
0025		14.0		CX	100	3			Live. EL at interface
0050		26.5	S1	DES				5	Off and on
0050		52.7	F1	DES				5	Off and on
0081		52.7		CX	100	10			Appears unused. EH 99%
0122		67.3		DES				25	Larger rocks
0130		67.3		SA					MH 42, 3.5M upstream

# WRc Sewer Report

Inspected by: R Morris	Contract No:	Job number: 2015-061	Catchment:	Division:	District:	PLR: MH 39X
Start date/time: 31.08.15 10:54	Road name: Smith Ave.					Place name: Clinton
Start Manhole No. MH 39	Depth: 2.40	Cover:	Invert:	Finish Manhole No. MH 38A	Depth: 2.30	Cover:
Use: F	Direction: D	Size 2:	Size 1: 200	Shape: C	Material: VC	Lining:
					Pipe length: 1.8	Total length: 48.2
Year laid:						
VT No: 00038	Comments					
Purpose: A	Category	Pre-cleanse: Y	Weather: 1	Location: C	Location details: From 311 Smith	

Video No.	Photo No.	Distance	Continuous Defect	Letters	Diameter / Dimension	Numbers	Clock	Intrusion	Remarks
				code		at	to	% mm	

0000		0.0		ST					
0000		0.0		MH					MH 39
0001		0.0		WL				5	
0004		3.3		WL				15	Varies 5-15%
0014		9.0		JN	100	2			Live. Trickle flow
0033	001	19.0		FM		2	7		At joint
0054		28.5		JN	100	2			Appears unused
0080		47.9		MH					MH 38A. Tight benching
0090		48.2		FH					



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## Observation Report with Still Images

PLR: MH 39X Project Name: 2015 sani inspections Start date/time: 8/31/2015 10:54:36 AM Weather: 1 Inspected by: R Morris

Upstream node: MH 39 Depth US: 2.4 Downstream node: MH 38A Depth DS: 2.3 Total length: 48.2 Extra:

Comments

### Observations

Distance	Length	Code	Reversed	Clock Pos.	Severity	Comment
0.0		ST	No	/		
0.0		MH	No	/		MH 39
0.0		WL	No	/		
3.3		WL	No	/		Varies 5-15%
9.0		JN	No	2 /		Live. Trickle flow
19.0		FM	No	2 / 7		At joint
						
28.5		JN	No	2 /		Appears unused
47.9		MH	No	/		MH 38A. Tight benching
48.2		FH	No	/		

# WRc Sewer Report

Inspected by: R Morris	Contract No:	Job number: 2015-061	Catchment:	Division:	District:	PLR: MH 38AX
Start date/time: 31.08.15 11:08	Road name: Smith Ave.					Place name: Clinton
Start Manhole No. MH 38A	Depth: 2.30	Cover:	Invert:	Finish Manhole No. MH 38	Depth: 2.40	Cover:
Use: F	Direction: D	Size 2:	Size 1: 200	Shape: C	Material: VC	Lining:
					Pipe length: 1.8	Total length: 36.0
Year laid:						
VT No: 00039	Comments					
Purpose: A	Category	Pre-cleanse: Y	Weather: 1	Location: C	Location details: To Bell St.	

Video No.	Photo No.	Distance	Continuous Defect	Letters	Diameter / Dimension	Numbers	Intrusion	Remarks
				code		Clock		
						at	to	%
								mm

0000		0.0		ST					
0000		0.0		MH					MH 38A. Tight benching.
0002		0.0		WL				5	
0002		0.0		GO					Pipe is AC at MH
0014		9.0		WL				15	
0021		11.3		WL				5	
0033		22.7		JN	100	2			Appears unused
0052	001	35.4		FC		12	12		At interface
0062		35.8		MH					MH 38
0065		36.0		FH					



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## Observation Report with Still Images

PLR: MH 38AX Project Name: 2015 sani inspections Start date/time: 8/31/2015 11:08:26 AM Weather: 1 Inspected by: R Morris

Upstream node: MH 38A Depth US: 2.3 Downstream node: MH 38 Depth DS: 2.4 Total length: 36.0 Extra:

Comments

### Observations

Distance	Length	Code	Reversed	Clock Pos.	Severity	Comment
0.0		ST	No	/		
0.0		MH	No	/		MH 38A. Tight benching.
0.0		WL	No	/		
0.0		GO	No	/		Pipe is AC at MH
9.0		WL	No	/		
11.3		WL	No	/		
22.7		JN	No	2 /		Appears unused
35.4		FC	No	12 / 12		At interface
						
35.8		MH	No	/		MH 38
36.0		FH	No	/		

# WRc Sewer Report

Inspected by: R Morris	Contract No:	Job number: 2015-061	Catchment:	Division:	District:	PLR: MH 38X
Start date/time: 31.08.15 11:18	Road name: Smith Ave.					Place name: Clinton
Start Manhole No. MH 38	Depth: 2.40	Cover:	Invert:	Finish Manhole No. MH 37	Depth: 1.90	Cover:
Use: F	Direction: D	Size 2:	Size 1: 200	Shape: C	Material: AC	Lining:
					Pipe length: 4.0	Total length: 92.3
VT No: 00040	Comments					
Purpose: A	Category	Pre-cleanse: Y	Weather: 1	Location: C	Location details: From Bell	

Video No.	Photo No.	Distance	Continuous Defect	Letters	Diameter / Dimension	Numbers		Intrusion	Remarks
				code		at	to	%	mm

0000		0.0		ST					
0000		0.0		MH					MH 38
0000		0.0		WL				5	
0010		7.4		OB		6	8	5	Gasket
0021		13.0		CN	100	2			Live.
0045		41.0		CN	100	2			Live.
0063		55.2		WL				10	Varies 5-10%
0095		92.1		MH					MH 37. Stained, top of barrel
0110		92.3		FH					

# WRc Sewer Report

Inspected by: R Morris	Contract No:	Job number: 2015-061	Catchment:	Division:	District:	PLR: MH 40X
Start date/time: 31.08.15 11:38	Road name: Smith Ave.					Place name: Clinton
Start Manhole No. MH 39	Depth: 2.40	Cover:	Invert:	Finish Manhole No. MH 40	Depth: 2.70	Cover:
Use: F	Direction: U	Size 2:	Size 1: 200	Shape: C	Material: VC	Lining:
Pipe length: 1.8		Total length: 83.7		Year laid:		
VT No: 00041	Comments					
Purpose: A	Category	Pre-cleanse: Y	Weather: 1	Location: A	Location details: From Hwy 97	

Video No.	Photo No.	Distance	Continuous Defect	Letters	Diameter / Dimension	Numbers	Clock	Intrusion	Remarks
				code		at	to	% mm	

0000		0.0		ST					
0000		0.0		MH					MH 39
0001		0.0		WL				5	Varies to 15%
0004		4.9		JN	150	10			Appears unused
0030		20.8		JN	100	2			Capped
0035		21.4		CN	100	12			Live. Poor install
0045		25.0		JN	100	3			Appears unused
0072		39.0		JN	100	3			Appears unused
0085		49.8		CN	100	12			Live. Light flow
0110		58.8		JN	100	2			Live. FC in service
0141		83.5		MH					MH 40
0150		83.7		FH					



# WRc Sewer Report

Inspected by: R Morris	Contract No:	Job number: 2015-061	Catchment:	Division:	District:	PLR: MH 34X
Start date/time: 31.08.15 12:08	Road name: Dewdney Ave.				Place name: Clinton	
Start Manhole No. MH 34	Depth: 2.40	Cover:	Invert:	Finish Manhole No. MH 33	Depth: 3.00	Cover:
Use: F	Direction: D	Size 2:	Size 1: 200	Shape: C	Material: VC	Lining:
					Pipe length: 1.8	Total length: 141.2
VT No: 00042	Comments:					
Purpose: A	Category:	Pre-cleanse: Y	Weather: 1	Location: C	Location details: From Government St	

Video No.	Photo No.	Distance	Continuous Defect	Letters	Diameter / Dimension	Numbers	Intrusion	Remarks
				code		at	to	%
								mm

0000		0.0		MH					MH 34
0000		0.0		ST					
0001		0.0		WL				5	Varies to 15%
0003	001	2.5		FC		12	12		
0023		17.5		WL				25	
0025		18.0		WL				45	
0032		20.0		WL				5	
0042		29.6		JN	100	9			Live.
0080		58.3		CN	100	11			Live.
0085		62.0		JN	150	3			Appears unused
0103		74.2		JN	100	10			Appears unused
0143		112.8		JN	100	3			Live. FC in service
0173		140.9		MH					MH 33
0182		141.2		FH					

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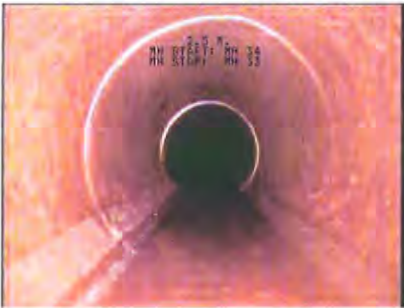
## Observation Report with Still Images

PLR: MH 34X Project Name: 2015 sani inspections Start date/time: 8/31/2015 12:08:00 PM Weather: 1 Inspected by: R Morris

Upstream node: MH 34 Depth US: 2.4 Downstream node: MH 33 Depth DS: 3.0 Total length: 141.2 Extra:

Comments

### Observations

Distance	Length	Code	Reversed	Clock Pos.	Severity	Comment
0.0		MH	No	/		MH 34
0.0		ST	No	/		
0.0		WL	No	/		Varies to 15%
2.5		FC	No	12 / 12		
						
17.5		WL	No	/		
18.0		WL	No	/		
20.0		WL	No	/		
29.6		JN	No	9 /		Live.
58.3		CN	No	11 /		Live.
62.0		JN	No	3 /		Appears unused
74.2		JN	No	10 /		Appears unused
112.8		JN	No	3 /		Live. FC in service
140.9		MH	No	/		MH 33
141.2		FH	No	/		



# WRc Sewer Report

Inspected by: R Morris	Contract No:	Job number: 2015-061	Catchment:	Division:	District:	PLR: MH 35X
Start date/time: 31.08.15 12:32	Road name: Dewdney Ave.					Place name: Clinton
Start Manhole No. MH 34	Depth: 2.40	Cover:	Invert:	Finish Manhole No. MH 35	Depth: 2.70	Cover:
Use: F	Direction: U	Size 2:	Size 1: 200	Shape: C	Material: VC	Lining:
VT No: 00043	Comments:					Year laid:
Purpose: A	Category:	Pre-cleanse: Y	Weather: 1	Location: C	Location details: From Hwy 97	
					Pipe length: 1.8	Total length: 120.3

Video No.	Photo No.	Distance	Continuous Defect	Letters	Diameter / Dimension	Numbers	Intrusion	Remarks
				code		at	to	%
								mm

0000		0.0		ST					
0000		0.0		MH					MH 34. Ramp
0001		0.0		WL				5	Varies to 15%
0020		19.9		JN	100	3			Appears unused
0050		45.1		JN	100	2			Live.
0061		49.9		JN	100	9			Live.
0152		72.7		JN	100	9			Appears unused
0202		80.7		JN	100	2			Live. Trickle flow
0212		81.5		JN	100	10			Appears unused
0230		91.8		JN	100	10			Live.
0283		120.1		MH					MH 35
0292		120.3		FH					

# WRc Sewer Report

Inspected by: <b>R Morris</b>	Contract No:	Job number: <b>2015-061</b>	Catchment:	Division:	District:	PLR: <b>MH 22X</b>
Start date/time: <b>31.08.15 13:49</b>	Road name: <b>Le Bourdais Ave.</b>					Place name: <b>Clinton</b>
Start Manhole No. <b>MH 21</b>	Depth: <b>3.00</b>	Cover:	Invert:	Finish Manhole No. <b>MH 22</b>	Depth:	Cover:
Use: <b>F</b>	Direction: <b>U</b>	Size 2:	Size 1: <b>200</b>	Shape: <b>C</b>	Material: <b>VC</b>	Lining:
VT No: <b>00044</b>	Comments:					Pipe length: <b>1.8</b>
Purpose: <b>A</b>	Category:	Pre-cleanse: <b>Y</b>	Weather: <b>1</b>	Location: <b>C</b>	Location details: <b>From Hwy 97</b>	Total length: <b>119.0</b>
Year laid:						

Video No.	Photo No.	Distance	Continuous Defect	Letters	Diameter / Dimension	Numbers	Clock	Intrusion	Remarks
				code		at	to	% mm	
0000		0.0		ST					
0000		0.0		MH					MH 21. Ramp
0001		0.0		WL				5	
0031		27.2		JN	100	3			Live.
0045		41.2		JN	100	10			Live.
0065		58.9		JN	100	2			Live. Light flow
0083		69.0		JN	100	2			Appears unused
0102		83.0		JN	100	10			Live. Light flow
0160		102.2		JN	100	2			Appears unused
0261		118.9		MH					MH 22. Barrel stained
0270		119.0		FH					

# WRc Sewer Report

Inspected by: R Morris	Contract No:	Job number: 2015-061	Catchment:	Division:	District:	PLR: MH 18X
Start date/time: 31.08.15 14:33	Road name: McDonald Ave.				Place name: Clinton	
Start Manhole No. MH 18	Depth: 4.50	Cover:	Invert:	Finish Manhole No. MH 15	Depth: 2.70	Cover:
Use: F	Direction: D	Size 2:	Size 1: 200	Shape: C	Material: VC	Lining:
Pipe length: 1.8		Total length: 72.2		Year laid:		
VT No: 00045	Comments					
Purpose: A	Category	Pre-cleanse: Y	Weather: 1	Location: A	Location details: Across Hwy 97	

Video No.	Photo No.	Distance	Continuous Defect	Letters code	Diameter / Dimension	Numbers Clock at to	Intrusion % mm	Remarks
0000		0.0		ST				
0000		0.0		MH				MH 18
0001		0.0		WL			5	
0003		0.3		RFJ			20	Root tail for 0.4M
0011	001	0.3		FM		12 12		DS of joint
0042	002	16.1		FC		12 12		
0063		41.8		JN	100	2		Live.
0090	003	71.4		H	30	5 11		At joint. Fill visible
0103		71.8		JN	200	6		Outside drop
0111		72.0		MH				MH 15
0115		72.2		FH				



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## Observation Report with Still Images

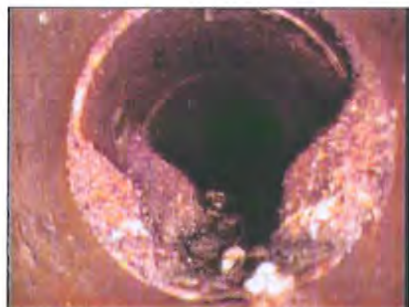
PLR: MH 18X Project Name: 2015 sani inspections Start date/time: 8/31/2015 2:33:25 PM Weather: 1 Inspected by: R Morris

Upstream node: MH 18 Depth US: 4.5 Downstream node: MH 15 Depth DS: 2.7 Total length: 72.2 Extra:

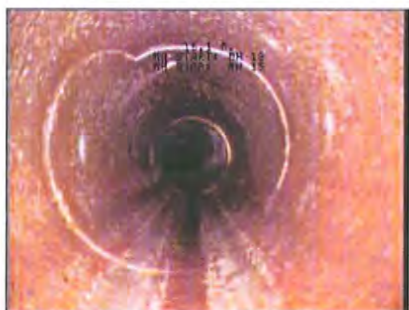
Comments

### Observations

Distance	Length	Code	Reversed	Clock Pos.	Severity	Comment
0.0		ST	No	/		
0.0		MH	No	/		MH 18
0.0		WL	No	/		
0.3		RFJ	No	/		Root tail for 0.4M
0.3		FM	No	12 / 12		DS of joint



16.1 FC No 12 / 12



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## Observations

Distance	Length	Code	Reversed	Clock Pos.	Severity	Comment
41.8	JN	No		2 /		Live.
71.4	H	No		5 / 11		At joint. Fill visible



71.8	JN	No		6 /		Outside drop
72.0	MH	No		/		MH 15
72.2	FH	No		/		



# WRc Sewer Report

Inspected by: <b>R Morris</b>	Contract No:	Job number: <b>2015-061</b>	Catchment:	Division:	District:	PLR: <b>MH 19X</b>
Start date/time: <b>31.08.15 14:51</b>	Road name: <b>McDonald Cres</b>					Place name: <b>Clinton</b>
Start Manhole No. <b>MH 18</b>	Depth: <b>4.50</b>	Cover:	Invert:	Finish Manhole No. <b>MH 19</b>	Depth: <b>2.50</b>	Cover:
Use: <b>F</b>	Direction: <b>U</b>	Size 2:	Size 1: <b>200</b>	Shape: <b>C</b>	Material: <b>VC</b>	Lining:
VT No: <b>00046</b>	Pipe length: <b>1.8</b>					Total length: <b>43.6</b>
Comments						
Purpose: <b>A</b>	Category	Pre-cleanse: <b>Y</b>	Weather: <b>1</b>	Location: <b>C</b>	Location details: <b>To McDonald Ave.</b>	

Video No.	Photo No.	Distance	Continuous Defect	Letters	Diameter / Dimension	Numbers	Intrusion	Remarks
				code		Clock		
						at	to	%
								mm

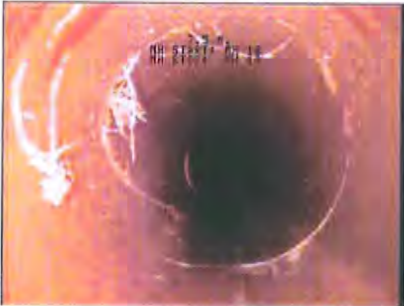
0000		0.0		MH					MH 18
0000		0.0		ST					
0001		0.0		WL				5	
0010		6.7		JN	100	10			Live. Light flow
0015		6.8		RFJ				5	Trace.
0023	001	7.5		FM		12	12		RF from same
0043		14.7		JN	100	2			Live.
0051		16.7		RFJ				5	
0054	002	19.2		FM		12	12		RF from same
0073		25.6	S1	RFJ				5	Root tail. Varies
0081	003	27.3		FC		7	1		At joint
0073		32.0	F1	RFJ				5	Root tail. Varies
0103		41.7		WL				15	
0105		42.9		WL				5	
0111		43.5		MH					MH 19
0115		43.6		FH					

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## Observation Report with Still Images


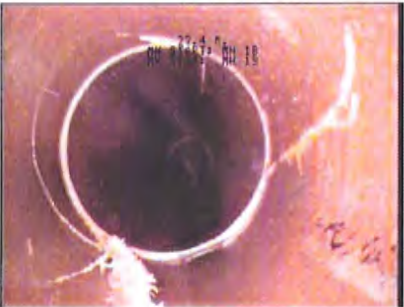
PLR: MH 19X	Project Name: 2015 sani inspections	Start date/time: 8/31/2015 2:51:10 PM	Weather: 1	Inspected by: R Morris
Upstream node: MH 19	Depth US: 2.5	Downstream node: MH 18	Depth DS: 4.5	Total length: 43.6
Extra:				
Comments				

### Observations

Distance	Length	Code	Reversed	Clock Pos.	Severity	Comment
0.0		MH	Yes	/		MH 18
0.0		ST	Yes	/		
0.0		WL	Yes	/		
6.7		JN	Yes	10 /		Live. Light flow
6.8		RFJ	Yes	/		Trace.
7.5		FM	Yes	12 / 12		RF from same
						
14.7		JN	Yes	2 /		Live.
16.7		RFJ	Yes	/		
19.2		FM	Yes	12 / 12		RF from same

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## Observations

Distance	Length	Code	Reversed	Clock Pos.	Severity	Comment
						
25.6	6.4	RFJ	Yes	/		Root tail. Varies
27.3		FC	Yes	7 / 1		At joint
						
41.7		WL	Yes	/		
42.9		WL	Yes	/		
43.5		MH	Yes	/		MH 19
43.6		FH	Yes	/		



# WRc Sewer Report

Inspected by: R Morris	Contract No:	Job number: 2015-061	Catchment:	Division:	District:	PLR: MH 15Y
Start date/time: 31.08.15 15:28	Road name: McDonald Ave.					Place name: Clinton
Start Manhole No. MH 14	Depth: 2.40	Cover:	Invert:	Finish Manhole No. MH 15	Depth: 2.70	Cover:
Use: F	Direction: U	Size 2:	Size 1: 200	Shape: C	Material: VC	Lining:
VT No: 00047	Pipe length: 1.8					Total length: 81.9
Purpose: A	Category	Pre-cleanse: Y	Weather: 1	Location: A	Location details: From Hwy 97	Year laid:
Comments						

Video No.	Photo No.	Distance	Continuous Defect	Letters	Diameter / Dimension	Numbers		Intrusion	Remarks
				code		at	to	%	mm
0000		0.0		ST					
0000		0.0		MH					MH 14
0001		0.0		WL				5	
0013		13.6		CN	100	12			Appears live but unused
0030		23.3		JN	100	3			Live.
0040		29.5		CN	100	2			Live.
0055		46.6		JN	100	2			Live.
0070		54.9		JN	100	10			Live.
0094	001	72.6		FM		12	12		
0120	002	81.0		FM		11	2		At joint
0132		81.6		OB				5	Stick lodged in MH
0140		81.8		MH					MH 15
0141		81.9		FH					

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## Observation Report with Still Images

PLR: MH 15Y Project Name: 2015 sani inspections Start date/time: 8/31/2015 3:28:49 PM Weather: 1 Inspected by: R Morris

Upstream node: MH 15 Depth US: 2.7 Downstream node: MH 14 Depth DS: 2.4 Total length: 81.9 Extra:

Comments


### Observations

Distance	Length	Code	Reversed	Clock Pos.	Severity	Comment
0.0		ST	Yes	/		
0.0		MH	Yes	/		MH 14
0.0		WL	Yes	/		
13.6		CN	Yes	12 /		Appears live but unused
23.3		JN	Yes	3 /		Live.
29.5		CN	Yes	2 /		Live.
46.6		JN	Yes	2 /		Live.
54.9		JN	Yes	10 /		Live.
72.6		FM	Yes	12 / 12		
						
81.0		FM	Yes	11 / 2		At joint



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## Observations

Distance	Length	Code	Reversed	Clock Pos.	Severity	Comment
						
81.6	OB	Yes	/			Stick lodged in MH
81.8	MH	Yes	/			MH 15
81.9	FH	Yes	/			

# WRc Sewer Report

Inspected by: R Morris	Contract No:	Job number: 2015-061	Catchment:	Division:	District:	PLR: MH 24X
Start date/time: 31.08.15 16:02	Road name: Lane from rear 1509 Carson					Place name: Clinton
Start Manhole No. MH 24	Depth: 3.00	Cover:	Invert:	Finish Manhole No. MH 23	Depth: 2.80	Cover: Invert:
Use: F	Direction: D	Size 2:	Size 1: 200	Shape: C	Material: VC	Lining: Pipe length: 1.8 Total length: 65.7 Year laid:
VT No: 00048	Comments					
Purpose: A	Category	Pre-cleanse: Y	Weather: 1	Location: A	Location details: Across Hwy 97	

Video No.	Photo No.	Distance	Continuous Defect	Letters	Diameter / Dimension	Numbers		Intrusion	Remarks
				code		at	to	% mm	

0000		0.0		ST					
0000		0.0		MH					MH 24
0001		0.0		WL				5	
0022		28.0		JN	100	3			Appears live but unused
0032		30.6		JN	150	9			Appears unused
0062	001	62.2		FM		12	12		
0080	002	65.0		B		5	8		At joint. Pipe displaced
0093		65.5		MH					MH 23
0095		65.7		FH					

# WRc Sewer Report

Inspected by: R Morris	Contract No:	Job number: 2015-061	Catchment:	Division:	District:	PLR: MH 25X
Start date/time: 31.08.15 16:33	Road name: Easement rear of 1509 Carson					Place name: Clinton
Start Manhole No. MH 24	Depth: 3.00	Cover:	Invert:	Finish Manhole No. MH 25	Depth:	Cover:
Use: F	Direction: U	Size 2:	Size 1: 200	Shape: C	Material: VC	Lining:
VT No: 00049	Pipe length: 1.8		Total length: 58.8		Year laid:	
Comments						
Purpose: A	Category	Pre-cleanse: Y	Weather: 1	Location: F	Location details: To corner of Building 1509 Carson	

Video No.	Photo No.	Distance	Continuous Defect	Letters code	Diameter / Dimension	Numbers Clock at to	Intrusion % mm	Remarks
0000		0.0		ST				
0000		0.0		MH				MH 24
0001		0.0		WL			10	
0005		6.4		CNI	100	1	15	Live.
0022		17.7		WL			20	
0030		19.7		JN	100	2		Live.
0032		19.7		WL			35	
0041		26.6		WL			5	
0061		48.2		CN	100	2		Live. Light flow
0065		49.2		WL			15	Varies 5-15%
0080	001	58.1		FC		12 12		
0085		58.5		MH				MH 25
0094		58.8		FH				

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## Observation Report with Still Images

PLR: MH 25X Project Name: 2015 sani inspections Start date/time: 8/31/2015 4:33:24 PM Weather: 1 Inspected by: R Morris

Upstream node: MH 25 Depth US: Downstream node: MH 24 Depth DS: 3.0 Total length: 58.8 Extra:

Comments

### Observations

Distance	Length	Code	Reversed	Clock Pos.	Severity	Comment
0.0		ST	Yes	/		
0.0		MH	Yes	/		MH 24
0.0		WL	Yes	/		
6.4		CNI	Yes	1 /		Live.
17.7		WL	Yes	/		
19.7		JN	Yes	2 /		Live.
19.7		WL	Yes	/		
26.6		WL	Yes	/		
48.2		CN	Yes	2 /		Live. Light flow
49.2		WL	Yes	/		Varies 5-15%
58.1		FC	Yes	12 / 12		



58.5	MH	Yes	/			MH 25
58.8	FH	Yes	/			



# WRc Sewer Report

Inspected by: R Morris	Contract No:	Job number: 2015-061	Catchment:	Division:	District:	PLR: MH 17X
Start date/time: 31.08.15 17:51	Road name: Hwy 97					Place name: Clinton
Start Manhole No. MH 16	Depth: 2.90	Cover:	Invert:	Finish Manhole No. MH 17	Depth: 2.90	Cover:
Use: F	Direction: U	Size 2:	Size 1: 200	Shape: C	Material: VC	Lining:
VT No: 00050	Pipe length: 1.8					Total length: 85.9
Comments:				Year laid:		
Purpose: A	Category:	Pre-cleanse: Y	Weather: 1	Location: A	Location details: From 1625 Hwy 97	

Video No.	Photo No.	Distance	Continuous Defect	Letters code	Diameter / Dimension	Numbers Clock at to	Intrusion % mm	Remarks
0000		0.0		ST				
0000		0.0		MH				MH 16
0001		0.0		WL			5	
0005		8.4		JN	100	3		Appears unused
0022		20.7		JN	100	9		Appears unused. DES
0032		26.8		JN	100	3		Live.
0050	001	42.6		FM		12 12		
0061		44.2		JN	100	3		Capped
0064		45.7		CNI	100	2	15	Appears unused but may be live
0081	002	55.2		FM		12 8		At joint
0105		74.5		JN	100	1		Live.
0121		85.5		DE			25	At MH 17
0125		85.7		MH				MH 17
0131		85.9		FH				



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## Observation Report with Still Images

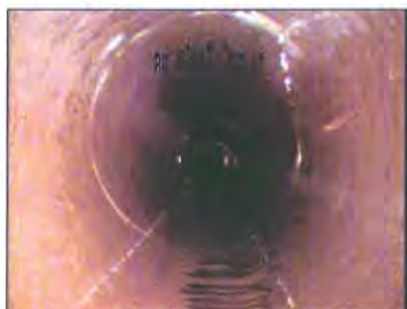
PLR: MH 17X Project Name: 2015 sani inspections Start date/time: 8/31/2015 5:51:32 PM Weather: 1 Inspected by: R Morris

Upstream node: MH 17 Depth US: 2.9 Downstream node: MH 16 Depth DS: 2.9 Total length: 85.9 Extra:

Comments

### Observations


Distance	Length	Code	Reversed	Clock Pos.	Severity	Comment
0.0		ST	Yes	/		
0.0		MH	Yes	/		MH 16
0.0		WL	Yes	/		
8.4		JN	Yes	3 /		Appears unused
20.7		JN	Yes	9 /		Appears unused. DES
26.8		JN	Yes	3 /		Live.
42.6		FM	Yes	12 / 12		



44.2		JN	Yes	3 /		Capped
45.7		CNI	Yes	2 /		Appears unused but may be live
55.2		FM	Yes	12 / 8		At joint

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## Observations

Distance	Length	Code	Reversed	Clock Pos.	Severity	Comment
						
74.5	JN	Yes	1 /			Live.
85.5	DE	Yes	/			At MH 17
85.7	MH	Yes	/			MH 17
85.9	FH	Yes	/			

# WRc Sewer Report

Inspected by: R Morris	Contract No:	Job number: 2015-061	Catchment:	Division:	District:	PLR: MH 16X
Start date/time: 31.08.15 18:09	Road name: Hwy 97					Place name: Clinton
Start Manhole No. MH 16	Depth: 2.90	Cover:	Invert:	Finish Manhole No. MH 15	Depth: 2.70	Cover:
Use: F	Direction: D	Size 2:	Size 1: 200	Shape: C	Material: VC	Lining:
VT No: 00051	Pipe length: 1.8		Total length: 72.2		Year laid:	
Comments						
Purpose: A	Category	Pre-cleanse: Y	Weather: 1	Location: A	Location details: To McDonald Ave.	


Video No.	Photo No.	Distance	Continuous Defect	Letters code	Diameter / Dimension	Numbers Clock at	to	Intrusion %	mm	Remarks
0000		0.0		ST						
0000		0.0		MH						MH 16
0001		0.0		WL				5		
0005		9.7		WL				15		
0011		12.0		WL				5		Varies to 15%
0020	001	19.6		FC		12	12			
0033		30.8		JN	100	2				Live.
0050		44.6		JN	100	2				Live.
0055	002	48.9		CC		9	2			At joint
0080		72.0		MH						MH 15
0083		72.2		FH						

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## Observation Report with Still Images

PLR: MH 16X	Project Name: 2015 sani inspections	Start date/time: 8/31/2015 6:09:32 PM	Weather: 1	Inspected by: R Morris
Upstream node: MH 16	Depth US: 2.9	Downstream node: MH 15	Depth DS: 2.7	Total length: 72.2
Extra:				
Comments				

### Observations

Distance	Length	Code	Reversed	Clock Pos.	Severity	Comment
0.0		MH	No	/		MH 16
0.0		ST	No	/		
0.0		WL	No	/		
9.7		WL	No	/		
12.0		WL	No	/		Varies to 15%
19.6		FC	No	12 / 12		
						
30.8		JN	No	2 /		Live.
44.6		JN	No	2 /		Live.
48.9		CC	No	9 / 2		At joint



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## Observations

Distance	Length	Code	Reversed	Clock Pos.	Severity	Comment
						
72.0	MH	No	/			MH 15
72.2	FH	No	/			

# WRc Sewer Report

Inspected by: R Morris	Contract No:	Job number: 2015-061	Catchment:	Division:	District:	PLR: MH 30X
Start date/time: 01.09.15 07:54	Road name: Government St.					Place name: Clinton
Start Manhole No. MH 30	Depth: 2.90	Cover:	Invert:	Finish Manhole No. MH 34	Depth: 2.40	Cover:
Use: F	Direction: D	Size 2:	Size 1: 200	Shape: C	Material: VC	Lining:
VT No: 00052	Pipe length: 1.8		Total length: 123.1		Year laid:	
Comments:						
Purpose: A	Category:	Pre-cleanse: Y	Weather: 4	Location: D	Location details: To Dewdney	

Video No.	Photo No.	Distance	Continuous Defect	Letters	Diameter / Dimension	Numbers	Intrusion	Remarks
				code		at	to	%

0000		0.0		ST					
0000		0.0		MH					MH 30
0001		0.0		WL				5	
0002		0.1		CC		12	12		Not visible on video
0011		6.7		CN	100	2			Live.
0020		8.2		JN	100	10			Capped
0024		9.4	S1	DES				15	Appears to be clay
0024		11.2	F1	DES				15	Appears to be clay
0032		11.2		CNI	100	9		15	Appears unused. DES
0061		16.5		JN	100	3			Appears unused. DES
0071		16.5		GO					Following flusher
0074		23.0		CN	100	1			Live.
0081		23.4		CNI	100	2		20	Appears unused. DES
0095		35.9		JN	100	3			Appears unused. DES
0104		38.5		JN	100	10			Appears unused
0132		54.4		JN	100	10			Live.

Video No.	Photo No.	Distance (m)	Continous Defect	Letters	Diameter / Dimension	Numbers Clock		Intrusion		Remarks
				code		at	to	%	mm	
0143		60.8		JN	100	10				Live.
0155		73.0		JN	100	3				Live.
0162		73.8		JN	100	2				Live.
0181		91.5		JN	100	3				Live.
0220		122.9		MH						MH 34
0230		123.1		FH						

# WRc Sewer Report

Inspected by: R Morris	Contract No:	Job number: 2015-061	Catchment:	Division:	District:	PLR: MH 30Y
Start date/time: 01.09.15 08:45	Road name: Government St.					Place name: Clinton
Start Manhole No. MH 30	Depth: 2.90	Cover:	Invert:	Finish Manhole No. MH 21	Depth: 3.00	Cover:
Use: F	Direction: D	Size 2:	Size 1: 200	Shape: C	Material: VC	Lining:
VT No: 00053	Pipe length: 1.8					Total length: 135.6
Purpose: A			Category:	Pre-cleanse: Y	Weather: 4	Location: D
Location details: To LeBourdais			Comments:			

Video No.	Photo No.	Distance	Continuous Defect	Letters code	Diameter / Dimension	Numbers Clock at to	Intrusion % mm	Remarks
0000		0.0		ST				
0000		0.0		MH				MH 30
0001		0.0		WL			45	
0003		0.3		FC		12 12		Not on video
0005		0.3		WL			10	
0013		4.5		WL			5	Varies to 15%
0043		35.4		JN	100	3		Appears unused
0073		64.6		JN	100	2		Live.
0094		82.5		JN	100	10		Live. Trickle flow
0111		92.8		JN	100	3		Live.
0121		99.3		JN	100	10		Live.
0154	001	134.8		FM		12 12		Pipe displaced. Fill visible
0173		135.4		MH				MH 21. DE on bench
0183		135.6		FH				



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## Observation Report with Still Images

PLR: MH 30Y Project Name: 2015 sani inspections Start date/time: 9/1/2015 8:45:09 AM Weather: 4 Inspected by: R Morris

Upstream node: MH 30 Depth US: 2.9 Downstream node: MH 21 Depth DS: 3.0 Total length: 135.6 Extra:

Comments

### Observations

Distance	Length	Code	Reversed	Clock Pos.	Severity	Comment
0.0		ST	No	/		
0.0		MH	No	/		MH 30
0.0		WL	No	/		
0.3		FC	No	12 / 12		Not on video
0.3		WL	No	/		
4.5		WL	No	/		Varies to 15%
35.4		JN	No	3 /		Appears unused
64.6		JN	No	2 /		Live.
82.5		JN	No	10 /		Live. Trickle flow
92.8		JN	No	3 /		Live.
99.3		JN	No	10 /		Live.
134.8		FM	No	12 / 12		Pipe displaced. Fill visible



135.4 MH No / MH 21. DE on bench  
 135.6 FH No /

# WRc Sewer Report

Inspected by: R Morris	Contract No:	Job number: 2015-061	Catchment:	Division:	District:	PLR: MH 21X
Start date/time: 01.09.15 09:35	Road name: LeBourdais Ave.					Place name: Clinton
Start Manhole No. MH 20A	Depth: 2.70	Cover:	Invert:	Finish Manhole No. MH 21	Depth: 3.00	Cover:
Use: F	Direction: U	Size 2:	Size 1: 200	Shape: C	Material: VC	Lining:
VT No: 00054	Comments:					Pipe length: 1.8
Purpose: A	Category:	Pre-cleanse: Y	Weather: 4	Location: C	Location details: From Government	Total length: 68.2
						Year laid:

Video No.	Photo No.	Distance	Continuous Defect	Letters	Diameter / Dimension	Numbers	Intrusion	Remarks
				code		at	to	%
0000		0.0		ST				
0000		0.0		MH				MH 20A. Tight access
0001		0.0		WL			5	
0012		13.2		JN	100	10		Live.
0022		14.0		JN	100	3		Live.
0044		32.6		CNI	100	2		30 Live
0054		37.3		JN	100	10		Appears unused
0064		41.7		CNI	100	10		30 Live.
0083		58.7		JN	100	3		Appears unused
0100		66.9		WL			35	
0104		68.0		WL			55	
0105		68.0		MH				MH 21
0114		68.2		FH				

# WRc Sewer Report

Inspected by: R Morris	Contract No:	Job number: 2015-061	Catchment:	Division:	District:	PLR: MH 20AX
Start date/time: 01.09.15 09:54	Road name: LeBourdais Ave.					Place name: Clinton
Start Manhole No. MH 20A	Depth: 2.70	Cover:	Invert:	Finish Manhole No. MH 20	Depth: 2.80	Cover:
Use: F	Direction: D	Size 2:	Size 1: 200	Shape: C	Material: VC	Lining:
VT No: 00055	Comments		Pipe length: 1.8	Total length: 72.1	Year laid:	
Purpose: A	Category	Pre-cleanse: Y	Weather: 1	Location: C	Location details: To Soues	

Video No.	Photo No.	Distance	Continuous Defect	Letters	Diameter / Dimension	Numbers	Intrusion	Remarks
				code		Clock		
						at	to	%
								mm

0000		0.0		ST					
0000		0.0		MH					MH 20A
0001		0.0		WL				5	
0003		1.6		JN	100	10			Live.
0023		18.9		CN	100	10			Live.
0064		56.8		JN	100	10			Live.
0080		65.3		JN	100	10			Live.
0090		71.9		MH					MH 20
0093		72.1		FH					



# WRc Sewer Report

Inspected by: R Morris	Contract No:	Job number: 2015-061	Catchment:	Division:	District:	PLR: Stub S02X
Start date/time: 01.09.15 10:09	Road name: Lane below Government St.					Place name: Clinton
Start Manhole No. MH 20A	Depth: 2.70	Cover:	Invert:	Finish Manhole No. Stub S02	Depth:	Cover:
Use: F	Direction: U	Size 2:	Size 1: 250	Shape: C	Material: AC	Lining:
VT No: 00056	Pipe length: 4.0		Total length: 140.0		Year laid:	
Comments						
Purpose: A	Category	Pre-cleanse: Y	Weather: 1	Location: C	Location details: To LeBourdais	

Video No.	Photo No.	Distance	Continuous Defect	Letters	Diameter / Dimension	Numbers	Intrusion	Remarks
				code		at	to	%
								mm

0000		0.0		MH					MH 20A. Inside drop
0000		0.0		ST					
0002		0.0		WL				5	
0005		5.1		MC					To PVC
0010		5.1		RFJ				5	Root tail for 0.5M
0014		6.1		MC					To AC
0015		6.1		RFJ				5	Root tail for 1M
0023		7.6		RFJ				5	
0033		20.0		GO					Camera set at 200mm
0050		41.6		CX	100	2			Appears unused. RFJ
0082		67.5		SSM	75	5			
0094		74.9		CN	100	1			Appears unused
0115		94.8		MH					Unplotted. Buried
0144		94.9		SA					Cannot proceed past MH



# WRC Sewer Report

Inspected by: R Morris	Contract No:	Job number: 2015-061	Catchment:	Division:	District:	PLR: MH 74X
Start date/time: 01.09.15 11:06	Road name: Spruce Ave.					Place name: Clinton
Start Manhole No. MH 74	Depth: 2.00	Cover:	Invert:	Finish Manhole No. MH 73	Depth: 3.70	Cover:
Use: F	Direction: D	Size 2:	Size 1: 200	Shape: C	Material: AC	Lining:
VT No: 00057	Comments		Pipe length: 4.0	Total length: 82.5	Year laid:	
Purpose: A	Category	Pre-cleanse: Y	Weather: 1	Location: C	Location details: To bottom of Spruce	

Video No.	Photo No.	Distance	Continuous Defect	Letters code	Diameter / Dimension	Numbers Clock at to	Intrusion % mm	Remarks
0000		0.0		MH				MH 74
0000		0.0		ST				
0001		0.0		WL			5	
0004		4.9		JN	100	9		Live.
0023		21.5		JN	100	2		Live.
0033		26.4		JN	100	9		Live. Light flow
0050		39.2		JN	100	2		Live.
0060		43.9		JN		9		Live.
0092		82.4		MH				MH 73. Inside drop
0102		82.5		FH				

# WRc Sewer Report

Inspected by: R Morris	Contract No:	Job number: 2015-061	Catchment:	Division:	District:	PLR: MH 75X
Start date/time: 01.09.15 11:21	Road name: Spruce Ave.					Place name: Clinton
Start Manhole No. MH 74	Depth: 2.00	Cover:	Invert:	Finish Manhole No. MH 75	Depth: 2.60	Cover:
Use: F	Direction: U	Size 2:	Size 1: 200	Shape: C	Material: AC	Lining:
VT No: 00058	Comments			Pipe length: 4.0	Total length: 80.1	Year laid:
Purpose: A	Category	Pre-cleanse: Y	Weather: 1	Location: C	Location details: From top of Spruce	

Video No.	Photo No.	Distance	Continuous Defect	Letters code	Diameter / Dimension	Numbers Clock at to	Intrusion % mm	Remarks
0000		0.0		ST				
0000		0.0		MH				MH 74
0001		0.0		WL			5	
0012		12.7		JN	100	3		Capped
0024		18.6		CN	100	10		Live. Light flow
0042		33.3		JN	100	3		Live. Trickle flow
0063		53.8		JN	100	3		Live.
0075		63.2		CN	100	9		Live
0092		74.8		JN	100	3		Appears unused
0101		77.8		CN	100	12		Live. Trickle flow
0110		79.8		MH				MH 75. DES in channel
0115		80.1		FH				

# WRc Sewer Report

Inspected by: R Morris	Contract No:	Job number: 2015-061	Catchment:	Division:	District:	PLR: MH 73X
Start date/time: 01.09.15 11:47	Road name: Spruce Ave.					Place name: Clinton
Start Manhole No. MH 72	Depth: 3.40	Cover:	Invert:	Finish Manhole No. MH 73	Depth: 3.70	Cover:
Use: F	Direction: U	Size 2:	Size 1: 200	Shape: C	Material: AC	Lining:
VT No: 00059	Pipe length: 4.0					Total length: 12.8
Comments						
Purpose: A	Category	Pre-cleanse: Y	Weather: 1	Location: C	Location details: At foot of Spruce	

Video No.	Photo No.	Distance	Continuous Defect	Letters code	Diameter / Dimension	Numbers Clock at to	Intrusion % mm	Remarks
0000		0.0		ST				
0000		0.0		MH				MH 72
0001		0.0		WL			5	
0010		7.7		GO				Pipe appears good and clean
0020		12.6		MH				MH 73
0022		12.8		FH				



# WRc Sewer Report

Inspected by: R Morris	Contract No:	Job number: 2015-061	Catchment:	Division:	District:	PLR: MH 71X
Start date/time: 01.09.15 12:12	Road name: Fir Ave.					Place name: Clinton
Start Manhole No. MH 70	Depth: 2.40	Cover:	Invert:	Finish Manhole No. MH 71	Depth:	Cover:
Use: F	Direction: U	Size 2:	Size 1: 200	Shape: C	Material: AC	Lining:
VT No: 00061	Pipe length: 4.0					Total length: 57.6
Comments						
Purpose: A	Category	Pre-cleanse: Y	Weather: 1	Location: C	Location details: From top of Fir	

Video No.	Photo No.	Distance	Continuous Defect	Letters code	Diameter / Dimension	Numbers Clock at to	Intrusion % mm	Remarks
0000		0.0		ST				
0000		0.0		MH				MH 70
0001		0.0		WL			5	
0012		13.0		JN	100	10		Live.
0020		14.0		JN	100	10		Live.
0023		14.8		JN	100	2		Live.
0044		35.7		JN	100	2		Live.
0055		44.3		JN	100	10		Appears unused
0065		49.2		CN	100	10		Live.
0081		57.4		MH				MH 71. Buried
0085		57.6		FH				



# WRc Sewer Report

Inspected by: R Morris	Contract No:	Job number: 2015-061	Catchment:	Division:	District:	PLR: MH 70X
Start date/time: 01.09.15 12:27	Road name: Fir Ave.					Place name: Clinton
Start Manhole No. MH 70	Depth: 2.40	Cover:	Invert:	Finish Manhole No. MH 69	Depth: 2.10	Cover:
Use: F	Direction: D	Size 2:	Size 1: 200	Shape: C	Material: AC	Lining:
VT No: 00062	Pipe length: 4.0					Total length: 69.1
Purpose: A		Category	Pre-cleanse: Y	Weather: 1	Location: D	Location details: From 405 Fir
Comments						

Video No.	Photo No.	Distance	Continuous Defect	Letters code	Diameter / Dimension	Numbers Clock at to	Intrusion % mm	Remarks
0000		0.0		ST				
0000		0.0		MH				MH 70
0001		0.0		WL			5	
0010		8.5		JN	100	10		Live. OJM in service
0020	001	9.8		SSL	40	2 4		
0030		13.1		JN	100	2		Appears unused
0043		25.7		JN	100	9		Live.
0061		42.2		JN	100	2		Live.
0065		42.9		JN	100	9		Live.
0083		59.5		JN	100	9		Live.
0095		68.8		MH				MH 69. Inside drop
0103		69.1		FH				

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## Observation Report with Still Images

PLR: MH 70X Project Name: 2015 sani inspections Start date/time: 9/1/2015 12:27:29 PM Weather: 1 Inspected by: R Morris

Upstream node: MH 70 Depth US: 2.4 Downstream node: MH 69 Depth DS: 2.1 Total length: 69.1 Extra:

Comments

### Observations

Distance	Length	Code	Reversed	Clock Pos.	Severity	Comment
0.0		ST	No	/		
0.0		MH	No	/		MH 70
0.0		WL	No	/		
8.5		JN	No	10 /		Live. OJM in service
9.8		SSL	No	2 / 4		
						
13.1		JN	No	2 /		Appears unused
25.7		JN	No	9 /		Live.
42.2		JN	No	2 /		Live.
42.9		JN	No	9 /		Live.
59.5		JN	No	9 /		Live.
68.8		MH	No	/		MH 69. Inside drop
69.1		FH	No	/		

# WRc Sewer Report

Inspected by: R Morris	Contract No:	Job number: 2015-061	Catchment:	Division:	District:	PLR: MH 69X
Start date/time: 01.09.15 12:53	Road name: Fir Ave.					Place name: Clinton
Start Manhole No. MH 69	Depth: 2.10	Cover:	Invert:	Finish Manhole No. MH 68	Depth: 4.00	Cover: Invert:
Use: F	Direction: D	Size 2:	Size 1: 200	Shape: C	Material: AC	Lining: Pipe length: 4.0 Total length: 47.3 Year laid:
VT No: 00063	Comments					
Purpose: A	Category	Pre-cleanse: Y	Weather: 1	Location: C	Location details: To foot of Fir	

Video No.	Photo No.	Distance	Continuous Defect	Letters code	Diameter / Dimension	Numbers Clock at to	Intrusion % mm	Remarks
0000		0.0		ST				
0000		0.0		MH				MH 69
0001		0.0		WL			5	
0024		28.8		JN	100	2		Live.
0044		46.2		JN	200	6		Outside drop
0052		47.1		MH				MH 68
0065		47.3		FH				



# WRc Sewer Report

Inspected by: R Morris	Contract No:	Job number: 2015-061	Catchment:	Division:	District:	PLR: MH 66X
Start date/time: 01.09.15 13:16	Road name: Elm Ave.					Place name: Clinton
Start Manhole No. MH 65	Depth: 2.50	Cover:	Invert:	Finish Manhole No. MH 66	Depth:	Cover:
Use: F	Direction: U	Size 2:	Size 1: 200	Shape: C	Material: AC	Lining:
VT No: 00064	Comments		Pipe length: 4.0	Total length: 54.7	Year laid:	
Purpose: A	Category	Pre-cleanse: Y	Weather: 1	Location: C	Location details: From 406 Elm	

Video No.	Photo No.	Distance	Continuous Defect	Letters	Diameter / Dimension	Numbers	Intrusion	Remarks
				code		Clock		
						at	to	% mm
0000		0.0		ST				
0000		0.0		MH				MH 65
0001		0.0		WL			5	
0023		25.2		CN	100	12		Live.
0033		28.8		JN	100	2		Appears unused
0051		45.5		JN	100	3		Live.
0063		54.5		MH				MH 66. Buried
0070		54.7		FH				



# WRc Sewer Report

Inspected by: R Morris	Contract No:	Job number: 2015-061	Catchment:	Division:	District:	PLR: Stub S03X			
Start date/time: 01.09.15 13:27	Road name: Elm Ave.					Place name: Clinton			
Start Manhole No. MH 66	Depth:	Cover:	Invert:	Finish Manhole No. Stub S03	Depth:	Cover:	Invert:		
Use: F	Direction: U	Size 2:	Size 1: 200	Shape: C	Material: AC	Lining:	Pipe length: 4.0	Total length: 47.1	Year laid:
VT No: 00065	Comments								
Purpose: A	Category	Pre-cleanse: Y	Weather: 1	Location: C	Location details: From top of Elm				

Video No.	Photo No.	Distance	Continuous Defect	Letters	Diameter / Dimension	Numbers		Intrusion	Remarks
				code		at	to	% mm	
0000		0.0		ST					
0000		0.0		MH					MH 66. Buried
0001		0.0		WL				5	
0010		8.8		JN	100	2			Live. Light flow
0040		37.6		JN	100	2			Live.
0054		46.9		MH					Stub S03. Unplotted. Buried
0064		47.1		FH					

# WRc Sewer Report

Inspected by: R Morris	Contract No:	Job number: 2015-061	Catchment:	Division:	District:	PLR: MH 65X
Start date/time: 01.09.15 13:39	Road name: Elm Ave.					Place name: Clinton
Start Manhole No. MH 65	Depth: 2.50	Cover:	Invert:	Finish Manhole No. MH 64	Depth:	Cover:
Use: F	Direction: D	Size 2:	Size 1: 200	Shape: C	Material: AC	Lining:
VT No: 00066			Comments:	Pipe length: 4.0	Total length: 71.9	Year laid:
Purpose: A	Category:	Pre-cleanse: Y	Weather: 1	Location: C	Location details: To foot of Elm	

Video No.	Photo No.	Distance	Continuous Defect	Letters	Diameter / Dimension	Numbers	Intrusion	Remarks
				code		at	to	%
								mm

0000		0.0		ST					
0000		0.0		MH					MH 65
0001		0.0		WL				5	
0004		4.4		JN	100	9			Appears live but unused
0050		54.1		MC					To PVC
0053		54.2		JN	100	9			Live.
0061		54.5		MC					To AC
0075		71.7		MH					MH 64. Buried
0085		71.9		FH					

# WRc Sewer Report

Inspected by: R Morris	Contract No:	Job number: 2015-061	Catchment:	Division:	District:	PLR: MH 10X
Start date/time: 01.09.15 14:26	Road name: Foster Ave.					Place name: Clinton
Start Manhole No. MH 10	Depth: 2.60	Cover:	Invert:	Finish Manhole No. MH 8	Depth: 2.20	Cover:
Use: F	Direction: D	Size 2:	Size 1: 200	Shape: C	Material: AC	Lining:
VT No: 00067	Pipe length: 4.0					Total length: 126.4
Comments						
Purpose: A	Category	Pre-cleanse: Y	Weather: 1	Location: D	Location details: To bottom of Foster	

Video No.	Photo No.	Distance	Continuous Defect	Letters	Diameter / Dimension	Numbers	Intrusion	Remarks
				code		Clock		
						at	to	%
								mm

0000		0.0		ST					
0000		0.0		MH					MH 10
0001		0.0		WL				5	
0003		2.1		CN	100	1			Live.
0020		17.3		CN	100	2			Live. Trickle flow
0031		18.2		CN	100	10			Live.
0043		30.2		CN	100	2			Live. Trickle flow
0055		31.3		OB		5	7	5	Gasket
0064		34.5		CN	100	10			Live.
0074		40.7		CX	100	10			Live. EH in service.
0091		49.1		CN	100	12			Live. Light flow
0103		56.7		CN	100	10			Live. Trickle flow
0113		58.8		CX	100	12			Live. EL at interface
0121		58.8		GO					Poor install on CN
0141		77.7		CN	100	2			Live. EM in service
0153		84.0		CN	100	10			Live. Light flow



Video No.	Photo No.	Distance (m)	Continuous Defect	Letters	Diameter / Dimension	Numbers Clock		Intrusion		Remarks
				code		at	to	%	mm	
0165		95.5		CN	100	10				Live. EL from service
0175		96.0		CN	100	11				Appears unused. 100% blocked
0185		96.7		CN	100	2				Live.
0203		108.1		CN	100	2				Live.
0223		121.3		OB		4	7	5		Gasket.
0231		123.7		WL				30		DS line not cleaned
0240		125.5		WL				45		
0242	001	126.1		MH						MH 8. EL and barrel offset
0253		126.4		FH						



# WRc Sewer Report

Inspected by: R Morris	Contract No:	Job number: 2015-0661	Catchment:	Division:	District:	PLR: MH 11X
Start date/time: 01.09.15 15:04	Road name: Foster Ave.					Place name: Clinton
Start Manhole No. MH 10	Depth: 2.60	Cover:	Invert:	Finish Manhole No. MH 11	Depth:	Cover:
Use: F	Direction: U	Size 2:	Size 1: 200	Shape: C	Material: VC	Lining:
VT No: 00068	Comments		Pipe length: 1.8	Total length: 125.0	Year laid:	
Purpose: A	Category	Pre-cleanse: Y	Weather: 1	Location: C	Location details: From top of Foster	

Video No.	Photo No.	Distance	Continuous Defect	Letters	Diameter / Dimension	Numbers	Intrusion	Remarks
				code		at	to	% mm

0000		0.0		ST				
0001		0.0		MH				MH 10
0002		0.0		WL			5	
0005		5.2		JN	100	2		Appears unused.
0014		8.8		CN	100	3		Live. Trickle flow
0025		13.3		CNI	100	3		Live.
0040		20.3		CN	100	9		Live.
0045		22.4		JN	100	3		Appears unused. DES
0073		48.6		CN	100	10		Live. FC in service
0102	001	64.3		FC		11	9	From service
0110		64.5		CX	100	10		Appears unused. FC in main
0132		68.1		JN	100	3		Live. Light flow
0155		80.2		JN	100	9		Live.
0171		86.5		JN	100	3		Appears unused
0180		89.8		CNI	100	3		Live.
0200		91.1		SA				No traction

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## Observation Report with Still Images

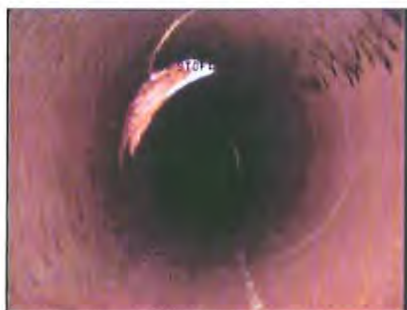
PLR: MH 11X Project Name: 2015 sani inspections Start date/time: 9/1/2015 3:04:53 PM Weather: 1 Inspected by: R Morris

Upstream node: MH 11 Depth US: Downstream node: MH 10 Depth DS: 2.6 Total length: 125.0 Extra:

Comments

### Observations

Distance	Length	Code	Reversed	Clock Pos.	Severity	Comment
0.0		ST	Yes	/		
0.0		MH	Yes	/		MH 10
0.0		WL	Yes	/		
5.2		JN	Yes	2 /		Appears unused.
8.8		CN	Yes	3 /		Live. Trickle flow
13.3		CNI	Yes	3 /		Live.
20.3		CN	Yes	9 /		Live.
22.4		JN	Yes	3 /		Appears unused. DES
48.6		CN	Yes	10 /		Live. FC in service
64.3		FC	Yes	11 / 9		From service



64.5		CX	Yes	10 /		Appears unused. FC in main
68.1		JN	Yes	3 /		Live. Light flow
80.2		JN	Yes	9 /		Live.
86.5		JN	Yes	3 /		Appears unused



# WRc Sewer Report

Inspected by: R Morris	Contract No:	Job number: 2015-061	Catchment:	Division:	District:	PLR: MH 14X
Start date/time: 01.09.15 15:45	Road name: McDonald Ave.					Place name: Clinton
Start Manhole No. MH 14	Depth: 2.40	Cover:	Invert:	Finish Manhole No. MH 12	Depth: 2.70	Cover:
Use: F	Direction: D	Size 2:	Size 1: 200	Shape: C	Material: VC	Lining:
VT No: 00069	Comments:					Pipe length: 1.8
Purpose: A	Category:	Pre-cleanse: Y	Weather: 1	Location: C	Location details: From 309 McDonald	
Total length: 121.7						
Year laid:						

Video No.	Photo No.	Distance	Continuous Defect	Letters	Diameter / Dimension	Numbers	Intrusion	Remarks
				code		at	to	%
								mm

0000		0.0		ST					
0000		0.0		MH					MH 14
0001		0.0		WL				5	
0022		21.6		JN	100	3			Live. Light flow
0031		22.6		JN	100	9			Capped
0035		23.0		CN	100	9			Appears unused
0045	001	24.7		H	200	11	1		Appears repaired
0062		29.2		CN	100	9			Live. Light flow
0071		30.6		CN	100	9			Live. Trickle flow
0083		36.6		CN	100	2			Live.
0092		41.6		JN	100	3			Appears unused
0110		53.4		FC		12	5		At joint
0125		67.0		JN	100	2			Live.
0160		100.9		CN	100	2			Live.
0180		118.8		CN	100	1			Live. Light flow
0185		121.5		MH					MH 12

Video No.	Photo No.	Distance (m)	Continous Defect	Letters	Diameter / Dimension	Numbers Clock		Intrusion		Remarks
				code		at	to	%	mm	
0192		121.7		FH						



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## Observation Report with Still Images

PLR: MH 14X Project Name: 2015 sani inspections Start date/time: 9/1/2015 3:45:46 PM Weather: 1 Inspected by: R Morris

Upstream node: MH 14 Depth US: 2.4 Downstream node: MH 12 Depth DS: 2.7 Total length: 121.7 Extra:

Comments

### Observations

Distance	Length	Code	Reversed	Clock Pos.	Severity	Comment
0.0		ST	No	/		
0.0		MH	No	/		MH 14
0.0		WL	No	/		
21.6		JN	No	3 /		Live. Light flow
22.6		JN	No	9 /		Capped
23.0		CN	No	9 /		Appears unused
24.7		H	No	11 / 1		Appears repaired
						
29.2		CN	No	9 /		Live. Light flow
30.6		CN	No	9 /		Live. Trickle flow
36.6		CN	No	2 /		Live.
41.6		JN	No	3 /		Appears unused
53.4		FC	No	12 / 5		At joint
67.0		JN	No	2 /		Live.
100.9		CN	No	2 /		Live.

# WRc Sewer Report

Inspected by: R Morris	Contract No:	Job number: 2015-061	Catchment:	Division:	District:	PLR: MH 13BX
Start date/time: 02.09.15 07:35	Road name: Tingley St.					Place name: Clinton
Start Manhole No. MH 13B	Depth: 2.20	Cover:	Invert:	Finish Manhole No. MH 13A	Depth:	Cover:
Use: F	Direction: D	Size 2:	Size 1: 200	Shape: C	Material: PVC	Lining:
VT No: 00070	Comments		Pipe length: 4.0	Total length: 42.6	Year laid:	
Purpose: A	Category	Pre-cleanse: Y	Weather: 1	Location: D	Location details: To 1607 Tingley	

Video No.	Photo No.	Distance	Continuous Defect	Letters code	Diameter / Dimension	Numbers Clock at to	Intrusion % mm	Remarks
0000		0.0		ST				
0000		0.0		MH				MH 13B
0001		0.0		WL			5	
0005		7.1		JN	100	9		Appears live but unused
0024		19.2		JN	100	3		Appears unused
0032		19.7		JN	100	3		Appears unused. DES
0042		24.5		JN	100	2		Live.
0063		41.9		MC				To AC
0070		42.5		MH				MH 13A. Tight access
0075		42.6		FH				

# WRc Sewer Report

Inspected by: R Morris	Contract No:	Job number: 2015-061	Catchment:	Division:	District:	PLR: MH 13AX
Start date/time: 02.09.15 07:48	Road name: Tingley					Place name: Clinton
Start Manhole No. MH 13A	Depth:	Cover:	Invert:	Finish Manhole No. MH 13	Depth: 2.50	Cover:
Use: F	Direction: D	Size 2:	Size 1: 200	Shape: C	Material: AC	Lining:
VT No: 00071	Pipe length: 4.0					Total length: 51.2
Purpose: A	Category	Pre-cleanse: Y	Weather: 1	Location: D	Location details: To McDonald	Year laid:
Comments						

Video No.	Photo No.	Distance	Continuous Defect	Letters code	Diameter / Dimension	Numbers Clock at to	Intrusion % mm	Remarks
0000		0.0		ST				
0000		0.0		MH				MH 13A. Buried
0002		0.0		WL			5	
0010		4.8		JN	100	3		Live.
0014		5.5		JN	100	9		Live.
0022	001	5.9		B		6 11		At joint. Repaired
0032		5.9		DE			10	
0040	002	6.2		H	25	10 12		Two small holes
0054		17.9		JN	100	9		Live.
0063		19.9		CN	100	2		Live.
0085		44.0		CN	100	2		Live.
0100		51.1		MH				MH 13. Ponding in MH
0110		51.2		FH				



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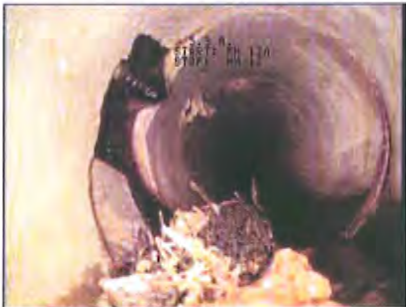
## Observation Report with Still Images

PLR: MH 13AX Project Name: 2015 sani inspections Start date/time: 9/2/2015 7:48:36 AM Weather: 1 Inspected by: R Morris

Upstream node: MH 13A Depth US: Downstream node: MH 13 Depth DS: 2.5 Total length: 51.2 Extra:

Comments


### Observations

Distance	Length	Code	Reversed	Clock Pos.	Severity	Comment
0.0		MH	No	/		MH 13A. Buried
0.0		ST	No	/		
0.0		WL	No	/		
4.8		JN	No	3 /		Live.
5.5		JN	No	9 /		Live.
5.9		B	No	6 / 11		At joint. Repaired
						
5.9		DE	No	/		
6.2		H	No	10 / 12		Two small holes



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## Observations

Distance	Length	Code	Reversed	Clock Pos.	Severity	Comment
						
17.9	JN	No		9 /		Live.
19.9	CN	No		2 /		Live.
44.0	CN	No		2 /		Live.
51.1	MH	No		/		MH 13. Ponding in MH
51.2	FH	No		/		

# WRc Sewer Report

Inspected by: R Morris	Contract No:	Job number: 2015-061	Catchment:	Division:	District:	PLR: MH 13X
Start date/time: 02.09.15 08:20	Road name: McDonald Ave.					Place name: Clinton
Start Manhole No. MH 13	Depth: 2.50	Cover:	Invert:	Finish Manhole No. MH 7A	Depth: 2.00	Cover:
Use: F	Direction: D	Size 2:	Size 1: 200	Shape: C	Material: AC	Lining:
VT No: 00072	Comments:					Year laid:
Purpose: A	Category:	Pre-cleanse: Y	Weather: 1	Location: D	Location details: From Tingley	
Pipe length: 4.0	Total length: 137.1					

Video No.	Photo No.	Distance	Continuous Defect	Letters	Diameter / Dimension	Numbers	Intrusion	Remarks
				code		at	to	%
								mm

0000		0.0		ST					
0000		0.0		MH					MH 13. Ponding in MH
0001		0.0		WL				5	
0013		12.6		JN	100	10			Live.
0034		33.1		JN	100	9			Live, unused.. JDM in service
0062		33.1		JN	100	10			Live.
0083		72.1		JN	100	11			Live.
0095		79.7		GO					Point repair for 2.2M
0105		86.6		CX	100	10			Live. RM from same
0131		101.1		CN	100	9			Live.
0151		114.0		JN	100	9			Live. Trickle flow
0164		121.3		CN	100	12			Live. Light flow. IS
0174		121.5		CN	100	12			Live. IS at interface
0192		130.4		JN	100	9			Live.
0204		136.9		MH					MH 7A. EL lower barrel
0215		137.1		FH					

# WRc Sewer Report

Inspected by: R Morris	Contract No:	Job number: 2015-061	Catchment:	Division:	District:	PLR: MH 12X
Start date/time: 02.09.15 08:56	Road name: McDonald Ave.					Place name: Clinton
Start Manhole No. MH 12	Depth: 2.70	Cover:	Invert:	Finish Manhole No. MH 7	Depth: 1.90	Cover:
Use: F	Direction: D	Size 2:	Size 1: 200	Shape: C	Material: AC	Lining:
VT No: 00073	Comments:					Pipe length: 4.0
Purpose: A	Category:	Pre-cleanse: Y	Weather: 1	Location: D	Location details: From 215 McDonald	Total length: 127.4
						Year laid:

Video No.	Photo No.	Distance	Continuous Defect	Letters	Diameter / Dimension	Numbers	Intrusion	Remarks
				code		at	to	%
								mm

0000		0.0		ST					
0000		0.0		MH					MH 12
0001		0.0		WL				5	
0013		13.3		CN	100	2			Live.
0023	001	16.6		JDL					
0033		17.0		SA					Cannot pass JDL

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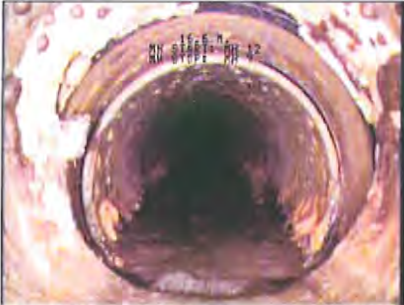
## Observation Report with Still Images

PLR: MH 12X Project Name: 2015 sani inspections Start date/time: 9/2/2015 8:56:59 AM Weather: 1 Inspected by: R Morris

Upstream node: MH 12 Depth US: 2.7 Downstream node: MH 7 Depth DS: 1.9 Total length: 127.4 Extra:

Comments

### Observations

Distance	Length	Code	Reversed	Clock Pos.	Severity	Comment
0.0		MH	No	/		MH 12
0.0		ST	No	/		
0.0		WL	No	/		
13.3		CN	No	2 /		Live.
16.6		JDL	No	/		
						
17.0		SA	No	/		Cannot pass JDL



# WRc Sewer Report

Inspected by: R Morris	Contract No:	Job number: 2015-061	Catchment:	Division:	District:	PLR: MH 7AX
Start date/time: 02.09.15 09:13	Road name: McDonald Ave.					Place name: Clinton
Start Manhole No. MH 7A	Depth: 2.00	Cover:	Invert:	Finish Manhole No. MH 7B	Depth: 2.50	Cover:
Use: F	Direction: D	Size 2:	Size 1: 200	Shape: C	Material: AC	Lining:
VT No: 00074	Comments					Pipe length: 4.0
Purpose: A	Category	Pre-cleanse: Y	Weather: 1	Location: C	Location details: Across McDonald at end of road	
Total length: 14.6						
Year laid:						

Video No.	Photo No.	Distance	Continuous Defect	Letters	Diameter / Dimension	Numbers	Intrusion	Remarks
				code		at	to	%
								mm
0000		0.0		ST				
0000		0.0		MH				MH 7A. EL on lower barrel
0003		0.0		WL			5	
0005		2.4		CX	100	12		Capped. IS, EL from interface
0031		14.4		MH				MH 7B. Unplotted
0040		14.4		GO				Barrel wet, stained
0044		14.4		GO				No camera access DS.
0052		14.6		FH				

# WRc Sewer Report

Inspected by: R Morris	Contract No:	Job number: 2015-061	Catchment:	Division:	District:	PLR: MH 12X
Start date/time: 02.09.15 09:34	Road name: McDonald Ave.					Place name: Clinton
Start Manhole No. MH 7	Depth: 1.90	Cover:	Invert:	Finish Manhole No. MH 12	Depth: 2.70	Cover:
Use: F	Direction: U	Size 2:	Size 1: 200	Shape: C	Material: AC	Lining:
VT No: 00075	Pipe length: 4.0					Total length: 127.4
Comments						
Purpose: H	Category	Pre-cleanse: Y	Weather: 1	Location: D	Location details: From 215 McDonald	

Video No.	Photo No.	Distance	Continuous Defect	Letters code	Diameter / Dimension	Numbers Clock at to	Intrusion % mm	Remarks
0000		0.0		ST				
0000		0.0		MH				MH 7
0001		0.0		WL			5	
0013	001	12.0		SSM	50	12		Stained
0021		12.6		EMJ			20	Possible crack
0033		13.5		MH				MH 7B. Unplotted
0040		13.5		GO				IS, EL in MH
0055		33.6		CN	100	10		Live.
0091	002	64.7		SSS	30	2		EL from same
0102		65.2		CX	100	12		Live. EL from same.
0115		70.5		EMJ			20	
0135		84.4		CX	100	11		Live. EL at interface
0161		96.7		CX	100	11		Live. EM at interface
0200		110.3		JDL				
0205		110.4		SA				At previous report

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## Observation Report with Still Images

PLR: MH 12X Project Name: 2015 sani inspections Start date/time: 9/2/2015 9:34:51 AM Weather: 1 Inspected by: R Morris

Upstream node: MH 12 Depth US: 2.7 Downstream node: MH 7 Depth DS: 1.9 Total length: 127.4 Extra:

Comments

### Observations

Distance	Length	Code	Reversed	Clock Pos.	Severity	Comment
0.0		ST	Yes	/		
0.0		MH	Yes	/		MH 7
0.0		WL	Yes	/		
12.0		SSM	Yes	12 /		Stained




12.6		EMJ	Yes	/		Possible crack
13.5		MH	Yes	/		MH 7B. Unplotted
13.5		GO	Yes	/		IS, EL in MH
33.6		CN	Yes	10 /		Live.
64.7		SSS	Yes	2 /		EL from same



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## Observations

Distance	Length	Code	Reversed	Clock Pos.	Severity	Comment
						
65.2	CX	Yes	12 /			Live. EL from same.
70.5	EMJ	Yes	/			
84.4	CX	Yes	11 /			Live. EL at interface
96.7	CX	Yes	11 /			Live. EM at interface
110.3	JDL	Yes	/			
110.4	SA	Yes	/			At previous report



# WRc Sewer Report

Inspected by: R Morris	Contract No:	Job number: 2015-061	Catchment:	Division:	District:	PLR: MH 72X
Start date/time: 02.09.15 10:50	Road name: Frontage Rd.					Place name: Clinton
Start Manhole No. MH 72	Depth: 3.40	Cover:	Invert:	Finish Manhole No. MH 68	Depth: 4.00	Cover:
Use: F	Direction: D	Size 2:	Size 1: 200	Shape: C	Material: AC	Lining:
					Pipe length: 4.0	Total length: 112.1
VT No: 00076	Comments					
Purpose: A	Category	Pre-cleanse: Y	Weather: 1	Location: D	Location details: From Spruce Ave.	

Video No.	Photo No.	Distance	Continuous Defect	Letters	Diameter / Dimension	Numbers	Intrusion	Remarks
				code		at	to	%
								mm

0000		0.0		ST					
0000		0.0		MH					MH 72
0001		0.0		WL				5	
0015		21.4		JN	100	2			Live. Trickle flow
0034		37.0		WL				10	
0042		41.8		WL				15	
0044		42.4		JN	100	12			Live.
0054		45.5		WL				40	
0061		47.3		WL				55	
0082		48.0	S1	CU					
0082		61.6	F1	CU					
0115		68.8		WL				15	Lens blurry
0124		73.6		JN	100	2			Live.
0142		82.6		WL				5	Varies to 15%
0154		94.2		JN	100	1			Live. RF in service
0184		111.9		MH					MH 68. Roots on barrel

Video No.	Photo No.	Distance (m)	Continous Defect	Letters code	Diameter / Dimension	Numbers Clock at to		Intrusion % mm		Remarks
0194		112.1		FH						

# WRc Sewer Report

Inspected by: R Morris	Contract No:	Job number: 2015-061	Catchment:	Division:	District:	PLR: MH 68X
Start date/time: 02.09.15 11:23	Road name: Frontage Rd.					Place name: Clinton
Start Manhole No. MH 68	Depth: 4.00	Cover:	Invert:	Finish Manhole No. MH 67	Depth: 2.80	Cover:
Use: F	Direction: D	Size 2:	Size 1: 200	Shape: C	Material: AC	Lining:
VT No: 00077	Comments:					Year laid:
Purpose: A	Category:	Pre-cleanse: Y	Weather: 1	Location: C	Location details: From Fir	
					Pipe length: 4.0	Total length: 74.4

Video No.	Photo No.	Distance	Continuous Defect	Letters	Diameter / Dimension	Numbers	Intrusion	Remarks
				code		at	to	%
0000		0.0		ST				
0000		0.0		MH				MH 68. Roots from barrel
0002		0.0		WL			5	Varies to 15%
0042		0.0		WL			25	
0045		44.8		WL			35	
0052		48.0		WL			5	Varies to 10%
0054		48.9		JN	100	1		Appears unused
0064		53.7		JN	100	2		Appears unused
0090		74.3		MH				MH 67. Flusher working
0094		74.4		FH				

# WRc Sewer Report

Inspected by: R Morris	Contract No:	Job number: 2015-061	Catchment:	Division:	District:	PLR: MH 64X		
Start date/time: 02.09.15 12:09	Road name: Frontage Rd.					Place name: Clinton		
Start Manhole No. MH 67	Depth: 2.80	Cover:	Invert:	Finish Manhole No. MH 64	Depth:	Cover:		
Use: F	Direction: U	Size 2:	Size 1: 200	Shape: C	Material: AC	Lining:		
VT No: 00078	Comments:					Pipe length: 4.0	Total length: 22.6	Year laid:
Purpose: A	Category:	Pre-cleanse: Y	Weather: 1	Location: C	Location details: From Elm			

Video No.	Photo No.	Distance	Continuous Defect	Letters	Diameter / Dimension	Numbers		Intrusion	Remarks
				code		at	to	%	mm

0000		0.0		ST						
0000		0.0		MH						MH 67.
0001		0.0		WL				15		
0003		3.5		WL				5		
0005		4.6		JN	100	1				Live.
0014		4.6		OB		4	6	5		Gasket
0032		22.4		MH						MH 64. Buried
0040		22.6		FH						



# WRc Sewer Report

Inspected by: R Morris	Contract No:	Job number: 2015-061	Catchment:	Division:	District:	PLR: MH 63AX			
Start date/time: 02.09.15 12:18	Road name: Frontage Rd.					Place name: Clinton			
Start Manhole No. MH 64	Depth:	Cover:	Invert:	Finish Manhole No. MH 63A	Depth:	Cover:	Invert:		
Use: F	Direction: U	Size 2:	Size 1: 200	Shape: C	Material: AC	Lining:	Pipe length: 4.0	Total length: 88.8	Year laid:
VT No: 00079	Comments								
Purpose: A	Category	Pre-cleanse: Y	Weather: 1	Location: C	Location details: From end of road				

Video No.	Photo No.	Distance	Continuous Defect	Letters code	Diameter / Dimension	Numbers Clock at to	Intrusion % mm	Remarks
0000		0.0		ST				
0000		0.0		MH				MH 64. Buried
0001		0.0		WL			5	
0040		38.8		JN	100	3		Live.
0073		71.4		JN	100	3		Live. Trickle flow
0102		88.6		MH				MH 63A. MH 63 on Teal
0114		88.8		FH				

# WRc Sewer Report

Inspected by: R Morris	Contract No:	Job number: 2015-061	Catchment:	Division:	District:	PLR: MH 41X
Start date/time: 02.09.15 13:10	Road name: Cariboo Ave.					Place name: Clinton
Start Manhole No. MH 41	Depth: 2.70	Cover:	Invert:	Finish Manhole No. MH 37	Depth: 1.90	Cover:
Use: F	Direction: D	Size 2:	Size 1: 250	Shape: C	Material: AC	Lining:
VT No: 00080	Comments		Pipe length: 4.0	Total length: 92.3	Year laid:	
Purpose: A	Category	Pre-cleanse: Y	Weather: 1	Location: E	Location details: From Cariboo	

Video No.	Photo No.	Distance	Continuous Defect	Letters	Diameter / Dimension	Numbers	Intrusion	Remarks
				code		at	to	%
0000		0.0		ST				
0000		0.0		MH				MH 41
0001		0.0		WL				70
0010		7.6		WL				20
0040		23.9		CX	100	10		Live. EL from service
0044		23.9		WL				5
0065		52.8		CN	100	9		Varies to 15%. DE in flow
0080		62.9		CX	100	2		Live.
0110		92.1		MH				Live. EL from interface
0114		92.3		FH				MH 37. Barrel stained

# WRc Sewer Report

Inspected by: R Morris	Contract No:	Job number: 2015-061	Catchment:	Division:	District:	PLR: MH 37X
Start date/time: 02.09.15 13:26	Road name: Smith Ave.				Place name: Clinton	
Start Manhole No. MH 37	Depth: 1.90	Cover:	Invert:	Finish Manhole No. MH 33	Depth: 3.00	Cover:
Use: F	Direction: D	Size 2:	Size 1: 250	Shape: C	Material: AC	Lining:
VT No: 00081	Comments:		Pipe length: 4.0	Total length: 106.7	Year laid:	
Purpose: A	Category:	Pre-cleanse: Y	Weather: 1	Location: E	Location details: From park at Smith	

Video No.	Photo No.	Distance	Continuous Defect	Letters	Diameter / Dimension	Numbers		Intrusion	Remarks
				code		at	to	%	mm

0000		0.0		ST					
0000		0.0		MH					MH 37. EL from barrel
0002		0.0		WL				5	Varies to 10%
0020	001	21.8		FC		12	12		EL from same
0040		36.0		WL				25	
0043	002	37.9		FC		1	11		Stained
0055		40.0		WL				5	Varies to 15%
0064		51.3		WL				45	DE in flow
0073		53.5	S1	CU					
0073		54.4	F1	CU					
0115		54.4		SA					Unknown obstruction



Northern Lites Technology Ltd.  
 4937 old Summit Lake Rd.  
 Prince George, BC.  
 V2K 5S5  
 PH: 1-800-661-6177

## Observation Report with Still Images

PLR: MH 37X Project Name: 2015 sani inspections Start date/time: 9/2/2015 1:26:58 PM Weather: 1 Inspected by: R Morris

Upstream node: MH 37 Depth US: 1.9 Downstream node: MH 33 Depth DS: 3.0 Total length: 106.7 Extra:

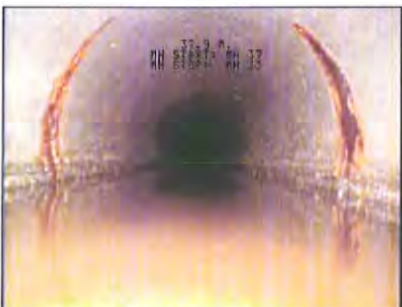
Comments

### Observations

Distance	Length	Code	Reversed	Clock Pos.	Severity	Comment
0.0		ST	No	/		
0.0		MH	No	/		MH 37. EL from barrel
0.0		WL	No	/		Varies to 10%
21.8		FC	No	12 / 12		EL from same



36.0	WL	No	/		
37.9	FC	No	1 / 11		Stained





# WRc Sewer Report

Inspected by: <b>R Morris</b>	Contract No:	Job number: <b>2015-061</b>	Catchment:	Division:	District:	PLR: <b>MH 33X</b>
Start date/time: <b>02.09.15 14:02</b>	Road name: <b>Soues St.</b>				Place name: <b>Clinton</b>	
Start Manhole No. <b>MH 33</b>	Depth: <b>3.00</b>	Cover:	Invert:	Finish Manhole No. <b>MH 32</b>	Depth: <b>2.90</b>	Cover:
Use: <b>F</b>	Direction: <b>D</b>	Size 2:	Size 1: <b>250</b>	Shape: <b>C</b>	Material: <b>AC</b>	Lining:
VT No: <b>00082</b>	Comments:			Pipe length: <b>4.0</b>	Total length: <b>124.8</b>	Year laid:
Purpose: <b>A</b>	Category:	Pre-cleanse: <b>Y</b>	Weather: <b>1</b>	Location: <b>C</b>	Location details: <b>From Dewdney</b>	

Video No.	Photo No.	Distance	Continuous Defect	Letters	Diameter / Dimension	Numbers	Intrusion	Remarks
				code		at	to	% mm

0000		0.0		ST				
0000		0.0		MH				MH 33
0001		0.0		WL			5	Varies to 15%
0010		6.9		CN	100	1		Live.
0032		31.3		CN	100	2		Live.
0042		37.4		CX	100	2		Live. Stained at interface
0060		43.2		CN	100	10		Live.
0072		53.7		CN	100	10		Live.
0082		61.6		CN	100	1		Live.
0090	001	62.0		H	25	12	1	Three. Stained
0105		69.7		CX	100	10		Live. EL at interface
0134		96.5		CX	100	12		Live. IR, EL from interface
0142	002	96.6		H	20	11		IR from same
0161		102.4		CX	100	2		Live. IR, EL at interface
0181		115.5		WL			35	
0183		116.4		CN	100	10		Live.

Video No.	Photo No.	Distance (m)	Continuous Defect	Letters code	Diameter / Dimension	Numbers Clock at to		Intrusion % mm		Remarks
0191		118.8		WL				40		
0200		124.6		MH						MH 32.
0204		124.8		FH						

Northern Lites Technology Ltd.  
 4937 old Summit Lake Rd.  
 Prince George, BC.  
 V2K 5S5  
 PH: 1-800-661-6177

## Observation Report with Still Images

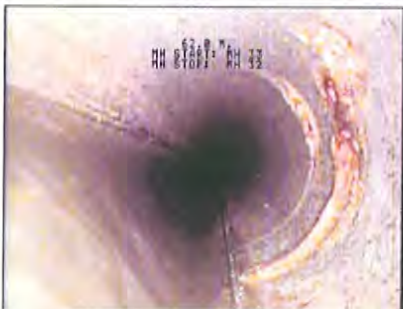
PLR: MH 33X Project Name: 2015 sani inspections Start date/time: 9/2/2015 2:02:22 PM Weather: 1 Inspected by: R Morris

Upstream node: MH 33 Depth US: 3.0 Downstream node: MH 32 Depth DS: 2.9 Total length: 124.8 Extra:

Comments

### Observations

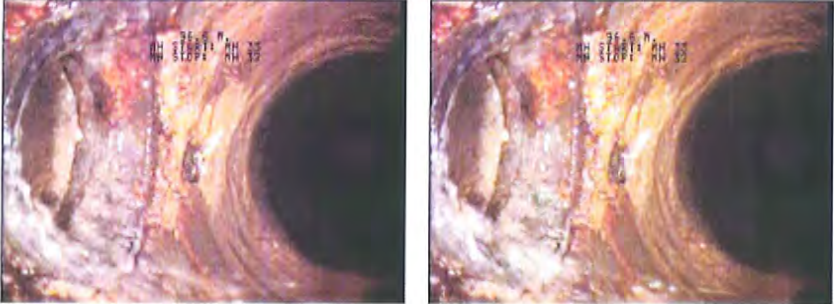
Distance	Length	Code	Reversed	Clock Pos.	Severity	Comment
0.0		MH	No	/		MH 33
0.0		ST	No	/		
0.0		WL	No	/		Varies to 15%
6.9		CN	No	1 /		Live.
31.3		CN	No	2 /		Live.
37.4		CX	No	2 /		Live. Stained at interface
43.2		CN	No	10 /		Live.
53.7		CN	No	10 /		Live.
61.6		CN	No	1 /		Live.
62.0		H	No	12 / 1		Three. Stained



69.7		CX	No	10 /		Live. EL at interface
96.5		CX	No	12 /		Live. IR, EL from interface
96.6		H	No	11 /		IR from same

Northern Lites Technology Ltd.  
 4937 old Summit Lake Rd.  
 Prince George, BC.  
 V2K 5S5  
 PH: 1-800-661-6177

## Observations

Distance	Length	Code	Reversed	Clock Pos.	Severity	Comment
						
102.4	CX	No		2 /		Live. IR, EL at interface
115.5	WL	No		/		
116.4	CN	No		10 /		Live.
118.8	WL	No		/		
124.6	MH	No		/		MH 32.
124.8	FH	No		/		



# WRc Sewer Report

Inspected by: <b>R Morris</b>	Contract No:	Job number: <b>2015-061</b>	Catchment:	Division:	District:	PLR: <b>MH 32X</b>
Start date/time: <b>02.09.15 14:26</b>	Road name: <b>Soues St.</b>				Place name: <b>Clinton</b>	
Start Manhole No. <b>MH 32</b>	Depth: <b>2.90</b>	Cover:	Invert:	Finish Manhole No. <b>MH 20</b>	Depth: <b>2.80</b>	Cover:
Use: <b>F</b>	Direction: <b>D</b>	Size 2:	Size 1: <b>250</b>	Shape: <b>C</b>	Material: <b>AC</b>	Lining:
VT No: <b>00083</b>	Comments:		Pipe length: <b>4.0</b>	Total length: <b>132.4</b>	Year laid:	
Purpose: <b>A</b>	Category:	Pre-cleanse: <b>Y</b>	Weather: <b>1</b>	Location: <b>C</b>	Location details: <b>To LeBourdais</b>	

Video No.	Photo No.	Distance	Continuous Defect	Letters	Diameter / Dimension	Numbers	Intrusion	Remarks
				code		at	to	% mm
0000		0.0		ST				
0000		0.0		MH				MH 32
0001		0.0		WL			25	
0004		2.5		WL			5	Varies to 15%
0005		2.5		CN	100	1		Live. Light flow
0020		9.1		CX	100	11		Live. EL from interface
0034		21.0		WL			25	
0042		28.5		CN	100	1		Live.
0050		29.3		WL			5	
0052		30.2		CN	100	10		Live.
0061		31.7		CN	100	2		Live.
0065		31.7		WL			25	
0084		50.3		CN	100	10		Live.
0090		50.3		WL			10	Continues to vary to 25%
0101		62.7		CN	100	9		Live.
0110		68.2		CN	100	1		Live.

Video No.	Photo No.	Distance (m)	Continuous Defect	Letters code	Diameter / Dimension	Numbers Clock at to		Intrusion % mm		Remarks
0123		80.0		WL				40		
0133		88.0		CX	100	11				Live. EL at interface
0142		88.5		WL				10		Continues to vary
0153		99.0		CX	100	2				Live. EL at interface
0170		101.8		CX	100	10				Appears unused. EL from same
0183		106.5		CX	100	2				Live. EL from interface
0193		107.4		CX	100	10				Live. EL from interface
0214		111.8		DES				25		
0215		111.8		SA						Cannot pass DES

# WRc Sewer Report

Inspected by: R Morris	Contract No:	Job number: 2015-061	Catchment:	Division:	District:	PLR: MH 67X
Start date/time: 02.09.15 15:24	Road name: Frontage Rd.					Place name: Clinton
Start Manhole No. MH 67	Depth: 2.80	Cover:	Invert:	Finish Manhole No. MH 4B	Depth: 2.20	Cover:
Use: F	Direction: D	Size 2:	Size 1: 250	Shape: C	Material: ST	Lining:
VT No: 00084	Comments:		Pipe length: 6.0	Total length:	Year laid:	
Purpose: A	Category:	Pre-cleanse: Y	Weather: 1	Location: A	Location details: Across Hwy 97.	

Video No.	Photo No.	Distance	Continuous Defect	Letters	Diameter / Dimension	Numbers	Intrusion	Remarks
				code		Clock		
						at	to	%
								mm

0000		0.0		ST					
0000		0.0		MH					MH 67.
0001		0.0		WL				5	
0023		0.1	S1	SSS		7	4		Beginning to rust
0021		7.9	S2	DES				5	
0021		11.7	F2	DES				5	
0033		11.7		LD					
0063		35.1		MH					Unplotted. Inside drop. Buried
0023		35.1	F1	SSS		7	4		Beginning to rust
0075		35.4		SA					At unplotted MH



# WRc Sewer Report

Inspected by: R Morris	Contract No:	Job number: 2015-061	Catchment:	Division:	District:	PLR: MJH 4BX
Start date/time: 02.09.15 16:07	Road name: Field easement					Place name: Clinton
Start Manhole No. MH 4B	Depth: 2.20	Cover:	Invert:	Finish Manhole No. MH 4A	Depth:	Cover:
Use: F	Direction: D	Size 2:	Size 1: 200	Shape: C	Material: AC	Lining:
VT No: 00085	Comments:			Pipe length: 4.0	Total length: 69.9	Year laid:
Purpose: A	Category:	Pre-cleanse: Y	Weather: 1	Location: E	Location details: From cemetery gate	

Video No.	Photo No.	Distance	Continuous Defect	Letters	Diameter / Dimension	Numbers	Intrusion	Remarks
				code		at	to	%
								mm

0000		0.0		ST					
0000		0.0		MH					MH 4B
0001		0.0		WL				5	
0033		44.5		GO					Pipe appears good and clean
0055		69.4		MH					MH 4A. Inside drop
0073		69.6		FH					



# WRc Sewer Report

Inspected by: R Morris	Contract No:	Job number: 2015-061	Catchment:	Division:	District:	PLR: MH 4AX
Start date/time: 02.09.15 16:41	Road name: Field easement					Place name: Clinton
Start Manhole No. MH 4	Depth: 1.30	Cover:	Invert:	Finish Manhole No. MH 4A	Depth:	Cover:
Use: F	Direction: U	Size 2:	Size 1: 200	Shape: C	Material: AC	Lining:
VT No: 00086	Pipe length: 4.0		Total length: 57.1		Year laid:	
Comments						
Purpose: A	Category	Pre-cleanse: Y	Weather: 1	Location: E	Location details: Past cemetery	

Video No.	Photo No.	Distance	Continuous Defect	Letters	Diameter / Dimension	Numbers	Intrusion	Remarks
				code		at	to	%
								mm

0000		0.0		ST					
0000		0.0		MH					MH 4
0001		0.0		WL				5	
0032		35.3		GO					Pipe appears good and clean
0064		56.9		MH					MH 4A
0071		57.1		FH					

# WRc Sewer Report

Inspected by:	Contract No:	Job number:	Catchment:	Division:	District:	PLR: MH 3X
Start date/time: 03.09.15 08:56	Road name: Field easement					Place name: Clinton
Start Manhole No. MH 3	Depth: 2.10	Cover:	Invert:	Finish Manhole No. MH 2	Depth: 2.00	Cover:
Use: F	Direction: D	Size 2:	Size 1: 250	Shape: C	Material: AC	Lining:
VT No: 00087	Comments:					Pipe length: 4.0
Purpose:	Category	Pre-cleanse:	Weather:	Location: E	Location details: From next to Shed	Total length: 85.2
						Year laid:

Video No.	Photo No.	Distance	Continuous Defect	Letters	Diameter / Dimension	Numbers	Intrusion	Remarks
				code		at	to	%
								mm

0000		0.0		ST					
0000		0.0		MH					MH 3
0000		0.0		WL				45	
0002		1.0		CN	100	11			Live. Trickle flow
0015		8.0		WL				35	
0024		14.0		WL				25	Varies to 45
0053		14.0		GO					DES under flow
0083		64.7		FC		12	12		May be joint
0095		64.8		SA					Cannot pass DES

# WRc Sewer Report

Inspected by: <b>R Morris</b>	Contract No:	Job number: <b>2015-061</b>	Catchment:	Division:	District:	PLR: <b>MH 37X</b>
Start date/time: <b>09.09.15 22:32</b>	Road name: <b>Smith Ave.</b>					Place name: <b>Clinton</b>
Start Manhole No. <b>MH 37</b>	Depth: <b>1.90</b>	Cover:	Invert:	Finish Manhole No. <b>MH 33</b>	Depth: <b>3.00</b>	Cover: Invert:
Use: <b>F</b>	Direction: <b>D</b>	Size 2:	Size 1: <b>250</b>	Shape: <b>C</b>	Material: <b>AC</b>	Lining: Pipe length: <b>4.0</b> Total length: <b>106.7</b> Year laid:
VT No: <b>00088</b>		Comments:				
Purpose: <b>H</b>	Category:	Pre-cleanse: <b>Y</b>	Weather: <b>1</b>	Location: <b>E</b>	Location details: <b>From park at Smith</b>	

Video No.	Photo No.	Distance	Continuous Defect	Letters code	Diameter / Dimension	Numbers Clock at to	Intrusion % mm	Remarks
0000		0.0		ST				
0000		0.0		MH				MH 37
0002		0.0		WL			10	Varies to 10%
0021	001	22.0		ELJ		7 5	5	May be FC
0042		34.8		WL			20	
0045		37.0		WL			35	
0052	002	37.7		FC		12 12		Stained
0065		40.0		WL			10	Varies to 10%
0074		48.5		WL			20	
0082		51.4		WL			40	
0091		53.0	S1	DEG		9 3	5	
0100		54.0	S2	CU				
0134		63.5		WL			15	Varies to 10%
0140		63.5		GO				Lens blurry from CU
0091		63.5	F1	DEG		9 3	5	
0100		63.5	F2	CU				

Video No.	Photo No.	Distance (m)	Continous Defect	Letters code	Diameter / Dimension	Numbers Clock at to		Intrusion % mm		Remarks
0194		63.6		GO						Lens cleaned
0231		106.6		MH						MH 33
0241		106.7		FH						



# WRc Sewer Report

Inspected by: <b>R Morris</b>	Contract No:	Job number: <b>2015-061</b>	Catchment:	Division:	District:	PLR: <b>MH 32X</b>
Start date/time: <b>09.09.15 23:16</b>	Road name: <b>Soues St.</b>					Place name: <b>Clinton</b>
Start Manhole No. <b>MH 20</b>	Depth: <b>2.80</b>	Cover:	Invert:	Finish Manhole No. <b>MH 32</b>	Depth: <b>2.90</b>	Cover:
Use: <b>F</b>	Direction: <b>U</b>	Size 2:	Size 1: <b>250</b>	Shape: <b>C</b>	Material: <b>AC</b>	Lining:
VT No: <b>00089</b>	Pipe length: <b>4.0</b>					Total length: <b>132.4</b>
Comments:						
Purpose: <b>H</b>	Category:	Pre-cleanse: <b>Y</b>	Weather: <b>1</b>	Location: <b>C</b>	Location details: <b>To LeBourdais</b>	

Video No.	Photo No.	Distance	Continuous Defect	Letters	Diameter / Dimension	Numbers	Intrusion	Remarks
				code		at	to	%
								mm

0000		0.0		ST					
0000		0.0		MH					MH 20
0001		0.0		WL				10	
0005		4.2		EMJ		7	5	20	
0020		4.2		OJM					
0030		15.2		WL				30	
0033		21.0		WL				40	
0035		24.9		CN	100	2			Appears unused but stained
0045		25.8		CX	100	9			Live.. EL, ID at interface
0061		30.4		CN	100	2			Appears unused but stained
0071		33.2		CX	100	10			Live. EL at interface
0085		44.2		CX	100	2			Live. EL at interface
0094		44.2		SA					Overlap of previous report

# WRc Sewer Report

Inspected by: R Morris	Contract No:	Job number: 2015-061	Catchment:	Division:	District:	PLR: MH 20X
Start date/time: 09.09.15 23:34	Road name: LeBoudais Ave				Place name: Clinton	
Start Manhole No. MH 20	Depth: 2.80	Cover:	Invert:	Finish Manhole No. MH 9	Depth: 2.50	Cover:
Use: F	Direction: D	Size 2:	Size 1: 250	Shape: C	Material: AC	Lining:
VT No: 00090	Pipe length: 4.0		Total length: 70.0		Year laid:	
Comments:						
Purpose: A	Category:	Pre-cleanse: Y	Weather: 1	Location: C	Location details: To end of LeBourdais	

Video No.	Photo No.	Distance	Continuous Defect	Letters	Diameter / Dimension	Numbers	Intrusion	Remarks
				code		at	to	%
								mm

0000		0.0		ST					
0000		0.0		MH					MH 20
0000		0.0		WL				10	
0021		25.8		CN	100	10			Live.
0041		44.0		CX	100	10			Live. Light flow. EL
0060		56.9		CN	100	10			Live.
0065		57.3		ELJ		7	10	5	Trace. Stained
0080		60.0	S1	DEG		10	2	5	Trace. Varies
0080		64.0	F1	DEG		10	2	5	Trace. Varies
0091		69.7		MH					MH 9. EL, stained lower barrel
0102		70.0		FH					

# WRc Sewer Report

Inspected by: R Morris	Contract No:	Job number: 2015-061	Catchment:	Division:	District:	PLR: MH 9X
Start date/time: 09.09.15 23:57	Road name: LeBourdais Ave.					Place name: Clinton
Start Manhole No. MH 9	Depth: 2.50	Cover:	Invert:	Finish Manhole No. MH 8	Depth: 2.20	Cover:
Use: F	Direction: D	Size 2:	Size 1: 250	Shape: C	Material: AC	Lining:
VT No: 00091	Comments:		Pipe length: 4.0	Total length: 93.1	Year laid:	
Purpose: A	Category:	Pre-cleanse: Y	Weather: 1	Location: E	Location details: Easement to Foster	

Video No.	Photo No.	Distance	Continuous Defect	Letters	Diameter / Dimension	Numbers	Intrusion	Remarks
				code		at	to	%
0000		0.0		ST				
0000		0.0		MH				MH 9. EL, IS from lower barrel
0003		0.0		WL			10	Varies 5-15%
0064		83.7		GO				Pipe appears good and clean
0075		92.9		MH				MH 8. Barrel offset. EL, stain
0090		93.1		FH				



# WRc Sewer Report

Inspected by: R Morris	Contract No:	Job number: 2015-061	Catchment:	Division:	District:	PLR: MH 8X
Start date/time: 10.09.15 00:10	Road name: Foster Ave.					Place name: Clinton
Start Manhole No. MH 8	Depth: 2.20	Cover:	Invert:	Finish Manhole No. MH 7	Depth: 1.90	Cover:
Use: F	Direction: D	Size 2:	Size 1: 250	Shape: C	Material: AC	Lining:
VT No: 00092	Comments					Year laid:
Purpose: A	Category	Pre-cleanse: Y	Weather: 1	Location: E	Location details: Easement to McDonald	
Pipe length: 4.0	Total length: 100.3					

Video No.	Photo No.	Distance	Continuous Defect	Letters	Diameter / Dimension	Numbers	Intrusion	Remarks
				code		at	to	%
								mm

0000		0.0		MH					MH 8. Barrel offset. EL
0000		0.0		ST					
0003		0.0		WL				10	Varies 5-15%
0021		17.8		WL				25	
0031		26.8		WL				10	Varies 5-15%
0060		61.2		WL				25	
0063		63.2		WL				35	
0065		66.5		WL				10	Varie 5-15%
0075		77.8		WL				30	
0084		86.9		WL				10	Varies to 15%
0095		100.1		MH					MH 7. Barrel stained
0103		100.1		FH					



# WRc Sewer Report

Inspected by: R Morris	Contract No:	Job number: 2015-061	Catchment:	Division:	District:	PLR: MH 7X
Start date/time: 10.09.15 00:39	Road name: McDonald Ave.				Place name: Clinton	
Start Manhole No. MH 7	Depth: 1.90	Cover:	Invert:	Finish Manhole No. MH 6	Depth: 2.90	Cover:
Use: F	Direction: D	Size 2:	Size 1: 250	Shape: C	Material: AC	Lining:
VT No: 00093	Comments:		Pipe length: 4.0	Total length:	Year laid:	
Purpose: A	Category:	Pre-cleanse: Y	Weather: 1	Location: E	Location details: Easement from McDonald.	

Video No.	Photo No.	Distance	Continuous Defect	Letters	Diameter / Dimension	Numbers	Intrusion	Remarks
				code		at	to	%
								mm
0000		0.0		MH				
0000		0.0		ST				
0001		0.0		WL				40
0002		0.1	S1	DES				35
0002		2.5	F1	DES				35
0083		2.5		SA				
								Cannot pass DES

# WRc Sewer Report

Inspected by: R Morris	Contract No:	Job number: 2015-061	Catchment:	Division:	District:	PLR: MH 6X
Start date/time: 10.09.15 01:04	Road name: Tingley St.				Place name: Clinton	
Start Manhole No. MH 6	Depth: 2.90	Cover:	Invert:	Finish Manhole No. MH 5	Depth:	Cover:
Use: F	Direction: D	Size 2:	Size 1: 250	Shape: C	Material: AC	Lining:
VT No: 00094	Pipe length: 4.0		Total length: 85.2		Year laid:	
Comments:						
Purpose: A	Category:	Pre-cleanse: Y	Weather: 1	Location: E	Location details: Sheep pasture	

Video No.	Photo No.	Distance	Continuous Defect	Letters	Diameter / Dimension	Numbers	Intrusion	Remarks
				code		at	to	%
								mm

0000		0.0		ST					
0000		0.0		MH					MH 6. Barrel wet, stained
0001		0.0		WL				10	
0022		26.3	S1	DEG		10	2	5	Trace. Varies
0022		30.3	F1	DEG		10	2	5	Trace. Varies
0032		30.9		ISJ		9	12	5	EL from same
0053	001	49.9		SSM		10	12		EL from same
0072		55.4		SSL	50	10			
0103		85.0		MH					MH 5
0112		85.2		FH					

# WRc Sewer Report

Inspected by: R Morris	Contract No:	Job number: 2015-061	Catchment:	Division:	District:	PLR: MH 5X
Start date/time: 10.09.15 01:19	Road name: Easement behind cemetery					Place name: Clinton
Start Manhole No. MH 5	Depth:	Cover:	Invert:	Finish Manhole No. MH 4	Depth: 1.30	Cover:
Use: F	Direction: D	Size 2:	Size 1: 250	Shape: C	Material: AC	Lining:
VT No: 00095	Comments:					Pipe length: 4.0
Purpose: A	Category:	Pre-cleanse: Y	Weather: 1	Location: E	Total length: 117.2	Year laid:
Location details:						

Video No.	Photo No.	Distance	Continuous Defect	Letters	Diameter / Dimension	Numbers	Intrusion	Remarks
				code		at	to	%
								mm

0000		0.0		ST					
0000		0.0		MH					MH 5
0001		0.0		WL				10	
0003		2.0		WL				30	
0005		3.6		WL				40	
0021		15.0		WL				10	
0023		17.2		SSL	50	1			
0030		18.0		WL				25	
0040		27.0		WL				40	
0043		31.5		WL				20	
0053		39.5		WL				10	Varies to 20%
0105		104.3		WL				35	
0112		107.5		WL				45	
0120		112.5		WL				15	
0124		116.9		MH					MH 4.
0132		117.2		FH					



# WRc Sewer Report

Inspected by: R Morris	Contract No:	Job number: 2015-061	Catchment:	Division:	District:	PLR: MH 7X
Start date/time: 10.09.15 01:42	Road name: McDonald Ave.					Place name: Clinton
Start Manhole No. MH 6	Depth: 2.90	Cover:	Invert:	Finish Manhole No. MH 7	Depth: 1.90	Cover:
Use: F	Direction: U	Size 2:	Size 1: 250	Shape: C	Material: AC	Lining:
VT No: 00096	Pipe length: 4.0					Total length:
Comments						
Purpose: H	Category	Pre-cleanse: Y	Weather: 1	Location: E	Location details: Easement from McDonald.	

Video No.	Photo No.	Distance	Continuous Defect	Letters	Diameter / Dimension	Numbers	Intrusion	Remarks
				code		at	to	%
								mm

0000		0.0		MH					MH 6. Stained
0000		0.0		ST					
0002		0.0		WL				10	
0003		1.7		WL				20	
0023		17.4		SA					Requires re-cleaning



# WRc Sewer Report

Inspected by: R Morris	Contract No:	Job number: 2015-061	Catchment:	Division:	District:	PLR: MH 7X
Start date/time: 10.09.15 13:39	Road name: McDonald Ave.					Place name: Clinton
Start Manhole No. MH 7	Depth: 1.90	Cover:	Invert:	Finish Manhole No. MH 6	Depth: 2.90	Cover:
Use: F	Direction: D	Size 2:	Size 1: 250	Shape: C	Material: AC	Lining:
VT No: 00097	Comments					Pipe length: 4.0
Purpose: H	Category	Pre-cleanse: Y	Weather: 1	Location: E	Location details: Easement from McDonald.	
Total length: Year laid:						

Video No.	Photo No.	Distance	Continuous Defect	Letters	Diameter / Dimension	Numbers	Intrusion	Remarks
				code		at	to	%
0000		0.0		ST				
0000		0.0		MH				MH 7
0001		0.0		WL				25
0010		3.5		DES				35
0023		4.3		SA				Cannot pass DES

# WRc Sewer Report

Inspected by: R Morris	Contract No:	Job number: 2015-061	Catchment:	Division:	District:	PLR: MH 4X
Start date/time: 10.09.15 14:02	Road name: Easement off W subdivision Rd.					Place name: Clinton
Start Manhole No. MH 4	Depth: 1.30	Cover:	Invert:	Finish Manhole No. MH 3	Depth: 2.10	Cover:
Use: F	Direction: D	Size 2:	Size 1: 250	Shape: C	Material: AC	Lining:
VT No: 00098	Comments:					Pipe length: 4.0
Purpose: A	Category:	Pre-cleanse: Y	Weather: 1	Location: E	Location details: From rear corner of cemetery	Total length: 42.7
						Year laid:

Video No.	Photo No.	Distance	Continuous Defect	Letters	Diameter / Dimension	Numbers	Intrusion	Remarks
				code		at	to	%
0000		0.0		ST				
0000		0.0		MH				MH 4
0001		0.0		WL				15
0003		1.7		WL				25
0043		41.6		GO				Varies 15-25%
0051		42.5		MH				Pipe clean. WL varies
0055		42.7		FH				MH 3

# WRc Sewer Report

Asset ID: SS.003  
Criticality: 5 (High)  
From MH.004 to MH.003

Inspected by: R Morris	Contract No:	Job number: 2015-061	Catchment:	Division:	District:	PLR: MH 3X
Start date/time: 10.09.15 14:13	Road name: Field easement				Place name: Clinton	
Start Manhole No. MH 3	Depth: 2.10	Cover:	Invert:	Finish Manhole No. MH 2	Depth: 2.00	Cover:
Use: F	Direction: D	Size 2:	Size 1: 250	Shape: C	Material: AC	Lining:
VT No: 00099	Comments:				Pipe length: 4.0	Total length: 85.2
Purpose: H	Category:	Pre-cleanse: Y	Weather: 1	Location: E	Location details: From next to Shed	

Video No.	Photo No.	Distance	Continuous Defect	Letters	Diameter / Dimension	Numbers	Intrusion	Remarks
				code		at	to	%
								mm
0000		0.0		ST				
0000		0.0		MH				MH 3
0001		0.0		WL			20	Varies 15-25%
0003		0.8		CNI	100	12		20
0071		71.4		WL			45	Live. Trickle flow
0082		78.7		CN	100	12		Live.
0101		84.4		WL			10	MH 2
0111		85.2		FH				

2013 Re-lining

2014 re-lining

2015 Video Inspection Report