

**City and County of Honolulu**

# **2010 Wastewater Consent Decree**

**Civil No. 94-00765 DAE-KSC**

## **Annual Report**

**Year Three**

**(July 1, 2012 – June 30, 2013)**



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The Department of Environmental Services

Submitted:  
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## Acronyms and Abbreviations

<b>Acronym or Abbreviation</b>	<b>Description</b>
ACP	Asbestos Cement Pipe
ARV	Air Release Valve
BWS	Board of Water Supply
CA	Condition Assessment
CCH	City & County of Honolulu
CCP	Concrete Cylinder Pipe
CCTV	Closed-Circuit Television
CD	Global Consent Decree - signed December 17, 2010
CIP	Capital Improvement Program
CIP	Cast Iron Pipe
CIPP	Cured In Place Piping
CMMS	Computerized Maintenance Management System
COR	Corporation Counsel - CCH
CSM	Division of Collection System Maintenance
CWA	Clean Water Act
DDC	Department of Design and Construction
DFM	Department of Facility Maintenance
DIP	Ductile Iron Pipe
DOH	State of Hawaii Department of Health
DOT	State of Hawaii Department of Transportation
DPP	Department of Planning and Permitting
ENV	Department of Environmental Services
EPA	United States Environmental Protection Agency
EPS	Effluent Pump Station
EQ	Division of Environmental Quality
FCA	Flange Coupling Adaptor
FM	Force Main
FOG	Fats, Oils and Grease
FSE	Food Service Establishment

<b>Acronym or Abbreviation</b>	<b>Description</b>
FTE	Full-Time Equivalent
GCD	Global Consent Decree - signed December 17, 2010
GI	Grease Interceptor
GIS	Geographic Information Systems
GM	Gravity Main
GRD	Grease Removal Device
HDPE	High Density Polyethylene
I/I	Infiltration and Inflow
IDIQ	Indefinite Delivery, Indefinite Quantity
IPS	Influent Pump Station
LOW	Letter of Warning
M&C	Department of Environment Services, Division of Environmental Quality, Monitoring and Compliance Branch
MG	Million Gallons
MGD	Million Gallons per Day
MH	Man Hole
N/A	Not applicable
NASSCO	National Association of Sewer Service Companies
NOV	Notice of Violation
NTP	Notice to Proceed
O&M	Operation and Maintenance
PACP	Pipeline Assessment and Certification Program
PM	Preventative Maintenance
PMH	Pressure Man Hole
POTW	Publicly Owned Treatment Works
PS	Pump Station
PTF	Preliminary Treatment Facility
PVC	Polyvinyl Chloride
R&R	Rehabilitation and Replacement
RC	Department of Environmental Services, Division of Environmental Quality, Regulatory Control Branch

<b>Acronym or Abbreviation</b>	<b>Description</b>
RCP	Reinforced Concrete Pipe
Rehab	Rehabilitation
ROW	Right-of-way
SCADA	Supervisory Control and Data Acquisition
SCP	Spill Contingency Plan
SMH	Sewer Man Hole
SOP	Standard Operating Procedure
SSO	Sanitary Sewer Overflow
STL	Steel
T&D	Treatment & Disposal - CCH
TBD	To Be Determined
TDH	Total Dynamic Head
UT	Ultrasonic Testing
WDV	Waste Discharge Violation
WTD	Division of Wastewater Treatment and Disposal
WWPS	Wastewater Pump Station
WWTP	Wastewater Treatment Plant

## **Introduction**

On December 17, 2010 the Consent Decree, subsequently amended, was entered among the City and County of Honolulu, the United States Environmental Protection Agency, and the Hawaii Department of Health and several non-governmental organizations. The consent decree outlines a program of improvements to the wastewater collection and treatment systems on the island of Oahu.

The City and County of Honolulu (CCH) has prepared this Annual Report pursuant to Paragraph 34 of the First Amended Consent Decree (CD) to describe the progress achieved in implementing these improvements. Paragraphs 34.c and 34.d of the CD describe the information that is to be included in the Annual Report. This Annual Report summarizes CCH's progress during Year Three of the CD ending on June 30, 2013.

This Annual Report is available on CCH's web site at <http://www1.honolulu.gov/env/wwm/>.

## **Annual Report Structure**

The content and structure of the Annual Report are based on the requirements set forth in Paragraphs 11 through 33. The Annual Report's sections appear in alphabetical order ("A" through "V") and correspond to Paragraphs 11 through 33 of the CD; however, Paragraph 21 of the CD addresses the modification of construction deadlines, and since there are no modifications to report, this paragraph is not included in the Annual Report. Shaded table entries indicate that the requirement has been completed.

The CD identifies several types of requirements, including

- Compliance milestones
- Interim compliance milestones
- Performance requirements
- Annual performance requirements
- Other CD due dates.

## **A. Force Main Spill Contingency Program (Paragraph 11)**

### ***Small Force Main Tankering (Paragraph 11.a)***

CCH has maintained no less than 1.6 million gallons per day (mgd) tankering capacity in good working order at all times. In the event a CCH vehicle is unavailable for any reason, CCH maintains a list of contractors available to provide tankering capacity. In Year Three CCH did utilize contractors to provide tankering capacity during small force main spill events.

## ***Large Force Mains (Paragraph 11.b)***

### **Flow Diversion Equipment (Paragraph 11.b.ii)**

Table 1. Flow Diversion Equipment Requirements

<b>Requirement</b>	<b>Due Date</b>	<b>Status</b>
Awa Street Force Main Flow Diversion Equipment	12/17/2012	Overflow diverts to Hart St. pump station.
Fort DeRussy Force Main Flow Diversion Equipment	12/17/2012	Overflow diverts to Beachwalk pump station.
Kaneohe Bay Force Main No. 1 Flow Diversion Equipment	12/17/2012	Flow diversion equipment in place.
Kunia Force Main Flow Diversion Equipment	12/17/2012	Flow diversion equipment in place.

### **Flow Diversion Planning (Paragraph 11.b.iii)**

Table 2. Flow Diversion Planning Requirements

<b>Requirement</b>	<b>Due Date</b>	<b>Status</b>
Kamehameha Highway Force Main Flow Diversion Plan	12/17/2011	CCH submitted the Kamehameha Highway Force Main Flow Diversion Plan on 12/16/2011. EPA and DOH approved the Plan on 1/30/2012.
Ewa Beach Force Main Flow Diversion Plan	12/31/2014	
Halawa Force Main Flow Diversion Plan	12/31/2014	
Waimalu Force Main Flow Diversion Plan	12/31/2015	CCH submitted the Waimalu Force Main Flow Diversion Plan on 5/16/2013.

Table 3. Flow Diversion Construction Requirements

<b>Requirement</b>	<b>Compliance Milestone</b>	<b>Status</b>
Kamehameha Highway Force Main Rehabilitation - Slip lining	Design NTP: 07/01/2017; Construction NTP: 12/31/2018; Complete Construction: 06/30/2020	

## Lualualei Force Main (Paragraph 11.b.iv)

Table 4. Lualualei Force Main Requirements

Requirement	Compliance Milestone	DDC Serial Number	Status
Lualualei Parallel Dry Force Main Construction	Complete Construction: 12/31/2013	08-0100	Construction in progress.

## Spill Contingency Planning (Paragraph 11.c)

### Small Force Main Spill Contingency Planning (Paragraph 11.c.i)

Table 5. Small Force Main Spill Contingency Planning Requirements

Requirement	Due Date	Status
Small Force Main Spill Contingency Plan - Programmatic	12/17/2011	CCH submitted the Small Force Main Flow Contingency Plan - Programmatic on 12/16/2011. EPA and DOH approved the Plan on 1/30/2012. Plans, modified for site specific conditions, are maintained at each Pump Station.

### Large Force Main Spill Contingency Planning (Paragraph 11.c.ii)

Table 6. Large Force Main Spill Contingency Planning Requirements

Requirement	Due Date	Status
Ewa Beach Force Main Spill Contingency Plan	12/17/2011	CCH submitted the Force Main Spill Contingency Plan on 12/16/2011. EPA and DOH approved the Plan on 1/30/2012. Copy of Plan is maintained at Pump Station.
Halawa Force Main Spill Contingency Plan	12/17/2011	CCH submitted the Force Main Spill Contingency Plan on 12/16/2011. EPA and DOH approved the Plan on 1/30/2012. Copy of Plan is maintained at Pump Station.
Kamehameha Highway Force Main Spill Contingency Plan	12/17/2011	CCH submitted the Force Main Spill Contingency Plan on 12/16/2011. EPA and DOH approved the Plan on 1/30/2012. Copy of Plan is maintained at Pump Station.
Lualualei Force Main Spill Contingency Plan	12/17/2011	CCH submitted the Force Main Spill Contingency Plan on 12/16/2011. EPA and DOH approved the Plan on 1/30/2012. Copy of Plan is maintained at Pump Station.

<b>Requirement</b>	<b>Due Date</b>	<b>Status</b>
Kailua Heights Force Main Spill Contingency Plan	6/17/2012	CCH submitted the Force Main Spill Contingency Plan on 6/17/2012. EPA and DOH approved the Plan on 1/9/2013. Copy of Plan is maintained at Pump Station.
Kailua Road Force Main Spill Contingency Plan	6/17/2012	CCH submitted the Force Main Spill Contingency Plan on 6/17/2012. EPA and DOH approved the Plan on 1/9/2013. Copy of Plan is maintained at Pump Station.
Ahuimanu Force Main Spill Contingency Plan	12/17/2012	CCH submitted the Force Main Spill Contingency Plan on 12/7/2012. EPA and DOH approved the Plan on 1/9/2013. Copy of Plan is maintained at Pump Station.
Niu Valley Force Main Spill Contingency Plan	12/17/2012	CCH submitted the Force Main Spill Contingency Plan on 12/7/2012. EPA and DOH approved the Plan on 1/9/2013. Copy of Plan is maintained at Pump Station.

## **Spill Contingency Plans Required by 2007 Stipulated Order (Paragraph 11.c.iii)**

**Table 7. Spill Contingency Plans Required by 2007 Stipulated Order**

<b>Requirement</b>	<b>Due Date</b>	<b>Status</b>
Ala Moana Force Main No. 2 Spill Contingency Plan	N/A	CCH submitted a revised Force Main Spill Contingency Plan on 8/31/2011. EPA and DOH approved the Plan on 1/30/2012. Copy of Plan is maintained at Pump Station.
Beachwalk Force Main Spill Contingency Plan	N/A	CCH submitted a revised Force Main Spill Contingency Plan on 8/31/2011. EPA and DOH approved the Plan on 1/30/2012. Copy of Plan is maintained at Pump Station.
Hart Street Force Main Spill Contingency Plan	N/A	CCH submitted a revised Force Main Spill Contingency Plan on 8/31/2011. EPA and DOH approved the Plan on 1/30/2012. Copy of Plan is maintained at Pump Station.
Kahala Force Main Spill Contingency Plan	N/A	CCH submitted a revised Force Main Spill Contingency Plan on 8/31/2011. EPA and DOH approved the Plan on 1/30/2012. Copy of Plan is maintained at Pump Station.

Requirement	Due Date	Status
Kaneohe/Kailua Force Main Spill Contingency Plan	N/A	CCH submitted a revised Force Main Spill Contingency Plan on 8/31/2011. EPA and DOH approved the Plan on 1/30/2012. Copy of Plan is maintained at Pump Station.
Waimalu Force Main Spill Contingency Plan	N/A	CCH submitted a revised Force Main Spill Contingency Plan on 8/31/2011. EPA and DOH approved the Plan on 1/30/2012. Copy of Plan is maintained at Pump Station.

## Drills and Annual Reviews of Spill Contingency Plans (Paragraph 11.c.iv)

Table 8. Requirements for Spill Contingency Plan Drills

Requirement	CD Year	Compliance Milestone	Status
All of the following must be drilled by 6/30/2016:			
Kaneohe/Kailua Force Main Spill Contingency Plan Drill	Year One	6/30/2011	CCH performed a drill of the spill contingency plan on the Kaneohe/Kailua force main on 9/16/2010. CCH prepared a summary report and submitted it to EPA and DOH on 3/30/2011. Considering the timing of the conditional approval of the original six spill contingency plans, and that the Kaneohe/Kailua Force Main Spill Contingency Plan was approved subject to one minor condition, EPA and DOH agreed to accept this drill in satisfaction of the Year One requirement.
Kahala Force Main Spill Contingency Plan Drill	Year Two	6/30/2012	CCH performed a drill of the spill contingency plan on the Kahala force main on 6/21/2012.
Hart Street Force Main Spill Contingency Plan Drill	Year Three	6/30/2013	CCH performed a drill of the spill contingency plan on the Hart Street force main on 6/5/2013.
Spill Contingency Plan Drills for Ala Moana Force Main No. 2, Beachwalk Force Main, and Waimalu Force Main	Year Four	6/30/2014	
	Year Five	6/30/2015	
	Year Six	6/30/2016	
All of the following must be drilled by 6/30/2020:			
Spill Contingency Plan Drills for Ahuimanu Force Main, Ewa Beach Force Main, Halawa	Year Seven	6/30/2017	
	Year Eight	6/30/2018	
	Year Nine	6/30/2019	
	Year Ten	6/30/2020	

Requirement	CD Year	Compliance Milestone	Status
Force Main, Kailua Heights Force Main, Kailua Road Force Main, Kamehameha Highway Force Main, Lualualei Force Main, and Niu Valley Force Main			
Note: SCPs will be reviewed annually and revised as necessary to address any changed conditions.			

## B. Force Main Condition Assessments and Follow-Up Action Plans (Paragraph 12)

### *Condition Assessment Reports Pursuant to 2007 Stipulated Order (Paragraph 12.a)*

Table 9. Condition Assessment Reports Pursuant to 2007 Stipulated Order

Requirement	Due Date	Status
Ala Moana Force Main No. 2 Condition Assessment Report	N/A	CCH submitted a revised Force Main Condition Assessment Report on 1/14/2011. EPA and DOH approved this Report on 5/18/2011.
Beachwalk Force Main Condition Assessment Report	N/A	CCH submitted a revised Force Main Condition Assessment Report on 1/14/2011. EPA and DOH approved this Report on 5/18/2011.
Hart Street Force Main Condition Assessment Report	N/A	CCH submitted a revised Force Main Condition Assessment Report on 1/14/2011. EPA and DOH approved this Report on 5/18/2011.
Kahala Force Main Condition Assessment Report	N/A	CCH submitted a revised Force Main Condition Assessment Report on 1/14/2011. EPA and DOH approved this Report on 5/18/2011.
Kaneohe/Kailua Force Main Condition Assessment Report	N/A	CCH submitted a revised Force Main Condition Assessment Report on 1/14/2011. EPA and DOH approved this Report on 5/18/2011.
Waimalu Force Main Condition Assessment Report	N/A	CCH submitted a revised Force Main Condition Assessment Report on 1/14/2011. EPA and DOH approved this Report on 5/18/2011.

Table 10. Ala Moana Force Main No. 2 Repairs, Rehabilitation and Improvements

Requirement	Compliance Milestone	Status
New Pressure manhole (PMH) at WWPS	Complete Construction: 12/31/2008	Construction completed 4/15/2008.
Horizontal bend at Station 23+00 (Bend #1) interim repair	Complete Construction: 09/30/2009	Construction completed 8/9/2009.
Horizontal bend at Station 23+00 (Bend #1) permanent repair	Design NTP: 08/03/2009; Complete Construction: 09/30/2012	Repair completed 8/14/2012.
Clean grease at Sand Island Headworks entrance 78" FM	9/30/2012	Grease removal completed 7/11/2012.
Cathodic protection system - replace rectifier and anode bed	Complete Construction: 12/17/2013	Construction started 8/31/2011. This requirement is also addressed in CD Paragraph 13.c.
PS#2 Surge Control Improvements	Design NTP: 12/31/2015; Complete Construction: 12/31/2020	

Table 11. Ala Moana Force Main No. 2 Future Assessments

Requirement	Due Date	Status
Inspect remaining segments of FM No. 2	9/30/2009	Inspection of Force Main No. 2 from Pressure Manhole #2A to the Ala Moana WWPS No. 2 was completed 8/18/2009.  Inspection of 800-ft segment of Force Main No. 2 on Sand Island from Pressure Manhole #2C to Pressure Manhole #2E was completed 9/22/2009.
Settlement Monitoring Plan	9/30/2009	Settlement monitoring plan completed 8/27/2009 and updated 12/29/2009.
PS #2 Venturi meter UT testing	12/31/2012	Venturi meter UT testing completed 6/29/2011.

Requirement	Due Date	Status
Additional Condition Assessment of Problem Areas	6/30/2011	CCH submitted the Additional Condition Assessment of Problem Areas on 6/29/2011. EPA and DOH approved Report on 2/13/2012.

Table 12. Ala Moana Force Main No. 2 Operation and Maintenance Elements

Requirement	Frequency	Status
Complete survey of cathodic protection system and rectifier adjustment as necessary	Annual	This work is performed as a routine part of the Force Main O&M Program, Section 4.4.5.
Exercise venturi pit gate valve	Weekly	This work is performed as a routine part of the Force Main O&M Program, Section 4.4.3.
Inspect and exercise manual air bleeders	Quarterly	This work is performed as a routine part of the Force Main O&M Program, Section 4.4.2.
Interim Operation of PS#1/FM#1 System	Continuous	Normal operation is Force Main No. 1 lead and Force Main No. 2 lag as needed during wet weather and emergencies, until the surge improvements at PS#2 are completed.
Measure and record voltage and current output of rectifier	Monthly	This work is performed as a routine part of the Force Main O&M Program, Section 4.4.5
Venturi Meter Backflush	Weekly	This work is performed as a routine part of the Force Main O&M Program, Section 4.4.3.
Clean grease at SI headworks entrance 78" FM	One-time	Grease removal completed 7/11/2012.

Table 13. Beachwalk Force Main Repairs, Rehabilitation and Improvements

Requirement	Compliance Milestone	Status
Rehabilitate and/or replace three existing air bleeder assemblies, at approximate locations Stations 17+95, 37+60 and 558+62.	Complete Construction: 12/31/2011	Completed 8/26/2011.

Table 14. Beachwalk Force Main Future Assessments

Requirement	Due Date	Status
Valve vault condition assessment	9/30/2012	Beachwalk valve vault condition assessment report was completed on 8/24/2012.
Force main condition assessment report	9/30/2017	

Table 15. Beachwalk Force Main Operation and Maintenance Elements

Requirement	Frequency	Status
Inspect and exercise valves and appurtenances	Per CCH Force Main O&M Plan	This work is performed as a routine part of the Force Main O&M Program, Section 4.4.2.
Monitor excavations near force main	Continuous	This is standard practice for DDC to be on site during excavation. They are notified by DPP as standard procedure when a trenching permit is issued.
Monitor excavations near thrust block at Station 8+37	Continuous	This is standard practice for DDC to be on site during excavation. They are notified by DPP as standard procedure when a trenching permit is issued.
Settlement Protection Program	Continuous	ENV has generated a 500-foot buffer in GIS around the force main and provided this information to Department of Planning and Permitting (DPP). When projects are proposed within this corridor, DPP consults with DDC on potential impacts to the force main.
Slow draining and filling operations	During draining and filling	This work is performed as part of standard operations.

Table 16. Hart Street Force Main Repairs, Rehabilitation and Improvements

Requirement	Compliance Milestone	Status
Install internal pipe seals at approximate locations Station 47+87, 31+23, 31+07, and 30+91.	Design NTP: 12/31/2011; Complete Construction: 12/31/2014	Construction in progress. NTP for construction issued 7/10/2013. Project is being implemented under DDC Serial Number 11-0035, Phase 2.

Requirement	Compliance Milestone	Status
Coat interior of RCP/HDPE transition flange coupling adaptor (FCA) near Sand Island WWTP	Design NTP: 12/31/2011; Complete Construction: 12/31/2014	Construction in progress. NTP for construction issued 7/10/2013. Project is being implemented under DDC Serial Number 11-0035, Phase 2.
Install PMH vaults and air bleeders at approximate locations Station 18+15, 28+80, and 43+87.	Design NTP: 12/31/2012; Complete Construction: 12/31/2016	Construction in progress. NTP for construction issued 7/10/2013. Project is being implemented under DDC Serial Number 11-0035, Phase 2.
Connect new WWPS to old FM	Construction NTP: 12/31/2011; Complete Construction: 12/31/2013	Construction in progress.

Table 17. Hart Street Force Main Future Assessments

Requirement	Due Date	Status
Follow-up internal inspection of the FM	12/31/2019	
Inspect external FM appurtenances	12/31/2019	

Table 18. Hart Street Force Main Operation and Maintenance Elements

Requirement	Frequency	Status
Exercise sluice gate at Sand Island WWTP and 12-inch blow-off valve at Station 43+33	Per CCH Force Main O&M Plan	This work is performed as a routine part of the Force Main O&M Program, Section 4.4.3
Monitor excavations near thrust blocks	Continuous	This is standard practice for DDC to be on site during excavation. They are notified by DPP as standard procedure when a trenching permit is issued.
Monitor excavations near the force main	Continuous	This is standard practice for DDC to be on site during excavation. They are notified by DPP as standard procedure when a trenching permit is issued.

Requirement	Frequency	Status
Draining and filling operations conducted slowly	During draining and filling	This work is performed as part of standard operations.

Table 19. Kahala Force Main Repairs, Rehabilitation and Improvements

Requirement	Compliance Milestone	Status
Install PVC liner in discharge manhole	Complete Construction: 03/31/2012	Completed 1/25/2012.
Remove air injection piping connection and pressure grout surrounding soil	Complete Construction: 12/31/2012	Completed 8/31/2010.
Re-coat pipe under Kahala Avenue Bridge	Complete Construction: 12/31/2012	Completed 8/7/2012.

Table 20. Kahala Force Main Future Assessments

Requirement	Due Date	Status
24" diameter FM condition assessment report	9/30/2018	

Table 21. Kahala Force Main Operation and Maintenance Elements

Requirement	Frequency	Status
Inspect and exercise valves and appurtenances	Per CCH Force Main O&M Plan	This work is performed as a routine part of the Force Main O&M Program, Section 4.4.3.
Monitor excavations near thrust blocks	Continuous	This is standard practice for DDC to be on site during excavation. They are notified by DPP as standard procedure when a trenching permit is issued.
Monitor excavations near force main	Continuous	This is standard practice for DDC to be on site during excavation. They are notified by DPP as standard procedure when a trenching permit is issued.
Pipe coating inspection on exposed pipes on the bridge and in the vaults	Every two years	This inspection is a routine part of the Force Main O&M Program, Section 4.4.6.

Table 22. Kaneohe/Kailua Force Main Repairs, Rehabilitation and Improvements

Requirement	Compliance Milestone	Status
Recoat above-ground piping at Kaneohe EPS discharge pipe	Complete Construction: 12/31/2015	Recoating completed 8/7/2012.

Table 23. Kaneohe/Kailua Force Main Future Assessments

Requirement	Due Date	Status
Air Relief Valve (ARV) study	6/30/2012	ARV Study was completed on 6/28/2012.

Table 24. Kaneohe/Kailua Force Main Operation and Maintenance Elements

Requirement	Frequency	Status
Inspect and exercise valves and appurtenances	Per CCH Force Main O&M Plan	This work is performed as a routine part of the Force Main O&M Program, Section 4.4.3.
Monitor excavations near thrust blocks	Continuous	This is standard practice for DDC to be on site during excavation. They are notified by DPP as standard procedure when a trenching permit is issued.
Monitor excavations near the force main	Continuous	This is standard practice for DDC to be on site during excavation. They are notified by DPP as standard procedure when a trenching permit is issued.
Slow draining and filling	During draining and filling operations	This work is performed as part of standard operations.
Adjust check valves	Per CCH O&M Plan for Kaneohe EPS	This work is performed as a routine part of the Force Main O&M Program, Section 4.4.3.

Table 25. Waimalu Force Main Repairs, Rehabilitation and Improvements

Requirement	Compliance Milestone	Status
Rehabilitate and/or replace air bleeder assembly at Station 388+50	Complete Construction: 09/30/2013	On 5/16/2013, CCH submitted to EPA/DOH a written Request to Modify the Waimalu Force Main Condition Assessment Follow Up Action Items to have this milestone date extended in light of the planned construction of a new second force main.

Table 26. Waimalu Force Main Future Assessments

Requirement	Due Date	Status
Valve vault condition assessment	9/30/2012	Waimalu valve vault condition assessment report was completed on 8/24/2012.
Cast iron condition assessment report	9/30/2013	On 5/16/2013, CCH submitted to EPA/DOH a written Request to Modify the Waimalu Force Main Condition Assessment Follow Up Action Items to have this requirement eliminated in light of the planned construction of a new second force main
Force Main CCTV from discharge manhole at time of air bleeder appurtenance replacement	9/30/2013	On 5/16/2013, CCH submitted to EPA/DOH a written Request to Modify the Waimalu Force Main Condition Assessment Follow Up Action Items to have this milestone date extended in light of the planned construction of a new second force main.
Force main condition assessment report	9/30/2018	

Table 27. Waimalu Force Main Operation and Maintenance Elements

Requirement	Frequency	Status
Inspect, flush, and exercise valves and appurtenances	In accordance with CCH's FM O&M Plan	This work is performed as a routine part of the Force Main O&M Program, Section 4.4.3.
Monitor excavations near the force main	Continuous	This is standard practice for DDC to be on site during excavation. They are notified by DPP as standard procedure when a trenching permit is issued.

Requirement	Frequency	Status
Monitor excavations near thrust block at Station 387+25	Continuous	This is standard practice for DDC to be on site during excavation. They are notified by DPP as standard procedure when a trenching permit is issued.
Slow draining and filling	During draining and filling operations	This work is performed as part of standard operations.

### ***Additional Condition Assessment Reports (Paragraph 12.b)***

Table 28. Additional Condition Assessment Reports

Requirement	Due Date	Status
Ahuimanu Force Main Condition Assessment Report	12/31/2010	EPA and DOH approved the Report on 1/30/2012.
Aliamanu No. 1 and 2 Force Main Condition Assessment Report	12/31/2010	EPA and DOH approved the Report on 1/30/2012.
Lualualei Force Main Condition Assessment Report	12/31/2010	EPA and DOH approved the Report on 1/30/2012.
Awa Street Force Main Condition Assessment Report	12/31/2013	
Kailua Road Force Main Condition Assessment Report	12/31/2013	
Kaneohe Bay No. 3 Force Main Condition Assessment Report	12/31/2013	
Kunia Force Main Condition Assessment Report	12/31/2013	
Ewa Beach Force Main Condition Assessment Report	12/31/2014	
Halawa Force Main Condition Assessment Report	12/31/2014	

Table 29. Ahuimanu Force Main Repairs, Rehabilitation and Improvements

Requirement	Compliance Milestone	Status
Manhole Rehabilitation	Complete Construction: 12/31/2014	Rehabilitation completed 4/11/2012.
Pipe Repair Corrosion	Complete Construction: 12/31/2015	
Pipe Repair Liner	Complete Construction: 12/31/2018	

Table 30. Ahuimanu Force Main Future Assessments

Requirement	Due Date	Status
ARV Valve Study	4/30/2013	Ahuimanu Force Main Air Study & Ultrasonic Thickness Testing (Final) report was completed on 4/30/2013.
Future Assessment of Excavation Pit	12/31/2013	Ahuimanu Force Main Air Study & Ultrasonic Thickness Testing (Final) report was completed on 4/30/2013.

Table 31. Aliamanu No. 1 and 2 Force Main Future Assessments

Requirement	Compliance Milestone	Status
Future Assessment	12/31/2015	

Table 32. Aliamanu No. 1 and 2 Force Main Operation and Maintenance Elements

Requirement	Frequency	Status
Inspect and Repair Valves	Per CCH Force Main O&M Plan	This work is performed as a routine part of the Force Main O&M Program, Section 4.4.2.
No excavation allowed within 20 feet of these FM bends.	Continuous	This is standard practice for DDC to be on site during excavation. They are notified by DPP as standard procedure when a trenching permit is issued.

Requirement	Frequency	Status
Excavation under FM shall be filled with CLSM to within 6-inches of FM bottom or by other suitable structural support, then bedding of FM shall be replaced to entirely cover the FM.	Continuous	This is standard practice for DDC to be on site during excavation. They are notified by DPP as standard procedure when a trenching permit is issued.
Replace lost bedding based on CCH Standards on excavations adjacent to FM.	Continuous	This is standard practice for DDC to be on site during excavation. They are notified by DPP as standard procedure when a trenching permit is issued.
Force Main Cleaning	Per CCH Force Main O&M Plan	This work is performed as a routine part of the Force Main O&M Program, Section 6.2.4.

## C. Force Main Maintenance and Spill Prevention Programs (Paragraph 13)

### *Operation and Maintenance Program (Paragraph 13.a)*

CCH is implementing the Force Main O&M program outlined in CD Appendix E. The specific requirements in CD Appendix E are summarized below.

Table 33. Force Main Operation and Maintenance Program Elements

Section	Requirement	Frequency	Status
E-4.1	Force Main Surface Marking	Continuous	Force Main markers were installed on all exposed force mains by 12/31/2011. EPA and DOH have agreed that buried and underwater force mains do not need to be marked. Appendix E will be revised accordingly.
E-4.2	Force Main Location Information	Continuous	DPP issues trenching permits for projects in CCH rights-of-way. DPP notifies DDC when underground activities are to be conducted near a force main. DDC provides inspectors to verify that measures are being implemented to protect force mains.

Section	Requirement	Frequency	Status
E-4.3	Force Main Performance Testing	12 months	Performance Testing Procedures have been developed for conducting annual force main performance tests and have been finalized for adoption. Parameters associated with the performance of the force mains will be monitored and evaluated for comparison to both design conditions and previous performance evaluations. Initial performance tests were completed on all force mains by 12/17/2011 and follow-up testing was completed 6/21/2012. Force main performance testing was completed on 12/17/2012. Due to construction activity performance testing was not conducted on the Pearl City, Waipahu, Lualualei, Fort DeRussy and Enchanted Lakes force mains; performance testing on these force mains will resume after construction completion.
E-4.4.1	Force Main Right-of-Way	3 - 6 months for buried and elevated; 5 years for underwater	Rights-of-way inspections were performed on all buried and elevated force mains during Year Three. Inspection log sheets have been developed to provide standardized procedures and data collection.
E-4.4.2	Force Main Air and Vacuum Relief Valves - Inspect, Test, and Flush	3 months (or as determined based on field observations)	ARVs were visually inspected during Year Three. Valves that were found to be non-functioning or intentionally kept permanently closed were removed from the list of valves to be exercised and flushed, but they continue to be visually inspected. Based on test data and other information, all ARVs will be considered either for replacement with manual air bleed valves or replacement in kind. Work orders for the inspections are generated from CCH's maintenance management system, and inspection log sheets have been developed to provide standardized procedures and data collection.

Section	Requirement	Frequency	Status
E-4.4.3	Force Main Isolation (Inlet) and Blow-Off Valves	12 months	Inspection and exercising of isolation valves continues to be a standard procedure that is performed on a weekly to monthly basis. All functioning isolation valves were exercised during Year Three. Non-functioning isolation valves are evaluated for possible repair or replacement. Inspection log sheets have been developed to provide standardized procedures and data collection. Inspection of blow-off valves is being conducted on an annual basis. All blow-off valves are intentionally kept permanently closed.
E-4.4.4	Force Main Significant Rainfall Event (SRE)	As needed	CCH has identified force mains that could potentially be subject to SRE conditions. Inspections of the SRE force mains will be completed within 48 hours after cancellation of a Flood Warning. In Year Three there were 4 field-verified inspections on 1/28/2013, 4/24/2013, 5/12/2013 and 5/28/2013.
E-4.4.5	Force Main Corrosion Protection	Electrolysis stations: 12 months; Sacrificial anodes: 3 months; Impressed current: 3 months (or as determined based on field observations)	A study of the condition of the known cathodic protection systems has been completed, which included initial inspections of the systems on the Ala Moana, Pearl City, and Waipahu Force Mains. These three systems will have repairs performed as part of the requirements in CD paragraph 13.c. Corrosion protection systems that have been determined to be non-functional are considered in a "non-functional" mode. Measurements were not collected in Year Three.
E-4.4.6	Force Main Pipe and Discharge Manhole/Structure Condition Including Coating	12 months	Visual inspections of the internal pipe at the discharge manhole/structure and the discharge manhole/structure is done on an annual basis. Visual inspections of all discharge manholes and pipes were completed by 12/17/2012.

Section	Requirement	Frequency	Status
E-4.5.1	Force Main Sulfide Monitoring	12 months	<p>Sulfide monitoring, either through atmospheric hydrogen sulfide monitoring or total dissolved sulfides of the effluent, is conducted at the discharge manhole/structure of each force main on an annual basis. Data collected is compiled and reviewed by a qualified corrosion engineer. Atmospheric hydrogen sulfide monitoring was completed at each discharge structure. CCH completed an initial measurement at each discharge manhole by 12/17/2011. Additional monitoring was performed at eight (8) discharge structures by 5/21/2012, and a table-top exercise was performed to look at configuration of the discharge structure. Monitoring for Year Three will be completed by 12/17/2013. Data will be analyzed and compared against the baseline data.</p>
E-4.5.2	Pump Stations with Single Force Mains	Weekly	<p>As part of the standard procedures currently employed by CCH, force mains associated with pump stations with a single force main are high velocity flushed on a weekly basis, with a velocity of at least 3 feet per second. Procedures include allowing the wetwell to fill and then turning on multiple pumps to achieve the required velocity. Records of the flushing event are recorded in log books at the pump stations.</p>

Section	Requirement	Frequency	Status
E-4.5.3	Pump Stations with Multiple Force Mains	Weekly (each force main)	As part of the standard procedures currently employed by CCH, force mains associated with pump stations with multiple force mains are high velocity flushed on a weekly basis, with a velocity of at least 3 feet per second, so that each force main is flushed every other week. Procedures include allowing the wet well to fill and then turning on multiple pumps to achieve the required velocity. Valves are opened and/or closed to isolate and flush multiple force mains. Records of the flushing event are recorded in log books at the pump stations.
E-5	Emergency Operations and Emergency Recovery Features	As needed	As part of the standard procedures currently employed by CCH, emergency operations and procedures are undertaken in the event of a force main failure. Emergency operations and procedures are included in the spill contingency plans and flow diversion plans and will be included in additional spill contingency plans and flow diversion plans to be developed.
E-5.1	Force Main All-Weather Access to Valves, Pressure Manholes and Discharge Manholes/Structures	Continuous	CCH determined that all-weather access to valves, pressure manholes and discharge manholes/structures at all locations for personnel or vehicles to perform repairs to the force main system are in place.

<b>Section</b>	<b>Requirement</b>	<b>Frequency</b>	<b>Status</b>
E-5.2	Force Main Pressure Manholes	As needed on newly constructed and rehabilitated force mains	Pressure manholes, spaced at approximately every 1,000 feet as determined by the design conditions, will be considered on newly constructed force mains. When rehabilitation of an existing force main occurs, pressure manholes will be considered and installed as needed where appropriate. Pressure manholes may not be appropriate on systems with backup force mains or other spill contingency plans.
E-6.1	Predictive Maintenance	As issues are identified.	Data collected from the ROW inspections, pipe and discharge manhole/structure inspections, and effluent sulfide monitoring will be used to hone the predictive maintenance program.
E-6.2	Force Main Preventative Maintenance	Continuous	Results from the ARV inspections, Isolation and Blow-off valve inspections, Corrosion Protection inspections and pipe and discharge manhole/structure inspections are used to hone the frequency of preventive maintenance procedures.
E-6.2.4	Force Main Preventive Maintenance - Force Main Cleaning	Varied	Results from the ARV inspections, Isolation and Blow-off valve inspections, Corrosion Protection inspections and pipe and discharge manhole/structure inspections are used to hone the frequency of preventive maintenance procedures. Data gathered from annual performance testing is reviewed, and methods and frequencies of force main cleaning are validated and/or updated.
E-6.3	Force Main Corrective Maintenance	Continuous	As part of the standard procedures currently employed by CCH, corrective maintenance procedures are followed such that planned repairs are completed as categorized and prioritized within the WTD work order system.

Section	Requirement	Frequency	Status
E-6.4	Force Main Reactive Maintenance	Continuous	As part of the standard procedures currently employed by CCH, reactive maintenance procedures are followed such that unplanned repairs are completed as categorized and prioritized within the WTD work order priority system. Unplanned reactive maintenance can be a Priority 5 if the repair is considered an Emergency/Regulatory Violations/Safety concern, or a Priority 4 if the repair is considered as Urgent.
E-6.5	Force Main Spare Parts	Continuous	As part of the standard procedures currently employed by CCH, an inventory of spare parts is maintained in the store rooms of the various regions in order to provide timely support for maintenance and repairs. The spare parts list is based on the asset management listings, and the repair lists in the spill contingency plans. As parts are deployed for use, the inventory is replenished.

### ***Overflow Structures (Paragraph 13.b)***

CCH updated its design standards to suspend sections related to overflow structures. A letter dated 3/11/2009, to all design consultants in CCH's consultant database, announced the change. The letter and design standards are on the ENV website. The letter suspended the sections of the design standards that referred to designed overflow structures.

**Table 34. Force Main Overflow Structure Requirements**

Requirement	Due Date	Status
Force Main Overflow Structure Design Standards Update	12/17/2010	Completed. Letter issued 3/11/2009.
Force Main Overflow Structure Report	12/17/2011	CCH submitted the Force Main Overflow Structure Report on 12/16/2011. EPA and DOH approved the Report on 2/13/2012.
Force Main Overflow Structure Closure Project	2/12/2013	All work was completed prior to 2/12/2013.

### ***Cathodic Protection Systems (Paragraph 13.c)***

CCH submitted a study of existing Cathodic Protection Systems installed for Ala Moana, Pearl City, and Waipahu force mains to EPA and DOH on 6/17/2011. CCH is proceeding with construction as necessary.

**Table 35. Cathodic Protection System Requirements**

<b>Requirement</b>	<b>Compliance Milestone</b>	<b>DDC Serial Number</b>	<b>Status</b>
Ala Moana Force Main Cathodic Protection Plan	6/17/2011	08-0565	Completed. Report submitted to EPA and DOH 6/17/2011.
Pearl City Force Main Cathodic Protection Plan	6/17/2011	08-0565	Completed. Report submitted to EPA and DOH 6/17/2011.
Waipahu Force Main Cathodic Protection Plan	6/17/2011	08-0565	Completed. Report submitted to EPA and DOH 6/17/2011.
Ala Moana Force Main Cathodic Protection Project	12/17/2013	08-0565	Construction in progress.
Pearl City Force Main Cathodic Protection Project	12/17/2013	08-0565	Construction in progress.
Waipahu Force Main Cathodic Protection Project	12/17/2013	08-0565	Construction in progress.

### ***Kaneohe Bay WWPS #2 Force Main (Paragraph 13.d)***

**Table 36. Kaneohe Bay WWPS #2 Force Main Requirements**

<b>Requirement</b>	<b>Compliance Milestone</b>	<b>DDC Serial Number</b>	<b>Status</b>
Kaneohe Bay WWPS No. 2 Force Main	Design NTP: 12/31/2013; Construction NTP: 12/31/2015; Complete Construction: 12/31/2016	08-0744	Planning in progress.

### **D. Beachwalk Force Main Projects (Paragraph 14)**

EPA and DOH extended the milestone for Complete Construction to February 11, 2013 because of a force majeure event. EPA and DOH further extended the milestone for Complete Construction to 4/12/2013.

Table 37. Beachwalk Force Main Requirements

Requirement	Compliance Milestone	DDC Serial Number	Status
Beachwalk Force Main Construction of Permanent Force Main	Original Completion Milestone: 12/31/2012; Complete Construction: 04/12/2013	00-0519	Construction completed 3/28/2013.

## E. Ala Moana Force Main Projects (Paragraph 15)

Table 38. Ala Moana Force Main Assessment Requirements

Requirement	Due Date	Status
Ala Moana Force Main No. 2 Additional Condition Assessment of Problem Areas	6/30/2011	CCH submitted the Additional Condition Assessment of Problem Areas on 6/29/2011. EPA and DOH approved Report on 2/13/2012.
Perform 2020 Condition Assessment	6/30/2020	

Table 39. Ala Moana Force Main Construction Requirements

Requirement	Compliance Milestone	DDC Serial Number	Status
Ala Moana Force Main No. 3 Construction	Construction NTP: 07/31/2012; Complete Construction: 12/31/2014	06-0065	Construction NTP issued 11/28/2011. Construction in progress.

## F. Old Hart Street Force Main - Maintenance and Improvements (Paragraph 16)

CCH is proceeding with construction of a permanent connection between the Old Hart Street Force Main and the Hart Street WWPS to facilitate switching flows to the Old Hart Street Force Main more quickly for use of the Old Hart Street Force Main as a backup for the Hart Street

WWPS. CCH is maintaining the Old Hart Street Force Main as a backup to handle emergency flows to the extent possible.

**Table 40. Hart Street Force Main Requirements**

Requirement	Compliance Milestone	DDC Serial Number	Status
Connect new WWPS to old FM	Design NTP: 12/31/2011; Complete Construction: 12/31/2013	10-0090	Planning and Design NTP issued 12/31/2010 as part of project 10-0090, Phase 1. Construction in progress.

### G. Kaneohe/Kailua Force Main Project (Paragraph 17)

The First Amended Consent Decree, entered 3/27/2012, provided for the construction of a Kaneohe-Kailua gravity tunnel and an associated influent pump station in lieu of a new force main and storage projects in Kaneohe and Kailua.

**Table 41. Kaneohe/Kailua Force Main Requirements**

Requirement	Compliance Milestone	DDC Serial Number	Status
Tunnel Sizing Methodology Report	04/12/2012	None	CCH submitted a Tunnel Sizing Methodology Report on 4/12/2012.
Kaneohe/Kailua Tunnel Program	Design NTP: 06/30/2012; Construction NTP: 12/31/2014; Complete Construction: 06/30/2018	11-0241	Planning & Design NTP issued 04/30/2012. Design in progress.
Kailua WWTP Tunnel Influent Pump Station	Design NTP: 06/30/2012; Construction NTP: 12/31/2015; Complete Construction: 06/30/2018	11-0240	Planning & Design NTP issued 04/30/2012. Design in progress.

Requirement	Compliance Milestone	DDC Serial Number	Status
Kaneohe/Kailua Force Main Supplemental Condition Assessment	12/31/2014	09-0533	
Kaneohe/Kailua Force Main and Kaneohe Pretreatment Facility Pump Station 2-Yr Residual maintain in good operating condition period.	For 2 years from Complete Construction of the Kaneohe/Kailua Tunnel Project	None	

## H. 1999 Final Sewer I/I Plan Projects (Paragraph 18)

The projects in Paragraph 18 were originally identified in the 1999 Infiltration/Inflow (I/I) Plan. These projects have changed over time as the result of further planning and design efforts by CCH. By tracking the individual sewer segments associated with each CD line item, CCH is able to accurately report on the status of each CD requirement.

### ***Compliance Milestone: Complete Construction 12/31/2011 (Paragraph 18.b)***

CCH maintains a database of the sewer segments that are associated with each of these projects, so that the history of each project and each sewer segment can be tracked. This database was used to define the sewer segments that are included in the three projects in Paragraph 18.b.

Table 42. Paragraph 18.b Requirements (Complete Construction 12/31/2011)

Requirement	DDC Serial Number	Status
SI-CS-05 Kalihi Valley Reconstructed Sewer (aka Kalihi Valley Relief Sewer)	05-0284	This included one pipe segment, SewerID 250497. That sewer segment has been completed as part of project 08-0329. Construction completed 4/1/2011.
SI-CS-36 Kalihi/Nuuanu Area Sewer Rehabilitation (aka Lanakila Ave. Relief Sewer), portion	08-0285	This included two sewer segments, SewerID 278874 and 280867. The sewer segments were completed as part of the IDIQ2 Project; see Appendix H. Construction completed 9/19/2008.
SI-CS-63A Sand Island Basin Misc. Sewer Rehabilitation (aka Sand Island Structural Rehabilitation-Phase 1)	05-0284	This included one pipe segment, SewerID 294754. That sewer segment has been completed as part of project 02-1301. Construction completed 12/31/2008.

## ***Compliance Milestone: Complete Construction 12/31/2013 (Paragraph 18.c)***

**Table 43. Paragraph 18.c Requirements (Complete Construction 12/31/2013)**

<b>Requirement</b>	<b>DDC Serial Number</b>	<b>Status</b>
HN-CS-10B Waimalu Sewer Rehabilitation/Reconstruction Phase II - 7D01C (aka Honouliuli Sewer Rehabilitation - 7D01C)	09-0149	Construction completed 9/9/2011.
HN-CS-13 Waimalu Sewer Rehabilitation/Reconstruction Phase I - 7D01C (aka Waimalu Sewer Replacement)	09-0149	Construction completed 9/9/2011.
HN-TP-01 Honouliuli WWTP Upgrade	03-0417	Construction completed 7/31/2010.
KK-PS-01 Enchanted Lakes Wastewater Pump Station Upgrade	02-1305	Construction in progress.
SI-CS-51A Sewer Manhole and Pipe Rehabilitation at Various Locations (aka Republican St.-Nimitz Hwy-Awa Structural Rehabilitation - Phase 1)	02-1304	Construction completed 2/9/2012
SI-CS-53 Ala Moana Blvd./Auahi St. Sewer Rehabilitation (aka Auahi St. Structural Rehabilitation)	05-0653	A portion of this work was completed 10/17/1997. The 6' x 6' Box portion of this project is currently in construction under DDC serial number 11-0136.
SI-CS-53 Ala Moana Blvd./Auahi St. Sewer Rehabilitation (aka Auahi St. Structural Rehabilitation 6' x 6' Box)	05-0271	The 14-inch structural rehabilitation portion of this project was Construction Completed on 6/27/2011 under DDC serial number 11-0429.
SI-CS-54 Ala Moana Blvd./Auahi St. Sewer Rehabilitation (aka Ala Moana Blvd.-24 Structural Rehabilitation)	05-0271	The remaining 24-inch sewer along Ala Moana Blvd was Construction Completed on 5/16/2011 under DDC serial number 11-0113.

Requirement	DDC Serial Number	Status
SI-CS-55 Ala Moana Blvd./Auahi St. Sewer Rehabilitation (aka Ala Moana Blvd.-36 Structural Rehabilitation)	05-0271	The remaining portion will be completed under DDC serial number 11-0136; including abandonment of 36-inch sewer after service is transferred to other lines in accordance with EPA approval on 5/8/2012.
SI-CS-57 Ala Moana Blvd. Sewer Reconstruction (aka Ala Moana Blvd.-16 Structural Rehabilitation)	03-0412	Construction completed 4/4/2011.
SI-CS-59 Waikiki Sewer Rehabilitation/Reconstruction	04-1159	Construction in progress.
SI-PS-14 Kuliouou Sewer Rehabilitation and WWPS Modification (aka Kuliouou WWPS Modification)	08-0098	Construction completed 4/7/2010.
WH-TP-01 Wahiawa Wastewater Treatment Plant Influent Pump Station Upgrade and Equalization Facility (aka Modify IPS and New Storage at Wahiawa WWTP)	02-1306	Construction completed 1/2/2013.
WM-CS-02 Waimanalo Sewer Rehabilitation	06-0354	Construction in progress.

***Compliance Milestone: Complete Construction 12/31/2014 (Paragraph 18.d)***

Table 44. Paragraph 18.d Requirements (Complete Construction 12/31/2014)

Requirement	DDC Serial Number	Status
HN-TP-02 Mililani WWPTF Storage and Headworks Upgrade (aka Mililani WWPTF Upgrade)	00-0564	Construction in progress.
SI-CS-09 Kahanu St., School St., and Umi St. Relief Sewers (aka School St. Relief Sewer)	04-1147	Construction Complete 8/2/2011.

<b>Requirement</b>	<b>DDC Serial Number</b>	<b>Status</b>
SI-CS-18 Kalaniana'ole Highway Sewer	04-1454	Construction completed 9/16/2011
SI-CS-37 Kahanu St., School St., and Umi St. Relief Sewers (aka Umi St. Relief Sewer)	10-0037	Construction completed 8/20/2011.
SI-CS-37 Kahanu St., School St., and Umi St. Relief Sewers (aka Umi St. Relief Sewer)	04-1147	Construction Complete 8/2/2011.
SI-CS-38 Kahanu St., School St., and Umi St. Relief Sewers (aka Kahanu St. Relief Sewer)	08-0890	Construction completed 3/26/2011.
SI-CS-38 Kahanu St., School St., and Umi St. Relief Sewers (aka Kahanu St. Relief Sewer)	04-1147	Construction Complete 8/2/2011.
SI-CS-62 Kalaniana'ole Highway Sewer (aka Kalaniana'ole Hwy Structural Rehabilitation)	04-1454	Construction completed 9/16/2011
SI-PS-16 Aliamanu Nos. 1 & 2 WWPS Upgrade and Relief Sewer (aka Aliamanu No. 1 WWPS Upgrade - Phase 1)	08-0729	Construction complete 3/30/2012
SI-PS-17 Aliamanu Nos. 1 & 2 WWPS Upgrade and Relief Sewer (aka Aliamanu No. 2 WWPS Upgrade - Phase 1)	08-0729	Construction complete 3/30/2012

***Compliance Milestone: Complete Construction 12/31/2016 (Paragraph 18.e)***

Table 45. Paragraph 18.e Requirements (Complete Construction 12/31/2016)

Requirement	DDC Serial Number	Status
HN-CS-04 Renton Road Sewer and Manhole Rehabilitation (portion: Eastern/Makakilo trunk)	pvt	Planning in progress by developer's consultant.
HN-CS-05B Leeward Area Sewer and Manhole Rehabilitation (aka Waipahu Manhole and Pipe Rehabilitation)	06-0090	Construction completed 12/27/2012.
HN-CS-05C Leeward Area Sewer and Manhole Rehabilitation (aka Ewa Manhole Rehabilitation)	06-0090	Construction completed 12/27/2012.
HN-CS-10A Waiiau Area Sewer Rehabilitation/Reconstruction (aka Honouliuli Sewer Rehabilitation - 7D01A)	06-0664	This project has been broken into two construction projects. DDC serial number 06-0664 is in construction. DDC serial number 11-0256 is in design.
HN-CS-10C Foster Village Sewer Rehabilitation/Reconstruction (aka Honouliuli Sewer Rehabilitation - 7F05)	05-0275	Construction completed 7/22/2011.
KK-CS-04 Kailua/Kaneohe Sewer Manhole and Pipe Structural Rehabilitation (aka Oneawa St. Structural Rehabilitation)	05-0281	Construction completed 2/22/2011.
KK-CS-06 Kailua/Kaneohe Sewer Manhole and Pipe Structural Rehabilitation (aka Kailua Beach Park Structural Rehabilitation)	05-0281	Construction completed 2/22/2011.

Requirement	DDC Serial Number	Status
KK-CS-09 Kailua/Kaneohe Sewer Manhole and Pipe Structural Rehabilitation (aka Kaneohe Bay Drive Structural Rehabilitation)	08-0222	This work was completed under serial number 05-0281. Construction completed 2/22/2011.
KK-CS-12B Kailua/Kaneohe Sewer Manhole and Pipe Structural Rehabilitation (aka Kailua/Kaneohe Manhole and Pipe Structural Rehabilitation - Phase 2)	08-0455	Construction in progress.
KK-CS-12B Kailua/Kaneohe Sewer Manhole and Pipe Structural Rehabilitation (aka Kailua/Kaneohe Manhole and Pipe Structural Rehabilitation - Phase 2)	05-0281	Construction completed 2/22/2011.
SI-CS-30 Moiliili-Kapahulu Sewer Rehabilitation/Reconstruction (aka Date St. Relief Sewer)	06-0092	Construction in progress.
SI-CS-43 Iwilei/Kalihi Kai Sewer Rehabilitation/Reconstruction (aka North King St. Relief Sewer)	06-0636	Design in progress.
SI-CS-50 Airport Sewer Rehabilitation/Reconstruction (aka Airport Structural Rehabilitation)	06-0063	Construction completed 10/18/2011.
SI-CS-50 Airport Sewer Rehabilitation/Reconstruction (aka Airport Structural Rehabilitation)	09-0464	Construction in progress.

Requirement	DDC Serial Number	Status
SI-CS-51B Iwilei/Kalihi Kai Sewer Rehabilitation/Reconstruction & Kalihi/Nuuanu Area Sewer Rehabilitation (aka Republican St.-Nimitz Hwy-Awa Structural Rehabilitation-Phase 2)	05-0284	Design in progress.
SI-CS-51B Iwilei/Kalihi Kai Sewer Rehabilitation/Reconstruction & Kalihi/Nuuanu Area Sewer Rehabilitation (aka Republican St.-Nimitz Hwy-Awa Structural Rehabilitation-Phase 2)	06-0636	Design in progress.
SI-CS-52 Iwilei/Kalihi Kai Sewer Rehabilitation/Reconstruction (aka Dillingham Blvd.-Iwilei Structural Rehabilitation)	05-0284	Design in progress.
SI-CS-52 Iwilei/Kalihi Kai Sewer Rehabilitation/Reconstruction (aka Dillingham Blvd.-Iwilei Structural Rehabilitation)	06-0636	Design in progress.
SI-CS-58 Moiliili-Kapahulu Sewer Rehabilitation/Reconstruction (aka Moiliili-Kapahulu Structural Rehabilitation)	06-0092	Construction in progress.
SI-CS-60 Old Sewer Tunnel Rehabilitation (aka Old Tunnel Structural Rehabilitation)	08-0107	Design in progress.

### ***Projects Requiring Further Study (Paragraph 18.f)***

The 39 projects in Paragraph 18.f are being addressed through various planning contracts and facility plans. The projects that are not included in a DDC planning contract (identified as “NONE” in the DDC Serial Number column) are being addressed in on-going wastewater regional facility plans. CCH will provide the results of the project evaluations and determinations to EPA and DOH as they are completed. As provided in the CD, CCH’s evaluation of a project may result in a recommendation that the project be eliminated.

**Table 46. Paragraph 18.f Requirements**

<b>Requirement</b>	<b>DDC Serial Number</b>	<b>Status</b>
HN-CS-07 Honouliuli/Waipahu/Pearl City Wastewater Facilities (aka Waimalu Wastewater System Relief)	06-0667	Planning in progress.
HN-CS-08 Honouliuli/Waipahu/Pearl City Wastewater Facilities (aka Pearl City Trunk Sewer Relief)	06-0667	Planning in progress.
HN-CS-09 Pacific Palisades Diversion Sewer Line (aka Pacific Palisades Relief Sewer)	09-0393	Planning in progress.
HN-CS-14 Waipahu Sewer Replacement/Relief Sewer (aka Waipahu Sewer Replacement)	03-0440	Planning in progress.
HN-PS-01 Waipio WWPS Upgrade	06-0669	Planning in progress.
HN-PS-04 Honouliuli/Waipahu/Pearl City Wastewater Facilities (aka Pearl City WWPS Relief)	06-0667	Planning in progress.
KK-CS-01 Kalaheo Ave. Relief Sewer	08-0741	Planning in progress.
KK-CS-13 Kaneohe Sewer Relief/Rehabilitation, C2 Projects (aka Alii Shores Relief Sewer)	08-0095	Planning in progress.

<b>Requirement</b>	<b>DDC Serial Number</b>	<b>Status</b>
KK-CS-13 Kaneohe Sewer Relief/Rehabilitation, C2 Projects (aka Alii Shores Relief Sewer)	03-0414	This portion of the requirement was performed under serial number 03-0414. Construction completed 1/9/2009.
KK-CS-15 Hele St. Sewer Relief/Rehabilitation (aka Hele St. Relief Sewer)	09-0532	Planning in progress.
KK-CS-20 Kaneohe Sewer Relief/Rehabilitation, C2 Projects (aka Kaha St. Relief Sewer)	08-0095	Planning in progress.
KK-CS-21 Kaneohe Sewer Relief/Rehabilitation, C2 Projects (aka Kahuhipa St. Relief Sewer)	08-0095	Planning in progress.
KK-CS-22 Kaneohe Sewer Relief/Rehabilitation, C2 Projects (aka Namoku St. Relief Sewer)	08-0095	Planning in progress.
KK-CS-23 Kaneohe Sewer Relief/Rehabilitation, C2 Projects (aka Puohala Relief Sewer)	08-0095	Planning in progress.
KK-CS-25 Kaneohe Sewer Relief/Rehabilitation, C2 Projects (aka Makahio St. Relief Sewer)	08-0095	Planning in progress.
KK-PS-02 Waikalua WWPS Upgrade	08-0115	Planning in progress.
KK-PS-10 Kahanahou Pump Station Upgrade	08-0734	Planning in progress.
KK-PS-12 Waikapoki WWPS Upgrade	06-0102	Planning in progress.
SI-CS-01 Aliamanu Nos. 1 & 2 WWPS Upgrade and Relief Sewer (aka Airport Relief Sewer)	04-1139	Planning in progress.

Requirement	DDC Serial Number	Status
SI-CS-08 Iwilei/Kalihi Kai Sewer Rehabilitation/Reconstruction (aka Dillingham Blvd-Iwilei Relief Sewer), portion	06-0636	Planning in progress.
SI-CS-10 Chinatown Sewer Rehabilitation (aka College Walk-30 Replacement Sewer)	08-0083	Planning in progress.
SI-CS-15 Manoa Sewer Relief/Rehabilitation (aka Manoa Relief Sewer)	08-0102	Planning in progress.
SI-CS-17 Palolo Valley Sewer Rehabilitation (aka Palolo Relief Sewer)	08-0108	Planning in progress.
SI-CS-22 Chinatown Sewer Rehabilitation (aka River St. Relief Sewer)	08-0331	This portion of the work was completed under serial number 08-0331. Construction completed 9/10/2009.
SI-CS-22 Chinatown Sewer Rehabilitation (aka River St. Relief Sewer)	08-0083	Planning in progress.
SI-CS-27 Palolo Valley Sewer Rehabilitation (aka Waiomao Stream Relief Sewer)	08-0108	Planning in progress.
SI-CS-28 Kalihi/Nuuanu Area Sewer Rehabilitation (aka Auwaiolimu St. Relief Sewer)	05-0284	Planning in progress.
SI-CS-29 Kalihi/Nuuanu Area Sewer Rehabilitation (southern makai portion) (aka Nuuanu Relief Sewer)	05-0284	Planning in progress.
SI-CS-36 Kalihi/Nuuanu Area Sewer Rehabilitation (aka Lanakila Ave. Relief Sewer), portion	05-0284	Planning in progress.
SI-CS-39 Kalihi/Nuuanu Area Sewer Rehabilitation (aka Kalani St. Relief Sewer), portion	05-0284	Planning in progress.

Requirement	DDC Serial Number	Status
SI-CS-42 Dowsett Highlands Relief Sewer	05-0284	This work is duplicative of other work identified under DDC Serial Number 10-0212.
SI-CS-42 Dowsett Highlands Relief Sewer	10-0212 (assigned after CD publication)	Planning in progress.
SI-PS-01 Kamehameha Hwy WWPS Upgrade	09-0531	Planning in progress.
SI-PS-04 Awa Street WWPS Upgrade	10-0208	Planning in progress.
SI-PS-06 Sand Island WWTP and Sewer Basin Facilities (aka Ala Moana WWPS and Force Main; upgrade of WWPS to 2020 flows will be further evaluated; note: the force main work is included in Paragraph 15)	06-0065	This work is the Ala Moana Force Main No. 3, which is already addressed under CD Paragraph 15. Construction in progress.
SI-PS-06 Sand Island WWTP and Sewer Basin Facilities (aka Ala Moana WWPS and Force Main; upgrade of WWPS to 2020 flows will be further evaluated; note: the force main work is included in Paragraph 15)	08-0074	Planning in progress.
SI-PS-16 Aliamanu Nos. 1 & 2 WWPS Upgrade and Relief Sewer (aka Aliamanu No. 1 WWPS Upgrade - Phase 2)	04-1139	Planning in progress.
SI-PS-17 Aliamanu Nos. 1 & 2 WWPS Upgrade and Relief Sewer (aka Aliamanu No. 2 WWPS Upgrade - Phase 2)	04-1139	Planning in progress.
WH-PS-02 Uwalu WWPS Upgrade	08-0113	Planning in progress.

### ***Wet Weather I/I Assessment Update (Paragraph 18.g)***

CCH is continuing its on-going development of a Wet Weather I/I Assessment Update. CCH has met all of the schedule requirements to date for the Wet Weather I/I Assessment Update and is on schedule to meet the future schedule requirements.

**Table 47. Wet Weather I/I Assessment Update Schedule Requirements**

<b>Requirement</b>	<b>Due Date</b>	<b>Status</b>
EPA/DOH Meeting to Discuss Data from Wet Weather Season 1	9/30/2010	Completed. This meeting was held on 9/14/2010 with CCH, EPA and DOH.
EPA/DOH Meeting to Discuss Data from Wet Weather Season 2	9/30/2011	By mutual agreement, this meeting was held on 10/04/2011 with CCH, EPA and DOH.
EPA/DOH Meeting to Discuss Proposed Hydraulic Capacity Projects	4/18/2012	By mutual agreement, this meeting was held on 04/18/2012 with CCH, EPA and DOH.
Complete Collection of Precipitation and Flow Monitoring Data	8/1/2011	Completed 6/30/2011.
Peak Flow Cost Effectiveness Analysis Report	12/31/2012	Peak Flow Cost Effectiveness Analysis Report finalized on 12/26/2012.

**Table 48. Wet Weather I/I Assessment Update Submittal Requirements**

<b>Requirement</b>	<b>Due Date</b>	<b>Status</b>
Preliminary Deferred Projects Report	12/31/2012	CCH submitted the Preliminary Deferred Projects report on 12/28/2012.
Final Deferred Projects Report	11/30/2013	CCH is prepared to submit the Final Deferred Projects Report on or before 11/30/2013.
Wet Weather I/I Assessment Update	12/31/2013	CCH is prepared to submit the Wet Weather I/I Assessment Update on or before 12/31/2013.
Update of Capital Improvement Plan	Compliance milestone: 12 months after approval of Final Deferred Projects Report	

## I. Gravity Main Condition Assessment (Paragraph 19)

CCH is conducting a program of inspection and condition assessment for selected gravity mains. Inspections are being performed using closed-circuit television (CCTV) and the National Association of Sewer Service Companies (NASSCO) Pipeline Assessment and Certification Program (PACP) standard. During CCTV inspection, the camera operator codes each defect using the PACP system and generates a database with the severity of each defect. If there are defects that create an imminent risk of a spill, that information is flagged for immediate follow-up. After the initial assessment, the videos and databases are forwarded to CCH engineering staff for further review and development of rehabilitation and replacement projects.

During the period from 1/01/2009 through 6/30/2013 CCH performed closed-circuit television (CCTV) inspection and condition assessment on approximately 652 miles of gravity sewer. The progress is charted in Figure 1.

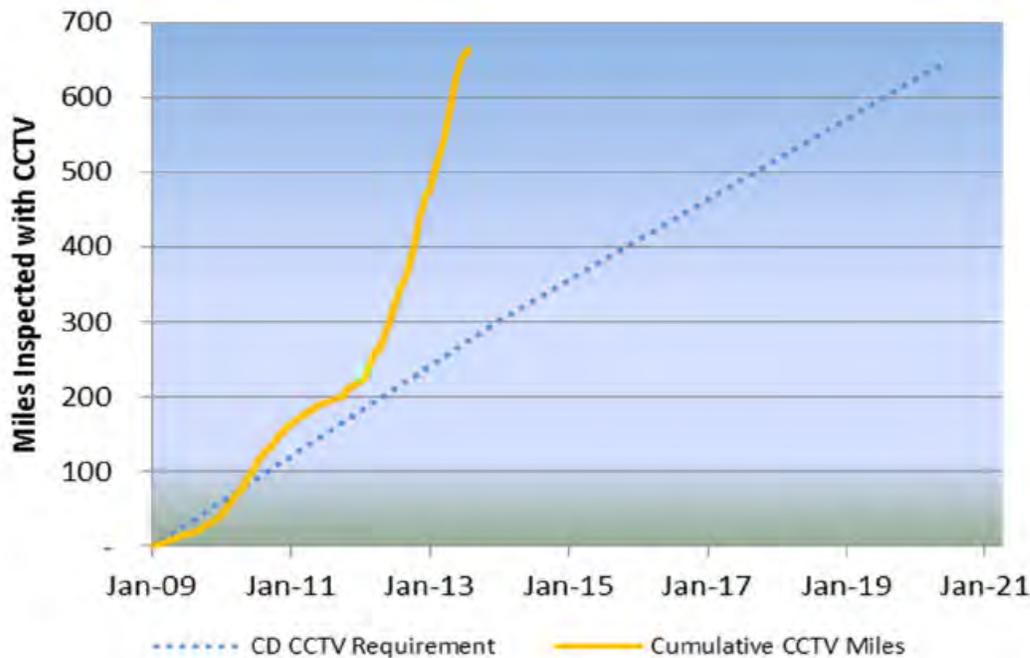
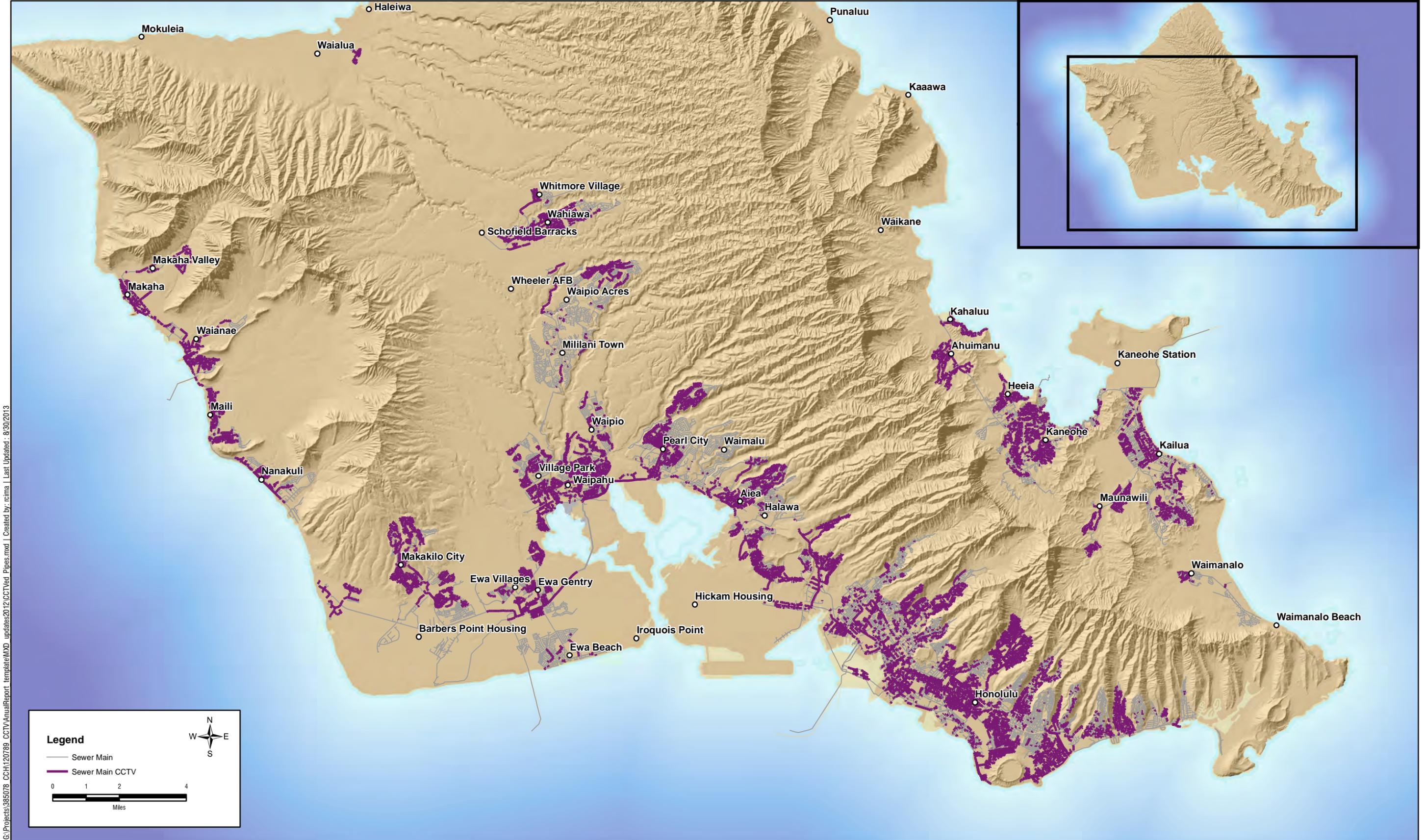


Figure 1. CCTV Inspection Miles Through 6/30/2013

Table 49. Gravity Main Condition Assessment Requirements

Requirement	Due Date	Status
Gravity Main Condition Assessment - First 300 Miles	12/17/2013	300 miles of inspection completed through Year Three.
Gravity Main Condition Assessment - Second 350 Miles	6/30/2020	352 miles of inspection completed through Year Three.

Figure 2 shows the pipe segments that have been inspected using CCTV since 1/01/2009.



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Gravity Sewer Condition Assessment (January 1, 2009 through June 30, 2013)



## J. Gravity Main Rehabilitation and Replacement Program (Paragraph 20)

CCH is proceeding with the gravity main rehabilitation and replacement projects identified in CD Appendix H. CCH has also completed work on other projects that allow additional miles of rehabilitation and replacement to be banked towards meeting the requirements of Years Four through Ten.

### ***Rehabilitation and Replacement Plan (Paragraph 20.b)***

CCH is beginning to develop a Rehabilitation and Replacement Plan for Years Four through Ten by evaluating condition assessment data gathered to date. The Plan will describe CCH's program for identifying and addressing structural defects in gravity sewers. The primary source of data in developing the plan will be the condition assessment information gathered through CCTV inspection. CCH has developed a decision-making algorithm for processing the NASSCO PACP defect codes gathered during the inspection and generating a preliminary recommendation for the repair, rehabilitation, or replacement of gravity sewer segments. CCH engineers will review the preliminary recommendations and make the final determination for each inspected segment. CCH will use this process to identify and prioritize rehabilitation and replacement work to be performed in CD Years Four through Ten.

### ***Rehabilitation and Replacement Program for Years One through Three (Paragraph 20.c)***

CD Appendix H specifies a set of rehabilitation and replacement projects to be completed by the end of Year Three. These projects include portions of new sewer (newly constructed gravity main) and rehab sewer (gravity main that has been rehabilitated through a point repair or through the installation of an internal liner). CD Appendix H includes the estimated number of miles of new and rehabilitated sewer associated with each project. In some cases the actual mileage varies because of changes encountered during the construction process. The actual miles of new and rehabilitated sewer is reported for those projects that are considered complete.

Table 50. Appendix H Requirements

Requirement	DDC Serial Number	CD New Miles	CD Rehab Miles	Actual New Miles	Actual Rehab Miles	Status
Alii Shores Structural Rehabilitation	03-0414	0	0.4335	0	0.4134	Construction completed 1/9/2009.
Amelia Street Relief Sewer	05-0980	0.2697	0	0.2002	0	Construction completed 12/19/2010. * See Note 3 below.
Fort Weaver Road Manhole and Pipe Rehabilitation	03-0415	0.1498	0.8379	0.1498	0.9534	Construction completed 12/19/2007.
Halona Street Relief Sewer, Kalihi	02-1300	0.4545	0.3902	0.4438	0.5057	Construction completed 4/21/2009.
Houghtailing Street Area Sewer (SI-CS-06, SCIP 25, SMPR 25)	04-1144	0.5515	3.7519			Construction completed 8/16/2012.

Requirement	DDC Serial Number	CD New Miles	CD Rehab Miles	Actual New Miles	Actual Rehab Miles	Status
Ilimalia Loop Mokapu Blvd Reconstructed Sewer	00-0534	0	0.5714	0	0.5606	Construction completed 8/7/2008.
Kailua/Kaneohe Sewer Rehabilitation - Ph 1 (KK-CS-09 portion, KK-CS-16 portion)	03-0418	0.0816	2.189	0.0218	2.1716	Construction completed 10/22/2010. * See Note 2 below.
Kailuana Place Sewer Rehabilitation (SMPR 64)	02-1659	0.0227	0.9205	0	0.9426	Construction completed 3/27/2008.
Kalaheo Ave / Mokapu Road / Aikahi Loop Sewer Rehab (KK-ZZ-02 Portion)	06-0083	0	0.6439	0	0.64	Construction completed 2/22/2010.
Kalakaua Ave Sewer Rehabilitation - Kalakaua Ave portion (SMPR 27 portion)	02-1656	0.2775	0			Construction completed 4/19/2012.
Kalihi Valley Reconstructed Sewer (SI-CS-05 portion, SCIP 14 portion)	00-0550	0.268	0	0.2587	0	Construction completed 7/7/2010.
Kalihi/Nuuuanu Area Sewer Rehabilitation Phase 1A [Area 2A - Middle Kalihi]	06-0086	1.5795	0	1.55	0	Construction completed 4/1/2011.
Kalihi/Nuuuanu Area Sewer Rehabilitation Phase 1B [Area 2B - Middle Kalihi]	08-0328	0.7917	0	0.74	0	Construction completed 4/1/2011.
Kalihi/Nuuuanu Area Sewer Rehabilitation Phase 1C [Area 3 - Upper Kalihi]	08-0329	1.072	0	1.03	0	Construction completed 4/1/2011.
Kalihi/Nuuuanu Area Sewer Rehabilitation Phase 1D [Area 4, 7, & 8 - Lanakila, Punchbowl South and Pacific Hts]	08-0330	0.2481	0	0.25	0	Construction completed 11/17/2010.
Kalihi/Nuuuanu Area Sewer Rehabilitation Phase 1E [Area 5A - Lower Nuuanu]	08-0331	0.3144	0	0.33	0	Construction completed 9/10/2009.
Kalihi/Nuuuanu Area Sewer Rehabilitation Phase 1F [Area 5B - Lower Nuuanu]	08-0332	0.3314	0	0.343	0	Construction completed 1/30/2009.
Kalihi/Nuuuanu Area Sewer Rehabilitation Phase 1G [Area 5C - Lower Nuuanu]	08-0333	0.5966	0	0.63	0	Construction completed 11/20/2009.
Kalihi/Nuuuanu Area Sewer Rehabilitation Phase 1H [Area 6 - Punchbowl North]	08-0334	0.392	0	0.4913	0	Construction completed 1/30/2009.
Kalihi/Nuuuanu Area Sewer Rehabilitation Phase 1I [Area 9 - Upper Nuuanu]	08-0335	0.2936	0	0.3487	0	Construction completed 2/13/2009.
Kaneohe Bay Drive Trunk Sewer Reconstruction	02-1286	0.3466	0.2633	0.3223	0.2059	Construction completed 8/26/2010.
Kapiolani Area Revised Sewer System (SCIP 16 portion, SCIP 26 portion, SMPR 12, SMPR 16)	00-0559	0.5244	0.3485	0.52	0.35	Construction completed 10/29/2009.
Kuliouou Sewer Rehabilitation and WWPS Modifications - Sewer Rehabilitation (SMPR 36 portion)	00-0561	0.2212	2.9892	0.12	2.98	Construction completed 4/22/2009.

Requirement	DDC Serial Number	CD New Miles	CD Rehab Miles	Actual New Miles	Actual Rehab Miles	Status
Peterson Lane (SMPR 92, SMPR 73 p) and Pua Lane (SMPR 93) Sewer Rehabilitation	05-0457	0.7235	0.107	0.72	0.11	Construction completed 9/15/2009.
Renton Road Sewer and Manhole Rehabilitation	03-0427	0	2.3616	0	2.36	Construction completed 8/26/2009.
Saint Louis Heights Sewer Rehabilitation (SCIP 04, SMPR 39, SI-CS-31)	02-1284	0.092	8.8733			Construction completed 3/8/2013.
Sand Island Basin Miscellaneous Sewer Rehabilitation, Phase 1 (SI-CS-63A, SI-CS-63B)	02-1301	0	0.3402	0	0.34	Construction completed 12/30/2008. * See Note 1 below.
Sewer Manhole & Pipe Rehabilitation At Various Locations - Ph I	04-1994	0	0.0407	0	0.05	Construction completed 4/29/2009. * See Note 3 below.
Waimalu Sewer Rehabilitation Ph 1, 7D01C	02-1299	1.1761	0			Construction completed 6/30/2011.
Waimanalo Sewer Rehabilitation	03-0439	0.339	0	0.3411	0	Construction completed 12/16/2009.
Waipahu Street/Plantation Village Sewer Reconstruction (SCIP 24, SMPR 26)	02-1287	0.3985	0	0.44	0	Construction completed 4/30/2011.
Wanao Road/Keolu Drive Reconstructed Sewer (KK-CS-07, KK-ZZ-03)	02-1557	1.6746	0	1.571	0	Construction completed 7/26/2010.
Wilhelmina Rise Sewer Rehabilitation (SCIP 01)	00-0607	0.0644	8.161			Construction completed 1/11/2012.
Ala Moana and Kapiolani Trunk Sewer Replace/Rehabilitation, Phase 1B, 1C, 1D - Kapiolani Blvd Water and Sewer System Improvements	00-0516	0.2614	0.9848	0.48	0.98	Construction completed 10/29/2009.
Beretania Street 1617 (SUB 7736, McCully) FY08-12-20	08-0459	0	0.1138	0	0.1114	Construction completed 11/12/2008.
Foster Village (Aliamanu) FY08-02-24	09-0135	0	2.2104	0	2.1795	Construction completed 9/13/2010.
Halekoa Drive 1509 (SUB 5254, Waialae) FY08-09-06	08-0402	0	0.1141	0	0.1142	Construction completed 1/24/2008.
Houghtailing, Area 1 (Liliha) FY07-10-01	08-0397	0	0.3379	0	0.3138	Construction completed 9/18/2008.
Houghtailing, Area 2 (Liliha) FY07-10-01	09-0039	0	0.6489			Construction completed 5/23/2008.
Houghtailing, Area 3 (Liliha) FY07-10-01	08-0398	0	0.9715			Construction completed 2/21/2011. * See Note 1 below.
Kahala / Pilihalo Place 1687 (Moanalua) FY09-11-17	08-0982	0	0.1269	0	0.1256	Construction completed 4/7/2009.
Kahala Avenue 4783 (SUB 5281, 5285, Waialae) FY07-05-29	05-0278	0	0.2798	0	0.2737	Construction completed 7/19/2010.
Kalihi Valley, Area 1 (Kalihi) FY 07-09-24	08-0396	0	1.2896			Construction completed 5/18/2012. * See Note 3 below.

Requirement	DDC Serial Number	CD New Miles	CD Rehab Miles	Actual New Miles	Actual Rehab Miles	Status
Kalihi Valley, Area 2 (Kalihi) FY 07-09-24	09-0040	0	0.5632			Construction completed 11/25/2008.
Kalihi Valley, Area 3 (Kalihi) FY 07-09-24	09-0041	0	1.0969	0	1.0754	Construction completed 7/21/2010.
Kalihi Valley, Area 4 (Kalihi) FY 07-09-24	09-0042	0	0.7713			Construction completed 1/19/2010. * See Note 3 below.
Kalihi-Nuuuanu, Area 1 FY07-07-20	08-0285	0	0.0571	0	0.0571	Construction completed 2/28/2008.
Kalihi-Nuuuanu, Area 2.1 FY07-07-20	08-0297	0	0.2965			Construction completed 3/15/2010.
Kalihi-Nuuuanu, Area 2.3 FY07-07-20	08-0297	0	0.3138			Construction completed 8/31/2010.
Kalihi-Nuuuanu, Area 2.4 FY07-07-20	08-0297	0	0.2449			Construction completed 4/7/2010.
Kalihi-Nuuuanu, Area 2.5 FY07-07-20	08-0285	0	0.0761	0	0.0761	Construction completed 4/1/2011.
Kalihi-Nuuuanu, Area 3.1 FY07-07-27	08-0285	0	0.2185	0	0.2185	Construction completed 4/1/2011.
Kalihi-Nuuuanu, Area 3.3 FY07-07-27	08-0297	0	0.433			Construction completed 6/10/2010. * See Note 3 below.
Kalihi-Nuuuanu, Area 3.4 FY07-07-27	08-0297	0	0.2373			Construction completed 8/26/2010. * See Note 3 below.
Kalihi-Nuuuanu, Area 3.5 FY07-07-27	08-0285	0	0.0462	0	0.0462	Construction completed 9/11/2008.
Kalihi-Nuuuanu, Area 4.1 FY07-07-31	08-0285	0	0.2784	0	0.2784	Construction completed 6/4/2010.
Kalihi-Nuuuanu, Area 4.2 FY07-07-31	08-0285	0	0.3083			Construction completed 9/12/2008.
Kalihi-Nuuuanu, Area 4.3 FY07-07-31	08-0285	0	0.2348	0	0.2348	Construction completed 9/12/2008
Kalihi-Nuuuanu, Area 5.3 FY07-08-01	08-0297	0	0.2213			Construction completed 1/19/2010. * See Note 3 below.
Kalihi-Nuuuanu, Area 6.2 FY07-08-01	08-0297	0	0.1786			Construction completed 3/23/2010. * See Note 3 below.
Kalihi-Nuuuanu, Area 6.4 FY07-08-01	08-0297	0	0.1443			Construction completed 11/30/2009.
Kalihi-Nuuuanu, Area 7.2 FY07-08-06	08-0297	0	0.2856			Construction completed 8/4/2009. * See Note 3 below.
Kaneohe Bay Drive 44-505 (SUB 4267, 4268, 4270, 4271, Kaneohe) FY07-05-17	08-0222	0	0.2978	0	0.2924	Construction completed 6/27/2008.
Kaneohe Bay Drive Trunk Sewer, Sewerline B (Kaneohe) FY07-09-13	08-0394	0	0.3039	0	0.2928	Construction completed 2/16/2009.
Kilani Avenue 211, Illima Street 91 (SUB W186, Wahiawa) FY08-01-02	08-0460	0	0.0909	0	0.0907	Construction completed 8/20/2008.

Requirement	DDC Serial Number	CD New Miles	CD Rehab Miles	Actual New Miles	Actual Rehab Miles	Status
Komo Mai Drive 1860 (SUB 2094, 2095, Pearl City) FY08-06-13	08-0462	0	0.2708	0	0.2555	Construction completed 1/16/2009.
Leighton Street 815 (SUB 5114, 5116, Kuliouou) FY08-06-18	08-0210	0	0.2561	0	0.2528	Construction completed 8/14/2009.
Makalii Place 350, Kailua Road (SUB 4612, 4661, Kailua) FY07-05-17	08-0223	0	0.2129	0	0.2021	Construction completed 6/27/2008.
Mikiola Drive / Alakai Street / Likeke Place (Kaneohe) FY-07-09-28	08-0395	0	0.4053	0	0.3973	Construction completed 5/12/2010.
Mulehu Street 94-436 (SUB 0446, Mililani) FY09-09-30	08-0981	0	0.0396	0	0.0398	Construction completed 10/7/2009.
Nanamoana Street 44-121 (SUB 3994, Kaneohe) FY07-06-06	08-0260	0	0.0212	0	0.0373	Construction completed 12/13/2007.
Waialae Iki, Area 4 (Kuliouou) FY07-11-15	08-0408	0	0.5375	0	0.5006	Construction completed 3/5/2009.
Waialae Iki, Area 5 (Kuliouou) FY07-11-15	09-0043	0	0.2962	0	0.2953	Construction completed 2/17/2010.
Waialae Iki, Area 6 (Kuliouou) FY07-11-15	09-0044	0	0.2786	0	0.2544	Construction completed 3/24/2010.
Waimalu Sewer Rehabilitation (Aiea) FY09-06-29	09-0653	0	0.4561	0	0.4509	Construction completed 10/1/2009.
Waimanalo Sewers (SUB HAWN, PRIV, 2017, 2013, Waimanalo) FY07-10-05	08-0403	0	0.3705	0	0.3604	Construction completed 12/6/2008.
Waipahu Depot Street, Farrington Highway (SUB 0887, Waipahu) FY09-09-30	08-0980	0	0.0145	0	0.0138	Construction completed 3/11/2009.

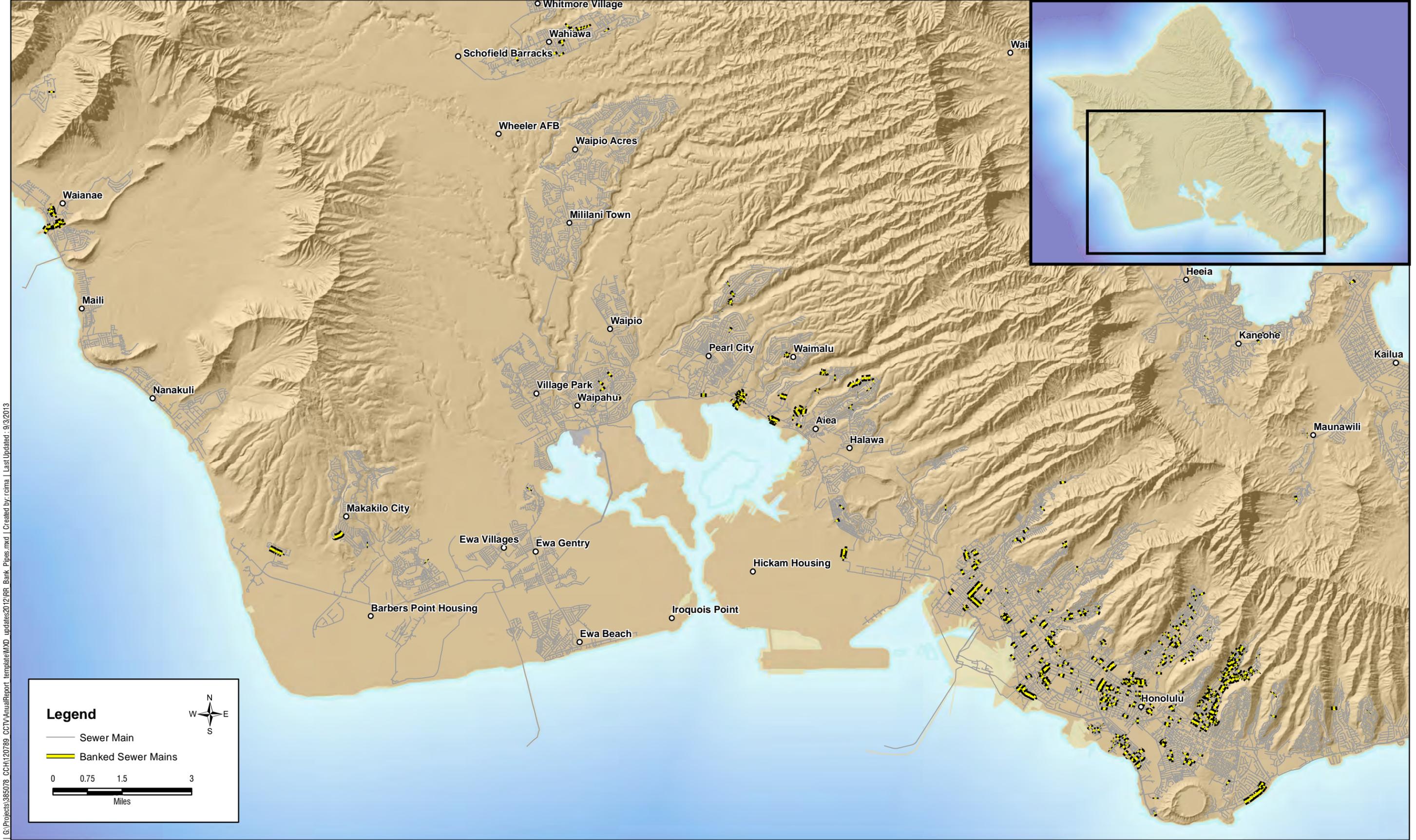
<sup>1</sup> This project was determined to be in good condition and is complete for purposes of Paragraph 20.c.

<sup>2</sup> This project was determined to be completed at a reconfigured length and is complete for purposes of Paragraph 20.c.

<sup>3</sup> A portion of this project is included in the 0.35 miles of pipe that will be re-evaluated by CCH as part of the Kalihi-Nuuanu project by December 31, 2016.

### ***Banking of Excess Miles (Paragraph 20.e)***

CCH maintains a database of sewer segments addressed through rehabilitation and replacement projects. A report from this database is shown in Attachment A. For projects that are not identified in CD Appendix H, CCH is allowed under CD Paragraph 20.e to bank the additional miles of gravity main sewer addressed through rehabilitation and replacement projects. Banked miles can then be used towards meeting the requirements of Years Four through Ten. Through the end of Year Three, there are 22 miles that qualify for this purpose. Figure 3 shows the specific sewer segments are identified in Attachment A.



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Pipe Segments Proposed for Addition to Rehabilitation and Replacement Bank

## K. Gravity Main Cleaning and Maintenance Program (Paragraph 22)

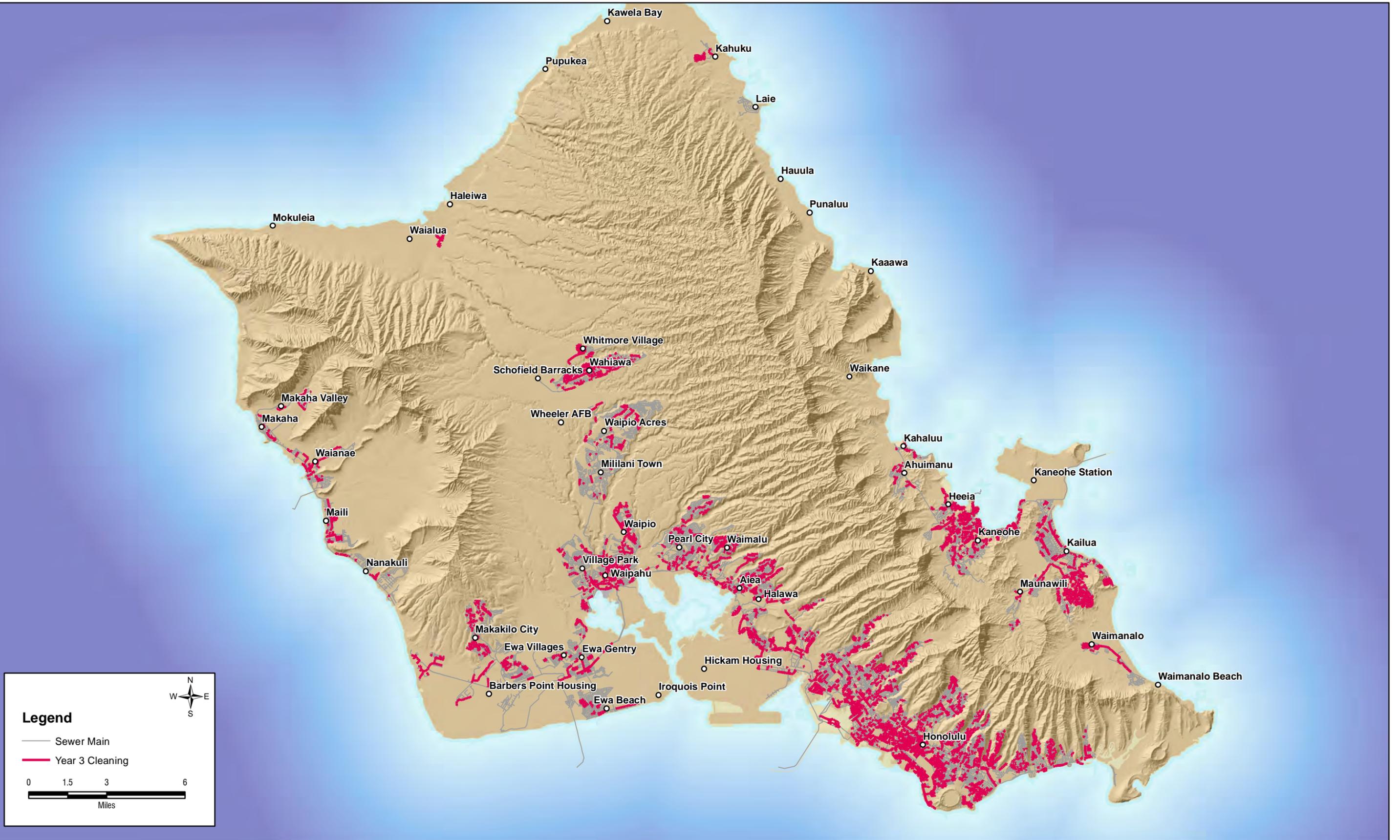
### *Gravity Sewer Cleaning (Paragraph 22.a)*

Table 51. Gravity Sewer Cleaning

<b>Requirement</b>	<b>Annual Performance Requirement</b>	<b>Status</b>
Gravity Main Cleaning Program	500 miles of cleaning; 300 miles of unique cleaning	Completed for Year Three: 674 miles of cleaning (flushing or rodding) 519 miles of unique cleaning

Figure 4 shows the pipes included in the gravity sewer cleaning program for Year Three.

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Gravity Sewer Cleaning (July 1, 2012 through June 30, 2013)



### ***Chemical Root Control (Paragraph 22.b)***

The root control process included mechanical root cleaning followed by chemical root treatment. CCH will monitor the effectiveness of the root treatment to help determine the future of the root control program.

Table 52. Chemical Root Control Requirements

<b>Requirement</b>	<b>Due Date</b>	<b>Status</b>
Gravity Main Cleaning and Maintenance Program - Root Control Work 15 Miles in Year One.	6/30/2011	Complete for Year One: 15.4 miles of root treatment
Gravity Main Cleaning and Maintenance Program - Root Control Work 15 Miles in Year Two.	6/30/2012	Complete for Year Two: 18.43 miles of root treatment
Gravity Main Cleaning and Maintenance Program - Root Control annually.	6/30/2013	Complete for Year Three: 10.2 miles of root treatment
Gravity Main Cleaning and Maintenance Program - Meeting to Discuss Future Root Control	5/31/2013	Root Control Analysis and Future Cleaning & Maintenance plans were presented to EPA and DOH on 5/22/2013.

### **L. Commercial Fats, Oils, and Grease ("FOG") Control Program (Paragraph 23)**

CCH continues its FOG Control Program to conduct inspections, enforce existing regulations, and maintain databases of enforcement activity as required by the CD.

#### ***General Requirements (Paragraph 23.a)***

##### **No Discharge without Permit (Paragraph 23.a.i)**

CCH continues to prohibit Food Service Establishments (FSE) from discharging into its wastewater system without a permit issued under the CCH Ordinances and Rules Relating to Grease Interceptor Program Compliance.

##### **Annual Inspections (Paragraph 23.a.ii)**

CCH continues to perform:

- a) Annual inspections of Grease Removal Devices (GRDs), previously in compliance with Grease Interceptor Rules (including sizing criteria); and
- b) Semi-annual inspection of all other GRDs (those not in compliance with the Grease Interceptor rules, including sizing criteria).

Physical inspections include coring the GRD to document compliance to the FOG Control Program and Grease Interceptor Rules, and reviewing maintenance logs and compliance with bar coding requirements.

During Year Three, CCH performed 4,031 inspections of GRDs.

### **Special Investigations (Paragraph 23.a.iii)**

CCH continues to perform special investigations of potential FOG sources that may have caused or contributed to a FOG-related SSO or triggered an Environmental Incident Report. CCH issues formal Enforcement Orders within 60 days following completion of the special investigation for those FSEs identified to be the source of the FOG problem. Enforcement Orders require the establishment owner of the FOG problem to:

- a) Come into full compliance with CCH's Grease Interceptor Rules; or
- b) Cease operations in accordance with a CCH-approved compliance schedule.

During Year Three, CCH performed 14 special investigations. These investigations led to enforcement actions or public education in residential areas, as appropriate.

### **Enforcement (Paragraph 23.a.iv)**

CCH issues appropriate enforcement action(s) to FSEs not in compliance with the Grease Interceptor Rules in accordance with the Enforcement Response Plan. The enforcement action may require a FSE to:

- a) Replace existing GRD with a CCH-approved GRD per Grease Interceptor Rules; or
- b) Cease operations in accordance with a CCH-approved compliance schedule.

During Year Three, CCH issued approximately 357 enforcement actions related to FOG. These actions included Wastewater Discharge Orders, Warning Letters, and Notice of Violations (NOVs). In Year Three, CCH issued 14 NOVs and is continuing to escalate enforcement against those permit holders who have not been brought into compliance.

### **DOH New Business Licenses (Paragraph 23.a.vi)**

Based on information from the DOH license lists, building permits, and other sources, CCH issued approximately 120 new permits during Year Three to control FOG discharge into the collection system.

### ***Program Manual (Paragraph 23.b)***

CCH provided its Commercial FOG Control Program Manual to EPA and DOH on 6/15/2011 in accordance with the CD. The Manual describes all aspects of the FOG Control Program as set forth in the CD.

## M. Pump Station Projects (Paragraph 24)

### ***Beachwalk WWPS Condition Assessment (Paragraph 24.a)***

CCH completed improvements at the Beachwalk WWPS that were identified as follow-up items from the previously completed condition assessment report dated 1/14/2011.

Table 53. Beachwalk WWPS Condition Assessment

Requirement	DDC Serial Number	Compliance Milestone	Status
Beachwalk WWPS Condition Assessment Follow-Up - Repair Wet Well	08-0730	Construction NTP: 01/03/2011; Complete Construction: 12/31/2012	Construction NTP issued 10/11/2010. Construction completed 12/26/2012.
Beachwalk WWPS Condition Assessment Follow-Up - Replace Variable Speed Controls	08-0730	Construction NTP: 01/03/2011; Complete Construction: 12/31/2012	Completed 12/26/2012.
Beachwalk WWPS Condition Assessment Follow-Up - Repair Roof	08-0730	Complete Construction: 12/31/2012	Completed 12/26/2012.
Beachwalk WWPS Condition Assessment Follow-Up - Replace Level Control	08-0730	Complete Construction: 12/31/2012	Completed 12/26/2012.

### ***Beachwalk Pump Station Upgrade (Paragraph 24.b)***

CCH submitted a letter to EPA/DOH dated 8/21/2013 confirming that CCH satisfied this requirement by completing construction of improvements to the Beachwalk Wastewater Pump Station and force main system to increase the station's pumping capacity.

### ***Fort DeRussy Pump Station Upgrade (Paragraph 24.c)***

CCH is evaluating the future need for the Fort DeRussy Pump Station.

### ***Waimalu Pump Station Controller Upgrade (Paragraph 24.d)***

CCH completed replacement of the controllers at the Waimalu Pump Station. The work was completed in 6/2010, before the CD completion deadline of 11/30/2010.

### ***Wet Weather Storage (Paragraph 24.e)***

Equipment and procedures are in place to use existing storage at the Kaneohe PTF and the Ahuimanu PTF during wet weather events. The available storage volume is approximately 1.4 million gallons at the Kaneohe PTF and 600,000 gallons at the Ahuimanu PTF. As required by the CD, this storage volume is being used to reduce capacity-related overflows during wet weather events. CCH has calculated and documented the available storage volume in the existing structures and prepared flow schematics for each facility. During Year Three the storage at the Kaneohe PTF was not used during the rainfall events and the storage at the Ahuimanu PTF was not used during the rainfall events.

CCH has taken steps to decrease response time during wet weather events/spills and maximize the use of storage at the Kaneohe PTF and the Ahuimanu PTF, including:

For Kaneohe PTF:

- a. Replaced Unit 7 portable pump to increase pumping capacity to the storage tanks
- b. Installed automatic start switches for Unit 7 and Unit 8 flow diversion equipment
- c. Installed an automatic switch for Unit 8 portable pump
- d. Set the float height in the wet well of the Old Kawa Pump Station
- e. Set the on/off logic for the portable pumps

For Ahuimanu PTF:

- a. Replaced pumps at the Old Final Clarifier storage tank, to pump from the Old Final Clarifier storage tank to the Old Digester storage tank automatically. Previously, pumping from one tank to the other was done manually.

### ***Pump Station Overflow Structures (Paragraph 24.f)***

CCH announced an update of its design standards to suspend sections related to overflow structures in a letter dated 3/11/2009, to all design consultants in CCH's consultant database and posted the letter on its website. The letter suspended the sections of the design standards that referred to designed overflow structures.

**Table 54. Pump Station Overflow Structure Requirements**

<b>Requirement</b>	<b>Due Date</b>	<b>Status</b>
WWPS Overflow Structures Design Standards Update (i)	12/17/2010	Completed. Letter issued 3/11/2009.
WWPS Overflow Structures Closure Report (ii)	12/17/2011	CCH submitted the WWPS Overflow Structures Closure Report on 12/16/2011. EPA and DOH approved the Report on 2/13/2012.
WWPS Overflow Structures Closure Project (iii)	2/13/2013	All work was completed prior to 2/13/2013.

### ***Pump Station Operation and Maintenance Manuals (Paragraph 24.g)***

CCH reviewed and updated, as necessary, the pump station O&M manuals by 12/17/2012.

### ***Pump Station Operations Training (Paragraph 24.h)***

Table 55. Pump Station Operations Training

<b>Requirement</b>	<b>Due Date</b>	<b>Status</b>
WWPS Standard Training Procedures Including SCPs	12/17/2011	Training procedures and materials were completed and are available for use as needed.
WWPS Training Certification for Maintenance Staff	12/17/2012	Pump Station training was completed 11/1/2011. Force Main SCP training was completed on 6/15/2012.

## **N. Sewer Laterals (Paragraph 25)**

### ***Inventory of Lower Laterals (Paragraph 25.a)***

CCH maintains a database of lower laterals in its Geographic Information System (GIS). The CCH GIS database contains a current and complete inventory of lower laterals and is updated when new lateral information becomes available.

### ***Problem Lower Laterals (Paragraph 25.b)***

CCH keeps a list of lower laterals with known issues that require maintenance in the CSM computerized maintenance management system database. CSM maintains a database of all reported problem lower laterals, and the appropriate corrective action (repair, replacement or maintenance) to address the lateral issue is assigned. Once identified, the corrective action for such lateral is completed within two years. Attachment B includes a summary of the problem laterals addressed in Year Three.

### ***Reporting of Lower Lateral Issues (Paragraph 25.c)***

CSM staff report lower lateral issues observed during fieldwork and complete the appropriate corrective action within 60 days when a lower lateral contributes to an SSO. All CSM staff and contractors have been reminded to report any lateral issues observed during fieldwork.

Construction drawing notes also remind CCH contractors to report lateral problems encountered in the field to the sewer trouble call number (808) 768-7272.

### ***Corrective Action within 60 Days (Paragraph 25.d)***

CSM conducts corrective action (repair, replacement, or maintenance) within 60 days if a lower lateral causes or contributes to an SSO. Attachment B summarizes the laterals addressed in Year Three.

### ***Clean-out Cap Replacement Program (Paragraph 25.e)***

The Cleanout Cap Replacement Program is currently in place and is continued as part of the smoke testing procedures. CSM records the number of clean-out caps it replaces, and maintains the record for at least five years.

### ***Building Inspection Materials and Follow-up (Paragraph 25.f)***

CCH has developed materials for building inspectors with the DPP to assist in identifying illegal connections to the sanitary sewer system. These materials were disseminated before 3/17/2011 (90 days after the CD effective date).

When an inspection identifies an illegal connection, the DPP inspector informs the Regulatory Control Branch (RC) of ENV. CCH sends a Notice (return receipt requested) to the property owner of record indicating that corrective action, including certification of repair, must be taken within six months. RC maintains the records of this correspondence and repair certifications for at least five years.

### ***Smoke Testing and Follow-up (Paragraph 25.g)***

As an annual performance requirement, CCH is to perform smoke testing on at least 19 miles of gravity sewers (mains and lower laterals) per year. During Year Three, CCH performed smoke testing using in-house crews. The testing covered 20.87 miles of gravity mains and 20.43 miles of lower laterals, for a total of 41.29 miles. CCH recorded the sewer assets and dates of testing in its computerized maintenance management system and will retain the information for at least five years.

When smoke testing indicates an improper connection, CSM forwards the case to RC which issues a notice to the responsible party requiring them to:

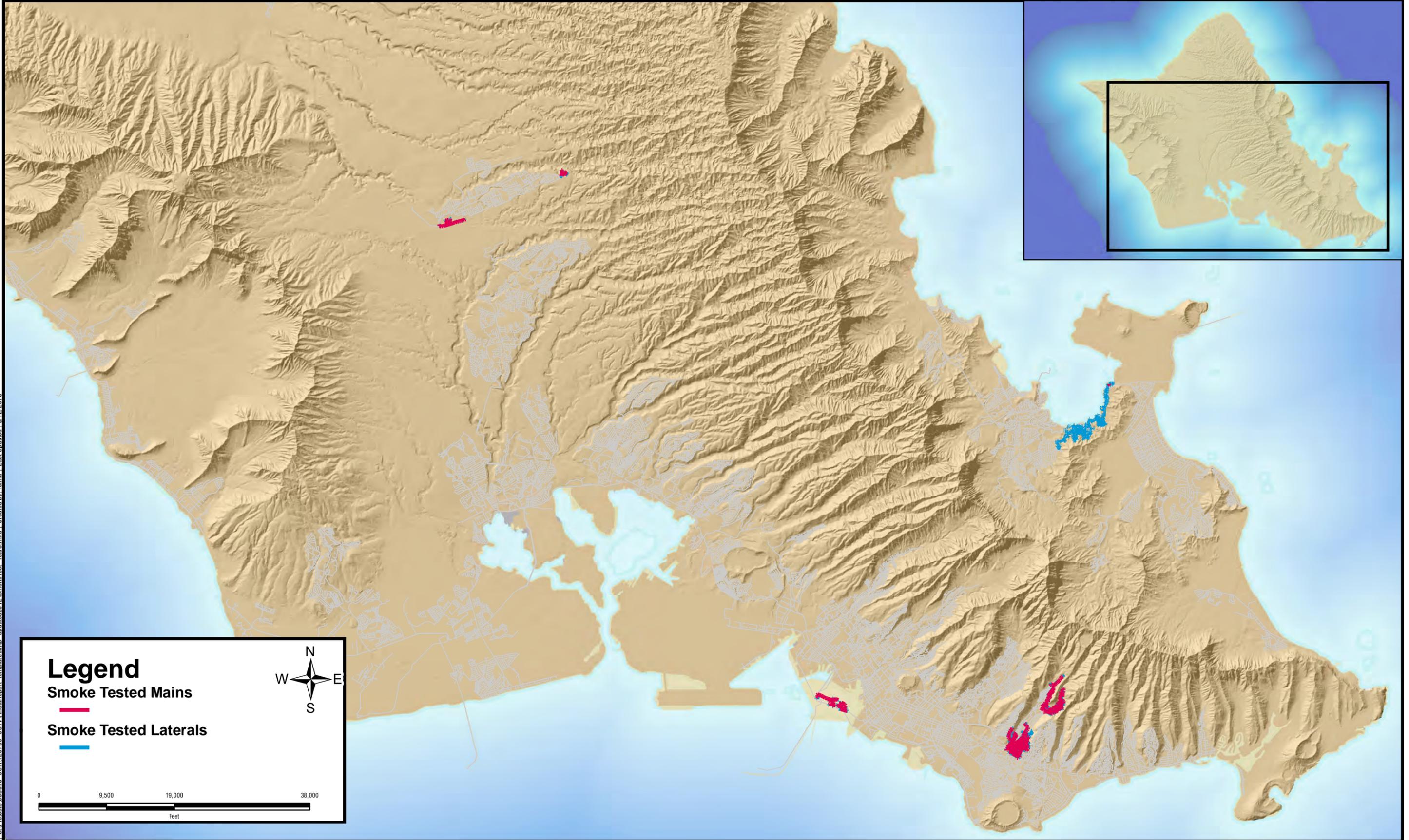
1. Take corrective action to eliminate the improper connection within 6 months after receipt of notification, and
2. Provide certification of completion of the required corrective action.

RC maintains all records to this effect in RC database for at least five years.

During Year Three CCH identified 111 improper connections through the smoke testing program: 61 were notified; 25 have been closed or corrected; 3 are presently in escalated enforcement action; with the remainder in process of being notified.

Figure 5 shows areas of smoke testing performed in Year Three.

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**Legend**

Smoke Tested Mains  
—

Smoke Tested Laterals  
—

0 9,500 19,000 38,000  
Feet

Gravity Sewer Smoke Testing (July 1, 2012 through June 30, 2013)



## O. Staffing Commitments (Paragraph 26)

CCH implemented the approved staffing plan dated 2/2011. As of 12/31/2012, CSM met the requirements of the staffing plan.

Table 56. Staffing Commitments

Requirement	Due Date	Status
Collection System Staffing: Revised Staffing Plan Report	2/15/2011	EPA and DOH approval received 7/5/2011.
Collection System Staffing: Maintain 90% of Required Staffing Level	1/1/2013	For calendar year 2012, CCH maintained or exceeded the required staffing level of 90% Collection System Staffing with 20 non-field positions (including 1 full-time equivalent provided through overtime) and 142 field positions (including 19 full-time equivalents provided through overtime).

## P. Equipment Commitments (Paragraph 27)

CCH had the required equipment under Appendix J by 6/17/2013; in accordance with CD Paragraph 27.b. CCH continues to maintain the equipment in good working order and has access to contractor vehicles as needed.

Table 57. Equipment Commitments

Requirement	Required Number	Status
Vactors	10	CSM currently has 14 vactors
Cesspool Trucks	5	CSM currently has 7 cesspool trucks
Rodders	8	CSM currently has 15 junior rodders and one rodding machine
CCTV Vans	4	CSM currently has 4 CCTV vans
Tankers (within WTD)	4	WTD currently has 7 tankers

## Q. Odor Issues (Paragraph 28)

CCH continues to publicize its odor complaint hotline (808) 768-7272 and records trouble calls in its maintenance management system for at least five years.

CCH publishes the Trouble Hotline telephone number on its external web site and in its local telephone directory. All calls related to odors are tracked in the CSM computerized maintenance management system (CMMS). Follow-up and/or resolution for each complaint is

also tracked in the database system. During Year Three, CCH received and investigated approximately 120 odor complaints. CCH investigated each complaint and took appropriate follow-up actions as needed. In most cases the odor could not be identified as attributable to the wastewater collection system. When a collection system issue was identified, CCH took appropriate actions including applying silicone seal around manhole lids or cleaning the sewer main.

## **R. Spill Response, Monitoring, and Reporting (Paragraph 29)**

CCH submitted the Spill Response, Monitoring and Reporting procedures on 12/14/2011. EPA and DOH approved this Report on 8/14/2013.

## **S. Honouliuli Wastewater Treatment Plant (Paragraph 30)**

CCH has withdrawn its appeal of EPA's denial of a permit for the Honouliuli WWTP. CCH has submitted a NPDES permit application to DOH and is proceeding with facility planning for secondary treatment at the Honouliuli WWTP.

## **T. Sand Island Wastewater Treatment Plant (Paragraph 31)**

CCH has withdrawn its appeal of EPA's denial of a permit for the Sand Island WWTP. CCH has submitted a NPDES permit application to DOH and is proceeding with facility planning for secondary treatment at the Sand Island WWTP.

## **U. Treatment Plant Interim Effluent Limits (Paragraph 32)**

The CD includes interim effluent limits for total suspended solids (TSS) and bio-chemical oxygen demand (BOD) for the Sand Island and Honouliuli treatment plants. Data for these constituents and compliance with these limits are reported in the Discharge Monitoring Report (DMR) provided monthly to EPA and DOH.

## **V. Treatment Plant Operation and Maintenance (Paragraph 33)**

EPA and DOH approved Sand Island Wastewater Treatment Plant Operation and Maintenance Manual on 1/30/2012.

EPA and DOH approved Honouliuli Wastewater Treatment Plant Operation and Maintenance Manual on 1/30/2012.

# **Attachment A**

## **Pipe Segments in Rehabilitation and Replacement Program**

The CD paragraph 34.d.iii notes that for the Annual Report:

For each gravity main rehabilitated or replaced, CCH shall provide the following information:

- a) the pipe identification number;
- b) whether the pipe was repaired, rehabilitated or replaced;
- c) the length of the gravity main claimed as credit towards the R/R Plan mileage requirements and the length of repair, rehabilitation or replacement performed;
- d) the pipe material;
- e) the diameter of the pipe;
- f) the original installation date of the gravity main at issue;
- g) the most recent condition assessment of the gravity main prior to its rehabilitation or replacement; and
- h) a map depicting the location of each gravity main rehabilitated or replaced.

The following table provides information on the gravity mains proposed for addition to the rehabilitation and replacement bank.

Project ID	SEWERID	Material	Diameter	GIS Length	Installation Date	Activity Type	Activity Date	Activity Feet	Prior CCTV Inspection
1149	376209	VCP	12	170	4/17/1952	Rehabilitation	8/25/2009	167	8/24/2009
1149	376262	VCP	12	210	4/17/1952	Rehabilitation	8/25/2009	206	8/24/2009
1149	376318	VCP	12	180	4/17/1952	Rehabilitation	8/25/2009	178	8/24/2009
1149	376340	VCP	6	212	2/8/1932	Rehabilitation	4/1/2010	210	4/1/2010
1149	376350	VCP	6	362	2/8/1932	Rehabilitation	3/17/2010	364	3/17/2010
1149	376353	VCP	6	215	2/8/1932	Rehabilitation	4/1/2010	214	4/1/2010
1150	376129	VCP	12	174	5/31/1962	Rehabilitation	12/2/2009	174	8/19/2009
1150	376184	VCP	12	42	6/30/1962	Rehabilitation	12/2/2009	42	8/19/2009
1150	376207	TCP	12	79	6/30/1951	Rehabilitation	8/20/2009	79	4/24/2009
1150	376212	VCP	12	240	4/17/1952	Rehabilitation	8/20/2009	237	4/24/2009
1151	419574	VCP	6	121	6/30/1955	Rehabilitation	4/9/2010	122	4/7/2010
1151	419618	VCP	6	80	6/30/1955	Rehabilitation	4/12/2010	81	4/7/2010
1151	419646	VCP	8	232	6/30/1955	Rehabilitation	4/12/2010	234	4/7/2010
1152	379542	TCP	24	146	4/15/1919	Rehabilitation	5/15/2011	146	1/27/2011
1152	379583	TCP	24	520	4/15/1919	Rehabilitation	5/15/2011	519	1/31/2011
1152	380637	TCP	24	542	4/15/1919	Rehabilitation	5/15/2011	540	1/31/2011
1152	685538	TCP	8	131	1/2/1900	Rehabilitation	10/31/2011	130	9/21/2010
1152	685563	TCP	8	169	1/2/1900	Rehabilitation	10/31/2011	164	11/7/2010
1152	685612	VCP	24	50	12/30/1991	Rehabilitation	5/16/2011	50	2/1/2011
1152	685621	VCP	8	325	11/26/1990	Rehabilitation	6/27/2011	318	1/28/2010
1152	685633	TCP	8	300	1/2/1900	Rehabilitation	11/1/2011	297	6/22/2011
1152	685668	TCP	8	197	6/30/1931	Rehabilitation	6/28/2011	195	3/17/2010
1152	685692	VCP	8	45	11/26/1990	Rehabilitation	6/24/2011	37	1/28/2010
1152	685696	UNK	24	341	1/2/1900	Rehabilitation	5/16/2011	322	1/31/2011
1152	685701	TCP	24	45	1/2/1900	Rehabilitation	5/16/2011	45	1/31/2011
1152	685705	TCP	8	258	6/30/1931	Rehabilitation	6/28/2011	230	3/17/2010
1152	685721	TCP	24	316	4/15/1919	Rehabilitation	5/16/2011	341	1/27/2011
1153	269132	VCP	8	253	12/1/1938	Rehabilitation	6/21/2010	253	6/4/2010
1153	269263	VCP	8	288	12/1/1938	Rehabilitation	6/21/2010	291	6/18/2010
1155	541722	VCP	8	59	9/14/1979	Rehabilitation	1/29/2010	58	1/8/2010
1155	541737	VCP	8	138	9/14/1979	Rehabilitation	1/29/2010	138	1/8/2010
1155	541740	VCP	8	123	12/4/1964	Rehabilitation	8/18/2010	124	1/8/2010
1155	541747	VCP	8	20	12/4/1964	Rehabilitation	8/18/2010	21	1/8/2010
1155	542030	CIP	10	33	12/4/1964	Rehabilitation	1/20/2010	39	1/8/2010
1155	542032	VCP	10	105	12/4/1964	Rehabilitation	1/20/2010	106	1/8/2010
1155	542663	VCP	10	245	12/4/1964	Rehabilitation	1/20/2010	239	1/8/2010
1155	542675	VCP	8	166	12/4/1964	Rehabilitation	8/18/2010	164	1/8/2010
1155	4000570	VCP	10	150	12/4/1964	Rehabilitation	1/20/2010	129	1/8/2010
1157	342974	TCP	8	320	1/2/1900	Rehabilitation	1/29/2010	316	1/27/2010
1157	343082	TCP	6	37	1/2/1900	Rehabilitation	1/28/2010	32	1/27/2010
1159	305546	VCP	15	213	6/30/1971	Rehabilitation	9/17/2010	212	12/1/2009
1159	305620	VCP	15	251	10/27/1965	Rehabilitation	9/17/2010	252	12/1/2009
1159	305712	VCP	15	161	10/27/1965	Rehabilitation	9/17/2010	157	12/1/2009
1160	343481	TCP	8	398	1/2/1900	Rehabilitation	12/16/2010	386	4/14/2010
1160	3005622	UNK	8	414	1/2/1900	Rehabilitation	12/16/2010	404	12/15/2010
1163	110819	TCP	6	212		Point Repair	2/13/2012	8	5/26/2009
1163	110891	TCP	6	310		Point Repair	2/13/2012	22	4/15/2009
1163	110938	TCP	6	225		Point Repair	2/13/2012	17	4/17/2009
1163	115462	TCP	6	224		Point Repair	2/13/2012	14	4/14/2009
1163	115498	TCP	6	175		Point Repair	2/13/2012	9	4/16/2009
1163	115535	TCP	6	137		Point Repair	2/13/2012	5	4/15/2009
1166	617498	VCP	8	87	3/12/1953	Rehabilitation	8/22/2008	88	N/A
1166	617521	VCP	8	152	3/12/1953	Rehabilitation	8/21/2008	152	N/A

Project ID	SEWERID	Material	Diameter	GIS Length	Installation Date	Activity Type	Activity Date	Activity Feet	Prior CCTV Inspection
1166	617525	VCP	8	236	3/12/1953	Rehabilitation	8/22/2008	237	N/A
1168	2035919	PVC	6	53		Rehabilitation	10/18/2007	67	N/A
1174	478805	VCP	21	247	3/29/1954	Rehabilitation	11/12/2010	242	12/1/2009
1174	478844	VCP	21	193	3/29/1954	Rehabilitation	11/11/2010	191	12/1/2009
1174	478874	VCP	21	168	3/29/1954	Rehabilitation	11/11/2010	163	11/8/2010
1174	478906	VCP	21	220	3/29/1954	Rehabilitation	11/11/2010	216	12/1/2009
1174	480710	VCP	21	223	3/29/1954	Rehabilitation	11/12/2010	221	11/8/2010
1175	481200	VCP	24	102	6/30/1952	Rehabilitation	10/28/2010	101	12/1/2009
1175	481232	VCP	24	163	1/7/1952	Rehabilitation	10/28/2010	161	10/28/2010
1175	481263	VCP	24	245	1/7/1952	Rehabilitation	10/28/2010	243	12/1/2009
1175	481305	VCP	24	190	1/7/1952	Rehabilitation	10/28/2010	188	10/26/2010
1175	481329	VCP	24	265	1/7/1952	Rehabilitation	10/28/2010	261	10/26/2010
1175	481349	VCP	24	266	1/7/1952	Rehabilitation	11/13/2010	265	12/1/2009
1175	481360	VCP	24	192	1/7/1952	Rehabilitation	11/13/2010	191	12/1/2009
1175	481376	VCP	24	256	1/7/1952	Rehabilitation	11/13/2010	252	12/1/2009
1175	481383	VCP	24	104	1/7/1952	Rehabilitation	11/13/2010	119	10/29/2010
1175	481387	VCP	24	227	1/7/1952	Rehabilitation	10/28/2010	226	10/26/2010
1176	268582	TCP	8	236	6/30/1910	Rehabilitation	1/28/2011	231	1/27/2011
1176	268684	TCP	8	334	9/6/1906	Rehabilitation	3/15/2011	331	1/27/2011
1176	268872	TCP	10	212	9/6/1906	Rehabilitation	3/15/2011	209	3/7/2011
1176	268988	TCP	10	239	9/6/1906	Rehabilitation	3/15/2011	234	3/7/2011
1176	269145	TCP	10	258	9/6/1906	Rehabilitation	3/15/2011	251	3/8/2011
1176	269273	TCP	10	222	9/6/1906	Rehabilitation	3/15/2011	222	3/8/2011
1176	269368	TCP	12	258	9/6/1906	Rehabilitation	3/15/2011	256	3/9/2011
1176	269490	TCP	12	232	9/6/1906	Rehabilitation	2/18/2010	230	12/11/2009
1176	269603	VCP	15	171	6/30/1938	Rehabilitation	12/9/2009	167	12/1/2009
1176	269679	VCP	15	187	3/10/1939	Rehabilitation	12/11/2009	178	11/30/2009
1176	269770	VCP	15	166	3/10/1939	Rehabilitation	3/15/2011	166	3/10/2011
1176	269859	VCP	15	174	3/10/1939	Rehabilitation	12/9/2009	166	12/1/2009
1176	269941	VCP	15	167	3/10/1939	Rehabilitation	12/9/2009	165	12/1/2009
1176	270012	VCP	18	248	6/30/1951	Rehabilitation	3/26/2011	243	3/21/2009
1176	270020	VCP	15	175	3/10/1939	Rehabilitation	12/9/2009	171	12/1/2009
1176	270101	VCP	15	166	3/10/1939	Rehabilitation	12/11/2009	171	12/1/2009
1176	270170	VCP	15	175	3/10/1939	Rehabilitation	12/10/2009	176	12/1/2009
1176	270249	VCP	15	166	3/10/1939	Rehabilitation	12/10/2009	167	12/2/2009
1176	270315	VCP	15	121	6/30/1938	Rehabilitation	12/10/2009	116	12/2/2009
1177	573297	VCP	8	137	11/27/1968	Rehabilitation	11/25/2009	135	9/28/2009
1177	573302	VCP	8	85	11/27/1968	Rehabilitation	11/25/2009	85	9/28/2009
1177	573314	VCP	8	63	11/27/1968	Rehabilitation	11/25/2009	64	9/28/2009
1177	573325	VCP	6	150	8/18/1969	Rehabilitation	11/25/2009	153	9/29/2009
1177	605599	VCP	8	88	11/27/1968	Rehabilitation	11/25/2009	85	9/28/2009
1177	605623	VCP	8	182	11/27/1968	Rehabilitation	11/25/2009	177	9/28/2009
1177	4000520	VCP	6	145	8/18/1969	Rehabilitation	11/25/2009	147	9/29/2009
1177	4000521	VCP	6	160	8/18/1969	Rehabilitation	11/25/2009	158	9/29/2009
1178	590156	VCP	12	45	3/18/1965	Rehabilitation	8/30/2010	47	8/5/2010
1178	590182	VCP	12	92	3/18/1965	Rehabilitation	8/30/2010	87	8/5/2010
1178	590225	VCP	12	172	3/18/1965	Rehabilitation	8/30/2010	171	8/5/2010
1178	590999	VCP	6	98	3/18/1965	Rehabilitation	8/13/2010	97	8/4/2010
1179	481128	VCP	8	241	1/7/1952	Rehabilitation	8/18/2010	239	8/10/2010
1179	481168	VCP	12	160	1/7/1952	Rehabilitation	9/13/2010	158	8/18/2010
1179	481184	VCP	12	180	1/7/1952	Rehabilitation	9/13/2010	179	8/18/2010
1179	481215	VCP	12	264	1/7/1952	Rehabilitation	9/13/2010	236	9/2/2010
1179	481238	VCP	12	189	1/7/1952	Rehabilitation	9/13/2010	189	9/2/2010

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1181	363943	VCP	6	54	6/3/1969	Rehabilitation	9/23/2009	58	6/22/2009
1181	363956	VCP	6	252	6/3/1969	Rehabilitation	9/24/2009	228	6/22/2009
1184	216750	VCP	6	281	1/14/1971	Point Repair	7/21/2010	3	9/23/2008
1191	268079	TCP	6	182	6/30/1923	Rehabilitation	6/5/2009	182	10/23/2008
1191	268204	TCP	8	115	6/30/1923	Rehabilitation	12/4/2008	118	N/A
1191	268267	TCP	8	319	6/30/1923	Rehabilitation	12/4/2008	309	N/A
1196	244547	TCP	8	350	6/30/1922	Rehabilitation	11/3/2008	343	N/A
1196	244636	TCP	8	97	7/29/1921	Rehabilitation	4/27/2009	88	5/1/2008
1196	244794	TCP	8	250	7/29/1921	Rehabilitation	7/30/2008	248	N/A
1196	244840	TCP	6	73	6/30/1922	Rehabilitation	11/7/2008	75	N/A
1196	244898	TCP	8	186	6/30/1922	Rehabilitation	7/30/2008	187	N/A
1203	312941	TCP	8	149	7/25/1906	Rehabilitation	7/18/2008	141	N/A
1203	313088	TCP	6	210	6/30/1940	Rehabilitation	3/25/2010	207	5/1/2008
1203	313177	TCP	8	85	6/30/1938	Rehabilitation	7/18/2008	80	N/A
1203	313409	TCP	8	213	6/30/1921	Rehabilitation	11/18/2009	206	6/4/2009
1204	289915	TCP	8	221	1/2/1900	Rehabilitation	5/8/2009	219	5/1/2008
1204	290036	TCP	6	210	6/30/1915	Rehabilitation	8/5/2008	208	N/A
1206	313815	TCP	8	314	1/2/1900	Rehabilitation	10/8/2009	306	6/12/2009
1206	313824	TCP	8	241	1/2/1900	Rehabilitation	10/9/2009	232	6/12/2009
1207	314255	TCP	6	73	6/30/1915	Rehabilitation	5/8/2009	70	5/8/2009
1209	314866	CIPP	6	295	1/2/1900	Rehabilitation	5/4/2012	298	N/A
1209	314876	TCP	6	180	1/2/1900	Point Repair	5/12/2009	10	1/21/2009
1209	315028	TCP	6	314	1/2/1900	Point Repair	3/21/2012	30	N/A
1209	315111	TCP	6	281	1/2/1900	Point Repair	6/26/2009	5	3/30/2009
1209	315195	TCP	6	201	1/2/1900	Point Repair	6/26/2009	10	3/30/2009
1209	315671	VCP	6	271	1/2/1900	Point Repair		20	1/20/2009
1209	314892	TCP	6	116	1/2/1900	Rehabilitation	5/13/2009	115	N/A
1209	314907	TCP	6	155	1/2/1900	Rehabilitation	6/27/2009	152	1/21/2009
1209	315161	TCP	6	108	6/30/1900	Rehabilitation	12/1/2011	107	11/25/2009
1211	315513	TCP	6	167	1/2/1900	Rehabilitation	10/13/2009	164	6/2/2008
1211	342588	TCP	6	142	1/2/1900	Rehabilitation	10/13/2009	134	6/2/2008
1211	357055	TCP	6	167	1/2/1900	Rehabilitation	2/10/2009	167	10/17/2008
1214	244301	TCP	8	182	7/29/1921	Rehabilitation	11/24/2010	182	2/1/2010
1214	244305	TCP	6	219	7/29/1921	Rehabilitation	2/28/2011	219	2/2/2010
1214	244512	VCP	8	200	7/29/1921	Rehabilitation	2/5/2010	199	2/1/2010
1214	244567	VCP	8	200	7/29/1921	Rehabilitation	2/5/2010	196	2/1/2010
1214	244760	VCP	8	89	5/15/1964	Rehabilitation	2/10/2010	89	2/4/2010
1214	244801	VCP	8	116	5/15/1964	Rehabilitation	2/10/2010	116	2/4/2010
1214	244847	VCP	8	71	5/15/1964	Rehabilitation	2/10/2010	74	2/4/2010
1214	244869	VCP	8	161	5/15/1964	Rehabilitation	2/10/2010	156	2/4/2010
1214	244927	VCP	8	121	5/15/1964	Rehabilitation	2/10/2010	111	2/4/2010
1214	245566	VCP	8	198	7/29/1921	Rehabilitation	11/24/2010	197	2/1/2010
1214	245568	TCP	6	32	6/30/1922	Rehabilitation	3/29/2011	30	2/2/2010
1214	3005822	UNK	6	182	7/29/1921	Rehabilitation	2/28/2011	186	2/2/2010
1214	4044888	VCP	8	34	1/2/1900	Rehabilitation	2/10/2010	36	2/4/2010
1215	620078	VCP	10	170	1/6/1967	Rehabilitation	3/24/2011	165	8/17/2010
1215	620104	VCP	10	197	11/30/1962	Rehabilitation	3/14/2011	196	8/17/2010
1215	620108	VCP	8	78	11/30/1962	Rehabilitation	8/23/2010	77	8/17/2010
1215	620128	VCP	8	228	11/30/1962	Rehabilitation	3/10/2011	226	8/17/2010
1215	620148	VCP	8	215	11/30/1962	Rehabilitation	3/31/2011	213	3/15/2011
1215	620157	VCP	8	242	11/30/1962	Rehabilitation	8/24/2010	241	8/17/2010
1215	620177	VCP	8	239	11/30/1962	Rehabilitation	3/31/2011	238	3/15/2011
1215	620272	VCP	8	237	8/18/1983	Rehabilitation	3/8/2011	236	8/17/2010

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1215	620273	VCP	8	228	11/30/1962	Rehabilitation	3/25/2011	225	3/15/2011
1215	620536	VCP	8	265	8/18/1983	Rehabilitation	3/7/2011	232	8/17/2010
1215	620537	VCP	8	225	8/18/1983	Rehabilitation	3/28/2011	221	3/15/2011
1223	344239	TCP	8	286	1/2/1900	Rehabilitation	6/2/2010	280	10/9/2009
1223	344395	TCP	8	274	1/2/1900	Rehabilitation	6/2/2010	271	10/9/2009
1223	344415	TCP	8	41	1/2/1900	Rehabilitation	5/18/2010	41	10/9/2009
1223	344425	VCP	8	150	6/30/1986	Rehabilitation	6/22/2010	150	10/7/2009
1223	344440	VCP	21	103	6/30/1966	Rehabilitation	5/17/2010	104	10/9/2009
1223	344471	TCP	8	286	1/2/1900	Rehabilitation	5/6/2010	287	10/7/2009
1223	344581	TCP	8	250	11/20/1928	Rehabilitation	5/18/2010	249	10/8/2009
1223	344614	TCP	8	192	11/20/1928	Rehabilitation	5/17/2010	193	10/9/2009
1223	344664	TCP	8	66	11/20/1928	Rehabilitation	5/17/2010	74	10/8/2009
1223	344687	TCP	8	66	11/20/1928	Rehabilitation	5/17/2010	67	10/9/2009
1223	344695	TCP	8	217	11/20/1928	Rehabilitation	5/14/2010	217	10/8/2009
1223	344726	TCP	8	157	2/24/1939	Rehabilitation	5/14/2010	157	10/8/2009
1223	344774	TCP	8	247	11/20/1928	Rehabilitation	5/13/2010	250	11/3/2009
1223	344865	TCP	8	76	1/2/1900	Rehabilitation	5/13/2010	76	11/9/2009
1223	345258	TCP	8	33	1/2/1900	Rehabilitation	5/13/2010	32	11/3/2009
1223	345259	TCP	10	250	1/2/1900	Rehabilitation	5/21/2010	231	5/20/2010
1226	254960	TCP	6	79	6/30/1948	Point Repair	8/11/2010	11	12/9/2009
1226	255802	TCP	8	229	6/30/1948	Point Repair	8/11/2010	4	N/A
1226	257318	TCP	6	122	6/30/1948	Point Repair	8/11/2010	38	N/A
1228	603760	VCP	8	111	6/8/1973	Rehabilitation	2/9/2010	110	10/1/2009
1228	603764	VCP	8	114	6/8/1973	Rehabilitation	2/9/2010	112	10/2/2009
1228	603766	VCP	8	79	6/8/1973	Rehabilitation	2/9/2010	79	10/1/2009
1228	603771	VCP	8	124	6/8/1973	Rehabilitation	2/9/2010	122	10/1/2009
1228	603778	VCP	8	104	6/8/1973	Rehabilitation	2/9/2010	104	10/2/2009
1228	603780	VCP	8	97	6/8/1973	Rehabilitation	2/9/2010	95	10/1/2009
1228	603789	VCP	8	83	6/8/1973	Rehabilitation	2/9/2010	81	10/1/2009
1228	603794	VCP	8	127	6/8/1973	Rehabilitation	2/9/2010	126	10/2/2009
1228	603807	VCP	8	79	6/8/1973	Rehabilitation	2/9/2010	80	10/1/2009
1228	603820	VCP	8	130	6/8/1973	Rehabilitation	2/9/2010	130	10/2/2009
1228	603827	VCP	8	113	6/8/1973	Rehabilitation	2/9/2010	112	10/1/2009
1228	603839	VCP	8	81	6/8/1973	Rehabilitation	2/9/2010	79	10/2/2009
1228	606350	VCP	10	65	5/5/1970	Rehabilitation	2/9/2010	62	9/30/2009
1228	606359	VCP	10	74	5/5/1970	Rehabilitation	2/9/2010	71	9/30/2009
1228	606369	VCP	10	110	5/5/1970	Rehabilitation	2/9/2010	108	9/30/2009
1228	619954	VCP	10	280	5/5/1970	Rehabilitation	2/9/2010	278	9/30/2009
1228	619958	VCP	10	146	6/8/1973	Rehabilitation	2/9/2010	142	10/2/2009
1228	619960	VCP	8	77	6/8/1973	Rehabilitation	2/9/2010	77	10/2/2009
1228	619974	VCP	8	165	6/8/1973	Rehabilitation	2/9/2010	164	10/2/2009
1228	619980	VCP	12	128	5/5/1970	Rehabilitation	2/9/2010	128	10/2/2009
1228	4061677	VCP	10	170	5/5/1970	Rehabilitation	2/9/2010	177	9/30/2009
1232	235503	VCP	6	175	5/28/1959	Point Repair	7/7/2011	92	4/13/2011
1233	2012886	VCP	8	128	9/25/1992	Rehabilitation	7/7/2010	128	7/7/2010
1235	644690	VCP	10	250	7/13/1973	Rehabilitation	1/4/2010	241	10/2/2009
1235	644723	VCP	10	250	7/13/1973	Rehabilitation	1/4/2010	252	9/30/2009
1235	644742	VCP	10	166	7/13/1973	Rehabilitation	1/4/2010	166	10/1/2009
1235	644752	VCP	8	133	7/13/1973	Rehabilitation	9/25/2009	129	9/16/2009
1235	644755	VCP	8	75	6/30/1964	Rehabilitation	1/4/2010	42	9/17/2009
1235	644759	VCP	8	166	6/30/1964	Rehabilitation	10/2/2009	216	9/17/2009
1235	644770	VCP	8	27	6/30/1964	Rehabilitation	10/2/2009	11	9/16/2009
1235	644777	VCP	8	268	6/30/1964	Rehabilitation	10/2/2009	269	9/16/2009

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1235	644785	VCP	8	268	6/30/1964	Rehabilitation	10/2/2009	267	9/16/2009
1235	644787	VCP	8	119	6/30/1964	Rehabilitation	9/24/2009	118	9/16/2009
1238	324728	VCP	6	56	1/9/1970	Rehabilitation	4/6/2010	52	8/13/2007
1238	368399	VCP	6	52	1/9/1970	Rehabilitation	4/6/2010	74	8/13/2007
1238	368418	VCP	6	153	1/9/1970	Rehabilitation	4/6/2010	154	8/13/2007
1240	364454	TCP	6	41	6/30/1922	Rehabilitation	5/26/2011	43	4/1/2011
1240	364469	VCP	8	191	2/5/1954	Rehabilitation	4/6/2011	192	4/1/2011
1240	364475	TCP	6	183	6/30/1922	Rehabilitation	5/26/2011	187	4/1/2011
1240	364542	TCP	6	175	6/30/1922	Rehabilitation	4/5/2011	174	4/1/2011
1240	364616	TCP	6	189	6/30/1922	Rehabilitation	5/26/2011	171	4/1/2011
1240	364631	VCP	6	112	12/17/1980	Rehabilitation	5/18/2011	110	4/1/2011
1240	364715	TCP	10	147	6/30/1912	Rehabilitation	4/7/2011	146	4/1/2011
1240	364730	TCP	10	64	6/30/1912	Rehabilitation	5/27/2011	61	4/1/2011
1240	364748	TCP	10	32	6/30/1912	Rehabilitation	5/27/2011	31	4/1/2011
1240	365342	TCP	10	272	6/30/1912	Rehabilitation	5/25/2011	271	4/12/2011
1240	369593	TCP	10	269	6/30/1912	Rehabilitation	5/24/2011	264	4/12/2011
1240	3013454	VCP	8	142	6/30/1954	Rehabilitation	4/6/2011	132	4/1/2011
1247	270380	TCP	6	116	9/16/1944	Point Repair	5/15/2009	21	3/19/2009
1247	270429	TCP	6	211	9/16/1944	Point Repair	5/15/2009	83	N/A
1247	270507	TCP	6	212	9/16/1944	Point Repair	5/15/2009	4	N/A
1247	270588	TCP	6	43	6/30/1928	Point Repair	5/15/2009	12	N/A
1250	598067	RCP	21	14	10/19/1966	Rehabilitation	5/11/2009	13	4/22/2009
1250	598073	RCP	21	428	10/19/1966	Rehabilitation	5/28/2009	417	4/20/2009
1252	570378	VCP	8	129	1/11/1974	Rehabilitation	4/29/2010	134	8/8/2007
1252	570411	VCP	6	112	1/11/1974	Rehabilitation	4/30/2010	86	8/8/2007
1252	570445	VCP	8	91	1/11/1974	Rehabilitation	4/29/2010	92	8/8/2007
1252	570465	VCP	8	133	1/11/1974	Rehabilitation	4/29/2010	128	8/8/2007
1252	570469	VCP	8	41	1/11/1974	Rehabilitation	4/29/2010	44	8/8/2007
1253	603646	UNK	8	148	6/14/1970	Rehabilitation	6/8/2010	148	5/11/2010
1253	603672	UNK	8	107	6/14/1970	Rehabilitation	6/8/2010	109	5/11/2010
1253	603675	UNK	8	180	6/14/1970	Rehabilitation	6/8/2010	176	5/11/2010
1253	603680	UNK	12	107	12/10/1969	Rehabilitation	9/10/2010	101	6/3/2010
1253	603681	UNK	12	277	12/10/1969	Rehabilitation	9/1/2010	277	6/3/2010
1253	603684	VCP	12	30	12/10/1969	Rehabilitation	9/1/2010	28	6/3/2010
1256	219381	VCP	8	70	8/14/1953	Rehabilitation	8/7/2008	69	N/A
1257	262663	VCP	6	213	6/30/1960	Rehabilitation	3/30/2011	202	1/28/2011
1257	262680	VCP	6	238	6/30/1960	Rehabilitation	3/30/2011	233	1/28/2011
1265	238298	RCP	15	241	6/30/1959	Rehabilitation	9/8/2010	241	9/15/2010
1265	238299	RCP	15	195	6/30/1959	Rehabilitation	9/17/2010	194	9/15/2010
1265	238301	RCP	15	150	6/30/1959	Rehabilitation	9/17/2010	146	9/15/2010
1265	238305	RCP	15	249	6/30/1959	Rehabilitation	9/8/2010	247	9/15/2010
1265	238306	RCP	15	250	6/30/1959	Rehabilitation	9/8/2010	251	9/8/2010
1265	238307	RCP	15	240	6/30/1959	Rehabilitation	9/8/2010	240	9/8/2010
1265	238308	RCP	15	193	6/30/1959	Rehabilitation	9/9/2010	192	9/9/2010
1265	238309	RCP	15	30	6/30/1959	Rehabilitation	9/9/2010	28	9/9/2010
1266	245106	VCP	15	206	4/9/1962	Rehabilitation	8/18/2011	201	8/17/2011
1266	245192	VCP	15	330	6/30/1922	Rehabilitation	8/18/2011	327	8/17/2011
1266	245476	VCP	15	64	6/30/1922	Rehabilitation	8/20/2011	61	8/20/2011
1266	245495	VCP	15	230	6/30/1922	Rehabilitation	8/20/2011	230	8/20/2011
1275	189609	TCP	6	178	1/2/1900	Rehabilitation	12/16/2009	180	6/19/2009
1275	189617	TCP	6	305	1/2/1900	Rehabilitation	12/16/2009	294	4/2/2009
1275	189626	TCP	6	108	1/2/1900	Rehabilitation	12/16/2009	111	4/2/2009
1275	189629	UNK	6	290	1/2/1900	Rehabilitation	12/4/2009	223	3/31/2009

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1275	189638	UNK	6	210	1/2/1900	Rehabilitation	12/4/2009	222	3/31/2009
1275	189640	UNK	6	185	1/2/1900	Rehabilitation	12/4/2009	200	4/1/2009
1275	189646	UNK	8	210	1/2/1900	Rehabilitation	12/14/2009	187	12/14/2009
1275	189656	UNK	8	375	1/2/1900	Rehabilitation	4/22/2009	306	4/21/2009
1275	189657	VCP	10	308	9/28/1967	Rehabilitation	4/21/2009	304	4/21/2009
1275	189666	UNK	6	368	1/2/1900	Rehabilitation	4/21/2009	292	3/31/2009
1275	189676	UNK	6	345	1/2/1900	Rehabilitation	4/21/2009	298	4/1/2009
1275	189980	UNK	8	155	1/2/1900	Rehabilitation	12/14/2009	150	12/14/2009
1275	192053	PVC	6	165	1/2/1900	Rehabilitation	12/16/2009	167	6/18/2009
1275	192056	VCP	8	299	11/5/1959	Rehabilitation	4/22/2009	295	4/2/2009
1275	192060	TCP	6	188	1/2/1900	Rehabilitation	12/16/2009	185	6/18/2009
1275	192062	TCP	6	245	1/2/1900	Rehabilitation	12/16/2009	252	6/19/2009
1275	192065	VCP	8	134	11/5/1959	Rehabilitation	4/22/2009	134	4/2/2009
1275	192067	VCP	8	139	11/5/1959	Rehabilitation	4/22/2009	138	4/15/2009
1275	4061162	VCP	6	114	1/2/1900	Rehabilitation	12/16/2009	110	6/19/2009
1276	600198	VCP	8	209	6/30/1957	Rehabilitation	2/28/2011	204	1/5/2011
1276	600208	VCP	6	182	6/30/1957	Rehabilitation	3/2/2011	180	1/5/2011
1276	600210	VCP	8	78	6/30/1957	Rehabilitation	1/19/2011	78	12/2/2010
1276	600231	VCP	8	238	6/30/1957	Rehabilitation	1/20/2011	239	1/5/2011
1276	600245	VCP	8	109	6/30/1957	Rehabilitation	1/19/2011	109	12/2/2010
1276	600248	VCP	8	209	6/30/1957	Rehabilitation	2/28/2011	208	1/5/2011
1276	600249	VCP	8	260	6/30/1957	Rehabilitation	1/13/2011	263	12/2/2010
1276	600272	VCP	8	127	6/30/1957	Rehabilitation	2/21/2011	129	12/2/2010
1276	600299	VCP	8	83	6/30/1957	Rehabilitation	1/21/2011	82	12/2/2010
1276	600302	VCP	8	176	6/30/1957	Rehabilitation	2/25/2011	172	1/5/2011
1276	600324	VCP	8	286	6/30/1957	Rehabilitation	1/25/2011	293	12/2/2010
1276	600329	VCP	6	137	6/30/1957	Rehabilitation	3/1/2011	136	1/5/2011
1276	600334	VCP	8	194	6/30/1957	Rehabilitation	1/13/2011	193	12/2/2010
1276	600340	VCP	8	144	6/30/1957	Rehabilitation	2/28/2011	140	1/5/2011
1276	600379	VCP	8	220	6/30/1957	Rehabilitation	1/14/2011	218	12/2/2010
1276	600401	VCP	8	151	6/30/1957	Rehabilitation	1/18/2011	151	12/2/2010
1277	600535	VCP	8	25	6/30/1957	Rehabilitation	12/3/2010	24	11/30/2010
1277	600589	VCP	8	93	6/30/1957	Rehabilitation	12/3/2010	88	11/30/2010
1277	4039226	PVC	8	224	5/25/2005	Rehabilitation	12/6/2010	216	11/30/2010
1278	600598	VCP	8	264	2/24/1977	Rehabilitation	1/6/2011	263	11/30/2010
1278	600613	VCP	8	39	2/24/1977	Rehabilitation	1/6/2011	38	11/30/2010
1278	600654	VCP	8	119	6/30/1957	Rehabilitation	12/10/2010	118	11/30/2010
1278	600672	VCP	6	140	6/30/1977	Rehabilitation	1/6/2011	143	1/6/2011
1278	600692	VCP	6	137	6/30/1957	Rehabilitation	1/6/2011	134	12/13/2010
1278	600723	VCP	8	248	6/30/1977	Rehabilitation	1/6/2011	249	11/30/2010
1278	600742	VCP	8	245	6/30/1957	Rehabilitation	12/13/2010	246	11/30/2010
1278	600837	VCP	8	256	6/30/1957	Rehabilitation	12/13/2010	255	11/30/2010
1278	600896	VCP	8	196	6/30/1977	Rehabilitation	1/6/2011	195	11/30/2010
1283	62429	VCP	8	282	6/30/1960	Rehabilitation	10/4/2010	267	3/5/2009
1285	324560	VCP	6	79	4/11/1958	Rehabilitation	4/5/2010	76	3/31/2010
1285	324561	VCP	6	51	4/11/1958	Rehabilitation	4/5/2010	42	3/31/2010
1285	329361	TCP	8	115	6/30/1949	Rehabilitation	3/31/2010	118	3/24/2010
1285	329724	TCP	8	207	6/30/1951	Rehabilitation	3/29/2010	207	3/24/2010
1285	329758	TCP	8	228	6/30/1951	Rehabilitation	3/30/2010	227	3/24/2010
1285	330600	TCP	8	124	6/30/1951	Rehabilitation	3/29/2010	124	3/24/2010
1297	188329	VCP	12	180	5/17/1956	Rehabilitation	8/9/2011	182	7/5/2011
1297	188332	VCP	12	172	5/17/1956	Rehabilitation	7/21/2011	173	7/5/2011
1297	188370	VCP	12	244	5/17/1956	Rehabilitation	7/21/2011	244	7/5/2011

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1297	188423	VCP	12	221	5/17/1956	Rehabilitation	7/21/2011	224	7/6/2011
1297	188432	VCP	6	248	5/17/1956	Rehabilitation	8/9/2011	277	7/6/2011
1297	188438	TCP	12	186	6/30/1953	Rehabilitation	7/21/2011	184	7/6/2011
1297	188453	TCP	12	54	6/30/1953	Rehabilitation	7/21/2011	52	7/6/2011
1297	188455	VCP	8	192	5/17/1956	Rehabilitation	7/22/2011	190	7/5/2011
1297	189514	VCP	12	197	8/22/1961	Rehabilitation	7/21/2011	196	7/6/2011
1297	189524	VCP	8	300	5/17/1956	Rehabilitation	7/22/2011	300	7/6/2011
1297	194581	VCP	8	125	8/22/1961	Rehabilitation	7/22/2011	126	7/6/2011
1300	304542	TCP	8	307	6/30/1925	Rehabilitation	6/7/2011	263	5/31/2011
1300	304683	TCP	8	159	6/30/1927	Rehabilitation	6/7/2011	159	2/28/2011
1300	304853	VCP	8	250	5/14/1971	Rehabilitation	6/8/2011	248	5/31/2011
1300	304945	VCP	8	243	5/14/1971	Rehabilitation	6/15/2011	242	5/31/2011
1300	304999	VCP	8	205	6/30/1926	Rehabilitation	6/15/2011	136	5/31/2011
1300	3005878	TCP	8	270	1/2/1900	Rehabilitation	6/9/2011	269	5/31/2011
1300	3005882	TCP	8	265	1/2/1900	Rehabilitation	6/14/2011	266	5/31/2011
1306	314450	TCP	6	220	1/2/1900	Rehabilitation	7/26/2011	218	N/A
1306	314595	TCP	6	184	1/2/1900	Rehabilitation	7/26/2011	184	7/13/2011
1306	314545	TCP	6	33	1/2/1900	Rehabilitation	7/26/2011	31	7/15/2011
1307	364231	TCP	6	210		Rehabilitation	10/3/2012	208	7/23/2012
1307	364443	TCP	6	170		Rehabilitation	10/3/2012	169	7/27/2012
1307	364457	TCP	6	203		Rehabilitation	10/3/2012	250	5/11/2010
1307	364471	TCP	6	40		Rehabilitation	7/20/2012	39	4/6/2011
1307	364488	TCP	6	124		Rehabilitation	11/4/2011	123	5/10/2011
1307	365341	TCP	6	167		Rehabilitation	11/28/2011	167	4/7/2011
1307	369542	TCP	6	248		Rehabilitation	10/4/2012	249	10/20/2011
1307	369562	TCP	6	33		Rehabilitation	10/28/2011	32	4/7/2011
1307	369564	TCP	6	250		Rehabilitation	11/3/2011	249	11/17/2010
1307	369565	TCP	6	175		Rehabilitation	10/4/2012	176	7/11/2012
1307	4056212	CIP	6	81		Rehabilitation	10/3/2012	86	4/8/2011
1307	4073742	TCP	6	184		Rehabilitation	11/4/2011	182	N/A
1308	332370	VCP	8	204	6/30/1949	Rehabilitation	9/7/2011	199	5/11/2010
1308	332402	VCP	8	154	6/30/1949	Rehabilitation	10/4/2011	154	5/10/2010
1308	332435	VCP	8	117	6/30/1949	Rehabilitation	10/4/2011	117	5/10/2010
1308	332470	VCP	8	213	6/30/1949	Rehabilitation	8/26/2011	212	8/15/2011
1308	332482	VCP	8	103	6/30/1949	Rehabilitation	9/1/2011	98	5/10/2010
1308	332513	VCP	8	250	6/30/1949	Rehabilitation	8/25/2011	249	1/20/2010
1308	375404	VCP	8	109	6/30/1949	Rehabilitation	9/7/2011	104	2/9/2010
1308	3013681	UNK	6	145	1/2/1900	Rehabilitation	12/12/2011	145	N/A
1309	375308	VCP	8	106	6/30/1949	Rehabilitation	8/31/2011	102	3/10/2010
1309	375395	VCP	8	161	6/30/1949	Rehabilitation	9/7/2011	157	2/9/2010
1309	375416	VCP	8	103	6/30/1949	Rehabilitation	9/9/2011	104	9/10/2010
1309	375502	VCP	8	135	6/30/1949	Rehabilitation	9/12/2011	129	1/20/2010
1309	375532	VCP	8	150	6/30/1949	Rehabilitation	8/31/2011	145	1/20/2010
1310	375496	VCP	6	106	6/30/1949	Rehabilitation	8/30/2011	101	8/18/2011
1310	375590	VCP	8	204	6/30/1949	Rehabilitation	9/19/2011	219	6/30/2010
1310	375614	VCP	8	175	6/30/1949	Rehabilitation	9/15/2011	177	5/11/2010
1310	375617	VCP	8	236	6/30/1949	Rehabilitation	9/9/2011	231	2/26/2010
1310	375620	VCP	8	130	6/30/1949	Rehabilitation	9/19/2011	130	2/24/2010
1310	375635	VCP	8	116	6/30/1949	Rehabilitation	9/9/2011	114	2/24/2010
1310	375648	TCP	8	143	6/30/1941	Rehabilitation	10/4/2011	139	3/19/2010
1310	375656	VCP	8	116	6/30/1949	Rehabilitation	9/16/2011	116	2/24/2010
1310	376018	VCP	6	95	12/6/1961	Rehabilitation	9/13/2011	94	5/20/2010
1311	670401	VCP	6	106	10/1/1954	Rehabilitation	9/28/2011	101	7/15/2010

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1312	375826	TCP	8	140	4/30/1952	Rehabilitation	11/17/2011	140	7/12/2010
1312	375866	TCP	8	140	4/30/1952	Rehabilitation	11/17/2011	138	7/12/2010
1312	375966	TCP	8	225	4/30/1952	Rehabilitation	11/9/2011	224	7/13/2010
1312	376010	TCP	6	68	4/30/1952	Rehabilitation	10/21/2011	69	7/14/2010
1312	376065	VCP	8	66	6/30/1976	Rehabilitation	11/10/2011	65	12/11/2009
1312	376085	VCP	6	120	6/30/1965	Rehabilitation	11/16/2012	113	4/5/2011
1312	376162	TCP	12	140	4/17/1952	Rehabilitation	12/2/2011	140	8/31/2010
1312	376172	TCP	8	63	4/17/1952	Rehabilitation	11/14/2011	47	3/18/2010
1312	376186	TCP	8	40	6/30/1951	Rehabilitation	11/14/2011	40	3/18/2010
1312	376208	TCP	8	73	4/30/1952	Rehabilitation	10/21/2011	73	8/25/2010
1312	376222	TCP	8	180	4/30/1952	Rehabilitation	10/21/2011	180	8/25/2010
1312	376299	TCP	8	39	11/27/1953	Rehabilitation	10/21/2011	39	5/21/2010
1312	376310	TCP	8	149	11/27/1953	Rehabilitation	10/21/2011	149	8/24/2010
1312	376619	VCP	8	78	8/7/1974	Rehabilitation	11/17/2011	78	8/5/2010
1312	376621	TCP	8	187	4/30/1952	Rehabilitation	10/21/2011	187	3/18/2010
1312	670392	TCP	8	108	4/30/1952	Rehabilitation	10/21/2011	107	3/18/2010
1312	670447	TCP	8	127	4/30/1952	Rehabilitation	10/21/2011	127	2/10/2010
1312	376206	TCP	12	170	6/30/1951	Rehabilitation	9/27/2011	164	8/31/2010
1312	376261	VCP	8	198	6/16/1977	Rehabilitation	9/23/2011	192	2/10/2010
1313	380583	TCP	14	250	4/15/1919	Rehabilitation	6/27/2011	246	1/28/2011
1314	375281	VCP	8	71	5/5/1966	Rehabilitation	12/15/2011	71	3/16/2010
1314	375676	VCP	8	56	5/31/1962	Rehabilitation	12/16/2011	56	10/13/2010
1314	375849	TCP	6	178	7/25/1944	Rehabilitation	1/3/2012	178	4/29/2010
1315	401913	TCP	6	120	1/21/1944	Rehabilitation	1/5/2012	120	9/22/2010
1315	402306	TCP	6	212	2/8/1932	Rehabilitation	1/11/2012	211	10/21/2010
1315	402878	VCP	6	197	2/8/1932	Rehabilitation	1/13/2012	197	11/10/2010
1315	403282	TCP	6	155	6/30/1931	Rehabilitation	1/11/2012	155	10/26/2010
1315	676529	TCP	6	120	2/8/1932	Rehabilitation	1/9/2012	120	2/4/2010
1315	402805	VCP	8	138	6/30/1947	Rehabilitation	1/12/2012	131	8/19/2010
1324	401830	TCP	6	186		Rehabilitation	4/12/2012	4	5/3/2011
1324	401972	TCP	6	69		Rehabilitation	4/12/2012	4	5/11/2010
1324	402447	VCP	6	150		Rehabilitation	1/25/2012	4	4/21/2010
1324	716653	TCP	6	134		Rehabilitation	1/25/2012	4	4/19/2010
1324	373069	TCP	6	150	6/30/1931	Rehabilitation	5/17/2012	151	7/14/2010
1324	401922	TCP	6	210	2/8/1932	Rehabilitation	3/2/2012	205	5/3/2011
1324	401948	TCP	6	220	5/6/1932	Rehabilitation	3/2/2012	218	8/5/2010
1324	401997	TCP	6	210	5/6/1932	Rehabilitation	3/23/2012	208	4/21/2011
1324	716782	TCP	6	131	2/8/1932	Rehabilitation	3/2/2012	134	9/15/2010
1325	375681	TCP	6	190	6/30/1949	Rehabilitation	4/12/2012	190	7/2/2010
1325	375717	TCP	6	97	9/25/1952	Rehabilitation	4/17/2012	97	7/2/2010
1325	375727	TCP	6	167	6/30/1949	Rehabilitation	2/23/2012	167	7/2/2010
1325	375787	TCP	6	117	7/19/1944	Rehabilitation	2/24/2012	117	8/30/2010
1325	375802	TCP	6	173	7/19/1944	Rehabilitation	3/1/2012	173	4/6/2011
1325	375815	TCP	6	200	7/19/1944	Rehabilitation	2/27/2012	200	4/21/2010
1325	375839	TCP	6	145	7/19/1944	Rehabilitation	3/1/2012	145	9/2/2010
1325	375871	TCP	6	186	7/19/1944	Rehabilitation	3/2/2012	186	10/28/2010
1325	375910	TCP	6	195	6/30/1944	Rehabilitation	2/22/2012	195	4/20/2010
1325	376033	TCP	6	259	7/19/1944	Rehabilitation	3/2/2012	259	11/10/2010
1325	376046	TCP	6	250	7/19/1944	Rehabilitation	2/21/2012	250	7/9/2010
1325	376150	TCP	6	204	7/19/1944	Rehabilitation	2/24/2012	204	4/20/2010
1325	375768	TCP	6	250	6/30/1949	Rehabilitation	4/17/2012	250	7/2/2010
1325	375783	TCP	6	144	6/30/1949	Rehabilitation	4/17/2012	144	7/2/2010
1325	376121	TCP	6	119	7/19/1944	Rehabilitation	1/20/2012	119	4/20/2010

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1326	376314	TCP	6	130	6/30/1931	Rehabilitation	3/20/2012	130	1/26/2010
1326	376372	TCP	6	130	2/8/1932	Rehabilitation	3/22/2012	130	5/6/2011
1326	376437	TCP	6	207	8/10/1940	Rehabilitation	3/23/2012	207	9/24/2010
1326	376568	TCP	6	250	2/8/1932	Rehabilitation	3/23/2012	250	11/4/2010
1326	695928	VCP	8	249	2/8/1932	Rehabilitation	3/28/2012	249	1/29/2010
1326	376289	TCP	6	228	2/8/1932	Point Repair	3/14/2012	39	7/8/2010
1326	376385	TCP	6	126	2/8/1932	Point Repair	1/31/2012	13	10/26/2010
1326	376505	TCP	6	250	2/8/1932	Point Repair	3/16/2012	44	10/5/2010
1326	376644	TCP	6	28	2/8/1932	Point Repair	1/23/2012	28	4/27/2011
1326	696376	VCP	8	250	2/8/1932	Point Repair	3/7/2012	6	4/16/2010
1326	376291	TCP	6	182	6/30/1931	Rehabilitation	3/28/2012	182	1/26/2010
1326	376292	TCP	6	140	6/30/1931	Rehabilitation	1/24/2012	140	1/26/2010
1326	376324	TCP	6	105	6/30/1931	Rehabilitation	3/20/2012	105	1/26/2010
1326	376444	TCP	6	250	2/8/1932	Rehabilitation	3/21/2012	4	11/4/2010
1326	376476	TCP	6	118	8/10/1940	Rehabilitation	1/20/2012	118	9/4/2010
1326	696139	TCP	6	235	2/8/1932	Rehabilitation	3/7/2012	235	9/16/2010
1327	403487	TCP	6	164		Rehabilitation	4/30/2012	4	10/22/2010
1327	403734	VCP	8	57		Rehabilitation	1/27/2012	4	10/8/2010
1327	403973	TCP	6	237		Rehabilitation	4/24/2012	8	4/5/2010
1327	404084	TCP	6	227		Rehabilitation	5/23/2012	4	4/5/2010
1327	404108	TCP	6	231		Rehabilitation	4/23/2012	8	7/23/2010
1327	695751	TCP	6	250		Rehabilitation	1/27/2012	4	3/22/2010
1327	696432	TCP	6	248		Rehabilitation	4/26/2012	4	N/A
1327	697418	VCP	8	96		Rehabilitation	4/30/2012	12	11/18/2010
1327	697535	VCP	8	69		Rehabilitation	4/24/2012	4	8/18/2010
1327	698089	TCP	6	248		Rehabilitation	4/25/2012	4	4/16/2010
1327	402991	TCP	6	248	2/8/1932	Rehabilitation	9/6/2012	244	4/16/2010
1327	403092	TCP	15	206	6/30/1931	Rehabilitation	11/14/2012	208	4/14/2010
1327	403104	TCP	6	249	2/8/1932	Rehabilitation	9/11/2012	249	10/26/2010
1327	403250	TCP	6	195	2/8/1932	Rehabilitation	8/30/2012	192	10/26/2010
1327	403252	TCP	6	162	2/8/1932	Rehabilitation	9/17/2012	161	N/A
1327	403278	TCP	6	163	2/8/1932	Rehabilitation	9/18/2012	164	10/22/2010
1327	403331	TCP	6	162	2/8/1932	Rehabilitation	9/18/2012	161	10/22/2010
1327	403414	TCP	6	164	2/8/1932	Rehabilitation	9/18/2012	164	10/22/2010
1327	403444	TCP	6	133	2/8/1932	Rehabilitation	9/14/2012	132	6/22/2010
1327	403896	TCP	6	175	2/8/1932	Rehabilitation	9/20/2012	175	10/29/2010
1327	410270	TCP	6	245	2/8/1932	Rehabilitation	9/6/2012	243	10/14/2010
1327	697028	TCP	6	219	9/21/1943	Rehabilitation	8/31/2012	220	9/20/2010
1327	697324	VCP	8	108	6/30/1949	Rehabilitation	6/26/2012	110	3/29/2011
1327	697509	VCP	8	63	6/30/1949	Rehabilitation	7/2/2012	62	8/18/2010
1328	401775	TCP	6	150		Rehabilitation	4/12/2012	4	5/28/2010
1328	402627	VCP	8	103		Rehabilitation	4/12/2012	4	4/21/2010
1328	403198	TCP	8	123		Rehabilitation	4/19/2012	4	#N/A
1328	403655	VCP	8	258		Rehabilitation	4/16/2012	4	4/5/2010
1328	403714	TCP	6	223		Rehabilitation	8/31/2012	8	10/21/2010
1328	403876	TCP	6	176		Rehabilitation	4/16/2012	8	8/10/2010
1328	402510	TCP	6	210	11/8/1945	Rehabilitation	4/24/2012	210	4/19/2010
1328	403380	TCP	8	152	2/8/1932	Rehabilitation	4/4/2012	141	1/15/2010
1328	403621	TCP	6	248	2/8/1932	Rehabilitation	4/5/2012	244	9/29/2010
1328	403631	TCP	6	265	2/8/1932	Rehabilitation	4/4/2012	263	9/15/2010
1328	403763	TCP	6	201	2/8/1932	Rehabilitation	4/26/2012	201	10/21/2010
1328	403830	UNK	6	258	2/8/1932	Rehabilitation	4/25/2012	142	N/A
1328	3010467	VCP	10	238	6/30/1949	Rehabilitation	6/5/2012	234	N/A

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1329	383281	VCP	8	27		Rehabilitation	5/17/2012	4	6/24/2010
1329	383803	TCP	6	74		Rehabilitation	3/21/2012	4	6/25/2010
1329	383861	TCP	6	268		Rehabilitation	3/21/2012	4	7/14/2010
1329	390162	TCP	6	240		Rehabilitation	3/21/2012	4	6/25/2010
1329	357363	TCP	12	333		Rehabilitation	7/25/2012	328	11/3/2010
1329	357441	TCP	8	368		Rehabilitation	7/12/2012	363	7/2/2010
1329	357442	TCP	12	331		Rehabilitation	7/24/2012	330	11/16/2010
1329	364420	TCP	8	365		Rehabilitation	7/12/2012	361	7/3/2012
1329	364977	TCP	10	302	6/30/1912	Rehabilitation	3/29/2012	293	1/20/2012
1329	365088	TCP	10	301	6/30/1912	Rehabilitation	7/24/2012	298	6/14/2010
1329	365329	CIP	6	165	6/30/1940	Rehabilitation	4/5/2012	162	10/4/2010
1329	383571	UNK	6	11		Rehabilitation	4/5/2012	8	12/3/2010
1329	390509	VCP	12	197	8/23/1965	Rehabilitation	4/5/2012	191	5/25/2010
1331	365153	CIP	6	243	6/30/1940	Rehabilitation	3/7/2012	242	10/1/2010
1331	389932	CIP	6	215	6/30/1940	Rehabilitation	3/6/2012	219	9/10/2010
1331	390568	CIP	6	65	6/30/1940	Rehabilitation	2/17/2012	61	11/17/2010
1332	389964	TCP	6	206		Rehabilitation	5/10/2012	8	9/22/2010
1332	390279	TCP	6	160		Rehabilitation	5/9/2012	4	11/9/2010
1332	390456	TCP	6	282		Rehabilitation	5/9/2012	4	11/4/2010
1332	390564	TCP	8	303		Rehabilitation	5/10/2012	4	5/19/2010
1332	391081	TCP	6	30		Rehabilitation	5/9/2012	4	7/19/2011
1332	389585	VCP	8	172	6/30/1940	Rehabilitation	3/22/2012	172	10/4/2010
1332	390048	TCP	6	218	6/17/1930	Rehabilitation	6/4/2012	217	6/14/2010
1332	391053	TCP	6	296	6/17/1930	Rehabilitation	3/15/2012	294	12/16/2010
1333	389691	VCP	6	140	6/30/1940	Rehabilitation	1/30/2013	134	2/13/2011
1333	391717	VCP	8	295		Rehabilitation	5/4/2012	4	N/A
1333	395832	CIP	8	232		Rehabilitation	5/8/2012	4	7/1/2010
1333	389593	CIP	6	201	6/30/1940	Rehabilitation	3/23/2012	200	10/19/2010
1333	390559	CIP	6	205	6/30/1940	Rehabilitation	3/14/2012	204	10/12/2010
1333	390631	CIP	6	240	6/30/1940	Rehabilitation	4/3/2012	239	7/14/2010
1333	391981	VCP	10	21	6/30/1965	Rehabilitation	3/16/2012	18	11/11/2010
1333	395915	CIP	6	190	6/30/1940	Rehabilitation	3/19/2012	187	N/A
1334	395950	VCP	12	50		Rehabilitation	5/3/2012	4	4/21/2011
1334	395960	VCP	8	200		Rehabilitation	5/2/2012	4	10/14/2010
1334	396293	VCP	8	148		Rehabilitation	5/3/2012	4	11/3/2010
1334	391904	RCP	18	256	6/30/1965	Rehabilitation	9/7/2012	252	4/14/2011
1334	396001	TCP	8	200	6/30/1952	Rehabilitation	5/9/2012	199	6/23/2010
1334	396016	VCP	6	133	12/14/1945	Rehabilitation	9/7/2012	130	5/6/2011
1334	396129	VCP	6	270	12/14/1945	Rehabilitation	5/21/2012	269	N/A
1334	396135	VCP	10	163	11/15/1968	Rehabilitation	9/7/2012	164	5/27/2010
1334	396175	VCP	6	240	12/14/1945	Rehabilitation	5/23/2012	241	4/6/2011
1334	396375	VCP	6	214	6/30/1944	Rehabilitation	7/17/2012	106	5/11/2011
1334	396389	VCP	6	140	6/30/1944	Rehabilitation	10/4/2012	138	11/3/2010
1334	396390	TCP	6	290	6/30/1940	Rehabilitation	9/7/2012	286	2/10/2011
1335	343404	TCP	8	207		Rehabilitation	6/5/2012	4	4/6/2010
1335	357159	TCP	8	315		Rehabilitation	6/5/2012	4	3/30/2010
1335	357298	TCP	8	317		Rehabilitation	6/14/2012	4	9/26/2010
1335	357310	TCP	6	70		Rehabilitation	6/12/2012	4	9/30/2010
1335	344281	TCP	8	348		Rehabilitation	7/19/2012	344	4/1/2010
1335	357203	TCP	8	23		Rehabilitation	7/20/2012	20	3/31/2010
1336	342619	TCP	8	202	6/30/1900	Rehabilitation	6/18/2012	4	3/10/2010
1336	343252	TCP	6	167		Rehabilitation	6/12/2012	4	4/14/2010
1336	684611	TCP	8	228		Rehabilitation	6/22/2012	4	3/9/2010

Project ID	SEWERID	Material	Diameter	GIS Length	Installation Date	Activity Type	Activity Date	Activity Feet	Prior CCTV Inspection
1336	4026563	VCP	10	27		Rehabilitation	6/22/2012	11	6/24/2011
1336	344717	TCP	6	212		Point Repair	10/16/2012	7	7/18/2011
1336	315296	TCP	8	262	6/30/1900	Rehabilitation	7/19/2012	258	3/2/2010
1336	344514	TCP	8	200	6/30/1916	Rehabilitation	7/18/2012	197	7/13/2011
1337	370623	TCP	18	289		Rehabilitation	12/1/2011	289	7/27/2010
1338	31021	RCP	24	94		Rehabilitation	3/21/2011	94	6/21/2011
1355	23128			5		Rehabilitation	3/21/2012	5	4/11/2011
1355	36274			10		Rehabilitation	7/6/2012	10	6/26/2012
1355	64750			15		Rehabilitation	11/29/2012	15	11/3/2012
1355	86468			3		Rehabilitation	12/12/2012	3	N/A
1355	86476			5		Rehabilitation	12/13/2012	5	N/A
1355	107233			170		Rehabilitation	4/3/2012	170	3/13/2012
1355	110755			2		Rehabilitation	4/4/2011	2	3/31/2011
1355	122116			240		Rehabilitation	8/23/2012	240	10/1/2009
1355	161056			81		Rehabilitation	10/6/2011	81	8/29/2011
1355	169786			3		Rehabilitation	11/21/2012	3	9/17/2012
1355	169885			250		Rehabilitation	8/7/2012	250	4/12/2012
1355	170084			5		Rehabilitation	7/16/2012	5	5/2/2012
1355	180969			3		Rehabilitation	11/26/2012	3	9/7/2012
1355	192080			8		Rehabilitation	4/18/2011	8	N/A
1355	196917			290		Rehabilitation	3/21/2012	290	3/2/2012
1355	219285			150		Rehabilitation	4/4/2012	150	1/23/2012
1355	219637			15		Rehabilitation	11/20/2012	15	N/A
1355	229660			23		Rehabilitation	7/6/2011	23	N/A
1355	232758			4		Rehabilitation	4/14/2011	4	N/A
1355	250544			0		Rehabilitation	4/18/2011	0	N/A
1355	250565			226		Rehabilitation	4/18/2011	226	7/26/2010
1355	257809			128		Rehabilitation	1/25/2012	128	12/12/2011
1355	278724			2		Rehabilitation	4/18/2011	2	11/5/2010
1355	280242			63		Rehabilitation	9/17/2012	63	7/19/2012
1355	306603			201		Rehabilitation	8/7/2012	201	5/21/2012
1355	319745			191		Rehabilitation	4/18/2011	191	8/18/2009
1355	321768			26		Rehabilitation	4/2/2012	26	2/2/2012
1355	324620			181		Rehabilitation	9/17/2012	181	N/A
1355	356988			282		Rehabilitation	4/2/2012	282	2/1/2012
1355	357378			10		Rehabilitation	4/18/2011	10	5/4/2010
1355	364499			179		Rehabilitation	7/10/2012	179	7/2/2012
1355	364523			6		Rehabilitation	12/6/2011	6	N/A
1355	364741			143		Rehabilitation	4/18/2011	143	4/1/2011
1355	369576			4		Rehabilitation	10/19/2012	4	N/A
1355	369621			153		Rehabilitation	4/3/2012	153	4/5/2011
1355	373063			3		Rehabilitation	4/18/2011	3	12/14/2010
1355	376173			206		Rehabilitation	1/11/2012	206	4/19/2010
1355	389673			70		Rehabilitation	11/4/2011	70	10/3/2011
1355	401999			205		Rehabilitation	4/3/2012	205	10/15/2010
1355	422993			43		Rehabilitation	5/10/2012	43	N/A
1355	472471			14		Rehabilitation	4/18/2011	14	11/10/2010
1355	481920			3		Rehabilitation	4/18/2011	3	12/22/2010
1355	523522			124		Rehabilitation	4/20/2012	124	9/2/2011
1355	523535			10		Rehabilitation	4/24/2012	10	9/2/2011
1355	542542			5		Rehabilitation	4/18/2011	5	N/A
1355	588375			250		Rehabilitation	4/20/2012	250	5/26/2010
1355	589059			250		Rehabilitation	7/30/2012	250	11/5/2011

Project ID	SEWERID	Material	Diameter	GIS Length	Installation Date	Activity Type	Activity Date	Activity Feet	Prior CCTV Inspection
1355	589536			231		Rehabilitation	9/5/2012	231	N/A
1355	590510			7		Rehabilitation	10/8/2012	7	6/9/2011
1355	605738			184		Rehabilitation	2/22/2012	184	11/19/2011
1355	605827			192		Rehabilitation	12/28/2011	192	8/25/2011
1355	605828			93		Rehabilitation	12/30/2011	93	8/25/2011
1355	608969			147		Rehabilitation	4/30/2012	147	4/9/2012
1355	609215			149		Rehabilitation	7/18/2012	149	4/24/2012
1355	609487			33		Rehabilitation	11/7/2011	33	N/A
1355	609903			137		Rehabilitation	1/3/2012	137	N/A
1355	609978			85		Rehabilitation	1/3/2012	85	N/A
1355	620318			292		Rehabilitation	5/14/2012	292	10/4/2011
1355	623191			250		Rehabilitation	8/9/2012	250	12/15/2011
1355	646723			1,151		Rehabilitation	9/26/2012	1,151	9/11/2012
1355	648757			4		Rehabilitation	4/18/2011	4	6/9/2010
1355	670188			4		Rehabilitation	5/16/2011	4	3/29/2011
1355	689734			133		Rehabilitation	1/11/2012	133	5/10/2011
1355	691046			15		Rehabilitation	4/3/2012	15	10/4/2010
1355	2035603			100		Rehabilitation	2/21/2012	100	3/16/2009
1355	3013186			4		Rehabilitation	12/2/2012	4	1/26/2010
1355	3018414			14		Rehabilitation	11/29/2012	14	N/A
1355	4001724			4		Rehabilitation	5/27/2011	4	N/A
1355	4001754			37		Rehabilitation	3/15/2012	37	N/A
1355	4075967			80		Rehabilitation	6/13/2012	80	N/A
1364	608995	VCP	8	96		Rehabilitation	3/11/2013	4	1/26/2012
1364	609010	VCP	8	238		Rehabilitation	3/11/2013	4	1/26/2012
1364	609029	VCP	8	191		Rehabilitation	3/11/2013	4	1/25/2012
1364	609048	VCP	8	248		Rehabilitation	3/11/2013	4	1/25/2012
1364	609097	VCP	8	137		Rehabilitation	3/11/2013	4	1/19/2012
1364	620076	RCP	15	162		Rehabilitation	3/13/2013	4	11/28/2011
1364	609131	VCP	8	81		Point Repair	3/5/2013	4	1/19/2012
1364	608886	VCP	6	154		Rehabilitation	3/15/2013	146	1/26/2012
1364	608889	VCP	6	141		Rehabilitation	3/5/2013	146	2/1/2012
1364	608892	VCP	6	129		Rehabilitation	3/5/2013	126	1/26/2012
1364	608895	VCP	8	170		Rehabilitation	3/11/2013	170	2/1/2012
1364	608899	VCP	6	196		Rehabilitation	3/5/2013	203	1/31/2012
1364	608906	VCP	8	222		Rehabilitation	3/5/2013	230	1/23/2012
1364	608953	VCP	8	240		Rehabilitation	3/11/2013	236	2/2/2012
1366	413565	VCP	8	147		Rehabilitation	2/27/2013	4	N/A
1366	413596	VCP	6	138		Rehabilitation	2/27/2013	4	N/A
1366	413956	VCP	8	181		Rehabilitation	2/27/2013	4	12/20/2011
1368	436687	VCP	12	212		Rehabilitation	12/28/2012	1	10/17/2011
1368	436627	VCP	8	123		Point Repair	12/28/2012	4	10/21/2011
1368	436763	VCP	12	227		Point Repair	1/28/2012	14	10/17/2011
1368	436807	VCP	8	235		Point Repair	12/28/2012	4	N/A
1368	437152	VCP	8	179		Point Repair	11/27/2012	4	10/18/2011
1368	437448	VCP	8	259		Point Repair	12/28/2012	12	10/20/2011
1368	437537	VCP	8	236		Point Repair	12/28/2012	17	10/20/2011
1369	112221	RCP	15	185		Rehabilitation	2/19/2013	1	6/20/2012
1369	111575	VCP	8	262		Point Repair	2/19/2013	4	5/21/2012
1369	111663	VCP	8	200		Point Repair	2/19/2013	4	5/23/2012
1369	112161	VCP	8	234		Point Repair	2/19/2013	27	6/21/2012
1369	115686	VCP	8	142		Point Repair	2/19/2013	4	6/19/2012
1371	298568	VCP	8	105		Point Repair	11/16/2012	4	10/15/2010

Project ID	SEWERID	Material	Diameter	GIS Length	Installation Date	Activity Type	Activity Date	Activity Feet	Prior CCTV Inspection
1371	298496	VCP	8	95		Rehabilitation	11/15/2012	4	10/14/2010
1371	298551	VCP	8	215		Rehabilitation	11/14/2012	4	5/21/2010
1371	298957	VCP	6	134		Rehabilitation	3/12/2013	4	11/24/2010
1371	328741	VCP	8	145		Rehabilitation	11/14/2012	4	12/10/2010
1371	329132	VCP	8	200		Rehabilitation	11/16/2012	4	12/8/2010
1371	324564	TCP	6	160		Rehabilitation	10/15/2012	154	6/15/2011
1371	324576	TCP	8	216		Rehabilitation	10/12/2012	216	6/22/2010
1371	328302	VCP	6	130		Rehabilitation	10/16/2012	128	1/7/2011
1371	330100	TCP	8	236		Rehabilitation	10/11/2012	239	6/22/2010
1372	329301	VCP	8	261		Rehabilitation	9/5/2012	4	12/8/2010
1372	329650	VCP	8	150		Rehabilitation	9/11/2012	4	12/7/2010
1375	715822	VCP	8	187		Rehabilitation	1/30/2013	4	3/10/2011
1375	716024	VCP	8	138		Rehabilitation	2/1/2013	4	10/20/2010
1375	324657	RCP	6	230		Point Repair	11/30/2012	4	9/28/2012
1375	324584	TCP	6	226		Rehabilitation	1/16/2013	223	6/7/2011
1375	324637	TCP	6	236		Rehabilitation	1/10/2013	236	6/17/2011
1375	324686	TCP	6	75		Rehabilitation	1/22/2013	78	8/24/2012
1375	330303	VCP	8	110		Rehabilitation	11/30/2012	110	12/30/2010
1375	368743	TCP	6	262		Rehabilitation	12/19/2012	273	3/23/2011
1375	368995	TCP	6	303		Rehabilitation	2/8/2013	298	12/28/2010
1375	369131	TCP	6	70		Rehabilitation	1/18/2013	68	8/28/2012
1375	369173	TCP	6	136		Rehabilitation	12/20/2012	136	8/8/2012
1375	715874	VCP	8	112		Rehabilitation	2/5/2013	102	12/2/2010
1375	715987	VCP	8	103		Rehabilitation	1/23/2013	101	10/26/2010
1375	716878	VCP	8	58		Rehabilitation	1/25/2013	54	7/22/2010
1376	329979	VCP	6	98		Rehabilitation	12/17/2012	4	6/24/2011
1377	298991	VCP	6	100		Rehabilitation	10/24/2012	6	3/10/2011
1377	298596	VCP	8	57		Point Repair	2/24/2013	10	5/20/2010
1377	298676	VCP	8	134		Point Repair	2/24/2013	6	10/20/2012
1377	368912	VCP	8	190		Point Repair	2/24/2013	4	11/11/2010
1377	716050	VCP	8	250		Point Repair	2/24/2013	4	10/20/2010
1377	324527	TCP	6	56		Rehabilitation	2/24/2013	56	8/8/2011
1377	324541	TCP	6	190		Rehabilitation	2/24/2013	188	6/15/2011
1377	328587	TCP	6	116		Rehabilitation	2/24/2013	115	4/13/2011
1377	328970	TCP	8	255		Rehabilitation	2/24/2013	253	9/4/2012
1377	329989	TCP	10	202		Rehabilitation	1/25/2013		9/28/2012
1377	368653	TCP	6	141		Rehabilitation	2/24/2013	143	1/4/2011
1378	295415	VCP	6	83		Rehabilitation	9/21/2012	4	10/21/2011
1378	319515	TCP	6	183		Rehabilitation	10/23/2012	4	10/27/2011
1378	319620	RCP	8	250		Rehabilitation	9/21/2012	4	9/29/2011
1378	320778	TCP	6	242		Rehabilitation	12/24/2012	4	N/A
1378	295450	VCP	8	95		Point Repair	2/15/2013	4	N/A
1378	295737	TCP	6	236		Point Repair	2/15/2013	6	10/28/2011
1378	295743	TCP	6	93		Point Repair	12/14/2012	4	N/A
1378	295774	VCP	8	184		Point Repair	2/15/2013	11	N/A
1378	313336	RCP	8	92		Point Repair	2/15/2013	7	10/4/2011
1378	319759	RCP	6	210		Point Repair	2/15/2013	4	N/A
1378	295780	TCP	6	176		Rehabilitation	2/14/2013	145	11/23/2011
1379	437130	TCP	6	255		Rehabilitation	12/4/2012	4	N/A
1379	689760	TCP	6	146		Rehabilitation	12/3/2012	4	5/11/2009
1379	690650	VCP	6	200		Rehabilitation	12/3/2012	4	3/31/2010
1379	690791	TCP	6	181		Rehabilitation	2/28/2013	4	2/1/2010
1379	690867	TCP	8	98		Point Repair	12/3/2012	4	9/23/2010

Project ID	SEWERID	Material	Diameter	GIS Length	Installation Date	Activity Type	Activity Date	Activity Feet	Prior CCTV Inspection
1379	690949	TCP	6	364		Point Repair	12/3/2012	10	1/29/2010
1379	690201	TCP	6	111		Rehabilitation	12/17/2012	99	10/11/2010
1379	690661	RCP	8	334		Rehabilitation	2/8/2013	332	N/A
1379	690954	TCP	6	415		Rehabilitation	2/11/2013	410	1/29/2010
1380	384672	RCP	24	40		Rehabilitation	8/3/2012	3	10/5/2010
1380	384700	RCP	18	208		Rehabilitation	8/3/2012	4	N/A
1380	384711	RCP	18	104		Rehabilitation	8/3/2012	3	N/A
1380	384478	VCP	12	57		Rehabilitation	7/25/2012	56	9/28/2011
1380	384494	VCP	12	31		Rehabilitation	7/26/2012	29	N/A
1380	384603	VCP	12	32		Rehabilitation	7/24/2012	32	N/A
1380	384691	RCP	18	138		Rehabilitation	7/31/2012	139	N/A
1380	384743	RCP	12	157		Rehabilitation	7/24/2012	158	3/5/2010
1381	689689	TCP	6	234		Rehabilitation	8/29/2012	10	12/30/2009
1381	689821	TCP	6	175		Rehabilitation	8/28/2012	8	N/A
1381	689925	VCP	12	169		Rehabilitation	8/29/2012	4	12/28/2009
1381	690219	VCP	8	148		Rehabilitation	8/28/2012	4	N/A
1381	690415	VCP	12	253		Rehabilitation	8/24/2012	4	N/A
1381	691144	TCP	6	242		Rehabilitation	8/30/2012	4	10/26/2009
1381	437414	VCP	10	245		Point Repair	7/9/2012	5	N/A
1381	690171	TCP	6	53		Point Repair	7/5/2012	4	10/11/2010
1381	690960	TCP	6	298		Point Repair	1/4/2013	4	N/A
1381	689882	VCP	6	37		Rehabilitation	9/21/2012	39	10/12/2010
1381	689887	VCP	6	47		Rehabilitation	9/21/2012	45	N/A
1381	689946	RCP	8	71		Rehabilitation	9/25/2012	69	N/A
1381	690005	VCP	8	22		Rehabilitation	10/22/2012	19	N/A
1381	690114	VCP	10	43		Rehabilitation	9/28/2012	42	N/A
1381	690287	RCP	6	102		Rehabilitation	9/26/2012	102	N/A
1381	690318	TCP	12	165		Rehabilitation	10/2/2012	167	N/A
1381	690564	RCP	8	120		Rehabilitation	10/1/2012	118	10/13/2010
1382	396578	VCP	8	216		Rehabilitation	8/16/2012	8	3/1/2012
1382	396973	VCP	8	240		Rehabilitation	8/14/2012	4	3/8/2012
1382	403609	VCP	8	208		Rehabilitation	2/14/2013	4	3/5/2012
1382	705421	VCP	8	151		Rehabilitation	8/14/2012	4	1/25/2012
1382	705581	VCP	8	221		Rehabilitation	8/15/2012	8	2/23/2012
1382	396868	VCP	8	201		Point Repair	2/14/2013	9	3/8/2012
1382	478007	VCP	8	210		Point Repair	2/14/2013	4	2/17/2012
1382	705782	VCP	8	183		Point Repair	2/13/2013	4	2/8/2012
1382	705875	VCP	8	150		Point Repair	2/14/2013	11	2/8/2012
1382	705965	VCP	8	240		Point Repair	2/14/2013	10	2/8/2012
1382	705971	VCP	8	197		Point Repair	2/13/2013	5	2/17/2012
1382	705312	VCP	6	193		Rehabilitation	2/14/2013	192	2/13/2012
1384	320679	TCP	6	50		Rehabilitation	8/6/2012	4	2/14/2012
1384	321768	TCP	6	99		Rehabilitation	6/21/2012	5	2/2/2012
1384	321770	TCP	6	60		Rehabilitation	6/21/2012	4	2/2/2012
1384	363547	TCP	8	414		Rehabilitation	6/21/2012	4	2/2/2012
1384	363700	TCP	8	350		Rehabilitation	8/7/2012	4	2/2/2012
1384	3012438	UNK	8	275		Rehabilitation	8/9/2012	4	2/8/2012
1384	321777	TCP	6	133		Point Repair	6/22/2012	4	2/10/2012
1384	357029	TCP	6	299		Point Repair	6/22/2012	8	N/A

# **Attachment B**

## **Problem Laterals Addressed in Year Three**

Lateral Sewer ID	Corrective Action	Activity Date	Activity Feet
151912	FLUSHING	12/26/2012	22
187249	FLUSHING	12/5/2012	6
244597	FLUSHING	7/6/2012	25.97
244597	FLUSHING	10/4/2012	25.97
244597	FLUSHING	1/25/2013	25.97
244597	FLUSHING	4/17/2013	25.97
277947	FLUSHING	7/2/2012	48.55
277958	FLUSHING	10/4/2012	48.55
277958	FLUSHING	1/25/2013	48.55
277958	FLUSHING	4/17/2013	48.55
384182	FLUSHING	8/3/2012	32.03
384182	FLUSHING	2/13/2013	32.03
384609	FLUSHING	3/4/2013	32.8
384609	FLUSHING	12/4/2012	32.8
384638	FLUSHING	3/4/2013	32.8
384638	FLUSHING	12/4/2012	32.8
497927	FLUSHING	10/19/2012	160
590299	FLUSHING	1/23/2013	53
606496	FLUSHING	2/12/2013	54
623975	FLUSHING	2/26/2013	56
673516	FLUSHING	6/20/2013	54
690108	FLUSHING	5/4/2013	80
1005345	FLUSHING	8/9/2012	193.3
1005345	FLUSHING	12/5/2012	193.3
3003196	FLUSHING	1/23/2013	25
3005364	FLUSHING	2/8/2013	58
494700	RODDING	6/16/2013	28
52579	RODDING	7/9/2012	14
52579	RODDING	10/11/2012	14
54921	RODDING	7/10/2012	29
54921	RODDING	10/10/2012	29
60999	RODDING	1/2/2013	41.8
64313	RODDING	8/25/2012	20
64358	RODDING	2/26/2013	26
64372	RODDING	7/10/2012	17
112195	RODDING	5/20/2013	0
115304	RODDING	5/20/2013	0
115565	RODDING	5/17/2013	0
115577	RODDING	5/17/2013	0
115603	RODDING	5/17/2013	0
116015	RODDING	5/20/2013	0
130108	RODDING	2/26/2013	5
130111	RODDING	2/26/2013	6
130112	RODDING	2/26/2013	5
130115	RODDING	2/26/2013	6

Lateral Sewer ID	Corrective Action	Activity Date	Activity Feet
130203	RODDING	8/24/2012	93
138527	RODDING	1/8/2013	7
138528	RODDING	1/8/2013	75
151236	RODDING	2/25/2013	6.5
151243	RODDING	2/25/2013	4.5
151912	RODDING	12/26/2012	22
152633	RODDING	2/5/2013	18.39
152636	RODDING	1/8/2013	12.5
152636	RODDING	1/8/2013	12.5
152648	RODDING	2/5/2013	6
154477	RODDING	12/26/2012	16
154552	RODDING	12/26/2012	68
154562	RODDING	12/26/2012	3
154570	RODDING	12/26/2012	3
154582	RODDING	12/26/2012	3
154586	RODDING	12/26/2012	3
154678	RODDING	12/26/2012	21.5
154680	RODDING	3/18/2013	19.9
154680	RODDING	3/19/2013	16.6
170164	RODDING	2/25/2013	7
223323	RODDING	3/18/2013	15.5
257315	RODDING	3/7/2013	71.19
257319	RODDING	8/2/2012	71.19
277738	RODDING	9/20/2012	15.55
277738	RODDING	1/23/2013	15.55
277738	RODDING	6/12/2013	15.55
304843	RODDING	10/6/2012	38.78
369452	RODDING	9/22/2012	4.5
375979	RODDING	7/7/2012	19.35
375979	RODDING	10/17/2012	19.35
384057	RODDING	9/22/2012	31.73
384057	RODDING	1/19/2013	31.73
384057	RODDING	4/26/2013	31.73
413751	RODDING	9/17/2012	73
413751	RODDING	3/12/2013	73
590013	RODDING	7/12/2012	16.3
590013	RODDING	8/9/2012	16.3
590013	RODDING	9/6/2012	16.3
642179	RODDING	9/6/2012	6
697110	RODDING	12/19/2012	104.85
3002654	RODDING	7/14/2012	38.86
3002654	RODDING	11/17/2012	38.86
3002654	RODDING	4/25/2013	38.86
3002654	RODDING	5/17/2013	38.86
3012720	RODDING	5/20/2013	0

Lateral Sewer ID	Corrective Action	Activity Date	Activity Feet
3012723	RODDING	5/20/2013	0
4076102	RODDING	10/9/2012	50
13569	ROOTING	7/3/2012	6
13599	ROOTING	7/3/2012	2
13646	ROOTING	7/3/2012	2
13689	ROOTING	7/3/2012	2
13720	ROOTING	7/3/2012	7
13746	ROOTING	7/3/2012	2
13786	ROOTING	7/3/2012	2
15683	ROOTING	7/12/2012	34
43096	ROOTING	7/10/2012	16.5
43277	ROOTING	7/10/2012	26.5
52190	ROOTING	7/10/2012	38.5
52579	ROOTING	7/9/2012	14
53224	ROOTING	7/10/2012	33
53326	ROOTING	7/11/2012	26.6
54921	ROOTING	7/10/2012	29
64372	ROOTING	7/10/2012	17
64419	ROOTING	7/10/2012	27
100737	ROOTING	7/12/2012	16
100745	ROOTING	7/12/2012	41
156397	ROOTING	7/9/2012	9
166562	ROOTING	7/9/2012	20
229825	ROOTING	7/9/2012	12.14
231460	ROOTING	7/10/2012	31.17
235136	ROOTING	7/14/2012	14.69
240286	ROOTING	7/9/2012	43
251182	ROOTING	7/14/2012	18
259955	ROOTING	8/3/2012	15.3
259959	ROOTING	8/3/2012	30.75
259962	ROOTING	8/3/2012	18.81
260043	ROOTING	8/3/2012	10.35
286663	ROOTING	7/7/2012	27.47
295113	ROOTING	8/3/2012	41.55
295115	ROOTING	8/3/2012	6.2
295426	ROOTING	8/3/2012	60
295428	ROOTING	7/7/2012	14
323959	ROOTING	7/19/2012	14.15
323983	ROOTING	7/19/2012	30
324441	ROOTING	7/19/2012	90
324491	ROOTING	8/11/2012	21.5
329494	ROOTING	8/11/2012	45
329798	ROOTING	7/19/2012	30
329887	ROOTING	7/19/2012	56.34
330142	ROOTING	8/1/2012	23.51

Lateral Sewer ID	Corrective Action	Activity Date	Activity Feet
353554	ROOTING	8/6/2012	43.84
356237	ROOTING	8/8/2012	42.7
363256	ROOTING	8/1/2012	12
363262	ROOTING	8/1/2012	12
363815	ROOTING	8/6/2012	28.95
364228	ROOTING	7/19/2012	15
368893	ROOTING	8/1/2012	12.23
369534	ROOTING	8/1/2012	26.88
375965	ROOTING	8/7/2012	18.05
375979	ROOTING	7/14/2012	19.35
376008	ROOTING	8/7/2012	9.34
390283	ROOTING	8/8/2012	70
396644	ROOTING	7/14/2012	10.73
413553	ROOTING	8/7/2012	38
413804	ROOTING	8/7/2012	4.5
413937	ROOTING	8/7/2012	12.09
416761	ROOTING	7/7/2012	28.4
420017	ROOTING	8/11/2012	28.18
420021	ROOTING	8/11/2012	0.5
420162	ROOTING	8/11/2012	23
422916	ROOTING	7/7/2012	20
423672	ROOTING	8/7/2012	3.5
426167	ROOTING	7/7/2012	18.2
426182	ROOTING	7/7/2012	15
458224	ROOTING	8/11/2012	6
462181	ROOTING	7/7/2012	0.1
462307	ROOTING	8/1/2012	6
462555	ROOTING	7/14/2012	1
462576	ROOTING	7/14/2012	26.5
462734	ROOTING	7/14/2012	10.5
468021	ROOTING	7/7/2012	3
482259	ROOTING	8/6/2012	13
541845	ROOTING	8/9/2012	5
590013	ROOTING	7/12/2012	16.3
590013	ROOTING	8/9/2012	16.3
590583	ROOTING	8/9/2012	8
590586	ROOTING	8/9/2012	25
597282	ROOTING	7/12/2012	1
598078	ROOTING	8/9/2012	86
598080	ROOTING	8/9/2012	8
670612	ROOTING	8/15/2012	0.5
681410	ROOTING	7/7/2012	19.13
1002595	ROOTING	7/14/2012	22.88
2041170	ROOTING	8/9/2012	24
2041171	ROOTING	8/9/2012	15

Lateral Sewer ID	Corrective Action	Activity Date	Activity Feet
3002654	ROOTING	7/14/2012	38.86
4060024	ROOTING	7/7/2012	30.74
4067521	VIS INSP	9/17/2012	15.74
4067521	VIS INSP	3/12/2013	15.74
4067524	VIS INSP	9/17/2012	19.65
4067524	VIS INSP	2/16/2013	19.65
384361	REPAIRED	7/24/2012	75
4078137	REPAIRED	8/15/2012	0
3007337	REPAIRED	9/10/2012	66.8
320646	REPAIRED	10/10/2012	109
252086	REPAIRED	12/6/2012	24
390605	REPAIRED	12/14/2012	4
187249	REPAIRED	12/14/2012	6
4079905	REPAIRED	2/11/2013	40
280784	REPAIRED	2/20/2013	65
611051	REPAIRED	3/11/2013	0.5
606107	REPAIRED	3/22/2013	3
251850	REPAIRED	4/12/2013	121
494700	REPAIRED	6/26/2013	28



**City and County of Honolulu  
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