

Annual Report on Compliance

City of Bangor, Maine

Pursuant to the requirements of
United States and State of Maine v. City of Bangor Consent Decree
Civil Action No. 1:15-cv-00350-NT



1/31/2017

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Certification Statement

City of Bangor, Maine

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

By: 
Andrew Rudzinski
Director of Water Quality

Date: 1-27-17

I. Introduction

The City of Bangor (the “City” or “Bangor”) is pleased to submit this Annual Report on Compliance, pursuant to the requirements of the *United States and State of Maine v. City of Bangor Consent Decree*, Civil Action No. 1:15-cv-00350-NT, entered on November 13, 2015 (the “Consent Decree”), for the reporting period beginning on January 1, 2016, and ending on December 31, 2016. The Consent Decree supersedes a consent decree agreed to by the United States, the State of Maine, and the City in 1991 (the “1991 Consent Decree”).

II. Status of Compliance

A. Submittals Required by the Consent Decree during the Reporting Period

<u>Date Submitted</u>	<u>Deliverable</u>
January 28, 2016	Annual Report on Compliance for calendar year 2015
January 28, 2016	Draft Court Street Sewer Separation Project Phase II Plans and Specifications
March 1, 2016	Annual CSO Report for calendar year 2015
July 1, 2016	GIS Deliverable (per Par. 9.a of the Consent Decree)
September 15, 2016	MS4 Permit Year 3 Report, 2013-2018 Permit Cycle (per Par. 10 of the Consent Decree)
Various	ADS Flow Monitoring Reports, within 10 days of the date of receipt of the report by the City (per Par. 22 of the Consent Decree)

B. Identification of any Non-Compliance

No non-compliance with the requirements of the Consent Decree was identified for the 2016 reporting period.

III. Compliance Activities

A. Measures Taken to Reduce CSO and SSO Volumes

1. Capital Improvement Projects (CIP)

- Court Street Sewer Separation Project (Kenduskeag West Subsection): Approximately 700 linear feet (LF) of combined sewer on Court Street was separated and replaced with new 24" PVC sanitary sewer, and 24" storm drain, along with the installation of new manholes to provide access to the sewer and drainage systems. The location of the project was between Bean Court and Boynton Street. This project (Phase II) was the second phase of a sewer separation project completed in 2014 in conjunction with demolition of the City’s former Police Station (Phase I). Phase II was continued

upstream of manhole KW100B, just below Bean Court. The first CSO outfall downstream of this project area is CSO 009 – Hammond.

- Middle Street/Cross Street (Kenduskeag West Subsection): Approximately 620 LF of combined sewer along Middle Street and Cross Street were replaced with new 18" PVC sewer, along with the installation of new manholes and catch basins to provide access to the storm drain system. The first CSO downstream of this project area is CSO 009 - Hammond.
- 700 Maine Avenue- Former LL Bean Call Center (Airport Subsection): Approximately 950 linear feet LF of 10" VCP sewer was replaced with 10" PVC in the former LL Bean call center parking lot. The purpose of this project was to improve access to the sewer, reduce inflow and infiltration (I/I), re-route the sewer, previously located under the building, around the building instead. Work was completed while the building was unoccupied between tenants and prior to parking lot improvements.
- Biotower- WWTP: The WWTP biotower had been in service for 25 years, and the media had exceeded its projected life expectancy. The lowest layer of media had collapsed several inches. The City had replaced the top two layers due to environmental damages on two occasions. Over time, the underperforming media was negatively impacting performance and pollutant removals. The City replaced the media and installed proper support to prevent reoccurrence of collapse. The City contracted with AECOM for design and general construction management. The project began in early June and was completed September 29, 2016. The biotower was placed back into service October 1, 2016.
- Sewer Spot Repairs Contract (various subsections): Several defects were repaired during 2016. These defects, found primarily through CCTV inspections, potentially allow infiltration into the collection system, lead to future collapses or become trouble spots that require frequent maintenance. A complete list of repairs, replacements, and upgrades identified through CCTV work, as well as the date repaired, is included in Appendix D (CCTV Repair Replacement and Upgrade Log). See Section III.C.3 (Repairs, Replacement, or Upgrades Identified by CCTV) of this report for additional information.
- Godfrey Boulevard and Main Avenue (Airport Subsection): Sewer was re-routed in response to an illicit discharge (exfiltration) into a canal that flowed to Birch Stream. Approximately 450 LF of 8" PVC was rerouted from Manhole AP016 to Manhole AP503. Two structures (Manholes AP016A and AP016B) were installed between existing structures to improve access where the pipe changed direction. Construction started January 1, 2016, and was completed February 25, 2016. The canal tested negative for human *Bacterioides* on March 16, 2016, confirming that the known illicit discharge had been removed.

2. Weir and Regulator Adjustments

- No weirs or regulators were adjusted during the reporting period.

3. Other

- Conducted activities in preparation for submittal of the Phase II Long Term Control Plan (LTCP), as described in Section VI (LTCP) of this report.
- Completed conducting the Sewer System Evaluation Survey (SSES) in Dow and Airport Subsections as described in the Section V (SSES) of the report.
- Continued clearing cross country sewer easement areas.
- Performed visual inspections of the cross country sewer easements in February-March 2016 and October-November 2016 timeframes.
- Inspected CSO tanks in 2016 as follows: Barkersville on May 23 and September 28, Davis Brook on May 23 and September 28, and Kenduskeag East on May 24 and September 28.
- Completed repairs to CSO tanks in 2016 as follows: Barkersville on June 10 and October 26, Davis Brook on October 26, and Kenduskeag East on October 27.
- Completed repairs of Kenduskeag East tank #1 tide gate gasket on October 27 and repaired the #3 tide gate on November 8, 2016.
- Completed repair on Hammond Street CSO outfall (009) tide gate on January 15, 2016.
- Deployed flow meters in strategic locations around the City to collect flow data within the collection system in support of the SSES and LTCP programs.
- Reviewed capacity requests for proposed development.
- Continued updating and maintaining the City's GIS throughout the reporting period as projects were completed and as new information about infrastructure became available.
- Cleared easements for a cross-country line in both the Woodlawn and Hildreth-Perry subsections and a cross-country line from the Penjajawoc subsection to the East Penobscot Interceptor.
- Issued sump pump press release, which was printed in the Bangor Daily News on April 14, 2016, and began providing information to customers with their bills. (A copy of the letter included as attachment to the SSES Phase II report and Phase III SOW in Appendices H and I, respectively.)
- Discontinued private suction line that contributed to an SSO (#16-08 on list in Appendix F).
- Installed new manhole at Main and Larkin Streets for access to a previously inaccessible line in the Davis Brook subsection.
- Tasked consultant with evaluating options for remediating the SSO potential in the Carr Brook subsection.

- Secured funding for repair of the Davis Brook overflow collapse. Work will be done in 2017.

4. Annual CSO Progress Report

The City of Bangor monitors flow at each of its CSO outfalls, either through the Supervisory Control and Data Acquisition (SCADA) system, a contract with ADS Environmental Services for electronic flow meters, or visual means. These data were used to prepare the Annual CSO Progress Report for 2015, which was submitted to MEDEP on March 1, 2016.

Pursuant to the requirements of the City’s Maine Pollutant Discharge Elimination (MEPDES) permit ME0100781, as revised, dated August 8, 2016, the City will submit the Annual CSO Progress Report for 2016 to MEDEP by March 1, 2017. A copy of the report will also be submitted to EPA.

B. Illicit Connections

1. List of Illicit Connections

The following table lists illicit connections to the stormwater system (MS4) that were discovered within the reporting period.

Table 1. Illicit Connections

ID Number	Date Discovered	Address or Location	Estimated Flow and Type	Date Removed
16-01	2/2/16	928 Union St	40 gal/car × 100 cars/day = 4000 gal/day; car wash water	2/11/16
16-02	3/25/16	139 Falvey St	270 gal/day; residential flow	4/2/16
16-03	4/22/16	40 Nash St	270 gal/day; residential flow	4/30/16
16-04	6/23/16	1135 Hammond St	40 gal/car × 10 cars/day = 400 gal/day; car wash water	routed to holding tank 6/27/16; verified proper connection 12/9/16

2. GIS Map of Each Illicit Connection

The locations of illicit connections that were discovered within the reporting period are shown in Appendix A (Location Map of Illicit Connections).

C. Collection System Assessments and Maintenance

The length of the inspectable portion of the City’s sewer collection system is approximately 723,454 feet, or 137 miles. The length of the remaining components of the sewer collection system, including interceptors, force mains, siphons, and leads, is approximately 77,332 linear feet, or 14 miles. Generally, interceptors, force mains, siphons, and leads are not able to be inspected using CCTV or flushed under normal operating circumstances using standard industry practices. There are approximately 3,280 public manholes in the collection system.

1. CCTV Assessments

The City and/or its subcontractors completed CCTV inspections on 154,874 linear feet of sewer within the publicly owned sewer collection system in 2016, which is 21.4% of the inspectable portion of the sewer collection system. This amount includes repeat CCTV inspections. The total length of pipe CCTV'd excluding repeat inspections is 126,873 linear feet, or 17.5% of the inspectable portion of the sewer collection system. Refer to Appendix B (CCTV Inspection Log) for a complete listing of CCTV inspections completed during the reporting period.

2. Manhole Assessments

The City and/or its subcontractors completed manhole inspections on 415 publicly owned sewer collection system manholes in 2016, which is 12.6% of the total number of public manholes in the system. There were no repeat inspections Refer to Appendix C (Manhole Inspection Log) for a complete listing of inspections completed during the reporting period.

3. Repairs, Replacements, or Upgrades Identified by CCTV

Refer to Appendix D (CCTV Repair, Replacement, and Upgrade Log) for a listing of repairs, replacements, or upgrades that were identified during CCTV investigations, as well as a schedule for implementation for those repairs, replacements, or upgrades scheduled during the next reporting period.

4. Cleaning

The City and/or its subcontractors cleaned 84,835 linear feet of pipe within the publicly owned sewer collection system in 2016, which is 11.7% of the length of the inspectable portion of the sewer collection system. The total length of pipe cleaned excluding repeat cleanings is 81,895 linear feet, or 11.3% of the inspectable portion of the sewer collection system. Refer to Appendix E, (Cleaning Log), for a complete listing of cleaning completed during the reporting period. This includes cleaning done in advance of CCTV work and performed as part of routine maintenance activities. Note that lines are not always cleaned in advance of CCTV work, as sometimes it is beneficial to perform a CCTV investigation on a pipe without prior cleaning.

D. Maintenance Improvement Plan (MIP)

As part of the City's annual MIP update, the City updates the following information and performance metrics on a yearly basis:

Plan Updates

- Organizational Structure, Information Management, Contacts
- Changes to System Maps
- Incorporation of Cleaning, Inspection, and Assessment Programs
- Changes to Sewer Use Ordinance or Fats, Oils, and Grease Program
- Changes to Pump Station Inspection and Maintenance Program
- Collection System Capacity Analysis Updates

Performance Metrics

- SSOs
- Routine Cleaning and CCTV Assessment
- Pump Station Work Orders
- Fats, Oils, and Grease

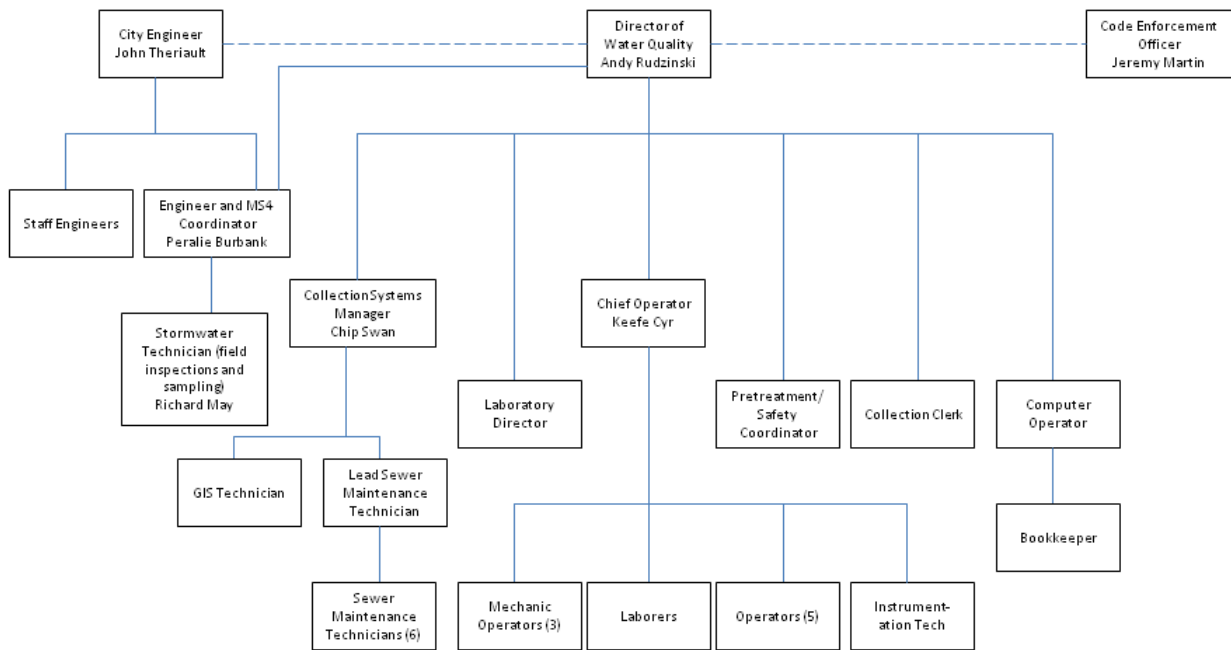
The MIP update incorporates these changes where indicated and described below:

1. Plan Updates

a) Organizational Structure, Information Management, Contacts

The following is the current organization chart showing key positions.

Table 2. Organizational Structure



b) Changes to System Maps

The collection system maps are updated continuously throughout the year as part of the City’s ongoing GIS infrastructure mapping program. The GIS dataset containing sewer, stormwater, and other relevant features is provided to EPA annually on July 1 pursuant to Par. 9.a. of the Consent Decree.

c) Incorporation of Cleaning, Inspection, and Assessment Programs

The City established a goal in the MIP to clean, inspect, and assess 10% of its sewer collection system per year. The lists of pipe that were inspected and cleaned during the reporting period are

included in Appendices B (CCTV Inspections) and E (Cleaning Log), respectively. The list of manholes that were inspected during the reporting period is included as Appendix C (Manhole Inspection Log).

d) Changes to Sewer Use Ordinance or Fats, Oils, and Grease Program

The sewer use ordinance was not amended during the reporting period. The Fats, Oils, and Grease Program is administered by Code Enforcement.

e) Changes to Pump Station Inspection and Maintenance Program

The Pump Station Inspection and Maintenance Program did not undergo any changes during the reporting period.

f) Collection System Capacity Analysis Updates

The City maintains a hydraulic model of selected portions of its collection system, in part to assist in evaluating available capacity in the collection system. The model was developed using the EPA Stormwater Management Model (SWMM) module and periodically updated by the City's previous consultant, CH2M Hill. In preparation for the City's CSO Phase II LTCP submittal (Appendix J), the City's consultant, AECOM, obtained and worked with the City's existing SWMM model, as follows:

- Reviewed the SWMM model provided by the City's previous consultant
- Extended the model network further upstream in selected areas
- Started to refine the subcatchment delineation in preparation for the calibration update
- Established a multi-phased flow metering program to collect flow data for the model calibration
- Updated the model to include recently constructed sewer separation projects
- Reviewed and selected the typical year used in the SWMM analysis
- Updated the model with control structure weir adjustments made since the last model update

The SWMM model updates noted above are reflected in the Phase II LTCP, as described in Appendix J. SWMM model update work will continue during the 2017 reporting period as needed to reflect as projects are completed and new information becomes available.

2. Performance Metrics

a) SSOs

For a detailed listing of SSO events that occurred during the reporting period, refer to Appendix F (SSO Event Log).

Table 3. Summary of MIP Progress Parameters

Total number of SSOs	11
Estimated total volume of SSOs (of 8 events with known volume)	approx. 6,600 gallons
Number of dry weather SSOs	2
Number of wet weather SSOs	7
Number of SSOs where weather was either unknown or irrelevant to type of incident	2
Number of SSOs caused primarily by pipe blockage (debris, grease)	3
Number of SSOs caused primarily by pipe failure	1*
Average response time to SSOs or service calls	less than one hour

* pipe was private, but City reported discharge and repaired pipe immediately to protect public health

b) Routine Cleaning and CCTV Assessment

For the total amount of collections system pipe that was inspected by CCTV and cleaned during the reporting period, refer to Appendices C (CCTV Inspection Log) and F (Cleaning Log), respectively.

c) Pump Station Work Orders

There were 27 pump station work orders completed during the reporting period. Kenduskeag pump station is checked seven days per week. The other pump stations are visited a minimum of twice per week. During these checks housekeeping, minor repairs, and adjustments are made that are not reflected on work orders.

d) Fats, Oils, and Grease

During the reporting period, the City's Plumbing Inspector inspected the installation of 16 grease control devices. An additional two installations have been given permits, but work has not yet been completed. The devices were located in new buildings as well as buildings for which the use was changing.

There is only one facility known to be operating without a grease trap, and the Code Enforcement Office has been working to help it achieve compliance. The building is a slab on grade building, and significant work and resources will be needed to install an exterior grease interceptor. The facility has hired an engineer to work with them on options, the plans of which are now completed, and the facility is in the process of obtaining quotes for the work. It is the City's intention to ensure that the work is completed by May 31, 2017.

IV. Sanitary Sewer Overflows (SSOs)

A. Chronological List of SSOs

There were 11 SSOs, including Private Property Backups, that occurred during the reporting period. Refer to Appendix F (SSO Event Log) for a complete listing of SSOs that occurred within the reporting period, as well as details regarding each incident.

B. GIS Map of Each SSO

Location maps of SSOs that occurred within the reporting period are included as Appendix G (Location Map of Sanitary Sewer Overflows).

V. Sanitary System Evaluation Survey (SSES)

A. SSES Phase II Report

The SSES report is included as Appendix H.

B. SSES Next Phase Scope of Work (SOW)

The Phase III SSES SOW is included as Appendix I.

VI. CSO Long-Term Control Plan (LTCP)

The LTCP for the next phase of CSO Control is included as Appendix J.

VII. Compliance Activities Planned for Following Reporting Period

The following activities, in no particular order, are planned for the next reporting period in order to achieve compliance with the requirements of the Consent Decree and reduce CSO and SSO volumes:

- Locate and redirect illicit connections as part of Municipal Separate Storm Sewer System (MS4) permit compliance activities.
- Continue work under the City's Sewer Spot Repair Contract to prioritize and repair trouble spots and other defects in the collection system.
- Continue work with consultant on modeling, to determine if capacity is available to make further adjustments on CSO weirs and regulator structures.
- Clean, perform CCTV inspections, and identify upgrades, repairs, or replacements needed in the collection system, covering a minimum of 10% of the collection system per year. Areas of focus for the next reporting period include the Carr Brook, Kenduskeag East, Davis Brook, and Barkersville Subsections.
- Select a remediation method for the Carr Brook system to reduce SSOs.
- Continue collection system maintenance activities such as easement clearing and easement inspections.
- Submit the Annual CSO Progress Report to DEP and EPA, due on or before March 1, 2017.
- Inspect CSO tanks twice annually, during high tide.

Note that certain of the above-described tasks planned for the next reporting period may be subject to adjustment due to changing priorities, (including, among other things, the need to prioritize emergency repairs) and to take advantage of opportunities that may arise to align capital projects with other utility or roadway resurfacing work.

Appendices

- A. Location Map of Illicit Connections**
- B. CCTV Inspection Log**
- C. Manhole Inspection Log**
- D. CCTV Repair, Replacement, and Upgrade Log**
- E. Cleaning Log**
- F. SSO Event Log**
- G. Location Map of Sanitary Sewer Overflows**
- H. SSES Phase II Report**
- I. SSES Phase III Statement of Work**
- J. Long Term Control Plan**

Appendix A. Location Map of Illicit Connections

WASTEWATER COLLECTION SYSTEM AND ILLICIT CONNECTIONS

Jan. 1, 2016 - Dec. 31, 2016

Legend

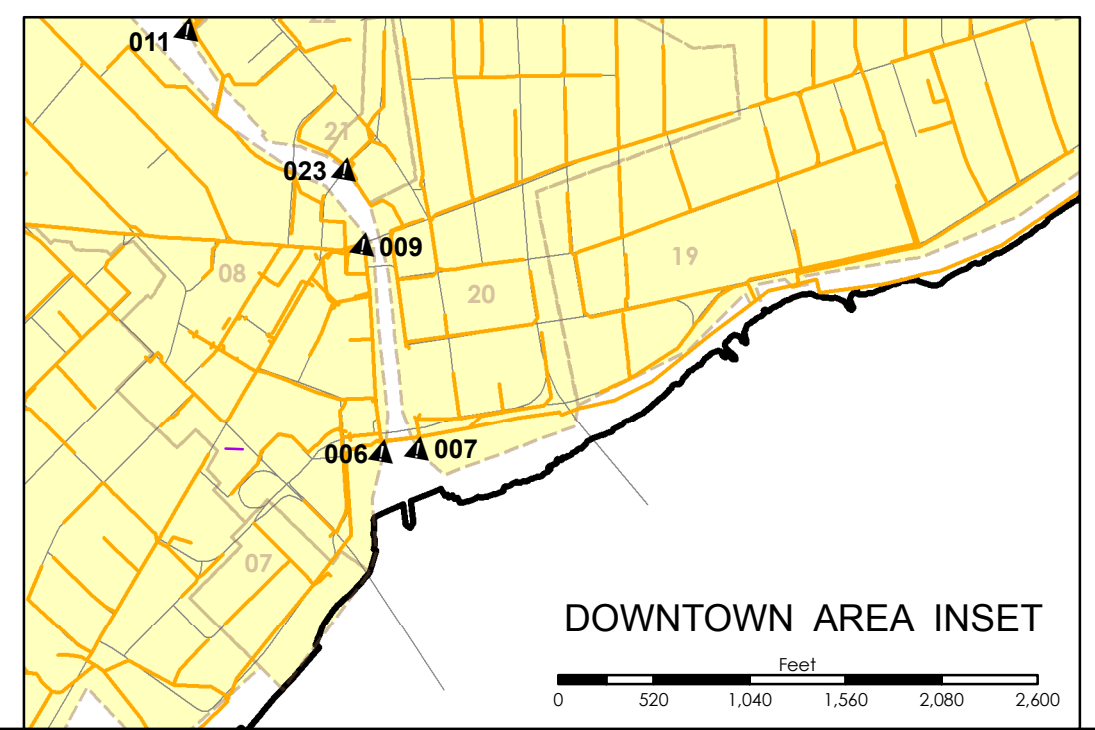
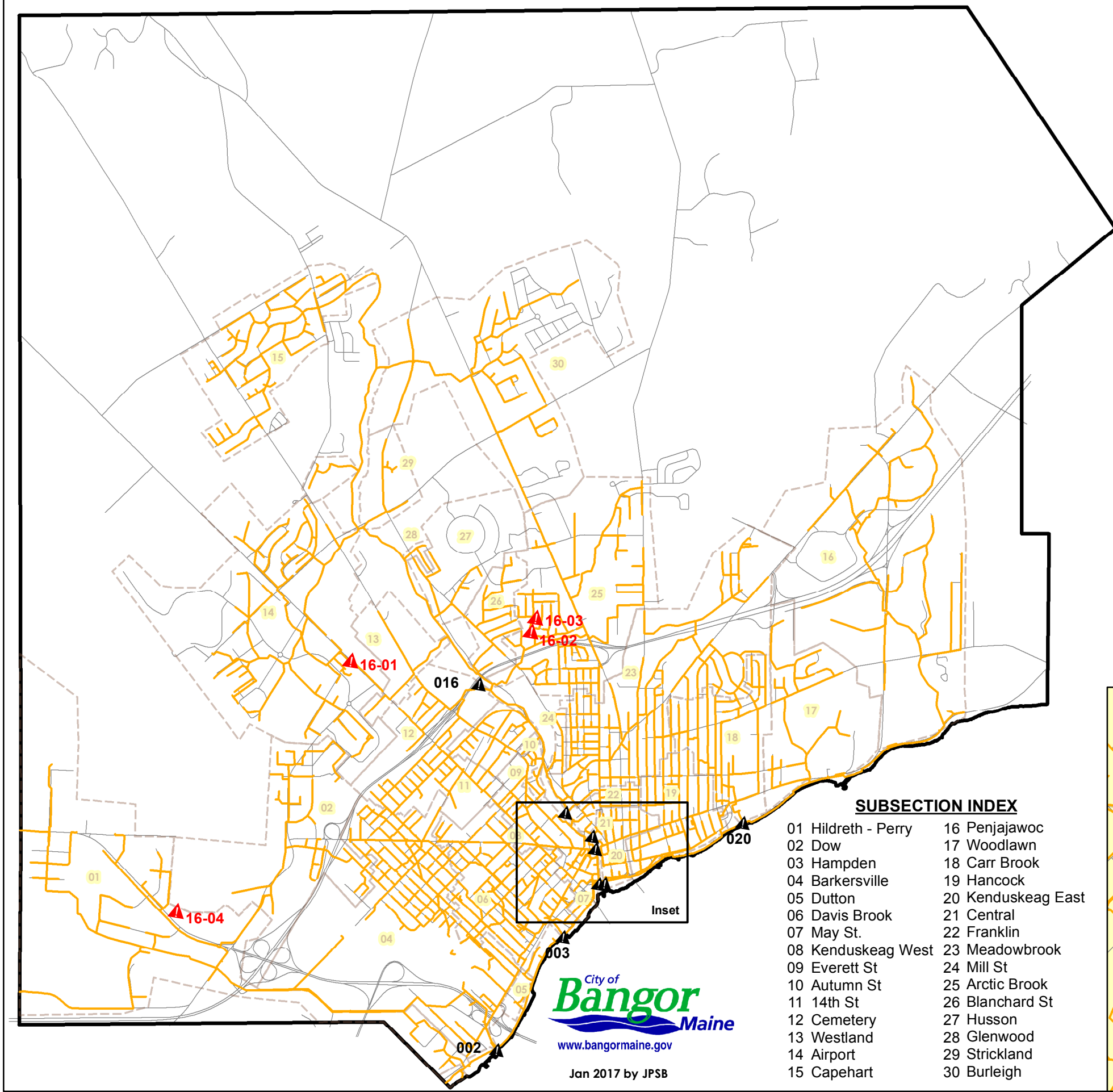
- ▲ Illicit Connection Location
- ▲ Licensed CSO Location
- Sewer Pipes
- ▭ Sewer Subsections

CSO INDEX

- | | | |
|---------------------|---------------------|--------------------|
| 002 Barkersville | 007 Kenduskeag East | 016 Cemetery |
| 003 Davis Brook | 009 Hammond Street | 020 Carr Brook |
| 006 Kenduskeag West | 011 Meadowbrook | 023 Central Street |

SUBSECTION INDEX

- | | |
|---------------------|--------------------|
| 01 Hildreth - Perry | 16 Penjajawoc |
| 02 Dow | 17 Woodlawn |
| 03 Hampden | 18 Carr Brook |
| 04 Barkersville | 19 Hancock |
| 05 Dutton | 20 Kenduskeag East |
| 06 Davis Brook | 21 Central |
| 07 May St. | 22 Franklin |
| 08 Kenduskeag West | 23 Meadowbrook |
| 09 Everett St | 24 Mill St |
| 10 Autumn St | 25 Arctic Brook |
| 11 14th St | 26 Blanchard St |
| 12 Cemetery | 27 Husson |
| 13 Westland | 28 Glenwood |
| 14 Airport | 29 Strickland |
| 15 Capehart | 30 Burleigh |



City of
Bangor
Maine
www.bangormaine.gov

Jan 2017 by JPSB

DOWNTOWN AREA INSET
Feet
0 520 1,040 1,560 2,080 2,600

Appendix B. CCTV Inspection Log

APPENDIX B: CCTV INSPECTION LOG

City of Bangor, Maine
Calendar Year 2016

Inspection Date	Subsection	Pipe Segment ID	Length of Inspection (FT)	Repeat Inspection (this CY)	Justification for Repeat Inspection
1/5/2016	BLANCHARD ST	BS005	279.9		
1/5/2016	BLANCHARD ST	BS006	294.5		
1/6/2016	ARCTIC BROOK	AB022	247		
1/6/2016	ARCTIC BROOK	AB456	201		
1/6/2016	ARCTIC BROOK	AB457	266.7		
1/6/2016	ARCTIC BROOK	AB620	243.7		
1/6/2016	ARCTIC BROOK	AB630	137.3		
1/7/2016	ARCTIC BROOK	AB455	41.4		
1/7/2016	ARCTIC BROOK	AB470	31.7		
1/7/2016	ARCTIC BROOK	AB480	34.8		
1/7/2016	ARCTIC BROOK	AB490	72.5		
1/7/2016	AIRPORT	AP330	234.7		
1/8/2016	ARCTIC BROOK	AB452	121.8		
1/8/2016	ARCTIC BROOK	AB453	250		
1/8/2016	ARCTIC BROOK	AB454	185.9		
1/8/2016	KENDUSKEAG EAST	KE261	8.2		
1/8/2016	KENDUSKEAG EAST	KE261A	301.5		
1/8/2016	KENDUSKEAG EAST	KE262	161.1		
1/11/2016	WOODLAWN	WL150	201.7		
1/12/2016	BLANCHARD ST	BS703	177.5		
1/12/2016	WOODLAWN	WL101	342.9		
1/12/2016	WOODLAWN	WL102	212		
1/12/2016	WOODLAWN	WL103	292.3		
1/14/2016	BARKERSVILLE	BV452	204.4		
1/14/2016	BARKERSVILLE	BV453	180.7		
1/14/2016	BARKERSVILLE	BV454	210		
1/15/2016	BARKERSVILLE	BV450	127.8		
1/15/2016	BARKERSVILLE	BV451	377.1	YES	REVERSAL
1/15/2016	BARKERSVILLE	BV451	12.8		
1/19/2016	BARKERSVILLE	BV404	111.4		
1/19/2016	BARKERSVILLE	BV405	264.9		
1/19/2016	BARKERSVILLE	BV450	421.8		
1/20/2016	BARKERSVILLE	BV403	281.6		
1/21/2016	BLANCHARD ST	BS702	25.6		
1/22/2016	BARKERSVILLE	BV400	229.4		
1/22/2016	BARKERSVILLE	BV401	67.6		
1/22/2016	BARKERSVILLE	BV402	186.4		
1/22/2016	BARKERSVILLE	BV406	278.3		
1/25/2016	BLANCHARD ST	BS404	170.6		
1/25/2016	BLANCHARD ST	BS603	126.9		
1/25/2016	BLANCHARD ST	BS610	83		
1/25/2016	BLANCHARD ST	BS620	61.8		
1/25/2016	BLANCHARD ST	BS700	205.9		
1/25/2016	BLANCHARD ST	BS701	295.8		
1/25/2016	BLANCHARD ST	BS702	264.7	YES	RESURVEY - DUE TO PREVIOUS CAMERA FAILURE
1/26/2016	WOODLAWN	WL106	425.8		
1/26/2016	WOODLAWN	WL106	69.1	YES	REVERSAL
1/26/2016	WOODLAWN	WL130	190		
1/26/2016	WOODLAWN	WL150	200.7	YES	TRYING TO IDENTIFY PROBLEM

APPENDIX B: CCTV INSPECTION LOG

City of Bangor, Maine
Calendar Year 2016

Inspection Date	Subsection	Pipe Segment ID	Length of Inspection (FT)	Repeat Inspection (this CY)	Justification for Repeat Inspection
1/26/2016	WOODLAWN	WL151	0.1		
1/27/2016	WOODLAWN	WL106	156	YES	NEEDED SMALLER WHEELS FOR PROTRUDING SERVICE
1/27/2016	WOODLAWN	WL130	192	YES	REVERSAL
2/1/2016	HILDRETH-PERRY	HP465	320.7		
2/1/2016	HILDRETH-PERRY	HP466	315		
2/1/2016	HILDRETH-PERRY	HP480	211		
2/1/2016	HILDRETH-PERRY	HP485	395		
2/1/2016	HILDRETH-PERRY	HP486	262.2		
2/2/2016	ARCTIC BROOK	AB552	77.4		
2/2/2016	ARCTIC BROOK	AB562	77.5		
2/2/2016	AIRPORT	AP016A	261.7		
2/2/2016	AIRPORT	AP503	183.7		
2/2/2016	BURLEIGH ROAD	BU532	183.5		
2/3/2016	CARR BROOK	CB126	352.7		
2/3/2016	CARR BROOK	CB134	185.5		
2/3/2016	PENJAJAWOC	PJ400	99.3	YES	TRYING TO IDENTIFY PROBLEM
2/3/2016	PENJAJAWOC	PJ400	89.1		
2/4/2016	AIRPORT	AP016A	263.2	YES	LOOKING AT EASTWOOD LINE
2/4/2016	AIRPORT	AP503	194.5	YES	POST REHABILITATION SURVEY
2/4/2016	BURLEIGH ROAD	BU535	264.7		
2/8/2016	BLANCHARD ST	BS013	290.7		
2/8/2016	BARKERSVILLE	BV450	224.2	YES	TRYING TO LOCATE WHEEL
2/8/2016	BARKERSVILLE	BV450	273.7	YES	TRYING TO LOCATE WHEEL
2/8/2016	CARR BROOK	CB133	637.5		
2/8/2016	CARR BROOK	CB134	75.8	YES	REVERSAL
2/8/2016	DOW	DW265	104.6		
2/9/2016	AIRPORT	AP602	181		
2/9/2016	AIRPORT	AP603	353.7		
2/9/2016	BLANCHARD ST	BS012	368.3		
2/9/2016	BLANCHARD ST	BS401	132		
2/9/2016	BLANCHARD ST	BS402	349.1		
2/9/2016	BLANCHARD ST	BS403	333		
2/10/2016	AIRPORT	AP604	213.6	YES	SURVEYING BEFORE LINE REPLACEMENT
2/10/2016	AIRPORT	AP604	138		
2/10/2016	AIRPORT	AP700	18.6	YES	AFTER FLUSHING LINE
2/10/2016	AIRPORT	AP700	0.6		
2/10/2016	BLANCHARD ST	BS011	145.4		
2/10/2016	BLANCHARD ST	BS600	291.9		
2/10/2016	BLANCHARD ST	BS601	195.5		
2/10/2016	BLANCHARD ST	BS602	292.2		
2/11/2016	AIRPORT	AP700	350.8	YES	AFTER FLUSHING LINE
2/11/2016	BLANCHARD ST	BS010	140.2		
2/11/2016	BLANCHARD ST	BS016	350.7		
2/11/2016	BLANCHARD ST	BS017	259.4		
2/11/2016	BLANCHARD ST	BS200	259.9		
2/11/2016	BLANCHARD ST	BS201	255.2		
2/11/2016	BLANCHARD ST	BS400	145.1		
2/11/2016	BLANCHARD ST	BS900	220.3		
2/11/2016	BLANCHARD ST	BS901	218.1		

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2/12/2016	AIRPORT	AP018	250.3		
2/12/2016	AIRPORT	AP019	242.7		
2/12/2016	BLANCHARD ST	BS007	117.3		
2/12/2016	BLANCHARD ST	BS008	301.9		
2/12/2016	BLANCHARD ST	BS009	348.3		
2/12/2016	BLANCHARD ST	BS015	355.3		
2/16/2016	AIRPORT	AP500	263.1		
2/16/2016	BLANCHARD ST	BS300	143.6		
2/17/2016	MEADOWBROOK	MB043	311.3		
2/17/2016	MEADOWBROOK	MB970	227.1		
2/18/2016	AIRPORT	AP419	316.3		
2/18/2016	AIRPORT	AP420	279		
2/18/2016	AIRPORT	AP630	244.4		
2/18/2016	AIRPORT	AP631	295.5		
2/18/2016	AIRPORT	AP663	277.7		
2/18/2016	DOW	DW209	171.3		
2/18/2016	DOW	DW211	273		
2/18/2016	DOW	DW270	316.4		
2/19/2016	AIRPORT	AP651	337		
2/19/2016	AIRPORT	AP660	172.2		
2/19/2016	AIRPORT	AP661	414.7		
2/19/2016	AIRPORT	AP662	407.7		
2/19/2016	DOW	DW016A	169.2		
2/19/2016	DOW	DW302	242.9		
2/19/2016	DOW	DW500	194.6		
2/22/2016	AIRPORT	AP017	437		
2/22/2016	AIRPORT	AP400	59.9		
2/22/2016	AIRPORT	AP481	209.5	YES	REVERSAL
2/22/2016	AIRPORT	AP481	69.2		
2/22/2016	AIRPORT	AP482	372.7		
2/22/2016	DOW	DW015	76		
2/22/2016	DOW	DW214	265.9		
2/22/2016	DOW	DW350	176.8		
2/23/2016	AIRPORT	AP442	178.1		
2/23/2016	AIRPORT	AP443	176.5	YES	REVERSAL
2/23/2016	AIRPORT	AP443	85.2		
2/23/2016	AIRPORT	AP450	276.1		
2/23/2016	AIRPORT	AP451	4.7		
2/23/2016	AIRPORT	AP500	104.2	YES	CHECKING ON ABANDONED LINE
2/23/2016	AIRPORT	AP503	197.6	YES	POST REHAB SURVEY CHECKING FINAL REPAIRS
2/23/2016	AIRPORT	AP602	180.7	YES	I & I STUDY
2/23/2016	AIRPORT	AP704	292.3		
2/23/2016	AIRPORT	AP723	166.8		
2/23/2016	DOW	DW256	100.7		
2/23/2016	DOW	DW270	400	YES	AFTER FLUSHING
2/23/2016	DOW	DW400	362		
2/24/2016	AIRPORT	AP530	242.4		
2/24/2016	AIRPORT	AP622	126.2		
2/24/2016	AIRPORT	AP741	103.4		

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2/24/2016	KENDUSKEAG EAST	KE301	111.6		
2/24/2016	KENDUSKEAG EAST	KE302	572.9		
2/25/2016	AIRPORT	AP050	204.2		
2/25/2016	AIRPORT	AP417	87.2		
2/25/2016	AIRPORT	AP513	185.7		
2/25/2016	AIRPORT	AP541	34.9	YES	REVERSAL
2/25/2016	AIRPORT	AP541	30.7		
2/25/2016	AIRPORT	AP622	275.6	YES	AFTER FLUSHING LINE
2/25/2016	AIRPORT	AP660	147.3	YES	REVERSAL
2/25/2016	AIRPORT	AP660	192.8	YES	AFTER FLUSHING LINE
2/25/2016	CEMETERY	CM452	185		
2/25/2016	DOW	DW500	71.1	YES	TRYING TO IDENTIFY PROBLEM
2/26/2016	AIRPORT	AP513	351.2	YES	AFTER FLUSHING LINE
2/26/2016	BARKERSVILLE	BV480	61.8		
2/26/2016	BARKERSVILLE	BV485	28.7	YES	REVERSAL
2/26/2016	BARKERSVILLE	BV485	24		
2/26/2016	CEMETERY	CM350	153.9		
2/26/2016	CEMETERY	CM351A	233.7		
2/26/2016	KENDUSKEAG EAST	KE201	119.8		
2/26/2016	KENDUSKEAG EAST	KE260	236.5		
2/29/2016	BARKERSVILLE	BV515	145.9		
2/29/2016	CEMETERY	CM350	325.1	YES	NEEDED SMALLER WHEELS ON CAMERA TO COMPLETE
2/29/2016	KENDUSKEAG EAST	KE250	202.5		
2/29/2016	KENDUSKEAG EAST	KE250A	40.6		
2/29/2016	KENDUSKEAG EAST	KE251	214.9		
2/29/2016	MEADOWBROOK	MB039	207.6		
2/29/2016	MEADOWBROOK	MB040	159.5		
2/29/2016	MEADOWBROOK	MB041	186.7		
2/29/2016	MEADOWBROOK	MB042	275.6		
2/29/2016	MEADOWBROOK	MB044	303.1		
3/1/2016	MEADOWBROOK	MB805	153.3	YES	REVERSAL
3/1/2016	MEADOWBROOK	MB805	35.6		
3/1/2016	MEADOWBROOK	MB806	381.1		
3/1/2016	MEADOWBROOK	MB807	395.6		
3/1/2016	MEADOWBROOK	MB808	395.4		
3/1/2016	MEADOWBROOK	MB830	312.7		
3/2/2016	MEADOWBROOK	MB023	39.9		
3/2/2016	MEADOWBROOK	MB024	361.7		
3/2/2016	MEADOWBROOK	MB031	309.8		
3/2/2016	MEADOWBROOK	MB032	311.8		
3/2/2016	MEADOWBROOK	MB707	13.1		
3/3/2016	BURLEIGH ROAD	BU017	168.7		
3/3/2016	BURLEIGH ROAD	BU601	162.8		
3/3/2016	BURLEIGH ROAD	BU602	213.5		
3/3/2016	BURLEIGH ROAD	BU603	265.2		
3/3/2016	BURLEIGH ROAD	BU604	265		
3/3/2016	BURLEIGH ROAD	BU605	95.8		
3/3/2016	BURLEIGH ROAD	BU606	95.7		
3/3/2016	BURLEIGH ROAD	BU650	325.5		

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3/4/2016	BURLEIGH ROAD	BU020	155.1		
3/4/2016	BURLEIGH ROAD	BU021	242.9		
3/4/2016	BURLEIGH ROAD	BU750	245.1		
3/4/2016	BURLEIGH ROAD	BU751	202.1		
3/7/2016	BURLEIGH ROAD	BU018	116.5		
3/7/2016	BURLEIGH ROAD	BU505	147.6		
3/7/2016	BURLEIGH ROAD	BU506	284.6		
3/7/2016	BURLEIGH ROAD	BU570	167.8		
3/7/2016	BURLEIGH ROAD	BU600	199.5		
3/7/2016	BURLEIGH ROAD	BU651	192.1		
3/7/2016	BURLEIGH ROAD	BU701	269.3		
3/7/2016	BURLEIGH ROAD	BU702	264.5		
3/7/2016	BURLEIGH ROAD	BU703	224.7		
3/8/2016	AIRPORT	AP421	19.5		
3/8/2016	BURLEIGH ROAD	BU502	164.5		
3/8/2016	BURLEIGH ROAD	BU503	247.1		
3/8/2016	BURLEIGH ROAD	BU504	123.6		
3/8/2016	BURLEIGH ROAD	BU540	266.6		
3/10/2016	BURLEIGH ROAD	BU501	230.6		
3/10/2016	BURLEIGH ROAD	BU510	359.4		
3/10/2016	BURLEIGH ROAD	BU511	277.8		
3/10/2016	BURLEIGH ROAD	BU520	208.7		
3/10/2016	BURLEIGH ROAD	BU530	292.9		
3/11/2016	BURLEIGH ROAD	BU512	399.6		
3/11/2016	BURLEIGH ROAD	BU513	227.5		
3/11/2016	BURLEIGH ROAD	BU514	242.6	YES	AFTER FLUSHING LINE
3/11/2016	BURLEIGH ROAD	BU514	226.9		
3/11/2016	BURLEIGH ROAD	BU515	275.7		
3/11/2016	BURLEIGH ROAD	BU516	33.6		
3/11/2016	BURLEIGH ROAD	BU531	225.6		
3/14/2016	BURLEIGH ROAD	BU028	55.7		
3/14/2016	BURLEIGH ROAD	BU030	367.2		
3/14/2016	BURLEIGH ROAD	BU031	343.6		
3/14/2016	BURLEIGH ROAD	BU033	309.2		
3/14/2016	BURLEIGH ROAD	BU034	416.6		
3/14/2016	BURLEIGH ROAD	BU035	295.9		
3/14/2016	BURLEIGH ROAD	BU541	265.6		
3/15/2016	BURLEIGH ROAD	BU004	175.9		
3/15/2016	BURLEIGH ROAD	BU005	241.7		
3/15/2016	BURLEIGH ROAD	BU023	295.7		
3/15/2016	BURLEIGH ROAD	BU025	64.6		
3/15/2016	BURLEIGH ROAD	BU026	393.7		
3/16/2016	CEMETERY	CM303	230.5		
3/16/2016	CEMETERY	CM352	246.8		
3/16/2016	CEMETERY	CM401	11.8		
3/16/2016	CEMETERY	CM402	296		
3/16/2016	MEADOWBROOK	MB014	179.1		
3/16/2016	MEADOWBROOK	MB015	133.4		
3/16/2016	MEADOWBROOK	MB406	20.7		
3/16/2016	MEADOWBROOK	MB452	47.5		

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3/17/2016	CEMETERY	CM101	209.5		
3/17/2016	CEMETERY	CM102	248.2		
3/17/2016	CEMETERY	CM301	376.5		
3/17/2016	CEMETERY	CM302	301.2		
3/17/2016	OLD CAPEHART	OC553	225.7		
3/17/2016	OLD CAPEHART	OC554	200.6		
3/17/2016	OLD CAPEHART	OC555	196.9	YES	REVERSAL
3/17/2016	OLD CAPEHART	OC555	100.5		
3/17/2016	OLD CAPEHART	OC556	122.7		
3/18/2016	BLANCHARD ST	BS500	33.7		
3/18/2016	BLANCHARD ST	BS501	183.7		
3/21/2016	CEMETERY	CM250	128.5		
3/21/2016	CEMETERY	CM251	347.7		
3/21/2016	CEMETERY	CM252	431.2		
3/21/2016	OLD CAPEHART	OC029	245.4		
3/21/2016	OLD CAPEHART	OC800	126.2		
3/21/2016	OLD CAPEHART	OC904	295.8		
3/21/2016	OLD CAPEHART	OC910	228.6		
3/21/2016	OLD CAPEHART	OC911	230.7		
3/25/2016	CEMETERY	CM103	294.2		
3/25/2016	CEMETERY	CM103A	39.8		
3/25/2016	HANCOCK	HK575	36.2		
3/25/2016	HANCOCK	HK576	208.5		
3/25/2016	HANCOCK	HK577	228.4		
3/25/2016	OLD CAPEHART	OC851	284.7		
3/25/2016	OLD CAPEHART	OC852	52.2		
3/25/2016	OLD CAPEHART	OC870	145.9		
3/29/2016	OLD CAPEHART	OC801	197.2		
3/29/2016	OLD CAPEHART	OC850	273.7		
3/29/2016	OLD CAPEHART	OC860	145.5		
3/30/2016	DAVIS BROOK	DB430	99.4		
3/30/2016	DAVIS BROOK	DB595	404.4		
4/1/2016	AIRPORT	AP762	257.8		
4/5/2016	CEMETERY	CM107B	189.8		
4/5/2016	OLD CAPEHART	OC601	288.7		
4/5/2016	OLD CAPEHART	OC701	190.4	YES	REVERSAL
4/5/2016	OLD CAPEHART	OC701	32.8		
4/5/2016	OLD CAPEHART	OC702	248.5	YES	REVERSAL
4/5/2016	OLD CAPEHART	OC702	5.5		
4/5/2016	OLD CAPEHART	OC703	138.1		
4/5/2016	OLD CAPEHART	OC704	216.5		
4/6/2016	OLD CAPEHART	OC471	139.7		
4/6/2016	OLD CAPEHART	OC472	190.8	YES	REVERSAL
4/6/2016	OLD CAPEHART	OC472	101.2		
4/6/2016	OLD CAPEHART	OC480	255.4		
4/6/2016	OLD CAPEHART	OC481	141.5		
4/6/2016	OLD CAPEHART	OC485	195.8		
4/6/2016	OLD CAPEHART	OC486	140.2		
4/6/2016	OLD CAPEHART	OC502	227.7		
4/6/2016	OLD CAPEHART	OC503	42.1		

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4/6/2016	OLD CAPEHART	OC504	250		
4/7/2016	CEMETERY	CM800	241.6		
4/7/2016	CEMETERY	CM801	245.5		
4/7/2016	CEMETERY	CM802	315.9		
4/7/2016	CEMETERY	CM870	213.4		
4/7/2016	CEMETERY	CM880	164.8		
4/7/2016	CEMETERY	CM910	157.4		
4/7/2016	CEMETERY	CM910A	300		
4/7/2016	OLD CAPEHART	OC700	189.4		
4/7/2016	OLD CAPEHART	OC701	225.7	YES	AFTER FLUSHING
4/7/2016	OLD CAPEHART	OC702	253.1	YES	AFTER FLUSHING
4/15/2016	BARKERSVILLE	BV485	55.8	YES	POST REHABILITATION SURVEY
4/15/2016	CEMETERY	CM505	296.6		
4/15/2016	CEMETERY	CM506	250.7		
4/15/2016	CEMETERY	CM507	262.2		
4/15/2016	CEMETERY	CM508	222.2		
4/15/2016	CEMETERY	CM650	38.7		
4/15/2016	CEMETERY	CM651	250.8		
4/15/2016	CEMETERY	CM652	283.4		
4/15/2016	DAVIS BROOK	DB732	105		
4/15/2016	OLD CAPEHART	OC414	173.3		
4/15/2016	OLD CAPEHART	OC470	190.5		
4/19/2016	DOW	DW010	252.9		
4/19/2016	DOW	DW102	415.2	YES	AFTER FLUSHING
4/19/2016	DOW	DW102	7.4		
4/19/2016	OLD CAPEHART	OC302	258.1	YES	AFTER FLUSHING
4/19/2016	OLD CAPEHART	OC302	8.9		
4/19/2016	OLD CAPEHART	OC303	244.4	YES	AFTER FLUSHING
4/19/2016	OLD CAPEHART	OC303	237.7		
4/19/2016	OLD CAPEHART	OC304	243.3	YES	AFTER FLUSHING
4/19/2016	OLD CAPEHART	OC304	10		
4/19/2016	OLD CAPEHART	OC305	296.9	YES	AFTER FLUSHING
4/19/2016	OLD CAPEHART	OC305	124.1		
4/20/2016	DAVIS BROOK	DB732	104.9	YES	POST REHABILITATION SURVEY
4/20/2016	KENDUSKEAG WEST	KW076	16.9		
4/21/2016	OLD CAPEHART	OC020	169.1		
4/21/2016	OLD CAPEHART	OC400	132.6		
4/21/2016	OLD CAPEHART	OC401	188.2		
4/21/2016	OLD CAPEHART	OC402	1.8		
4/21/2016	OLD CAPEHART	OC420	93.7		
4/21/2016	OLD CAPEHART	OC421	166.1		
4/25/2016	CEMETERY	CM602	249.1		
4/25/2016	CEMETERY	CM603	233.8		
5/2/2016	CEMETERY	CM519	221.6	YES	AFTER FLUSHING
5/2/2016	CEMETERY	CM519	103.7		
5/2/2016	CEMETERY	CM520	183.7		
5/2/2016	CEMETERY	CM590	204.1		
5/2/2016	CEMETERY	CM591	186.7		
5/2/2016	DAVIS BROOK	DB405A	5.2		
5/2/2016	DAVIS BROOK	DB430	14	YES	BEFORE REHABILITATION

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5/2/2016	DAVIS BROOK	DB440	18.6		
5/3/2016	BARKERSVILLE	BV704	192.7		
5/4/2016	CEMETERY	CM518	341.1		
5/5/2016	DAVIS BROOK	DB440	90.1	YES	POST REHABILITATION SURVEY
5/6/2016	ARCTIC BROOK	AB402	82.8		
5/6/2016	BARKERSVILLE	BV333	0.9		
5/6/2016	BARKERSVILLE	BV340	183.7		
5/6/2016	MAY STREET	MS001	99		
5/11/2016	ARCTIC BROOK	AB400	278.3		
5/11/2016	ARCTIC BROOK	AB401	346.1		
5/11/2016	ARCTIC BROOK	AB402	85.7	YES	TRIED TO MAKE IT PAST PREVIOUS SPOT IN PIPE
5/11/2016	AIRPORT	AP283	226.5		
5/11/2016	AIRPORT	AP285	189.3		
5/12/2016	ARCTIC BROOK	AB018	259.7		
5/12/2016	ARCTIC BROOK	AB019	191.2		
5/12/2016	ARCTIC BROOK	AB020	448.9		
5/12/2016	ARCTIC BROOK	AB400	277.3	YES	RAN OUT OF CABLE ON PREVIOUS INSPECTION
5/12/2016	ARCTIC BROOK	AB590	31.2		
5/17/2016	BARKERSVILLE	BV555	358.8		
5/17/2016	PENJAJAWOC	PJ951	276.6		
5/18/2016	ARCTIC BROOK	AB500	167.9		
5/18/2016	MAY STREET	MS001	206.8	YES	AFTER FLUSHING
5/19/2016	HILDRETH-PERRY	HP502	56.4		
5/19/2016	HILDRETH-PERRY	HP650	257.8		
5/19/2016	HILDRETH-PERRY	HP651	245.8		
5/19/2016	HILDRETH-PERRY	HP652	247		
5/19/2016	HILDRETH-PERRY	HP653	237.8		
5/20/2016	BARKERSVILLE	BV333	119.3	YES	PREVIOUS SURVEY WAS TO LOCATE SERVICE
5/20/2016	MEADOWBROOK	MB604	297.9		
5/23/2016	HILDRETH-PERRY	HP502	225.9	YES	REVERSAL
5/23/2016	HILDRETH-PERRY	HP510	228.8		
5/23/2016	HILDRETH-PERRY	HP511	9.9		
5/25/2016	AIRPORT	AP602	177.4	YES	SURVEYING BEFORE LINE REPLACEMENT
5/25/2016	AIRPORT	AP603	142.6	YES	SURVEYING BEFORE LINE REPLACEMENT
5/25/2016	AIRPORT	AP604	136	YES	SURVEYING BEFORE LINE REPLACEMENT
5/25/2016	AIRPORT	AP605	134.4		
5/25/2016	AIRPORT	AP606	153.6		
5/25/2016	AIRPORT	AP607	195.6		
5/25/2016	AIRPORT	AP700	87.7	YES	POST REHABILITATION SURVEY
5/26/2016	AIRPORT	AP700A	175		
5/26/2016	HILDRETH-PERRY	HP602	181.8		
5/31/2016	HILDRETH-PERRY	HP602	51.8	YES	REVERSAL
5/31/2016	HILDRETH-PERRY	HP603	296.6		
5/31/2016	HILDRETH-PERRY	HP604	278.4		
6/2/2016	CEMETERY	CM571	119.3		
6/2/2016	CEMETERY	CM711	296.4		
6/2/2016	CEMETERY	CM712	202.6		
6/2/2016	CEMETERY	CM781	74.6		

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6/3/2016	CEMETERY	CM515	286.5		
6/3/2016	CEMETERY	CM516	41.8		
6/3/2016	CEMETERY	CM570	40.6		
6/7/2016	CEMETERY	CM691	71.7		
6/7/2016	DAVIS BROOK	DB950	73.9		
6/8/2016	CEMETERY	CM691	131.1	YES	INITIAL SURVEY ABANDONED
6/9/2016	CEMETERY	CM691	206.7	YES	AFTER FLUSHING
6/15/2016	DAVIS BROOK	DB803	376		
6/15/2016	KENDUSKEAG WEST	KW100	46.2		
6/20/2016	CEMETERY	CM691	23.7	YES	REVERSAL
6/20/2016	CEMETERY	CM691	272.9	YES	AFTER FLUSHING
6/22/2016	MEADOWBROOK	MB003	242.9		
6/22/2016	OLD CAPEHART	OC422	81.8		
6/23/2016	BARKERSVILLE	BV221A	192.2		
6/23/2016	BARKERSVILLE	BV221B	221.9		
6/23/2016	BARKERSVILLE	BV422	48.8		
6/23/2016	CARR BROOK	CB031	173		
6/23/2016	CARR BROOK	CB032	245.5		
6/23/2016	CARR BROOK	CB750	113.1		
6/23/2016	OLD CAPEHART	OC422	332.2	YES	AFTER FLUSHING
6/24/2016	DAVIS BROOK	DB105	82.7		
6/24/2016	DAVIS BROOK	DB106	108.5		
6/24/2016	DAVIS BROOK	DB107	255.6		
6/24/2016	DAVIS BROOK	DB108	216.3		
6/24/2016	KENDUSKEAG WEST	KW304	231.7		
6/27/2016	CARR BROOK	CB023	154.9		
6/27/2016	CARR BROOK	CB024	98		
6/27/2016	CARR BROOK	CB500	283.3		
6/27/2016	CARR BROOK	CB501	209	YES	REVERSAL
6/27/2016	CARR BROOK	CB501	74.6		
6/27/2016	CARR BROOK	CB502	146.3		
6/27/2016	CARR BROOK	CB503	148.6		
6/28/2016	CARR BROOK	CB503	129.7	YES	REVERSAL
6/29/2016	AIRPORT	AP416	90.3		
6/29/2016	CARR BROOK	CB111	411.3		
6/29/2016	CARR BROOK	CB130	191.8		
6/29/2016	CARR BROOK	CB131	177.5	YES	REVERSAL
6/29/2016	CARR BROOK	CB131	47.8		
6/29/2016	GLENWOOD	GW100	242.7		
6/30/2016	CARR BROOK	CB033	278.1		
6/30/2016	CARR BROOK	CB135	194.2	YES	REVERSAL
6/30/2016	CARR BROOK	CB135	52		
7/1/2016	GLENWOOD	GW101	245.4		
7/1/2016	GLENWOOD	GW102	303.7		
7/1/2016	MEADOWBROOK	MB200	77.3		
7/1/2016	MEADOWBROOK	MB201	68.9		
7/1/2016	MEADOWBROOK	MB260	213.5		
7/6/2016	AIRPORT	AP412	174.8		
7/6/2016	AIRPORT	AP413	179.7		
7/6/2016	AIRPORT	AP414	246.6		

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7/6/2016	AIRPORT	AP414A	305.5	NO	
7/6/2016	AIRPORT	AP415	155		
7/7/2016	ARCTIC BROOK	AB480	314.2	YES	OBSTACLE IN LINE NEED TO FLUSH
7/7/2016	HANCOCK	HK011	224.1		
7/7/2016	HANCOCK	HK040	26.5		
7/8/2016	HILDRETH-PERRY	HP502	311	YES	POST REHABILITATION SURVEY
7/11/2016	ARCTIC BROOK	AB820	277		
7/12/2016	DAVIS BROOK	DB605	77.9		
7/12/2016	OLD CAPEHART	OC462	229.7		
7/12/2016	OLD CAPEHART	OC463	207		
7/14/2016	DAVIS BROOK	DB605	244.6	YES	REVERSAL
7/15/2016	OLD CAPEHART	OC452	159.5		
7/18/2016	KENDUSKEAG WEST	KW300	7.5		
7/18/2016	KENDUSKEAG WEST	KW301	86.8		
7/18/2016	OLD CAPEHART	OC021	285.1		
7/18/2016	OLD CAPEHART	OC022	260.2		
7/18/2016	OLD CAPEHART	OC550	64.5		
7/18/2016	OLD CAPEHART	OC551	256.8		
7/18/2016	OLD CAPEHART	OC552	216.4		
7/20/2016	HILDRETH-PERRY	HP511	106.8	YES	AFTER FLUSHING
7/20/2016	HILDRETH-PERRY	HP511	107.1	YES	POST REHABILITATION SURVEY
7/20/2016	HILDRETH-PERRY	HP512	2		
7/20/2016	OLD CAPEHART	OC421	164.9	YES	AFTER FLUSHING
7/20/2016	OLD CAPEHART	OC422	80.7	YES	AFTER FLUSHING
7/25/2016	ARCTIC BROOK	AB882	322.4		
7/25/2016	OLD CAPEHART	OC407	254.7		
7/25/2016	OLD CAPEHART	OC408	196.6		
7/25/2016	OLD CAPEHART	OC421	354.6	YES	AFTER FLUSHING
7/26/2016	DAVIS BROOK	DB605	325.4	YES	POST REHABILITATION SURVEY
7/27/2016	CEMETERY	CM510	294.1		
7/27/2016	CEMETERY	CM511	299.7		
7/27/2016	DAVIS BROOK	DB611	18.6		
7/27/2016	DAVIS BROOK	DB612	254.1		
7/27/2016	DAVIS BROOK	DB630	65.9		
7/27/2016	DOW	DW600	170.7		
7/28/2016	CEMETERY	CM512	284.4		
7/28/2016	CEMETERY	CM513	301.9		
7/28/2016	CEMETERY	CM514	310.1		
7/28/2016	CEMETERY	CM751	178.3		
7/28/2016	DAVIS BROOK	DB630	347.5	YES	REVERSAL
7/29/2016	KENDUSKEAG EAST	KE005	60.4	YES	REVERSAL
7/29/2016	KENDUSKEAG EAST	KE701	8.8		
7/29/2016	KENDUSKEAG WEST	KW003	293.2		
7/29/2016	KENDUSKEAG WEST	KW100A	501.2		
7/29/2016	OLD CAPEHART	OC411	201.5		
7/29/2016	OLD CAPEHART	OC412	280.2		
8/3/2016	KENDUSKEAG EAST	KE265	189.9		
8/3/2016	KENDUSKEAG WEST	KW070	92.5		
8/4/2016	KENDUSKEAG EAST	KE900	147.2		
8/5/2016	DAVIS BROOK	DB612	14.9	YES	POST REHABILITATION SURVEY

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8/5/2016	OLD CAPEHART	OC600	0.7		
8/5/2016	OLD CAPEHART	OC601	291	YES	AFTER FLUSHING
8/8/2016	OLD CAPEHART	OC600	1.7	YES	REVERSAL
8/9/2016	OLD CAPEHART	OC600A	261.4		
8/10/2016	ARCTIC BROOK	AB460	148.7		
8/10/2016	ARCTIC BROOK	AB461	17.9		
8/10/2016	DOW	DW600	170.7	YES	POST REHABILITATION SURVEY
8/11/2016	ARCTIC BROOK	AB460	147.1	YES	REVERSAL
8/11/2016	AIRPORT	AP421	367.3	YES	POST REHABILITATION SURVEY
8/11/2016	DOW	DW660	193.9		
8/11/2016	OLD CAPEHART	OC363	261.2		
8/11/2016	OLD CAPEHART	OC364	192.9		
8/12/2016	BURLEIGH ROAD	BU200	215.9		
8/12/2016	DAVIS BROOK	DB600	127.5		
8/15/2016	ARCTIC BROOK	AB405	2.5	YES	REVERSAL
8/15/2016	ARCTIC BROOK	AB405	0.5		
8/15/2016	ARCTIC BROOK	AB410	100.1		
8/15/2016	CEMETERY	CM850	154		
8/15/2016	OLD CAPEHART	OC023	254		
8/15/2016	OLD CAPEHART	OC024	306.1		
8/17/2016	ARCTIC BROOK	AB410	447.6	YES	CONTINUATION OF SURVEY
8/17/2016	ARCTIC BROOK	AB460	313.2	YES	POST REHABILITATION
8/17/2016	ARCTIC BROOK	AB461	18.9	YES	POST REHABILITATION
8/17/2016	DAVIS BROOK	DB700	65.8		
8/17/2016	OLD CAPEHART	OC360	272.4		
8/17/2016	OLD CAPEHART	OC361	262.3		
8/17/2016	OLD CAPEHART	OC362	175.5		
8/18/2016	HILDRETH-PERRY	HP019	376.5		
8/19/2016	ARCTIC BROOK	AB057	367.1		
8/22/2016	CEMETERY	CM761	125.1		
8/22/2016	CEMETERY	CM766	102.5		
8/22/2016	CEMETERY	CM770	213.1		
8/22/2016	CEMETERY	CM771	235.8		
8/22/2016	CEMETERY	CM790	258.5		
8/22/2016	CEMETERY	CM791	253.6		
8/22/2016	OLD CAPEHART	OC102	318.5		
8/22/2016	OLD CAPEHART	OC103	290.9		
8/22/2016	OLD CAPEHART	OC104	295.6		
8/22/2016	OLD CAPEHART	OC110	233.1		
8/22/2016	OLD CAPEHART	OC362	242.6	YES	AFTER FLUSHING
8/23/2016	ARCTIC BROOK	AB480	347.5	YES	INSPECTED AFTER FLUSHING
8/23/2016	CEMETERY	CM765	275		
8/30/2016	ARCTIC BROOK	AB457	121.5	YES	REVERSAL
8/30/2016	HANCOCK	HK085	224.9		
8/31/2016	CEMETERY	CM710	339.3		
8/31/2016	DAVIS BROOK	DB402	54.8		
8/31/2016	DAVIS BROOK	DB403	240.9		
8/31/2016	DAVIS BROOK	DB403A	21.5		
8/31/2016	DAVIS BROOK	DB404	154.2		
9/2/2016	DAVIS BROOK	DB405	132.4		

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9/6/2016	CARR BROOK	CB503	451	YES	POST REHABILITATION
9/8/2016	CEMETERY	CM706	25		
9/8/2016	CEMETERY	CM707	231.2		
9/8/2016	CEMETERY	CM708	236.7		
9/8/2016	CEMETERY	CM709	321.7		
9/8/2016	DAVIS BROOK	DB404	152.7	YES	RE WORK INSPECTION
9/9/2016	BARKERSVILLE	BV221A	191.6	YES	POST REHABILITATION
9/9/2016	BARKERSVILLE	BV222	224.9		
9/9/2016	BARKERSVILLE	BV222A	51		
9/13/2016	KENDUSKEAG EAST	KE003	1		
9/13/2016	KENDUSKEAG EAST	KE004	168.4	YES	REVERSAL
9/13/2016	KENDUSKEAG EAST	KE004	18.1		
9/13/2016	KENDUSKEAG EAST	KE006	87.9		
9/13/2016	KENDUSKEAG EAST	KE007	122.3		
9/13/2016	KENDUSKEAG EAST	KE008	156.5		
9/14/2016	KENDUSKEAG EAST	KE050	25		
9/14/2016	KENDUSKEAG EAST	KE370	276.1		
9/14/2016	OLD CAPEHART	OC101	280.9		
9/14/2016	OLD CAPEHART	OC150	68.2		
9/15/2016	ARCTIC BROOK	AB410	138.6	YES	POST REHABILITATION
9/15/2016	KENDUSKEAG EAST	KE300	239.3		
9/15/2016	KENDUSKEAG EAST	KE350	74.5		
9/15/2016	KENDUSKEAG EAST	KE702	18.4		
9/19/2016	KENDUSKEAG WEST	KW101	300.1		
9/19/2016	KENDUSKEAG WEST	KW101A	263.2		
9/19/2016	OLD CAPEHART	OC450	198.2		
9/19/2016	OLD CAPEHART	OC451	160.5		
9/19/2016	OLD CAPEHART	OC455	185.9		
9/19/2016	OLD CAPEHART	OC460	131.7		
9/19/2016	OLD CAPEHART	OC461	142.9		
9/19/2016	OLD CAPEHART	OC465	180.4		
9/19/2016	OLD CAPEHART	OC466	182.8		
9/20/2016	KENDUSKEAG WEST	KW102	18.7		
9/20/2016	KENDUSKEAG WEST	KW102A	122.2		
9/20/2016	KENDUSKEAG WEST	KW103	536.2		
9/21/2016	CEMETERY	CM705	241.2		
9/21/2016	KENDUSKEAG EAST	KE350	180	YES	REVERSAL
9/21/2016	KENDUSKEAG EAST	KE351	7.1		
9/22/2016	KENDUSKEAG EAST	KE203	111		
9/22/2016	KENDUSKEAG EAST	KE203A	2.8		
9/22/2016	KENDUSKEAG EAST	KE204	184.5		
9/22/2016	KENDUSKEAG EAST	KE263	160.3		
9/22/2016	OLD CAPEHART	OC028	173.2		
9/23/2016	ARCTIC BROOK	AB457	300.9	YES	POST REHABILITATION
9/23/2016	ARCTIC BROOK	AB458	119.1		
9/23/2016	CEMETERY	CM703	225.7		
9/23/2016	CEMETERY	CM704	252.1		
9/23/2016	OLD CAPEHART	OC400	216.6	YES	AFTER FLUSHING
9/23/2016	OLD CAPEHART	OC402	22.9	YES	AFTER FLUSHING
9/23/2016	OLD CAPEHART	OC403	208.3		

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9/23/2016	OLD CAPEHART	OC406	175.9		
9/23/2016	OLD CAPEHART	OC453	211.2	YES	REVERSAL
9/23/2016	OLD CAPEHART	OC453	18.3		
9/26/2016	CEMETERY	CM702	398.1		
9/27/2016	ARCTIC BROOK	AB490	237	YES	TRYING TO GET PAST OBSTACLE IN LINE
9/27/2016	CEMETERY	CM700	5.5		
9/27/2016	CEMETERY	CM701	217.3		
9/27/2016	CEMETERY	CM951	176.2		
9/27/2016	MEADOWBROOK	MB775	219.8		
10/3/2016	AIRPORT	AP700A	267	YES	AFTER FLUSHING LINE
10/4/2016	ARCTIC BROOK	AB480	353.7	YES	POST REHABILITATION
10/4/2016	DAVIS BROOK	DB301A	307		
10/4/2016	DAVIS BROOK	DB360	224.3		
10/5/2016	ARCTIC BROOK	AB490	331.7	YES	POST REHABILITATION
10/5/2016	AIRPORT	AP016B	265.6		
10/5/2016	AIRPORT	AP503	197.9	YES	FOLLOW UP I & I STUDY
10/6/2016	AIRPORT	AP209A	112.7		
10/6/2016	AIRPORT	AP230	32.3		
10/6/2016	AIRPORT	AP233	282.6		
10/6/2016	AIRPORT	AP721	0.2		
10/7/2016	AIRPORT	AP231	197.3		
10/7/2016	AIRPORT	AP232	195.3		
10/7/2016	AIRPORT	AP721	2.1	YES	FOLLOW UP I & I STUDY
10/13/2016	AIRPORT	AP352	318.7		
10/13/2016	AIRPORT	AP353	260		
10/13/2016	AIRPORT	AP354	46.2		
10/13/2016	DOW	DW610A	13.8		
10/18/2016	AIRPORT	AP351	158.9		
10/18/2016	AIRPORT	AP355	341.5		
10/19/2016	AIRPORT	AP311	160.8		
10/19/2016	AIRPORT	AP312	0.5		
10/19/2016	AIRPORT	AP370	112		
10/19/2016	AIRPORT	AP371	183.4		
10/19/2016	AIRPORT	AP372	165.2		
10/20/2016	AIRPORT	AP312	17.7	YES	REVERSAL
10/20/2016	AIRPORT	AP370	86.9	YES	FOLLOW UP I & I STUDY
10/20/2016	AIRPORT	AP373	113.9		
10/20/2016	AIRPORT	AP390	211.9		
10/21/2016	AIRPORT	AP310	176.2		
10/21/2016	AIRPORT	AP609	257.4		
10/21/2016	AIRPORT	AP610	212.6		
10/25/2016	AIRPORT	AP371	183.3	YES	FOLLOW UP I & I STUDY
10/25/2016	AIRPORT	AP608	567.5		

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10/25/2016	KENDUSKEAG WEST	KW350	188.2		
10/27/2016	KENDUSKEAG EAST	KE001	150.9		
10/27/2016	KENDUSKEAG EAST	KE002	0.2		
10/27/2016	KENDUSKEAG EAST	KE101	249.1		
10/27/2016	KENDUSKEAG EAST	KE102	210.2	YES	REVERSAL
10/27/2016	KENDUSKEAG EAST	KE102	6.9		
10/27/2016	KENDUSKEAG EAST	KE103	5.3		
10/27/2016	KENDUSKEAG EAST	KE700	49.6		
10/27/2016	KENDUSKEAG EAST	KE701	138.7	YES	REVERSAL
10/28/2016	AIRPORT	AP373	137.2	YES	RESURVEY AFTER FLUSHING
10/28/2016	AIRPORT	AP373	138.2	YES	RESURVEY AFTER FLUSHING
10/28/2016	AIRPORT	AP373	289.7	YES	RESURVEY AFTER FLUSHING
10/28/2016	KENDUSKEAG EAST	KE300	212.4	YES	REVERSAL
10/28/2016	KENDUSKEAG EAST	KE701	247.1	YES	REVERSAL
10/31/2016	AIRPORT	AP422	206		
10/31/2016	KENDUSKEAG EAST	KE002	27.4	YES	REVERSAL
10/31/2016	KENDUSKEAG EAST	KE003	11.6	YES	REVERSAL
10/31/2016	KENDUSKEAG EAST	KE005	358.6	YES	REVERSAL
10/31/2016	KENDUSKEAG EAST	KE104	208.5		
10/31/2016	KENDUSKEAG EAST	KE205	290.9		
11/1/2016	AIRPORT	AP421	374	YES	FOLLOW UP I & I STUDY
11/1/2016	AIRPORT	AP744	71		
11/1/2016	KENDUSKEAG EAST	KE901	150.1		
11/2/2016	AIRPORT	AP309	51.4		
11/2/2016	AIRPORT	AP356	166.1	YES	INFILTRATION/INFLOW INVESTIGATION
11/2/2016	AIRPORT	AP356	1.8		
11/3/2016	AIRPORT	AP309	88.6	YES	REVERSAL
11/3/2016	DAVIS BROOK	DB012	186.7		
11/3/2016	DAVIS BROOK	DB013	290.8		
11/3/2016	DAVIS BROOK	DB014	180.9		
11/3/2016	PENJAJAWOC	PJ304	301.3		
11/7/2016	ARCTIC BROOK	AB402A	45.3		
11/7/2016	CEMETERY	CM600	96.3		
11/7/2016	CEMETERY	CM601	128.6		
11/7/2016	CEMETERY	CM680	31		
11/7/2016	CEMETERY	CM681	300.3		
11/7/2016	CEMETERY	CM682	222.8		

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11/8/2016	CARR BROOK	CB107	303.5		
11/8/2016	CARR BROOK	CB108	332.6		
11/8/2016	CARR BROOK	CB110	119.8		
11/8/2016	CEMETERY	CM901	291.9		
11/8/2016	CEMETERY	CM902	186.6		
11/8/2016	CEMETERY	CM903	7		
11/8/2016	CEMETERY	CM904	116.8		
11/8/2016	CEMETERY	CM950	15.7		
11/14/2016	ARCTIC BROOK	AB402	19.4	YES	POST REHAB SURVEY,DEBRIS IN LINE
11/14/2016	ARCTIC BROOK	AB402A	1.3	YES	POST REHABILITATION SURVEY
11/14/2016	ARCTIC BROOK	AB402A	2	YES	POST REHABILITATION SURVEY
11/14/2016	ARCTIC BROOK	AB402A	51.7	YES	POST REHABILITATION SURVEY
11/14/2016	ARCTIC BROOK	AB403	60.6	YES	POST REHABILITATION SURVEY
11/14/2016	ARCTIC BROOK	AB403	9.4		
11/15/2016	ARCTIC BROOK	AB402	61.6	YES	POST REHABILITATION SURVEY
11/15/2016	ARCTIC BROOK	AB403	106.8	YES	POST REHABILITATION SURVEY
11/15/2016	CEMETERY	CM750	260		
11/15/2016	DAVIS BROOK	DB612	296.1	YES	PRE-REHABILITATION SURVEY
11/18/2016	DAVIS BROOK	DB430	5.3	YES	TRACING PORTION OF LINE - PRE REHAB
11/21/2016	ARCTIC BROOK	AB403	9.7	YES	POST REHABILITATION SURVEY
11/21/2016	ARCTIC BROOK	AB404	118.6		
11/21/2016	ARCTIC BROOK	AB420	184		
11/22/2016	ARCTIC BROOK	AB404	307.5	YES	REVERSAL
11/22/2016	CEMETERY	CM005	167.2		
11/22/2016	CEMETERY	CM006	122.1		
11/22/2016	CEMETERY	CM007	223.3		
11/22/2016	CEMETERY	CM008	283.2		
11/22/2016	CEMETERY	CM500	104.7		
11/22/2016	OLD CAPEHART	OC010	167.9		
11/22/2016	OLD CAPEHART	OC011	299		
11/22/2016	OLD CAPEHART	OC012	58.7		
11/22/2016	OLD CAPEHART	OC013	171.2		
11/22/2016	OLD CAPEHART	OC015	118		
11/22/2016	OLD CAPEHART	OC016	71		
11/22/2016	OLD CAPEHART	OC017	173		
11/22/2016	OLD CAPEHART	OC018	162.4		
11/22/2016	OLD CAPEHART	OC019	1	YES	REVERSAL
11/22/2016	OLD CAPEHART	OC019	138.3		
11/23/2016	CEMETERY	CM612	321.5		
11/23/2016	CEMETERY	CM613	293		
11/23/2016	CEMETERY	CM614	38		
11/23/2016	CEMETERY	CM614A	84.2	YES	REVERSAL
11/23/2016	CEMETERY	CM614A	79.8		
11/23/2016	CEMETERY	CM615	141.4		
11/23/2016	OLD CAPEHART	OC111	158.3		
11/23/2016	OLD CAPEHART	OC500	233.7		
11/23/2016	OLD CAPEHART	OC501	244.3		
11/28/2016	CEMETERY	CM608	195.3		
11/28/2016	CEMETERY	CM609	216.6		
11/28/2016	CEMETERY	CM610	23.8		

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11/28/2016	CEMETERY	CM611	275.4		
11/28/2016	CEMETERY	CM900	300.5		
11/28/2016	CEMETERY	CM925	234.4		
11/28/2016	DAVIS BROOK	DB120A	4.1		
11/29/2016	DAVIS BROOK	DB430	172.3	YES	POST REHABILITATION SURVEY
11/29/2016	DAVIS BROOK	DB440	33.3	YES	POST REHABILITATION SURVEY
11/29/2016	OLD CAPEHART	OC306	90.6		
11/29/2016	OLD CAPEHART	OC307	3.8		
11/30/2016	AIRPORT	AP360	71.2	YES	MAINTENANCE RELATED
11/30/2016	AIRPORT	AP360	4.9		
11/30/2016	CEMETERY	CM100A	57.7		
11/30/2016	CEMETERY	CM660	57.9		
11/30/2016	CEMETERY	CM670	31.4		
12/1/2016	CEMETERY	CM100	41		
12/1/2016	CEMETERY	CM104	92.3		
12/1/2016	CEMETERY	CM501	240.7		
12/1/2016	CEMETERY	CM502	240.4		
12/1/2016	CEMETERY	CM503	8		
12/1/2016	CEMETERY	CM509	151		
12/1/2016	OLD CAPEHART	OC306	288	YES	REVERSAL
12/1/2016	OLD CAPEHART	OC307	263.6	YES	AFTER FLUSHING
12/1/2016	OLD CAPEHART	OC445	266.7		
12/2/2016	CEMETERY	CM009	135.4		
12/2/2016	CEMETERY	CM504	120.2		
12/2/2016	CEMETERY	CM550	238		
12/2/2016	CEMETERY	CM551	228.1		
12/2/2016	CEMETERY	CM604	32.1		
12/2/2016	OLD CAPEHART	OC443	77.6	YES	REVERSAL
12/2/2016	OLD CAPEHART	OC443	24.9		
12/2/2016	OLD CAPEHART	OC444	199.7		
12/5/2016	CEMETERY	CM009A	311.4		
12/5/2016	CEMETERY	CM400	26.6		
12/5/2016	CEMETERY	CM451	186.7		
12/5/2016	CEMETERY	CM690	36.7		
12/5/2016	DAVIS BROOK	DB430	34.3	YES	POST REHABILITATION SURVEY
12/5/2016	DAVIS BROOK	DB430A	173.4		
12/5/2016	OLD CAPEHART	OC150A	23		
12/5/2016	OLD CAPEHART	OC151	420.5		
12/5/2016	OLD CAPEHART	OC152	423.7		
12/6/2016	DAVIS BROOK	DB110A	326.8		
12/7/2016	DAVIS BROOK	DB024A	109.8		
12/7/2016	DAVIS BROOK	DB120A	133.4	YES	AFTER FLUSHING LINE
12/7/2016	DAVIS BROOK	DB304	0.3		
12/7/2016	DAVIS BROOK	DB565	22.7		
12/7/2016	DAVIS BROOK	DB850A	193.1		
12/7/2016	OLD CAPEHART	OC453	6.2	YES	REVERSAL
12/7/2016	OLD CAPEHART	OC455	185.1	YES	POST REHABILITATION SURVEY
12/8/2016	DAVIS BROOK	DB304	224.2	YES	AFTER FLUSHING LINE
12/9/2016	AIRPORT	AP360	167.6	YES	POST REHAB SURVEY - ROOT BALL FOUND

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12/9/2016	HANCOCK	HK256	273.7		
12/9/2016	HANCOCK	HK257	325		
12/9/2016	HANCOCK	HK258	279.8		
12/9/2016	OLD CAPEHART	OC202	261.4		
12/9/2016	OLD CAPEHART	OC203	256.4		
12/9/2016	OLD CAPEHART	OC451	163	YES	POST REHABILITATION SURVEY
12/9/2016	OLD CAPEHART	OC453	234	YES	POST REHABILITATION SURVEY
12/13/2016	AIRPORT	AP360	179.5	YES	POST REHAB SURVEY - PARTIAL TO BLOCK
12/13/2016	AIRPORT	AP360	132.6	YES	POST REHAB REVERSAL - PARTIAL BLOCK
12/13/2016	HANCOCK	HK273	304.5		
12/13/2016	OLD CAPEHART	OC025	265		
12/13/2016	OLD CAPEHART	OC300	119.9		
12/14/2016	HANCOCK	HK265	218.6		
12/14/2016	HANCOCK	HK270	30.9		
12/14/2016	HANCOCK	HK271	272.5		
12/14/2016	HANCOCK	HK272	298.6		
12/15/2016	AIRPORT	AP360	338.9	YES	FINAL POST REHAB SURVEY AFTER CLEANING
12/15/2016	HANCOCK	HK230	125.9		
12/15/2016	HANCOCK	HK264	285.6		
12/19/2016	HANCOCK	HK225	235.1		
12/19/2016	HANCOCK	HK226	127		
12/19/2016	HANCOCK	HK291	298.2		
12/19/2016	HANCOCK	HK292	223.4		
12/19/2016	HANCOCK	HK293	171.4		
12/19/2016	MEADOWBROOK	MB985	218.1		
12/20/2016	KENDUSKEAG WEST	KW350	58.9	YES	POST REHABILITATION SURVEY
12/20/2016	KENDUSKEAG WEST	KW350A	173.6		
12/20/2016	KENDUSKEAG WEST	KW351	10.4		
12/20/2016	KENDUSKEAG WEST	KW360A	186.5		
12/21/2016	BARKERSVILLE	BV139	170		
12/21/2016	BARKERSVILLE	BV140	226.1		
12/21/2016	BARKERSVILLE	BV141	230.8		
12/21/2016	KENDUSKEAG WEST	KW361	179.4		
12/21/2016	KENDUSKEAG WEST	KW361R04	49.5		
12/22/2016	BARKERSVILLE	BV137	180.9		
12/22/2016	BARKERSVILLE	BV138	24		
12/22/2016	BARKERSVILLE	BV139	35.9	YES	REVERSAL
12/22/2016	BARKERSVILLE	BV139	130.9	YES	REVERSAL
12/22/2016	DAVIS BROOK	DB510	174.5		
12/22/2016	HILDRETH-PERRY	HP512	108.2	YES	POST REHABILITATION SURVEY
12/27/2016	BARKERSVILLE	BV139	132.6	YES	REVERSAL
12/27/2016	CARR BROOK	CB162	276.5		
12/27/2016	DAVIS BROOK	DB510	68.2		REVERSAL
12/27/2016	HANCOCK	HK222	58.4		
12/27/2016	HANCOCK	HK223	173.5		
12/28/2016	HANCOCK	HK215	325		
12/28/2016	HANCOCK	HK216	213		
12/28/2016	HANCOCK	HK219	299.6		
12/28/2016	HANCOCK	HK220	132.9		

APPENDIX B: CCTV INSPECTION LOG

City of Bangor, Maine
Calendar Year 2016

Inspection Date	Subsection	Pipe Segment ID	Length of Inspection (FT)	Repeat Inspection (this CY)	Justification for Repeat Inspection
12/28/2016	HANCOCK	HK221	16.1		
12/29/2016	HANCOCK	HK214	267.1		
12/29/2016	HANCOCK	HK217	11		
12/29/2016	HANCOCK	HK218	33.9		
12/29/2016	HANCOCK	HK250	254.4		
12/29/2016	HANCOCK	HK251	228.3		
		Total feet	154,874		
		Total miles	29.33		

Appendix C. Manhole Inspection Log

APPENDIX C: MANHOLE INSPECTION LOG

City of Bangor, Maine
Calendar Year 2016

Date of Inspection	Subsection	Manhole ID	Repeat Inspection (this CY) *	Justification for Repeat Inspection*
1/5/2016	BLANCHARD STREET	BS005		
1/6/2016	ARCTIC BROOK	AB022		
1/25/2016	BLANCHARD STREET	BS403		
1/25/2016	BLANCHARD STREET	BS603		
1/25/2016	BLANCHARD STREET	BS702		
2/9/2016	AIRPORT	AP602		
2/9/2016	AIRPORT	AP603		
2/9/2016	AIRPORT	AP651		
2/11/2016	AIRPORT	AP700		
2/11/2016	BLANCHARD STREET	BS016		
2/11/2016	BLANCHARD STREET	BS017		
2/25/2016	CEMETERY	CM452		
3/4/2016	BURLEIGH ROAD	BU030		
3/22/2016	DOW	DW001		
3/22/2016	DOW	DW002		
3/22/2016	DOW	DW006		
3/22/2016	DOW	DW090		
3/22/2016	DOW	DW091		
3/22/2016	DOW	DW100A		
3/22/2016	DOW	DW101		
3/22/2016	DOW	DW102		
3/23/2016	BARKERSVILLE	BV203		
3/25/2016	HANCOCK	HK575		
3/25/2016	HANCOCK	HK577		
3/29/2016	AIRPORT	AP622		
3/30/2016	DOW	DW004		
3/30/2016	DOW	DW007		
3/30/2016	DOW	DW008		
3/30/2016	DOW	DW009		
3/30/2016	DOW	DW010		
4/5/2016	OLD CAPEHART	OC601		
4/5/2016	OLD CAPEHART	OC700		
4/5/2016	OLD CAPEHART	OC701		
4/5/2016	OLD CAPEHART	OC702		
4/6/2016	OLD CAPEHART	OC470		
4/6/2016	OLD CAPEHART	OC471		
4/6/2016	OLD CAPEHART	OC481		
4/6/2016	OLD CAPEHART	OC485		
4/6/2016	OLD CAPEHART	OC486		

APPENDIX C: MANHOLE INSPECTION LOG

City of Bangor, Maine
Calendar Year 2016

Date of Inspection	Subsection	Manhole ID	Repeat Inspection (this CY) *	Justification for Repeat Inspection*
4/6/2016	OLD CAPEHART	OC502		
4/6/2016	OLD CAPEHART	OC602		
4/15/2016	OLD CAPEHART	OC413		
4/19/2016	OLD CAPEHART	OC302		
4/19/2016	OLD CAPEHART	OC303		
4/19/2016	OLD CAPEHART	OC304		
4/25/2016	OLD CAPEHART	OC421		
5/2/2016	DAVIS BROOK	DB500		
5/3/2016	BARKERSVILLE	BV703		
5/4/2016	CEMETERY	CM517		
5/6/2016	MAY STREET	MS001		
5/12/2016	ARCTIC BROOK	AB018		
5/12/2016	ARCTIC BROOK	AB019		
5/19/2016	HILDRETH-PERRY	HP502		
5/20/2016	CARR BROOK	CB022		
5/20/2016	CARR BROOK	CB550		
6/29/2016	AIRPORT	AP416		
6/29/2016	CARR BROOK	CB131		
6/29/2016	MEADOWBROOK	MB762		
6/30/2016	CARR BROOK	CB033		
7/1/2016	GLENWOOD	GW101		
7/7/2016	AIRPORT	AP411		
7/7/2016	AIRPORT	AP412		
7/7/2016	AIRPORT	AP413		
7/7/2016	AIRPORT	AP414		
7/7/2016	AIRPORT	AP414A		
7/7/2016	AIRPORT	AP415		
7/7/2016	HANCOCK	HK011		
7/7/2016	HANCOCK	HK040		
7/18/2016	OLD CAPEHART	OC021		
7/18/2016	OLD CAPEHART	OC550		
7/18/2016	OLD CAPEHART	OC551		
7/18/2016	OLD CAPEHART	OC552		
7/26/2016	DAVIS BROOK	DB605		
7/27/2016	DAVIS BROOK	DB611		
7/29/2016	OLD CAPEHART	OC411		
7/29/2016	OLD CAPEHART	OC412		
8/18/2016	OLD CAPEHART	OC500		
8/22/2016	CEMETERY	CM761		

APPENDIX C: MANHOLE INSPECTION LOG

City of Bangor, Maine
Calendar Year 2016

Date of Inspection	Subsection	Manhole ID	Repeat Inspection (this CY) *	Justification for Repeat Inspection*
8/22/2016	CEMETERY	CM766		
8/22/2016	CEMETERY	CM770		
8/22/2016	CEMETERY	CM790		
8/22/2016	OLD CAPEHART	OC103		
8/22/2016	OLD CAPEHART	OC362		
8/30/2016	ARCTIC BROOK	AB302		
8/31/2016	CEMETERY	CM709		
8/31/2016	DAVIS BROOK	DB402		
8/31/2016	DAVIS BROOK	DB403A		
9/13/2016	OLD CAPEHART	OC100		
9/14/2016	KENDUSKEAG EAST	KE050		
9/14/2016	OLD CAPEHART	OC150		
9/14/2016	OLD CAPEHART	OC152		
9/14/2016	OLD CAPEHART	OC153		
9/19/2016	OLD CAPEHART	OC450		
9/19/2016	OLD CAPEHART	OC451		
9/19/2016	OLD CAPEHART	OC452		
9/19/2016	OLD CAPEHART	OC466		
9/23/2016	OLD CAPEHART	OC020		
9/23/2016	OLD CAPEHART	OC400		
9/23/2016	OLD CAPEHART	OC402		
9/23/2016	OLD CAPEHART	OC406		
9/23/2016	OLD CAPEHART	OC453		
9/26/2016	CEMETERY	CM702		
9/28/2016	BARKERSVILLE	BV028		
9/28/2016	BARKERSVILLE	BV556		
9/28/2016	BARKERSVILLE	BV561		
9/28/2016	BARKERSVILLE	BV710		
9/28/2016	BARKERSVILLE	BV740		
9/28/2016	BARKERSVILLE	BV741		
9/28/2016	BARKERSVILLE	BV742		
9/28/2016	BARKERSVILLE	BV751		
9/28/2016	BARKERSVILLE	BV760		
9/28/2016	BARKERSVILLE	BV761		
9/28/2016	BARKERSVILLE	BV762		
9/28/2016	BARKERSVILLE	BV765		
9/28/2016	BARKERSVILLE	BV766		
9/28/2016	BARKERSVILLE	BV800		
9/28/2016	CEMETERY	CM910		

APPENDIX C: MANHOLE INSPECTION LOG

City of Bangor, Maine
Calendar Year 2016

Date of Inspection	Subsection	Manhole ID	Repeat Inspection (this CY) *	Justification for Repeat Inspection*
9/28/2016	CEMETERY	CM925		
9/28/2016	CEMETERY	CM926		
9/28/2016	HILDRETH-PERRY	HP408		
9/29/2016	AIRPORT	AP211		
9/29/2016	AIRPORT	AP263		
9/29/2016	AIRPORT	AP264		
9/29/2016	AIRPORT	AP265		
9/29/2016	AIRPORT	AP290		
9/29/2016	AIRPORT	AP291		
9/29/2016	MEADOWBROOK	MB910		
9/29/2016	MEADOWBROOK	MB911		
9/29/2016	MEADOWBROOK	MB913		
9/29/2016	MEADOWBROOK	MB914		
9/29/2016	MEADOWBROOK	MB955		
9/29/2016	MEADOWBROOK	MB965		
9/29/2016	MEADOWBROOK	MB985		
9/29/2016	MEADOWBROOK	MB986		
9/30/2016	AIRPORT	AP200		
9/30/2016	AIRPORT	AP201		
9/30/2016	AIRPORT	AP202		
9/30/2016	AIRPORT	AP231		
9/30/2016	AIRPORT	AP232		
9/30/2016	AIRPORT	AP233		
9/30/2016	CEMETERY	CM100		
9/30/2016	CEMETERY	CM100A		
9/30/2016	CEMETERY	CM101		
9/30/2016	CEMETERY	CM102		
9/30/2016	CEMETERY	CM103A		
10/4/2016	ARCTIC BROOK	AB480		
10/4/2016	DAVIS BROOK	DB301		
10/4/2016	DAVIS BROOK	DB360		
10/5/2016	ARCTIC BROOK	AB490		
10/5/2016	AIRPORT	AP503		
10/6/2016	AIRPORT	AP209		
10/6/2016	AIRPORT	AP209A		
10/6/2016	AIRPORT	AP230		
10/6/2016	AIRPORT	AP311		
10/6/2016	AIRPORT	AP312		
10/6/2016	AIRPORT	AP721		

APPENDIX C: MANHOLE INSPECTION LOG

City of Bangor, Maine
Calendar Year 2016

Date of Inspection	Subsection	Manhole ID	Repeat Inspection (this CY) *	Justification for Repeat Inspection*
10/6/2016	AIRPORT	AP722		
10/7/2016	AIRPORT	AP705		
10/7/2016	BARKERSVILLE	BV033		
10/7/2016	BARKERSVILLE	BV034		
10/7/2016	BARKERSVILLE	BV715		
10/12/2016	DOW	DW610		
10/13/2016	AIRPORT	AP352		
10/13/2016	AIRPORT	AP353		
10/14/2016	CARR BROOK	CB121		
10/14/2016	CARR BROOK	CB122		
10/14/2016	CARR BROOK	CB123		
10/14/2016	CARR BROOK	CB124		
10/14/2016	CARR BROOK	CB125		
10/14/2016	CARR BROOK	CB126		
10/14/2016	CARR BROOK	CB150		
10/14/2016	CARR BROOK	CB160		
10/14/2016	CARR BROOK	CB161		
10/14/2016	CARR BROOK	CB165		
10/14/2016	CARR BROOK	CB165A		
10/14/2016	CARR BROOK	CB166		
10/14/2016	MEADOWBROOK	MB981		
10/14/2016	MEADOWBROOK	MB982		
10/17/2016	CARR BROOK	CB133		
10/17/2016	CARR BROOK	CB134		
10/17/2016	CARR BROOK	CB135		
10/17/2016	CARR BROOK	CB141		
10/17/2016	CARR BROOK	CB142		
10/17/2016	CARR BROOK	CB145		
10/17/2016	CARR BROOK	CB151		
10/17/2016	CARR BROOK	CB155		
10/17/2016	CARR BROOK	CB162		
10/18/2016	AIRPORT	AP350		
10/18/2016	AIRPORT	AP351		
10/18/2016	AIRPORT	AP354		
10/18/2016	AIRPORT	AP356		
10/18/2016	BURLEIGH ROAD	BU602		
10/18/2016	BURLEIGH ROAD	BU603		
10/18/2016	BURLEIGH ROAD	BU604		
10/18/2016	BURLEIGH ROAD	BU605		

APPENDIX C: MANHOLE INSPECTION LOG

City of Bangor, Maine
Calendar Year 2016

Date of Inspection	Subsection	Manhole ID	Repeat Inspection (this CY) *	Justification for Repeat Inspection*
10/18/2016	BURLEIGH ROAD	BU606		
10/18/2016	BURLEIGH ROAD	BU607		
10/18/2016	BARKERSVILLE	BV030		
10/18/2016	BARKERSVILLE	BV031		
10/18/2016	BARKERSVILLE	BV032		
10/18/2016	BARKERSVILLE	BV711		
10/18/2016	CEMETERY	CM518		
10/18/2016	CEMETERY	CM712		
10/19/2016	ARCTIC BROOK	AB551		
10/19/2016	ARCTIC BROOK	AB621		
10/19/2016	AIRPORT	AP286		
10/19/2016	AIRPORT	AP309		
10/19/2016	AIRPORT	AP310		
10/19/2016	AIRPORT	AP370		
10/19/2016	AIRPORT	AP371		
10/19/2016	AIRPORT	AP372		
10/19/2016	AIRPORT	AP373		
10/19/2016	AIRPORT	AP390		
10/19/2016	BURLEIGH ROAD	BU017		
10/19/2016	BURLEIGH ROAD	BU018		
10/19/2016	BURLEIGH ROAD	BU020		
10/19/2016	BURLEIGH ROAD	BU021		
10/19/2016	BURLEIGH ROAD	BU504		
10/19/2016	BURLEIGH ROAD	BU505		
10/19/2016	BURLEIGH ROAD	BU506		
10/19/2016	BURLEIGH ROAD	BU570		
10/19/2016	BURLEIGH ROAD	BU571		
10/19/2016	BURLEIGH ROAD	BU572		
10/19/2016	BURLEIGH ROAD	BU601		
10/19/2016	BURLEIGH ROAD	BU650		
10/19/2016	BURLEIGH ROAD	BU651		
10/19/2016	BURLEIGH ROAD	BU701		
10/19/2016	CARR BROOK	CB023		
10/19/2016	CARR BROOK	CB130		
10/19/2016	CARR BROOK	CB211		
10/19/2016	CARR BROOK	CB402		
10/19/2016	CARR BROOK	CB403		
10/19/2016	FRANKLIN	FK405		
10/19/2016	FRANKLIN	FK408		

APPENDIX C: MANHOLE INSPECTION LOG

City of Bangor, Maine
Calendar Year 2016

Date of Inspection	Subsection	Manhole ID	Repeat Inspection (this CY) *	Justification for Repeat Inspection*
10/19/2016	GLENWOOD	GW002		
10/19/2016	GLENWOOD	GW003		
10/19/2016	GLENWOOD	GW100		
10/19/2016	GLENWOOD	GW102		
10/19/2016	HANCOCK	HK009		
10/19/2016	HANCOCK	HK050		
10/19/2016	HANCOCK	HK519		
10/19/2016	HANCOCK	HK556		
10/19/2016	HANCOCK	HK704		
10/19/2016	HUSSON	HS201		
10/19/2016	HUSSON	HS202		
10/19/2016	HUSSON	HS203		
10/19/2016	HUSSON	HS204		
10/19/2016	KENDUSKEAG EAST	KE004		
10/19/2016	KENDUSKEAG EAST	KE301		
10/19/2016	KENDUSKEAG EAST	KE370		
10/19/2016	MEADOWBROOK	MB040		
10/19/2016	MEADOWBROOK	MB425		
10/19/2016	MEADOWBROOK	MB505		
10/19/2016	MEADOWBROOK	MB603		
10/19/2016	MEADOWBROOK	MB604		
10/19/2016	MEADOWBROOK	MB607		
10/19/2016	MEADOWBROOK	MB932		
10/19/2016	MEADOWBROOK	MB950		
10/20/2016	AIRPORT	AP320		
10/20/2016	AIRPORT	AP321		
10/20/2016	AIRPORT	AP321A		
10/20/2016	AIRPORT	AP535		
10/20/2016	AIRPORT	AP545		
10/20/2016	BURLEIGH ROAD	BU500		
10/20/2016	BURLEIGH ROAD	BU501		
10/20/2016	BURLEIGH ROAD	BU502		
10/20/2016	BURLEIGH ROAD	BU503		
10/20/2016	BURLEIGH ROAD	BU511		
10/20/2016	BURLEIGH ROAD	BU512		
10/20/2016	BURLEIGH ROAD	BU513		
10/20/2016	BURLEIGH ROAD	BU514		
10/20/2016	BURLEIGH ROAD	BU515		
10/20/2016	BURLEIGH ROAD	BU520		

APPENDIX C: MANHOLE INSPECTION LOG

City of Bangor, Maine
Calendar Year 2016

Date of Inspection	Subsection	Manhole ID	Repeat Inspection (this CY) *	Justification for Repeat Inspection*
10/20/2016	BURLEIGH ROAD	BU530		
10/20/2016	BURLEIGH ROAD	BU531		
10/20/2016	BURLEIGH ROAD	BU532		
10/20/2016	BURLEIGH ROAD	BU533		
10/20/2016	BURLEIGH ROAD	BU535		
10/20/2016	BURLEIGH ROAD	BU540		
10/20/2016	BURLEIGH ROAD	BU541		
10/20/2016	BURLEIGH ROAD	BU542		
10/20/2016	BURLEIGH ROAD	BU550		
10/20/2016	BURLEIGH ROAD	BU551		
10/20/2016	BURLEIGH ROAD	BU552		
10/20/2016	BURLEIGH ROAD	BU553		
10/20/2016	BURLEIGH ROAD	BU554		
10/20/2016	BURLEIGH ROAD	BU560		
10/20/2016	BURLEIGH ROAD	BU702		
10/20/2016	BURLEIGH ROAD	BU703		
10/20/2016	BURLEIGH ROAD	BU803		
10/20/2016	BARKERSVILLE	BV018		
10/20/2016	BARKERSVILLE	BV019		
10/20/2016	BARKERSVILLE	BV310		
10/20/2016	BARKERSVILLE	BV320		
10/20/2016	BARKERSVILLE	BV400		
10/20/2016	BARKERSVILLE	BV402		
10/20/2016	BARKERSVILLE	BV410		
10/20/2016	BARKERSVILLE	BV420		
10/20/2016	BARKERSVILLE	BV577		
10/20/2016	BARKERSVILLE	BV578		
10/20/2016	BARKERSVILLE	BV579		
10/20/2016	BARKERSVILLE	BV580		
10/20/2016	BARKERSVILLE	BV581		
10/20/2016	BARKERSVILLE	BV601		
10/20/2016	BARKERSVILLE	BV602		
10/20/2016	BARKERSVILLE	BV604		
10/20/2016	BARKERSVILLE	BV617		
10/20/2016	BARKERSVILLE	BV618		
10/20/2016	BARKERSVILLE	BV625		
10/20/2016	BARKERSVILLE	BV660		
10/20/2016	DOW	DW209		
10/20/2016	DOW	DW211		

APPENDIX C: MANHOLE INSPECTION LOG

City of Bangor, Maine
Calendar Year 2016

Date of Inspection	Subsection	Manhole ID	Repeat Inspection (this CY) *	Justification for Repeat Inspection*
10/20/2016	DOW	DW212		
10/20/2016	DOW	DW213		
10/20/2016	DOW	DW214		
10/20/2016	DOW	DW270		
10/20/2016	DOW	DW280		
10/20/2016	DOW	DW281		
10/20/2016	DOW	DW282		
10/20/2016	DOW	DW284		
10/20/2016	DOW	DW285		
10/20/2016	DOW	DW286		
10/20/2016	DOW	DW287		
10/20/2016	DOW	DW290		
10/20/2016	DOW	DW291		
10/20/2016	MEADOWBROOK	MB808		
10/20/2016	WOODLAWN	WL503		
10/20/2016	WOODLAWN	WL504		
10/20/2016	WOODLAWN	WL505		
10/20/2016	WOODLAWN	WL506		
10/20/2016	WOODLAWN	WL530		
10/20/2016	WOODLAWN	WL531		
10/21/2016	AIRPORT	AP609		
10/21/2016	MEADOWBROOK	MB532		
10/21/2016	MEADOWBROOK	MB831		
10/21/2016	MEADOWBROOK	MB850		
10/21/2016	MEADOWBROOK	MB851		
10/21/2016	MEADOWBROOK	MB860		
10/21/2016	MEADOWBROOK	MB861		
10/21/2016	MEADOWBROOK	MB863		
10/21/2016	MEADOWBROOK	MB864		
10/21/2016	MEADOWBROOK	MB865		
10/21/2016	MEADOWBROOK	MB866		
10/21/2016	WOODLAWN	WL500		
10/21/2016	WOODLAWN	WL501		
10/21/2016	WOODLAWN	WL510		
10/21/2016	WOODLAWN	WL512		
10/21/2016	WOODLAWN	WL513		
10/21/2016	WOODLAWN	WL520		
10/21/2016	WOODLAWN	WL521		
10/21/2016	WOODLAWN	WL600		

APPENDIX C: MANHOLE INSPECTION LOG

City of Bangor, Maine
Calendar Year 2016

Date of Inspection	Subsection	Manhole ID	Repeat Inspection (this CY) *	Justification for Repeat Inspection*
10/21/2016	WOODLAWN	WL601		
10/21/2016	WOODLAWN	WL602		
10/24/2016	BARKERSVILLE	BV403		
10/24/2016	BARKERSVILLE	BV404		
10/24/2016	BARKERSVILLE	BV405		
10/24/2016	BARKERSVILLE	BV406		
10/24/2016	BARKERSVILLE	BV450		
10/24/2016	BARKERSVILLE	BV451		
10/24/2016	BARKERSVILLE	BV453		
10/24/2016	HILDRETH-PERRY	HP239		
10/24/2016	KENDUSKEAG WEST	KW902		
10/25/2016	AIRPORT	AP607		
10/25/2016	PENJAJAWOC	PJ203		
10/25/2016	PENJAJAWOC	PJ204		
10/27/2016	KENDUSKEAG EAST	KE001		
10/27/2016	KENDUSKEAG EAST	KE101		
10/27/2016	KENDUSKEAG EAST	KE102		
10/27/2016	KENDUSKEAG EAST	KE700		
10/28/2016	KENDUSKEAG EAST	KE701		
10/31/2016	AIRPORT	AP422		
10/31/2016	KENDUSKEAG EAST	KE002		
10/31/2016	KENDUSKEAG EAST	KE005		
10/31/2016	KENDUSKEAG EAST	KE103		
10/31/2016	KENDUSKEAG EAST	KE204		
11/1/2016	AIRPORT	AP322		
11/1/2016	AIRPORT	AP420		
11/1/2016	AIRPORT	AP421		
11/1/2016	AIRPORT	AP700A		
11/2/2016	AIRPORT	AP308		
11/3/2016	DAVIS BROOK	DB011		
11/3/2016	DAVIS BROOK	DB012		
11/3/2016	DAVIS BROOK	DB013		
11/3/2016	DAVIS BROOK	DB014		
11/3/2016	DAVIS BROOK	DB015		
11/4/2016	AIRPORT	AP002		
11/4/2016	AIRPORT	AP003		
11/4/2016	AIRPORT	AP004		
11/4/2016	AIRPORT	AP100		
11/4/2016	AIRPORT	AP101		

APPENDIX C: MANHOLE INSPECTION LOG

City of Bangor, Maine
Calendar Year 2016

Date of Inspection	Subsection	Manhole ID	Repeat Inspection (this CY) *	Justification for Repeat Inspection*
11/4/2016	AIRPORT	AP102		
11/4/2016	AIRPORT	AP323		
11/4/2016	AIRPORT	AP608		
11/4/2016	AIRPORT	AP610		
11/7/2016	CEMETERY	CM600		
11/7/2016	CEMETERY	CM601		
11/7/2016	CEMETERY	CM602		
11/7/2016	CEMETERY	CM603		
11/7/2016	CEMETERY	CM681		
11/7/2016	CEMETERY	CM682		
11/7/2016	FOURTEENTH STREET	FS604		
11/8/2016	CARR BROOK	CB107		
11/8/2016	CARR BROOK	CB108		
11/8/2016	CEMETERY	CB110		
11/8/2016	CARR BROOK	CM900		
11/8/2016	CEMETERY	CM901		
11/8/2016	CEMETERY	CM902		
11/8/2016	CEMETERY	CM904		
11/8/2016	CEMETERY	CM950		
11/22/2016	OLD CAPEHART	OC018		
11/30/2016	CEMETERY	CM660		
11/30/2016	CEMETERY	CM670		
12/2/2016	CEMETERY	CM550		
12/8/2016	DAVIS BROOK	DB304		
12/9/2016	HANCOCK	HK258		
	Total Manholes Inspected	415		

* There were no duplicated inspections in 2016.

Appendix D. CCTV Repair, Replacement, and Upgrade Log

APPENDIX D: CCTV REPAIR, REPLACEMENT, AND UPGRADE
City of Bangor, Maine
Calendar Year 2016

Subsection	Pipe Segment ID	Description of Repair or Defect	Schedule for Repair or Replacement
Arctic Brook	AB402	hinge crack multiple	replaced 11/30/16
Arctic Brook	AB402A	hinge crack multiple	replaced 11/30/16
Arctic Brook	AB403	broken pipe, gravel in line	within 10 years
Arctic Brook	AB410	hinge crack multiple	replaced 9/30/16
Arctic Brook	AB457	longitudinal fracture	repaired 9/19/16
Arctic Brook	AB458	longitudinal fracture	repaired 9/14/17
Arctic Brook	AB460	longitudinal fracture	repaired 8/17/16
Arctic Brook	AB480	broken pipe	repaired 9/29/16
Arctic Brook	AB490	hinge crack multiple	repaired 9/27/16
Arctic Brook	AB590	broken bell and attached deposits	2017
Airport	AP016A	infiltration gusher	replaced 2/25/16
Airport	AP312	pipe collapse	2017
Airport	AP353	hinge cracks	within 10 years
Airport	AP360	hole soil visible, roots, infiltration	within 10 years
Airport	AP370	hole with concrete pipe on top	2017
Airport	AP371	broken pipe, sag, fracture	2017
Airport	AP372	broken pipe	2017
Airport	AP373	multiple breaks/rootballs	2017
Airport	AP421	longitudinal fracture	replaced 8/19/16
Airport	AP481	section of pipe is broken	2017
Airport	AP503	intruding seal ring	repaired 3/31/16
Airport	AP530	broken pipe by service	within 5 years
Airport	AP602	hinge crack multiple	replaced 6/25/16
Airport	AP603	hinge crack multiple	replaced 6/25/16
Airport	AP604	hinge crack multiple	replaced 6/25/16
Airport	AP605	hinge crack multiple	replaced 6/25/16
Airport	AP606	hinge crack multiple	replaced 6/25/16
Airport	AP607	hinge crack multiple	repaired 5/31/16
Airport	AP700	hinge crack multiple	replaced 5/31/16
Airport	AP721	pipe has dropped	2017
Airport	AP723	broken pipe just outside of MH	2017
Burleigh	BU018	hole in pipe, needs repair in future	within 10 years
Burleigh	BU200	sags	within 10 years
Burleigh	BU503	small hole in crown, ok for now	within 10 years
Burleigh	BU505	small hole in crown, ok for now	within 10 years
Burleigh	BU506	small hole in crown, ok for now	within 10 years
Burleigh	BU510	piece of broken pipe outside of mh	within 10 years
Burleigh	BU511	various sections of broken pipe	2017
Burleigh	BU512	broken pipe at crown with infiltration	within 5 years
Burleigh	BU514	small hole in crown, ok for now	within 10 years
Burleigh	BU530	small hole in crown, ok for now	within 10 years
Burleigh	BU532	hole in crown	2017
Burleigh	BU651	hole in crown	2017
Barkersville	BV139	hinge crack, root balls, encrustation	within 5 years
Barkersville	BV451	hinge cracks and hole	2017
Barkersville	BV485	collapsed pipe	repaired 4/21/16
Carr Brook	CB134	1st section of pipe is broken	2017
Carr Brook	CB503	longitudinal fracture multiple	repaired 9/2/16
Carr Brook	CB550	hinge cracks	within 5 years

APPENDIX D: CCTV REPAIR, REPLACEMENT, AND UPGRADE
City of Bangor, Maine
Calendar Year 2016

Subsection	Pipe Segment ID	Description of Repair or Defect	Schedule for Repair or Replacement
Cemetery	CM009	fracture longitudinal hinge	within 10 years
Cemetery	CM500	hole in concrete, no infiltration	within 10 years
Cemetery	CM501	infiltration gusher	within 10 years
Davis Brook	DB120A	hole soil visible, roots, infiltration	within 5 years
Davis Brook	DB430	collapsed pipe	repaired 12/31/16
Davis Brook	DB510	hinge crack, deformed, root balls	within 5 years
Davis Brook	DB600	hinge cracks	within 5 years
Davis Brook	DB605	longitudinal fracture	repaired 7/27/16
Davis Brook	DB612	collapsed pipe	repaired 11/7/16
Davis Brook	DB850A	hinge crack multiple	within 10 years
Dow	DW209	gusher	within 10 years
Dow	DW214	hole void visible outside MH	within 5 years
Dow	DW400	broken pipe at crown with infiltration	within 5 years
Dow	DW600	broken pipe	replaced 8/22/16
Hildreth-Perry	HP502	gusher	repaired 7/31/16
Hildreth-Perry	HP511	longitudinal fracture	replaced 7/31/16
Hildreth-Perry	HP512	longitudinal fracture	replaced 7/31/16
Kenduskeag East	KE003	bricks/rocks	2017
Kenduskeag East	KE008	hole, paper build up	2017
Kenduskeag East	KE050	missing bricks/large hole	2017
Kenduskeag East	KE102	offset pipe	2017
Kenduskeag East	KE204	multiple missing bricks/holes	2017
Kenduskeag East	KE205	deformed brick/missing brick	2017
Kenduskeag East	KE251	pipe is greatly offset	2017
Kenduskeag East	KE265	hinge cracks	within 5 years
Kenduskeag East	KE300	displaced/missing bricks	2017
Kenduskeag East	KE701	displaced/missing bricks	within 5 years
Kenduskeag East	KE900	deformed brick /holes	2017
Kenduskeag East	KE901	deformed vertical brick	within 5 years
Kenduskeag West	KW101	failing brick line	repaired 9/30/16
Kenduskeag West	KW103	missing bricks	2017
Kenduskeag West	KW350	missing bricks/holes	2017
Capehart	OC422	root ball in tap	repaired 6/30/16
Capehart	OC450	roots medium	repaired 12/31/16
Capehart	OC456	broken pipe	repaired 12/31/16
Capehart	OC462	MSA broken pipe outside MH	2017
Capehart	OC480	broken pvc at joint, ok for now	within 5 years
Capehart	OC600	45 degree elbow MSA	within 5 years
Capehart	OC601	encrustation, small holes & cracks	within 5 years

Appendix E. Cleaning Log

APPENDIX E: CLEANING LOG

City of Bangor, Maine
Calendar Year 2016

Date of Cleaning	Subsection	Pipe Segment ID	Length of Pipe Segment	# Passes	Approx. Length Cleaned (FT)	Repeat Cleaning (this CY)	Justification for Repeat Cleaning
1/7/16	CARR BROOK	CB126	350	1	350		
1/7/16	CARR BROOK	CB134	350	1	350		
1/7/16	CARR BROOK	CB405	350	1	350		
1/7/16	HUSSON	HS500	375	1	375		
1/7/16	MEADOWBROOK	MB986	275	1	275		
1/11/16	OLD CAPEHART	OC402	300	1	300		
1/11/16	OLD CAPEHART	OC422	375	1	375		
1/25/16	WOODLAWN	WL106	50	2	100		
1/25/16	WOODLAWN	WL150	200	2	400		
1/26/16	BARKERSVILLE	BV451	450	10	4500		
1/26/16	MEADOWBROOK	MB801	20	2	40		
1/26/16	MEADOWBROOK	MB803	450	2	900		
1/27/16	DOW	DW265	110	1	110		
1/27/16	DOW	DW614	200	1	200		
1/27/16	WOODLAWN	WL130	200	2	400		
1/28/16	CARR BROOK	CB133	350	1	350		
1/28/16	CARR BROOK	CB406	300	1	300		
1/28/16	MEADOWBROOK	MB996	375	1	375		
1/28/16	PENJAJAWOC	PJ400	300	1	300		
2/1/16	ARCTIC BROOK	AB552	75	1	75		
2/1/16	ARCTIC BROOK	AB562	125	1	125		
2/1/16	BURLEIGH	BU532	200	1	200		
2/1/16	BURLEIGH	BU535	275	1	275		
2/1/16	HILDRETH-PERRY	HP466	325	1	325		
2/1/16	HILDRETH-PERRY	HP486	600	1	600		
2/1/16	OLD CAPEHART	OC403	175	1	175		
2/1/16	OLD CAPEHART	OC421	375	1	375		
2/1/16	OLD CAPEHART	OC453	325	1	325		
2/1/16	OLD CAPEHART	OC455	175	1	175		
2/1/16	WOODLAWN	WL601	75	1	75		
2/10/16	AIRPORT	AP700	375	3	1125		
2/19/16	DOW	DW302	275	2	550		
2/19/16	MEADOWBROOK	MB952	200	2	400		
2/23/16	DOW	DW270	425	1	425		
2/24/16	AIRPORT	AP530	250	1	250		
2/24/16	AIRPORT	AP621	250	1	250		
2/24/16	AIRPORT	AP622	300	1	300		
2/25/16	AIRPORT	AP630	350	1	350		
2/25/16	PENJAJAWOC	PJ054	125	2	250		
2/26/16	AIRPORT	AP513	350	1	350		
2/29/16	BARKERSVILLE	BV056	125	1	125		
3/8/16	PENJAJAWOC	PJ053	200	2	400		
3/8/16	PENJAJAWOC	PJ055	300	2	600		
3/8/16	PENJAJAWOC	PJ056	275	2	550		
3/10/16	PENJAJAWOC	PJ051	225	2	450		
3/10/16	PENJAJAWOC	PJ052	325	2	650		
3/11/16	BURLEIGH	BU501	250	1	250		
3/11/16	BURLEIGH	BU530	275	1	275		
3/11/16	BURLEIGH	BU531	250	1	250		
3/14/16	BURLEIGH	BU541	275	1	275		
3/18/16	BLANCHARD STREET	BS500	200	1	200		
3/18/16	BLANCHARD STREET	BS501	300	2	600		

APPENDIX E: CLEANING LOG

City of Bangor, Maine
Calendar Year 2016

Date of Cleaning	Subsection	Pipe Segment ID	Length of Pipe Segment	# Passes	Approx. Length Cleaned (FT)	Repeat Cleaning (this CY)	Justification for Repeat Cleaning
3/29/16	PENJAJAWOC	PJ950	150	4	600		
3/29/16	PENJAJAWOC	PJ951	325	4	1300		
3/30/16	DAVIS BROOK	DB430	100	6	600		
3/30/16	DAVIS BROOK	DB595	400	1	400		
4/1/16	ARCTIC BROOK	AB500	175	8	1400		
4/4/16	AIRPORT	AP510	175	3	525		
4/7/16	OLD CAPEHART	OC701	225	2	450		
4/7/16	OLD CAPEHART	OC702	275	1	275		
4/7/16	OLD CAPEHART	OC703	125	1	125		
4/15/16	BARKERSVILLE	BV485	425	1	425		
4/15/16	CARR BROOK	CB135	350	1	350		
4/15/16	OLD CAPEHART	OC414	125	5	625		
4/19/16	DOW	DW102	425	1	425		
4/19/16	OLD CAPEHART	OC302	275	1	275		
4/19/16	OLD CAPEHART	OC303	250	1	250		
4/19/16	OLD CAPEHART	OC304	250	1	250		
4/19/16	OLD CAPEHART	OC305	300	1	300		
4/20/16	DAVIS BROOK	DB732	350	3	1050		
4/20/16	OLD CAPEHART	OC420	100	1	100		
5/2/16	AIRPORT	AP415A	175	3	525		
5/2/16	AIRPORT	AP418	400	1	400		
5/2/16	CEMETERY	CM014	175	3	525		
5/5/16	DAVIS BROOK	DB440	125	3	375		
5/19/16	HILDRETH-PERRY	HP404	75	2	150		
5/20/16	CARR BROOK	CB550	175	2	350		
5/20/16	CARR BROOK	CB551	50	2	100		
5/20/16	HUSSON	HS007	325	1	325		
5/23/16	HILDRETH-PERRY	HP511	250	3	750		
5/25/16	DAVIS BROOK	DB422	325	1	325		
6/2/16	BURLEIGH	BU056	125	1	125		
6/2/16	BURLEIGH	BU801	250	1	250		
6/2/16	BURLEIGH	BU802	250	1	250		
6/2/16	BURLEIGH	BU803	100	1	100		
6/2/16	CEMETERY	CM571	125	3	375		
6/8/16	CEMETERY	CM691	200	3	600		
6/15/16	AIRPORT	AP532	125	2	250		
6/15/16	AIRPORT	AP545	70	3	210		
6/15/16	DAVIS BROOK	DB520	100	1	100		
6/17/16	PENJAJAWOC	PJ033	200	2	400		
6/17/16	PENJAJAWOC	PJ034	25	2	50		
6/17/16	PENJAJAWOC	PJ035	75	2	150		
6/17/16	PENJAJAWOC	PJ036	100	2	200		
6/17/16	PENJAJAWOC	PJ700	300	2	600		
6/17/16	PENJAJAWOC	PJ701	350	2	700		
6/17/16	PENJAJAWOC	PJ703	250	2	500		
6/17/16	PENJAJAWOC	PJ704	100	2	200		
6/20/16	HANCOCK	HK011	325	1	325		
6/20/16	HANCOCK	HK041	275	1	275		
6/21/16	PENJAJAWOC	PJ032	375	1	375		
6/23/16	DAVIS BROOK	DB564	75	1	75		
6/23/16	DAVIS BROOK	DB565	125	1	125		
6/23/16	PENJAJAWOC	PJ111	325	1	325		
6/23/16	PENJAJAWOC	PJ113	275	1	275		

APPENDIX E: CLEANING LOG

City of Bangor, Maine
Calendar Year 2016

Date of Cleaning	Subsection	Pipe Segment ID	Length of Pipe Segment	# Passes	Approx. Length Cleaned (FT)	Repeat Cleaning (this CY)	Justification for Repeat Cleaning
6/23/16	PENJAJAWOC	PJ114	125	1	125		
6/24/16	BURLEIGH	BU305	425	1	425		
6/24/16	BURLEIGH	BU401	350	3	1050		
6/24/16	BURLEIGH	BU402	350	1	350		
6/24/16	BURLEIGH	BU403	350	1	350		
6/24/16	BURLEIGH	BU404	225	1	225		
6/29/16	AIRPORT	AP050	175	1	175		
6/29/16	AIRPORT	AP051	350	1	350		
6/29/16	CARR BROOK	CB110	400	4	1600		
7/7/16	ARCTIC BROOK	AB480	350	1	350		
7/12/16	DAVIS BROOK	DB605	325	2	650		
7/12/16	OLD CAPEHART	OC462	235	3	705		
7/12/16	OLD CAPEHART	OC463	200	2	400		
7/13/16	KENDUSKEAG WEST	KW101	200	3	600		
7/13/16	OLD CAPEHART	OC460	135	3	405		
7/18/16	KENDUSKEAG WEST	KW301	100	8	800		
7/19/16	OLD CAPEHART	OC451	250	1	250		
7/19/16	OLD CAPEHART	OC465	325	1	325		
7/19/16	PENJAJAWOC	PJ701	325	1	325	YES	GREASE
7/19/16	PENJAJAWOC	PJ703	350	1	350	YES	GREASE
7/19/16	PENJAJAWOC	PJ704	75	1	75	YES	GREASE
7/20/16	HILDRETH-PERRY	HP510	250	3	750		
7/21/16	OLD CAPEHART	OC409	200	2	400		
7/21/16	OLD CAPEHART	OC410	175	2	350		
7/21/16	OLD CAPEHART	OC411	300	2	600		
7/21/16	OLD CAPEHART	OC412	325	2	650		
7/21/16	OLD CAPEHART	OC413	325	2	650		
7/21/16	OLD CAPEHART	OC450	200	2	400		
7/25/16	OLD CAPEHART	OC405	200	2	400		
7/25/16	OLD CAPEHART	OC406	200	2	400		
7/25/16	OLD CAPEHART	OC407	225	2	450		
7/25/16	OLD CAPEHART	OC408	275	2	550		
7/25/16	OLD CAPEHART	OC440	135	2	270		
7/25/16	OLD CAPEHART	OC441	200	2	400		
7/27/16	DOW	DW600	185	3	555		
7/28/16	DAVIS BROOK	DB630	500	2	1000		
7/29/16	AIRPORT	AP353	325	1	325		
7/29/16	DAVIS BROOK	DB566	175	1	175		
8/2/16	OLD CAPEHART	OC600	315	2	630		
8/2/16	OLD CAPEHART	OC601	275	2	550		
8/2/16	OLD CAPEHART	OC602	275	2	550		
8/8/16	OLD CAPEHART	OC364	275	2	550		
8/9/16	OLD CAPEHART	OC360	275	2	550		
8/9/16	OLD CAPEHART	OC361	275	2	550		
8/9/16	OLD CAPEHART	OC362	250	2	500		
8/9/16	OLD CAPEHART	OC363	275	2	550		
8/15/16	CEMETERY	CM701	175	1	175		
8/15/16	CEMETERY	CM850	125	1	125		
8/22/16	OLD CAPEHART	OC104	275	2	550		
8/22/16	OLD CAPEHART	OC500	250	2	500		
8/22/16	OLD CAPEHART	OC501	250	2	500		
8/23/16	ARCTIC BROOK	AB480	350	2	700	YES	ROOTS, DEBRIS
8/29/16	HANCOCK	HK085	200	1	200		

APPENDIX E: CLEANING LOG

City of Bangor, Maine
Calendar Year 2016

Date of Cleaning	Subsection	Pipe Segment ID	Length of Pipe Segment	# Passes	Approx. Length Cleaned (FT)	Repeat Cleaning (this CY)	Justification for Repeat Cleaning
8/30/16	ARCTIC BROOK	AB302	75	3	225		
9/19/16	OLD CAPEHART	OC400	100	1	100		
9/19/16	OLD CAPEHART	OC404	175	2	350		
9/27/16	OLD CAPEHART	OC015	125	2	250		
9/27/16	OLD CAPEHART	OC016	75	2	150		
9/27/16	OLD CAPEHART	OC017	175	2	350		
9/27/16	OLD CAPEHART	OC018	175	2	350		
9/27/16	OLD CAPEHART	OC019	175	2	350		
9/27/16	OLD CAPEHART	OC250	225	2	450		
9/27/16	OLD CAPEHART	OC251	275	2	550		
9/27/16	OLD CAPEHART	OC300	150	2	300		
9/27/16	OLD CAPEHART	OC330	240	2	480		
10/28/16	AIRPORT	AP373	300	2	600		
11/4/16	PENJAJAWOC	PJ950	175	2	350	YES	CONSTRUCTION FOLLOWUP
11/4/16	PENJAJAWOC	PJ951	300	2	600	YES	CONSTRUCTION FOLLOWUP
11/9/16	CARR BROOK	CB111	425	5	2125		
11/9/16	MEADOWBROOK	MB805	350	1	350		
11/9/16	MEADOWBROOK	MB821	450	1	450		
11/10/16	CARR BROOK	CB407	175	1	175		
11/14/16	ARCTIC BROOK	AB404	425	4	1700		
11/15/16	ARCTIC BROOK	AB402	60	4	240		
11/15/16	ARCTIC BROOK	AB403	10	4	40		
11/21/16	ARCTIC BROOK	AB420	200	3	600		
11/23/16	OLD CAPEHART	OC111	165	2	330		
11/28/16	OLD CAPEHART	OC306	300	3	900		
11/28/16	OLD CAPEHART	OC307	275	4	1100		
11/28/16	OLD CAPEHART	OC443	265	3	795		
11/28/16	OLD CAPEHART	OC444	260	2	520		
11/28/16	OLD CAPEHART	OC445	275	4	1100		
11/30/16	AIRPORT	AP360	265	2	530		
12/28/16	MEADOWBROOK	MB658	50	5	250		
				TOTAL FEET	84,385		
				TOTAL MILES	15.98		

Appendix F. SSO Event Log

APPENDIX F: SSO EVENT LOG

City of Bangor, Maine
Calendar Year 2016

Event No.	Date/Time Reported or Discovered	Date/Time Stopped	Location (Nearest Address)	Final Disposition (Ground, Street, MS4, Surface Water)	Source of Notification	Suspected Cause of Event	Due to blockage or hydraulic limitation within publicly owned Collection System	Measures Taken to Stop Event	Estimated Release Volume (gal)/ Methodology	Date of Most Recent Prior SSO Event at Location
16-01	1/10/16 at 10:30 PM	Unknown	410 State St (Wing Park)	MS4 via CB F08-4036 to Penobscot River	Hospital to Sewer Dept.	Heavy rainfall overnight	Yes	No measures, discovered after incident ended	Unknown	9/30/2015
16-02	1/11/16 at 9:30 AM	Unknown	23 Central St	Kenduskeag Stream	Public Works	Heavy rainfall and astronomical high tide	No	No measures, discovered after incident ended	Unknown	12/3/2009
16-03	1/11/16 at 12:20 pm	1/11/16 at 12:30 pm	400 Garland St	Basement backup, flowed back into system	Resident to Public Works	Surcharge of system due to heavy rain	Yes	Inspected main with CCTV to look for other factors	500 gal/ on site estimate	none recorded
16-04	1/12/16 at 8:00 AM	1/12/16 at 8:15 AM	125 Crestmont St	Basement backup, flowed back into system	Resident to Public Works	Surcharge of system due to heavy rain	Yes	Inspected main with CCTV to look for other factors	1200 gal/ calculated estimate	none recorded
16-05	2/17/16 at 9:00 AM	Unknown	410 State St (Wing Park)	MS4 via CB F08-4036 to Penobscot River	Sewer Crew	Heavy rainfall overnight with snowmelt	Yes	No measures, discovered after incident ended	Unknown	1/10/2016
16-06	3/26/16 at 12:10 PM	3/26/16 at 12:30 PM	249 Randolph Dr	Backup in manhole, flowed back into main	Resident to Public Works	Backup due to grease and roots in main line	Yes	Jetted main line to remove blockages, reported FOG to pretreatment coordinator	Trace/ on site observation	none recorded
16-07	3/29/16 at 1:45 PM	Unknown	23 Young St	Basement backup, flowed back into system	Public Works	Debris in line	Yes	Flushed main line and returned later for heavy cleaning and CCTV	1200 gal/ calculated estimate	none recorded
16-08	4/23/16 at 1:30 PM	Unknown	26 Front St	Penobscot River	Public Works	Floor drain was tied into a discharge line that overflowed	No	Public Works capped pipe	Trace/ onsite observation	none recorded
16-09	6/17/16 at 9:50 AM	6/17/16 at 10:00 AM	729 Hogan Rd	Floor drain backup, flowed back into system	Sewer Crew	Sewer jetting caused main line back up	No	Stopped jetting	Trace/ onsite observation	none recorded
16-10	11/28/16 at 4:03 PM	11/29/16 at 2:30 AM	33 First St	n/a	Env. Coordinator	Private sewer line failed and overflowed onto roadway	No	Sewer Crew repaired private line	500 gal/ on site estimate	none recorded
16-11	11/30/16 at 9:30 AM	11/30/16 at 9:45 AM	18 Maxwell Ln	Basement backup, flowed back into system	Plumbing contractor	Backup due to rootballs blocking main line	Yes	Jetted main line to remove root blockage	3200 gal/ calculated estimate	9/30/2015

General Notes:

_ For some instances where the incident was reported or discovered after the SSO event had ceased, the Date/Time Stopped and the Estimated Release Volume were not able to be determined. In cases such as these, "Unknown" appears in the table.

_ Where volume estimates were not recorded during on site observations, an estimated volume was calculated based on an assumed depth 0.25 feet and the building footprint measured in GIS.

**Appendix G. Location Map of Sanitary Sewer
Overflows**

WASTEWATER COLLECTION SYSTEM AND OVERFLOW LOCATIONS

Jan. 1, 2016 - Dec. 31, 2016

Legend

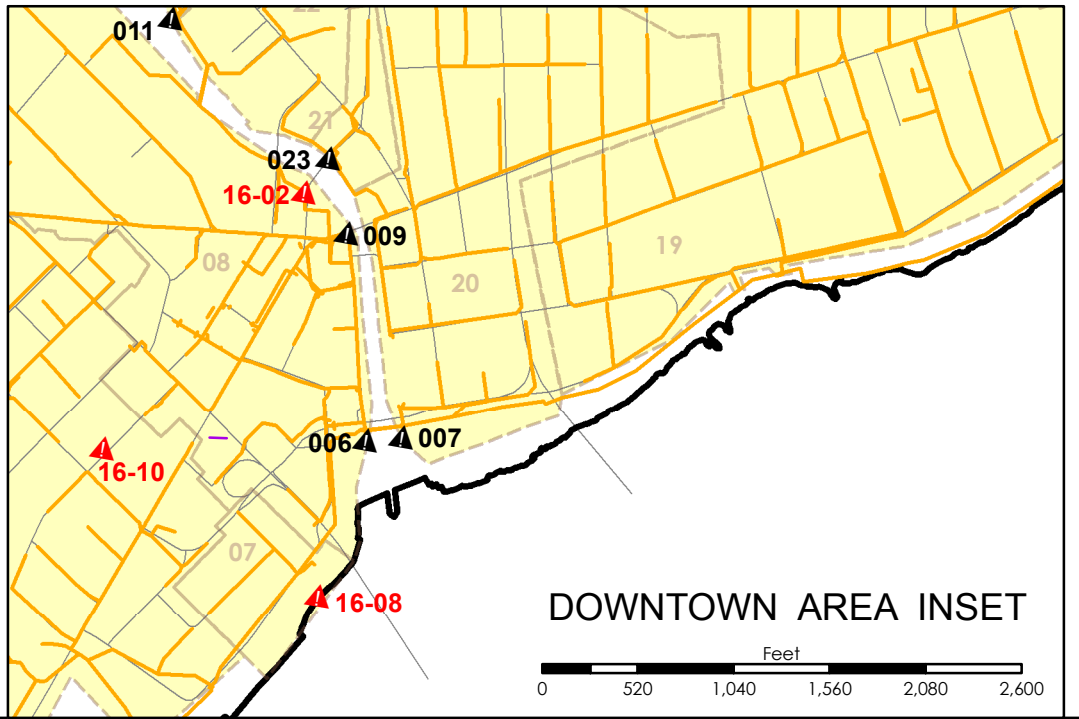
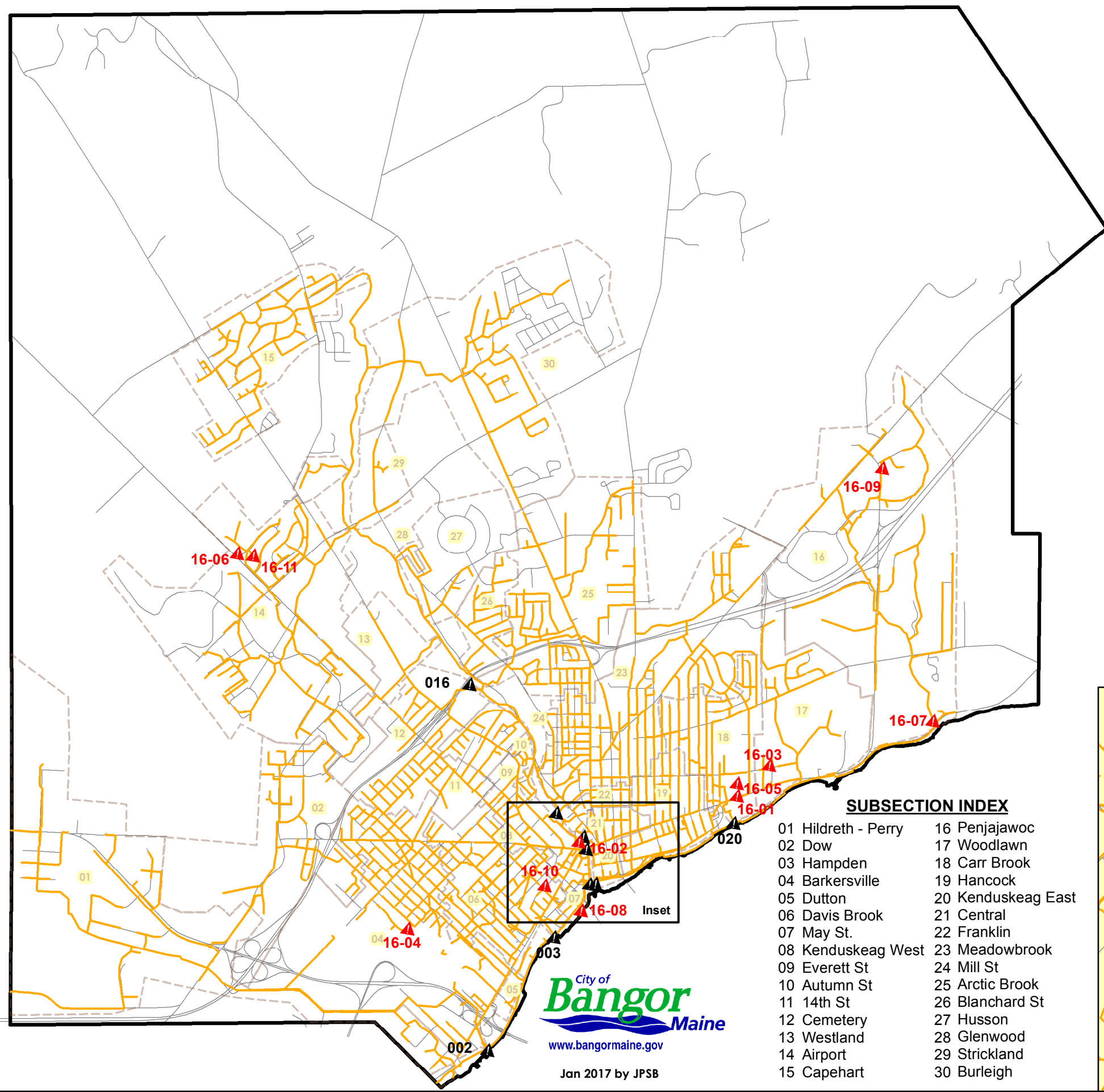
- ▲ SSO Location
- ▲ Licensed CSO Location
- Sewer Pipes
- ▭ Sewer Subsections

CSO INDEX

- | | | |
|---------------------|---------------------|--------------------|
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