Technical Memorandum

One Tech Drive, Suite 310
Andover, MA 01810

T: 978.794.0336

Prepared for: Town of Braintree

Project Title: Stormwater IDDE Program

Project No.: 148798

Technical Memorandum No. 1

Subject: Illicit Discharge Detection and Elimination Investigations

Date: September 24, 2019

To: Cynthia O'Connell, RLA, ASLA, Town of Braintree Stormwater Manager

From: Matt Davis, PE, Project Manager

Copy to: James Arsenault, PE, Town of Braintree Public Works Director

Prepared by: Matthew Davis, Project Manager
Name and Title

Reviewed by: Glenn Haas, Stormwater Lead
Name and Title

Limitations:

This document was prepared solely for the Town of Braintree in accordance with professional standards at the time the services were performed and in accordance with the contract between the Town of Braintree and Brown and Caldwell dated August 30, 2017. This document is governed by the specific scope of work authorized by the Town of Braintree; it is not intended to be relied upon by any other party except for regulatory authorities contemplated by the scope of work. We have relied on information or instructions provided by the Town of Braintree and other parties and, unless otherwise expressly indicated, have made no independent investigation as to the validity, completeness, or accuracy of such information.

Executive Summary

The Town of Braintree has an active illicit discharge detection and elimination (IDDE) program that seeks to identify and remove illicit discharges to the Town's stormwater system. As part of this program, Brown and Caldwell performed dry weather screening and sampling at the Town's stormwater outfalls. From July 2016 through June 2019, 345 dry weather outfall investigations were performed. Four outfalls were identified as having a high likelihood of illicit contamination. Brown and Caldwell subsequently performed upstream source tracking investigations in an effort to isolate the source of the contamination. This Technical Memorandum provides a summary of the IDDE investigation findings.

Section 1: Illicit Discharges

An "illicit discharge" is any discharge to a drainage system that is not composed entirely of stormwater and is not an allowable non-stormwater discharge[1].

Illicit discharges may take a variety of forms. Illicit discharges may enter the drainage system through direct or indirect connections to the storm drain system. Direct connections may be relatively obvious, such as cross-connections of sewer services to the storm drain system. Indirect illicit discharges may be more difficult to detect or address, such as failing septic systems that discharge untreated sewage to a ditch within the Town, or a sump pump that discharges contaminated water on an intermittent basis. Illicit discharges may also be episodic such as dumping used oil, pet wastes (or other pollutant) into catch basins, or a sanitary sewer overflow getting into storm drains.

Regardless of how they occur, when not addressed, illicit discharges can contribute high levels of pollutants to surface waters including heavy metals, toxics, oil, grease, solvents, nutrients, and pathogens.

Section 2: Illicit Discharge Detection and Elimination (IDDE)

The Municipal Separate Storm Sewer System (MS4) Permit requires that the Town develop and implement an IDDE Plan to find and eliminate illicit discharges to the Town's stormwater system and prevent illicit discharges from happening in the future. The Town has a proactive IDDE Program which is documented in accordance with the MS4 Permit requirements. Please refer to the *Town of Braintree IDDE Plan* (December 2018) for more information about the Town's IDDE Program.

Brown and Caldwell has been assisting the Town with its IDDE Program by performing a series of field investigations that seek to locate sources of illicit contamination in the Town's stormwater system. Brown and Caldwell has performed the following types of investigations:

- Dry weather outfall screening and sampling – These investigations are performed at stormwater outfalls during dry weather conditions. The outfalls are inspected and water quality samples are collected (if flow is present) in order to assess the likelihood that there are illicit discharges in the stormwater system upstream of the outfall. If the outfall is inaccessible or cannot be located, the investigations are performed at the nearest upstream manhole.

[1] Examples of allowable non-stormwater discharges include water line flushing, irrigation, resident car washing, etc.

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- Upstream source tracking – Upstream source tracking investigations are performed upstream of outfalls suspected of having illicit discharges. These investigations are typically initiated after a contaminated outfall is identified through the dry weather outfall screening and sampling. The upstream source tracking investigations are similar to the dry weather outfall screening and sampling, except that the investigations take place at manholes instead of outfalls, and the manhole investigations proceed methodically in an upstream direction until the source of contamination is isolated.

The sections that follow detail the methodology and results of these investigations.

Section 3: Dry Weather Outfall Screening and Sampling Procedures

The dry weather outfall screening and sampling investigations are performed in order to identify portions of the stormwater system that may have illicit discharges. The investigations are performed during dry weather when stormwater-related flows are at a minimum. The Town's IDDE Plan defines dry weather as periods of time when no more than 0.1 inches of rainfall has occurred in the previous 24-hour period and there is no significant snowmelt.

The basic steps of the dry weather screening/sampling of the outfalls are outlined below:

1. Locate the outfall
2. Record the x, y coordinates of the outfall
3. Take photographs of the outfall
4. Perform observations and fill out the inspection dry weather screening/sampling form
5. If flow is present,
    a. Collect a bacteria sample and send it to a laboratory for analysis (*E. Coli* for freshwater and enterococcus for brackish and marine waters)
    b. Perform physical measurements for pH, temperature, conductivity and salinity
    c. Perform field test kits for ammonia, surfactants and chlorine

If the outfall cannot be located or accessed, the procedures outlined above are performed at the nearest manhole or catch basin upstream of the outfall.

The investigations can be divided into two separate phases: screening and sampling. Steps 1 through 4 are the "screening" steps while Step 5 is the "sampling" step. All sites were screened during the investigations, but sampling was only performed at sites with running dry weather flow. In some cases, especially during the beginning of the Study, the outfalls were screened, and follow-up sampling was performed during separate site visits as needed. As the Study progressed, the screening and sampling were performed during the same site visit.

If one or more of the criteria listed below are met, the outfall is considered to be potentially contaminated with sewage:

- Olfactory of visual evidence of sewage
- Ammonia ≥ 0.5 mg/l or surfactants ≥ 0.25 ml/l, and bacteria levels greater than the water quality criteria applicable to the receiving water
- Ammonia ≥ 0.5 mg/l, surfactants ≥ 0.25 ml/l, and detectable levels of chlorine
- Bacteria levels greater than four times the water quality criteria applicable to the receiving water

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The bacteria water quality criteria for freshwater is based upon *E. Coli* and the threshold is 235 cfu/100 ml. For brackish and marine waters, the water quality standard is based upon bacteria and the threshold is 61 cfu/100 ml.

The criteria for contamination used by this Study are more conservative than the criteria in the Massachusetts MS4 Permit in two ways. First, the MS4 Permit does not specify a bacteria-only threshold; however, it stands to reason that if bacteria levels are excessive, contamination is likely, even if other parameters are below their thresholds. Secondly, the MS4 Permit requires that ammonia, surfactants and bacteria exceed a specified threshold in combination to indicate contamination, whereas the criteria used by this Study require an exceedance of the bacteria threshold and an exceedance of either the ammonia or surfactant thresholds. This modification was introduced because excessive levels of either ammonia or surfactants in combination with a high bacteria concentration can be a reliable indicator of contamination.

Data was collected and recorded in the field using handheld computer devices (i.e., cell phones and tablets) equipped with the Fulcrum field data collection software (https://www.fulcrumapp.com/).

A detailed standard operating procedure (SOP) provided in Appendix A for dry weather outfall screening and sampling. The SOP includes field equipment needs, sampling and analysis procedures and a health and safety plan.

Section 4: Dry Weather Outfall Screening and Sampling Results

From July 2016 through June 2019, Brown and Caldwell performed 345 dry weather investigations. Some of the outfalls had multiple investigations, especially in cases where the screening and sampling were performed separately. Altogether, 289 of the 316 outfalls located within the Town were investigated during the course of the Study. Of the remaining outfalls that have not been inspected, most of them are either privately owned or owned by another a public agency (e.g., MassDOT, MBTA).

The results of the investigations are summarized in the map shown in Figure 4-1. The red circles indicate outfalls that have a high likelihood of contamination from illicit sources. These are outfalls that met one of more of the criteria for contamination discussed in the previous section. The outfalls shown as green circles did not meet any of the contamination criteria and therefore have a low likelihood of contamination. The outfalls shown as blue circles have either not been investigated.

Appendix B provides Table B-1 that lists the status of the investigations at each of the outfalls. The Table includes the date and ID of the last investigation and a summary of the information used to determine the likelihood of contamination at the outfall. It includes columns that indicate if the screening has been completed, if there was visual/olfactory evidence of sewage, if dry weather flow was present, if water quality sampling was performed and the results of the water quality sampling. Gray cells indicate information that does not apply to a particular outfall. For example, if the 'Dry Weather Flow Present' value is 'No', water quality sampling could not be performed, so the 'Water Quality Sampling Performed' and 'Evidence of Contamination in Water Quality Samples' columns will be grayed out.

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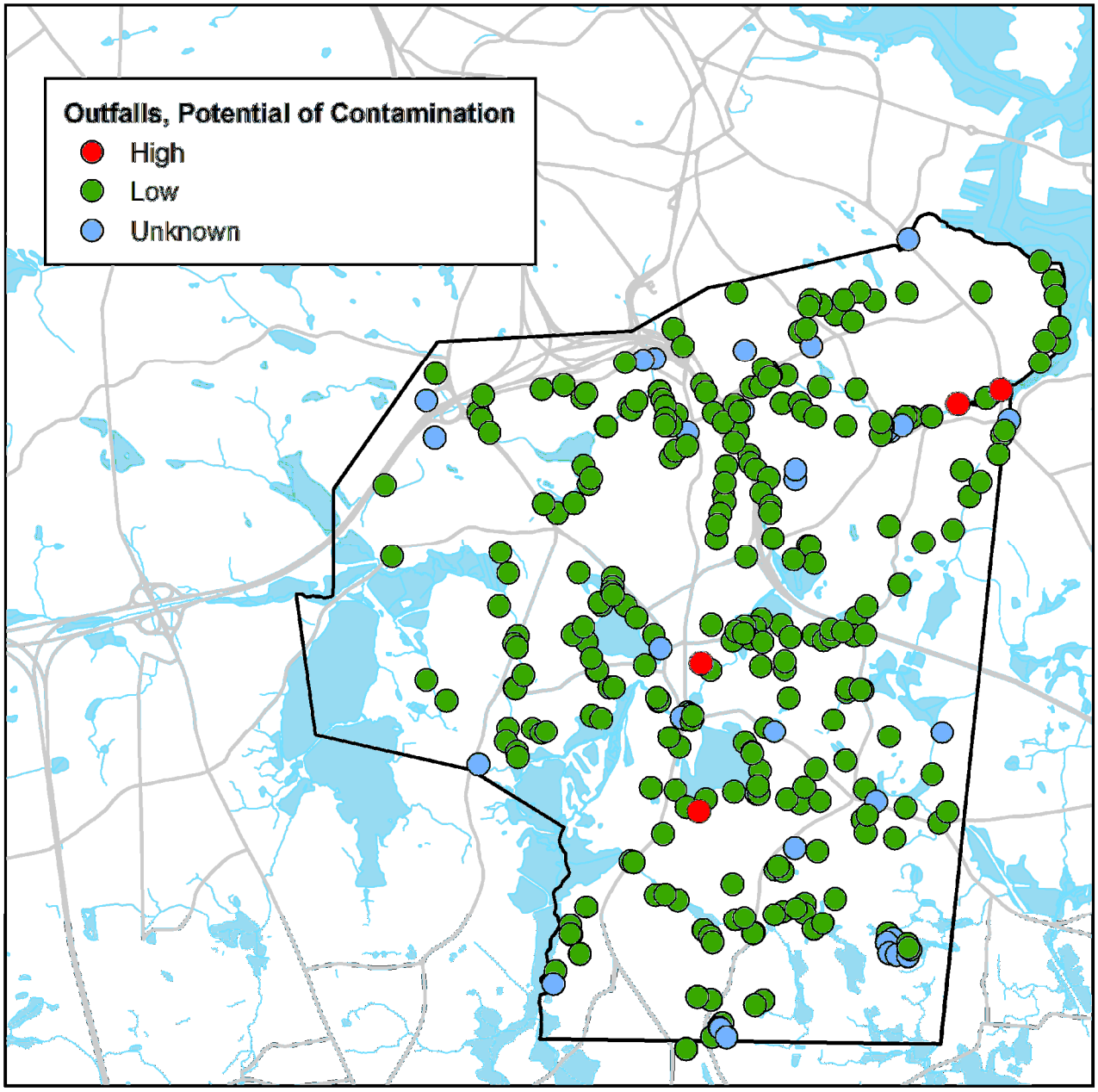

Figure 4-1. Summary of Outfall Screening and Sampling Results

The water quality data collected for outfalls with dry weather flow is provided in Table 4-1. The final column 'Contamination Suspected', provides an assessment of whether or not the dry weather flow was suspected of having illicit contamination based on the water quality data and the contamination criteria in Section 3. The rows with water quality data indicative of contamination are highlighted.

Table 4-1. Outfall Water Quality Data												
Outfall ID	Inspection ID	Date	Time	Temp (C)	pH	Salinity (ppt)	Cond (µS)	Ammonia (mg/)	Surfactants (ppm)	Chlorine (ppm)	E. Coli (cfu/100 ml)	Contamination Suspected[1]
CBB-003	BT-136	6/13/2017	7:18:00	19.9	6.5	0	552	0	0.5	0	62	No
CBB-008	BT-138	6/13/2017	8:40:00	17.86	6.99	0	594	0	0.25	0	7	No
CBB-009	BT-143	6/13/2017	11:00:00	20.46	5.89	0	430	0	0.25	0	7	No
CBB-012	BT-184	7/18/2017	9:09:00	21.13	6.2	0.27	516	1	0.5	0	70	No
CBB-031	BT-173	7/6/2017	13:34:00	21.06	6.43	0.27	526	0	0.25	0	< 2	No
CDS-003	BT-146	6/13/2017	11:55:00	24.03	6.46	0.018	370	0.4	0	0	8	No
CDS-006	BT-311	12/19/2018	8:00:00	4.1	8.48	132	327	0	0.25	0	200	No
CDS-009	BT-147	6/13/2017	12:27:00	21.66	6.77	0.27	523	0	0.25	0	40	No
CDS-010	BT-79	9/15/2016	8:45:00	16.59	7.45	0.47	952	1	0.25	0	830	Yes
CDS-013	BT-149	6/13/2017	13:31:00	24.46	7.25	0.16	225	0.1	0	0	94	No
CDS-014	BT-319	5/28/2019	8:56	13.8	7.89	265	556	0.25	0.25	0	1,000	No[2]
FMR-011	BT-200	8/1/2017	9:20:00								0	No
FMR-012	BT-324	5/28/2019	13:53	13.6	7.78	144	382	0	0.75	0	94	No
FMR-019	BT-201	8/1/2017	9:31:00								0	No
FMR-028	BT-194	8/1/2017	7:08:00	22.59	7.49	0.4	771	0.2	0.25	0	16	No
MQR-002	BT-90	9/16/2016	7:07:00	17.8	7.59	0.39	786	0	0.5	0	920	Yes
MQR-003	BT-94	9/16/2016	10:09:00	21.24	7.1	0.6	1,197	10	1	0.05	160,000	Yes
	BT-125	6/2/2017	10:17:00								39,000	Yes
	BT-167	7/6/2017	6:22:00	18.11	7.04	0.73	1,259	2	0.25	0	16,000	Yes
MQR-005	BT-86	9/15/2016	11:52:00	21.56	7.2	0.66	1,331	7	1	0	> 50,000	Yes
	BT-252	9/12/2017	8:23:00	19.2	8.16	722	1,026	4	0.75	0	140,000	Yes
MQR-051	BT-274	11/21/2017	13:20:00	15.01	6.89	0.38	780	0	0.025	0	870	No
MQR-068	BT-268	11/21/2017	9:47:00	13.5	6.56	2.42	4,424	0	0.5	0	0	No
MQR-070	BT-296	4/24/2018	9:43:00	12.2	7.6	444	932	0	0.25	0	2	No
MQR-074	BT-308	12/12/2018	10:39:00	9	7.35	102	408	0	0.25	0	2	No

Table 4-1. Outfall Water Quality Data												
Outfall ID	Inspection ID	Date	Time	Temp (C)	pH	Salinity (ppt)	Cond (µS)	Ammonia (mg/)	Surfactants (ppm)	Chlorine (ppm)	E. Coli (cfu/100 ml)	Contamination Suspected[1]
MQR-075	BT-76	9/15/2016	7:08:00	17.23	8.25	1.49	2,853	0	0.5	0	86	No
SMB-017	BT-182	7/18/2017	7:58:00	18.94	7.4	0.37	670	0	0	0	120	No
SMB-021	BT-290	4/24/2018	7:47:00	8.8	8.23	513	1,083	0	0.25	0	0	No
SMB-026	BT-122	6/2/2017	8:50:00	13.7	8.42	0	416	0.2	0.25	0	120	No
TWB-029	BT-83	9/15/2016	9:51:00	16.82	7.22	0.8	1,582	0	0.25	0	210	No
TWB-034	BT-191	8/1/2017	5:59:00								0	No
TWB-036	BT-192	8/1/2017	6:11:00								0	No

Notes:

1. *An outfall is suspected of contamination if it meets any of the criteria listed in Section 3.*
2. *The bacteria concentration exceeded four times the state standard, but groundwater levels were elevated. This outfall will be retested and if there is additional evidence of contamination or elevated bacteria concentrations this outfall will be suspected of contamination.*

The detailed investigation reports are provided in Appendix C. Each report includes the information recorded during the site visit, water quality data (*if applicable*), photographs and a map. A unique ID has been assigned to each of the investigations. The reports are sorted based on their ID.

Of the 289 outfalls investigated to date, four outfalls are suspected of having illicit contamination. The four outfalls are:

- CDS-010
- MQR-002
- MQR-003
- MQR-005

All of these outfalls had *E. Coli* concentrations in excess of the state standard (235 cfu/100 ml). Bacteria concentrations at MQR-003 and MQR-005 were far in excess of the state standard. For example, the September 16, 2016 water quality sample collected at MQR-003 measured 160,000 cfu/100 ml while the September 12, 2017 sample collected at MQR-005 measured 140,000 cfu/100 ml. Please refer to Appendix B for maps and more detailed information about the investigations performed at these outfalls.

The location and catchment of these outfalls are show in the maps in Figures 4-2 through 4-5. A photograph of the outfall is shown in the upper left-hand corner of the maps. A locator map is included in the upper-right hand corner of the maps to show the location of the outfall's catchment within the Town's jurisdictional boundary.

Outfall CDS-014 had an elevated bacteria concentration of 1,000 MPN/100 ml. This outfall was investigated in the spring of 2019 when the groundwater table was elevated. This outfall will be reinvestigated in the future. If the follow-up investigations find elevated bacteria concentrations or other signs of sewage contamination, this will be flagged as suspected of contamination.

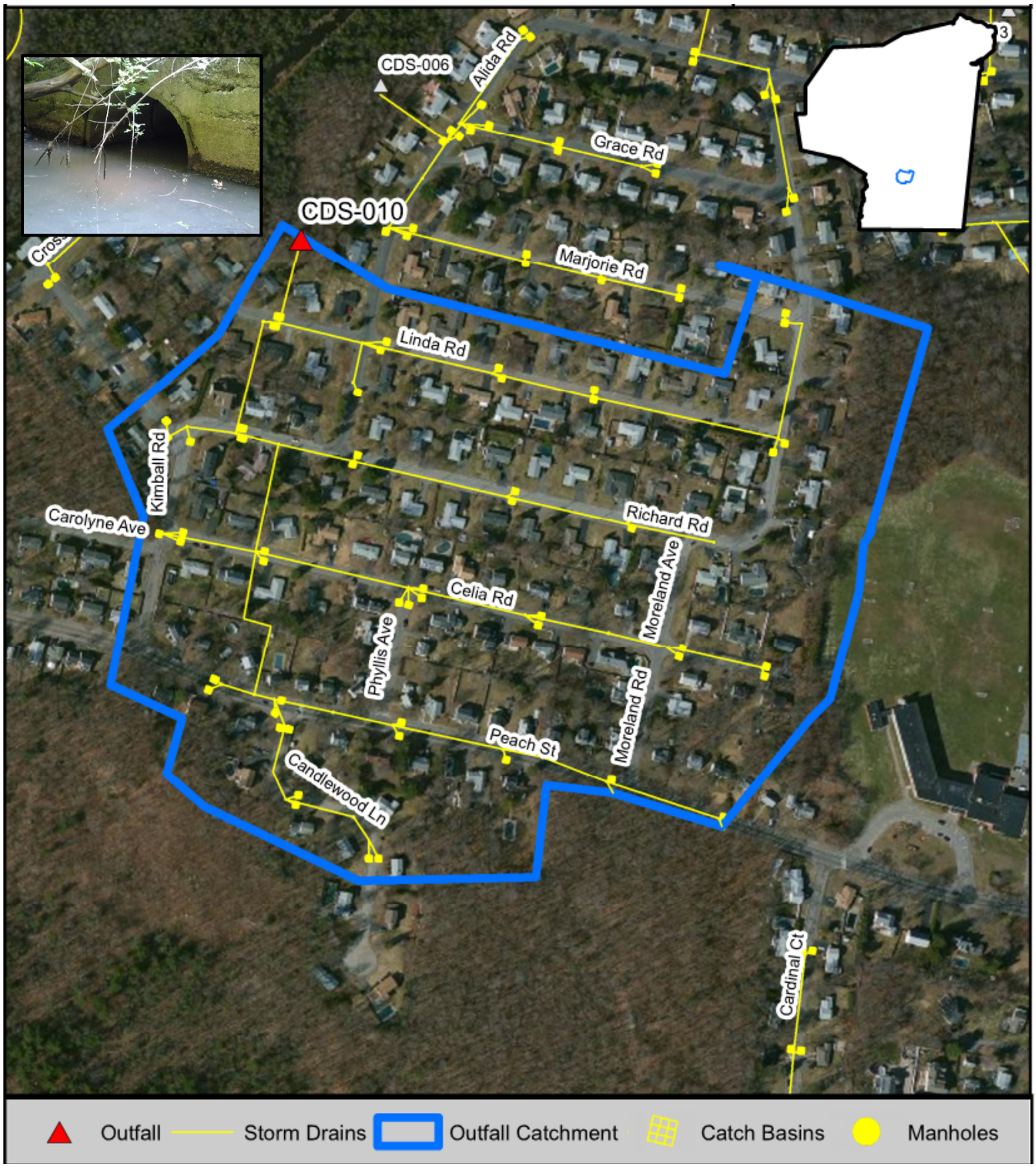

Figure 4-2. Outfall CDS-010

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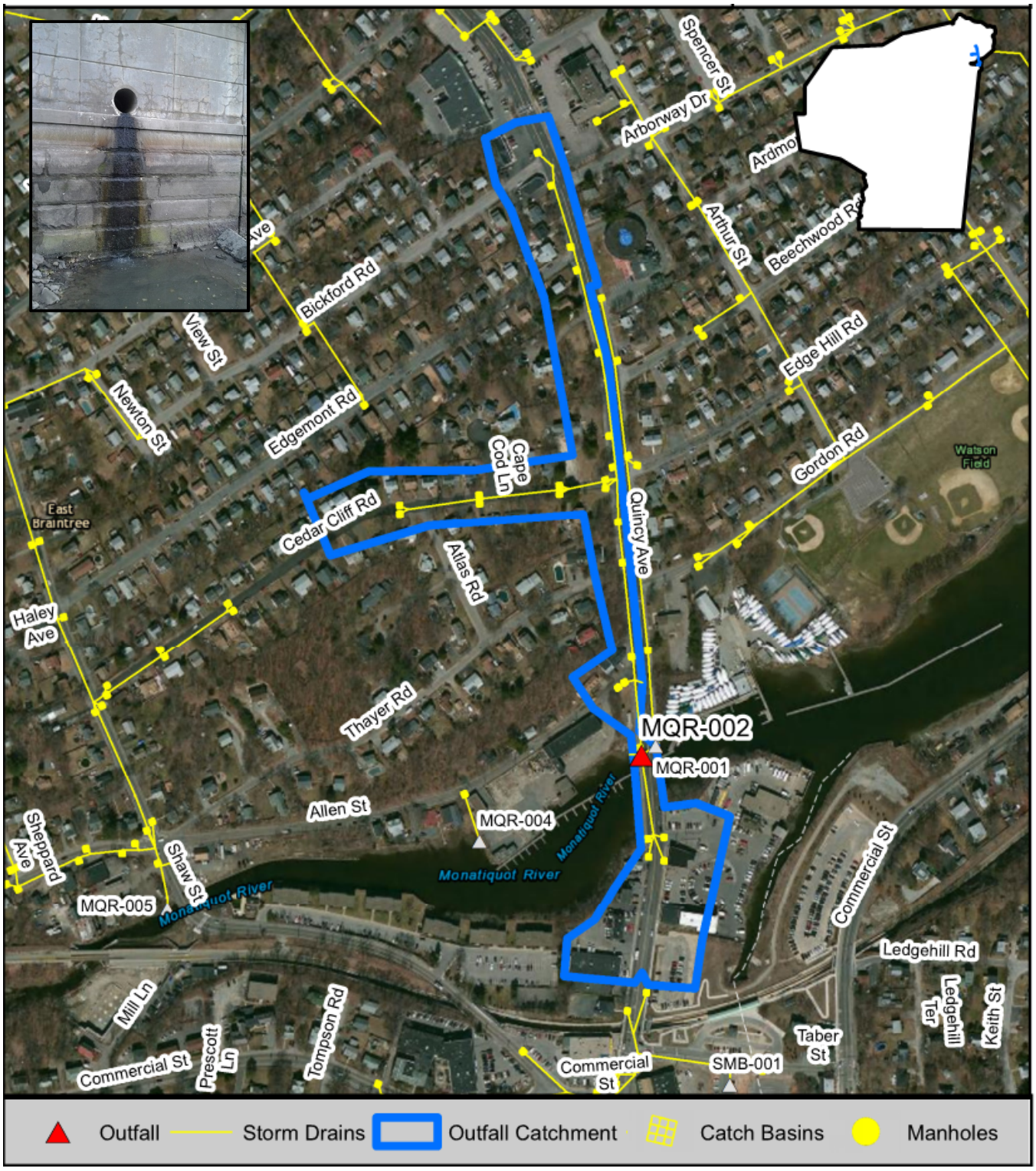

Figure 4-3. Outfall MQR-002

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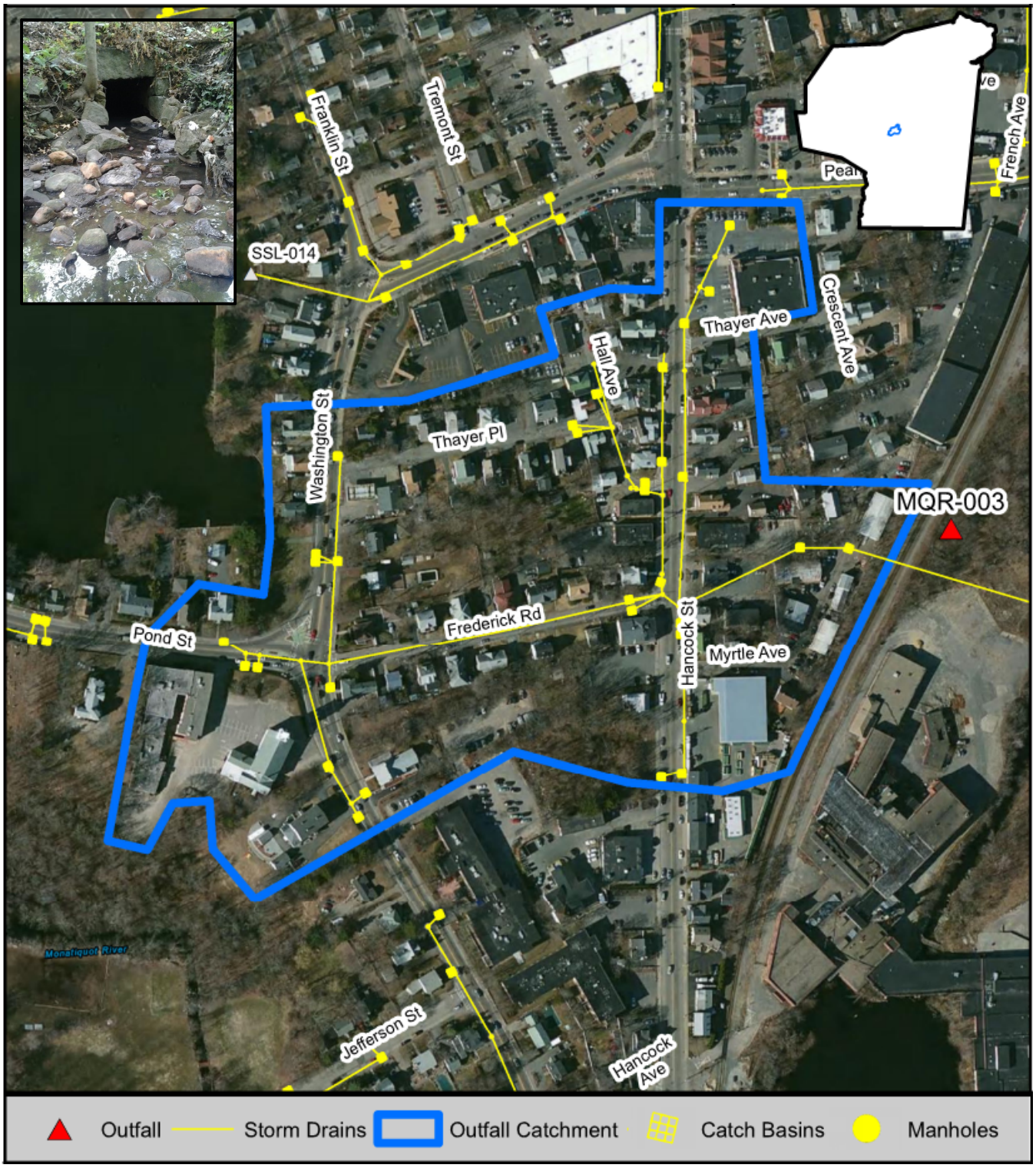

Figure 4-4. Outfall MQR-003

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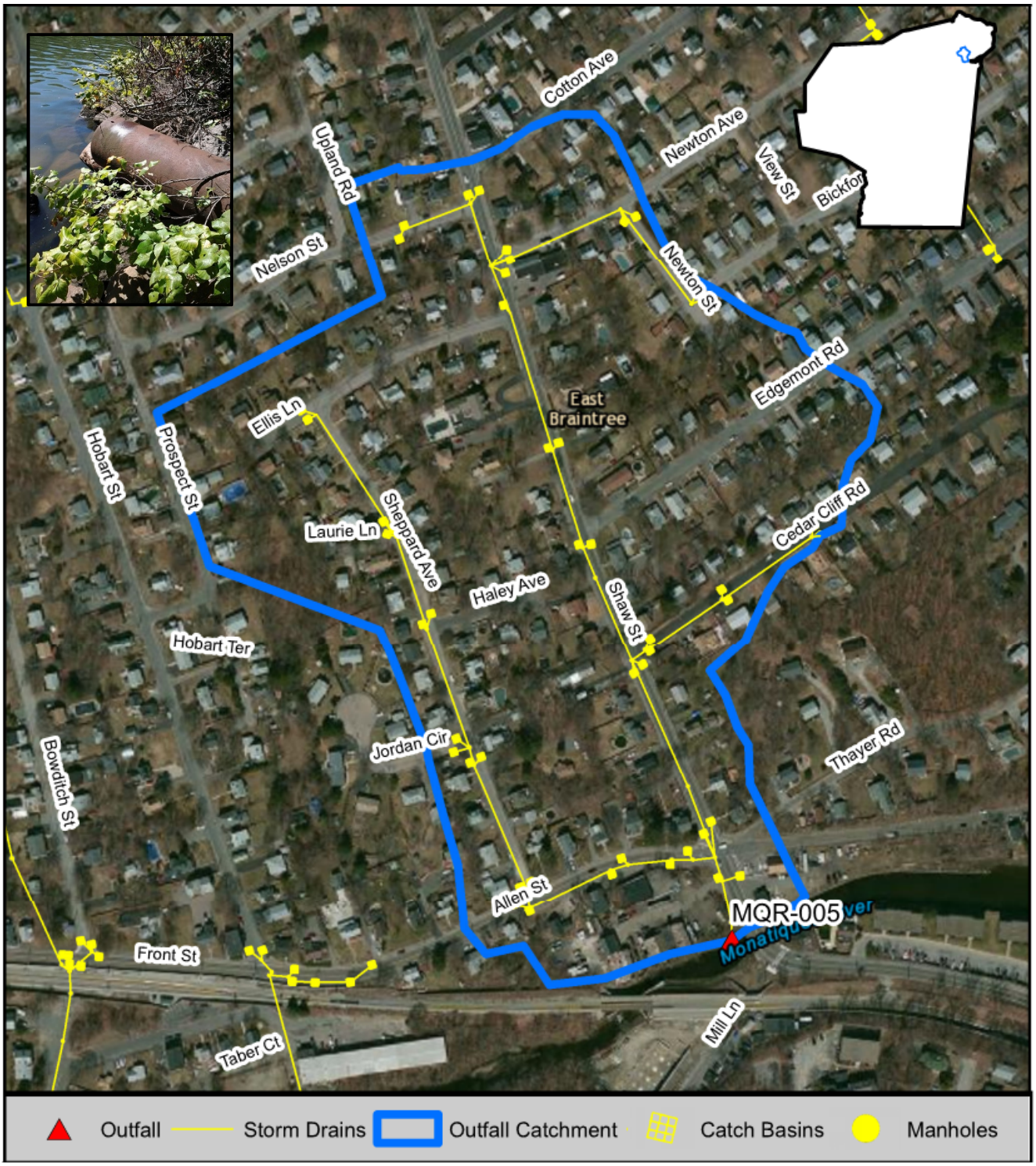

Figure 4-5. Outfall MQR-005

Sections 5 and 6 discuss efforts to locate the sources of contamination for these outfalls.

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Section 5: Upstream Source Tracking Methodology

Upstream source tracking investigations were performed upstream of outfalls suspected of having illicit sources of contamination. The goal of the upstream source tracking is to isolate the illicit source to a pipe segment.

The upstream source tracking begins at the first accessible manhole upstream of the outfall. The manhole's inlet pipes are inspected for visual/olfactory evidence of contamination and for dry weather flow. If dry weather flow is present, field test kits are used to measure ammonia, surfactants and chlorine[2]. If any of the thresholds from Section 3 are exceeded, the flow from that pipe is considered to be potentially contaminated and the investigations continue upstream of that pipe. The investigations continue in this fashion, working upstream manhole by manhole until a manhole is found that has pipe inlets with no flow or no contaminated flow. This manhole is considered to be free of sewage contamination. Since contamination was present in the downstream manhole, the downstream pipe is flagged as suspected of being the source of contamination. The methodology for the upstream source tracking is detailed in the SOP in Appendix A.

Section 6: Upstream Source Tracking Results

This Section provides a discussion of the efforts to track down the illicit sources for the four outfalls that tested positive for contamination. For convenience, the term 'contaminated flow' will refer to dry weather flow in manholes that meet or exceed the contamination criteria discussed in Section 5.

CDS-010

This outfall collects drainage from a network of drains in several streets. Contaminated flow was found at the first upstream manhole. That manhole had two inlets with contaminated flow coming from Linda Road and a pipe connected to a manhole on Richard Road. The first two manholes on Linda Road were inspected and flow ended at the second manhole. The manhole on Richard Road was inspected and it had one inlet. That inlet had contaminated flow. The next upstream manhole was inspected and had two inlets, one draining Richard Road and the other going between yards to Celia Road. The next two manholes upstream on Richard Road were inspected and flow ended at the second manhole. The manhole on Celia Road was inspected. That manhole had two inlets with flow coming from one draining Celia Road and flow coming from one that went between houses to a double catch basin on Peach Street. There was a strong odor of sewage coming from the inlet coming from Peach Street. The first upstream manhole on Celia Road was inspected and was dry. The double catch basin on Peach Street appeared to have standing water in it. The next upstream manhole was inspected and found to be dry.

Due to the strong odor of sewage observed in the pipe between Celia Road and Peach Street, it is suspected that the contamination is coming upon this pipe. Other potential, though less likely, sources include the pipes downstream of the last manholes investigated on Linda Road, Richard Road and Celia Road.

A summary of the upstream source tracking investigations for outfall CDS-010 is provided in Figure 6-1.

[2] Bacteria samples are not collected because they must be sent to a laboratory for analysis and therefore cannot be used for real-time assessment of contamination.

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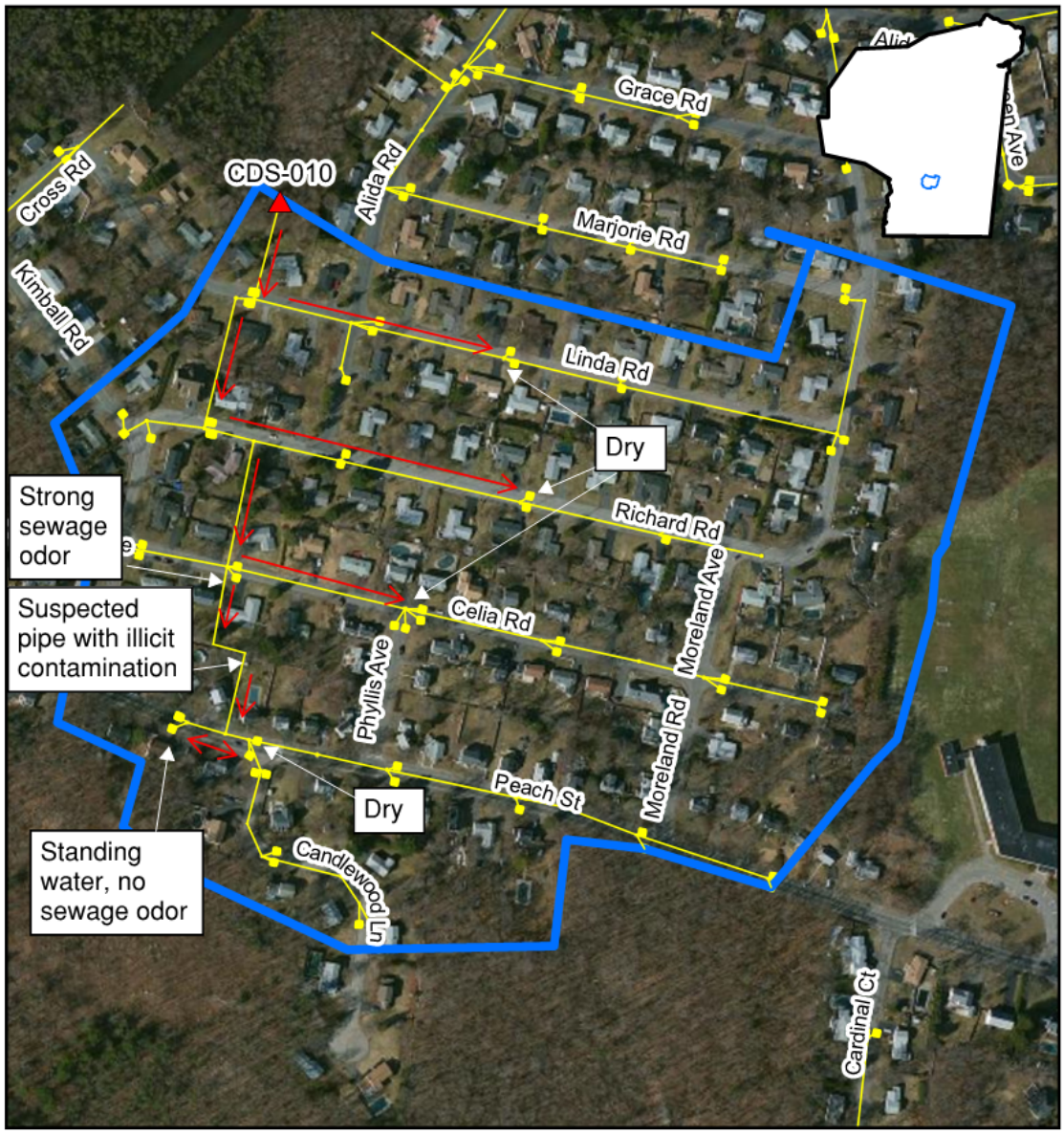

Figure 6-1. Upstream Source Tracking for CDS-010

(Red arrows indicate path of investigations)

MQR-002

The first manhole upstream of outfall MQR-002 was inspected. There was no flow coming from the south; however, contaminated flow was entering the manhole from the north, so the manhole inspections continued northward along Quincy Avenue. The inspections found contaminated dry weather flow in the manholes until reaching the manhole at the intersection of Cedar Cliff Road. There was no flow at this manhole. The previously inspected manhole with contaminated dry weather flow was at the intersection of Allen Street. It is suspected that there may be contamination entering the storm drains on Quincy Ave between Allen Street and Cedar Cliff Road. A summary of the upstream source tracking investigations for outfall MQR-002 is provided in Figure 6-2.

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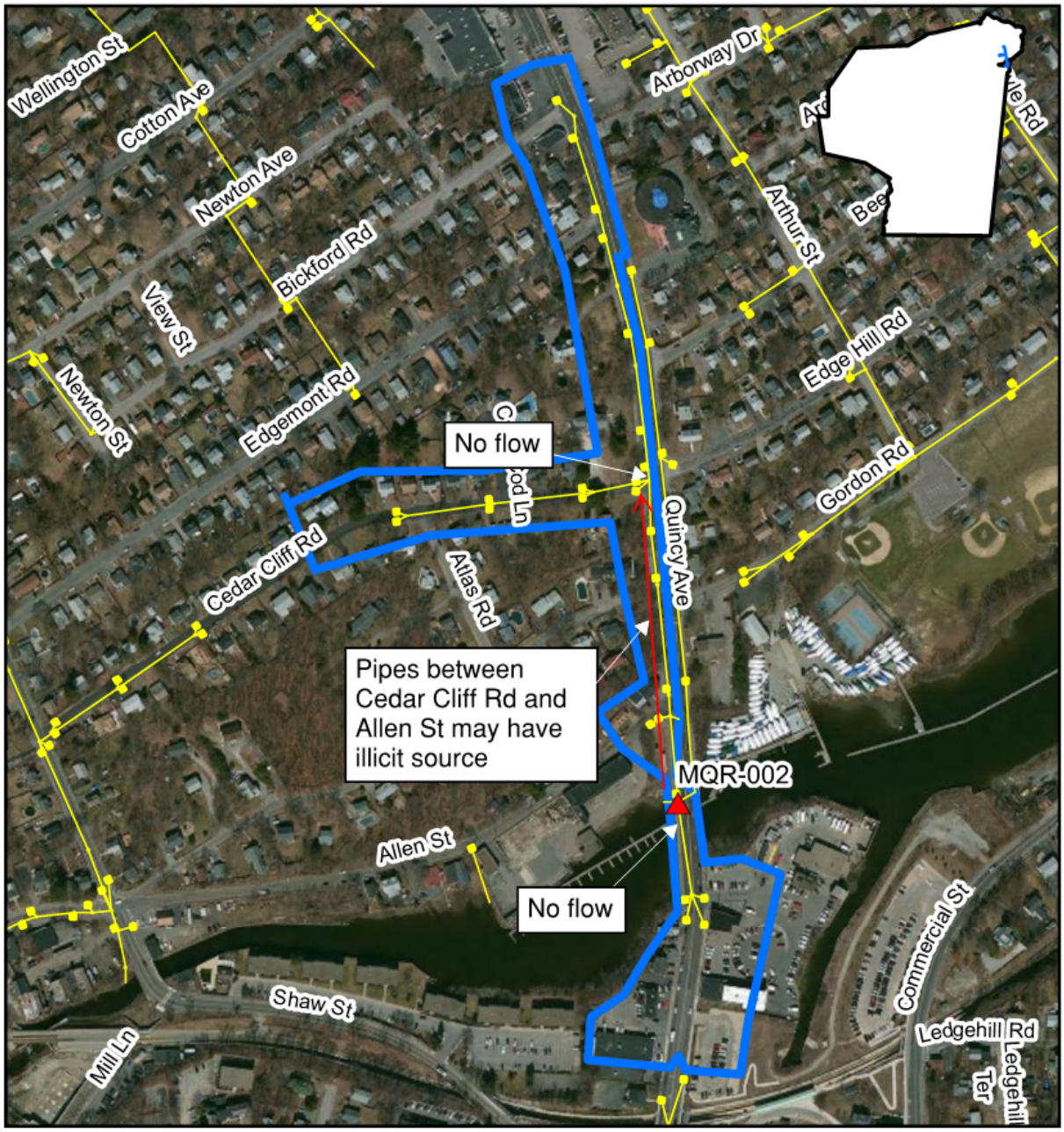

Figure 6-2. Upstream Source Tracking for Outfall MQR-002

(Red lines indicate path of investigations)

MQR-003

Outfall MQR-003 is on the east side of the railroad tracks. The outfall could actually be a brook that daylights at this location.

Upstream source tracking was performed twice for this outfall.

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The first structure upstream of the outfall is a catch basin on the other side of the railroad tracks. There was discoloration on the pavement adjacent to the catch basin. The discoloration was tracked to a nearby sewer manhole. When the lid of the sewer manhole was removed, it nearly overflowed due to surcharge conditions and the manhole cover was replaced. The owner of the adjacent building was consulted and it appears that the surcharge conditions were a result of a pump failure at his building. He said that he would repair the problem.

Even though the contamination from the nearby sewer seemed like a likely candidate for contamination, the manhole inspections proceeded upstream. The manhole on the west side of Hancock Street at the intersection of Frederick Street was inspected. Contaminated flow was found to be entering this manhole from the north (Hancock Street) and west (Frederick Street). Construction was taking place on Hancock Street, so the next manhole inspection that took place was at the end of the storm drain. There was only a trickle of flow in this manhole.

The manhole inspections continued along Fredericks Road and Washington street until the last manhole was reached. The inspections showed diminishing flow at each location except for the last manhole which had no dry weather flow.

The second round of upstream tracking for this outfall was performed after confirmatory sampling was conducted following the correction of the cause of the surcharged sewer manhole. The testing showed that a lower but still highly elevated bacteria level was present (see Table 4-1). The first upstream manhole was opened (west side of Hancock Street at the intersection of Fredericks Street), and flow was entering from upstream; however, field testing showed that ammonia, surfactant and chlorine concentrations were below the contamination thresholds and no further tracking was conducted.

The conclusion from the upstream source tracking at MQR-003 is that it is likely that the surcharged sewer was contributing contamination to the outfall. Even after the surcharged condition were addressed, there is still evidence of contamination. The potential for contamination from the sewer should be investigated further. The other area that might be suspect is the storm drain on the east side of Hancock Street. This drain line was not inspected because it was not on the mapping available at the time of the investigations were performed and the manhole was not visible due to a parked car on both occasions. It is also possible that if the discharge from this outfall is actually a brook, the brook could be contaminated further upstream.

A summary of the upstream source tracking investigations for outfall MQR-003 is provided in Figure 6-3.

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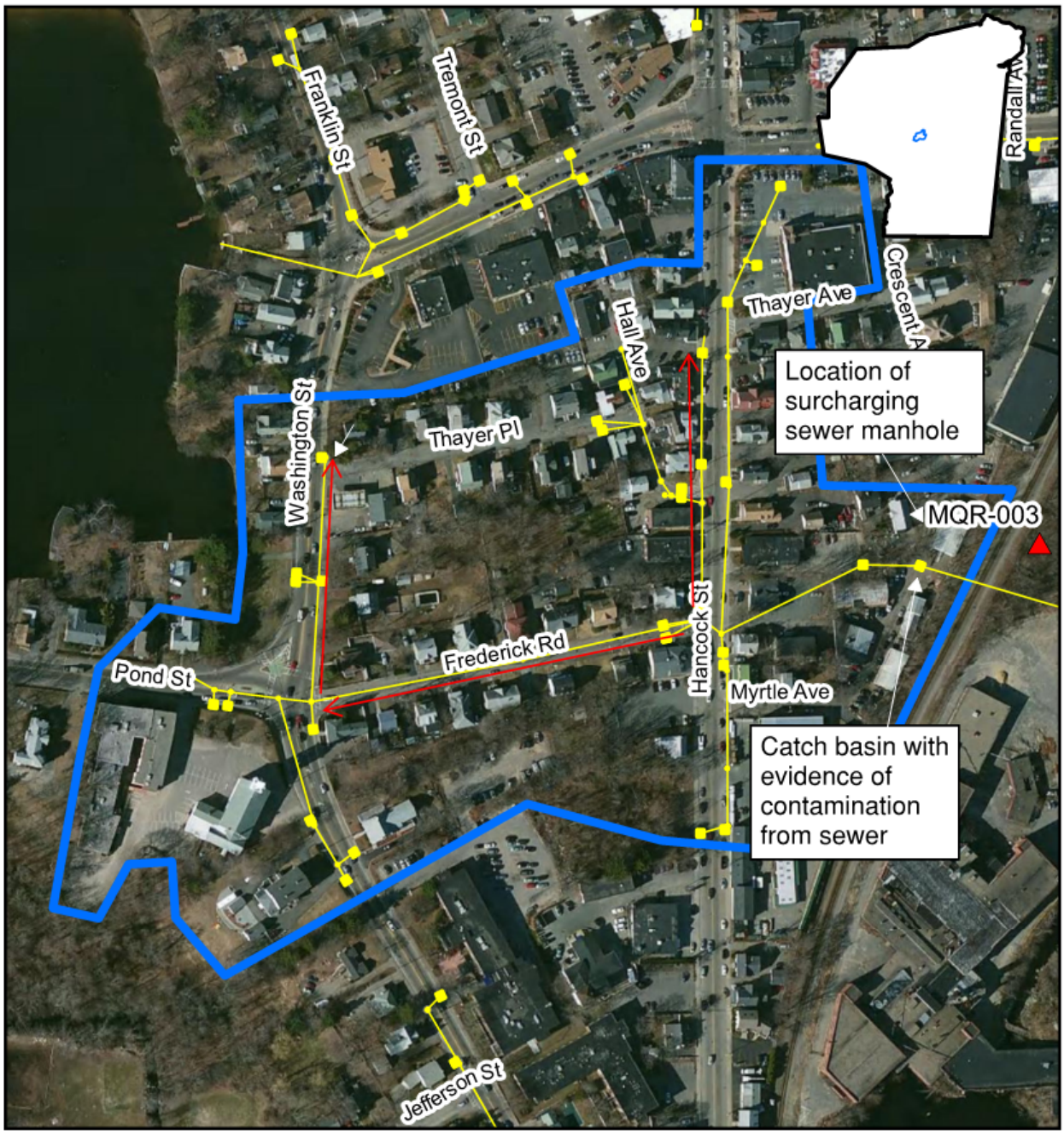

Figure 6-3. Upstream Source Tracking for Outfall MQR-003

(Red lines indicate path of investigations)

MQR-005

The outfall and drain line are located very close to a sewer and siphon. Upstream tracking began at the first upstream manhole. Contaminated dry weather flow was observed and inspections proceeded upstream. At the intersection of Shaw Street and Allen Street, no flow was observed from the Allen Street inlets, but contaminated dry weather flow was observed from the Shaw Street inlet to the north. Manhole inspections

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proceeded to the next upstream manhole on Shaw Street where dry weather flow was observed, but the water quality parameters were below the threshold for contamination. Manhole inspections did not proceed further. It is suspected that there may be contamination entering the storm drains on Shaw Street between the outfall and the first manhole on Shaw Street north of Allen Street. It may be possible that the nearby sewer could be contributing to the contamination. A summary of the upstream source tracking investigations for outfall MQR-005 is provided in Figure 6-4.

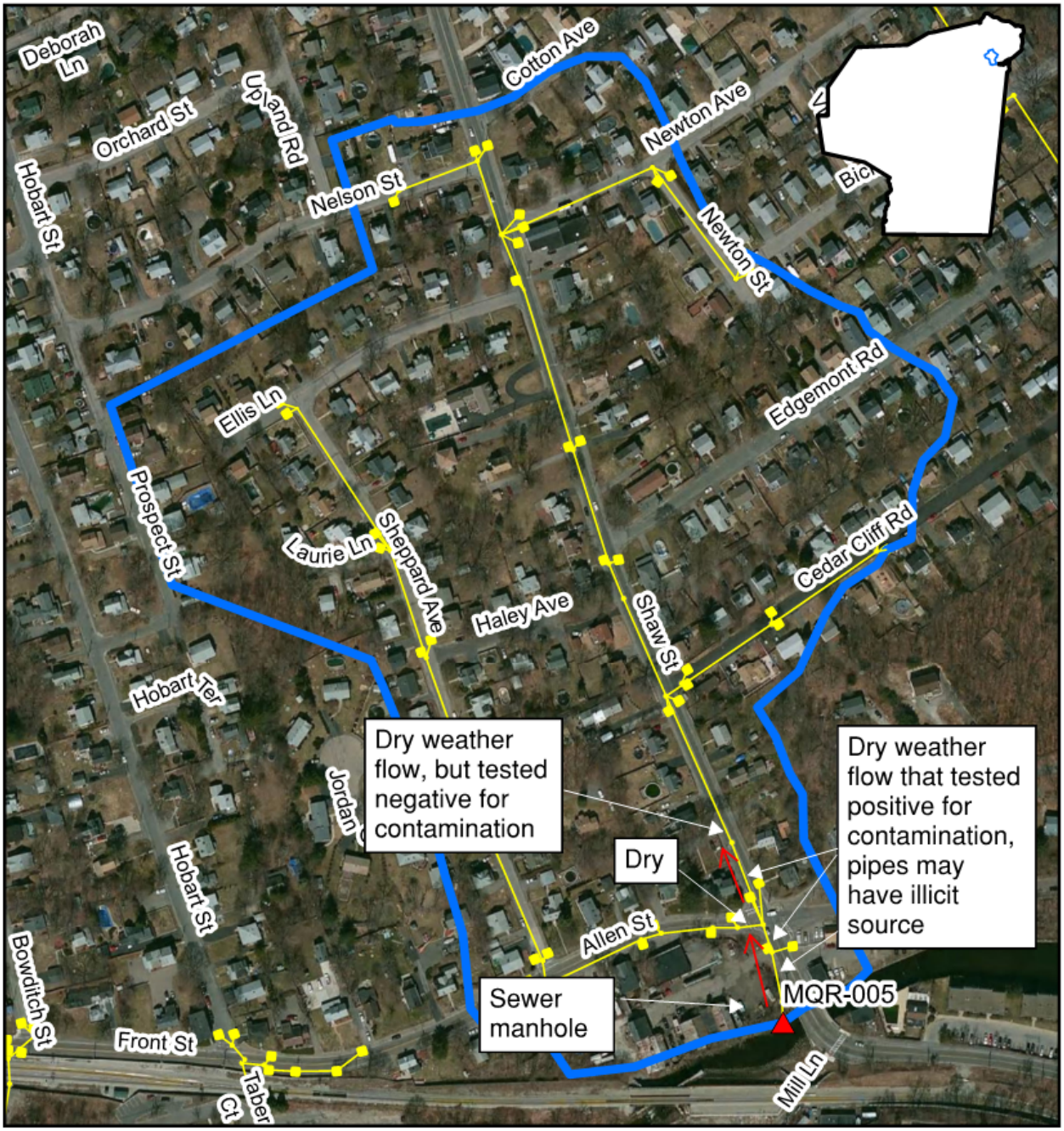

Figure 6-4. Upstream Source Tracking for Outfall MQR-005

(Red lines indicate path of investigations)

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Appendix A: Standard Operating Procedures for Field Investigations

Appendix A

Outfall Inspection and Dry Weather Sampling

Standard Operating Procedures

The goal of outfall inspections and dry weather sampling is to inspect the outfalls, identify stormwater outfalls that are suspected of sewage contamination and determine the general location of the potential source of contamination in the upstream storm drainage system. These standard operating procedures were developed for the Braintree IDDE program to provide guidance for their field work investigations.

Team Structure

To ensure safe, efficient, and practical field work procedures are maintained the following field team structure has been developed.

Team Leader – The Team Leader is responsible for planning and making arrangements so that all field equipment is available, including field test kits, rental orders, truck scheduling, scheduling the pre-event meeting, scheduling the event, bottle orders, courier scheduling and coordinating, ensuring the safety of the team, and making field decisions that deviate or are not covered by sampling SOPs. When necessary the Team Leader is also responsible for scheduling police details.

Crew Leader – Each crew shall have a single Crew Leader. For sampling events with multiple crews, there will be multiple Crew Leaders. The Crew Leader is responsible for ensuring the following:

- All of the required equipment is packed
- Team's adherence to the sampling plan
- Team's adherence to the Health and Safety Plan
- Chains of custody are filled out correctly
- Quality and accuracy of electronically and hand recorded data
- Sampling is conducted in accordance with this SOP

The Crew Leader will communicate with the Team Leader in the event that issues arise in the field, including any issues with equipment, sampling times, or deviations from SOPs.

Crew Member – The Crew Members shall serve to support for the Crew and Team Leaders as well as ensuring sampling is conducted in accordance with this SOP and following the Health and Safety plan.

Section 1 Safety Procedures

The Fieldwork Safety Plan shall be reviewed by all staff and followed at all times. The following safety procedures shall also be followed.

1.1 Vehicle Parking

The following procedures govern the parking of vehicles.

- *When not working in a roadway*, park in a public parking space if available. If not available, pull the vehicle off the road to the extent possible. If in the roadway or close to the roadway, set up cones to establish a safety area around the truck and the work area. Turn on the warning lights upon arrival. Keep the warning lights on until departure.
- *When working in the roadway*, park the truck between the work area and the direction of oncoming traffic. Turn on warning lights upon arrival. Keep the warning lights on until departure. Use cones to establish a safety zone in work area and area in front of traffic, facing oncoming traffic.

1.2. Personal Protective Gear

The following personal protective gear must be worn at all times:

- Steel toe boots
- Work pants
- Long sleeved shirt
- Safety vest

The following personal protective gear must be worn under the following circumstances:

- Safety glasses – When handling or coming in contact with sampling equipment, working in proximity to the manhole or a stormwater outfall:
- Nitrile gloves - When handling or coming into contact with sampling equipment
- Hard hat – When opening a manhole, working around the manhole area or closing the manhole
- Work gloves – When walking to and from site as well as opening manholes

1.3. Opening a Manhole

If the manhole is in the roadway, establish a safety zone as described in the Vehicle Parking Section (Section 1.1).

Upon opening the manhole, erect a manhole fall prevention device around the manhole. The manhole fall prevention device must be left in place until the manhole is closed. All observations, sampling, etc. must be performed from the outside of the manhole fall prevention device. If quality photos cannot be taken from outside the manhole fall prevention device, you can take photos from inside the device by opening one of the panels.

Section 2. Field Work Procedures

Dry weather outfall inspections are performed in order to identify outfalls with potential sewage contamination. When outfalls are identified as potentially contaminated with sewage, dry weather investigations are initiated upstream of the outfall in order to identify the source. These upstream source tracking investigations take place at manholes. Dry weath*er* conditions are defined as periods of time with no more than 0.1 inches of rainfall (as reported by the Blue Hill Observatory) and no significant snow melt in the previous 24 hours.

2.1 General

The list of activities to be performed before, during and after the sampling event are provided in Attachment 1: Field Work Logistics Check-List. The list of equipment is provided in Attachment 2: Equipment Checklist.

2.2 Outfall Inspections

The purpose of the outfall inspection is to determine if there is evidence that the outfall is or has been contaminated with sewage. The determination of contamination is made through visual observations, olfactory observations, bacteria sampling and/or field test kit measurements for ammonia, surfactants and chlorine. The outfall inspection procedure is shown in Figure 1.

In some cases, it may not be possible to find the outfall, or it may be inaccessible. Special care should be taken in accessing outfalls on private property. Permission from the property owner must first be obtained before accessing the outfall. If the outfall cannot be accessed, the inspection should be performed at the first accessible upstream manhole.

Once on site, record observations, GPS coordinates and measurements on the Outfall Inspection Form (see Attachment 3). In addition, take multiple photographs of the outfall (or manhole) and the surrounding area. Mobile data entry applications (such as Fulcrum) provide a convenient alternative to paper forms. Mobile data entry apps simplify the process of collecting GPS coordinates, taking photographs and managing the data.

If discharge from the stormwater outfall is present, the water should be tested for sewage contamination. Fill a clean, unused 1-liter collection bottle (provided by the laboratory) with the discharge from the outfall and follow the procedures in 2.2.1 – 2.2.3. The 1-liter collection bottle should be discarded after use and not used again.

If one or more of the **contamination criteria** listed below are met, the outfall is considered to be potentially contaminated with sewage:

- Olfactory of visual evidence of sewage
- Bacteria levels greater than four times the water quality criteria applicable to the receiving water
- Ammonia ≥ 0.5 mg/l or surfactants ≥ 0.25 ml/l, and bacteria levels greater than the water quality criteria applicable to the receiving water
- Ammonia ≥ 0.5 mg/l, surfactants ≥ 0.25 ml/l, and detectable levels of chlorine

All of these contamination criteria can be evaluated in the field with the exception of the bacteria. Bacteria samples must be sent to a laboratory and the results are typically not available for several days to a week.

The bacteria water quality criteria for freshwater is based upon *E. Coli* and the threshold is 235 cfu/100 ml. For brackish and marine waters, the water quality standard is based upon bacteria and the threshold is 61 cfu/100 ml.

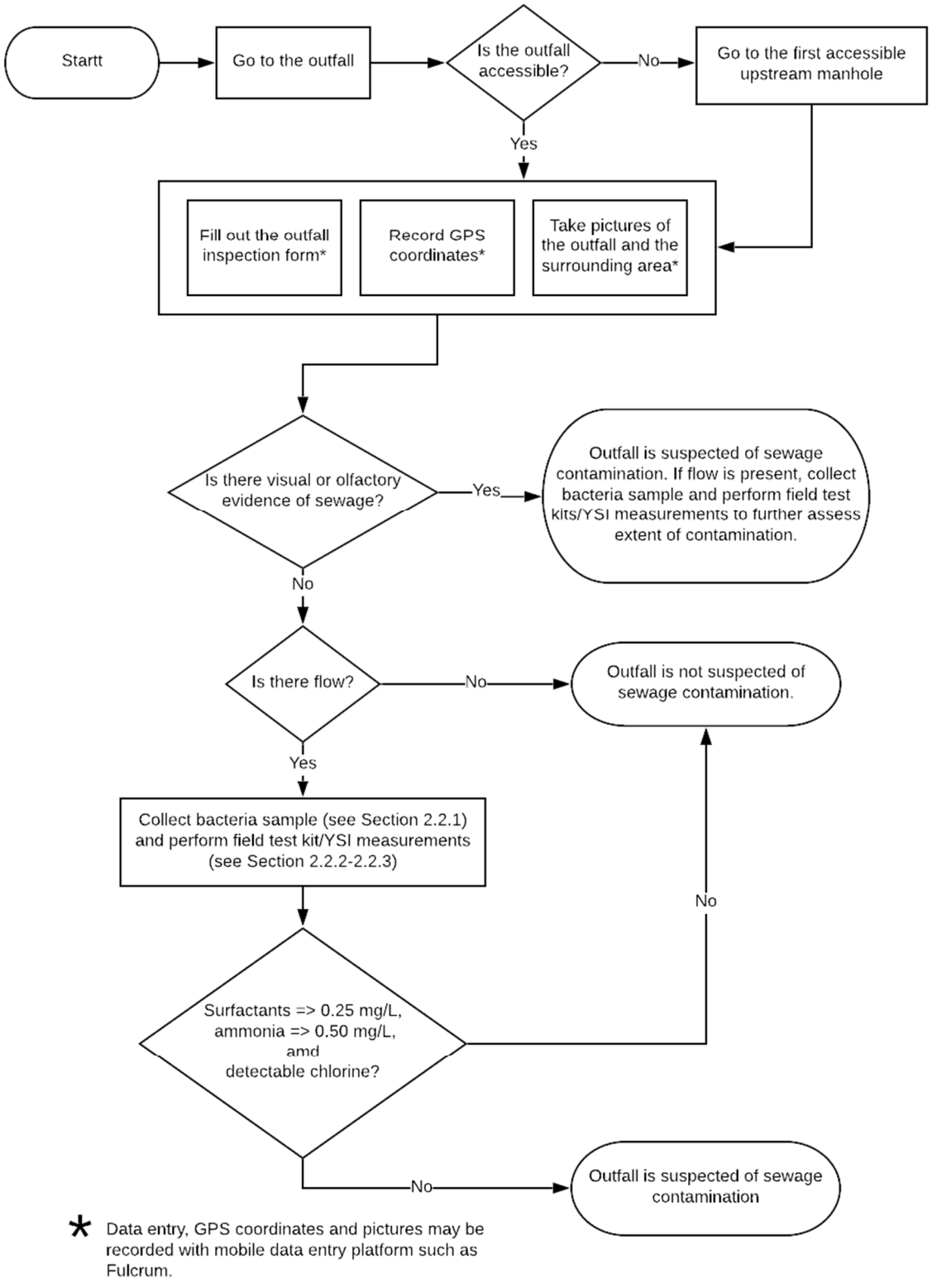

Figure 1. Outfall Inspection Procedures

2.2.1 Collect a bacteria sample - Label the bacteria sample bottle before collecting the sample. The label should include site ID, sample time, sample date and initials of the person who collected the sample. The bacteria sample bottle has a preservative.

Pour the water from the 1-liter collection bottle into the bacteria sample bottle. Fill the bacteria sample bottle as much as possible without overfilling. Place the bacteria sample bottle in the cooler with ice.

An additional duplicate bacteria sample should be collected for every 10 bacteria samples or each courier pick up (whichever comes first). The duplicate samples should only list the sample time in the field book and not on the sample bottle. The site ID for the duplicate sample should be DUP-XX, where the XX represents the number duplicate for that sample event. The time and location of where the duplicate sample was collected should be recorded in the field book.

The bacteria samples should be sent to the laboratory for analysis. Bacteria samples typically have a short holding time before they must be submitted to the laboratory; 6 hours is typical but check with the laboratory to determine their specific hold time requirements and plan accordingly when scheduling courier pickup times.

2.2.2 Perform measurements with the field test kits – Use the water from the 1-liter collection bottle to perform the field tests for ammonia, surfactants and chlorine in accordance with the manufacturer's directions. Rinse all equipment with distilled water before use. Record the results on the inspection form. Dispose of the field test kits in accordance with the manufacturer's instructions.

As shown in Table 1, there are several field test kits available for ammonia, surfactants and chlorine. When selecting field test kits, be sure to review their disposal requirements as some of the test kits contain hazardous materials and must be disposed of accordingly. It is generally preferable to select field test kits that do not have special disposal requirements.

2.2.3 Perform Portable Multiprobe measurements - Rinse the portable Multiprobe with distilled water prior to use. Fill the portable multiprobe's cap with water from the 1-liter collection bottle. Place the portable multiprobe in the cap. Wait for the measurements to stabilize. After the readings have stabilized, record the temperature, conductivity, salinity and pH on the inspection form. Then rinse remove the cap, pour out the water and rinse the portable multiprobe and its cap with distilled water.

As shown in Table 1, there are a number of portable multiprobes that can measure the required parameters.

TABLE 1. Instrumentation and Field Test Kits

Analyte or Parameter	Instrumentation (Portable Multiprobe)	Field Test Kit
Ammonia	CHEMetrics™ V-2000 Colorimeter Hach™ DR/890 Colorimeter Hach™ Pocket Colorimeter™ II	CHEMetrics™ K-1410 CHEMetrics™ K-1510 (series) Hach™ NI-SA Hach™ Ammonia Test Strips
Surfactants (Detergents)	CHEMetrics™ I-2017	CHEMetrics™ K-9400 and K-9404 Hach™ DE-2
Chlorine	CHEMetrics™ V-2000, K-2513 Hach™ Pocket Colorimeter™ II	NA
Conductivity	CHEMetrics™ I-1200 YSI Pro30 YSI EC300A Oakton 450	NA
Temperature	YSI Pro30 YSI EC300A Oakton 450	NA
Salinity	YSI Pro30 YSI EC300A Oakton 450	NA
pH	YSI Pro30 YSI EC300A Oakton 450	NA
Indicator Bacteria: *E. coli* (freshwater) or Enterococcus (saline water)	EPA certified laboratory procedure (40 CFR § 136)	NA

2.3 Upstream Source Tracking

If an outfall is suspected of sewage contamination, upstream manhole inspections should be initiated. The inspections should be performed during dry weather. The purpose of the upstream manhole inspections is to track the sewage contamination to the stormwater drain pipe where the contamination is entering the system. Figure 2 presents a flow diagram of the upstream source tracking procedure.

The basic idea behind the manhole inspections is that you start at the downstream end of the drain system and work your way upstream, methodically tracking pipes suspected of having contamination. The tracking continues until an upstream pipe is not contaminated, thereby isolating the illicit source to the last downstream pipe.

Pipe contamination is assessed based on observations of the pipe inlets in the manhole. Pipe inlets that are dry are eliminated from further upstream tracking. Pipe inlets with flow are tested for contamination using field test kits according to the procedures provided in Section 2.2.2 and 2.2.3. Pipe inlets with ammonia, surfactant and chlorine concentrations below the contamination thresholds shown in Section 2.2 are considered negative for sewage contamination and are also eliminated from further upstream tracking. Pipe inlets exceeding the contamination thresholds are considered positive for contamination and the inspection proceeds to that pipe inlet's upstream manhole. Visual and olfactory observation may also be used to make a determination of pipe contamination.

Use the Manhole Inspection form (see Attachment 4) to document the manhole inspection. Create a new inspection using the form even if you can't find or open the manhole and indicate the result of the inspection accordingly (i.e., manhole not found, manhole could not be opened, etc.). Take multiple pictures of the manhole, including at least one picture showing the surrounding surface area and the interior of the manhole. As with the manhole inspection forms, mobile data collection platforms (such as Fulcrum) can be an effective alternative to paper forms by streamlining the data collection process.

Manholes are often present in active roadways. Special care should be taken in assessing the potential risks at each manhole site. The use of police details should be considered for roadways with heavy traffic or other safety risks.

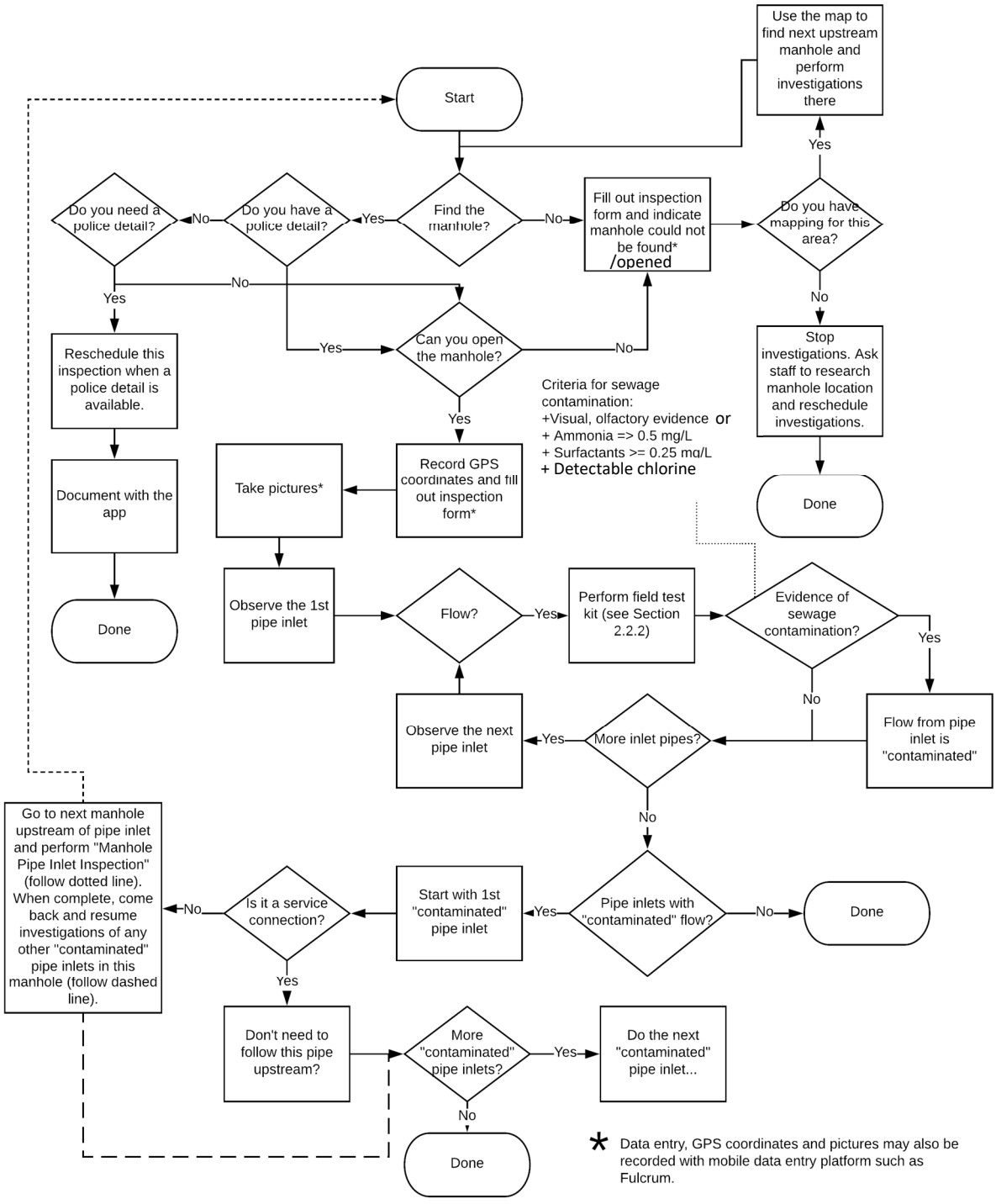

Figure 2. Upstream Source Tracking Procedures

Attachment 1. Field Work Logistics Check-List

One Week Prior to Sampling

☐ Order bottles – The Team Leader must order bottles. Request delivery for three days prior to sampling. E. Coli cups are good for 6 months before they expire, if we do not have 20 bottles in stock before an event please request these bottles.

☐ Equipment rental – The Team Leader must rent any needed equipment including a portable multiprobe for measuring pH, temperature, specific conductivity, and salinity. Schedule the equipment to be dropped off the day before the event.

☐ Field test kits – The Team Leader must make sure field test kits are available. Check in-stock availability of the field test kits. Have at least 20 test kits available to sample for surfactants, ammonia, and chlorine. Refill test kit codes for ordering are R-9400 Detergents, R-2504 chlorine, and R-1501 ammonia. Available at https://www.chemetrics.com/. **Some manufacturers have kits that contain Hazardous material and should only be handled by those with proper training.**

☐ Schedule truck – The Team Leader must schedule the truck for the sampling event.

72 Hours Prior to Sampling

☐ Review procedures - Each Crew Member must review the procedures. These procedures will also be in the hard copy field binder for reference in the field.

☐ Review sample bottles – The Team Leader must review the sample bottles. If there are any problems, notify the laboratory.

48 Hours Prior to Sampling

☐ Police details - If accessing the outfalls will require a police detail, the Team Leader must schedule police detail 48 hours in advance. Contact the Traffic Division, Officer Joseph Tosone at 781-794-8749.

☐ Courier Pickup – The Team Leader must schedule the courier 48 hours before the event. Schedule two courier pickups with the lab. E. Coli samples have a short hold time so two pickups are necessary. If starting at 7 AM, schedule pickups for 11 AM and 5 PM. If no samples need to be collected call and email lab in advance (generally 2 hours) of scheduled pickup time to cancel the pickup.

☐ Truck availability – The Team Leader must confirm truck availability.

Day before the event

☐ Internal coordination meeting – The Team Leader must conduct a meeting with Team Leader and Crew Members the day before the event to coordinate the arrival time, meeting location, responsibilities, and equipment packing.

☐ Inspect rental equipment – The Team Leader must inspect the rental equipment once it arrives to make sure that it is fully functional.

Day of event, before commencing work

☐ Notification – The Team Leader must email/text/call the project manager when everyone has arrived on site and you are ready to begin the tailgate meeting

☐ Tailgate meeting – The Team Leader must conduct the tailgate meeting prior to field work with all sample staff.

☐ Confirm courier schedule - Following the tailgate meeting, the Team Leader must send email to lab confirming courier pickup locations and times.

Day of event, before submitting samples

☐ Check bottles - Confirm that the bottles are properly filled and that the dates, sample IDs, and times match those listed in the field book.

☐ Chains of Custody - Note on the Chains of Custody that the samples should be billed to Town person and results emailed to you (whoever is filling out the chain) and the Team Leader

Day of event, after completing field work

☐ Notification – The Team Leader must email/text/call the project managers when all sampling has been concluded.

Attachment 2. Equipment Check-List

- ☐ Truck with warning beacon
- ☐ Sample bottles with coolers and blanks and Chains of Custody forms
- ☐ Ice for ice cooler
- ☐ Field test kits (be sure the following is included: colorimeters, instructions, supplies for disposal)
- ☐ Portable multiprobe (e.g., YSI)
- ☐ Manhole hook and Crowbar
- ☐ 12 cones (minimum)
- ☐ Flathead screw driver
- ☐ Clipboard and sufficient inspection forms
- ☐ Tablet, phone or camera for taking pictures (and recording inspections if using a mobile data collection app like Fulcrum).
- ☐ Shovel
- ☐ Manhole fall prevention device
- ☐ Safety vest, hard hat, work gloves, nitrile gloves (multiple sizes), clear safety glasses, safety boots, long sleeve shirt, work pants for all field personnel.
- ☐ Extendable sample pole
- ☐ 3 gallons of distilled water
- ☐ Hazardous waste bag and container for field test kits
- ☐ Flashlight with spare batteries
- ☐ Field book
- ☐ First aid kit

- ☐ Fieldwork Safety Plan
- ☐ Car phone/tablet charger or battery bank (with connector)
- ☐ Spare Cooler
- ☐ Ruler
- ☐ 3-foot ruler
- ☐ Foldable meter stick
- ☐ Project binder
- ☐ 2 pencils, 2 pens, 2 sharpies, 2 fine point sharpies
- ☐ 2 Ziploc bags
- ☐ 2 sampling backpacks
- ☐ 2 five-gallon buckets
- ☐ 2 trash bags
- ☐ Duct Tape

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Attachment 3. Outfall Inspection Form

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Stormwater Outfall Inspection Form

Section 1. General Information

Outfall ID	Inspector
Date/Time	Temperature
Latitude	Longitude

Section 2. Outfall Description

Type	**Material** (select only one)	**Shape** (select only one)	**Dimensions**
☐ Closed pipe	☐ RCP ☐ CMP ☐ PVC ☐ HDPE ☐ Steel ☐ Other	☐ Circular ☐ Single ☐ Elliptical ☐ Double ☐ Box ☐ Triple ☐ Other ☐ Other	Diameter/dimensions ____ in
☐ Open drainage	☐ Concrete ☐ Earthen ☐ Rip-rap ☐ Other	☐ Trapezoid ☐ Parabolic ☐ Other	Depth ____ in Top Width ____in Bottom Width ____ in

Outfall condition	☐ Normal	☐ Cracking	☐ Corrosion	☐ Other
Headwall present?	☐ No ☐ Yes	If yes, condition:	☐ Poor ☐ Fair ☐ Good	
Sediment present?	☐ No ☐ Yes	If yes, depth ____ %		
Flow present?	☐ No	☐ Yes	☐ Standing water	
If flow present, approximate velocity:		☐ Trickle	☐ Moderate	☐ Heavy
If flow present, flow cross-section:		Flow depth in	Flow width in	
Outfall submerged?	☐ No	☐ Partially	☐ Fully	
Is the outfall tidally influenced?		☐ No ☐ Yes	If yes, depth of water above invert ____ in	

Section 3. Physical Indicators (flow flowing outfalls only)

Indicator	**Severity** (select only one)	**Description** (if Severity is not None, select all that apply)
Odor	☐ None ☐ Easily detected ☐ Faint ☐ Noticeable from a distance	☐ Sewage ☐ Petroleum/gas ☐ Sulfide ☐ Rancid/sour ☐ Other
Color	☐ None ☐ Faint colors in sample bottle ☐ Clearly visible in sample bottle ☐ Clearly visible in outfall flow	☐ Brown ☐ Red ☐ Gray ☐ Yellow ☐ Green ☐ Other ☐ Orange
Turbidity	☐ No cloudiness ☐ Cloudy ☐ Slight cloudiness ☐ Opaque	
Floatables (does not include trash)	☐ None ☐ Some ☐ Few/slight ☐ A lot	☐ Suds ☐ Sewage (toilet paper, etc.) ☐ Other ☐ Petroleum (oil sheen)

Section 4. Physical Indicators (for all outfalls)

Indicator (select if present)	**Description** (select all that apply)	**Comments**
☐ Deposits/stains	☐ Oil ☐ Flow line ☐ Sediments ☐ Paint ☐ Other	
☐ Pool quality issues	☐ Colors ☐ Oil sheen ☐ Floatables ☐ Excessive algae ☐ Other	
☐ Pipe benthic growth	☐ None ☐ Brown ☐ Orange ☐ Green ☐ Other	

Section 5. Field Measurements

Were field measurements performed?	☐ Yes	☐ No
Were laboratory samples collected?	☐ Yes	☐ No
If measurements/samples were collected, where from?	☐ Outfall	☐ Other location: ____
Intermittent flow trap used?	☐ No	☐ Yes
If intermittent flow trap used, which type?	☐ Caulk dam	☐ Sand bag ☐ Other

If field measurements were performed, provide results below:

Parameter	**Result**	**Units**
Velocity		ft/s
Temperature		◦F
pH		pH units
Ammonia		Mg/L

Parameter	**Result**	**Units**
Salinity		ppt
Conductivity		µS
Surfactants		ppm
Chlorine		ppm

Section 6. Outfall Area Plan

Section 7. General Comments

Attachment 4. Upstream Source Tracking Manhole Inspection Form

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Manhole Inspection Form

Section 1. General Information

Manhole ID	Inspector
Date/Time	GIS Outfall ID
Outcome ☐ Could not open manhole ☐ Could not locate manhole ☐ Could not inspect manhole, police detail needed ☐ This is a sewer manhole, inspection halted ☐ Inspected manhole	Comments

Physical Indicators	**Severity** (select only one)	**Description** (if Severity is not None, select all that apply)
Odor	☐ None ☐ Easily detected ☐ Faint ☐ Noticeable from a distance	☐ Sewage ☐ Petroleum/gas ☐ Sulfide ☐ Rancid/sour ☐ Other
Floatables (does not include trash)	☐ None ☐ Some ☐ Few/slight ☐ A lot	☐ Suds ☐ Sewage (toilet paper, etc.) ☐ Other ☐ Petroleum (oil sheen)
If Known, Pipe Inlet Containing Floatables (clock position):_____		

Section 2. Manhole Inlets

Inlet 1

Orientation (clock position w/ downstream @ 12:00)	**Samples Collected?** (select only one)
_____	☐ Yes ☐ No
Flow condition ☐ No Flow ☐ Trickle ☐ Moderate ☐ Heavy	
Sample Measurements	
Ammonia: _____ mg/l	Surfactants: _____ mg/l
Chlorine: _____ mg/l	Temp: _____ °F
Suspected of Contamination? ☐Yes	☐No

Inlet 2

Orientation (clock position w/ downstream @ 12:00)	**Samples Collected?** (select only one)
_____	☐ Yes ☐ No
Flow condition ☐ No Flow ☐ Trickle ☐ Moderate ☐ Heavy	
Sample Measurements	
Ammonia: _____ mg/l Chlorine: _____ mg/l	Surfactants: _____ mg/l Temp: _____ °F
Suspected of Contamination? ☐Yes ☐No	

Inlet 3

Orientation (clock position w/ downstream @ 12:00)	**Samples Collected?** (select only one)
_____	☐ Yes ☐ No
Flow condition ☐ No Flow ☐ Trickle ☐ Moderate ☐ Heavy	
Sample Measurements	
Ammonia: _____ mg/l Chlorine: _____ mg/l	Surfactants: _____ mg/l Temp: _____ °F
Suspected of Contamination? ☐Yes ☐No	

Inlet 4

Orientation (clock position w/ downstream @ 12:00)	**Samples Collected?** (select only one)
_____	☐ Yes ☐ No
Flow condition ☐ No Flow ☐ Trickle ☐ Moderate ☐ Heavy	
Sample Measurements	
Ammonia: _____ mg/l Chlorine: _____ mg/l	Surfactants: _____ mg/l Temp: _____ °F
Suspected of Contamination? ☐Yes ☐No	

Appendix B: Summary of Investigations by Outfall

Table B-1. Braintree Stormwater Outfall Screening/Sampling Summary

Outfall ID	Last Investigation		Screening Completed	Visual/Olfactory Evidence of Sewage	Dry Weather Flow Present	Water Quality Sampling Performed	Evidence of Contamination in Water Quality Samples	Likelihood of Contamination from Illicit Sources
	ID	Date						
CBB-001	BT-185	7/18/17	Yes	No	No			Low
CBB-002	BT-135	6/13/17	Yes	No	No			Low
CBB-003	BT-136	6/13/17	Yes	No	Yes	Yes	Negative	Low
CBB-004	BT-41	7/13/16	Yes	No	No			Low
CBB-005	BT-40	7/13/16	Yes	No	No			Low
CBB-006	BT-39	7/13/16	Yes	No	No			Low
CBB-007	BT-137	6/13/17	Yes	No	No			Low
CBB-008	BT-138	6/13/17	Yes	No	Yes	Yes	Negative	Low
CBB-009	BT-143	6/13/17	Yes	No	Yes	Yes	Negative	Low
CBB-010	BT-139	6/13/17	Yes	No	No			Low
CBB-011	BT-130	6/2/17	Yes	No	No			Low
CBB-012	BT-184	7/18/17	Yes	No	Yes	Yes	Negative	Low
CBB-013	BT-317	5/28/19	Yes	No	No			Low
CBB-014	BT-42	7/13/16	Yes	No	No			Low
CBB-015	BT-43	7/13/16	Yes	No	No			Low
CBB-016	BT-141	6/13/17	Yes	No	No			Low
CBB-017	BT-131	6/2/17	Yes	No	No			Low
CBB-018	BT-171	7/6/17	Yes	No	No			Low
CBB-019	BT-140	6/13/17	Yes	No	No			Low
CBB-020	Not inspected		No					Unknown
CBB-021	Not inspected		No					Unknown
CBB-022	BT-164	6/29/17	Yes	No	No			Low
CBB-023	BT-154	6/29/17	Yes	No	No			Low
CBB-024	BT-170	7/6/17	Yes	No	No			Low
CBB-025	Not inspected		No					Unknown
CBB-026	BT-155	6/29/17	Yes	No	No			Low
CBB-027	BT-169	7/6/17	Yes	No	No			Low
CBB-028	BT-172	7/6/17	Yes	No	No			Low
CBB-029	BT-132	6/2/17	Yes	No	No			Low
CBB-030	BT-133	6/2/17	Yes	No	No			Low
CBB-031	BT-173	7/6/17	Yes	No	Yes	Yes	Negative	Low
CCR-001	BT-320	5/28/19	Yes	No	No			Low
CCR-002	BT-316	5/28/19	Yes	No	No			Low
CCR-003	BT-314	5/28/19	Yes	No	No			Low
CCR-004	BT-313	5/28/19	Yes	No	No			Low
CCR-005	BT-162	6/29/17	Yes	No	No			Low
CCR-006	BT-186	7/18/17	Yes	No	Yes	No		Unknown
CCR-007	BT-142	6/13/17	Yes	No	No			Low
CCR-008	BT-315	5/28/19	Yes	No	No			Low
CDS-001	BT-46	7/13/16	Yes	No	No			Low
CDS-002	BT-145	6/13/17	Yes	No	No			Low
CDS-003	BT-146	6/13/17	Yes	No	Yes	Yes	Negative	Low
CDS-004	BT-144	6/13/17	Yes	No	No			Low
CDS-005	BT-284	12/8/17	Yes	No	No			Low
CDS-006	BT-311	12/19/18	Yes	No	Yes	Yes	Negative	Low
CDS-007	BT-161	6/29/17	Yes	No	No			Low
CDS-008	Not inspected		No					Unknown
CDS-009	BT-147	6/13/17	Yes	No	Yes	Yes	Negative	Low
CDS-010	BT-79	9/15/16	Yes	No	Yes	Yes	Positive	High
CDS-011	BT-160	6/29/17	Yes	No	No			Low
CDS-012	BT-148	6/13/17	Yes	No	No			Low
CDS-013	BT-149	6/13/17	Yes	No	Yes	Yes	Negative	Low
CDS-014	BT-319	5/28/19	Yes	No	Yes	Yes	Inconclusive	Low
CDS-015	BT-134	6/13/17	Yes	No	No			Low
CDS-016	BT-292	4/24/18	Yes	No	No			Low

Outfall ID	Last Investigation ID	Last Investigation Date	Screening Completed	Visual/Olfactory Evidence of Sewage	Dry Weather Flow Present	Water Quality Sampling Performed	Evidence of Contamination in Water Quality Samples	Likelihood of Contamination from Illicit Sources
CDS-017	BT-293	4/24/18	Yes	No	No			Low
CDS-018	BT-294	4/24/18	Yes	No	No			Low
CDS-019	BT-159	6/29/17	Yes	No	No			Low
CDS-020	BT-318	5/28/19	Yes	No	No			Low
CDS-021	Not inspected		No					Unknown
CDS-022	BT-126	6/2/17	Yes	No	No			Low
CDS-023	BT-127	6/2/17	Yes	No	No			Low
CDS-024	BT-128	6/2/17	Yes	No	No			Low
CDS-025	BT-295	4/24/18	Yes	No	No			Low
FMR-001	BT-250	8/22/17	Yes	No	No			Low
FMR-002	BT-249	8/22/17	Yes	No	No			Low
FMR-003	BT-248	8/22/17	Yes	No	No			Low
FMR-004	BT-247	8/22/17	Yes	No	No			Low
FMR-005	BT-323	5/28/19	Yes	No	No			Low
FMR-006	BT-11	7/7/16	Yes	No	No			Low
FMR-007	BT-264	9/27/17	Yes	No	No			Low
FMR-009	BT-199	8/1/17	Yes	No	No			Low
FMR-010	BT-198	8/1/17	Yes	No	No			Low
FMR-011	BT-200	8/1/17	Yes	No	No			Low
FMR-012	BT-324	5/28/19	Yes	No	Yes	Yes	No	Low
FMR-013	BT-181	7/18/17	Yes	No	No			Low
FMR-014	BT-180	7/18/17	Yes	No	No			Low
FMR-015	BT-179	7/18/17	Yes	No	No			Low
FMR-016	BT-178	7/18/17	Yes	No	No			Low
FMR-017	BT-177	7/18/17	Yes	No	No			Low
FMR-018	BT-176	7/18/17	Yes	No	No			Low
FMR-019	BT-201	8/1/17	Yes	No	No			Low
FMR-020	BT-270	11/21/17	Yes	No	No			Low
FMR-021	BT-203	8/1/17	Yes	No	No			Low
FMR-022	BT-202	8/1/17	Yes	No	No			Low
FMR-023	Not inspected		No					Unknown
FMR-024	BT-269	11/21/17	Yes	No	No			Low
FMR-025	BT-257	9/12/17	Yes	No	No			Low
FMR-026	BT-13	7/7/16	Yes	No	Yes	No		Unknown
FMR-027	BT-195	8/1/17	Yes	No	No			Low
FMR-028	BT-194	8/1/17	Yes	No	Yes	Yes	Negative	Low
FMR-029	BT-204	8/1/17	Yes	No	No			Low
FMR-030	BT-205	8/1/17	Yes	No	No			Low
FMR-031	BT-196	8/1/17	Yes	No	No			Low
MLR-001	BT-151	6/29/17	Yes	No	No			Low
MLR-002	BT-152	6/29/17	Yes	No	No			Low
MLR-003	BT-183	7/18/17	Yes	No	No			Low
MLR-004	Not inspected		No					Unknown
MLR-005	Not inspected		No					Unknown
MLR-006	Not inspected		No					Unknown
MLR-007	BT-153	6/29/17	Yes	No	No			Low
MLR-008	Not inspected		No					Unknown
MLR-009	Not inspected		No					Unknown
MQR-002	BT-90	9/16/16	Yes	No	Yes	Yes	Positive	High
MQR-003	BT-167	7/6/17	Yes	No	Yes	Yes	Positive	High
MQR-004	BT-329	6/4/19	Yes	No	No			Low
MQR-005	BT-252	9/12/17	Yes	No	Yes	Yes	Positive	High
MQR-007	BT-27	7/12/16	Yes	No	No			Low
MQR-008	BT-28	7/12/16	Yes	No	No			Low
MQR-009	BT-91	9/16/16	Yes	No	No			Low
MQR-010	BT-30	7/12/16	Yes	No	No			Low
MQR-011	Not inspected		No					Unknown

Outfall ID	Last Investigation		Screening Completed	Visual/Olfactory Evidence of Sewage	Dry Weather Flow Present	Water Quality Sampling Performed	Evidence of Contamination in Water Quality Samples	Likelihood of Contamination from Illicit Sources
	ID	Date						
MQR-012	BT-31	7/12/16	Yes	No	Yes	No		Unknown
MQR-013	BT-32	7/12/16	Yes	No	Yes	No		Unknown
MQR-014	BT-35	7/12/16	Yes	No	No			Low
MQR-015	BT-33	7/12/16	Yes	No	No			Low
MQR-016	BT-34	7/12/16	Yes	No	No			Low
MQR-017	BT-93	9/16/16	Yes	No	No			Low
MQR-018	BT-92	9/16/16	Yes	No	No			Low
MQR-019	BT-245	8/22/17	Yes	No	No			Low
MQR-020	BT-238	8/22/17	Yes	No	No			Low
MQR-021	BT-307	12/12/18	Yes	No	No			Low
MQR-022	BT-20	7/12/16	Yes	No	No			Low
MQR-023	BT-218	8/10/17	Yes	No	No			Low
MQR-025	Not inspected		No					Unknown
MQR-026	BT-243	8/22/17	Yes	No	No			Low
MQR-027	BT-19	7/12/16	Yes	No	No			Low
MQR-028	BT-236	8/22/17	Yes	No	No			Low
MQR-029	BT-333	6/4/19	Yes	No	No			Low
MQR-030	BT-237	8/22/17	Yes	No	No			Low
MQR-031	Not inspected		No					Unknown
MQR-032	BT-216	8/10/17	Yes	No	No			Low
MQR-033	Not inspected		No					Unknown
MQR-034	BT-206	8/10/17	Yes	No	No			Low
MQR-035	BT-58	7/20/16	Yes	No	No			Low
MQR-036	BT-59	7/20/16	Yes	No	No			Low
MQR-037	BT-207	8/10/17	Yes	No	No			Low
MQR-038	BT-88	9/15/16	Yes	No	No			Low
MQR-039	BT-60	7/20/16	Yes	No	No			Low
MQR-040	BT-51	7/20/16	Yes	No	No			Low
MQR-041	BT-50	7/20/16	Yes	No	No			Low
MQR-042	BT-240	8/22/17	Yes	No	No			Low
MQR-043	BT-234	8/22/17	Yes	No	No			Low
MQR-044	BT-166	6/29/17	Yes	No	No			Low
MQR-045	BT-188	7/18/17	Yes	No	No			Low
MQR-046	BT-251	9/12/17	Yes	No	No			Low
MQR-047	BT-221	8/10/17	Yes	No	No			Low
MQR-048	BT-226	8/11/17	Yes	No	No			Low
MQR-049	BT-283	12/8/17	Yes	No	No			Low
MQR-050	BT-267	11/21/17	Yes	No	No			Low
MQR-051	BT-289	4/9/18	Yes	No	Yes	No		Unknown
MQR-052	BT-239	8/22/17	Yes	No	No			Low
MQR-053	BT-241	8/22/17	Yes	No	No			Low
MQR-054	BT-165	6/29/17	Yes	No	No			Low
MQR-055	BT-187	7/18/17	Yes	No	No			Low
MQR-056	BT-219	8/10/17	Yes	No	No			Low
MQR-057	Not inspected		No					Unknown
MQR-058	BT-220	8/10/17	Yes	No	No			Low
MQR-059	BT-242	8/22/17	Yes	No	No			Low
MQR-060	BT-189	7/18/17	Yes	No	No			Low
MQR-061	BT-278	11/21/17	Yes	No	No			Low
MQR-062	BT-335	6/4/19	Yes	No	No			Low
MQR-063	BT-111	5/18/17	Yes	No	No			Low
MQR-064	BT-266	11/21/17	Yes	No	No			Low
MQR-065	BT-112	5/18/17	Yes	No	No			Low
MQR-066	BT-306	12/12/18	Yes	No	No			Low
MQR-067	BT-109	5/18/17	Yes	No	No			Low
MQR-068	BT-268	11/21/17	Yes	No	Yes	Yes	Negative	Low
MQR-069	BT-110	5/18/17	Yes	No	No			Low

Outfall ID	Last Investigation ID	Last Investigation Date	Screening Completed	Visual/Olfactory Evidence of Sewage	Dry Weather Flow Present	Water Quality Sampling Performed	Evidence of Contamination in Water Quality Samples	Likelihood of Contamination from Illicit Sources
MQR-070	BT-296	4/24/18	Yes	No	Yes	Yes	Negative	Low
MQR-071	BT-254	9/12/17	Yes	No	No			Low
MQR-072	BT-280	12/8/17	Yes	No	No			Low
MQR-073	BT-244	8/22/17	Yes	No	No			Low
MQR-074	BT-308	12/12/18	Yes	No	Yes	Yes	Negative	Low
MQR-075	BT-76	9/15/16	Yes	No	Yes	Yes	Negative	Low
MQR-076	BT-106	5/18/17	Yes	No	No			Low
MQR-077	BT-281	12/8/17	Yes	No	No			Low
MQR-078	BT-282	12/8/17	Yes	No	No			Low
MQR-079	BT-96	5/18/17	Yes	No	No			Low
MQR-080	BT-233	8/11/17	Yes	No	No			Low
MQR-081	BT-48	7/13/16	Yes	No	No			Low
MQR-082	BT-95	5/18/17	Yes	No	No			Low
MQR-083	BT-62	7/20/16	Yes	No	No			Low
MQR-084	BT-105	5/18/17	Yes	No	No			Low
MQR-085	BT-102	5/18/17	Yes	No	No			Low
MQR-086	BT-98	5/18/17	Yes	No	No			Low
MQR-087	BT-104	5/18/17	Yes	No	No			Low
MQR-088	BT-97	5/18/17	Yes	No	No			Low
MQR-089	BT-101	5/18/17	Yes	No	No			Low
MQR-090	BT-100	5/18/17	Yes	No	No			Low
MQR-091	BT-99	5/18/17	Yes	No	No			Low
MQR-092	BT-65	7/20/16	Yes	No	No			Low
MQR-094	BT-103	5/18/17	Yes	No	No			Low
MQR-095	BT-63	7/20/16	Yes	No	No			Low
MQR-096	BT-64	7/20/16	Yes	No	No			Low
MQR-097	BT-322	5/28/19	Yes	No	No			Low
MQR-098	BT-77	9/15/16	Yes	No	No			Low
MQR-099	BT-73	7/28/16	Yes	No	No			Low
MQR-100	Not inspected		No					Unknown
MQR-101	BT-258	9/27/17	Yes	No	No			Low
MQR-102	BT-260	9/27/17	Yes	No	No			Low
MQR-103	BT-259	9/27/17	Yes	No	No			Low
MQR-104	BT-36	7/13/16	Yes	No	No			Low
MQR-105	BT-37	7/13/16	Yes	No	No			Low
MQR-106	BT-276	11/21/17	Yes	No	No			Low
MQR-107	Not inspected		No					Unknown
MQR-108	BT-262	9/27/17	Yes	No	No			Low
MQR-109	BT-261	9/27/17	Yes	No	No			Low
MQR-110	BT-38	7/13/16	Yes	No	No			Low
MQR-111	BT-277	11/21/17	Yes	No	No			Low
MQR-112	BT-263	9/27/17	Yes	No	No			Low
SMB-001	Not inspected		No					Unknown
SMB-002	BT-344	6/10/19	Yes	No	No			Low
SMB-003	Not inspected		No					Unknown
SMB-004	BT-256	9/12/17	Yes	No	No			Low
SMB-005	BT-275	11/21/17	Yes	No	No			Low
SMB-006	BT-174	7/18/17	Yes	No	No			Low
SMB-007	BT-300	4/24/18	Yes	No	No			Low
SMB-008	BT-326	6/4/19	Yes	No	No			Low
SMB-009	BT-327	6/4/19	Yes	No	No			Low
SMB-010	BT-175	7/18/17	Yes	No	No			Low
SMB-011	BT-325	6/4/19	Yes	No	No			Low
SMB-012	BT-113	6/2/17	Yes	No	No			Low
SMB-013	BT-114	6/2/17	Yes	No	No			Low
SMB-014	BT-116	6/2/17	Yes	No	No			Low
SMB-015	BT-115	6/2/17	Yes	No	No			Low

Outfall ID	Last Investigation		Screening Completed	Visual/Olfactory Evidence of Sewage	Dry Weather Flow Present	Water Quality Sampling Performed	Evidence of Contamination in Water Quality Samples	Likelihood of Contamination from Illicit Sources
	ID	Date						
SMB-016	BT-150	6/29/17	Yes	No	No			Low
SMB-017	BT-182	7/18/17	Yes	No	Yes	Yes	Negative	Low
SMB-018	Not inspected		No					Unknown
SMB-019	BT-117	6/2/17	Yes	No	No			Low
SMB-020	BT-301	4/24/18	Yes	No	No			Low
SMB-021	BT-290	4/24/18	Yes	No	Yes	Yes	Negative	Low
SMB-022	BT-119	6/2/17	Yes	No	No			Low
SMB-023	BT-120	6/2/17	Yes	No	No			Low
SMB-024	BT-158	6/29/17	Yes	No	No			Low
SMB-025	BT-291	4/24/18	Yes	No	No			Low
SMB-026	BT-122	6/2/17	Yes	No	Yes	Yes	Negative	Low
SMB-027	Not inspected		No					Unknown
SMB-028	BT-121	6/2/17	Yes	No	No			Low
SMB-030	BT-78	9/15/16	Yes	No	No			Low
SMB-031	BT-309	12/12/18	Yes	No	No			Low
SMB-033	BT-156	6/29/17	Yes	No	No			Low
SMB-034	BT-157	6/29/17	Yes	No	No			Low
SSL-001	BT-80	9/15/16	Yes	No	No			Low
SSL-002	BT-9	7/7/16	Yes	No	No			Low
SSL-003	BT-108	5/18/17	Yes	No	No			Low
SSL-004	BT-8	7/7/16	Yes	No	No			Low
SSL-005	BT-12	7/7/16	Yes	No	No			Low
SSL-006	BT-7	7/7/16	Yes	No	No			Low
SSL-008	BT-66	7/28/16	Yes	No	No			Low
SSL-010	BT-3	7/7/16	Yes	No	No			Low
SSL-011	BT-6	7/7/16	Yes	No	No			Low
SSL-012	BT-2	7/7/16	Yes	No	No			Low
SSL-013	BT-5	7/7/16	Yes	No	No			Low
SSL-014	Not inspected		No					Unknown
SSL-015	BT-345	6/10/19	Yes	No	No			Low
SSL-016	BT-4	7/7/16	Yes	No	No			Low
SSL-017	BT-81	9/15/16	Yes	No	No			Low
TWB-001	BT-215	8/10/17	Yes	No	No			Low
TWB-002	BT-265	9/27/17	Yes	No	No			Low
TWB-003	BT-253	9/12/17	Yes	No	No			Low
TWB-004	Not inspected		No					Unknown
TWB-005	BT-70	7/28/16	Yes	No	Yes	No		Unknown
TWB-006	BT-84	9/15/16	Yes	No	No			Low
TWB-008	BT-225	8/11/17	Yes	No	No			Low
TWB-009	BT-224	8/11/17	Yes	No	No			Low
TWB-010	BT-222	8/11/17	Yes	No	No			Low
TWB-011	BT-223	8/11/17	Yes	No	No			Low
TWB-012	BT-343	6/10/19	Yes	No	No			Low
TWB-013	BT-338	6/4/19	Yes	No	No			Low
TWB-014	BT-272	11/21/17	Yes	No	No			Low
TWB-015	BT-312	12/27/18	Yes	No	No			Low
TWB-016	BT-55	7/20/16	Yes	No	No			Low
TWB-017	BT-229	8/11/17	Yes	No	No			Low
TWB-018	BT-227	8/11/17	Yes	No	No			Low
TWB-019	BT-255	9/12/17	Yes	No	No			Low
TWB-020	BT-337	6/4/19	Yes	No	No			Low
TWB-022	BT-230	8/11/17	Yes	No	No			Low
TWB-023	BT-336	6/4/19	Yes	No	No			Low
TWB-024	BT-17	7/12/16	Yes	No	No			Low
TWB-025	BT-56	7/20/16	Yes	No	No			Low
TWB-026	BT-72	7/28/16	Yes	No	No			Low
TWB-027	Not inspected		No					Unknown

Outfall ID	Last Investigation		Screening Completed	Visual/Olfactory Evidence of Sewage	Dry Weather Flow Present	Water Quality Sampling Performed	Evidence of Contamination in Water Quality Samples	Likelihood of Contamination from Illicit Sources
	ID	Date						
TWB-028	BT-232	8/11/17	Yes	No	No			Low
TWB-029	BT-83	9/15/16	Yes	No	Yes	Yes	Negative	Low
TWB-030	BT-305	12/12/18	Yes	No	No			Low
TWB-031	BT-190	8/1/17	Yes	No	No			Low
TWB-032	BT-304	12/12/18	Yes	No	No			Low
TWB-033	BT-82	9/15/16	Yes	No	No			Low
TWB-034	BT-191	8/1/17	Yes	No	No			Low
TWB-035	BT-68	7/28/16	Yes	No	No			Low
TWB-036	BT-192	8/1/17	Yes	No	No			Low
TWB-037	BT-193	8/1/17	Yes	No	No			Low
TWB-038	BT-339	6/10/19	Yes	No	No			Low
TWB-039	BT-271	11/21/17	Yes	No	No			Low
TWB-040	Not inspected		No					Unknown
TWB-041	BT-197	8/1/17	Yes	No	No			Low
TWB-042	BT-67	7/28/16	Yes	No	No			Low
TWB-043	Not inspected		No					Unknown
TWB-044	BT-340	6/10/19	Yes	No	No			Low
WFR-001	BT-21	7/12/16	Yes	No	No			Low
WFR-002	BT-211	8/10/17	Yes	No	No			Low
WFR-003	BT-107	5/18/17	Yes	No	No			Low
WFR-004	Not inspected		No					Unknown
WFR-005	BT-22	7/12/16	Yes	No	No			Low
WFR-006	BT-246	8/22/17	Yes	No	No			Low
WFR-007	BT-23	7/12/16	Yes	No	No			Low
WFR-008	BT-75	7/28/16	Yes	No	No			Low
WFR-009	Not inspected		No					Unknown
WFR-010	BT-288	4/9/18	Yes	No	No			Low
WFR-011	BT-24	7/12/16	Yes	No	No			Low
WFR-012	BT-287	4/9/18	Yes	No	No			Low
WFR-013	BT-286	4/9/18	Yes	No	No			Low
WFR-014	BT-235	8/22/17	Yes	No	No			Low
WFR-015	BT-285	4/9/18	Yes	No	No			Low
WFR-016	BT-87	9/15/16	Yes	No	No			Low
WFR-017	BT-53	7/20/16	Yes	No	No			Low
WFR-018	BT-52	7/20/16	Yes	No	No			Low

Note: The outfalls that have not received dry weather inspections are privately-owned or owned by another public agency.

Appendix C: Dry Weather Outfall Investigations

BT-1, MQR-098, 2016-07-07, 7:50:00

Created	2016-07-07 12:01:18 UTC by Matt Davis
Updated	2016-07-07 12:07:18 UTC by Matt Davis
Location	42.2037539, -71.0025676

Section 1: General Information

Inspection ID	BT-1
Outfall ID	MQR-098
Outfall GIS ID	BC1
Inspector	C.P.O. and G.H.
Date	2016-07-07
Time	7:50:00
Temperature	68
Inspection Location	Manhole
Investigation performed at manhole upstream of outfall?	Yes
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Outfall Condition	manhole. outfall could not be accessed
Headwall Present	No
Sediment Present?	Yes
Sediment Depth (%)	10
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	Yes
Flow Velocity	Trickle

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	Outfall could not be accessed due to MBTA rails. 2 manholes present in railyard right of way. Accessed manhole through gated MBTA parking lot. Trickily flow and sediment were observed in manhole. Concrete pipe was draining into manhole. Previous descript

Section 7: Media

Photos

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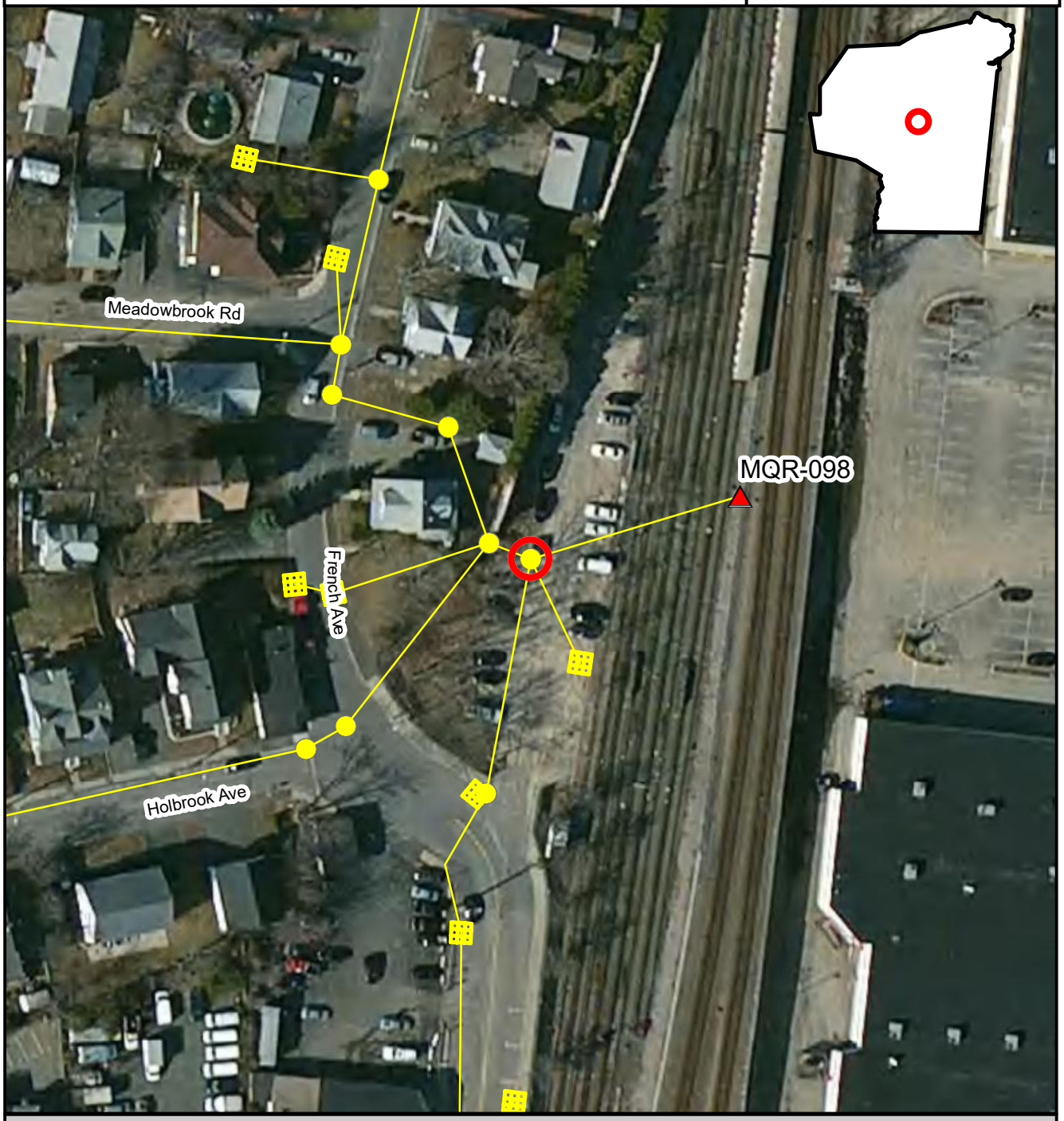
BT-1

BT-1

Braintree IDDE Inspections

Inspection ID
BT-001



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 7/7/2016

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-2, SSL-012, 2016-07-07, 8:08:00

Created	2016-07-07 12:15:37 UTC by Matt Davis
Updated	2016-07-19 17:24:37 UTC by Matt Davis
Location	42.2030558, -71.0084983

Section 1: General Information

Inspection ID	BT-2
Outfall ID	SSL-012
Outfall GIS ID	BC10
Inspector	CPO GH
Date	2016-07-07
Time	8:08:00
Temperature	64
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	Steel
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	8
Outfall Condition	heavily rusted
Headwall Present	Yes
Headwall Condition	Good
Sediment Present?	Yes
Sediment Depth (%)	15
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No
Color Severity	None
Turbidity	No cloudiness
Floatables (does not include trash)	None

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No

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Intermittent flow trap used?	No
Section 6: General Comments	Drains into gravel pit. Some vegetation directly in front of pipe. No flow, severe rust on pipe. Safford St @ Sunset lake parking lot.

Section 7: Media

Photos

BT-2

Braintree IDDE Inspections

Inspection ID
BT-002

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 7/7/2016

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-3, SSL-010, 2016-07-07, 9:01:00

Created	2016-07-07 13:10:53 UTC by Matt Davis
Updated	2016-07-07 13:12:25 UTC by Matt Davis
Location	42.2054638, -71.0117088

Section 1: General Information

Inspection ID	BT-3
Outfall ID	SSL-010
Outfall GIS ID	BC14
Inspector	CPO GH
Date	2016-07-07
Time	9:01:00
Temperature	66
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	Clay Pipe
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	12
Outfall Condition	Cracking
Headwall Present	No
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No
Color Severity	None
Turbidity	No cloudiness
Floatables (does not include trash)	None

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No

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Section 6: General Comments	Outfall significantly cracked and severely damaged. Rocks present surrounding pipe but no headwall. Runs along property line to sunset lake. Manhole located halfway down property line. No flow observed.

Section 7: Media

Photos

Braintree IDDE Inspections

Inspection ID
BT-003

N

Inspection Date: 7/7/2016

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-4, SSL-016, 2016-07-07, 9:34:00

Created	2016-07-07 13:43:03 UTC by Matt Davis
Updated	2016-07-07 13:43:03 UTC by Matt Davis
Location	42.2078608, -71.0135293

Section 1: General Information

Inspection ID	BT-4
Outfall ID	SSL-016
Outfall GIS ID	BC16
Inspector	CPO GH
Date	2016-07-07
Time	9:34:00
Temperature	68
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	18
Outfall Condition	Normal
Headwall Present	Yes
Headwall Condition	Good
Sediment Present?	Yes
Sediment Depth (%)	2
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No
Color Severity	None
Turbidity	No cloudiness
Floatables (does not include trash)	None

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	Yes
Deposits/Stains	Flow line
Deposits/stains Comments	Black staining. Appears to be from mud/sediments
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	Significant erosion and sediment deposit after outfall. Pipe and headwall in good condition.

Section 7: Media

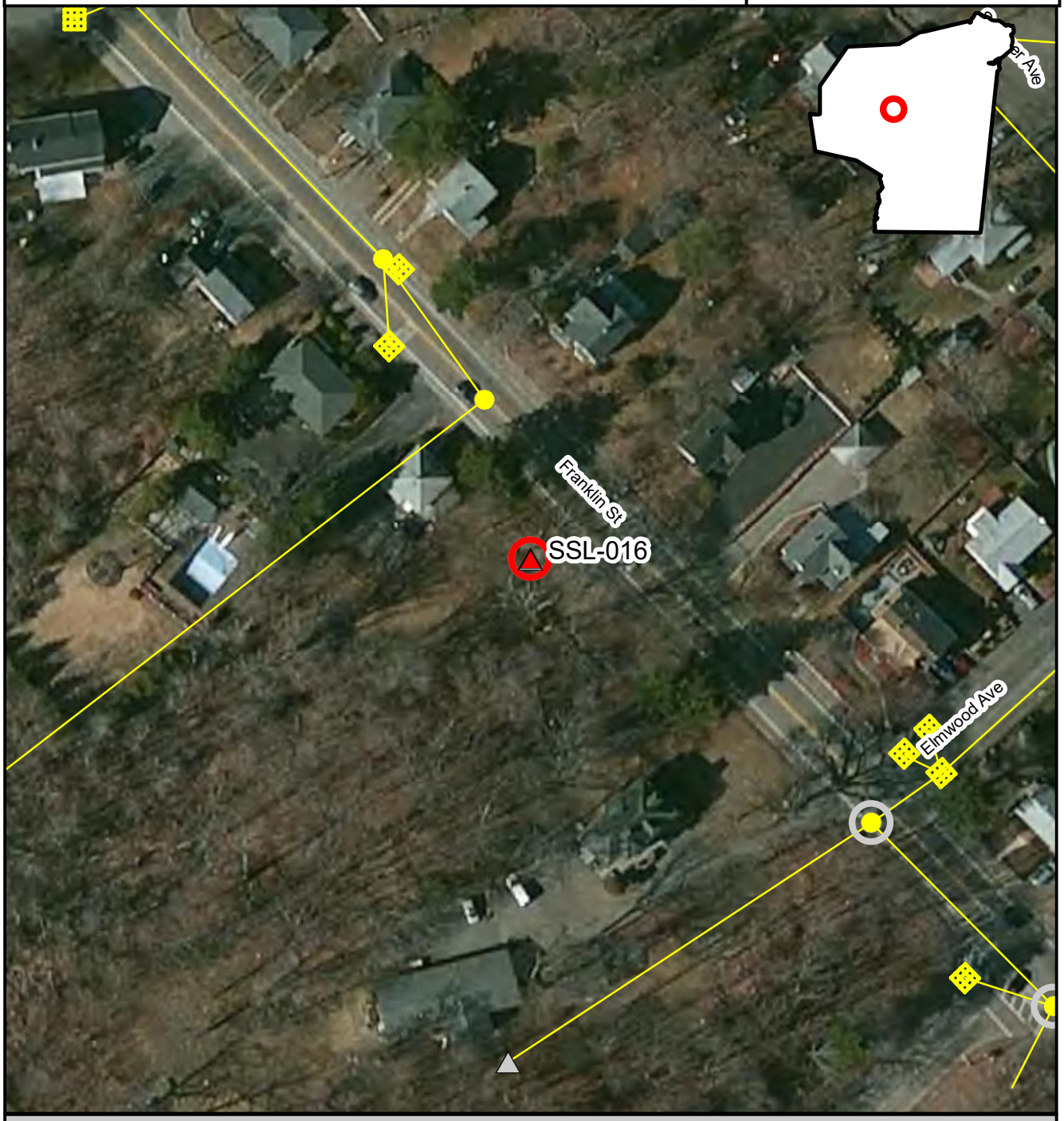
Photos

BT-4

Sketches

Braintree IDDE Inspections

Inspection ID
BT-004



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 7/7/2016

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-5, SSL-013, 2016-07-07, 9:49:00

Created	2016-07-07 13:53:39 UTC by Matt Davis
Updated	2016-07-07 13:53:39 UTC by Matt Davis
Location	42.2066694, -71.0133395

Section 1: General Information

Inspection ID	BT-5
Outfall ID	SSL-013
Outfall GIS ID	BC17
Inspector	CPO GH
Date	2016-07-07
Time	9:49:00
Temperature	68
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	24
Outfall Condition	Normal
Headwall Present	Yes
Headwall Condition	Fair
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No
Color Severity	None
Turbidity	No cloudiness
Floatables (does not include trash)	None

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No

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Section 6: General Comments	only catch basin connected to outfall

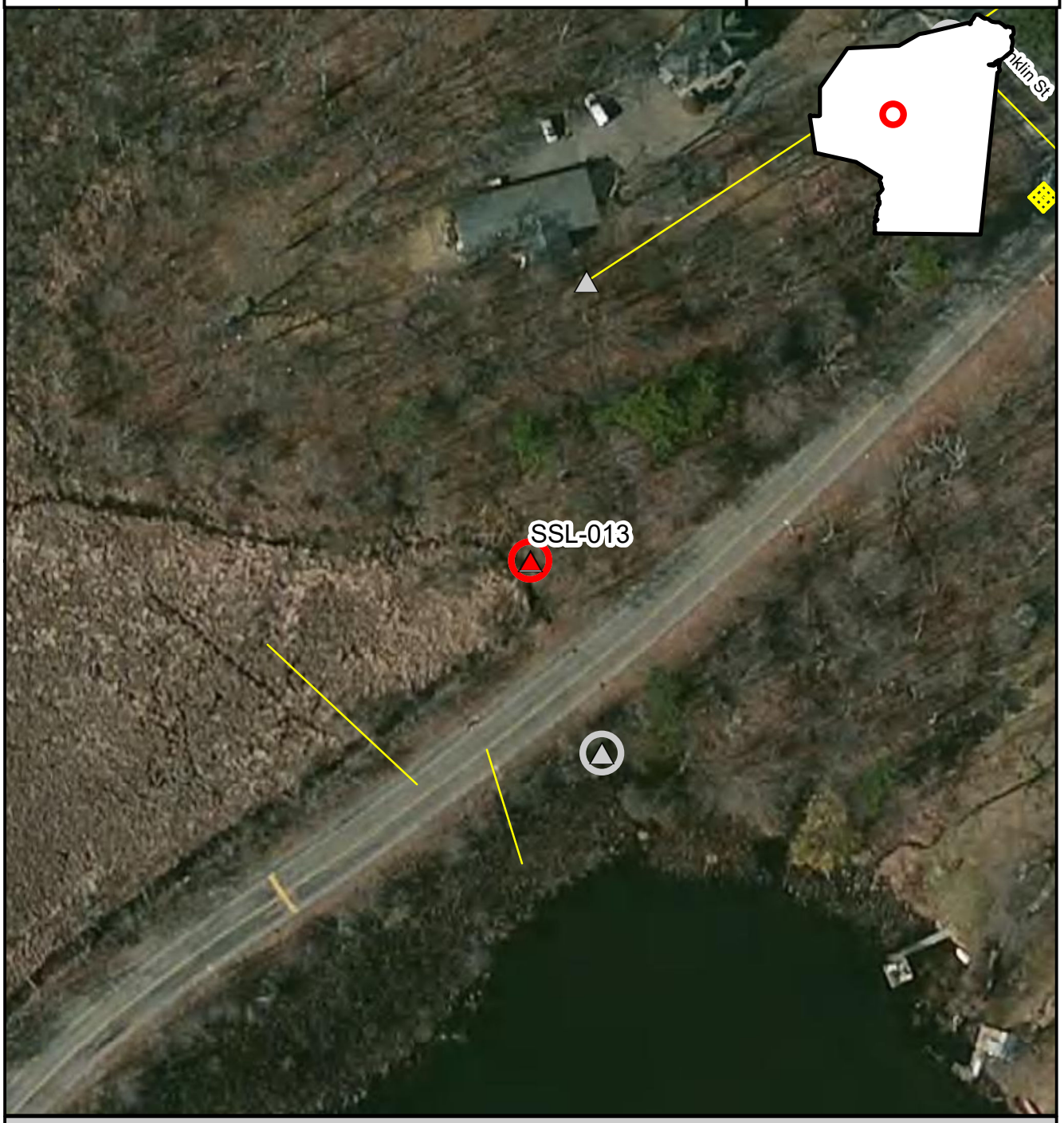
Section 7: Media

Photos

BT-5

Braintree IDDE Inspections

Inspection ID
BT-005



N

Inspection Date: 7/7/2016

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-6, SSL-011, 2016-07-07, 9:54:00

Created	2016-07-07 13:57:51 UTC by Matt Davis
Updated	2016-07-07 13:57:51 UTC by Matt Davis
Location	42.2062876, -71.0132132

Section 1: General Information

Inspection ID	BT-6
Outfall ID	SSL-011
Outfall GIS ID	BC18
Inspector	CPO GH
Date	2016-07-07
Time	9:54:00
Temperature	68
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	24
Outfall Condition	Normal
Headwall Present	Yes
Headwall Condition	Good
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	Standing Water
Color Severity	None
Turbidity	No cloudiness
Floatables (does not include trash)	None

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No

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Section 6: General Comments	only catch basin connected to outfall

Section 7: Media

Photos

BT-6

Braintree IDDE Inspections

Inspection ID
BT-006

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 7/7/2016

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-7, SSL-006, 2016-07-07, 9:59:00

Created	2016-07-07 14:02:48 UTC by Matt Davis
Updated	2016-07-07 14:06:54 UTC by Matt Davis
Location	42.2054734, -71.0149606

Section 1: General Information

Inspection ID	BT-7
Outfall ID	SSL-006
Outfall GIS ID	BC19
Inspector	CPO GH
Date	2016-07-07
Time	9:59:00
Temperature	68
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	24
Outfall Condition	Normal
Headwall Present	Yes
Headwall Condition	Good
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No
Color Severity	None
Turbidity	No cloudiness
Floatables (does not include trash)	None

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No

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Section 6: General Comments	only catch basin connected to outfall

Section 7: Media

Photos

Braintree IDDE Inspections

Inspection ID
BT-007

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 7/7/2016

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-8, SSL-004, 2016-07-07, 10:03:00

Created	2016-07-07 14:06:27 UTC by Matt Davis
Updated	2016-07-07 14:06:27 UTC by Matt Davis
Location	42.2054917, -71.0145922

Section 1: General Information

Inspection ID	BT-8
Outfall ID	SSL-004
Outfall GIS ID	BC21
Inspector	CPO GH
Date	2016-07-07
Time	10:03:00
Temperature	68
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	24
Outfall Condition	Normal
Headwall Present	Yes
Headwall Condition	Good
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	Standing Water
Color Severity	None
Turbidity	No cloudiness
Floatables (does not include trash)	None

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No

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Section 6: General Comments	only catch basin connected to outfall

Section 7: Media

Photos

Braintree IDDE Inspections

Inspection ID
BT-008

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 7/7/2016

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-9, SSL-002, 2016-07-07, 10:10:00

Created	2016-07-07 14:20:02 UTC by Matt Davis
Updated	2016-07-07 14:20:25 UTC by Matt Davis
Location	42.2036297, -71.0166043

Section 1: General Information

Inspection ID	BT-9
Outfall ID	SSL-002
Outfall GIS ID	BC2
Inspector	CPO GH
Date	2016-07-07
Time	10:10:00
Temperature	68
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	24.12
Outfall Condition	Normal
Headwall Present	Yes
Headwall Condition	Good
Sediment Present?	Yes
Sediment Depth (%)	5
Outfall Submerged	Partially
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	Standing Water
Color Severity	None
Turbidity	No cloudiness
Floatables (does not include trash)	None

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No

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Intermittent flow trap used?	No
Section 6: General Comments	24 and 12 inch pipes in headwall, 12 inch pipe slightly cracked. Standing water- 7" water depth for 24" pipe, 3" water depth for 12" pipe.

Section 7: Media

Photos

BT-9

BT-9

Braintree IDDE Inspections

Inspection ID
BT-009

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 7/7/2016

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-10, SSL-001, 2016-07-07, 11:03:00

Created	2016-07-07 15:17:17 UTC by Matt Davis
Updated	2016-07-07 15:17:17 UTC by Matt Davis
Location	42.2024677, -71.0172454

Section 1: General Information

Inspection ID	BT-10
Outfall ID	SSL-001
Outfall GIS ID	BC4
Inspector	CPO GH
Date	2016-07-07
Time	11:03:00
Temperature	70
Inspection Location	Manhole
Investigation performed at manhole upstream of outfall?	Yes
Visual evidence of contamination present?	No

Section 2: Outfall Description

Sediment Present?	Yes
Sediment Depth (%)	10

Section 3: Physical Indicators (flow flowing)

Flow Present	Yes
Flow Velocity	Trickle
Section 6: General Comments	Outfall could not be located. Vegetation and beach along shoreline were inspected and no outfall observed. Manhole in cul-de-sac with 2 inflow pipes and 1 outflow pipe were inspected. Minor flow and sedimentation

Section 7: Media

Photos

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BT-10

Braintree IDDE Inspections

Inspection ID
BT-010

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 7/7/2016

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-11, FMR-006, 2016-07-07, 11:28:00

Created	2016-07-07 15:36:55 UTC by Matt Davis
Updated	2016-07-07 15:36:55 UTC by Matt Davis
Location	42.2011534, -71.0158257

Section 1: General Information

Inspection ID	BT-11
Outfall ID	FMR-006
Outfall GIS ID	BC20
Inspector	CPO GH
Date	2016-07-07
Time	11:28:00
Temperature	72
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	24
Outfall Condition	Cracking
Headwall Present	No
Sediment Present?	Yes
Sediment Depth (%)	2
Outfall Submerged	Partially
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	Standing Water
Color Severity	None
Turbidity	Slight cloudiness
Floatables (does not include trash)	None

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	Yes
Pool Quality Description	Oil sheen
Pool quality Comments	Hazy/cloudiness appearance in pool
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No

Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	24" RCP pipe and 6" PVC pipe at outfall location. Pool at end of outfall was very deep and sedimentation surroumdimg the outfall was present. 4" of standing water in the 24" outfall pipe. 24" pipe was cracked and missing a chunk.

Section 7: Media

Photos

BT-11

Braintree IDDE Inspections

Inspection ID
BT-011

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 7/7/2016

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-12, SSL-005, 2016-07-07, 12:39:00

Created	2016-07-07 16:45:08 UTC by Matt Davis
Updated	2016-07-07 18:45:00 UTC by Matt Davis
Location	42.2000165, -71.0103734

Section 1: General Information

Inspection ID	BT-12
Outfall ID	SSL-005
Outfall GIS ID	BC5
Inspector	CPO GH
Date	2016-07-07
Time	12:39:00
Temperature	72
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	12
Outfall Condition	Normal
Headwall Present	Yes
Headwall Condition	Fair
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No
Color Severity	None
Turbidity	No cloudiness
Floatables (does not include trash)	None

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No

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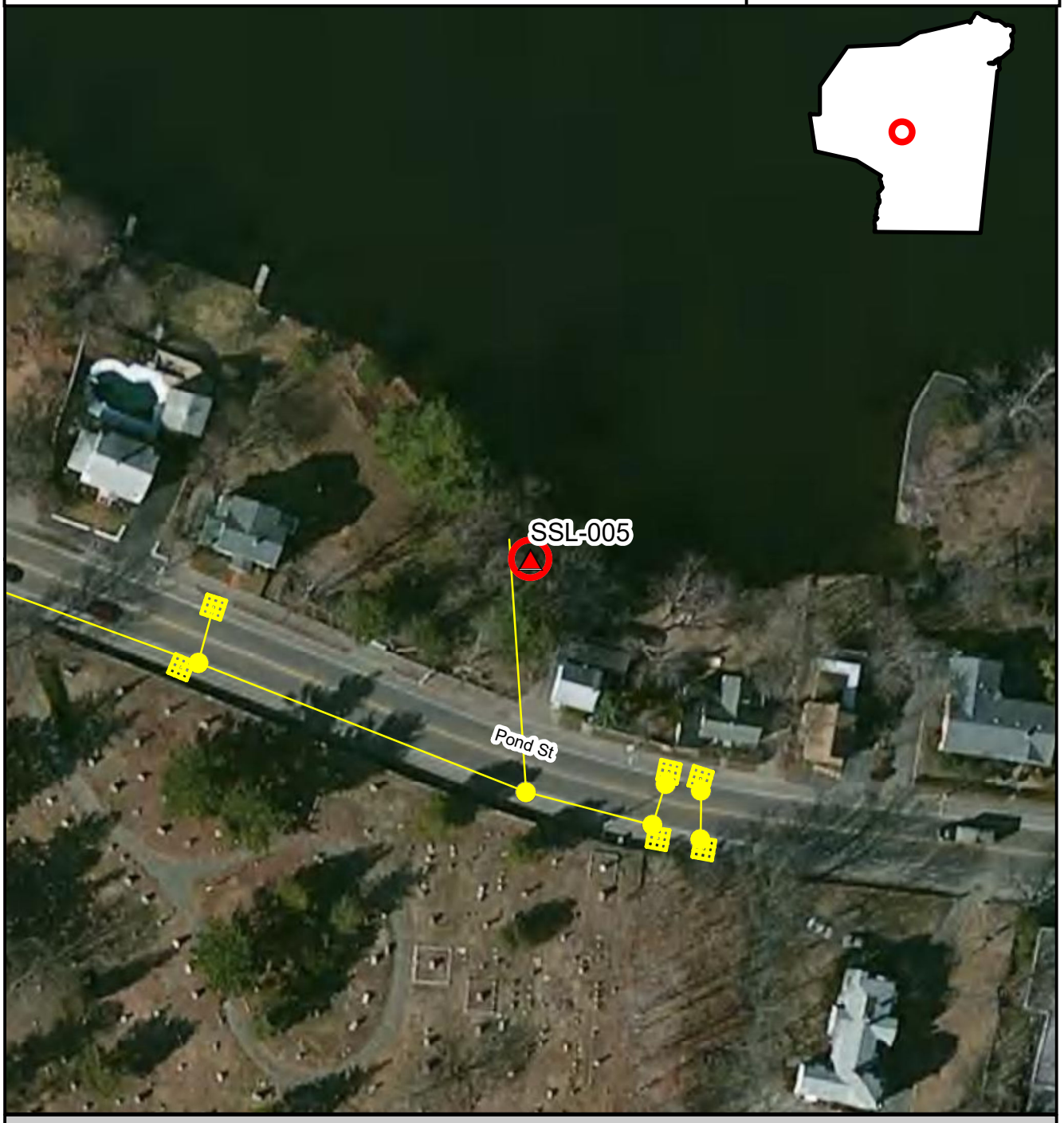
Section 6: General Comments	Outfall accessed via left yard of 41 Pond Street. Outfall has oval opening

Section 7: Media

Photos

Braintree IDDE Inspections

Inspection ID
BT-012



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 7/7/2016

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-13, FMR-026, 2016-07-07, 13:16:00

Created	2016-07-07 17:20:47 UTC by Matt Davis
Updated	2016-07-07 17:28:35 UTC by Matt Davis
Location	42.1922299, -71.02869507

Section 1: General Information

Inspection ID	BT-13
Outfall ID	FMR-026
Outfall GIS ID	BC6
Inspector	CPO GH
Date	2016-07-07
Time	13:16:00
Temperature	70
Inspection Location	Outfall
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	30
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	Yes
Sediment Depth (%)	5
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	Yes
Flow Velocity	Trickle
Flow Width (in)	24
Flow Depth (in)	0.2
Color Severity	None
Turbidity	No cloudiness
Floatables (does not include trash)	None

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No

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Intermittent flow trap used?	No
Section 6: General Comments	Camera stopped working at this location. Saved to Glenn's phone. There is also a 36" wide by 18" deep corrugated rubber square pipe that runs under roadway and discharges at same location as outfall. Discharge from corrugated rubber pipe was orange/iron

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Braintree IDDE Inspections

Inspection ID
BT-013

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 7/7/2016

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-14, SSL-017, 2016-07-07, 13:45:00

Created	2016-07-07 17:53:21 UTC by Matt Davis
Updated	2016-07-19 17:25:03 UTC by Matt Davis
Location	42.2082286, -71.017144

Section 1: General Information

Inspection ID	BT-14
Outfall ID	SSL-017
Outfall GIS ID	BC7
Inspector	CPO GH
Date	2016-07-07
Time	13:45:00
Temperature	70
Inspection Location	Outfall
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	24
Outfall Condition	Normal
Headwall Present	Yes
Headwall Condition	Good
Sediment Present?	Yes
Sediment Depth (%)	10
Outfall Submerged	Partially
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	Yes
Flow Velocity	Trickle
Color Severity	None
Turbidity	No cloudiness
Floatables (does not include trash)	None

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No

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Section 6: General Comments	12" RCP pipe also discharged in the same area. 6" of standing water in 12" pipe. Flowing water could be heard in 24" pipe. Possible inspection to be considered. Access was behind house #72 on Anderson road. Standing water in both outfalls trickling into

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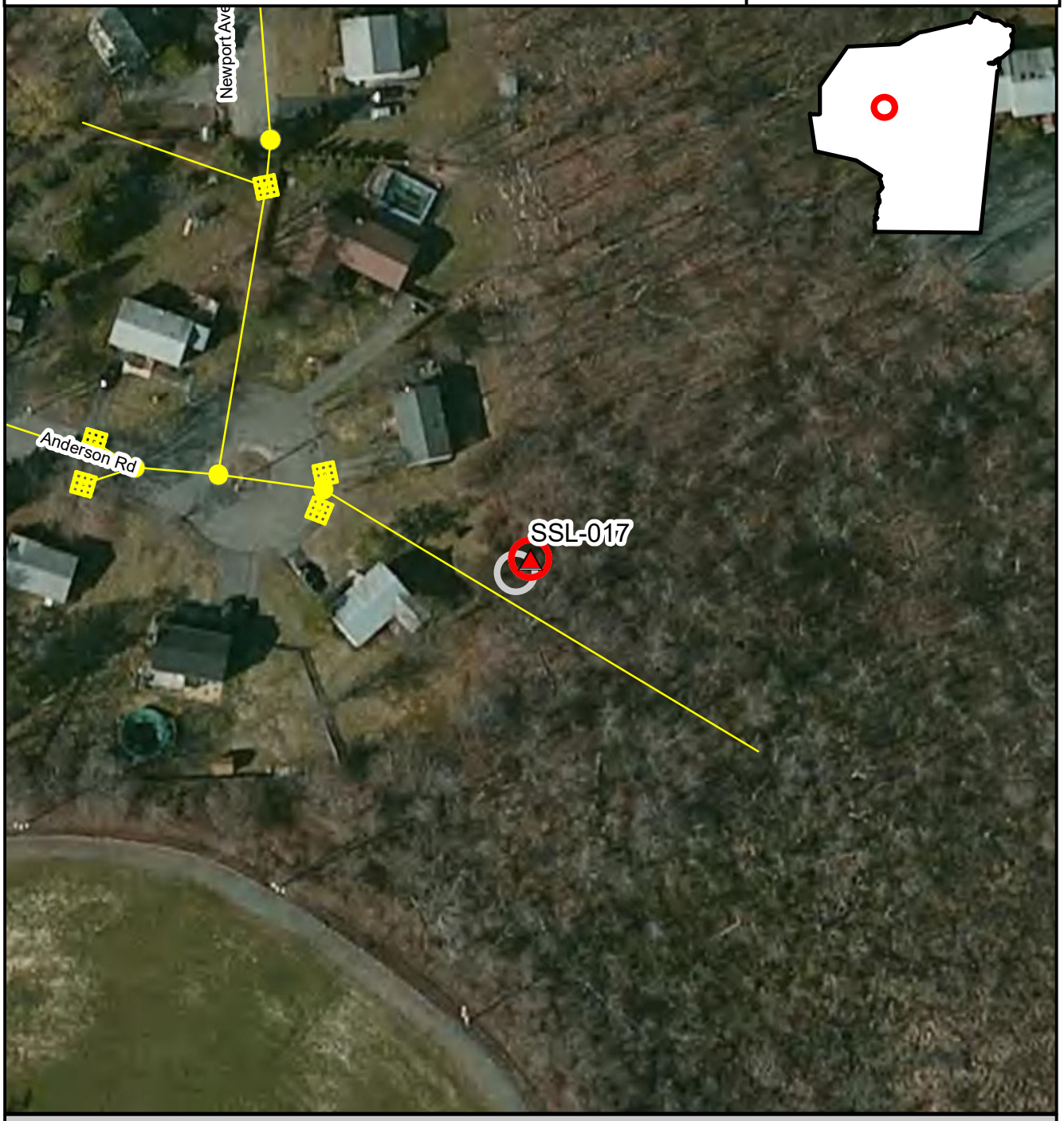
Braintree IDDE Inspections

Inspection ID
BT-014



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 7/7/2016

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-15, TWB-041, 2016-07-07, 14:05:00

Created	2016-07-07 18:09:42 UTC by Matt Davis
Updated	2016-07-07 18:09:42 UTC by Matt Davis
Location	42.2141016, -71.0210606

Section 1: General Information

Inspection ID	BT-15
Outfall ID	TWB-041
Outfall GIS ID	BC8
Inspector	CPO GH
Date	2016-07-07
Time	14:05:00
Temperature	70
Inspection Location	Outfall
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	CMP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	30
Outfall Condition	Normal
Headwall Present	Yes
Headwall Condition	Good
Sediment Present?	No
Outfall Submerged	Partially
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	Standing Water
Color Severity	None
Turbidity	No cloudiness
Floatables (does not include trash)	None

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	12" standing water. Difficult access. Steep embankment, significant vegetation

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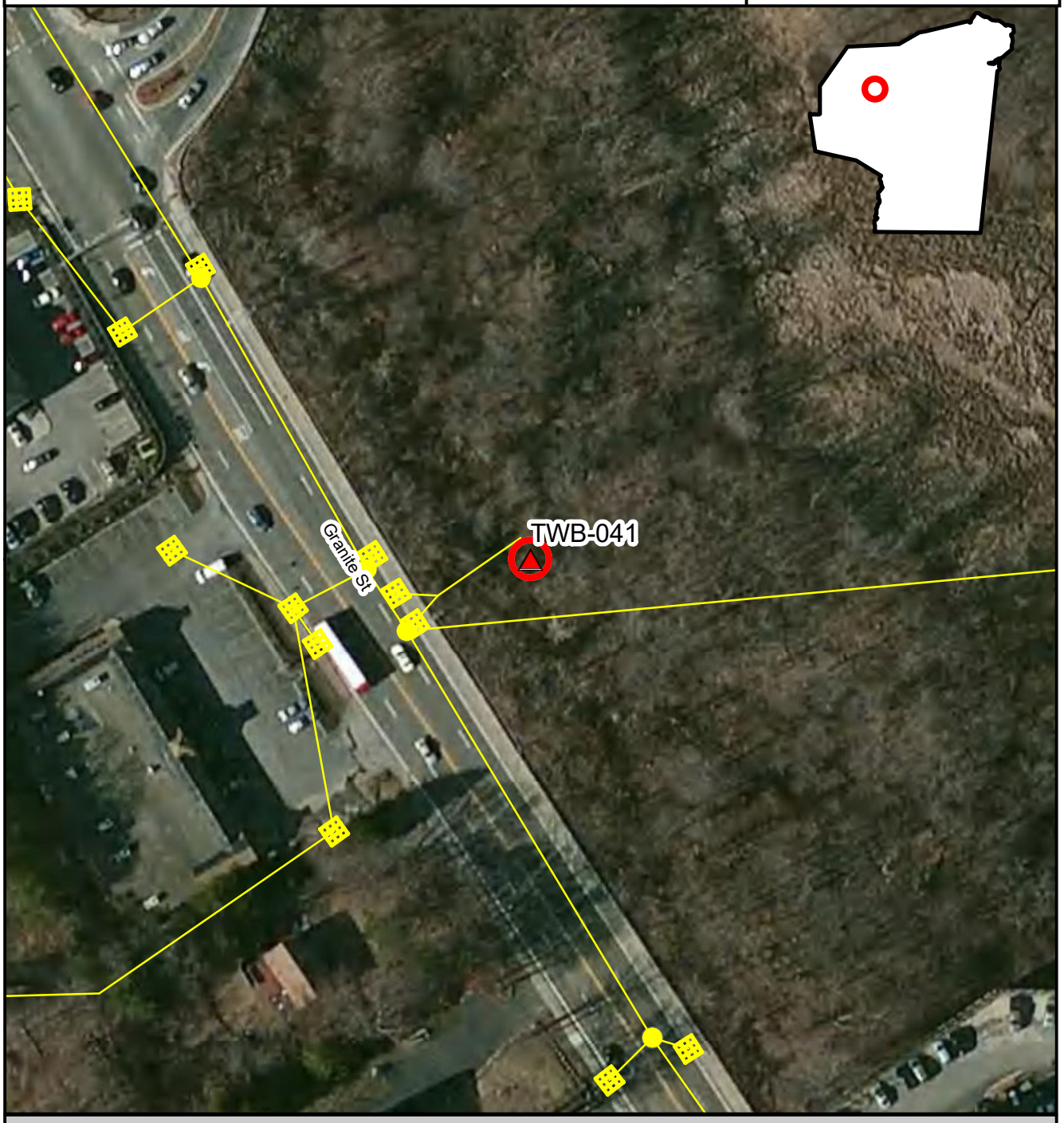
Braintree IDDE Inspections

Inspection ID
BT-015



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 7/7/2016

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-16, TWB-033, 2016-07-07, 14:45:00

Created	2016-07-07 18:49:05 UTC by Matt Davis
Updated	2016-07-07 18:49:05 UTC by Matt Davis
Location	42.2162438, -71.0156969

Section 1: General Information

Inspection ID	BT-16
Outfall ID	TWB-033
Outfall GIS ID	BC12
Inspector	CPO GH
Date	2016-07-07
Time	14:45:00
Temperature	78
Inspection Location	Outfall
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	18
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	Yes
Flow Velocity	Moderate
Color Severity	Clearly visible in outfall flow
Color Description	Orange
Turbidity	No cloudiness
Floatables (does not include trash)	None

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	Flow appears to be about 1 gpm. Very rusty on bottom of pipe, rocks and sediments downstream of outfall. Clear flow from outfall. Second visit was BT-82

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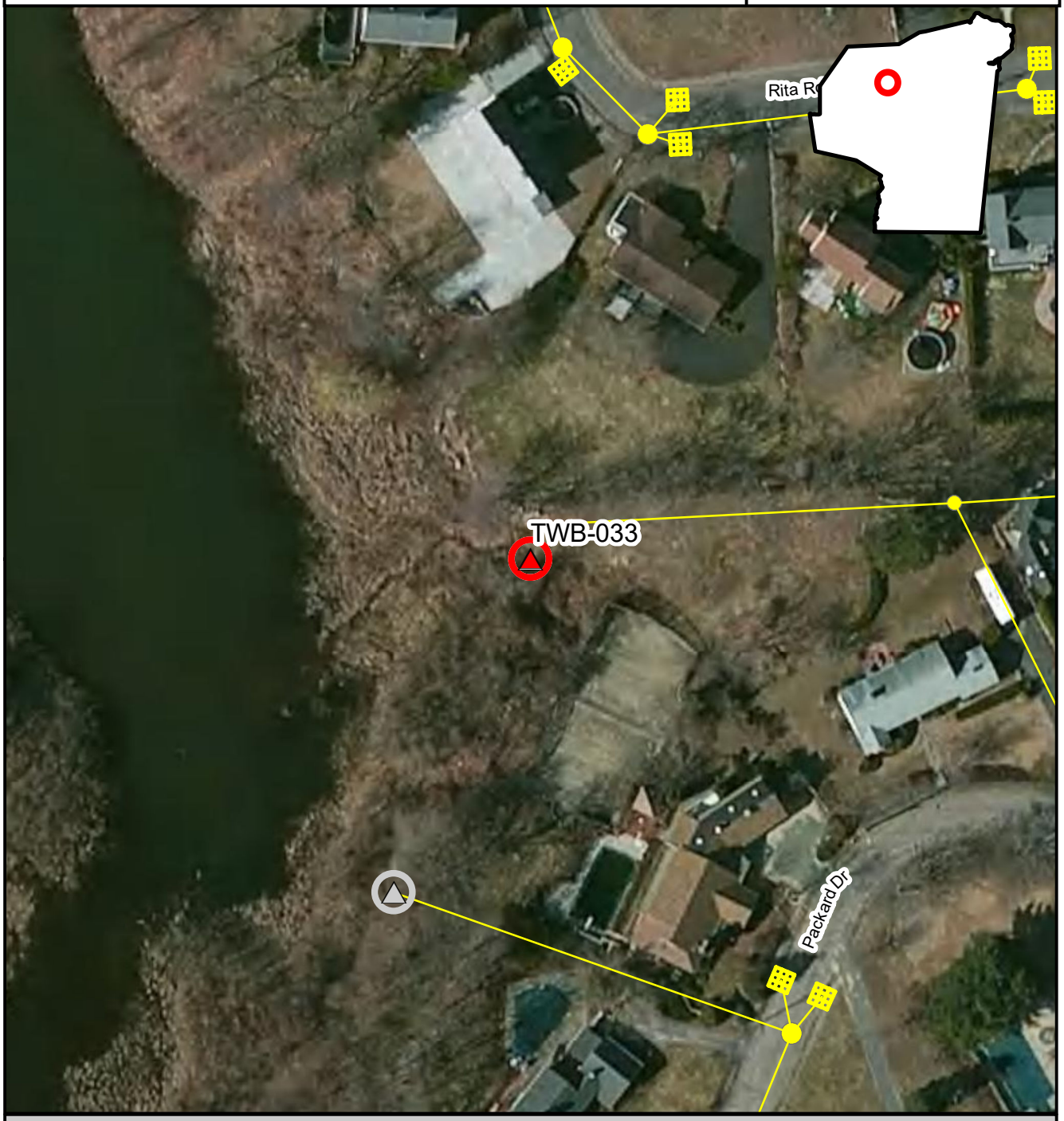
Braintree IDDE Inspections

Inspection ID
BT-016



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 7/7/2016

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-17, TWB-024, 2016-07-12, 7:57:00

Created	2016-07-12 12:04:15 UTC by Matt Davis
Updated	2016-07-12 12:06:28 UTC by Matt Davis
Location	42.223721, -71.0212154

Section 1: General Information

Inspection ID	BT-17
Outfall ID	TWB-024
Outfall GIS ID	BC22
Inspector	CPO GH
Date	2016-07-12
Time	7:57:00
Temperature	66
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	48
Outfall Condition	Normal
Headwall Present	Yes
Headwall Condition	Good
Sediment Present?	Yes
Sediment Depth (%)	2
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	Standing Water
Color Severity	None
Turbidity	No cloudiness
Floatables (does not include trash)	None

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No

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Intermittent flow trap used?	No
Section 6: General Comments	Small amount of standing water. Difficult to access. Next to mall parking garage. Grate has been removed and lies in front of outfall. Lots of trash, heavy vegetation. Turning structure on end of outfall.

Section 7: Media

Photos

Braintree IDDE Inspections

Inspection ID
BT-017

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 7/12/2016

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-18, MQR-038, 2016-07-12, 9:54:00

Created	2016-07-12 13:58:11 UTC by Matt Davis
Updated	2016-07-12 13:58:11 UTC by Matt Davis
Location	42.225411, -70.9960033

Section 1: General Information

Inspection ID	BT-18
Outfall ID	MQR-038
Outfall GIS ID	BC42
Inspector	CPO GH
Date	2016-07-12
Time	9:54:00
Temperature	78
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	36
Outfall Condition	Normal
Headwall Present	Yes
Headwall Condition	Good
Sediment Present?	Yes
Sediment Depth (%)	2
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	Yes
Flow Velocity	Trickle
Color Severity	None
Turbidity	No cloudiness
Floatables (does not include trash)	None

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No

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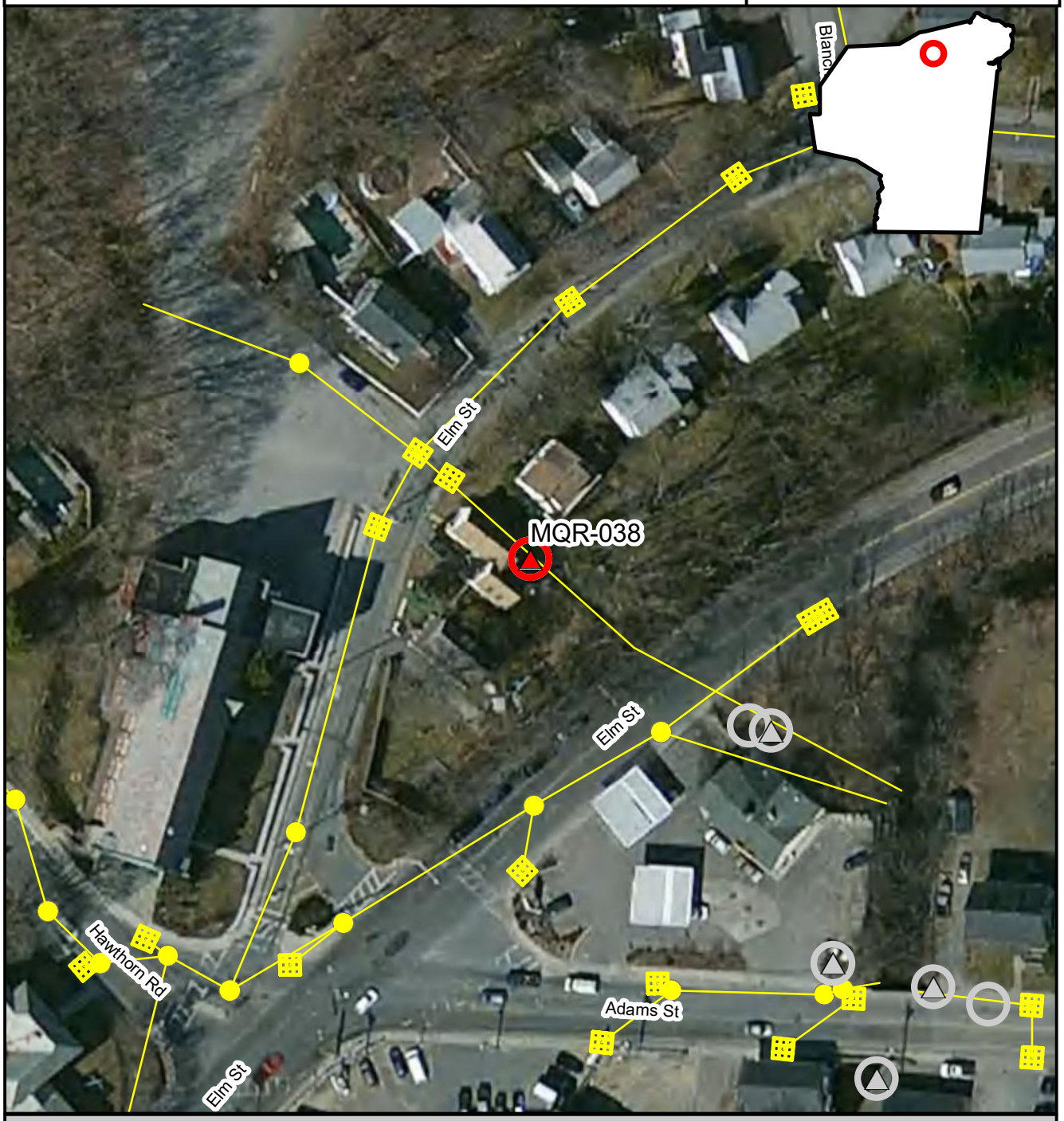
Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	Trickle flow from adjacent PVC pipe that was observed thru tied in catch basins upstream. Brook daylights and then goes underground again to outfall

Section 7: Media

Photos

Braintree IDDE Inspections

Inspection ID
BT-018



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 7/12/2016

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-19, MQR-027, 2016-07-12, 10:09:00

Created	2016-07-12 14:14:28 UTC by Matt Davis
Updated	2016-07-12 14:14:28 UTC by Matt Davis
Location	42.2225335, -70.9919473

Section 1: General Information

Inspection ID	BT-19
Outfall ID	MQR-027
Outfall GIS ID	BC43
Inspector	CPO GH
Date	2016-07-12
Time	10:09:00
Temperature	78
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	PVC
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	18
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	Yes
Sediment Depth (%)	10
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	Accessed via right of way at rear of #66 on Arnold St. Dry, no headwall, sediment present in outfall

Section 7: Media

Photos

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Braintree IDDE Inspections

Inspection ID
BT-019

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 7/12/2016

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-20, MQR-022, 2016-07-12, 10:38:00

Created	2016-07-12 14:45:35 UTC by Matt Davis
Updated	2016-07-12 14:49:52 UTC by Matt Davis
Location	42.2237861, -70.9900496

Section 1: General Information

Inspection ID	BT-20
Outfall ID	MQR-022
Outfall GIS ID	BC44
Inspector	CPO GH
Date	2016-07-12
Time	10:38:00
Temperature	78
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	wide mouth, u shaped
Closed Pipe Diameter (in)	18
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	Yes
Sediment Depth (%)	20
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	Standing Water
Color Severity	None
Turbidity	No cloudiness
Floatables (does not include trash)	None

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No

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Section 6: General Comments	Outfall on bank of river. Significant sedimentation. Located behind precast concrete facility. Outfall elevated approx. 3' from river surface water level. Behind Means PreCast vault fabrication area

Section 7: Media

Photos

BT-20

Braintree IDDE Inspections

Inspection ID
BT-020

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 7/12/2016

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-21, WFR-001, 2016-07-12, 11:22:00

Created	2016-07-12 15:28:25 UTC by Matt Davis
Updated	2016-07-12 15:30:42 UTC by Matt Davis
Location	42.2345211, -70.9648653

Section 1: General Information

Inspection ID	BT-21
Outfall ID	WFR-001
Outfall GIS ID	BC23
Inspector	CPO GH
Date	2016-07-12
Time	11:22:00
Temperature	78
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	15
Outfall Condition	Corrosion
Headwall Present	No
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	Yes

Section 3: Physical Indicators (flow flowing)

Flow Present	No
Color Severity	None
Turbidity	No cloudiness
Floatables (does not include trash)	None

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No

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Section 6: General Comments	Significant corrosion. Last 10 lengths of pipe more than 50% corroded and broken into pieces. Observed at low tide. Low tide is at 12:04

Section 7: Media

Photos

BT-21

Braintree IDDE Inspections

Inspection ID
BT-021

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 7/12/2016

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-22, WFR-005, 2016-07-12, 11:51:00

Created	2016-07-12 15:55:45 UTC by Matt Davis
Updated	2016-07-12 15:55:45 UTC by Matt Davis
Location	42.231477, -70.9626496

Section 1: General Information

Inspection ID	BT-22
Outfall ID	WFR-005
Outfall GIS ID	BC25
Inspector	CPO GH
Date	2016-07-12
Time	11:51:00
Temperature	85
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	24
Outfall Condition	last pipe section broken
Headwall Present	No
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	Yes

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	Low tide at 12:04. Last pipe section broken off. Muddy, located in tidal marsh.

Section 7: Media

Photos

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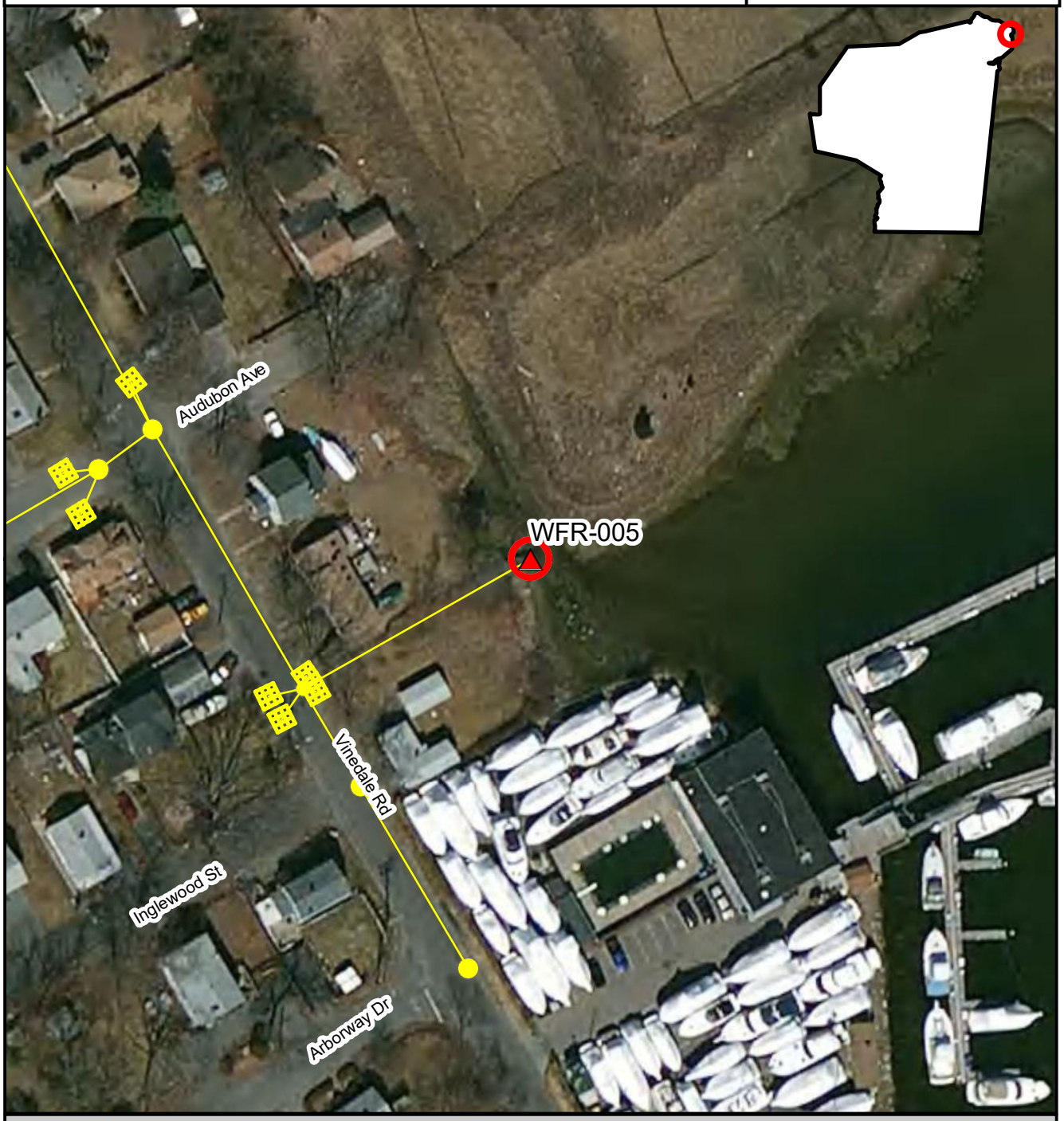
BT-22

Braintree IDDE Inspections

Inspection ID
BT-022



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 7/12/2016

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-23, WFR-007, 2016-07-12, 12:04:00

Created	2016-07-12 16:10:44 UTC by Matt Davis
Updated	2016-07-12 16:10:44 UTC by Matt Davis
Location	42.2287797, -70.9622962

Section 1: General Information

Inspection ID	BT-23
Outfall ID	WFR-007
Outfall GIS ID	BC26
Inspector	CPO GH
Date	2016-07-12
Time	12:04:00
Temperature	85
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	12
Outfall Condition	Corrosion
Headwall Present	No
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	Yes

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	Low tide 12:04. Outfall located on beach. No flow. Approximately 75 ft to water surface

Section 7: Media

Photos

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BT-23

Braintree IDDE Inspections

Inspection ID
BT-023

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 7/12/2016

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-24, WFR-011, 2016-07-12, 12:21:00

Created	2016-07-12 16:23:58 UTC by Matt Davis
Updated	2016-07-12 16:29:50 UTC by Matt Davis
Location	42.225772, -70.9645403

Section 1: General Information

Inspection ID	BT-24
Outfall ID	WFR-011
Outfall GIS ID	BC27
Inspector	CPO GH
Date	2016-07-12
Time	12:21:00
Temperature	85
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	CMP
Closed Pipe Shape	Double
Closed Pipe Diameter (in)	30
Outfall Condition	damaged from debris
Headwall Present	Yes
Headwall Condition	Poor
Sediment Present?	Yes
Sediment Depth (%)	15
Outfall Submerged	No
Outfall Tidally Influenced?	Yes

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	Outfall damaged from fallen rock and debris. Twin, double barrel drain pipes. Both pipes significantly damaged, one pipe almost completely closed.

Section 7: Media

Photos

BT-24

Braintree IDDE Inspections

Inspection ID
BT-024

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 7/12/2016

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-25, MQR-002, 2016-07-12, 13:43:00

Created	2016-07-12 17:49:41 UTC by Matt Davis
Updated	2016-07-12 17:49:41 UTC by Matt Davis
Location	42.2222071, -70.968386

Section 1: General Information

Inspection ID	BT-25
Outfall ID	MQR-002
Outfall GIS ID	BC28
Inspector	CPO GH
Date	2016-07-12
Time	13:43:00
Temperature	89
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	concrete from bridge
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	18
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	Yes

Section 3: Physical Indicators (flow flowing)

Flow Present	Yes
Flow Velocity	Trickle
Color Severity	None
Turbidity	No cloudiness
Floatables (does not include trash)	None

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No

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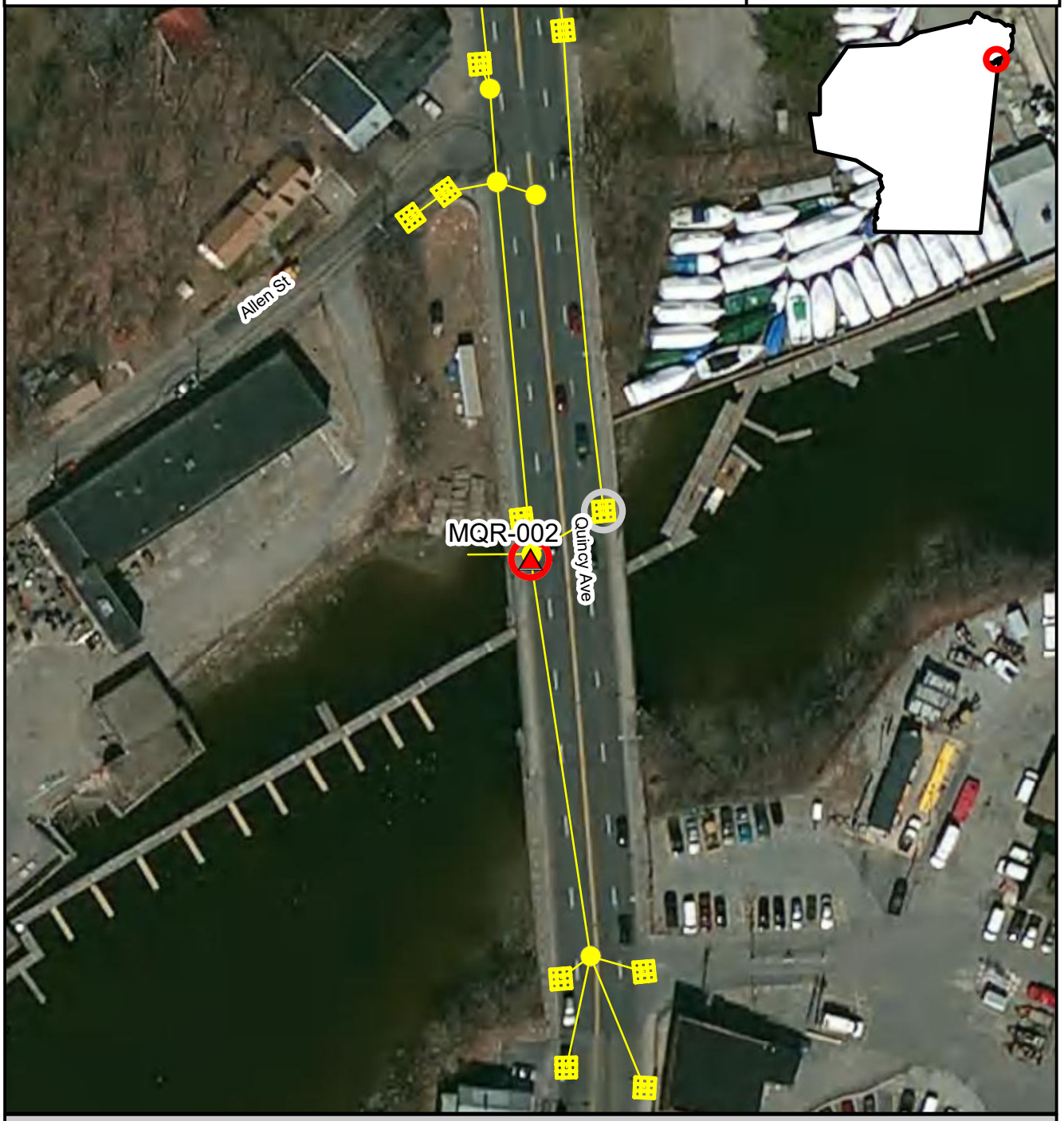
Section 6: General Comments	Outfall located in bridge abutment. Low tide at 12:04. Trickle flow with bubbles in discharge.

Section 7: Media

Photos

Braintree IDDE Inspections

Inspection ID
BT-025



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 7/12/2016

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-26, MQR-005, 2016-07-12, 13:53:00

Created	2016-07-12 17:58:59 UTC by Matt Davis
Updated	2016-07-12 17:58:59 UTC by Matt Davis
Location	42.2222879, -70.9737883

Section 1: General Information

Inspection ID	BT-26
Outfall ID	MQR-005
Outfall GIS ID	BC29
Inspector	CPO GH
Date	2016-07-12
Time	13:53:00
Temperature	89
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	clay pipe
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	18
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	Yes

Section 3: Physical Indicators (flow flowing)

Flow Present	Yes
Flow Velocity	Trickle
Color Severity	None
Turbidity	No cloudiness
Floatables (does not include trash)	None

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No

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Section 6: General Comments	Outfall located next to bridge, access limited due to bridge and private property fencing. Trickle flow, clear discharge.

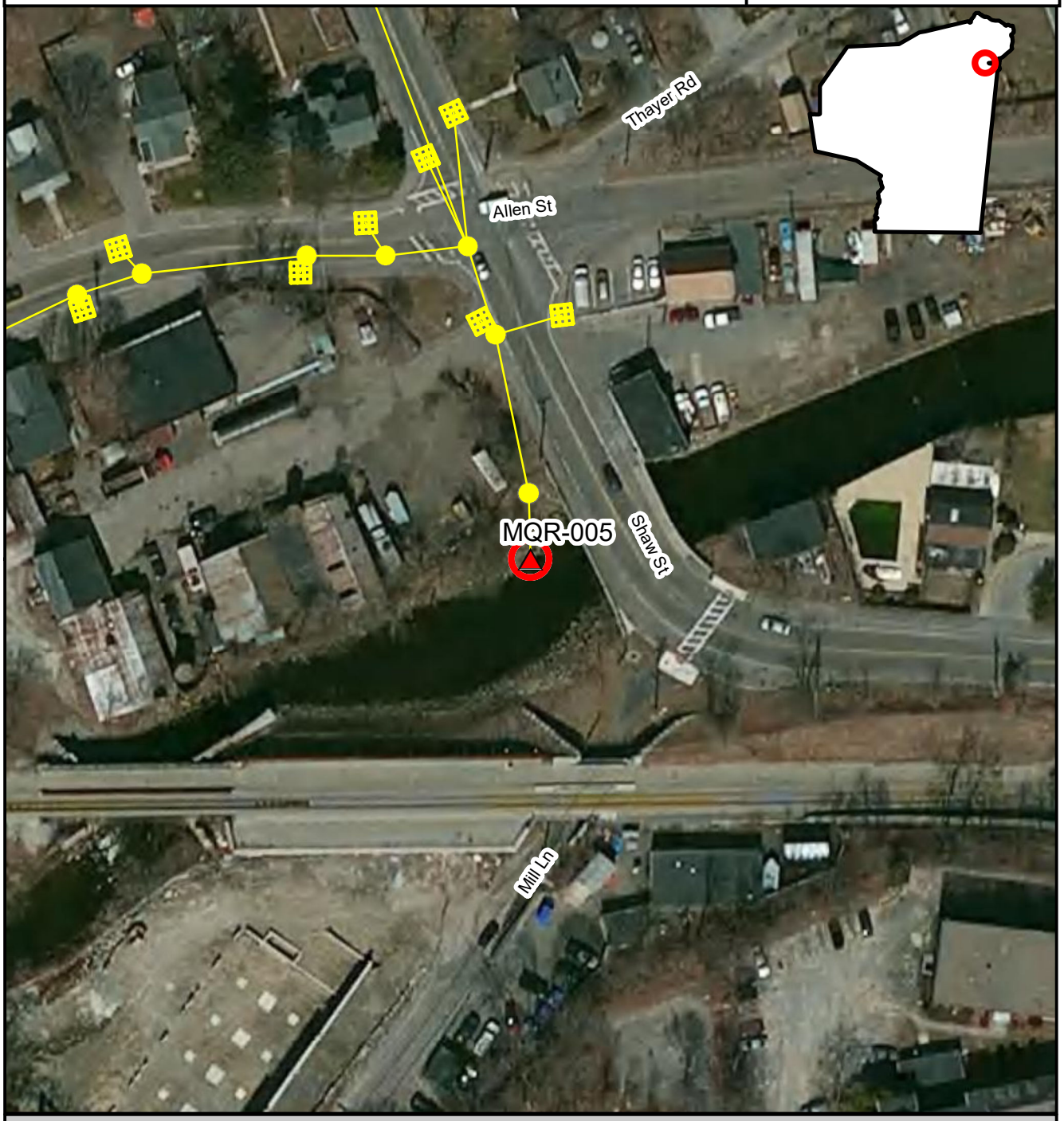
Section 7: Media

Photos

BT-26

Braintree IDDE Inspections

Inspection ID
BT-026



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 7/12/2016

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-27, MQR-007, 2016-07-12, 14:14

Created	2016-07-12 18:18:28 UTC by Matt Davis
Updated	2019-02-15 00:57:37 UTC by Matt Davis
Location	42.223187, -70.9764888

Section 1: General Information

Inspection ID	BT-27
Outfall ID	MQR-007
Outfall GIS ID	BC30
Inspector	CPO GH
Date	2016-07-12
Time	14:14
Temperature	89
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	24
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	Yes

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No
Section 6: General Comments	Outfall accessed walking up river during low tide. Significant erosion from river to outfall. Approx. 100 ft from river

Section 7: Media

Photos

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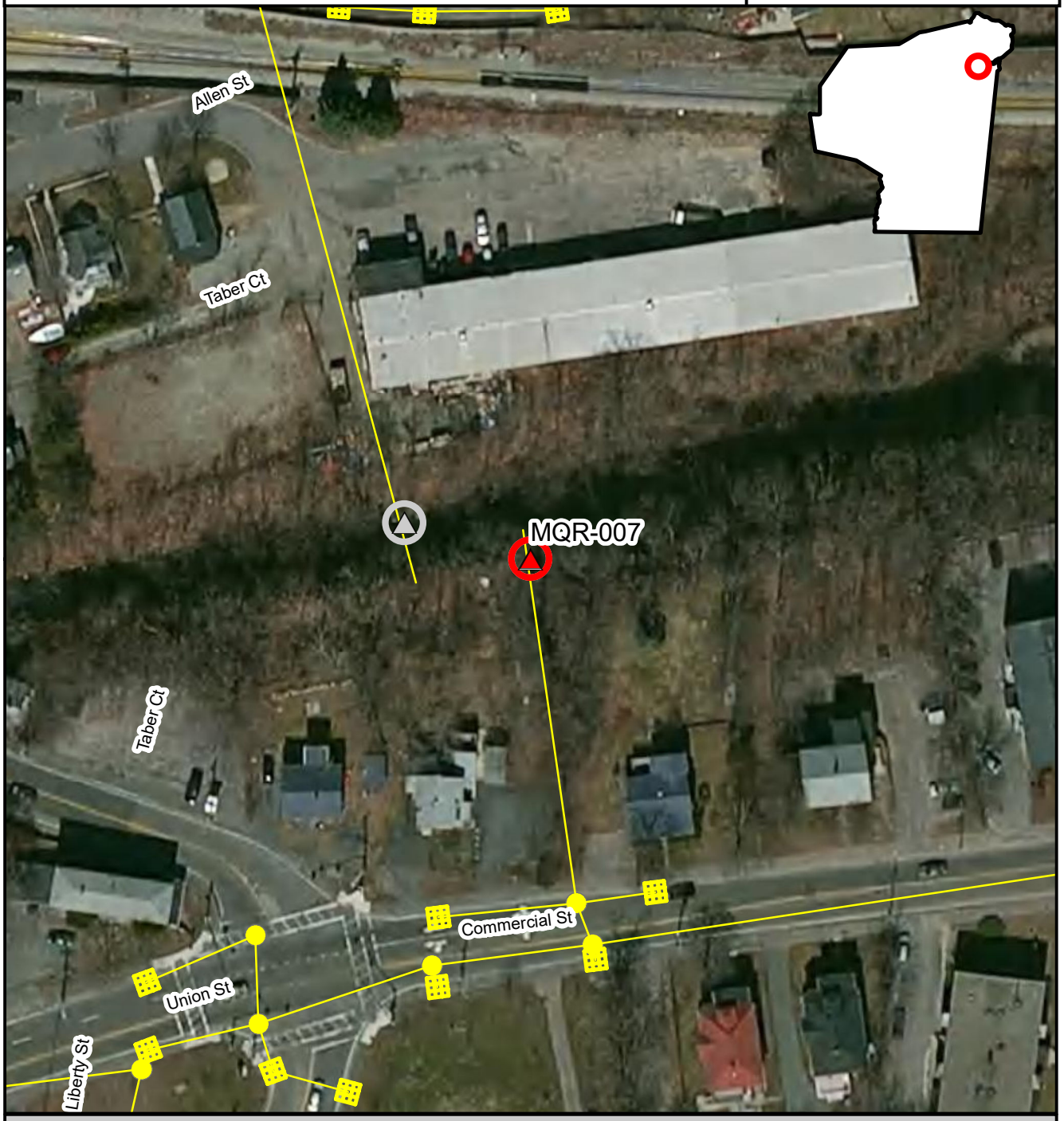
Braintree IDDE Inspections

Inspection ID
BT-027



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 7/12/2016

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-28, MQR-008, 2016-07-12, 14:22

Created	2016-07-12 18:26:40 UTC by Matt Davis
Updated	2019-02-15 00:55:27 UTC by Matt Davis
Location	42.2210976, -70.9769661

Section 1: General Information

Inspection ID	BT-28
Outfall ID	MQR-008
Outfall GIS ID	BC31
Inspector	CPO GH
Date	2016-07-12
Time	14:22
Temperature	89
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	24
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	Yes

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No
Section 6: General Comments	Outfall accessed by walking up river at low tide. Construction debris deposited near outfall. Approx. 25 ft from river. Steep embankment.

Section 7: Media

Photos

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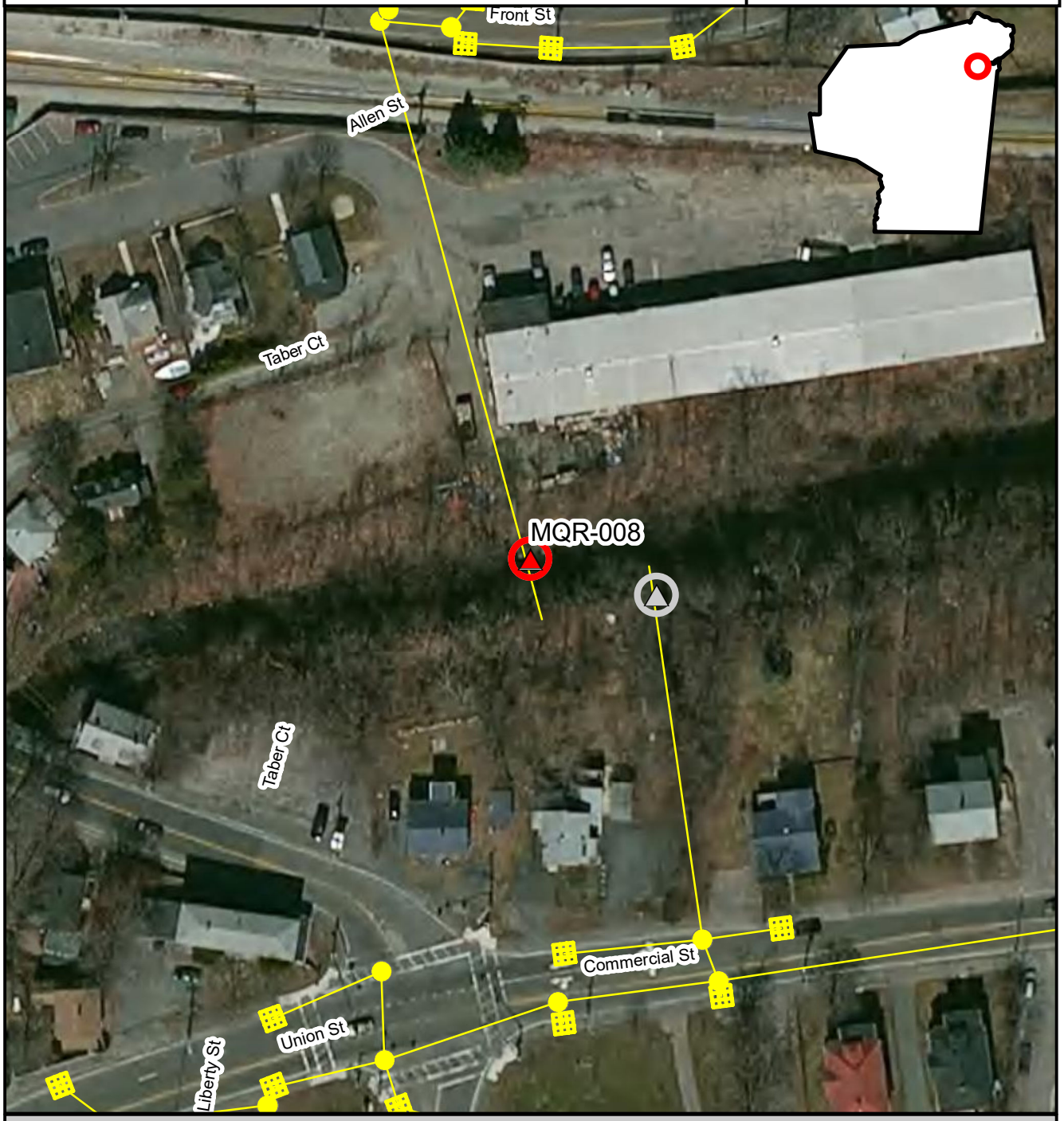
Braintree IDDE Inspections

Inspection ID
BT-028



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 7/12/2016

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-29, MQR-009, 2016-07-12, 14:47

Created	2016-07-12 18:51:54 UTC by Matt Davis
Updated	2019-02-15 00:48:44 UTC by Matt Davis
Location	42.2212022, -70.978462

Section 1: General Information

Inspection ID	BT-29
Outfall ID	MQR-009
Outfall GIS ID	BC32
Inspector	CPO GH
Date	2016-07-12
Time	14:47
Temperature	89
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	36
Outfall Condition	Normal
Headwall Present	Yes
Headwall Condition	Good
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	Yes

Section 3: Physical Indicators (flow flowing)

Flow Present	Yes
Flow Velocity	Trickle
Flow Width (in)	0
Flow Depth (in)	0
Color Severity	None
Turbidity	No cloudiness
Floatables (does not include trash)	None

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

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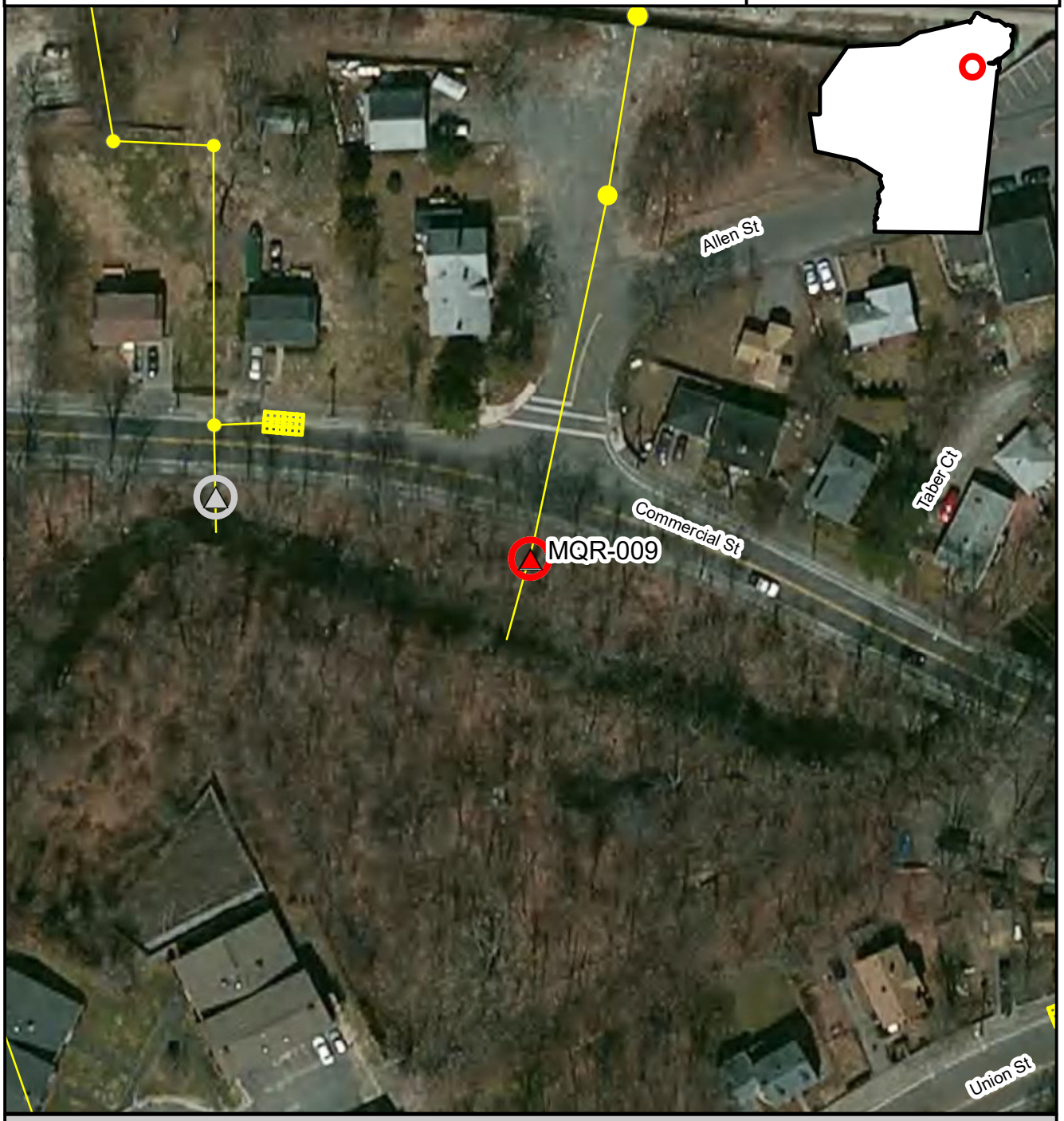
Were field measurements performed?	No
Reason field measurements not performed	Screening only
Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	Accessed from river.

Section 7: Media

Photos

Braintree IDDE Inspections

Inspection ID
BT-029



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 7/12/2016

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-30, MQR-010, 2016-07-12, 15:03:00

Created	2016-07-12 19:06:32 UTC by Matt Davis
Updated	2016-07-12 19:06:32 UTC by Matt Davis
Location	42.2211305, -70.9797749

Section 1: General Information

Inspection ID	BT-30
Outfall ID	MQR-010
Outfall GIS ID	BC34
Inspector	CPO GH
Date	2016-07-12
Time	15:03:00
Temperature	89
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	stone
Closed Pipe Shape	Box
Closed Pipe Diameter (in)	24
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	Yes
Sediment Depth (%)	5
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	Outfall accessed from river. Open box type, no liner. 2ft by 2 ft

Section 7: Media

Photos

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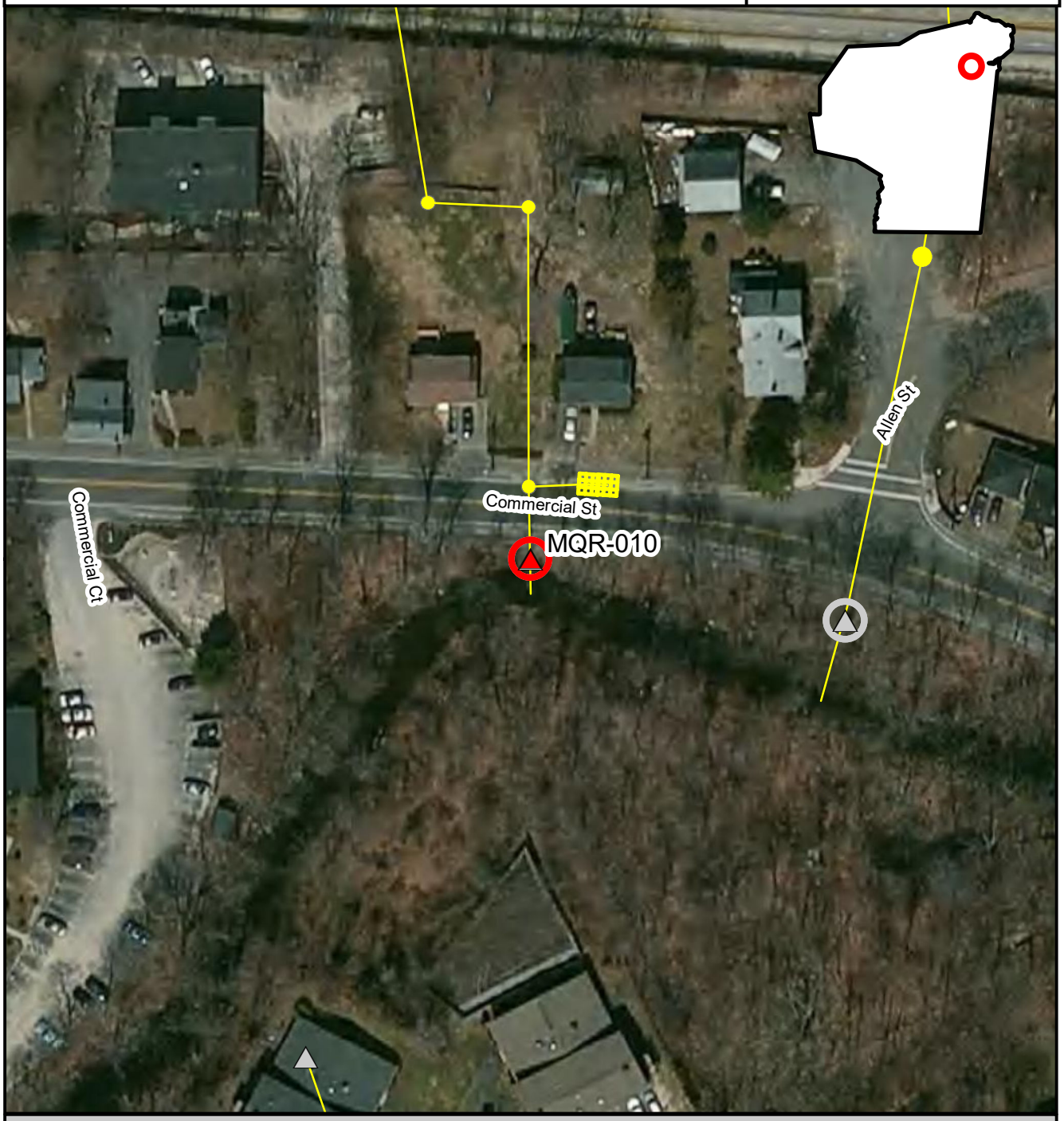
Braintree IDDE Inspections

Inspection ID
BT-030



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 7/12/2016

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-31, MQR-012, 2016-07-12, 15:22:00

Created	2016-07-12 19:27:09 UTC by Matt Davis
Updated	2016-07-12 19:27:09 UTC by Matt Davis
Location	42.2200895, -70.9815639

Section 1: General Information

Inspection ID	BT-31
Outfall ID	MQR-012
Outfall GIS ID	BC35
Inspector	CPO GH
Date	2016-07-12
Time	15:22:00
Temperature	89
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Double
Closed Pipe Diameter (in)	42
Outfall Condition	Cracking
Headwall Present	No
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	Yes
Flow Velocity	Trickle
Color Severity	None
Turbidity	No cloudiness
Floatables (does not include trash)	None

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	Yes
Deposits/Stains	Sediments
Deposits/stains Comments	Orange iron like minor stain
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No

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Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	Accessed by river. Twin 42 inch pipes. Minor iron staining on one pipe. Trickle flow

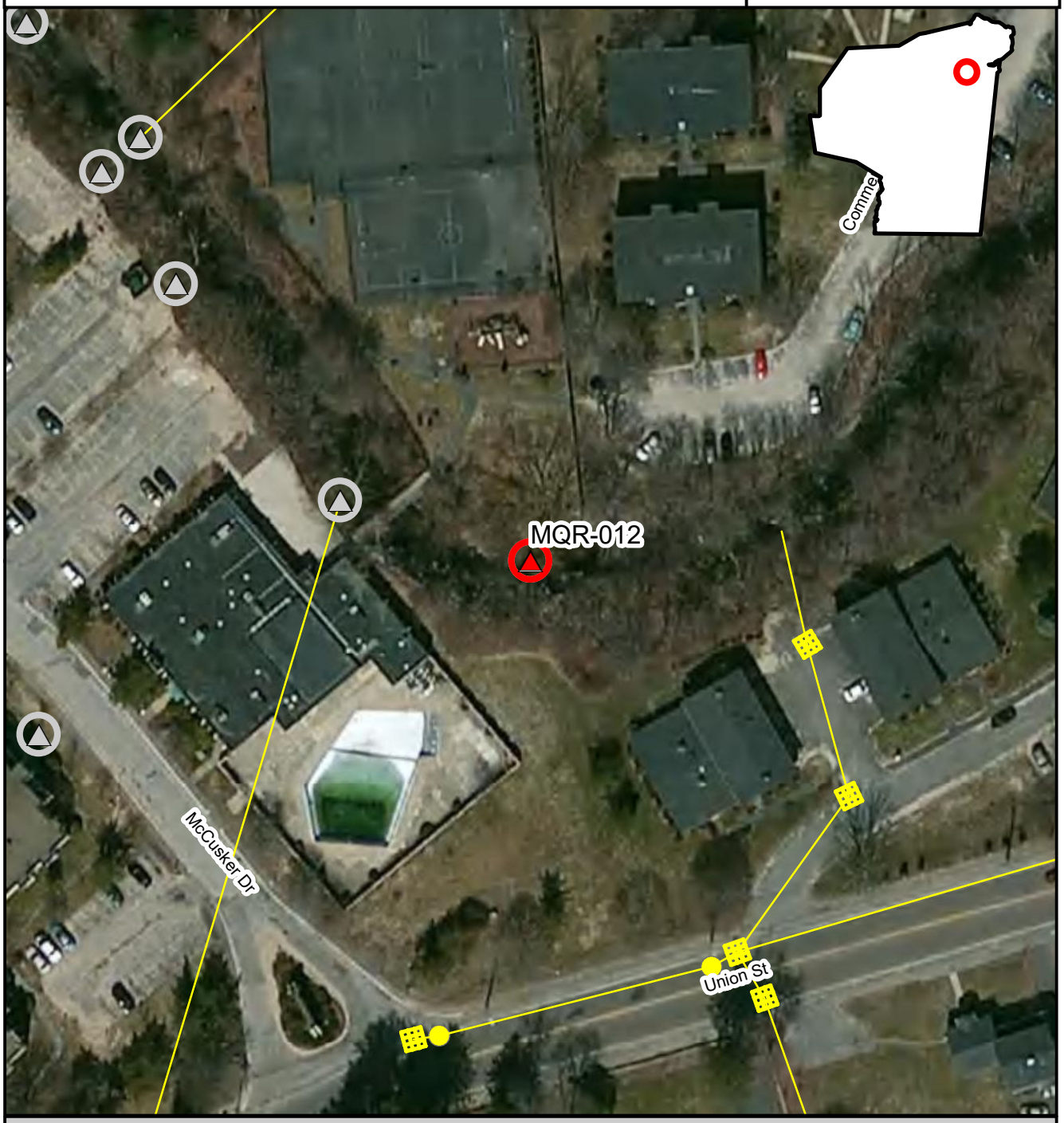
Section 7: Media

Photos

BT-31

Braintree IDDE Inspections

Inspection ID
BT-031



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 7/12/2016

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-32, MQR-013, 2016-07-12, 15:32:00

Created	2016-07-12 19:35:44 UTC by Matt Davis
Updated	2016-07-12 19:37:13 UTC by Matt Davis
Location	42.2202429, -70.981977

Section 1: General Information

Inspection ID	BT-32
Outfall ID	MQR-013
Outfall GIS ID	BC36
Inspector	CPO GH
Date	2016-07-12
Time	15:32:00
Temperature	89
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	21
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	Yes
Flow Velocity	Trickle

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	Minor chips on outfall. Very little trickle. Accessed via river. Approx. 25 ft from river

Section 7: Media

Photos

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Braintree IDDE Inspections

Inspection ID
BT-032

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 7/12/2016

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-33, MQR-015, 2016-07-12, 15:40:00

Created	2016-07-12 19:42:20 UTC by Matt Davis
Updated	2016-07-12 19:42:20 UTC by Matt Davis
Location	42.2204215, -70.9823945

Section 1: General Information

Inspection ID	BT-33
Outfall ID	MQR-015
Outfall GIS ID	BC37
Inspector	CPO GH
Date	2016-07-12
Time	15:40:00
Temperature	89
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	12
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No

Section 7: Media

Photos

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Braintree IDDE Inspections

Inspection ID
BT-033

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 7/12/2016

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-34, MQR-016, 2016-07-12, 15:44:00

Created	2016-07-12 19:46:43 UTC by Matt Davis
Updated	2016-07-12 19:46:43 UTC by Matt Davis
Location	42.2205918, -70.9825452

Section 1: General Information

Inspection ID	BT-34
Outfall ID	MQR-016
Outfall GIS ID	BC38
Inspector	CPO GH
Date	2016-07-12
Time	15:44:00
Temperature	89
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	12
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	Locate behind some housing complex

Section 7: Media

Photos

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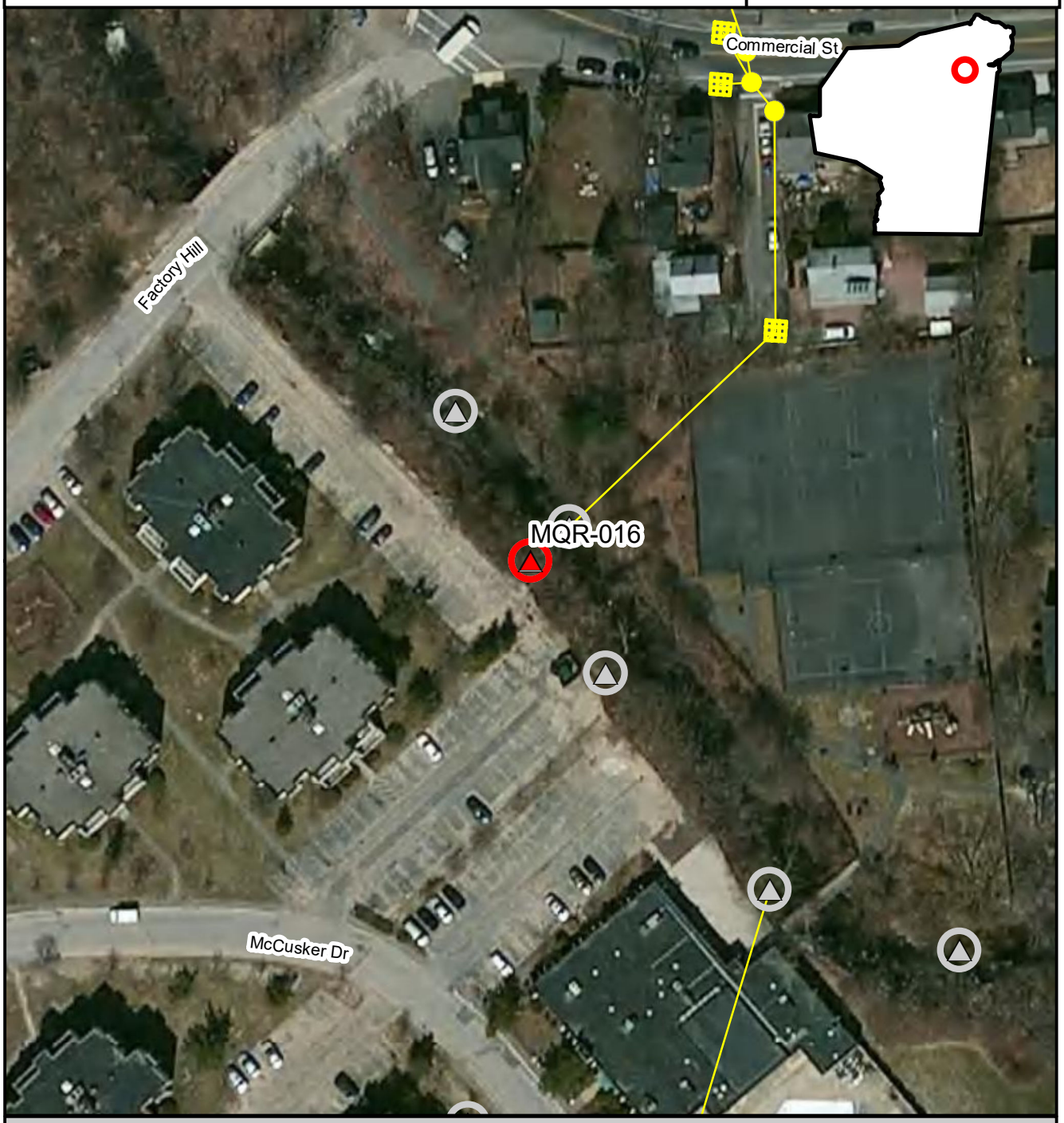
Braintree IDDE Inspections

Inspection ID
BT-034



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 7/12/2016

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-35, MQR-014, 2016-07-12, 15:57:00

Created	2016-07-12 19:59:44 UTC by Matt Davis
Updated	2016-07-12 19:59:44 UTC by Matt Davis
Location	42.220763, -70.9826334

Section 1: General Information

Inspection ID	BT-35
Outfall ID	MQR-014
Outfall GIS ID	BC39
Inspector	CPO GH
Date	2016-07-12
Time	15:57:00
Temperature	89
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	36
Outfall Condition	Normal
Headwall Present	Yes
Headwall Condition	Poor
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No

Section 7: Media

Photos

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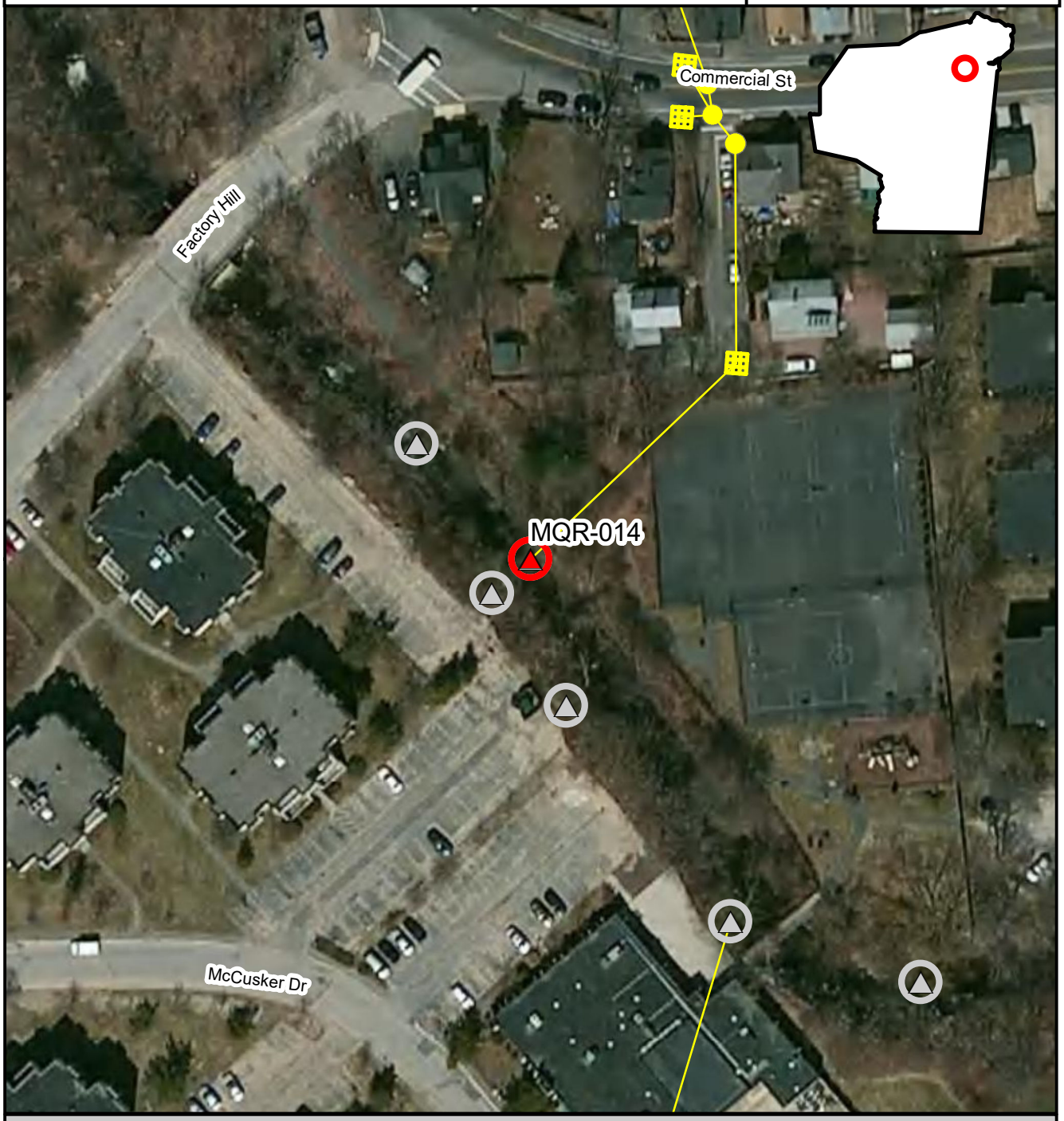
BT-35

Braintree IDDE Inspections

Inspection ID
BT-035



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 7/12/2016

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-36, MQR-104, 2016-07-13, 7:56:00

Created	2016-07-13 12:02:52 UTC by Matt Davis
Updated	2016-07-13 12:02:52 UTC by Matt Davis
Location	42.1959475, -71.00435

Section 1: General Information

Inspection ID	BT-36
Outfall ID	MQR-104
Outfall GIS ID	BC48
Inspector	CPO GH
Date	2016-07-13
Time	7:56:00
Temperature	68
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	18
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	Outfall has flared opening on end. Heavy vegetation in the area of the outfall.

Section 7: Media

Photos

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Braintree IDDE Inspections

Inspection ID
BT-036

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 7/13/2016

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-37, MQR-105, 2016-07-13, 8:05:00

Created	2016-07-13 12:11:42 UTC by Matt Davis
Updated	2016-07-27 15:06:14 UTC by Matt Davis
Location	42.1956872, -71.0044494

Section 1: General Information

Inspection ID	BT-37
Outfall ID	MQR-105
Outfall GIS ID	BC54
Inspector	CPO GH
Date	2016-07-13
Time	8:05:00
Temperature	70
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	24
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	Yes
Deposits/Stains	Sediments
Deposits/stains Comments	Brown /Iron like colored stain on bottom portion of pipes
Pool quality issues?	Yes
Pool Quality Description	Oil sheen
Pool quality Comments	Oil sheen visible on river area directly in front of outfalls
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No

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Section 6: General Comments	Staining present approx. 4 inches up pipe. Some rock and larger debris present at end of outfall. Oil sheen present in discharge area, may want to investigate further. Garage located nearby. Twin pipes located at this location.

Section 7: Media

Photos

BT-37

BT-37

Braintree IDDE Inspections

Inspection ID
BT-037

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 7/13/2016

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-38, MQR-110, 2016-07-13, 8:24:00

Created	2016-07-13 12:33:03 UTC by Matt Davis
Updated	2016-07-13 12:33:03 UTC by Matt Davis
Location	42.1933284, -71.0058074

Section 1: General Information

Inspection ID	BT-38
Outfall ID	MQR-110
Outfall GIS ID	BC55
Inspector	CPO GH
Date	2016-07-13
Time	8:24:00
Temperature	74
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	unknown, probably RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	24
Outfall Condition	completely submerged
Headwall Present	Yes
Headwall Condition	Good
Sediment Present?	No
Outfall Submerged	Fully
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	Standing Water

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	Yes
Pool Quality Description	deep pool causing outfall to be completely submerged
Pool quality Comments	Deep pool, submerging outfall
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No

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Section 6: General Comments	Water level approx. 2 inches above top of pipe. Downstream sedimentation has created significant scouring as well as a deep pool that causes the entire outfall to be submerged. Stick was used to determine bottom of pipe and then measured with tape measur

Section 7: Media

Photos

Braintree IDDE Inspections

Inspection ID
BT-038

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 7/13/2016

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-39, CBB-006, 2016-07-13, 8:47:00

Created	2016-07-13 12:54:19 UTC by Matt Davis
Updated	2016-07-13 12:54:19 UTC by Matt Davis
Location	42.1806164, -71.0060102

Section 1: General Information

Inspection ID	BT-39
Outfall ID	CBB-006
Outfall GIS ID	BC56
Inspector	CPO GH
Date	2016-07-13
Time	8:47:00
Temperature	76
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	48
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	Yes
Sediment Depth (%)	1
Outfall Submerged	Partially
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	Standing Water

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	10 inches standing water in outfall. Very slight "coating" of sedimentation . Standing water was not flowing

Section 7: Media

Photos

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BT-39

Braintree IDDE Inspections

Inspection ID
BT-039

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 7/13/2016

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-40, CBB-005, 2016-07-13, 8:58:00

Created	2016-07-13 13:00:55 UTC by Matt Davis
Updated	2016-07-13 13:00:55 UTC by Matt Davis
Location	42.1810341, -71.0075327

Section 1: General Information

Inspection ID	BT-40
Outfall ID	CBB-005
Outfall GIS ID	BC57
Inspector	CPO GH
Date	2016-07-13
Time	8:58:00
Temperature	78
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Section 6: General Comments	Outfall buried from debris. Sluiceway appears to direct surface and debris over outfall location.

Section 7: Media

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Photos

Braintree IDDE Inspections

Inspection ID
BT-040

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 7/13/2016

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-41, CBB-004, 2016-07-13, 9:12:00

Created	2016-07-13 13:24:14 UTC by Matt Davis
Updated	2016-07-13 13:24:14 UTC by Matt Davis
Location	42.1806564, -71.0081281

Section 1: General Information

Inspection ID	BT-41
Outfall ID	CBB-004
Outfall GIS ID	BC58
Inspector	CPO GH
Date	2016-07-13
Time	9:12:00
Temperature	80
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	PVC
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	12
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	Accessed by walking down stream to wetlands area behind Sheraton ave. residential area.

Section 7: Media

Photos

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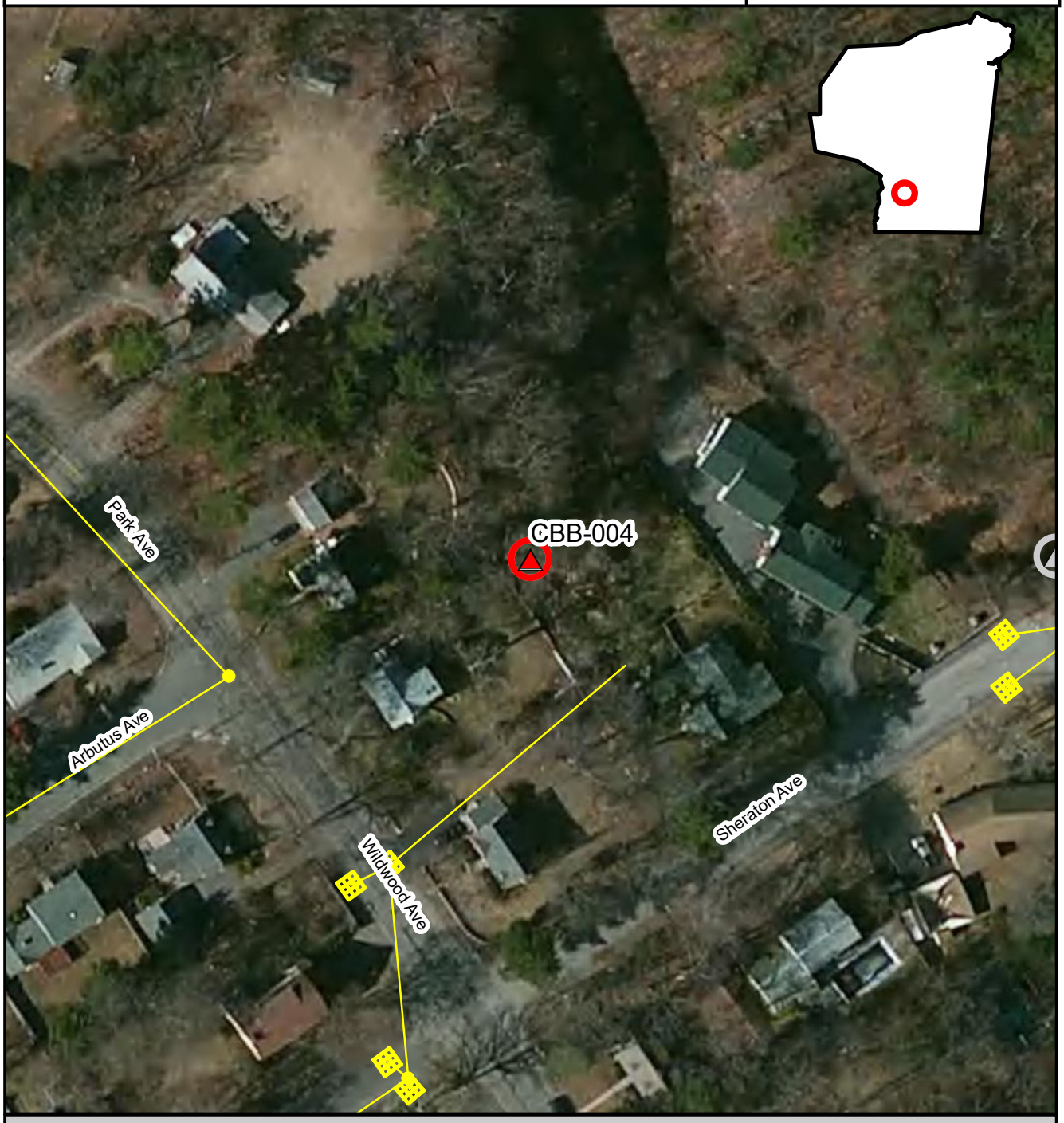
BT-41

Braintree IDDE Inspections

Inspection ID
BT-041



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 7/13/2016

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-42, CBB-014, 2016-07-13, 9:34:00

Created	2016-07-13 13:37:13 UTC by Matt Davis
Updated	2016-07-13 13:43:52 UTC by Matt Davis
Location	42.1779261, -70.9975029

Section 1: General Information

Inspection ID	BT-42
Outfall ID	CBB-014
Outfall GIS ID	BC59
Inspector	CPO GH
Date	2016-07-13
Time	9:34:00
Temperature	80
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	48
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	Yes
Sediment Depth (%)	5
Outfall Submerged	Partially
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	Standing Water

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	Yes
Deposits/Stains	Sediments
Deposits/stains Comments	Iron staining
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	Iron staining visible . Thick vegetation. Approx. 8 inches of standing water

Section 7: Media

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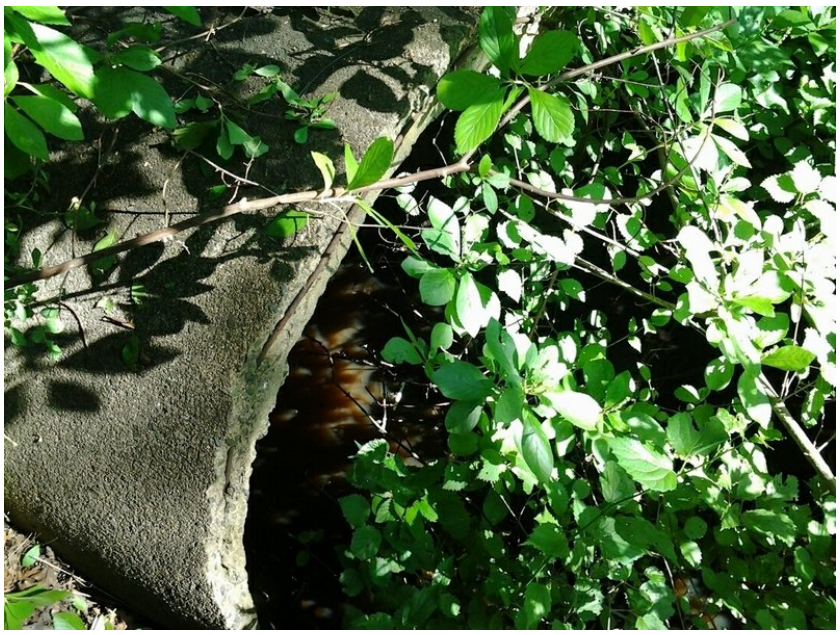
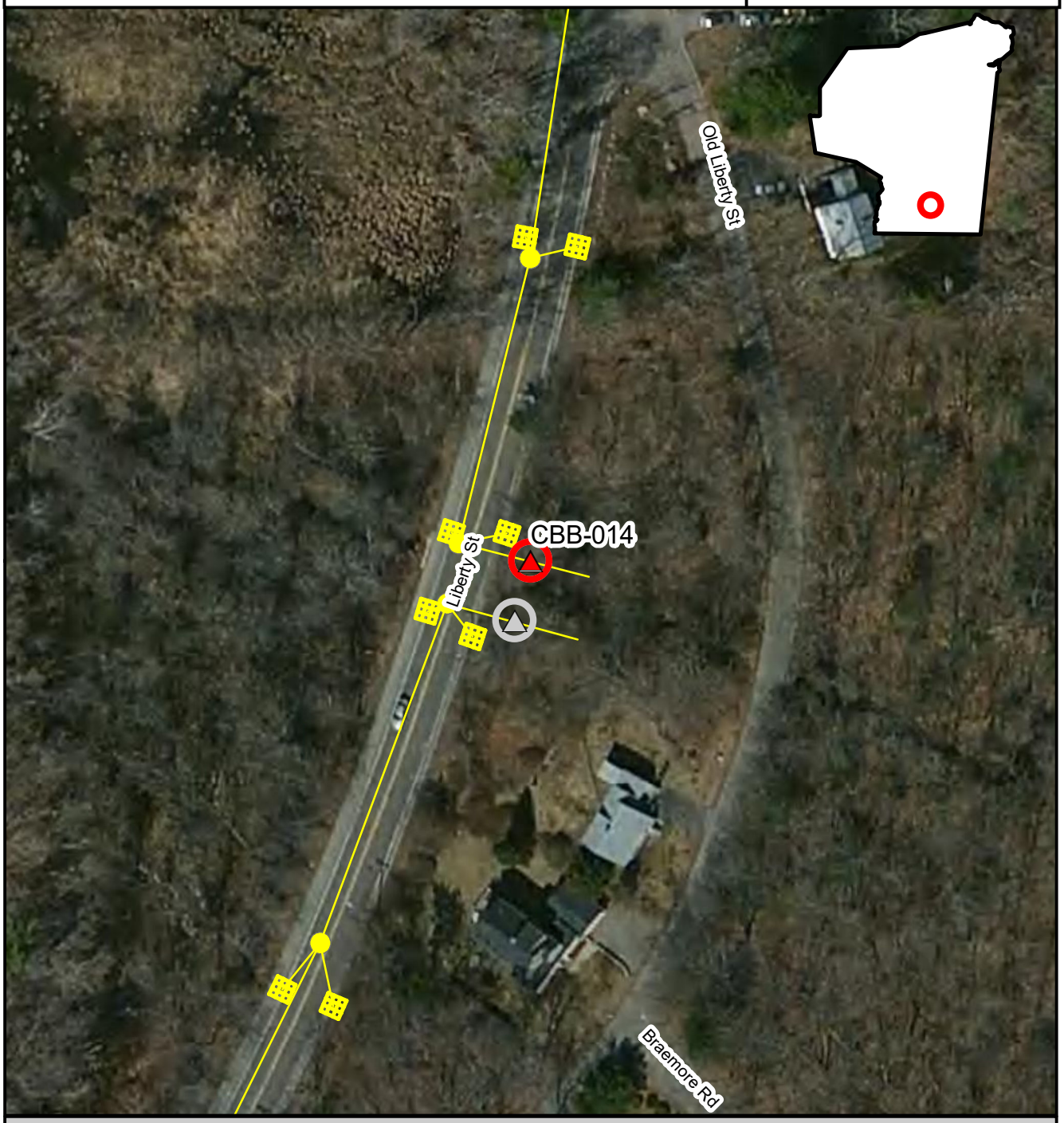
Photos



Braintree IDDE Inspections

Inspection ID
BT-042



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 7/13/2016

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-43, CBB-015, 2016-07-13, 9:37:00

Created	2016-07-13 13:42:33 UTC by Matt Davis
Updated	2016-07-13 13:44:16 UTC by Matt Davis
Location	42.1778886, -70.9975482

Section 1: General Information

Inspection ID	BT-43
Outfall ID	CBB-015
Outfall GIS ID	BC60
Inspector	CPO GH
Date	2016-07-13
Time	9:37:00
Temperature	80
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	48
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	Yes
Sediment Depth (%)	5
Outfall Submerged	Partially
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	Standing Water

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	Yes
Deposits/Stains	Sediments
Deposits/stains Comments	Iron staining
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	Access limited due to steep embankment and thick vegetation. Same qualities as outfall located on other side of road. Approx. 8 inches of standing water

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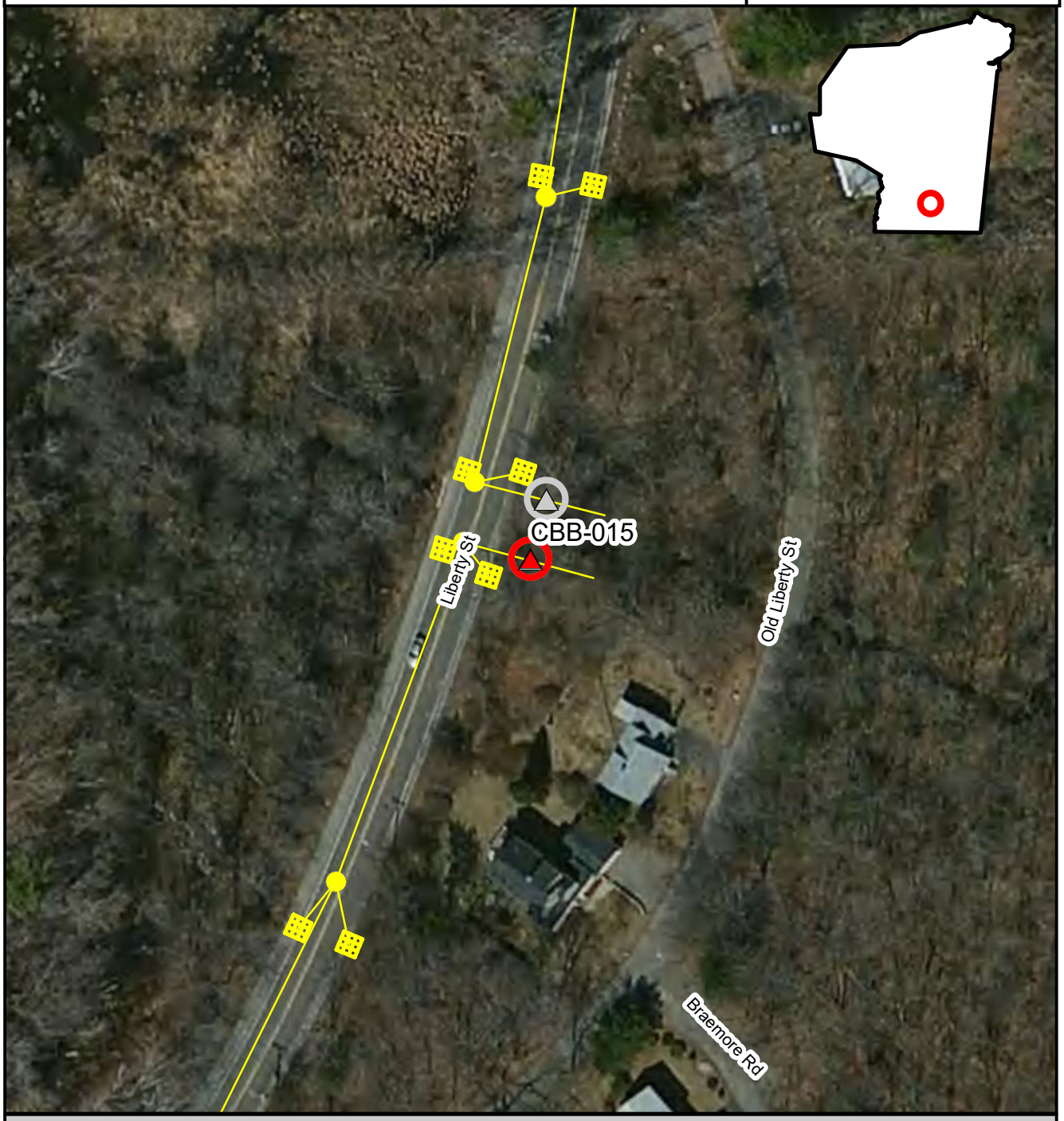
Section 7: Media

Photos

Braintree IDDE Inspections

Inspection ID
BT-043



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 7/13/2016

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-44, CDS-010, 2016-07-13, 9:54:00

Created	2016-07-13 13:59:13 UTC by Matt Davis
Updated	2016-07-13 13:59:13 UTC by Matt Davis
Location	42.1881651, -71.0037494

Section 1: General Information

Inspection ID	BT-44
Outfall ID	CDS-010
Outfall GIS ID	BC61
Inspector	CPO GH
Date	2016-07-13
Time	9:54:00
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	36
Outfall Condition	Normal
Headwall Present	Yes
Headwall Condition	Fair
Sediment Present?	Yes
Sediment Depth (%)	12
Outfall Submerged	Partially
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	Yes
Flow Velocity	Trickle

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	Yes
Deposits/Stains	Sediments, Oil
Deposits/stains Comments	Oil sheen, iron staining
Pool quality issues?	Yes
Pool Quality Description	Oil sheen
Pool quality Comments	Oil sheen and iron deposit
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No

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Intermittent flow trap used?	No
Section 6: General Comments	Significant oil sheen and iron staining. Recommend sampling this location

Section 7: Media

Photos

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BT-44

Braintree IDDE Inspections

Inspection ID
BT-044

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 7/13/2016

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-45, CDS-013, 2016-07-13, 10:16:00

Created	2016-07-13 14:24:18 UTC by Matt Davis
Updated	2016-07-13 14:24:18 UTC by Matt Davis
Location	42.1895472, -70.9971163

Section 1: General Information

Inspection ID	BT-45
Outfall ID	CDS-013
Outfall GIS ID	BC49
Inspector	CPO GH
Date	2016-07-13
Time	10:16:00
Temperature	80
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	36
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	Yes
Sediment Depth (%)	1
Outfall Submerged	Partially
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	Standing Water

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	Yes
Deposits/Stains	Sediments
Deposits/stains Comments	Iron staining
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	3 inches of standing water in outfall. Extremely dense vegetation.

Section 7: Media

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Photos

Braintree IDDE Inspections

Inspection ID
BT-045

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 7/13/2016

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-46, CDS-001, 2016-07-13, 10:45:00

Created	2016-07-13 14:47:29 UTC by Matt Davis
Updated	2016-07-27 15:05:42 UTC by Matt Davis
Location	42.1938092, -70.9983995

Section 1: General Information

Inspection ID	BT-46
Outfall ID	CDS-001
Outfall GIS ID	BC50
Inspector	CPO GH
Date	2016-07-13
Time	10:45:00
Temperature	86
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	12
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	Yes
Sediment Depth (%)	30
Outfall Submerged	Partially
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	Standing Water

Section 4: Physical Indicators (all outfalls)

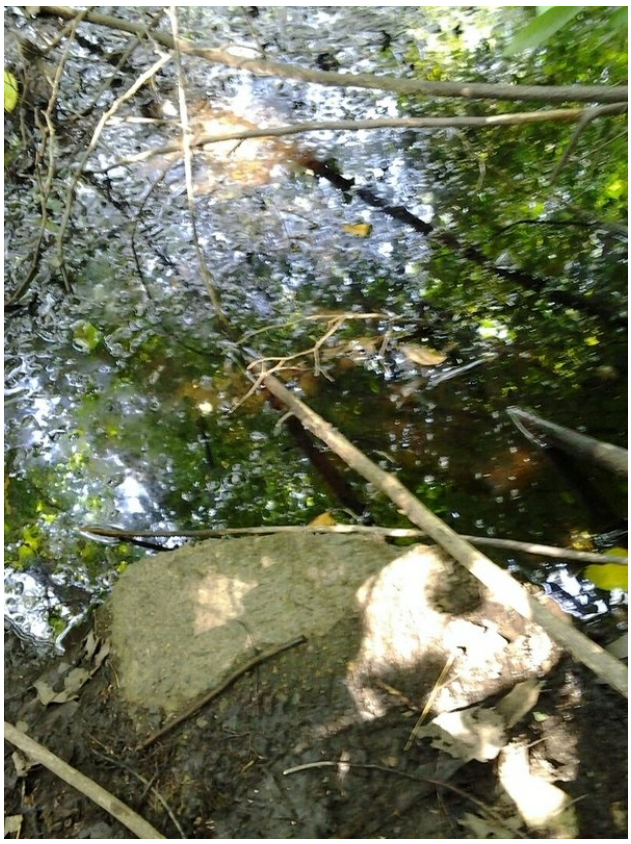
Deposits/stains present?	No
Pool quality issues?	Yes
Pool Quality Description	submerged in swamp
Pool quality Comments	Pool is swamp water with debris su change as decomposing leaves
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	Pipe submerged approximately 8 inches. Outfall discharges directly into wetland area.

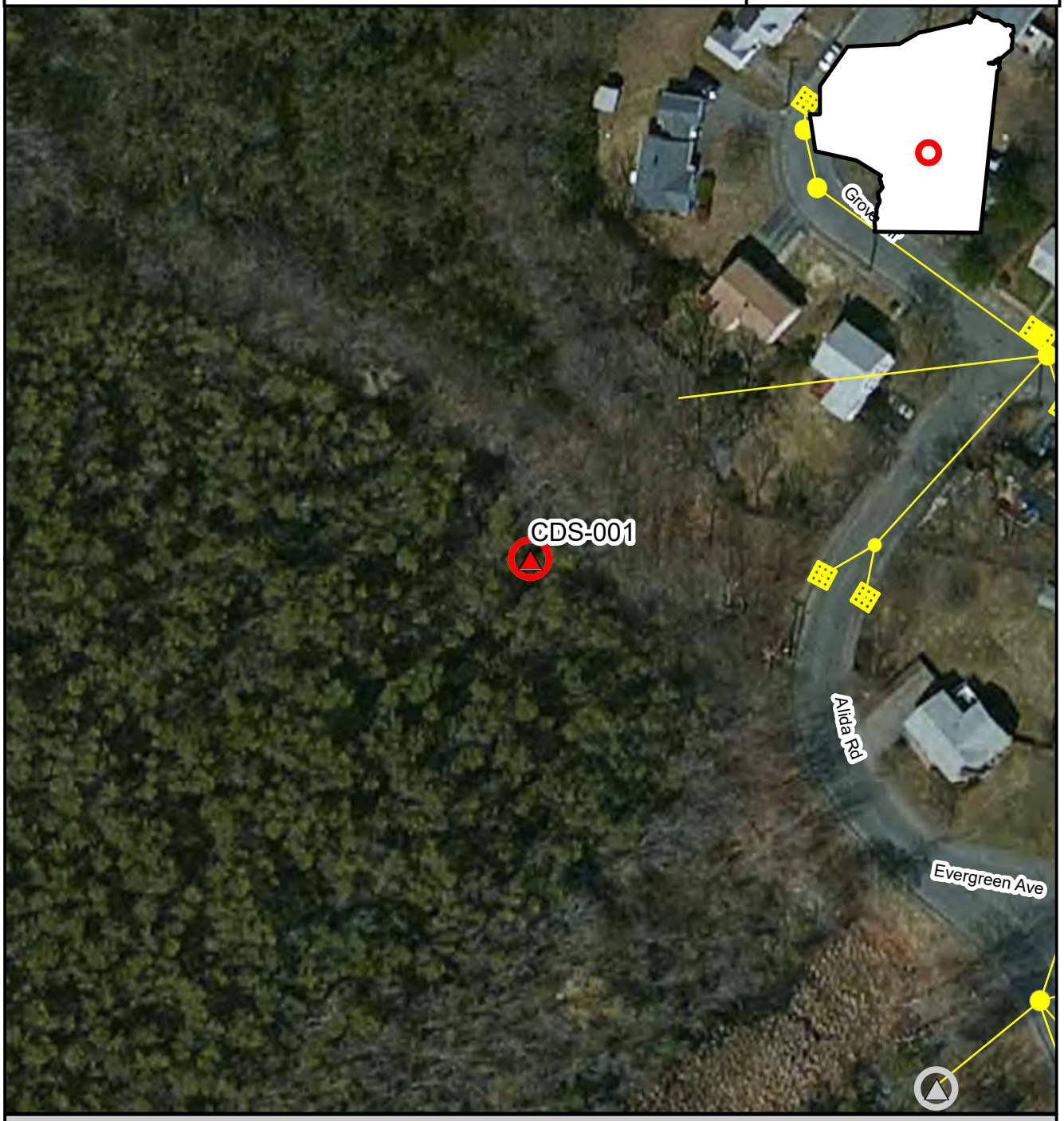
Section 7: Media

Photos



Braintree IDDE Inspections

Inspection ID
BT-046



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 7/13/2016

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-47, SMB-030, 2016-07-13, 10:59

Created	2016-07-13 15:05:46 UTC by Matt Davis
Updated	2019-06-27 16:01:25 UTC by Matt Davis
Location	42.1876907, -70.9845579

Section 1: General Information

Inspection ID	BT-47
Outfall ID	SMB-030
Outfall ID	SMB-030
Outfall GIS ID	BC51
Inspector	CPO GH
Date	2016-07-13
Time	10:59
Temperature	86
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	24
Outfall Condition	Normal
Headwall Present	Yes
Headwall Condition	Good
Sediment Present?	Yes
Sediment Depth (%)	5
Outfall Submerged	Partially
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	Yes
Flow Velocity	Trickle
Flow Width (in)	8
Flow Depth (in)	4
Color Severity	Clearly visible in outfall flow
Color Description	Brown
Turbidity	No cloudiness
Floatables (does not include trash)	None

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	Yes
Deposits/Stains	Sediments

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Deposits/stains Comments	Iron staining
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Reason field measurements not performed	Stagnant water
Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	Approx. 7 inches standing water. Significant iron staining and dense vegetation.

Section 7: Media

Photos

BT-47

Braintree IDDE Inspections

Inspection ID
BT-047

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 7/13/2016

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-48, MQR-081, 2016-07-13, 11:22:00

Created	2016-07-13 15:27:05 UTC by Matt Davis
Updated	2016-07-13 15:27:05 UTC by Matt Davis
Location	42.2027906, -70.9933758

Section 1: General Information

Inspection ID	BT-48
Outfall ID	MQR-081
Outfall GIS ID	BC52
Inspector	CPO GH
Date	2016-07-13
Time	11:22:00
Temperature	86
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	CMP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	48
Outfall Condition	Normal
Headwall Present	Yes
Headwall Condition	Good
Sediment Present?	No
Outfall Submerged	Partially
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	Standing Water

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	Yes
Deposits/Stains	Sediments
Deposits/stains Comments	Iron staining
Pool quality issues?	Yes
Pool Quality Description	Colors
Pool quality Comments	Significant iron on water surface
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No

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Section 6: General Comments	Several sorbent booms deployed in this area. Outfall located next to sewage pump station

Section 7: Media

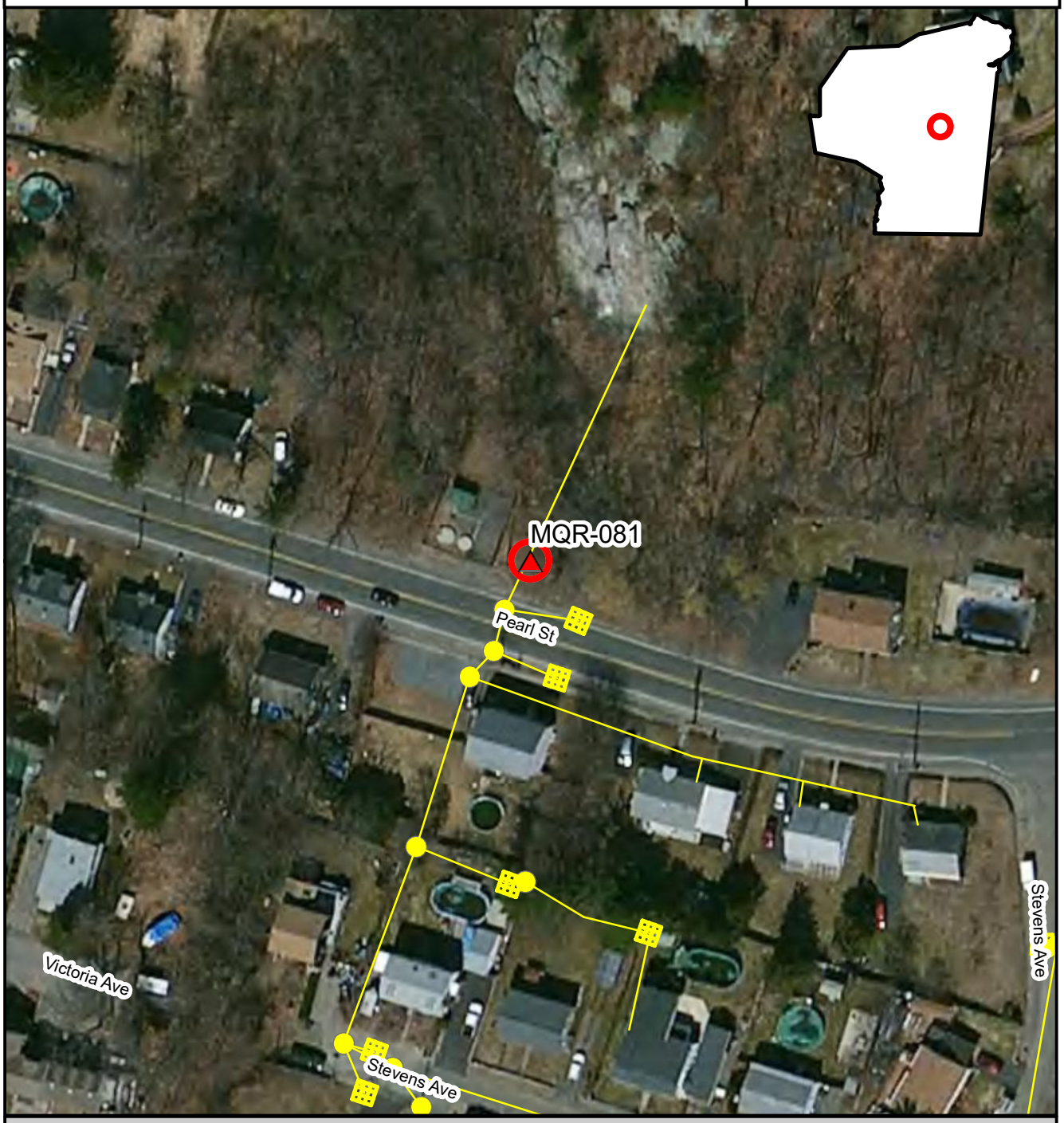
Photos

BT-48

BT-48

Braintree IDDE Inspections

Inspection ID
BT-048



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 7/13/2016

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-49, MQR-075, 2016-07-13, 11:35:00

Created	2016-07-13 15:40:03 UTC by Matt Davis
Updated	2016-07-27 15:04:21 UTC by Matt Davis
Location	42.2095324, -70.9980758

Section 1: General Information

Inspection ID	BT-49
Outfall ID	MQR-075
Outfall GIS ID	BC53
Inspector	CPO GH
Date	2016-07-13
Time	11:35:00
Temperature	86
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	48
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	Yes
Sediment Depth (%)	10
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	Yes
Flow Velocity	Trickle
Color Severity	Clearly visible in outfall flow
Color Description	Brown
Turbidity	No cloudiness
Floatables (does not include trash)	None

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	Yes
Deposits/Stains	Sediments
Deposits/stains Comments	Iron staining
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	Double outfalls 42 and 48. Trickle flow iron staining. First Visit. Second was BT-76

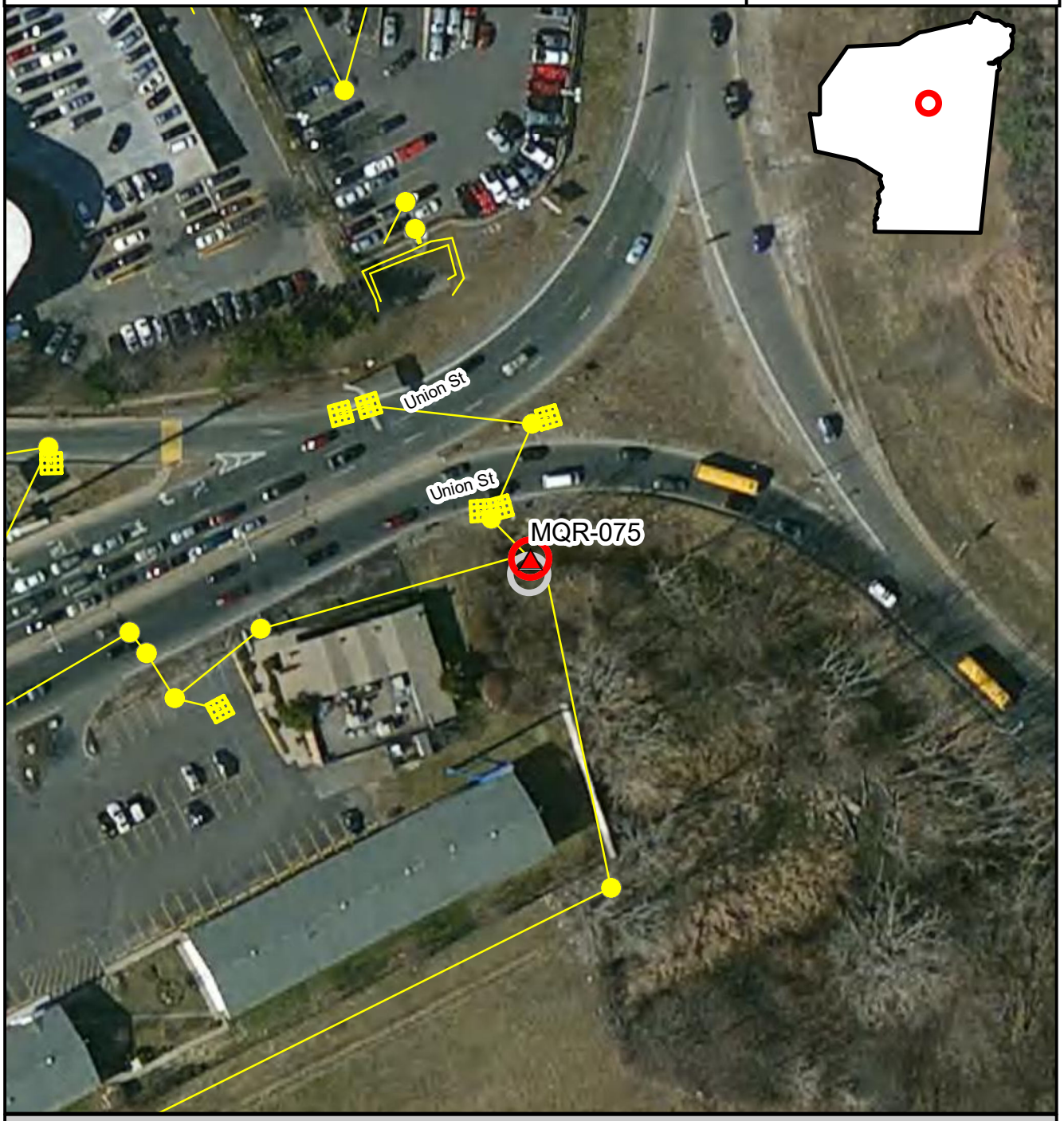
Section 7: Media

Photos

BT-49

Braintree IDDE Inspections

Inspection ID
BT-049



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 7/13/2016

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-50, MQR-041, 2016-07-20, 7:49:00

Created	2016-07-20 11:58:34 UTC by Matt Davis
Updated	2016-07-20 11:58:34 UTC by Matt Davis
Location	42.2104401, -70.9910818

Section 1: General Information

Inspection ID	BT-50
Outfall ID	MQR-041
Outfall GIS ID	BC87
Inspector	CPO GH
Date	2016-07-20
Time	7:49:00
Temperature	69
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	CMP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	42
Outfall Condition	Normal
Headwall Present	Yes
Headwall Condition	Poor
Sediment Present?	Yes
Sediment Depth (%)	30
Outfall Submerged	Partially
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	Standing Water

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	Outfall mostly submerged. 15" of sediment, 13" of standing water. Lots of vegetation difficult to access. Sedimentation was deep, standing water. Accessed behind #70 and #80 Logan Drive

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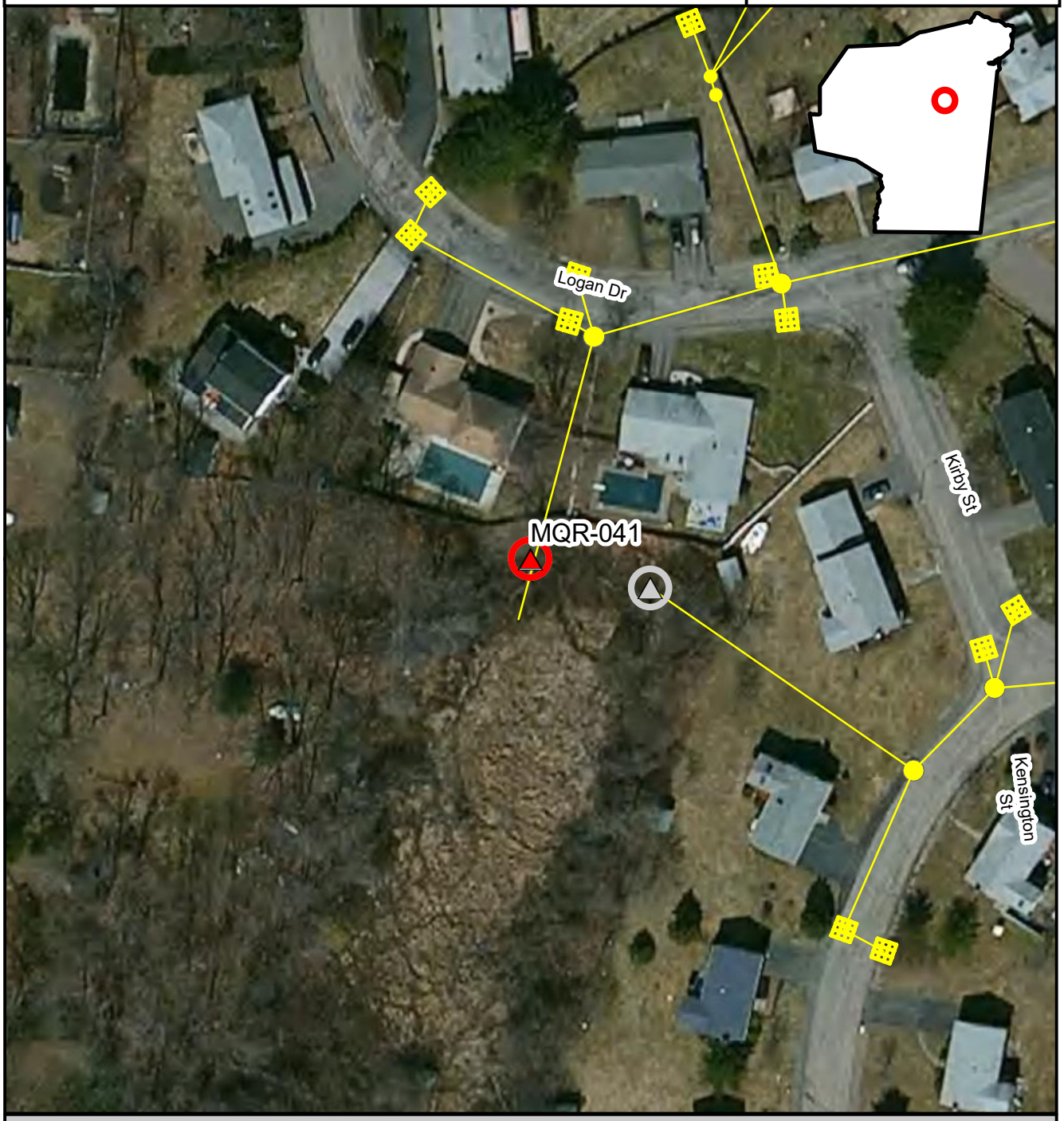
Section 7: Media

Photos

BT-50

Braintree IDDE Inspections

Inspection ID
BT-050



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 7/20/2016

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-51, MQR-040, 2016-07-20, 8:03:00

Created	2016-07-20 12:09:34 UTC by Matt Davis
Updated	2016-07-27 15:03:45 UTC by Matt Davis
Location	42.2101009, -70.9912877

Section 1: General Information

Inspection ID	BT-51
Outfall ID	MQR-040
Outfall GIS ID	BC88
Inspector	CPO GH
Date	2016-07-20
Time	8:03:00
Temperature	70
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	18
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	Yes
Sediment Depth (%)	80
Outfall Submerged	Partially
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	Standing Water

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	Yes
Pool Quality Description	shallow pool
Pool quality Comments	Pipe drains to small hole. No outflow possible
Pipe benthic growth present?	No

Section 5: Field Measurements

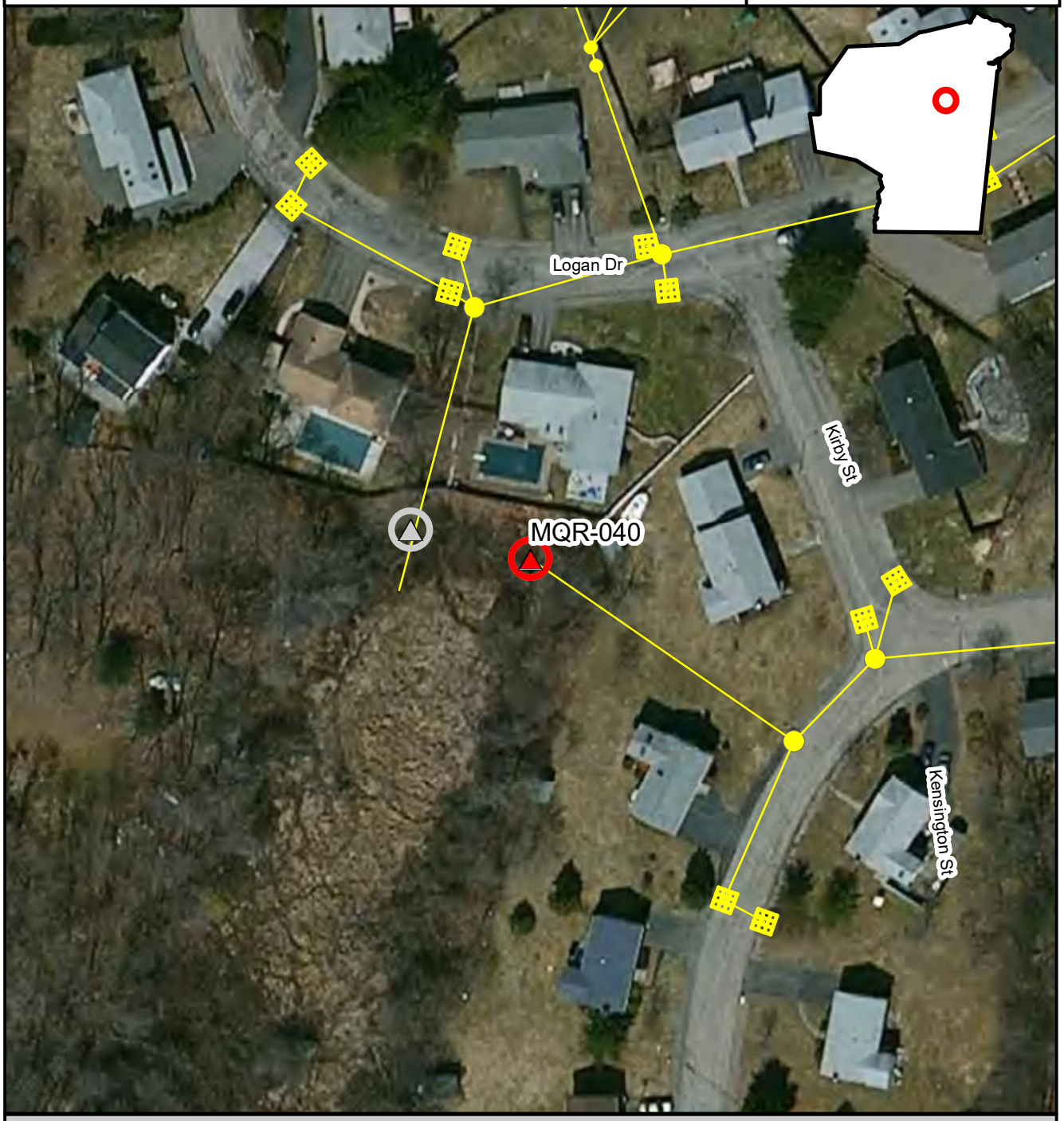
Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	Pipe mostly buried in sediment, 15". Pipe drains to very shallow pool with no possibility for flow to drain to surrounding area

Section 7: Media

Photos

Braintree IDDE Inspections

Inspection ID
BT-051



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 7/20/2016

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-52, WFR-018, 2016-07-20, 8:45:00

Created	2016-07-20 12:51:41 UTC by Matt Davis
Updated	2016-07-20 12:51:41 UTC by Matt Davis
Location	42.2306376, -70.9906626

Section 1: General Information

Inspection ID	BT-52
Outfall ID	WFR-018
Outfall GIS ID	BC73
Inspector	CPO GH
Date	2016-07-20
Time	8:45:00
Temperature	70
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	18
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	Yes
Pool Quality Description	scouring
Pool quality Comments	Significant scouring and loose sediment in scouring
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	Outfall located next to railroad and behind #665 Commercial St . Significant scouring

Section 7: Media

Photos

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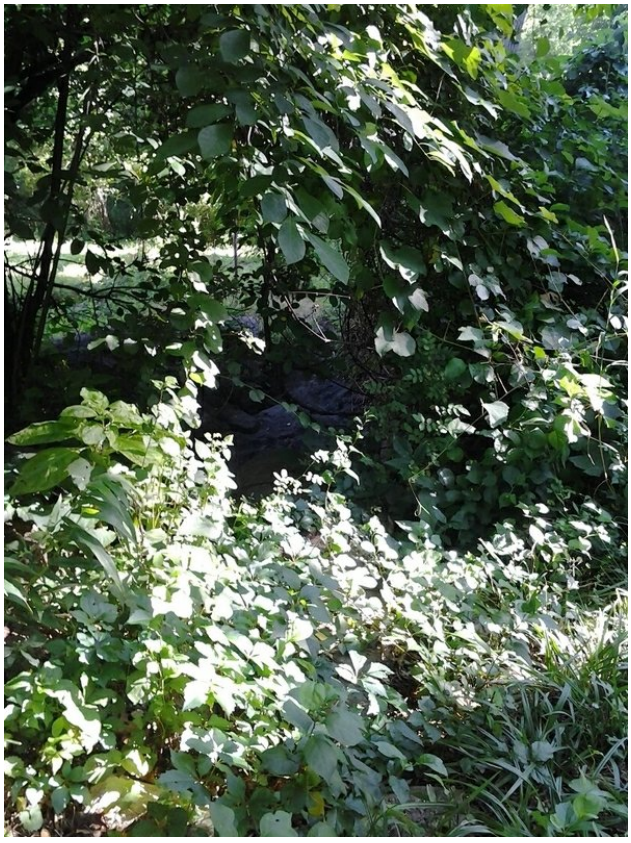

Braintree IDDE Inspections

Inspection ID
BT-052

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 7/20/2016

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-53, WFR-017, 2016-07-20, 8:55:00

Created	2016-07-20 13:01:26 UTC by Matt Davis
Updated	2016-07-20 13:01:26 UTC by Matt Davis
Location	42.2311286, -70.9906042

Section 1: General Information

Inspection ID	BT-53
Outfall ID	WFR-017
Outfall GIS ID	BC72
Inspector	CPO GH
Date	2016-07-20
Time	8:55:00
Temperature	74
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	24
Outfall Condition	Normal
Headwall Present	Yes
Headwall Condition	Good
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	Outfall in good condition. 52" outfall under railroad adjacent to this outfall. Access via 25 John Paul Circle.

Section 7: Media

Photos

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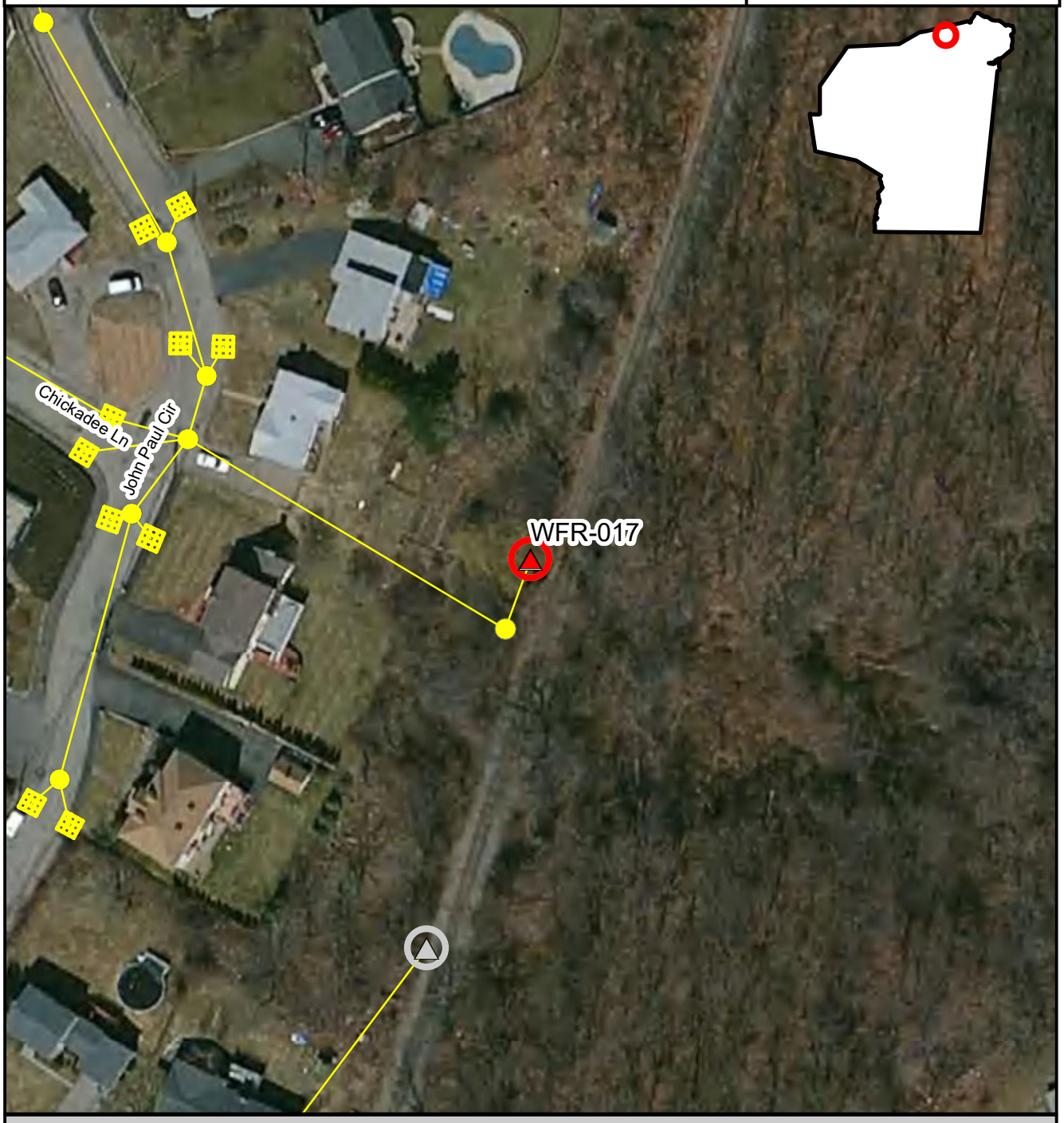
BT-53

Braintree IDDE Inspections

Inspection ID
BT-053



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 7/20/2016

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-54, WFR-016, 2016-07-20, 09:09

Created	2016-07-20 13:15:56 UTC by Matt Davis
Updated	2019-02-13 21:31:00 UTC by Matt Davis
Location	42.2308164, -70.9894193

Section 1: General Information

Inspection ID	BT-54
Outfall ID	WFR-016
Outfall GIS ID	BC74
Inspector	CPO GH
Date	2016-07-20
Time	09:09
Temperature	74
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	12
Outfall Condition	Cracking
Headwall Present	No
Sediment Present?	Yes
Sediment Depth (%)	2
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	Yes
Flow Velocity	Trickle
Flow Width (in)	2
Flow Depth (in)	.1
Color Severity	None
Turbidity	No cloudiness
Floatables (does not include trash)	None

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

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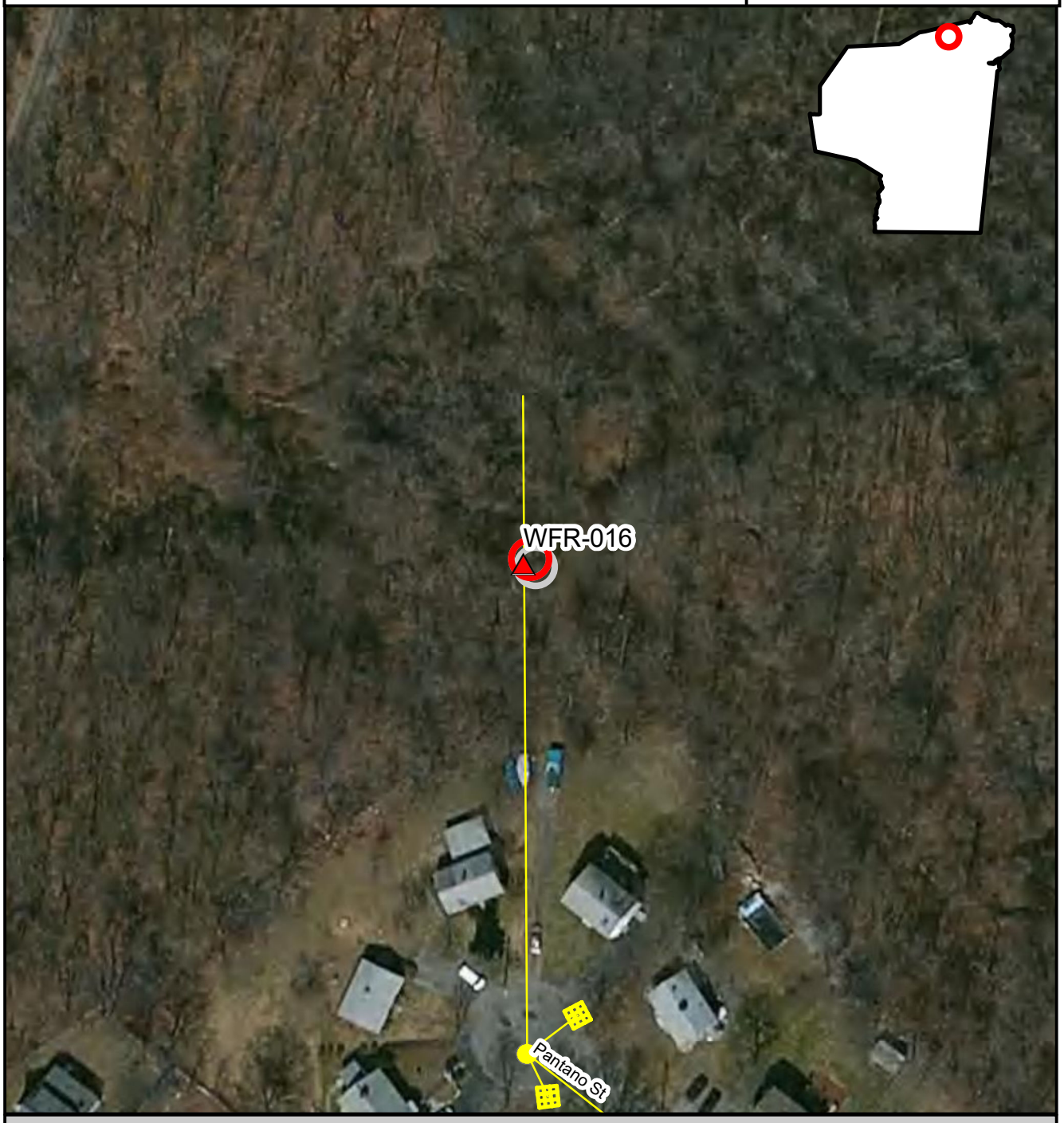
Were field measurements performed?	No
Reason field measurements not performed	Screening only
Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	Scouring. Garden hose discharges near outfall, garden hose not connected to anything. Significant scouring in area. Accessed behind #33 and #29 Pantano St

Section 7: Media

Photos

Braintree IDDE Inspections

Inspection ID
BT-054



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 7/20/2016

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-55, TWB-016, 2016-07-20, 9:48:00

Created	2016-07-20 13:53:53 UTC by Matt Davis
Updated	2016-07-20 13:53:53 UTC by Matt Davis
Location	42.221994, -71.0110138

Section 1: General Information

Inspection ID	BT-55
Outfall ID	TWB-016
Outfall GIS ID	BC78
Date	2016-07-20
Time	9:48:00
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	VC
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	16
Outfall Condition	Cracking
Headwall Present	No
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	Scouring in the area. Outfall dry

Section 7: Media

Photos

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Braintree IDDE Inspections

Inspection ID
BT-055

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 7/20/2016

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-56, TWB-025, 2016-07-20, 10:22:00

Created	2016-07-20 14:23:50 UTC by Matt Davis
Updated	2016-07-20 14:23:50 UTC by Matt Davis
Location	42.220586, -71.0138303

Section 1: General Information

Inspection ID	BT-56
Outfall ID	TWB-025
Outfall GIS ID	BC79
Inspector	CPO GH
Date	2016-07-20
Time	10:22:00
Temperature	74
Inspection Location	Outfall
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Section 6: General Comments	Pipe discharges directly to Town Brook culvert under Walnut Street. Visual no flow. No access possible

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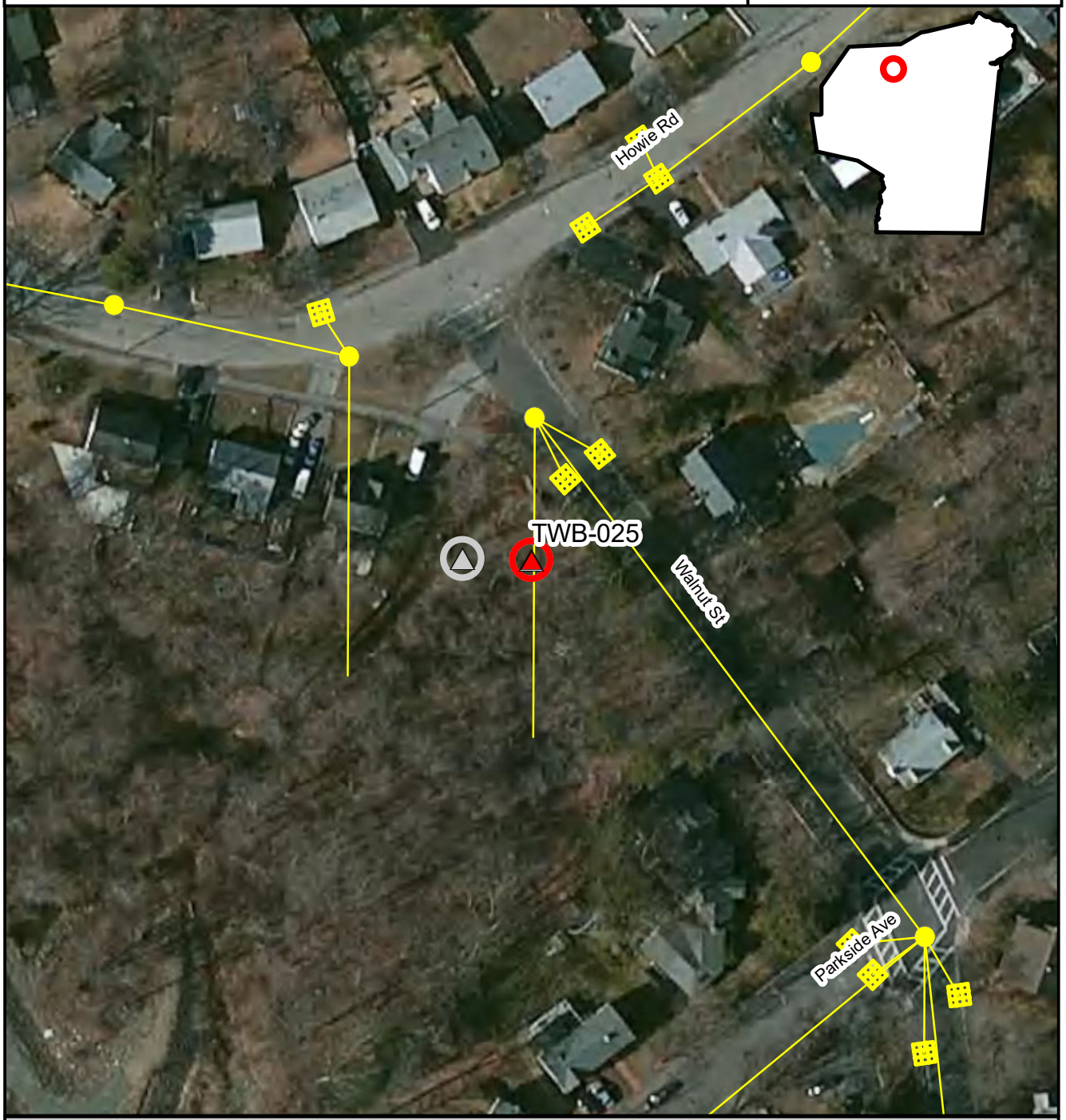
Braintree IDDE Inspections

Inspection ID
BT-056



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 7/20/2016

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-57, SMB-008, 2016-07-20, 12:42:00

Created	2016-07-20 16:46:10 UTC by Matt Davis
Updated	2016-07-20 17:07:13 UTC by Matt Davis
Location	42.2144914, -70.9716764

Section 1: General Information

Inspection ID	BT-57
Outfall ID	SMB-008
Outfall GIS ID	BC99
Inspector	CPO GH
Date	2016-07-20
Time	12:42:00
Temperature	83
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	CMP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	21
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	Yes
Sediment Depth (%)	2
Outfall Submerged	Partially
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	Standing Water

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	Yes
Deposits/Stains	Sediments
Deposits/stains Comments	Iron staining
Pool quality issues?	Yes
Pool Quality Description	iron color
Pool quality Comments	Iron color present throughout pool
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No

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Section 6: General Comments	MWRA manhole in the close vicinity. Outfall in vicinity of Smelt Brook

Section 7: Media

Photos

Braintree IDDE Inspections

Inspection ID
BT-057

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 7/20/2016

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-58, MQR-035, 2016-07-20, 13:17:00

Created	2016-07-20 17:19:57 UTC by Matt Davis
Updated	2016-07-20 17:19:57 UTC by Matt Davis
Location	42.2246639, -70.9950735

Section 1: General Information

Inspection ID	BT-58
Outfall ID	MQR-035
Outfall GIS ID	BC104
Inspector	CPO GH
Date	2016-07-20
Time	13:17:00
Temperature	76
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	corrugated PVC
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	18
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No

Section 7: Media

Photos

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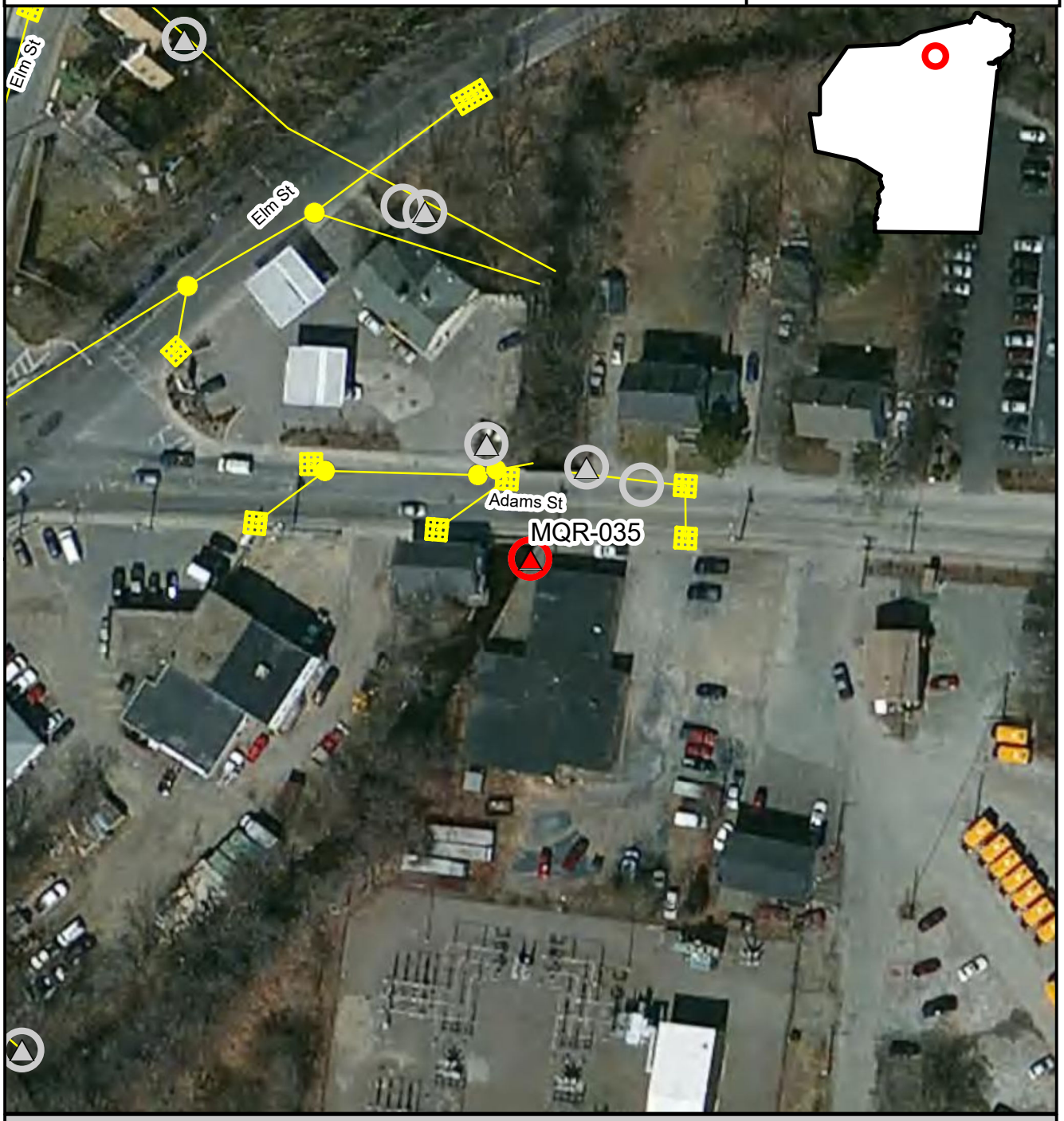
Braintree IDDE Inspections

Inspection ID
BT-058



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 7/20/2016

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-59, MQR-036, 2016-07-20, 13:20:00

Created	2016-07-20 17:21:42 UTC by Matt Davis
Updated	2016-07-20 17:21:42 UTC by Matt Davis
Location	42.2247963, -70.9953922

Section 1: General Information

Inspection ID	BT-59
Outfall ID	MQR-036
Outfall GIS ID	BC102
Inspector	CPO GH
Date	2016-07-20
Time	13:20:00
Temperature	78
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	Steel
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	12
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No

Section 7: Media

Photos

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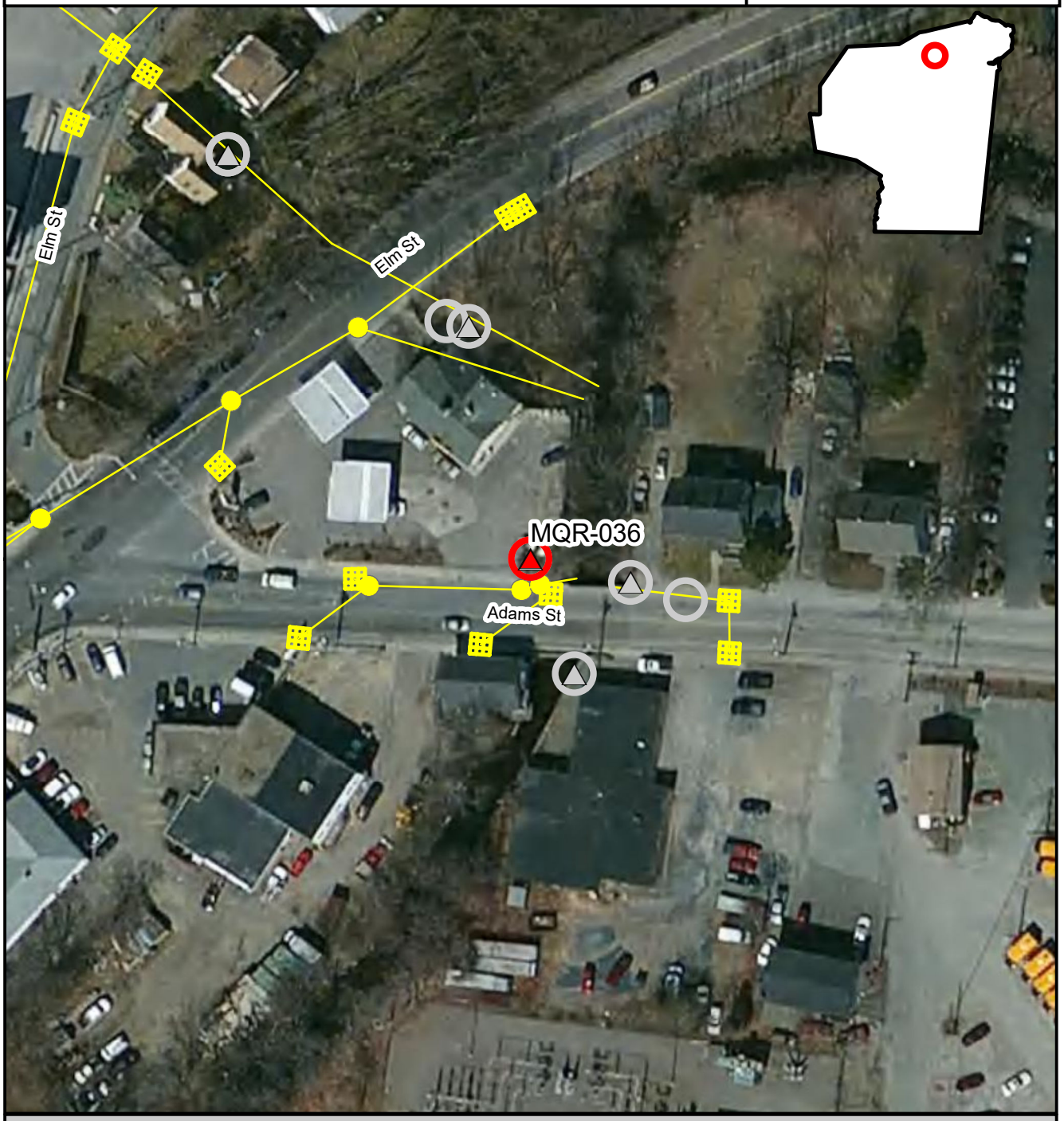
Braintree IDDE Inspections

Inspection ID
BT-059



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 7/20/2016

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-60, MQR-039, 2016-07-20, 13:29:00

Created	2016-07-20 17:33:01 UTC by Matt Davis
Updated	2016-07-20 17:33:01 UTC by Matt Davis
Location	42.223831, -70.9964414

Section 1: General Information

Inspection ID	BT-60
Outfall ID	MQR-039
Outfall GIS ID	BC105
Inspector	CPO GH
Date	2016-07-20
Time	13:29:00
Temperature	78
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	corrugated PVC
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	36
Outfall Condition	Normal
Headwall Present	Yes
Headwall Condition	Fair
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	Outfall approx. 20 ft from river

Section 7: Media

Photos

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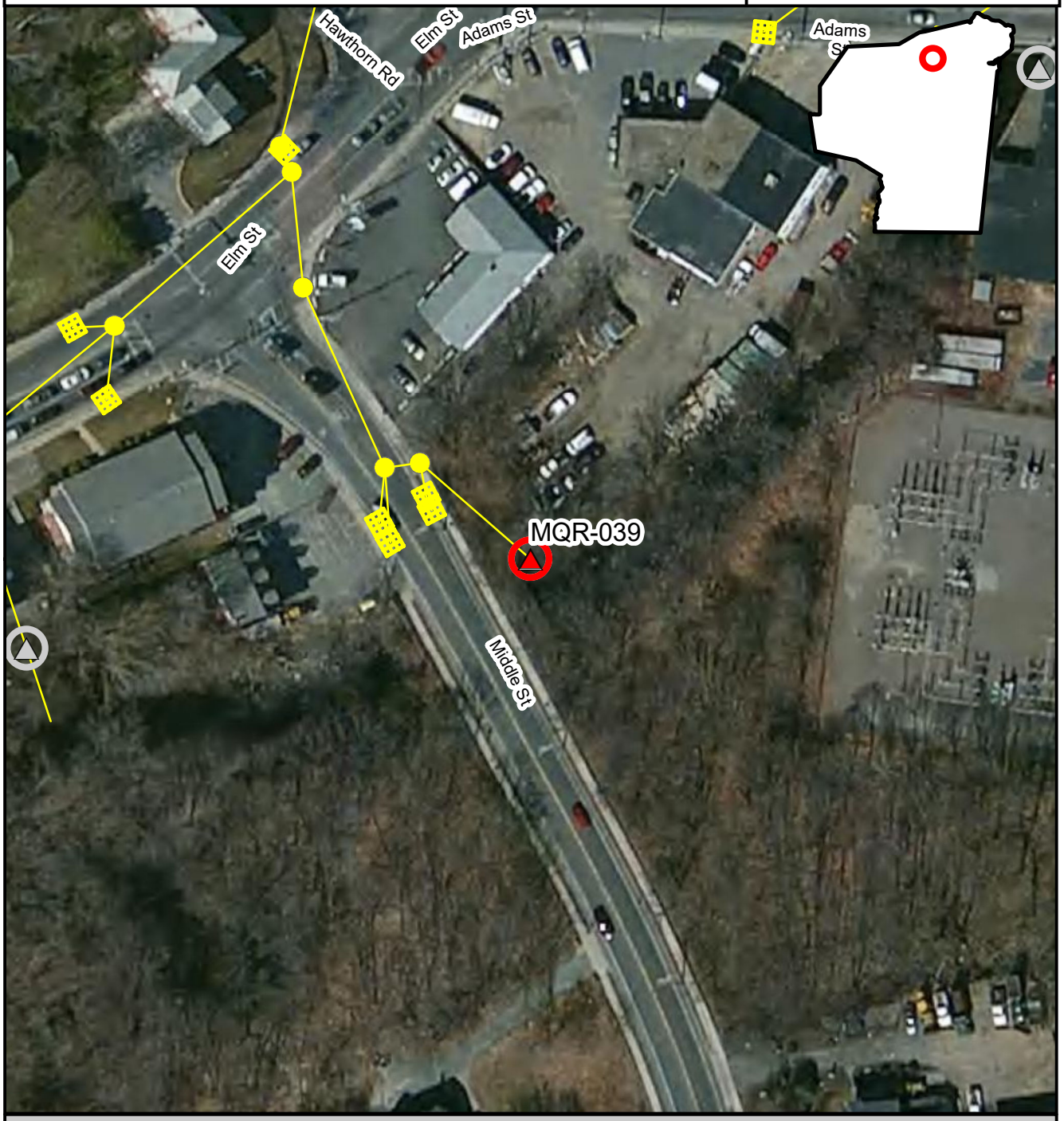
Braintree IDDE Inspections

Inspection ID
BT-060



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 7/20/2016

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-61, MQR-046, 2016-07-20, 14:11:00

Created	2016-07-20 18:26:18 UTC by Matt Davis
Updated	2016-07-27 15:06:52 UTC by Matt Davis
Location	42.2139431, -70.9952505

Section 1: General Information

Inspection ID	BT-61
Outfall ID	MQR-046
Outfall GIS ID	BC103
Inspector	CPO GH
Date	2016-07-20
Time	14:11:00
Temperature	87
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	30
Outfall Condition	Normal
Headwall Present	Yes
Headwall Condition	Good
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	Yes
Flow Velocity	Trickle
Color Severity	Clearly visible in outfall flow
Color Description	black
Turbidity	No cloudiness
Floatables (does not include trash)	None

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	Yes
Deposits/Stains	Sediments
Deposits/stains Comments	Black staining
Pool quality issues?	No
Pipe benthic growth present?	No

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Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No

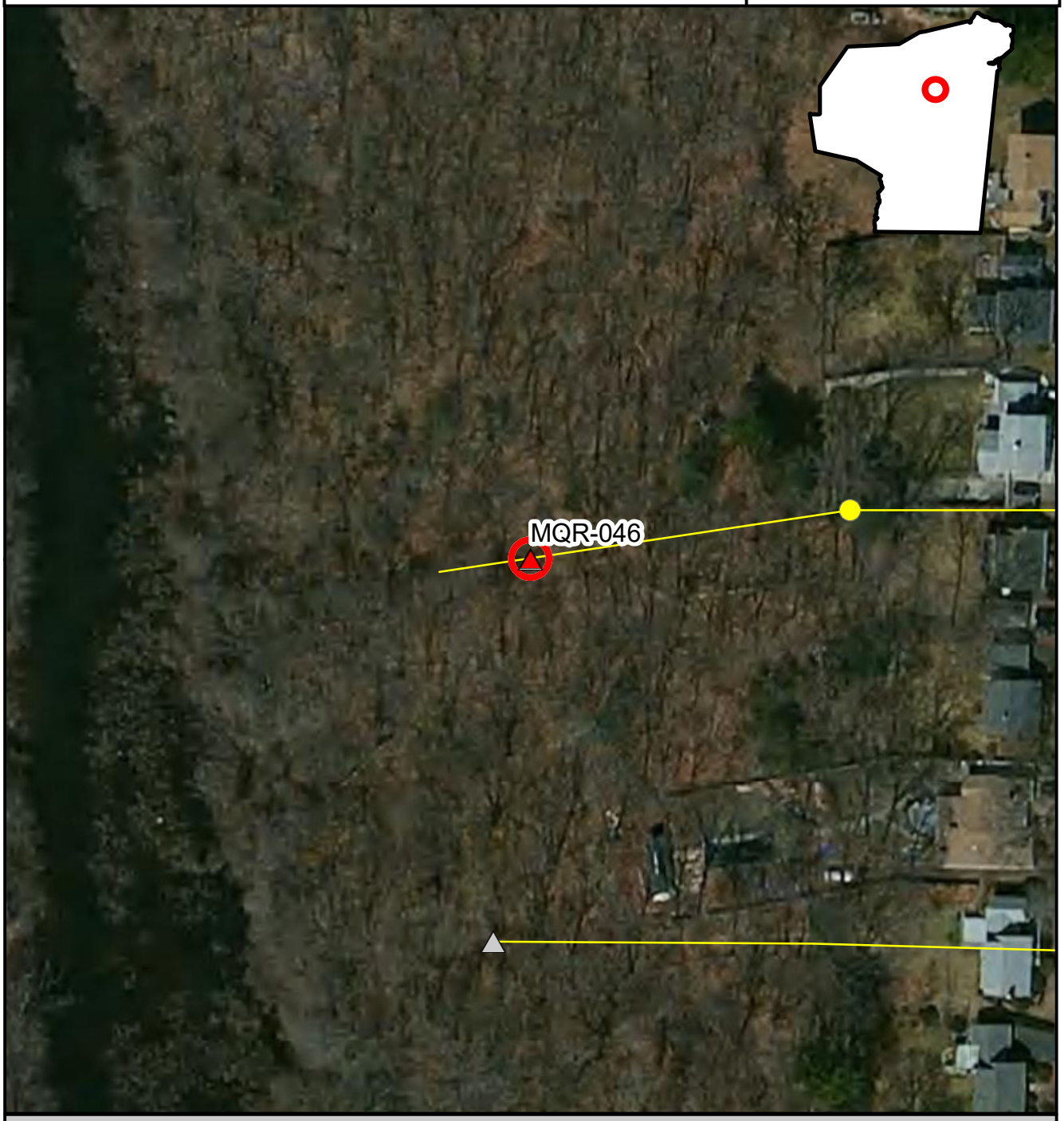
Section 7: Media

Photos

BT-61

Braintree IDDE Inspections

Inspection ID
BT-061



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 7/20/2016

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-62, MQR-083, 2016-07-20, 14:34:00

Created	2016-07-20 18:37:00 UTC by Matt Davis
Updated	2016-07-20 18:37:00 UTC by Matt Davis
Location	42.2035901, -70.9969247

Section 1: General Information

Inspection ID	BT-62
Outfall ID	MQR-083
Outfall GIS ID	BC93
Inspector	CPO GH
Date	2016-07-20
Time	14:34:00
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	CMP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	12
Outfall Condition	Normal
Headwall Present	Yes
Headwall Condition	Good
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	Bridge abutment is headwall

Section 7: Media

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Photos

Braintree IDDE Inspections

Inspection ID
BT-062

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 7/20/2016

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-63, MQR-095, 2016-07-20, 14:42:00

Created	2016-07-20 18:45:15 UTC by Matt Davis
Updated	2016-07-20 18:53:48 UTC by Matt Davis
Location	42.2024841, -70.9996365

Section 1: General Information

Inspection ID	BT-63
Outfall ID	MQR-095
Outfall GIS ID	BC96
Inspector	CPO GH
Date	2016-07-20
Time	14:42:00
Temperature	86
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	24
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	Yes
Sediment Depth (%)	30
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	8" of sediment in bottom of pipe

Section 7: Media

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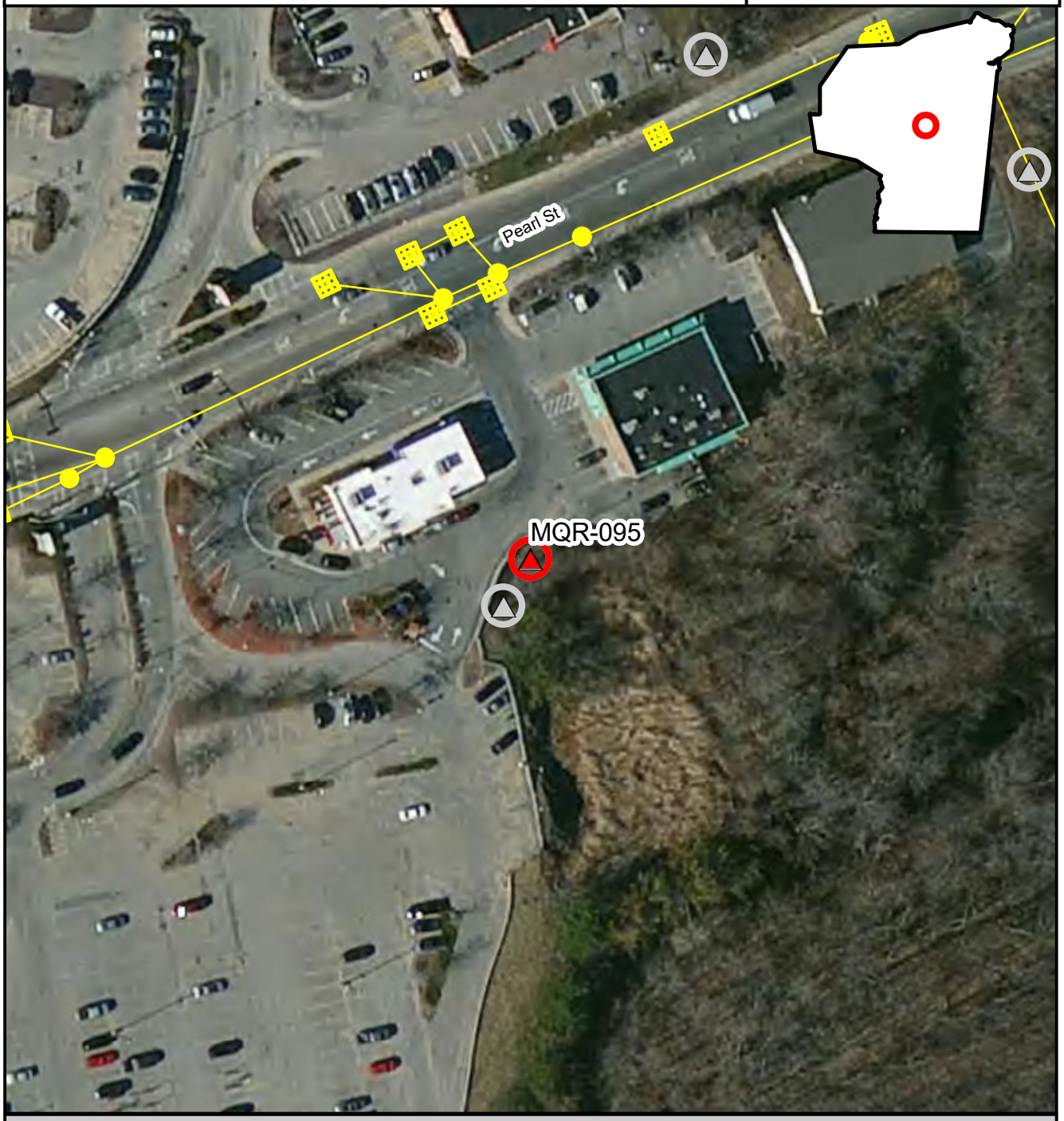
Photos

Braintree IDDE Inspections

Inspection ID
BT-063



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 7/20/2016

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-64, MQR-096, 2016-07-20, 14:45:00

Created	2016-07-20 18:47:25 UTC by Matt Davis
Updated	2016-07-20 18:50:45 UTC by Matt Davis
Location	42.202413, -70.9996925

Section 1: General Information

Inspection ID	BT-64
Outfall ID	MQR-096
Outfall GIS ID	BC94
Inspector	CPO GH
Date	2016-07-20
Time	14:45:00
Temperature	86
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	wide mouth
Closed Pipe Diameter (in)	24
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	Yes
Sediment Depth (%)	5
Outfall Submerged	Partially
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	Standing Water

Section 4: Physical Indicators (all outfalls)

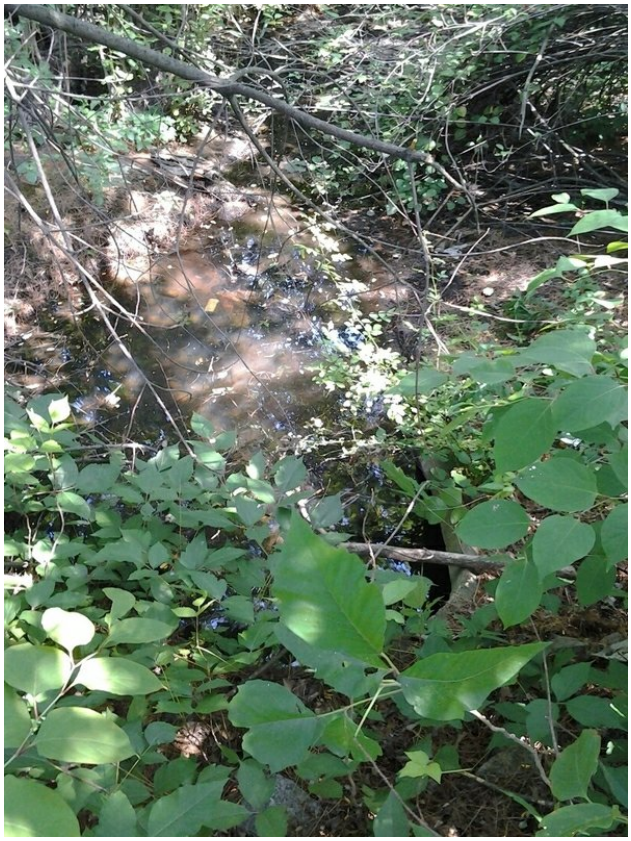
Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	6" of standing water

Section 7: Media

Photos



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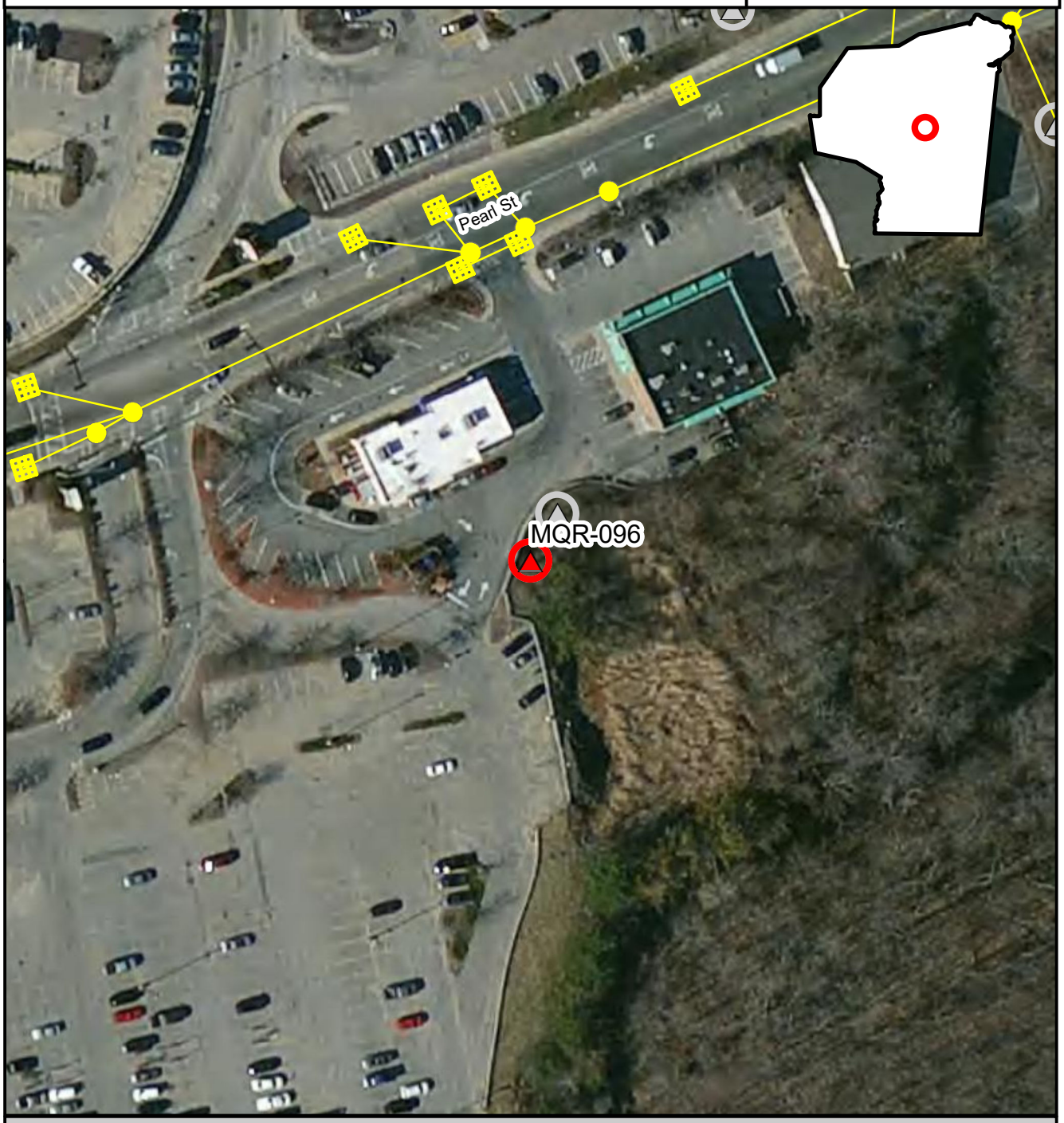
Inspection ID
BT-064



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 7/20/2016

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-65, MQR-092, 2016-07-20, 14:53:00

Created	2016-07-20 18:57:05 UTC by Matt Davis
Updated	2016-07-20 18:57:05 UTC by Matt Davis
Location	42.203184, -70.9993446

Section 1: General Information

Inspection ID	BT-65
Outfall ID	MQR-092
Outfall GIS ID	BC95
Inspector	CPO GH
Date	2016-07-20
Time	14:53:00
Temperature	86
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	u shaped mouth
Closed Pipe Diameter (in)	12
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	Yes
Sediment Depth (%)	5
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	Standing Water

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	1" of sedimentation. Some standing water

Section 7: Media

Photos

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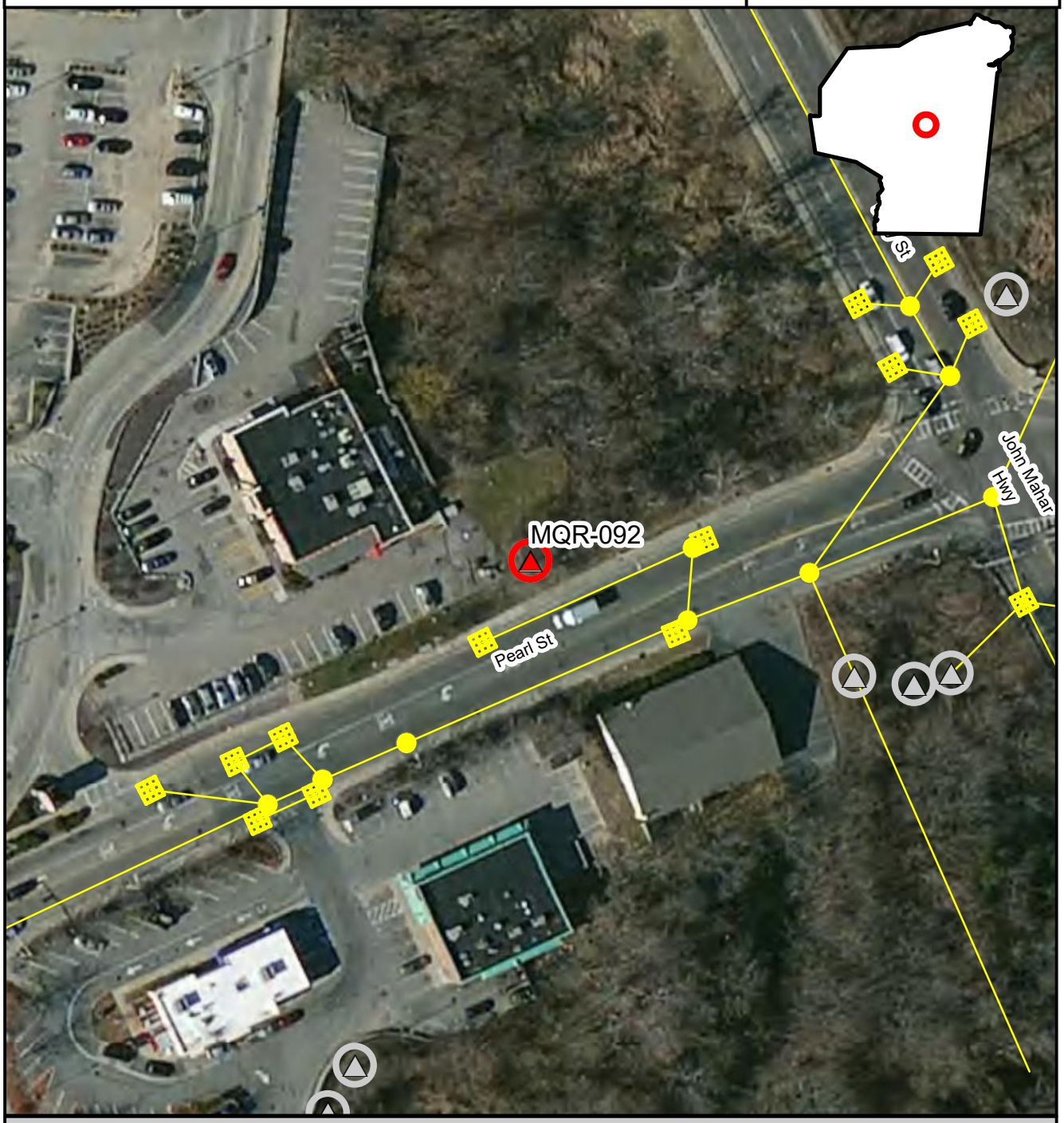
BT-65

Braintree IDDE Inspections

Inspection ID
BT-065



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 7/20/2016

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-66, SSL-008, 2016-07-28, 7:35:00

Created	2016-07-28 13:12:12 UTC by Matt Davis
Updated	2016-07-28 13:12:12 UTC by Matt Davis
Location	42.2043404, -71.010753

Section 1: General Information

Inspection ID	BT-66
Outfall ID	SSL-008
Outfall GIS ID	BC101
Inspector	CPO GH
Date	2016-07-28
Time	7:35:00
Temperature	66
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	12
Outfall Condition	buried
Headwall Present	No
Sediment Present?	Yes
Sediment Depth (%)	75
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No

Section 7: Media

Photos

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Braintree IDDE Inspections

Inspection ID
BT-066

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 7/28/2016

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-67, TWB-042, 2016-07-28, 9:12:00

Created	2016-07-28 13:18:28 UTC by Matt Davis
Updated	2016-07-28 13:18:28 UTC by Matt Davis
Location	42.2133337, -71.0195458

Section 1: General Information

Inspection ID	BT-67
Outfall ID	TWB-042
Outfall GIS ID	BC80
Inspector	CPO GH
Date	2016-07-28
Time	9:12:00
Temperature	76
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	corrugated pvc
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	30
Outfall Condition	Normal
Headwall Present	Yes
Headwall Condition	Fair
Sediment Present?	Yes
Sediment Depth (%)	1
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No

Section 7: Media

Photos

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Braintree IDDE Inspections

Inspection ID
BT-067

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 7/28/2016

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-68, TWB-035, 2016-07-28, 9:36:00

Created	2016-07-28 13:40:02 UTC by Matt Davis
Updated	2016-07-28 14:00:13 UTC by Matt Davis
Location	42.2156505, -71.0159594

Section 1: General Information

Inspection ID	BT-68
Outfall ID	TWB-035
Outfall GIS ID	BC81
Inspector	CPO GH
Date	2016-07-28
Time	9:36:00
Temperature	76
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	12
Outfall Condition	Cracking
Headwall Present	No
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No

Section 7: Media

Photos

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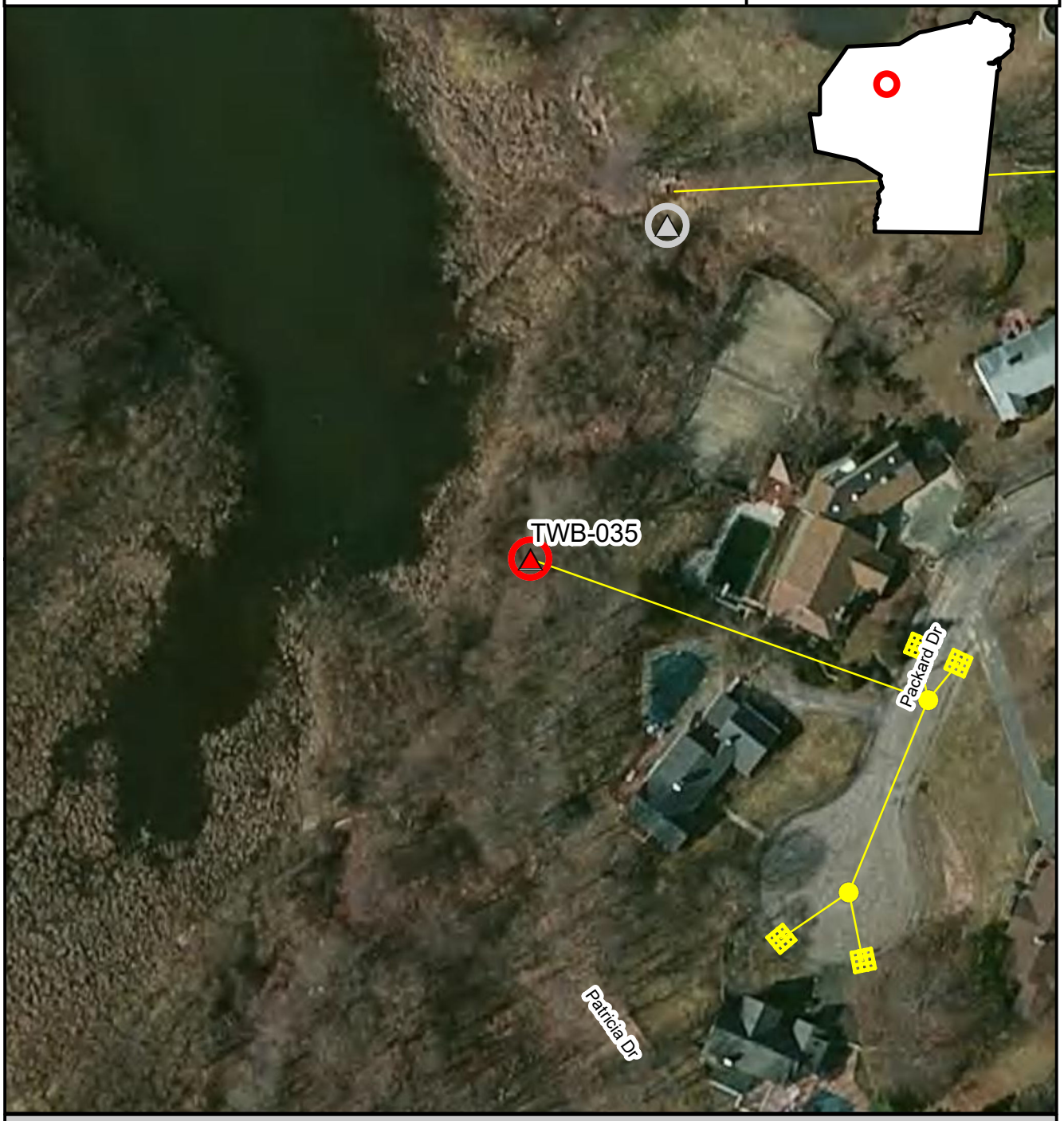
Braintree IDDE Inspections

Inspection ID
BT-068



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 7/28/2016

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-69, TWB-029, 2016-07-28, 10:00:00

Created	2016-07-28 14:12:57 UTC by Matt Davis
Updated	2016-07-28 17:43:42 UTC by Matt Davis
Location	42.2185325, -71.0060682

Section 1: General Information

Inspection ID	BT-69
Outfall ID	TWB-029
Outfall GIS ID	BC76
Inspector	CPO GH
Date	2016-07-28
Time	10:00:00
Temperature	78
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	PVC
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	30
Outfall Condition	Normal
Headwall Present	Yes
Headwall Condition	Good
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	Yes
Flow Velocity	Trickle
Color Severity	None
Turbidity	No cloudiness
Floatables (does not include trash)	None

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No

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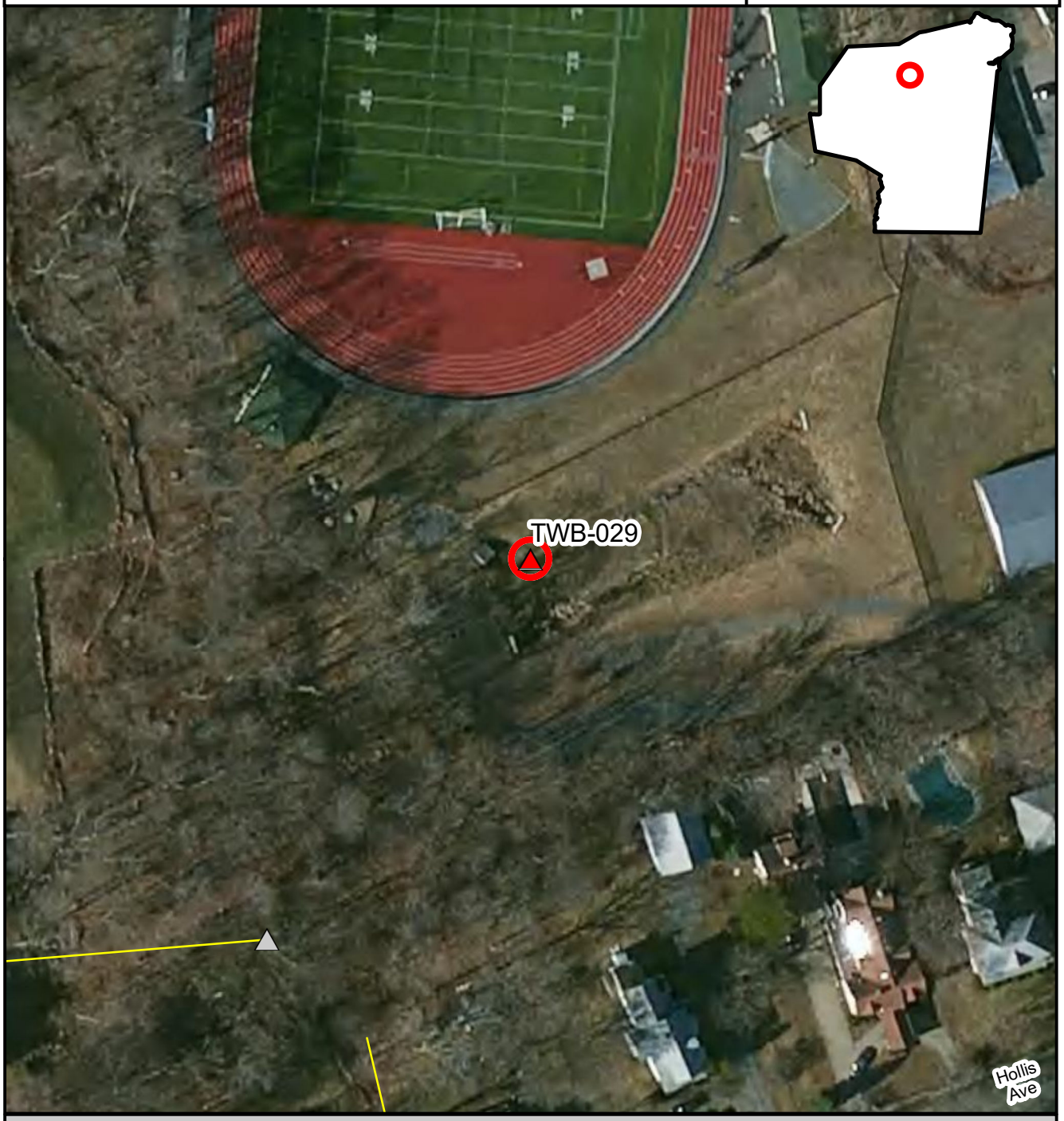
Intermittent flow trap used?	No
Section 6: General Comments	Discharge to detention basin

Section 7: Media

Photos

Braintree IDDE Inspections

Inspection ID
BT-069



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 7/28/2016

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-70, TWB-005, 2016-07-28, 10:22:00

Created	2016-07-28 14:28:10 UTC by Matt Davis
Updated	2016-07-28 14:28:10 UTC by Matt Davis
Location	42.2260095, -71.0095553

Section 1: General Information

Inspection ID	BT-70
Outfall ID	TWB-005
Outfall GIS ID	BC77
Inspector	CPO GH
Date	2016-07-28
Time	10:22:00
Temperature	78
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	48
Outfall Condition	Normal
Headwall Present	Yes
Headwall Condition	Fair
Sediment Present?	Yes
Sediment Depth (%)	5
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	Yes
Flow Velocity	Moderate
Color Severity	None
Turbidity	No cloudiness
Floatables (does not include trash)	None

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No

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Intermittent flow trap used?	No
Section 6: General Comments	11" of water in pipe

Section 7: Media

Photos

Braintree IDDE Inspections

Inspection ID
BT-070

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 7/28/2016

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-71, 2016-07-28, 10:42:00

Created	2016-07-28 14:46:29 UTC by Matt Davis
Updated	2016-07-28 14:46:29 UTC by Matt Davis
Location	42.2262188, -71.0083339

Section 1: General Information

Inspection ID	BT-71
Outfall GIS ID	BC75
Inspector	CPO GJ
Date	2016-07-28
Time	10:42:00
Temperature	78
Inspection Location	Brook
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Box
Outfall Condition	Normal
Headwall Present	Yes
Headwall Condition	Good
Sediment Present?	Yes
Sediment Depth (%)	5
Outfall Submerged	Partially
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	Yes
Flow Velocity	Trickle
Flow Width (in)	96
Flow Depth (in)	8
Color Severity	None
Turbidity	No cloudiness
Floatables (does not include trash)	None

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No

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Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	Sampled brook. Same as BT-85

Section 7: Media

Photos

BT-71

Braintree IDDE Inspections

Inspection ID
BT-071

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 7/28/2016

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-72, TWB-026, 2016-07-28, 11:25:00

Created	2016-07-28 15:28:37 UTC by Matt Davis
Updated	2016-07-28 15:28:37 UTC by Matt Davis
Location	42.2206903, -71.0139958

Section 1: General Information

Inspection ID	BT-72
Outfall ID	TWB-026
Outfall GIS ID	BC82
Inspector	CPO GH
Date	2016-07-28
Time	11:25:00
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	12
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No

Section 7: Media

Photos

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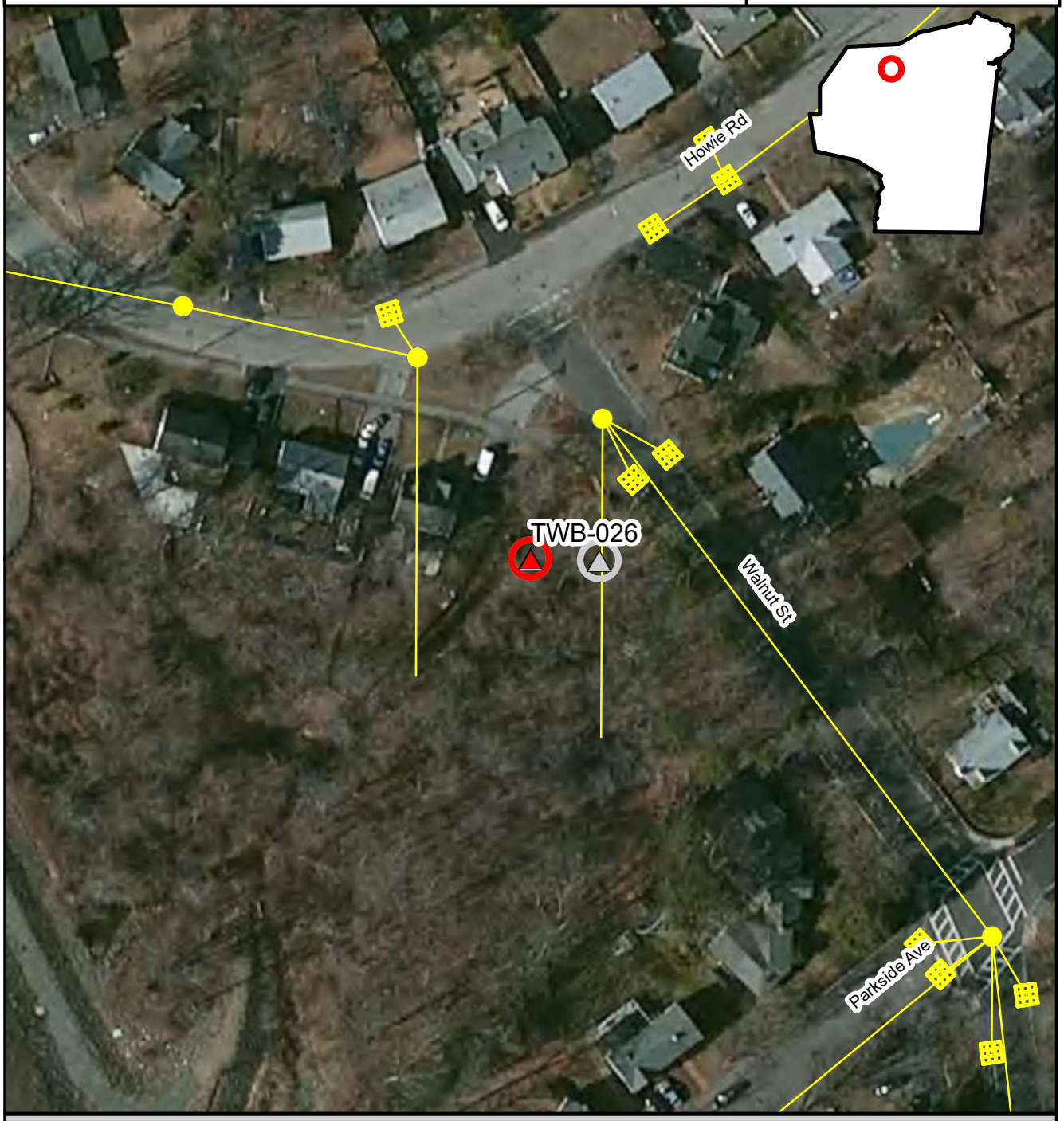
Braintree IDDE Inspections

Inspection ID
BT-072



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 7/28/2016

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-73, MQR-099, 2016-07-28, 13:28:00

Created	2016-07-28 17:33:15 UTC by Matt Davis
Updated	2016-07-28 19:19:17 UTC by Matt Davis
Location	42.2001695, -71.0024302

Section 1: General Information

Inspection ID	BT-73
Outfall ID	MQR-099
Outfall GIS ID	BC100
Inspector	CPO GH
Date	2016-07-28
Time	13:28:00
Temperature	78
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	24
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	Yes
Deposits/Stains	Sediments
Deposits/stains Comments	Iron staining
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	Appears on wrong side of river than R1-1

Section 7: Media

Photos

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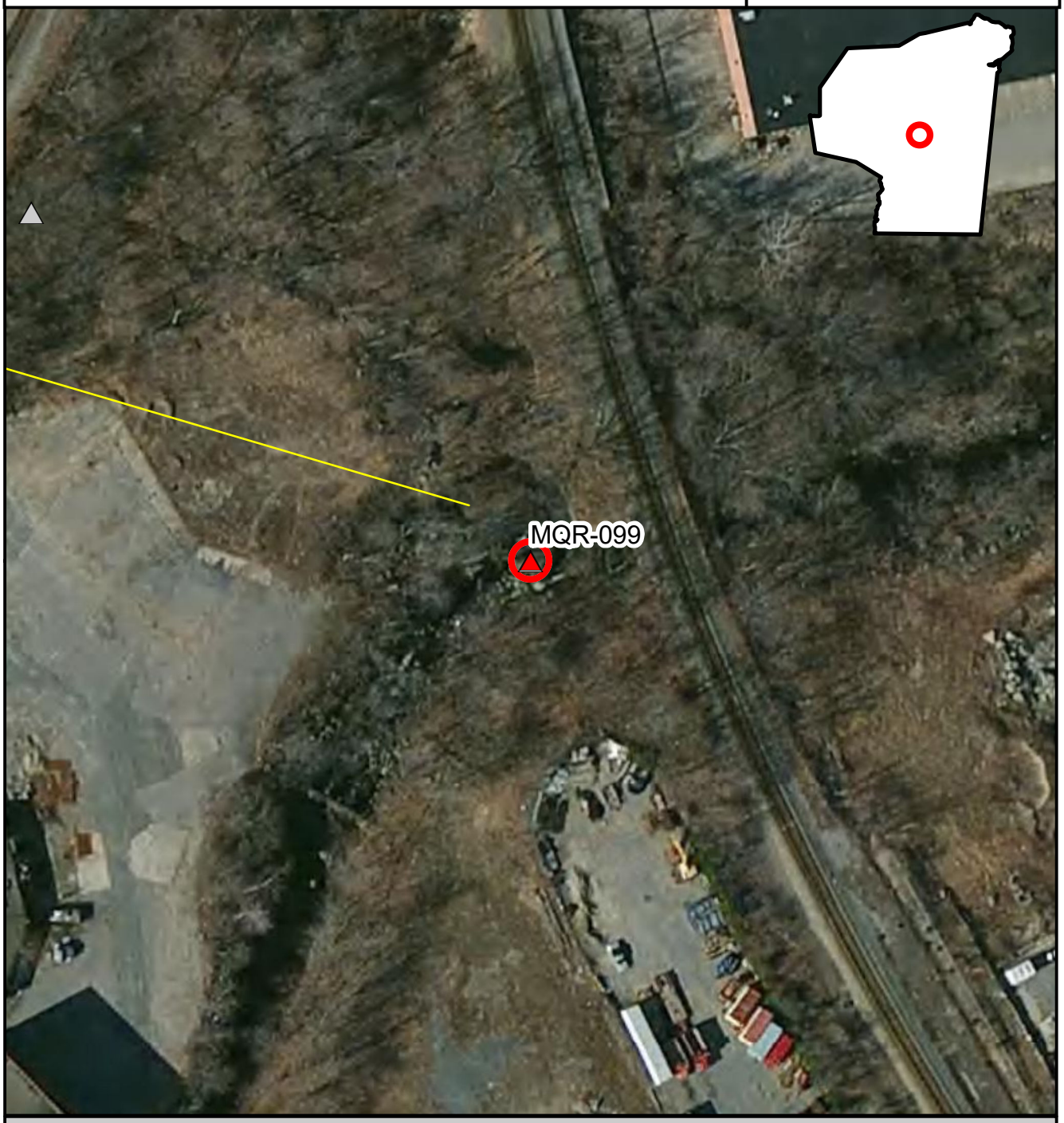
Braintree IDDE Inspections

Inspection ID
BT-073



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 7/28/2016

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-74, MQR-003, 2016-07-28, 14:13

Created	2016-07-28 18:18:19 UTC by Matt Davis
Updated	2019-02-14 21:18:54 UTC by Matt Davis
Location	42.200583, -71.0034651

Section 1: General Information

Inspection ID	BT-74
Outfall ID	MQR-003
Outfall GIS ID	BC109
Inspector	GH
Date	2016-07-28
Time	14:13
Temperature	92
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	Easily detected
Odor Description	Sewage

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	block
Closed Pipe Shape	Box
Closed Pipe Diameter (in)	32
Outfall Condition	Normal
Headwall Present	Yes
Headwall Condition	Fair
Sediment Present?	Yes
Sediment Depth (%)	5
Outfall Submerged	Partially
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	Yes
Flow Velocity	Trickle
Flow Width (in)	32
Flow Depth (in)	4
Color Severity	Clearly visible in outfall flow
Color Description	Gray
Turbidity	Cloudy
Floatables (does not include trash)	None

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No

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Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Reason field measurements not performed	Screening only
Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	32" wide 36" tall. 4" deep trickle flow

Section 7: Media

Photos

Braintree IDDE Inspections

Inspection ID
BT-074

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 7/28/2016

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-75, WFR-008, 2016-07-28, 15:08:00

Created	2016-07-28 19:19:07 UTC by Matt Davis
Updated	2016-08-02 15:49:04 UTC by Matt Davis
Location	42.227622, -70.9640153

Section 1: General Information

Inspection ID	BT-75
Outfall ID	WFR-008
Outfall GIS ID	BC92
Inspector	CPO GH
Date	2016-07-28
Time	15:08:00
Temperature	86
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	Steel
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	24
Outfall Condition	Normal
Headwall Present	Yes
Headwall Condition	Fair
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No

Section 7: Media

Photos

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Braintree IDDE Inspections

Inspection ID
BT-075

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 7/28/2016

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-76, MQR-075, 2016-09-15, 7:08:00

Created	2016-09-15 11:44:58 UTC by Matt Davis
Updated	2016-09-15 11:44:58 UTC by Matt Davis
Location	42.2094996, -70.9980985

Section 1: General Information

Inspection ID	BT-76
Outfall ID	MQR-075
Inspector	GH/Jk
Date	2016-09-15
Time	7:08:00
Temperature	57
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	48
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	Yes
Sediment Depth (%)	3
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	Yes
Flow Velocity	Trickle
Color Severity	None
Turbidity	No cloudiness
Floatables (does not include trash)	None

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	Yes
Deposits/Stains	rust
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	Yes

Field Measurements Results

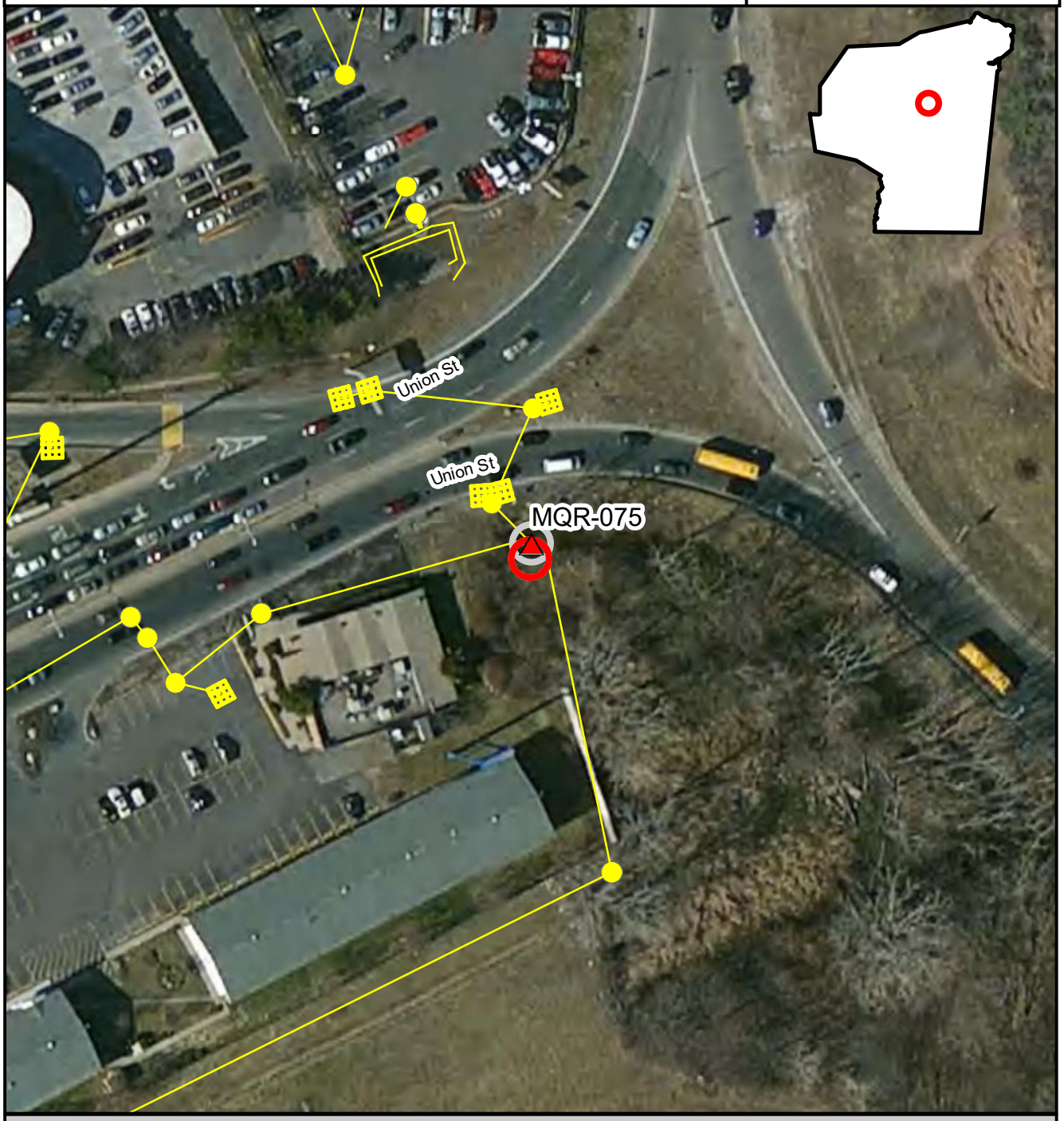
Temperature (C)	17.23
pH (pH units)	8.25
Salinity (ppt)	1.49
Conductivity (uS)	2853
Ammonia (Mg/L)	0
Surfactants (ppm)	0.5
Chlorine (ppm)	0
Were laboratory samples collected?	Yes
Measurements/samples collected from	Outfall
E. Coli (MPN/100 ml)	86
Intermittent flow trap used?	No
Section 6: General Comments	#N/A

Section 7: Media

Photos

Braintree IDDE Inspections

Inspection ID
BT-076



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 9/15/2016

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-77, MQR-098, 2016-09-15, 8:04:00

Created	2016-09-15 12:07:48 UTC by Matt Davis
Updated	2016-09-15 12:07:48 UTC by Matt Davis
Location	42.2037374, -71.0025994

Section 1: General Information

Inspection ID	BT-77
Outfall ID	MQR-098
Inspector	Gh/jk
Date	2016-09-15
Time	8:04:00
Temperature	61
Inspection Location	Manhole
Investigation performed at manhole upstream of outfall?	Yes
Visual evidence of contamination present?	No

Section 2: Outfall Description

Outfall Condition	Normal
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	Manhole

Section 7: Media

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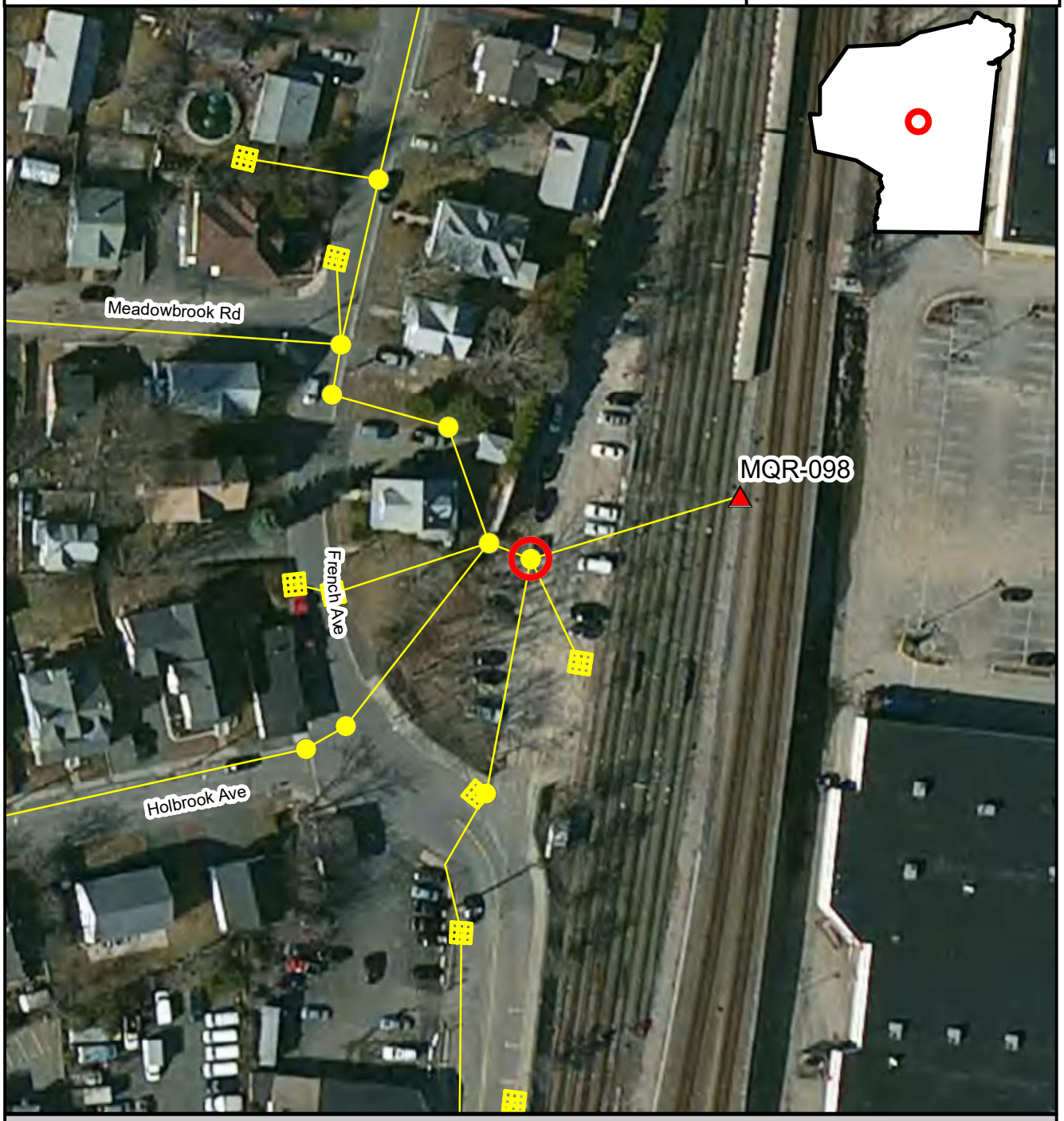
Photos

Braintree IDDE Inspections

Inspection ID
BT-077



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 9/15/2016

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-78, SMB-030, 2016-09-15, 8:29:00

Created	2016-09-15 12:30:06 UTC by Matt Davis
Updated	2016-09-15 13:20:58 UTC by Matt Davis
Location	42.1873105, -70.9845127

Section 1: General Information

Inspection ID	BT-78
Outfall ID	SMB-030
Date	2016-09-15
Time	8:29:00
Inspection Location	Outfall
Visual evidence of contamination present?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No
Section 6: General Comments	Same as BT-47

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Braintree IDDE Inspections

Inspection ID
BT-078

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 9/15/2016

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-79, CDS-010, 2016-09-15, 8:45:00

Created	2016-09-15 12:59:19 UTC by Matt Davis
Updated	2016-09-15 12:59:19 UTC by Matt Davis
Location	42.1874607, -71.0042379

Section 1: General Information

Inspection ID	BT-79
Outfall ID	CDS-010
Inspector	Gh/jk
Date	2016-09-15
Time	8:45:00
Temperature	63
Inspection Location	Outfall
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP

Section 3: Physical Indicators (flow flowing)

Flow Present	Yes
Flow Velocity	Trickle

Section 5: Field Measurements

Were field measurements performed?	Yes

Field Measurements Results

Temperature (C)	16.59
pH (pH units)	7.45
Salinity (ppt)	0.47
Conductivity (uS)	952
Ammonia (Mg/L)	1
Surfactants (ppm)	0.25
Chlorine (ppm)	0
Were laboratory samples collected?	Yes
E. Coli (MPN/100 ml)	830
Section 6: General Comments	Same as BT-44

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Braintree IDDE Inspections

Inspection ID
BT-079

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 9/15/2016

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-80, SSL-001, 2016-09-15, 9:12:00

Created	2016-09-15 13:13:05 UTC by Matt Davis
Updated	2016-09-15 13:51:20 UTC by Matt Davis
Location	42.202419, -71.0168455

Section 1: General Information

Inspection ID	BT-80
Outfall ID	SSL-001
Inspector	Gh/jk
Date	2016-09-15
Time	9:12:00
Inspection Location	Manhole
Visual evidence of contamination present?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No
Section 6: General Comments	Second visit. First visit was BT-10

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Braintree IDDE Inspections

Inspection ID
BT-080

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 9/15/2016

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-81, SSL-017, 2016-09-15, 9:26:00

Created	2016-09-15 13:27:59 UTC by Matt Davis
Updated	2016-09-15 13:35:47 UTC by Matt Davis
Location	42.208208, -71.01717331

Section 1: General Information

Inspection ID	BT-81
Outfall ID	SSL-017
Inspector	Gh/jk
Date	2016-09-15
Time	9:26:00
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No
Section 6: General Comments	First visit was BT-14

Section 7: Media

Photos

Braintree IDDE Inspections

Inspection ID
BT-081

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 9/15/2016

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-82, TWB-033, 2016-09-15, 9:38:00

Created	2016-09-15 13:41:16 UTC by Matt Davis
Updated	2016-09-15 13:41:16 UTC by Matt Davis
Location	42.2162768, -71.0156236

Section 1: General Information

Inspection ID	BT-82
Outfall ID	TWB-033
Inspector	Gh/jk
Date	2016-09-15
Time	9:38:00
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Headwall Present	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No
Section 6: General Comments	First visit was BT-16

Section 7: Media

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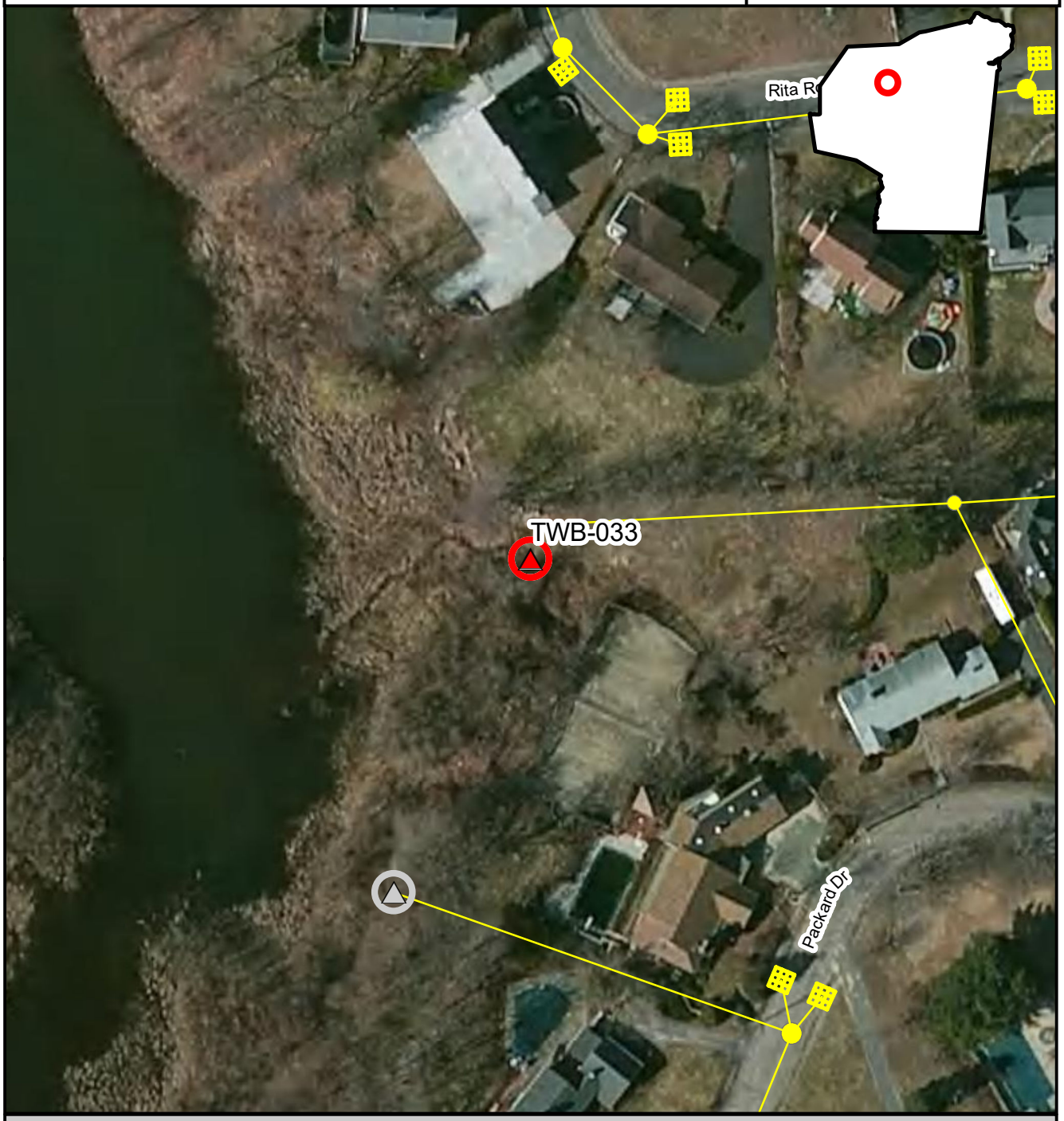
Photos

Braintree IDDE Inspections

Inspection ID
BT-082



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 9/15/2016

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-83, TWB-029, 2016-09-15, 9:51:00

Created	2016-09-15 14:08:07 UTC by Matt Davis
Updated	2016-09-15 14:08:07 UTC by Matt Davis
Location	42.2184986, -71.0060944

Section 1: General Information

Inspection ID	BT-83
Outfall ID	TWB-029
Inspector	Gh/jk
Date	2016-09-15
Time	9:51:00
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe

Section 3: Physical Indicators (flow flowing)

Flow Present	Yes
Flow Velocity	Trickle

Section 5: Field Measurements

Were field measurements performed?	Yes

Field Measurements Results

Temperature (C)	16.82
pH (pH units)	7.22
Salinity (ppt)	0.8
Conductivity (uS)	1582
Ammonia (Mg/L)	0
Surfactants (ppm)	0.25
Chlorine (ppm)	0
Were laboratory samples collected?	Yes
E. Coli (MPN/100 ml)	210
Section 6: General Comments	Same as 69. Discharge to detention basin

Section 7: Media

Photos

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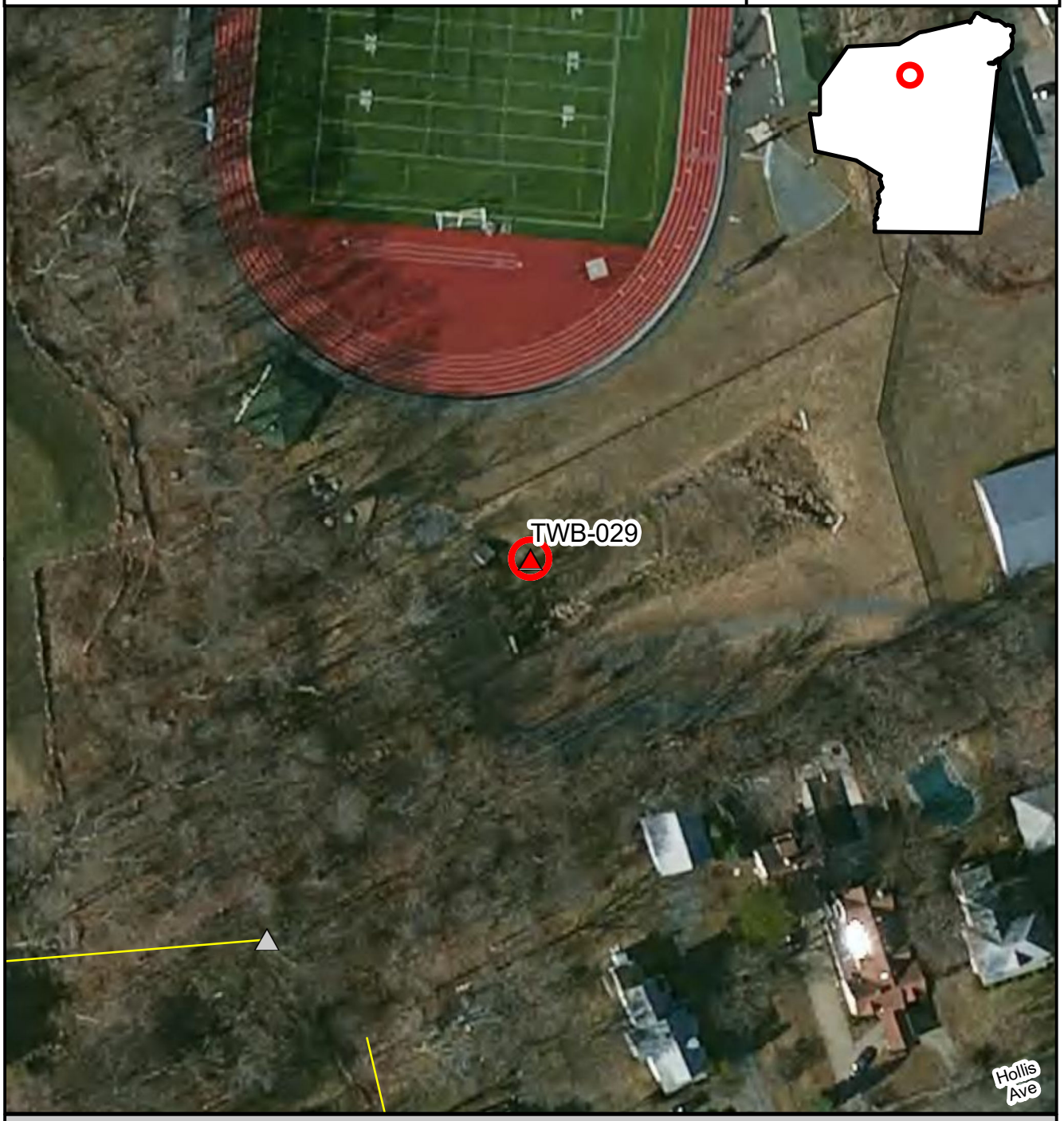
Braintree IDDE Inspections

Inspection ID
BT-083



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 9/15/2016

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-84, TWB-006, 2016-09-15, 10:23:00

Created	2016-09-15 14:23:36 UTC by Matt Davis
Updated	2016-09-15 14:28:31 UTC by Matt Davis
Location	42.225974, -71.0117595

Section 1: General Information

Inspection ID	BT-84
Outfall ID	TWB-006
Inspector	Gh/jk
Date	2016-09-15
Time	10:23:00
Inspection Location	Outfall
Visual evidence of contamination present?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

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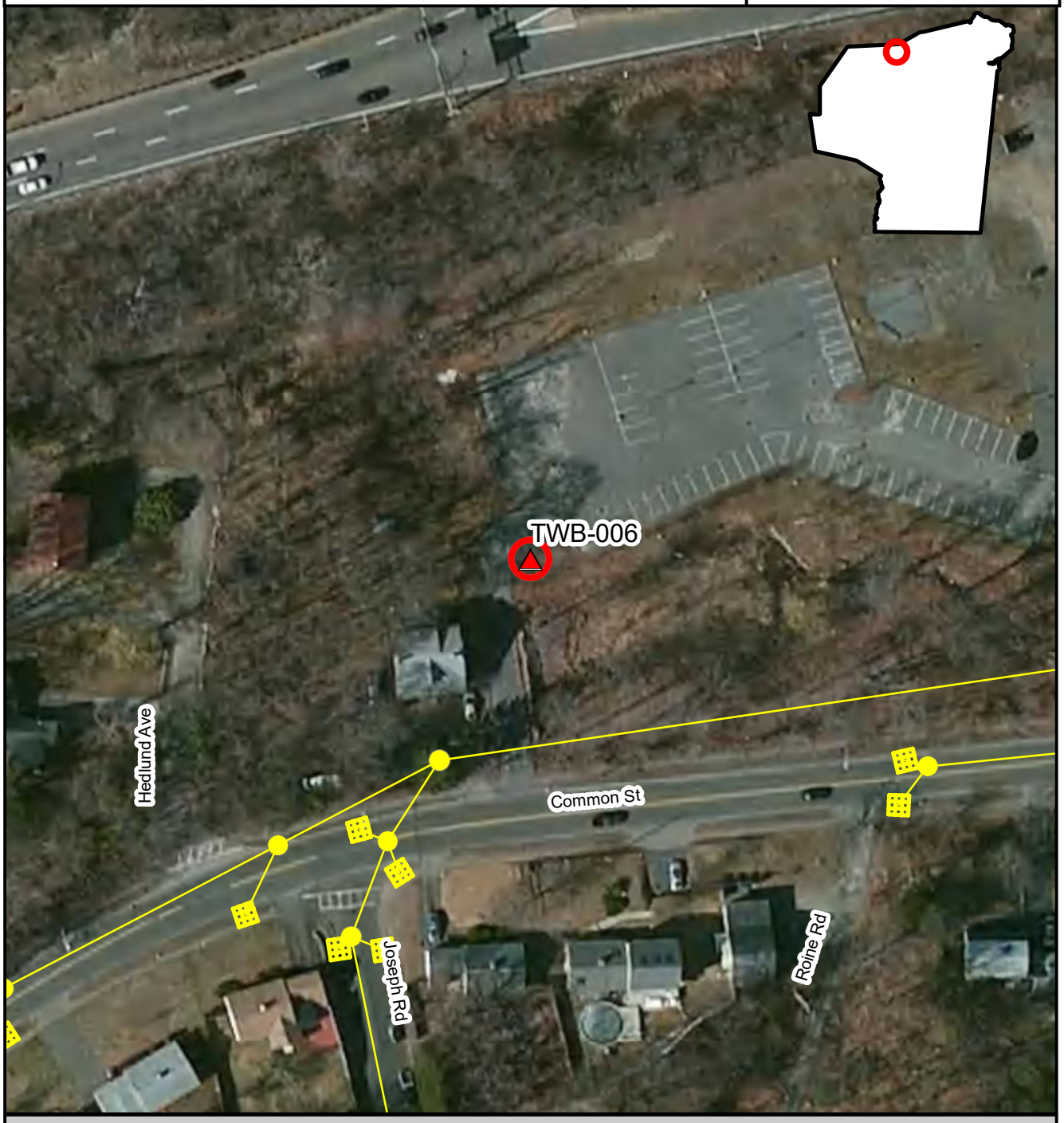
Braintree IDDE Inspections

Inspection ID
BT-084



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 9/15/2016

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-85, 2016-09-15, 10:28:00

Created	2016-09-15 14:42:04 UTC by Matt Davis
Updated	2016-09-15 14:42:04 UTC by Matt Davis
Location	42.2261225, -71.0083219

Section 1: General Information

Inspection ID	BT-85
Inspector	Gh/jk
Date	2016-09-15
Time	10:28:00
Temperature	63
Inspection Location	Brook
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	Yes
Flow Velocity	Trickle

Section 5: Field Measurements

Were field measurements performed?	Yes

Field Measurements Results

Temperature (C)	18.31
pH (pH units)	7.05
Salinity (ppt)	0.42
Conductivity (uS)	859
Ammonia (Mg/L)	0
Surfactants (ppm)	0.25
Chlorine (ppm)	0
Were laboratory samples collected?	Yes
E. Coli (MPN/100 ml)	28
Section 6: General Comments	Sampled brook

Section 7: Media

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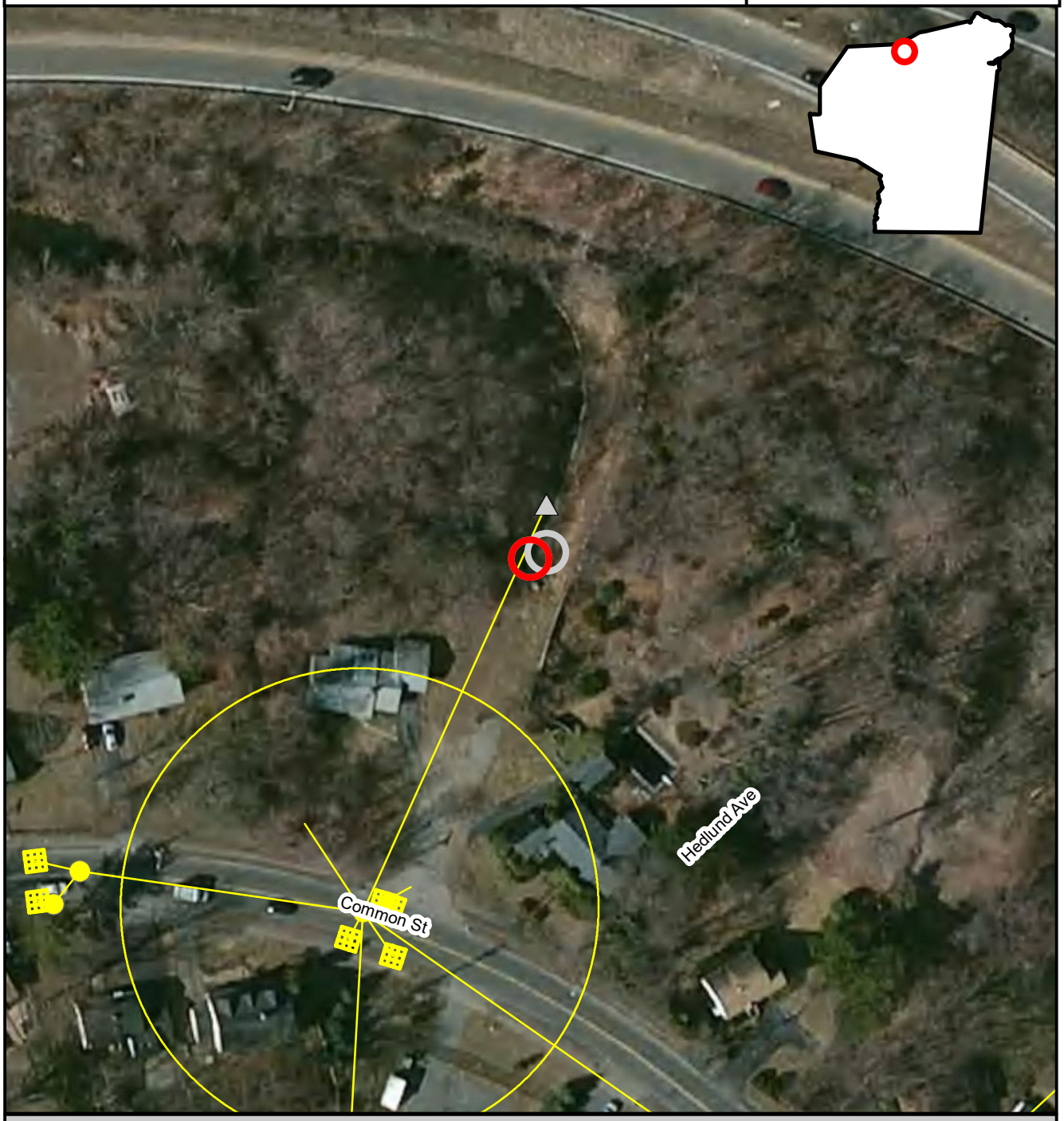
Photos

Braintree IDDE Inspections

Inspection ID
BT-085



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 9/15/2016

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-86, MQR-005, 2016-09-15, 11:52:00

Created	2016-09-15 16:11:16 UTC by Matt Davis
Updated	2016-09-15 16:11:16 UTC by Matt Davis
Location	42.2224366, -70.9737393

Section 1: General Information

Inspection ID	BT-86
Outfall ID	MQR-005
Inspector	Gh/jk
Date	2016-09-15
Time	11:52:00
Temperature	66
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	Yes
Flow Velocity	Trickle

Section 5: Field Measurements

Were field measurements performed?	Yes

Field Measurements Results

Temperature (C)	21.56
pH (pH units)	7.2
Salinity (ppt)	0.66
Conductivity (uS)	1331
Ammonia (Mg/L)	7
Surfactants (ppm)	1
Chlorine (ppm)	0
Were laboratory samples collected?	Yes
E. Coli Modifier Text (optional, e.g. '<')	>
E. Coli (MPN/100 ml)	50000

Section 7: Media

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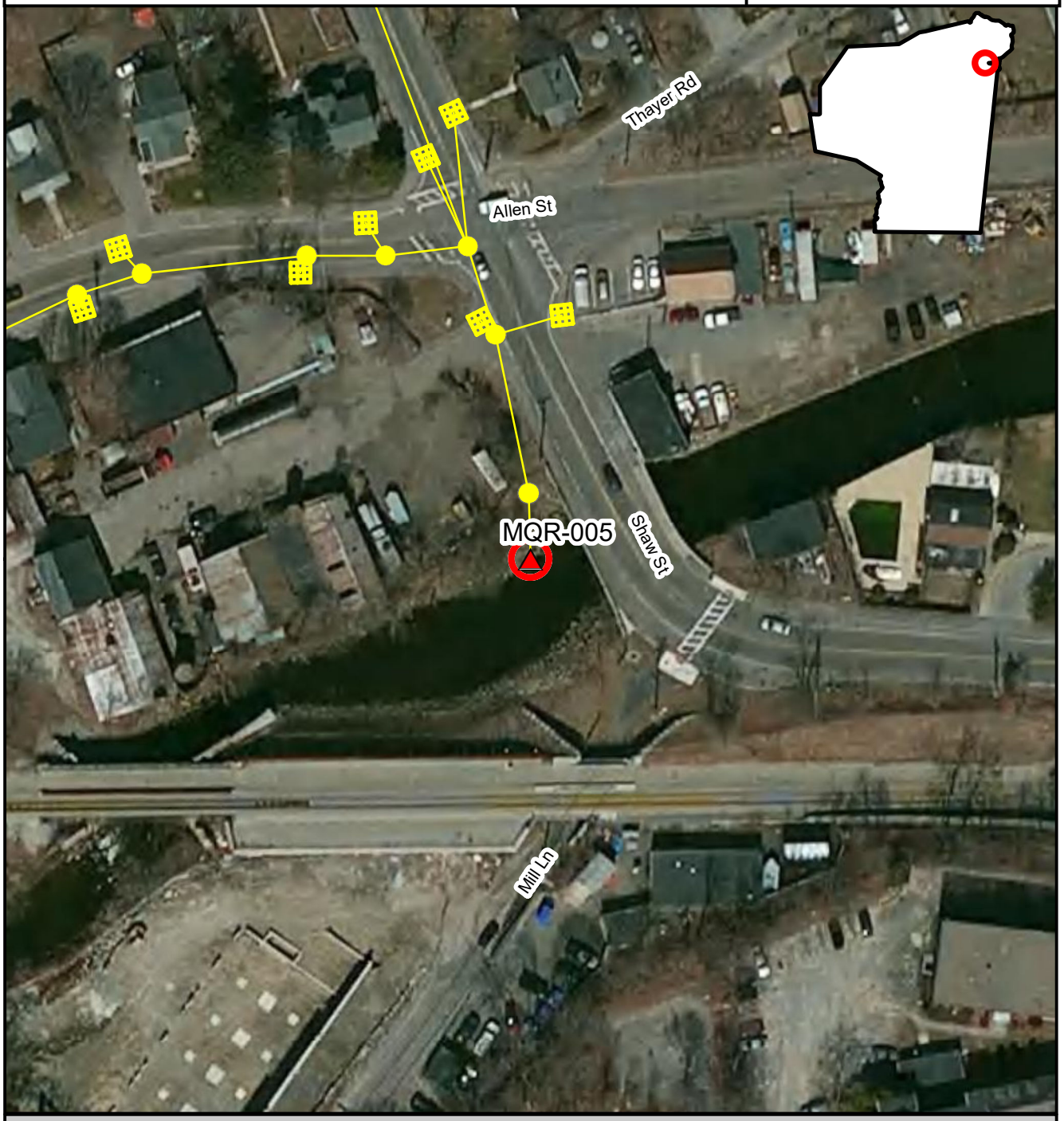
Photos

Braintree IDDE Inspections

Inspection ID
BT-086



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 9/15/2016

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-87, WFR-016, 2016-09-15, 12:32:00

Created	2016-09-15 16:48:48 UTC by Matt Davis
Updated	2016-09-15 16:57:13 UTC by Matt Davis
Location	42.2203826, -70.9824956

Section 1: General Information

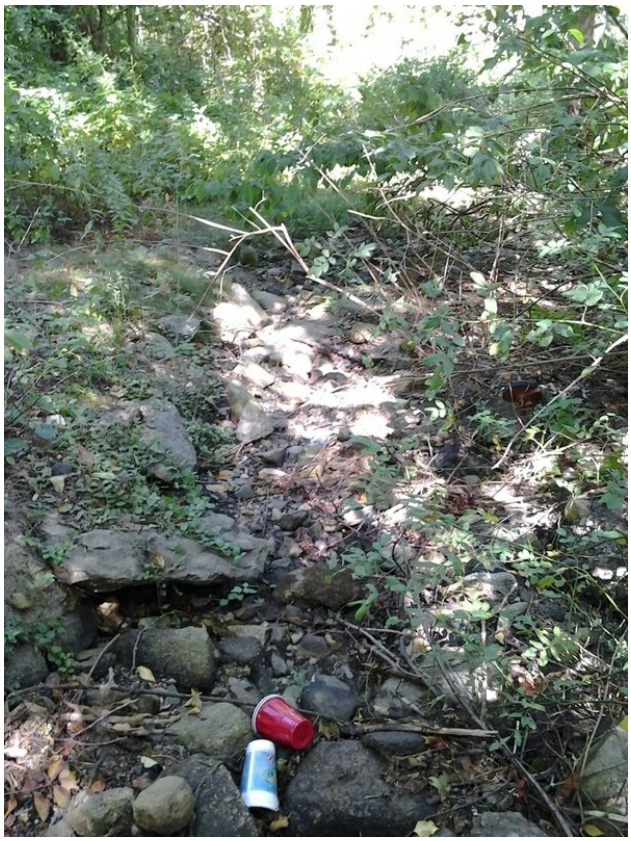
Inspection ID	BT-87
Outfall ID	WFR-016
Inspector	Gh/jk
Date	2016-09-15
Time	12:32:00
Temperature	66
Inspection Location	Outfall
Visual evidence of contamination present?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

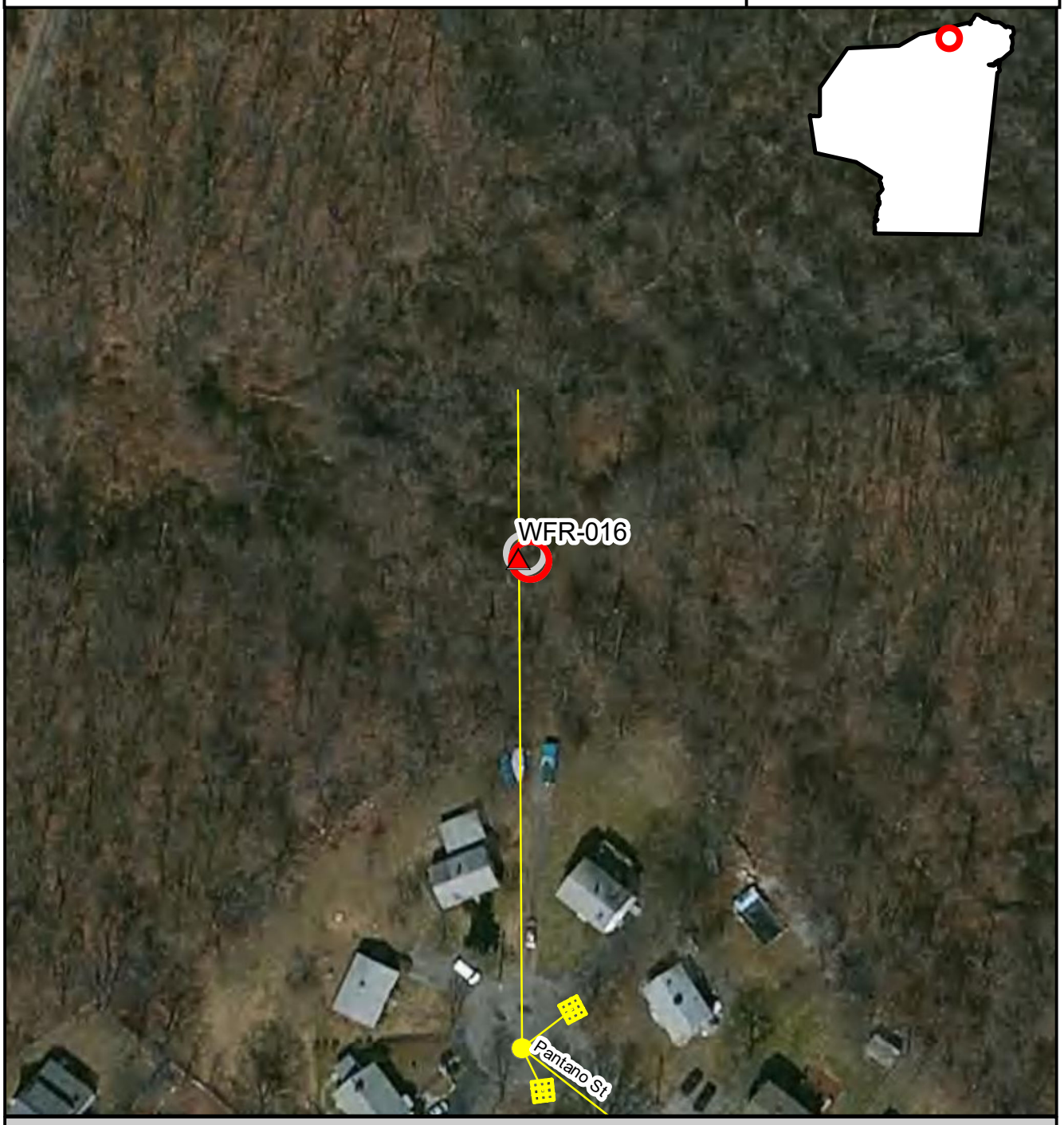
Section 7: Media

Photos



Braintree IDDE Inspections

Inspection ID
BT-087



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 9/15/2016

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-88, MQR-038, 2016-09-15, 13:00:00

Created	2016-09-15 17:01:37 UTC by Matt Davis
Updated	2016-09-15 17:01:37 UTC by Matt Davis
Location	42.2253318, -70.9960553

Section 1: General Information

Inspection ID	BT-88
Outfall ID	MQR-038
Inspector	Gh/jk
Date	2016-09-15
Time	13:00:00
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Headwall Present	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No
Section 6: General Comments	Brook daylights and then goes underground again to outfall

Section 7: Media

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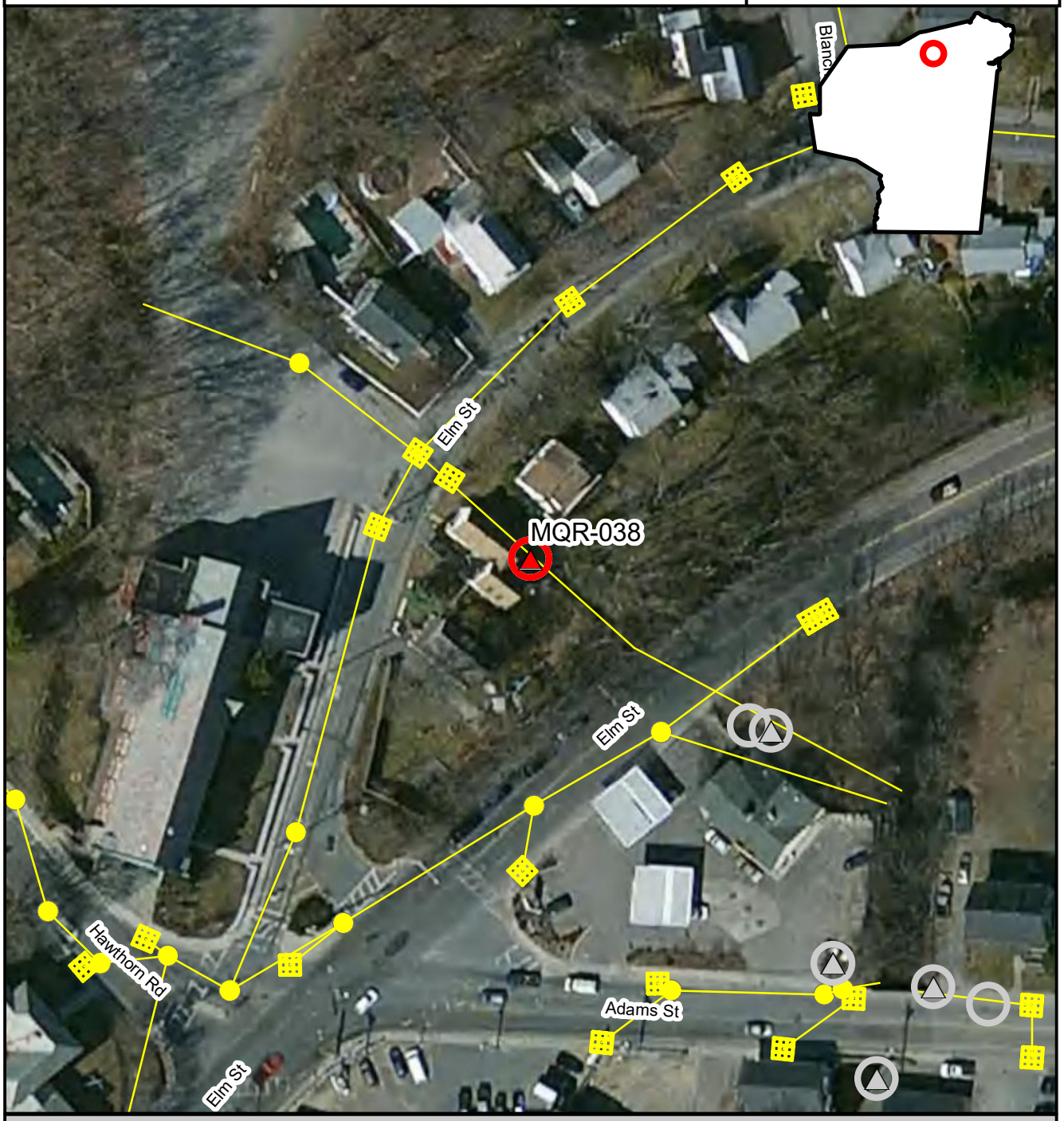
Photos

Braintree IDDE Inspections

Inspection ID
BT-088



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 9/15/2016

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-89, MQR-046, 2016-09-15, 13:13:00

Created	2016-09-15 17:17:17 UTC by Matt Davis
Updated	2016-09-15 19:00:25 UTC by Matt Davis
Location	42.2138545, -70.9952981

Section 1: General Information

Inspection ID	BT-89
Outfall ID	MQR-046
Inspector	Gh/jk
Date	2016-09-15
Time	13:13:00
Temperature	66
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 3: Physical Indicators (flow flowing)

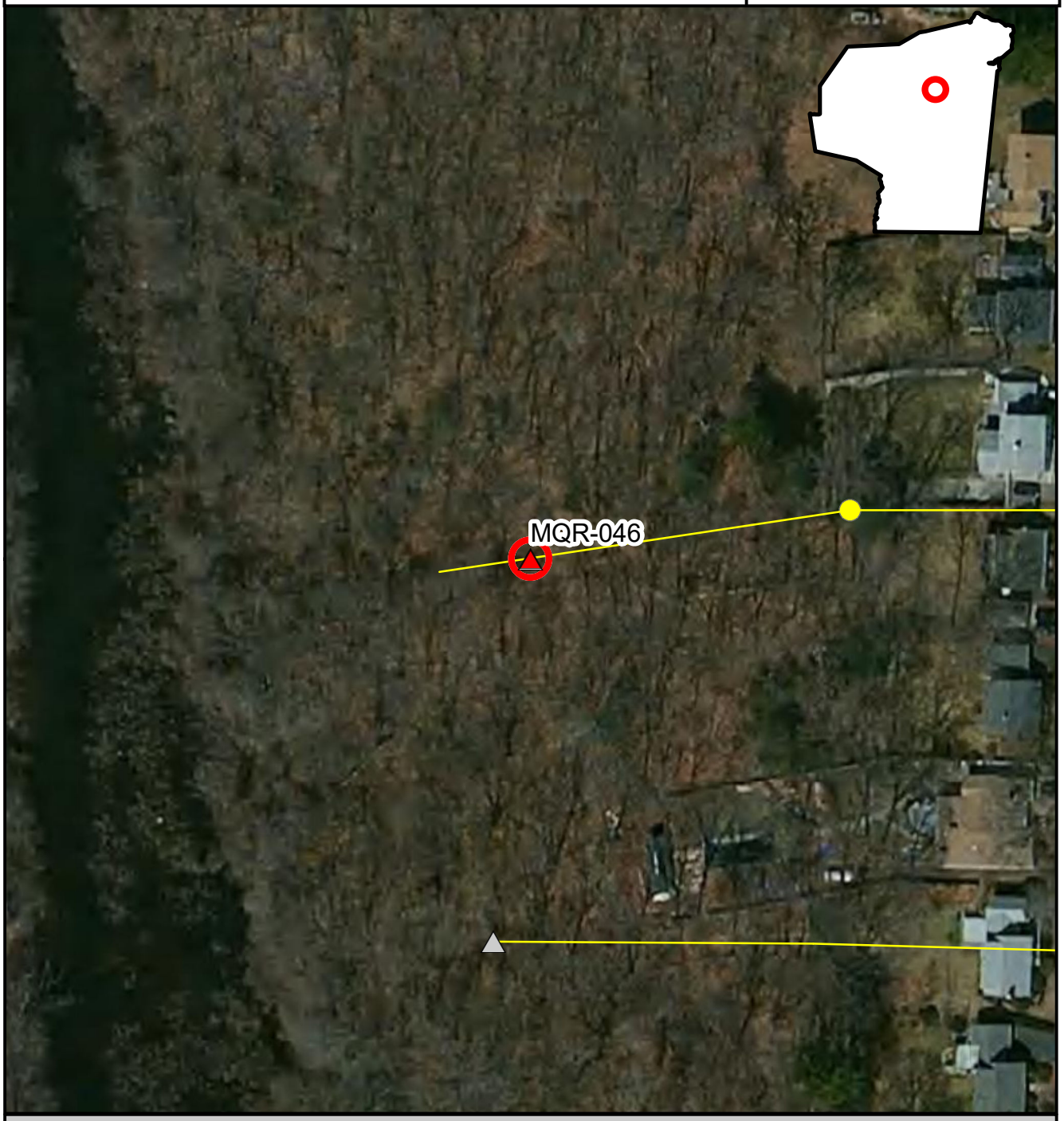
Flow Present	No

Section 7: Media

Photos

Braintree IDDE Inspections

Inspection ID
BT-089



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 9/15/2016

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-90, MQR-002, 2016-09-16, 07:07

Created	2016-09-16 11:21:20 UTC by Matt Davis
Updated	2019-02-14 20:24:09 UTC by Matt Davis
Location	42.2222851, -70.9700511

Section 1: General Information

Inspection ID	BT-90
Outfall ID	MQR-002
Outfall GIS ID	MQR-02
Inspector	Gh/jk
Date	2016-09-16
Time	07:07
Temperature	52
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	Concrete from bridge
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	18
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	Yes

Section 3: Physical Indicators (flow flowing)

Flow Present	Yes
Flow Velocity	Trickle
Flow Width (in)	2
Flow Depth (in)	.1
Color Severity	None
Turbidity	No cloudiness
Floatables (does not include trash)	None

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	Yes

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Field Measurements Results

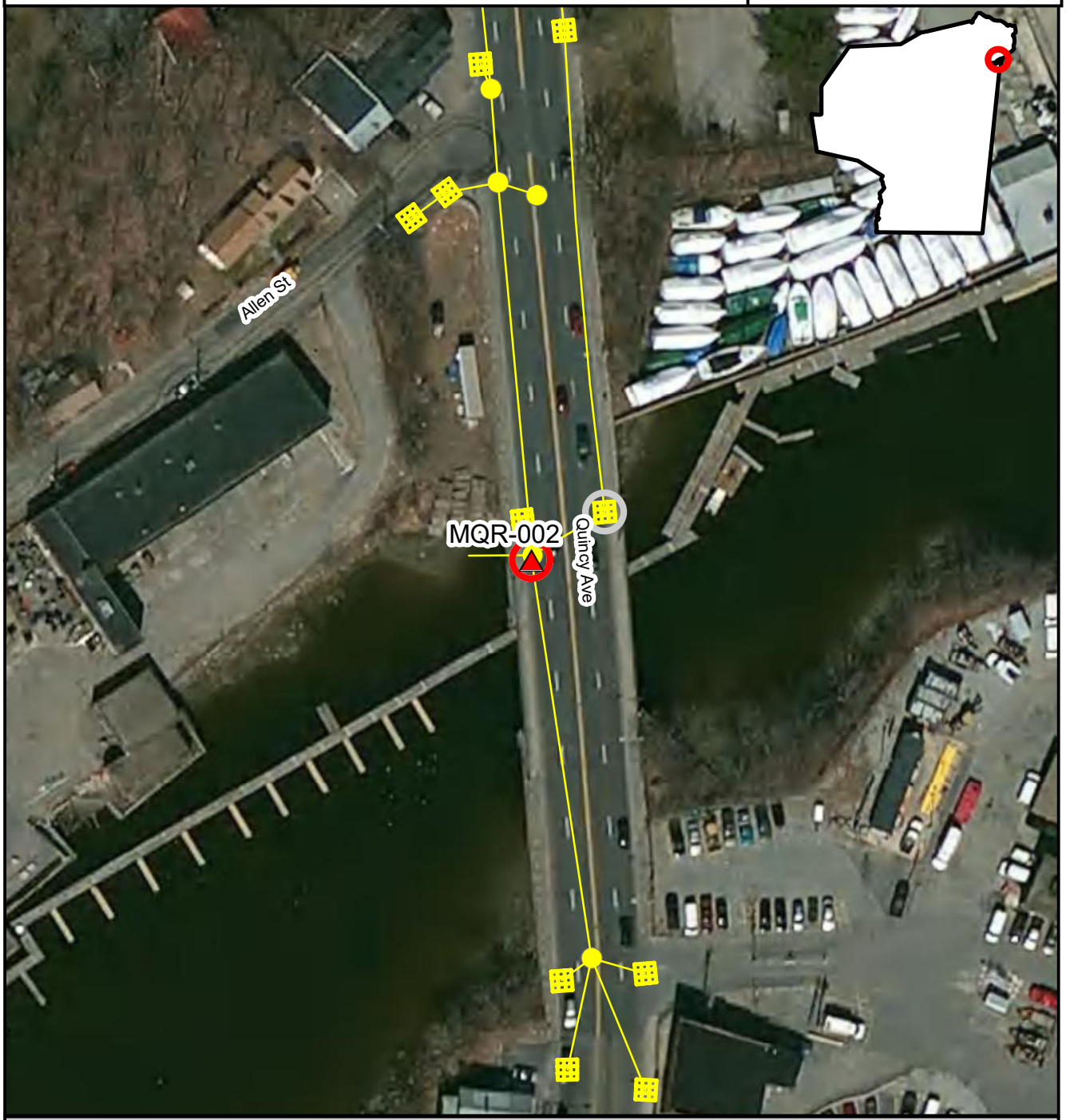
Temperature (C)	17.8
pH (pH units)	7.59
Salinity (ppt)	0.39
Conductivity (uS)	786
Ammonia (Mg/L)	0
Surfactants (ppm)	0.5
Chlorine (ppm)	0
Were laboratory samples collected?	Yes
Measurements/samples collected from	Outfall
E. Coli (MPN/100 ml)	920
Intermittent flow trap used?	No

Section 7: Media

Photos

Braintree IDDE Inspections

Inspection ID
BT-090



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 9/16/2016

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-91, MQR-009, 2016-09-16, 7:37:00

Created	2016-09-16 11:41:59 UTC by Matt Davis
Updated	2016-09-16 11:41:59 UTC by Matt Davis
Location	42.2211687, -70.9791464

Section 1: General Information

Inspection ID	BT-91
Outfall ID	MQR-009
Inspector	gh/jk
Date	2016-09-16
Time	7:37:00
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe

Section 3: Physical Indicators (flow flowing)

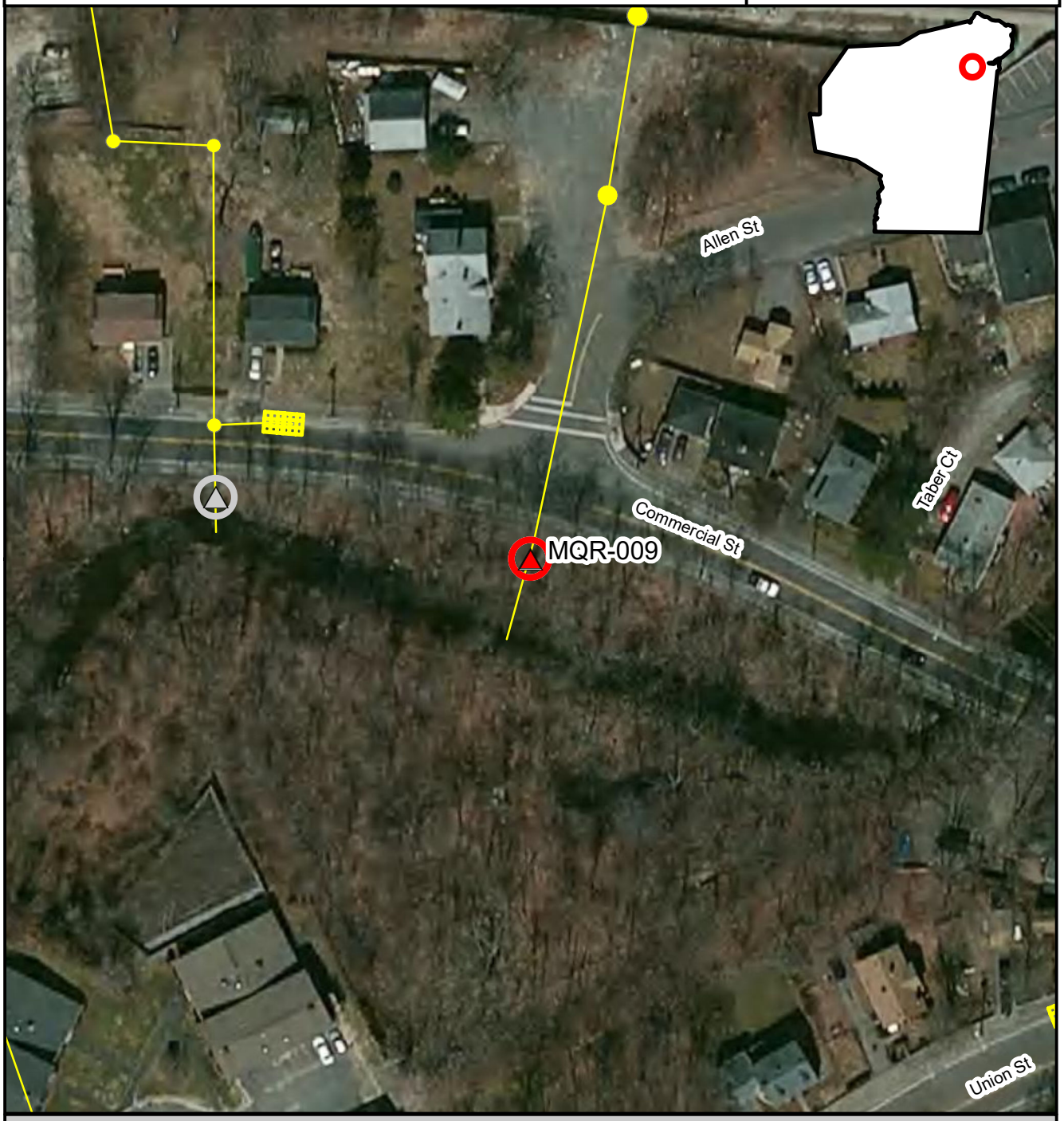
Flow Present	No

Section 7: Media

Photos

Braintree IDDE Inspections

Inspection ID
BT-091



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 9/16/2016

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-92, MQR-018, 2016-09-16, 8:13:00

Created	2016-09-16 12:14:51 UTC by Matt Davis
Updated	2016-09-16 12:14:51 UTC by Matt Davis
Location	42.2197417, -70.9826793

Section 1: General Information

Inspection ID	BT-92
Outfall ID	MQR-018
Inspector	Gh/jk
Date	2016-09-16
Time	8:13:00
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 3: Physical Indicators (flow flowing)

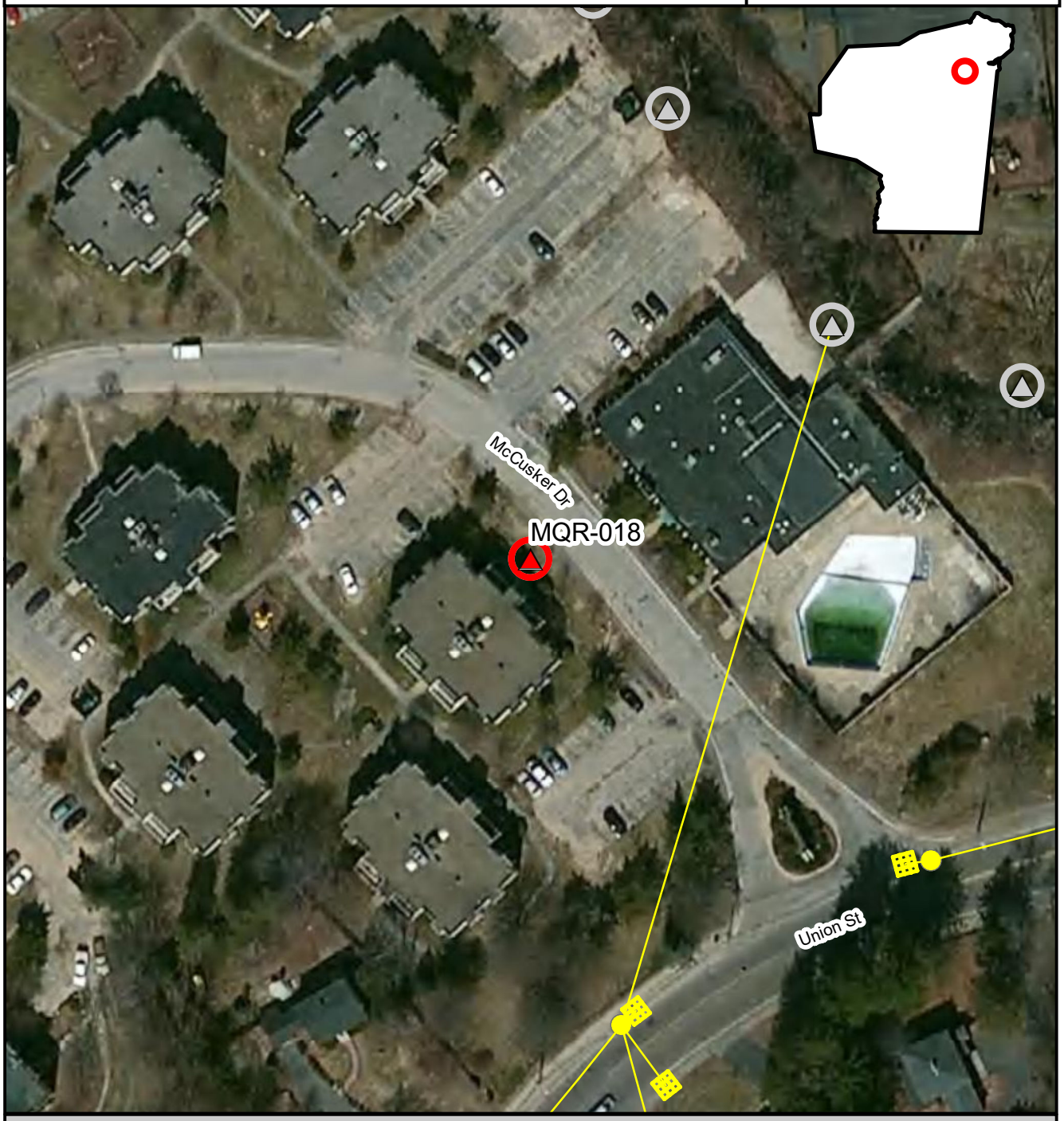
Flow Present	No

Section 7: Media

Photos

Braintree IDDE Inspections

Inspection ID
BT-092



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 9/16/2016

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-93, MQR-017, 2016-09-16, 8:31:00

Created	2016-09-16 12:33:15 UTC by Matt Davis
Updated	2016-09-16 12:41:50 UTC by Matt Davis
Location	42.2208183, -70.9826956

Section 1: General Information

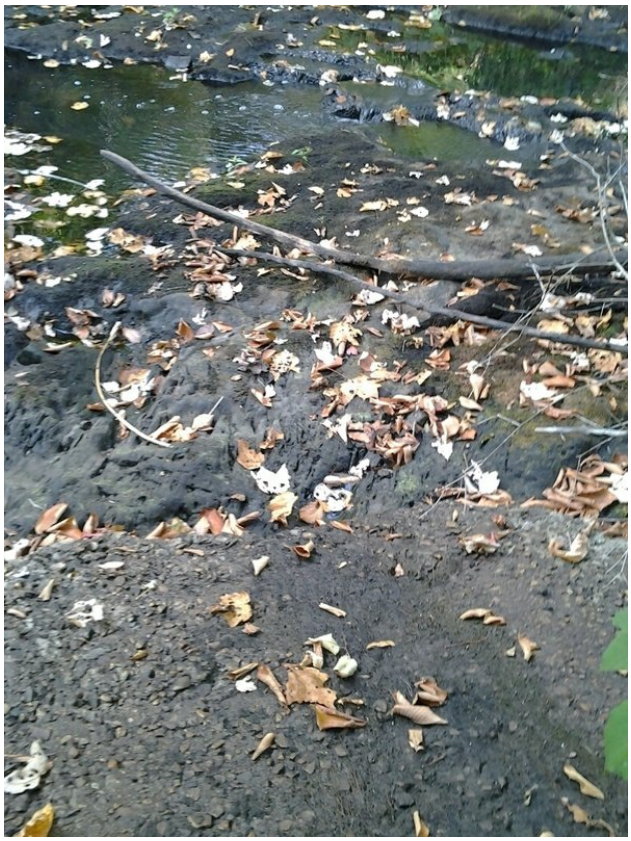
Inspection ID	BT-93
Outfall ID	MQR-017
Inspector	Gh/jk
Date	2016-09-16
Time	8:31:00
Temperature	60
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

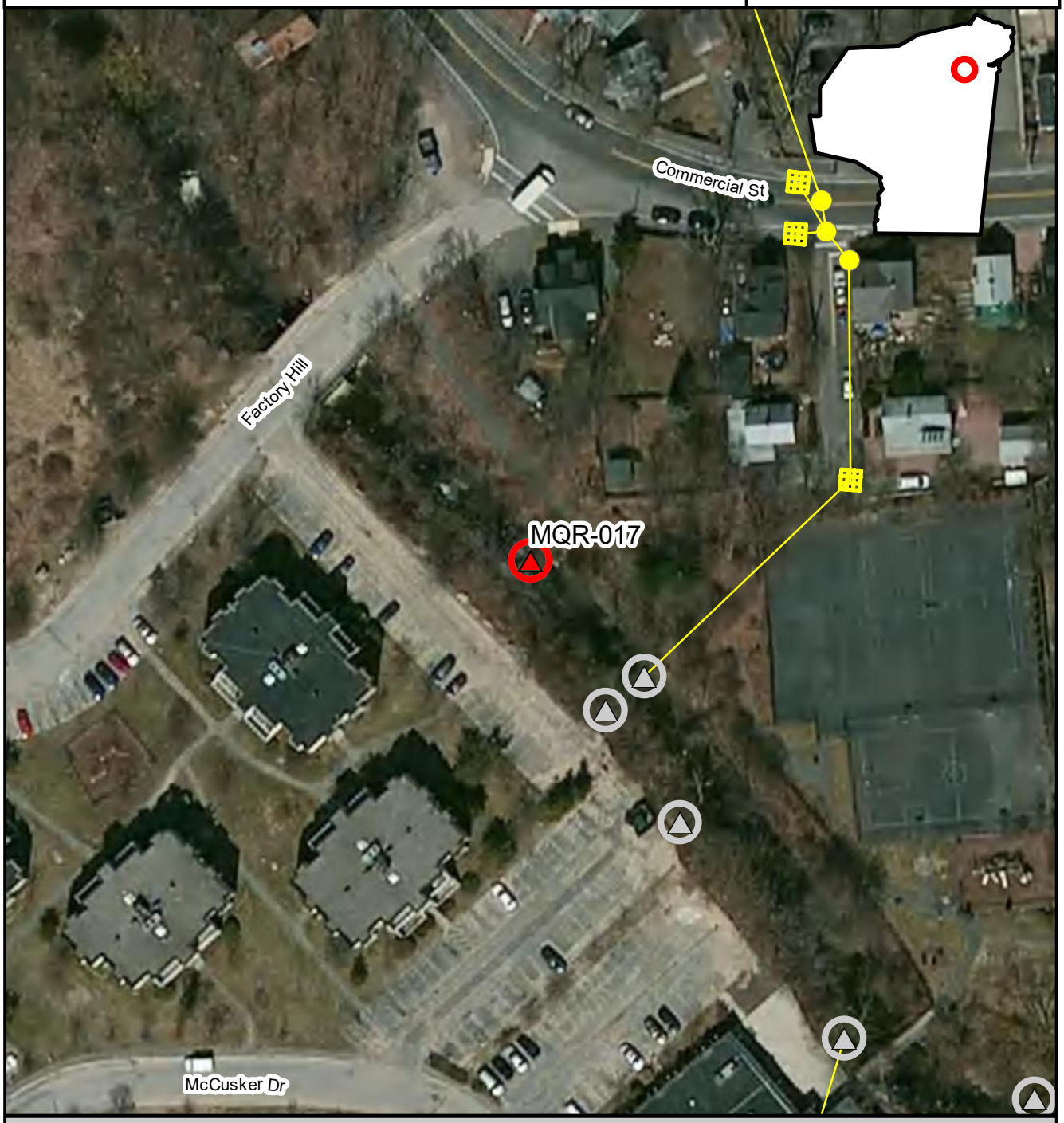
Section 7: Media

Photos



Braintree IDDE Inspections

Inspection ID
BT-093



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 9/16/2016

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-94, MQR-003, 2016-09-16, 10:09

Created	2016-09-16 14:38:41 UTC by Matt Davis
Updated	2019-02-14 21:22:27 UTC by Matt Davis
Location	42.2005422, -71.0032096

Section 1: General Information

Inspection ID	BT-94
Outfall ID	MQR-003
Outfall GIS ID	-999
Inspector	Gh/jk
Date	2016-09-16
Time	10:09
Temperature	63
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	granite
Closed Pipe Shape	Box
Closed Pipe Diameter (in)	24
Outfall Condition	Cracking
Headwall Present	No
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	Yes
Flow Velocity	Trickle
Flow Width (in)	24
Flow Depth (in)	4
Color Severity	None
Turbidity	No cloudiness
Floatables (does not include trash)	None

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	Yes

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Field Measurements Results

Temperature (C)	21.24
pH (pH units)	7.1
Salinity (ppt)	0.6
Conductivity (uS)	1197
Ammonia (Mg/L)	10
Surfactants (ppm)	1
Chlorine (ppm)	0.05
Were laboratory samples collected?	Yes
Measurements/samples collected from	Outfall
E. Coli (MPN/100 ml)	160000
Intermittent flow trap used?	No

Section 7: Media

Photos

Braintree IDDE Inspections

Inspection ID
BT-094

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 9/16/2016

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-95, MQR-082, 2017-05-18, 7:35:00

Created	2017-05-18 11:35:53 UTC by Matt Davis
Updated	2017-05-18 14:18:09 UTC by Matt Davis
Location	42.2042553, -70.9964067

Section 1: General Information

Inspection ID	BT-95
Outfall ID	MQR-082
Outfall GIS ID	119
Inspector	CPO GH
Date	2017-05-18
Time	7:35:00
Temperature	75
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	ceramic
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	12
Outfall Condition	Cracking
Headwall Present	No
Sediment Present?	Yes
Sediment Depth (%)	33
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No

Section 7: Media

Photos

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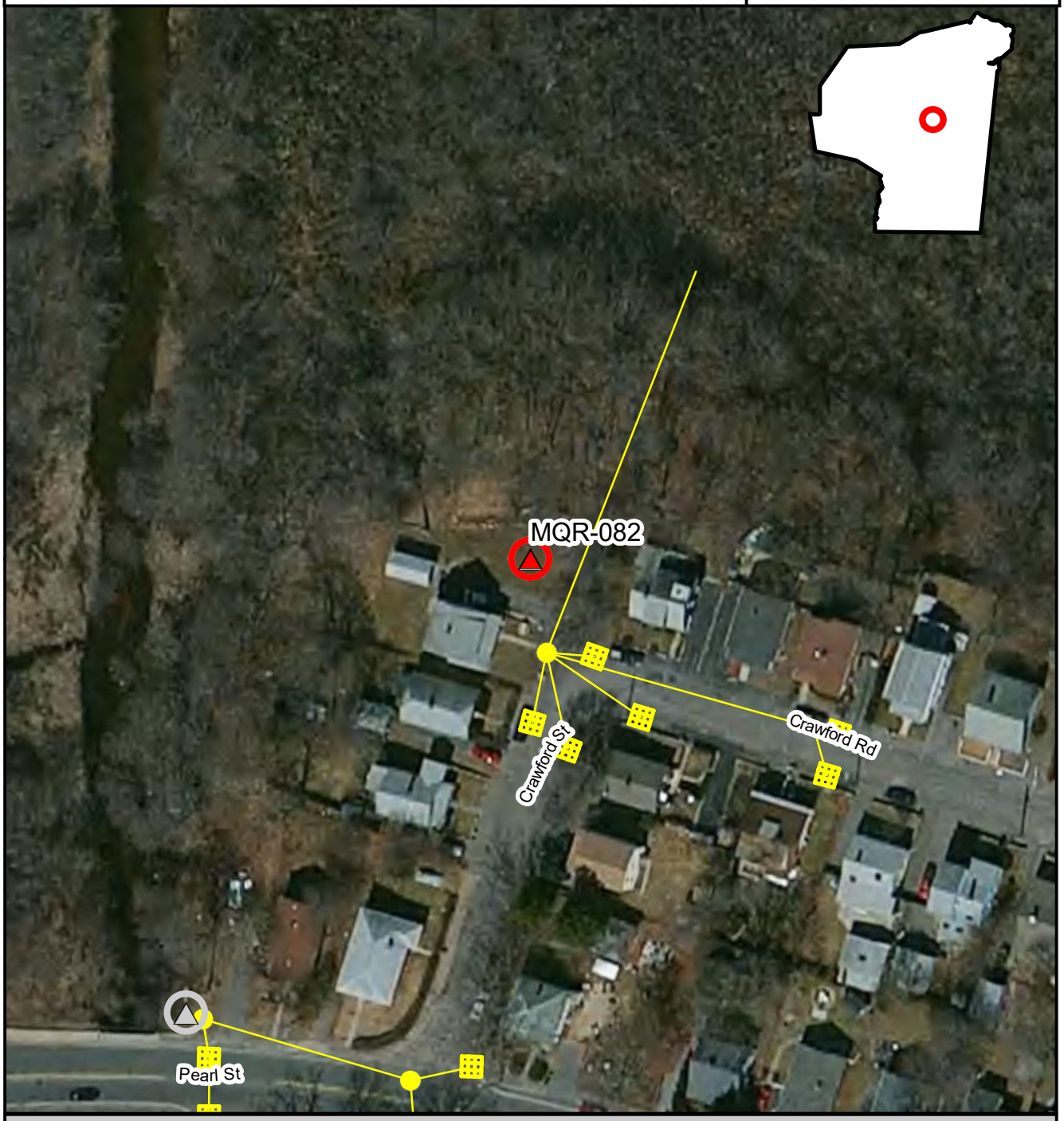
Braintree IDDE Inspections

Inspection ID
BT-095



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 5/18/2017

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-96, MQR-079, 2017-05-18, 8:40:00

Created	2017-05-18 11:45:37 UTC by Matt Davis
Updated	2017-05-18 14:19:11 UTC by Matt Davis
Location	42.2037498, -70.9941857

Section 1: General Information

Inspection ID	BT-96
Outfall ID	MQR-079
Outfall GIS ID	118
Inspector	CPO GH
Date	2017-05-18
Time	8:40:00
Temperature	75
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	unknown
Closed Pipe Shape	unknown
Outfall Condition	buried, silted in
Headwall Present	No
Sediment Present?	Yes
Sediment Depth (%)	100
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	Below grade. Buried under brush and silt. Could not physically locate pipe

Section 7: Media

Sketches

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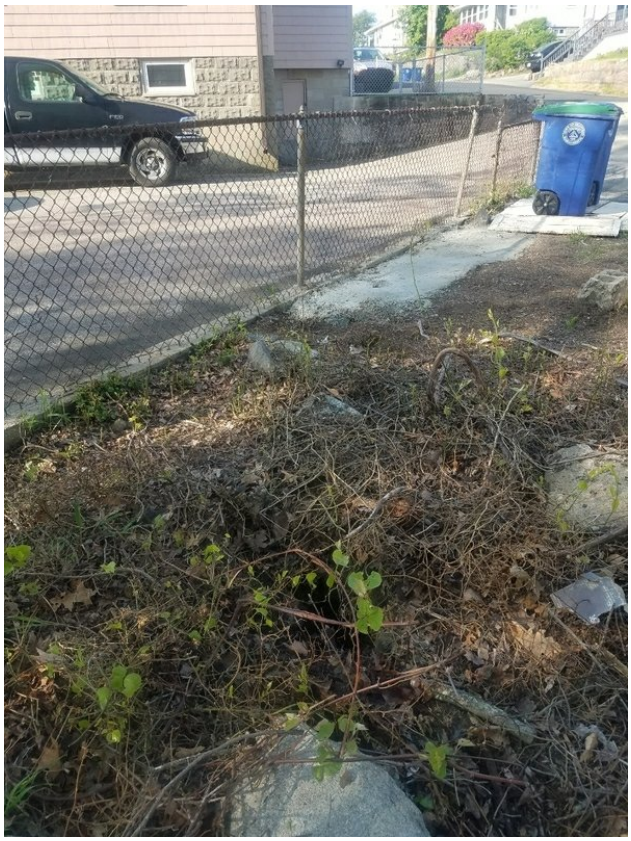
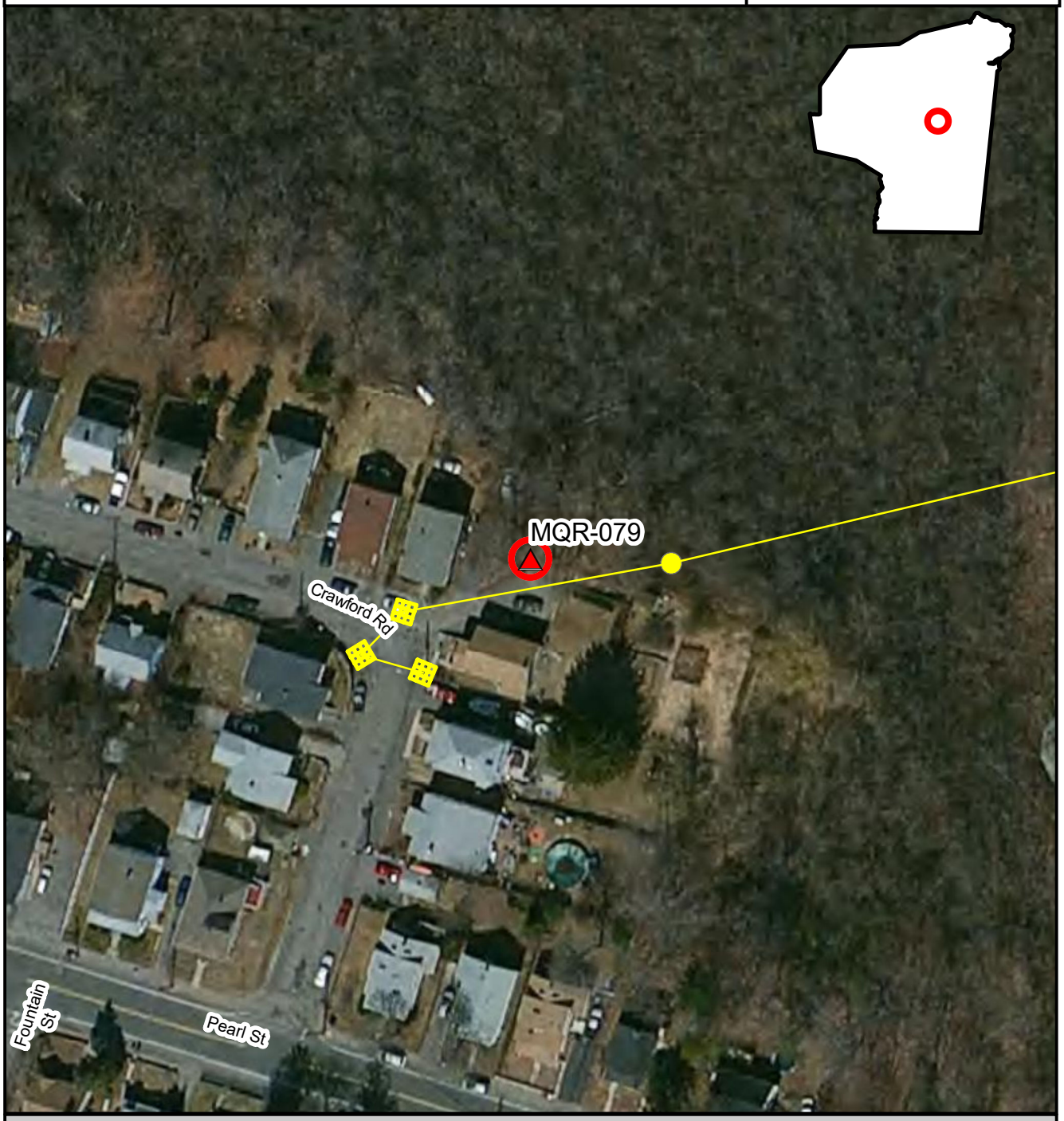


Braintree IDDE Inspections

Inspection ID
BT-096



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 5/18/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-97, MQR-088, 2017-05-18, 8:20:00

Created	2017-05-18 12:04:50 UTC by Matt Davis
Updated	2017-05-18 14:18:23 UTC by Matt Davis
Location	42.2026351, -70.9976951

Section 1: General Information

Inspection ID	BT-97
Outfall ID	MQR-088
Outfall GIS ID	121
Inspector	CPO GH
Date	2017-05-18
Time	8:20:00
Temperature	75
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	CMP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	36
Outfall Condition	Corrosion
Headwall Present	No
Sediment Present?	No
Outfall Submerged	Partially
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	Standing Water

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	Yes
Deposits/Stains	Sediments
Deposits/stains Comments	Iron stains
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No

Section 7: Media

Photos

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Braintree IDDE Inspections

Inspection ID
BT-097

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 5/18/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-98, MQR-086, 2017-05-18, 8:17:00

Created	2017-05-18 12:17:51 UTC by Matt Davis
Updated	2017-05-18 14:18:53 UTC by Matt Davis
Location	42.2036439, -70.9983029

Section 1: General Information

Inspection ID	BT-98
Outfall ID	MQR-086
Outfall GIS ID	193
Inspector	CPO GH
Date	2017-05-18
Time	8:17:00
Temperature	77
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	CMP
Closed Pipe Shape	Elliptical
Outfall Condition	Corrosion
Headwall Present	No
Sediment Present?	Yes
Sediment Depth (%)	20
Outfall Submerged	Partially
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	Standing Water

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	Yes
Deposits/Stains	Sediments
Deposits/stains Comments	Iron stains
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	Flared outlet of pipe made measuring diameter of outfall inaccurate. Outfall located off of roadway submerged in wetland

Section 7: Media

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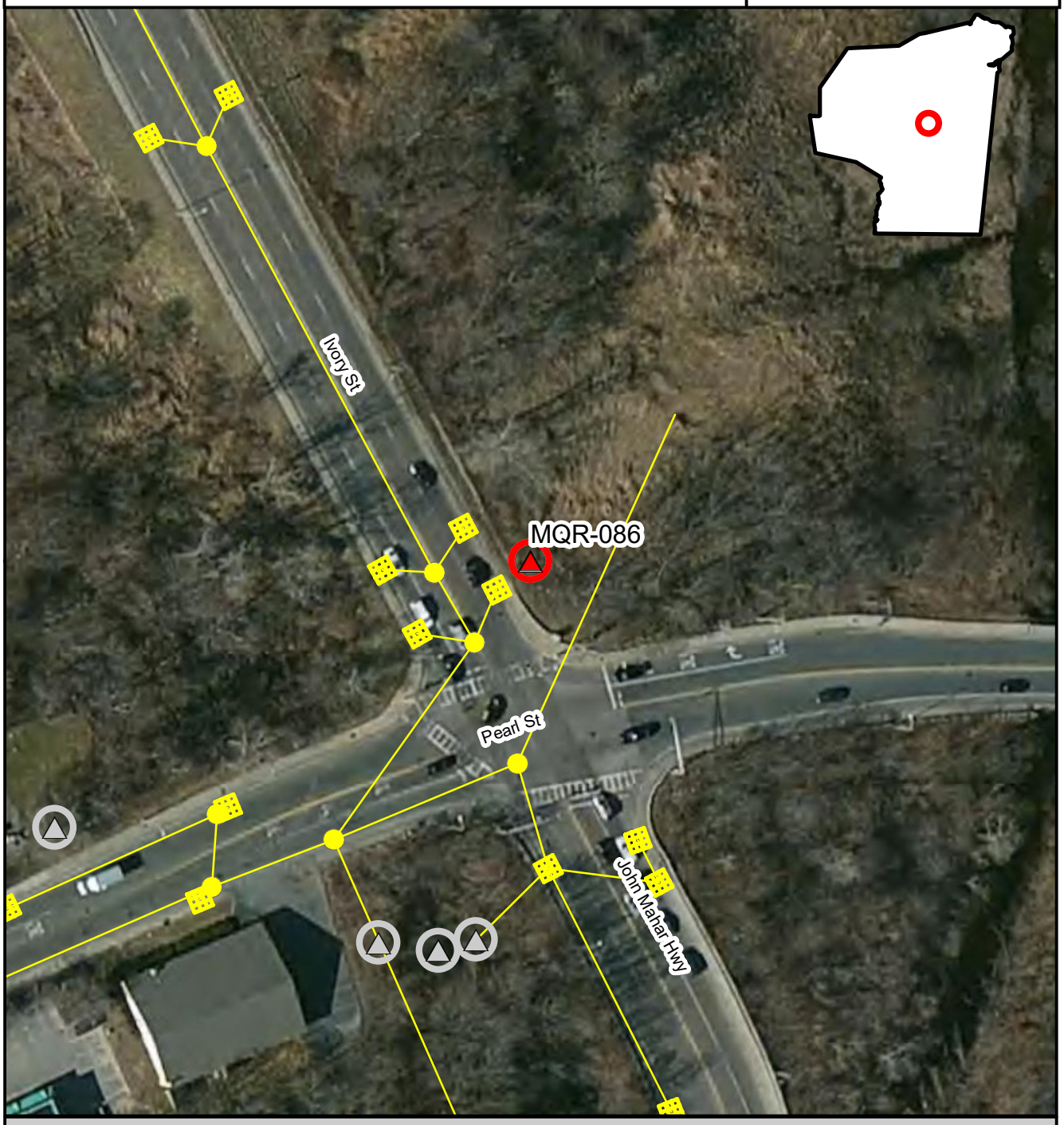
Sketches

Braintree IDDE Inspections

Inspection ID
BT-098



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 5/18/2017

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-99, MQR-091, 2017-05-18, 9:03:00

Created	2017-05-18 12:30:42 UTC by Matt Davis
Updated	2017-05-22 12:07:34 UTC by Matt Davis
Location	42.2026562, -70.998026

Section 1: General Information

Inspection ID	BT-99
Outfall ID	MQR-091
Outfall GIS ID	20171805-01
Inspector	CPO GH
Date	2017-05-18
Time	9:03:00
Temperature	79
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	12
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No

Section 7: Media

Photos

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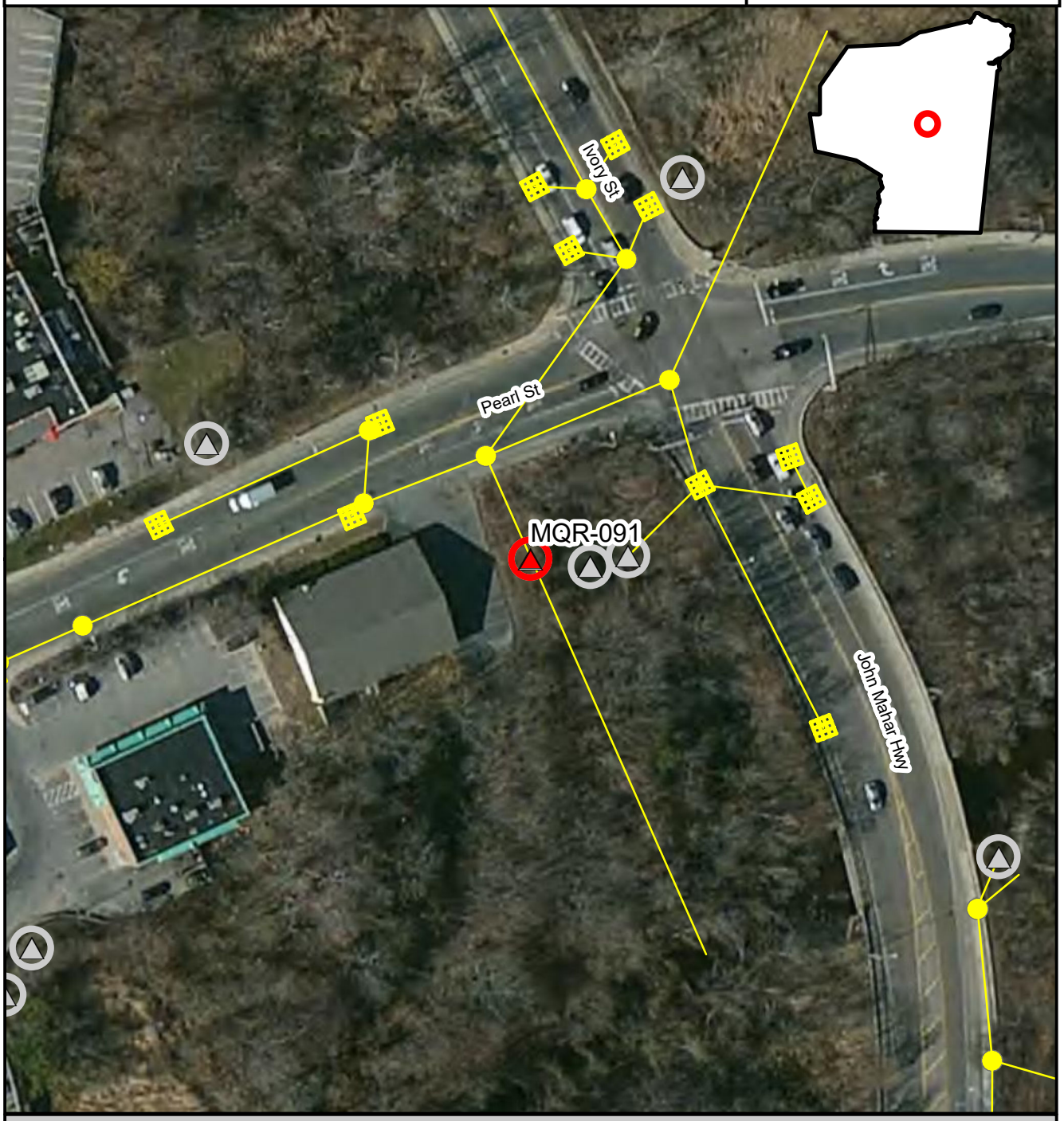
Braintree IDDE Inspections

Inspection ID
BT-099



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 5/18/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-100, MQR-090, 2017-05-18, 9:23:00

Created	2017-05-18 12:40:23 UTC by Matt Davis
Updated	2017-05-18 14:19:51 UTC by Matt Davis
Location	42.203215, -70.9984139

Section 1: General Information

Inspection ID	BT-100
Outfall ID	MQR-090
Outfall GIS ID	194
Inspector	CPO GH
Date	2017-05-18
Time	9:23:00
Temperature	80
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	CMP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	12
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	Near mile marker off of Maher parkway and pearl street. Located next to larger outfall pipe. Scouring observed

Section 7: Media

Photos

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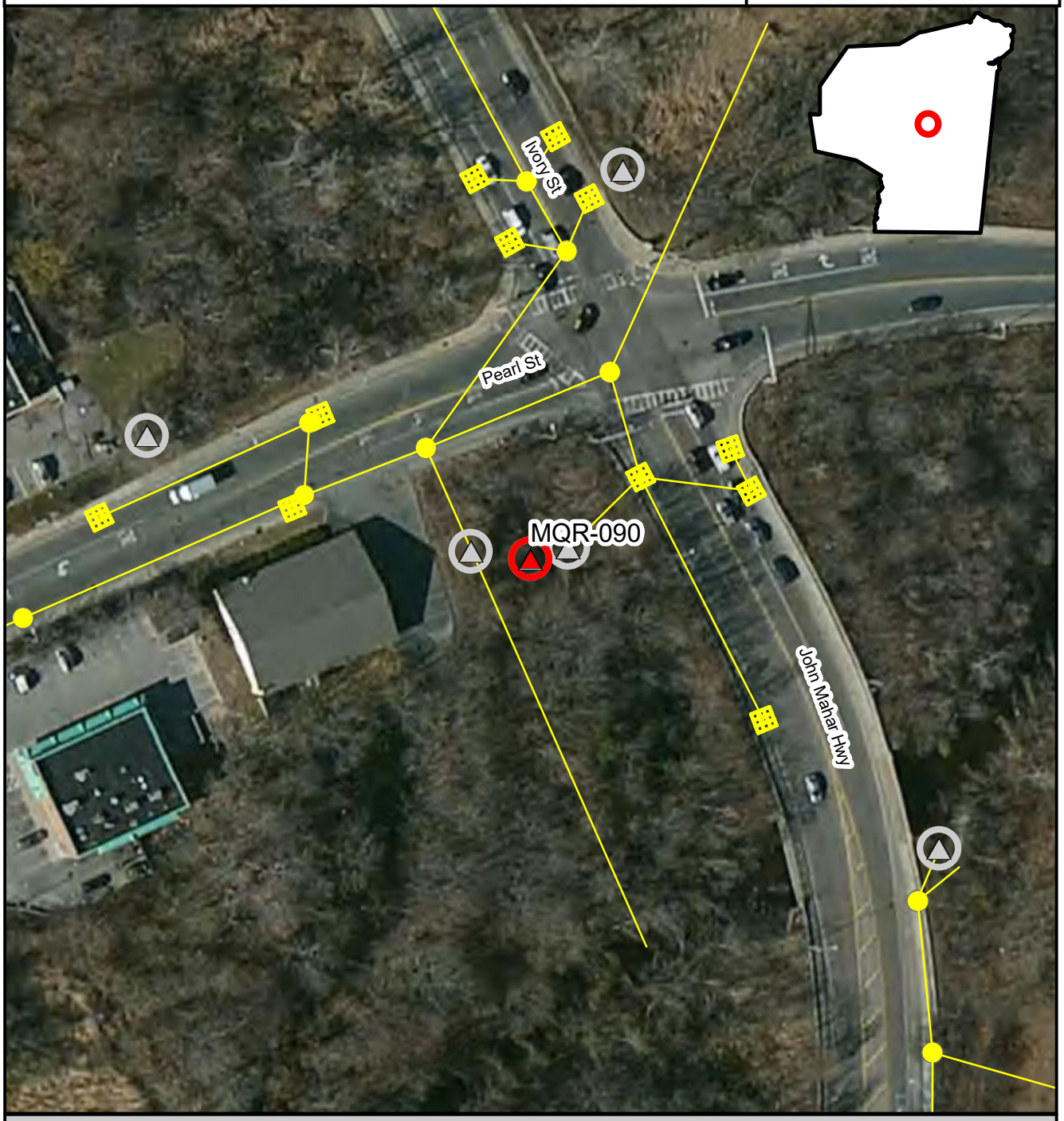
Braintree IDDE Inspections

Inspection ID
BT-100



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 5/18/2017

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-101, MQR-089, 2017-05-18, 9:28:00

Created	2017-05-18 12:43:12 UTC by Matt Davis
Updated	2017-05-18 14:20:10 UTC by Matt Davis
Location	42.2031977, -70.998443

Section 1: General Information

Inspection ID	BT-101
Outfall ID	MQR-089
Outfall GIS ID	117
Inspector	CPO GH
Date	2017-05-18
Time	9:28:00
Temperature	80
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	42
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	Yes
Sediment Depth (%)	10
Outfall Submerged	Partially
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	Standing Water

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No

Section 7: Media

Photos

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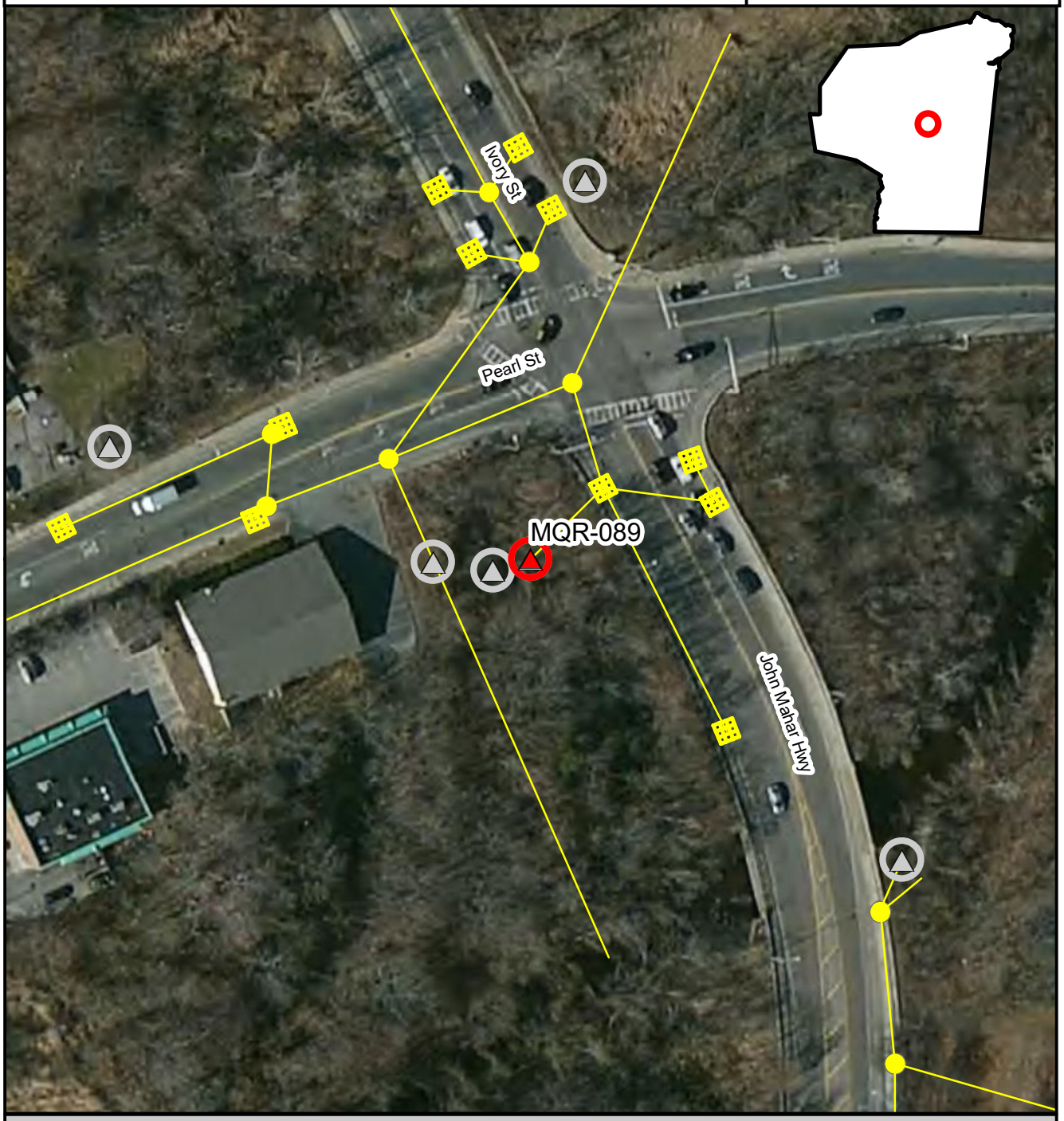
Braintree IDDE Inspections

Inspection ID
BT-101



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 5/18/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-102, MQR-085, 2017-05-18, 10:10:00

Created	2017-05-18 13:16:13 UTC by Matt Davis
Updated	2017-05-18 14:20:29 UTC by Matt Davis
Location	42.2022383, -70.9956761

Section 1: General Information

Inspection ID	BT-102
Outfall ID	MQR-085
Outfall GIS ID	195
Inspector	CPO GH
Date	2017-05-18
Time	10:10:00
Temperature	80
Inspection Location	Manhole
Investigation performed at manhole upstream of outfall?	Yes
Visual evidence of contamination present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	Opened manhole upstream. Could not locate Outfall. Standing water in manhole but no flow.

Section 7: Media

Photos

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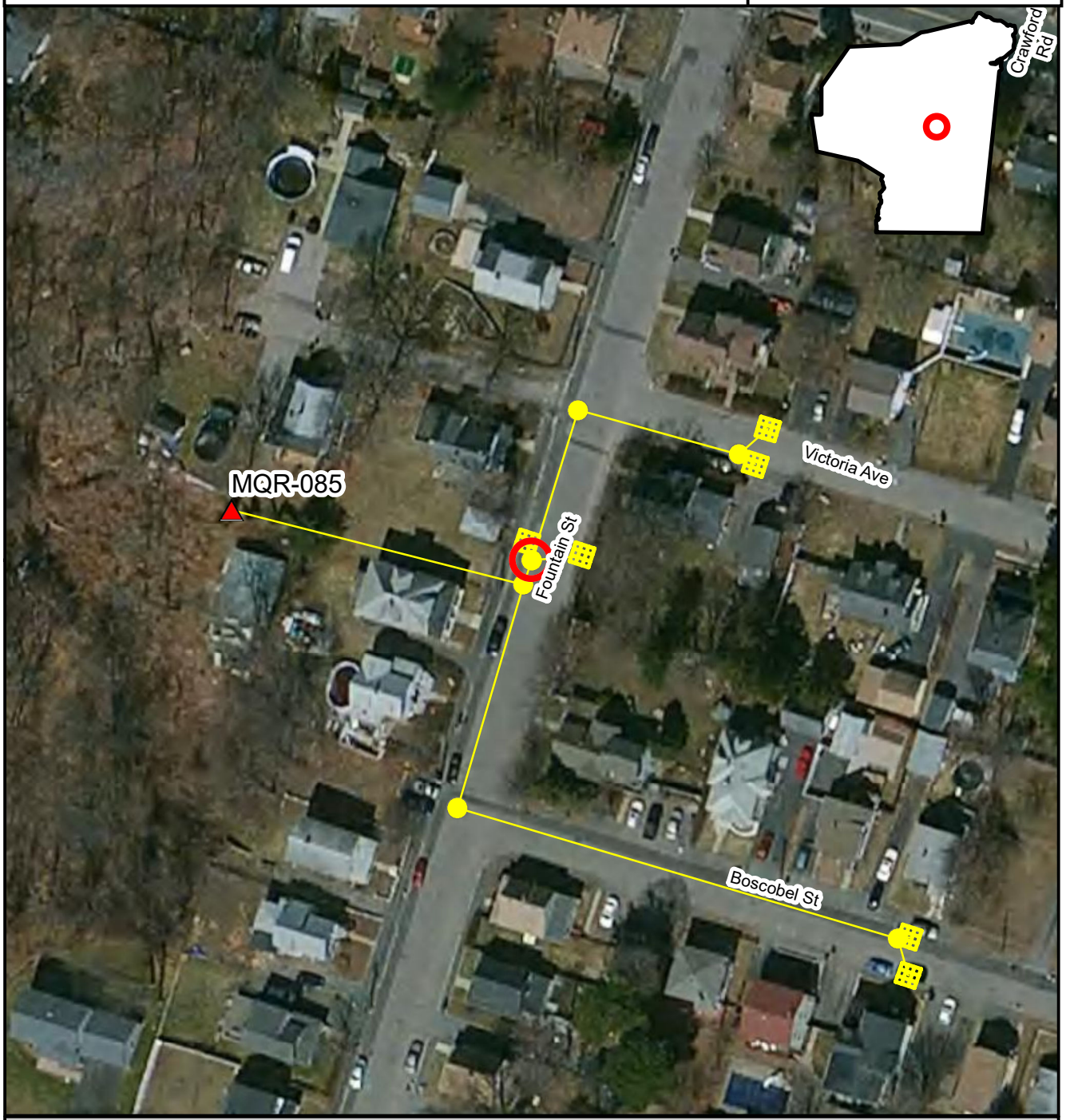
Braintree IDDE Inspections

Inspection ID
BT-102



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 5/18/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-103, MQR-094, 2017-05-18, 10:32:00

Created	2017-05-18 13:32:30 UTC by Matt Davis
Updated	2017-05-18 14:20:46 UTC by Matt Davis
Location	42.2003272, -70.9965792

Section 1: General Information

Inspection ID	BT-103
Outfall ID	MQR-094
Outfall GIS ID	197
Inspector	CPO GH
Date	2017-05-18
Time	10:32:00
Temperature	80
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	15
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	Yes
Pool Quality Description	standing water
Pool quality Comments	Pool of standing water at mouth of outfall
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	Standing pool of water at mouth of outfall. Flared mouth on outfall

Section 7: Media

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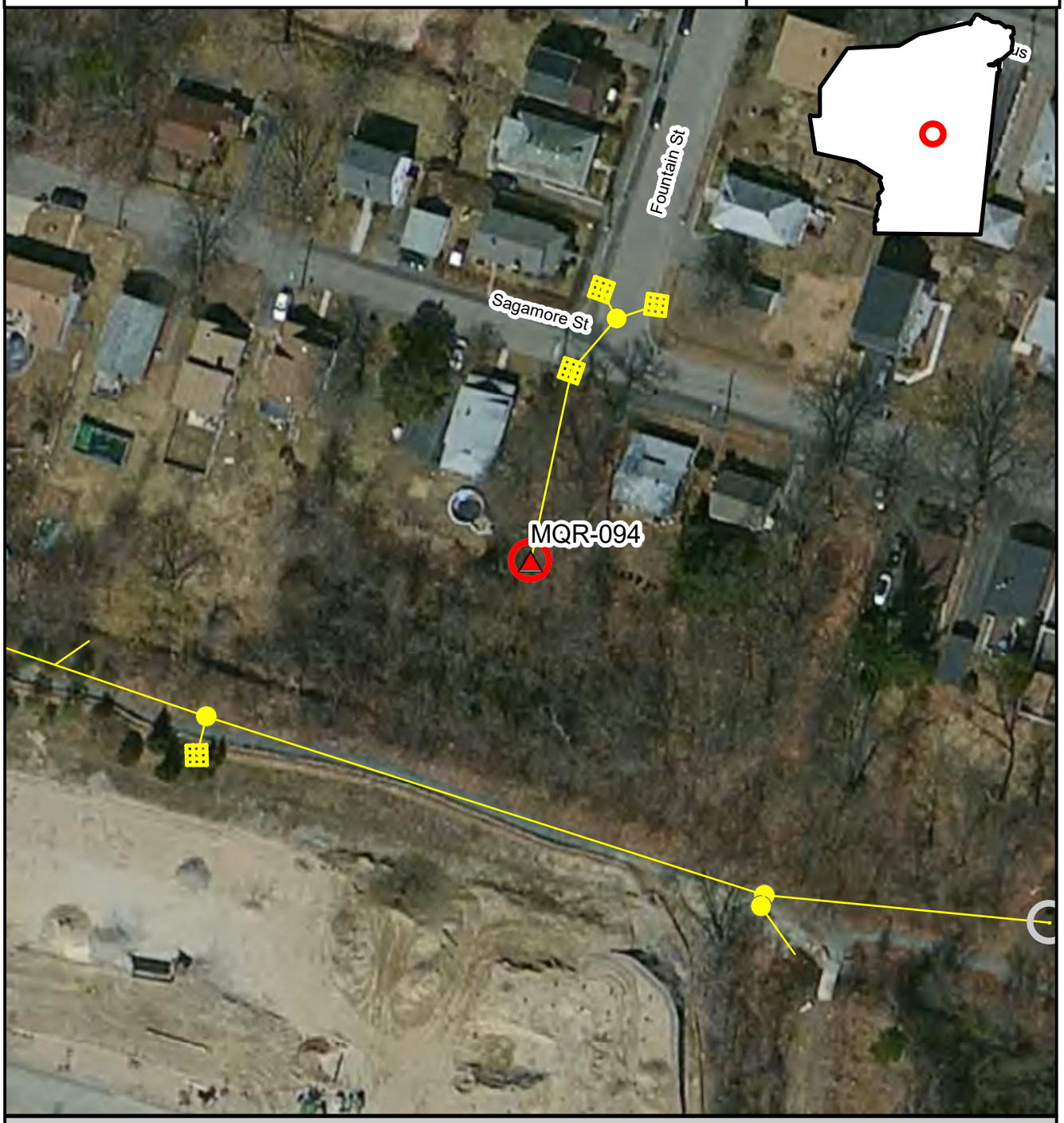
Photos

Sketches

Braintree IDDE Inspections

Inspection ID
BT-103



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 5/18/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-104, MQR-087, 2017-05-18, 10:43:00

Created	2017-05-18 13:43:57 UTC by Matt Davis
Updated	2017-05-18 14:20:58 UTC by Matt Davis
Location	42.199951, -70.9940579

Section 1: General Information

Inspection ID	BT-104
Outfall ID	MQR-087
Outfall GIS ID	196
Inspector	CPO GH
Date	2017-05-18
Time	10:43:00
Temperature	83
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	12
Outfall Condition	filled in with yard waste bebris
Headwall Present	No
Sediment Present?	Yes
Sediment Depth (%)	75
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	Yes
Pool Quality Description	filled in
Pool quality Comments	Yard waste has covered this outfall
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	This outfall has been covered and buried by yard waste. Size measurements are approximate

Section 7: Media

Photos

Braintree IDDE Inspections

Inspection ID
BT-104

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 5/18/2017

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-105, MQR-084, 2017-05-18, 11:21:00

Created	2017-05-18 13:51:27 UTC by Matt Davis
Updated	2017-05-18 14:21:19 UTC by Matt Davis
Location	42.200698, -70.9937776

Section 1: General Information

Inspection ID	BT-105
Outfall ID	MQR-084
Outfall GIS ID	245
Inspector	CPO GH
Date	2017-05-18
Time	11:21:00
Temperature	83
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	15
Outfall Condition	Cracking
Headwall Present	No
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No

Section 7: Media

Photos

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Braintree IDDE Inspections

Inspection ID
BT-105

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 5/18/2017

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-106, MQR-076, 2017-05-18, 13:03:00

Created	2017-05-18 14:03:44 UTC by Matt Davis
Updated	2017-05-18 14:17:59 UTC by Matt Davis
Location	42.2028771, -70.9905887

Section 1: General Information

Inspection ID	BT-106
Outfall ID	MQR-076
Outfall GIS ID	123
Inspector	CPO GH
Date	2017-05-18
Time	13:03:00
Temperature	85
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	15
Outfall Condition	Cracking
Headwall Present	No
Sediment Present?	Yes
Sediment Depth (%)	20
Outfall Submerged	Partially
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	Standing Water

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	Some chipping on outfall outlet. Sediment and standing water present

Section 7: Media

Photos

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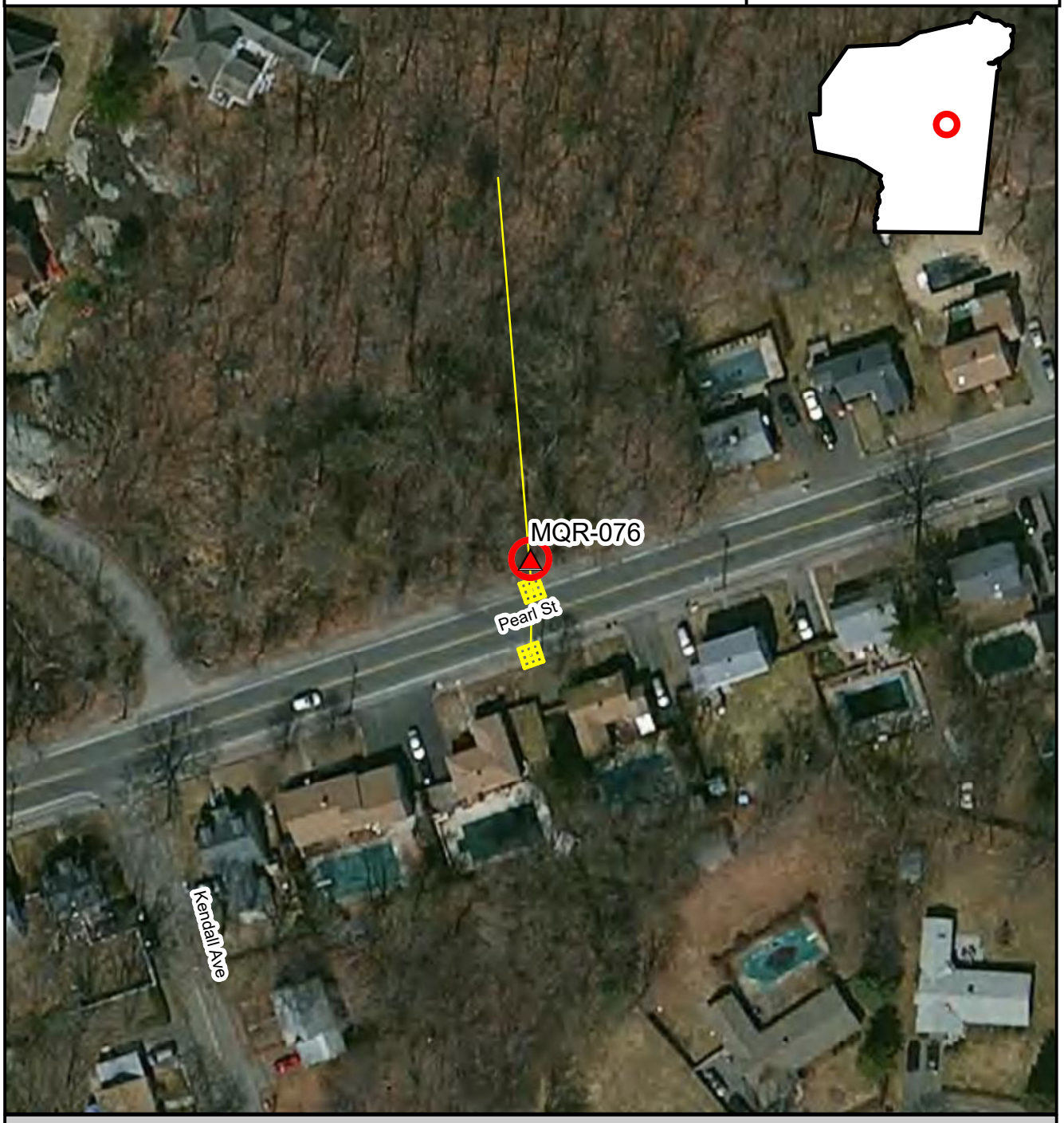
Braintree IDDE Inspections

Inspection ID
BT-106



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 5/18/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-107, WFR-003, 2017-05-18, 13:43:00

Created	2017-05-18 14:43:54 UTC by Matt Davis
Updated	2017-05-18 14:45:43 UTC by Matt Davis
Location	42.2331525, -70.9634338

Section 1: General Information

Inspection ID	BT-107
Outfall ID	WFR-003
Outfall GIS ID	5
Inspector	CPO GH
Date	2017-05-18
Time	13:43:00
Temperature	85
Inspection Location	Catch basin
Investigation performed at manhole upstream of outfall?	Yes
Visual evidence of contamination present?	No

Section 2: Outfall Description

Outfall Condition	could not find
Outfall Tidally Influenced?	Yes

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	No upstream manhole, only two catch basins. Both catch basins were dry

Section 7: Media

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Photos

Braintree IDDE Inspections

Inspection ID
BT-107

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 5/18/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-108, SSL-003, 2017-05-18, 11:24:00

Created	2017-05-18 15:24:14 UTC by Matt Davis
Updated	2017-05-18 16:50:33 UTC by Matt Davis
Location	42.2030479, -71.0178414

Section 1: General Information

Inspection ID	BT-108
Outfall ID	SSL-003
Outfall GIS ID	203
Inspector	CPO GH
Date	2017-05-18
Time	11:24:00
Temperature	93
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	12
Outfall Condition	Normal
Headwall Present	Yes
Headwall Condition	Fair
Sediment Present?	Yes
Sediment Depth (%)	75
Outfall Submerged	Partially
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	Standing Water

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	Outfall near tennis court. Standing water and sediment/leaves in discharge area

Section 7: Media

Photos

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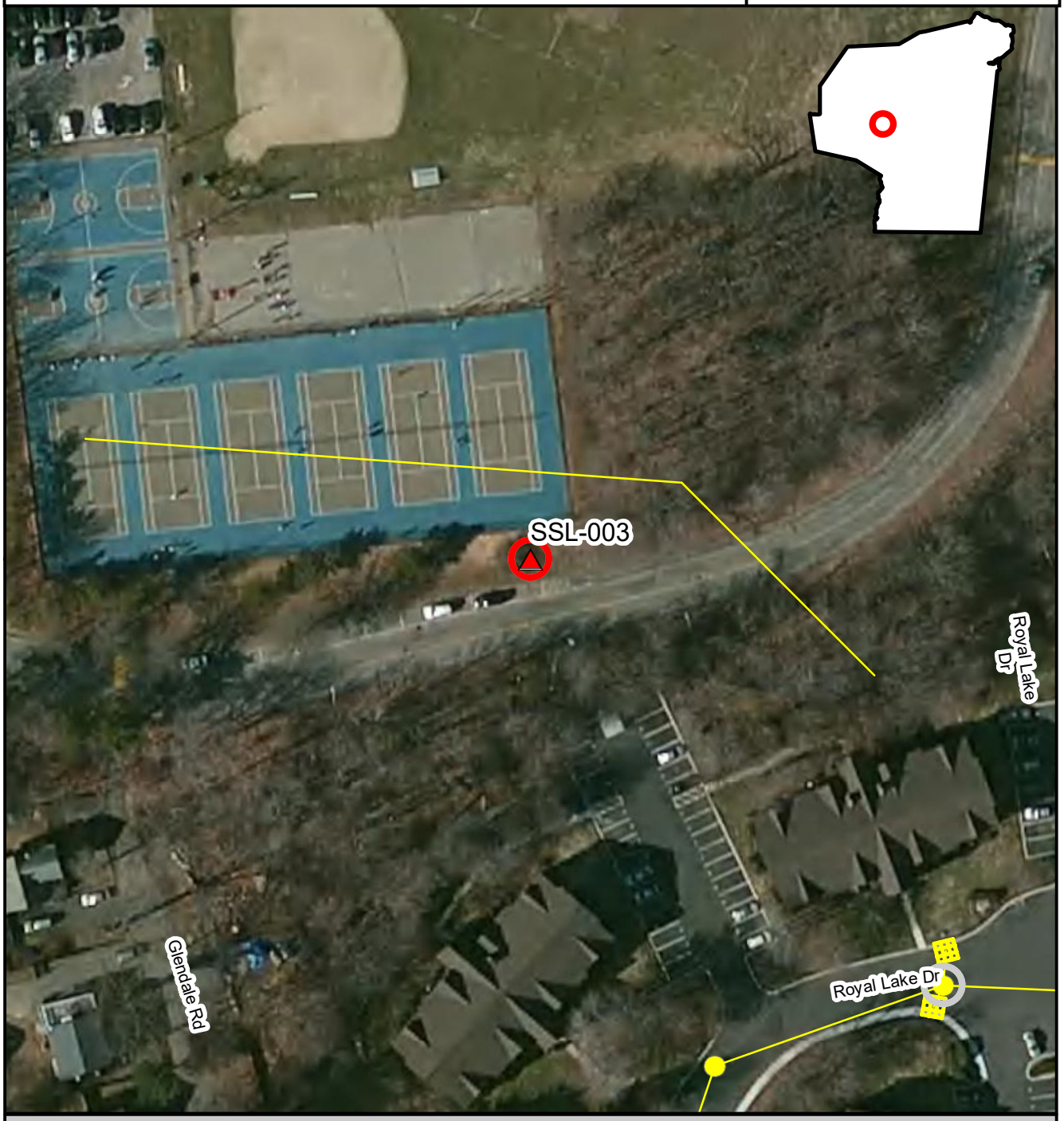
Braintree IDDE Inspections

Inspection ID
BT-108



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 5/18/2017

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-109, MQR-067, 2017-05-18, 13:43:00

Created	2017-05-18 15:42:53 UTC by Matt Davis
Updated	2017-05-18 16:52:08 UTC by Matt Davis
Location	42.2033493, -70.9885545

Section 1: General Information

Inspection ID	BT-109
Outfall ID	MQR-067
Outfall GIS ID	126
Inspector	CPO GH
Date	2017-05-18
Time	13:43:00
Temperature	93
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	12
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	No
Outfall Submerged	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	Outfall drains to brook that runs under Pearl st.

Section 7: Media

Photos

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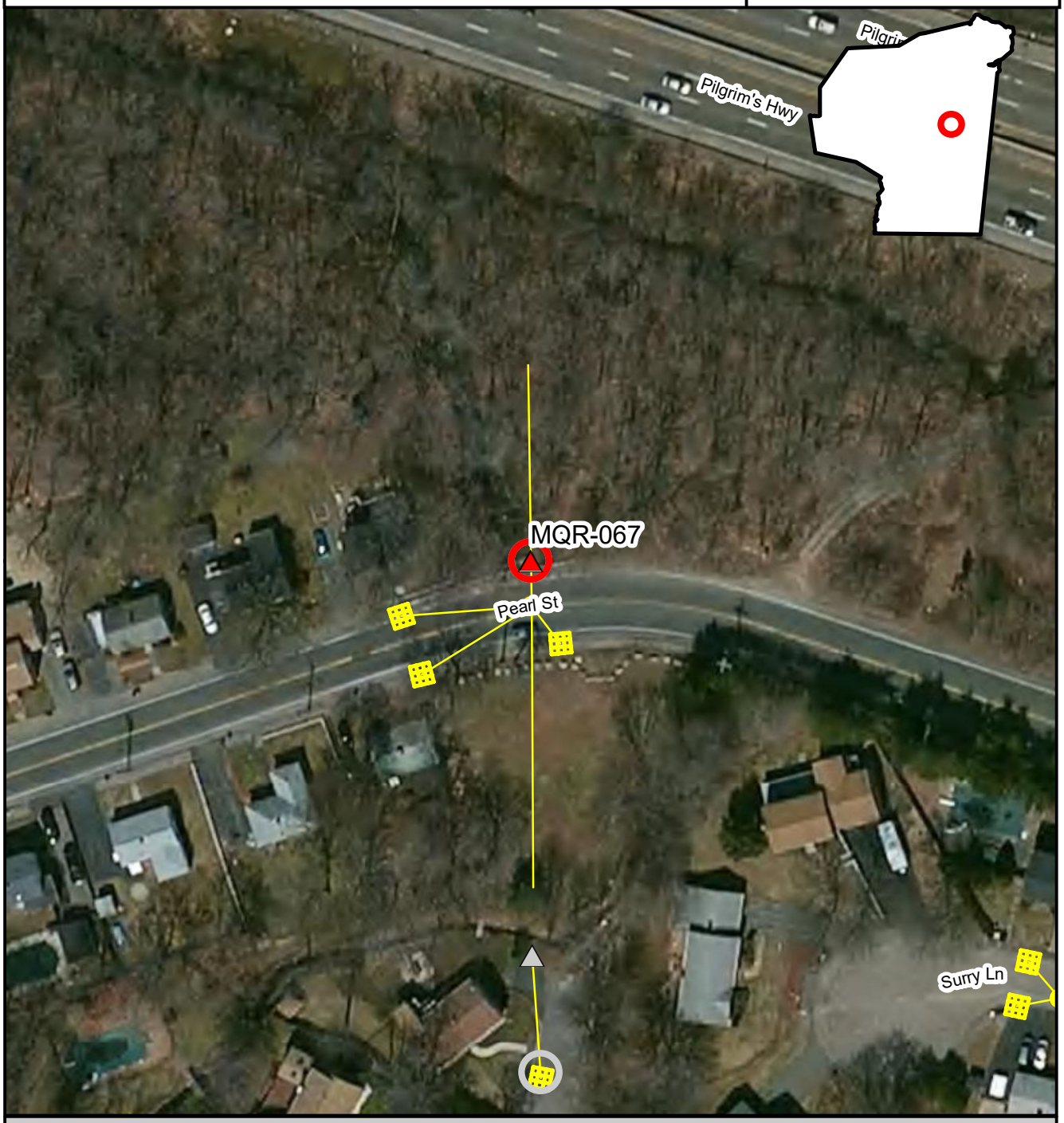
BT-109

Braintree IDDE Inspections

Inspection ID
BT-109



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 5/18/2017

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-110, MQR-069, 2017-05-18, 2:53:00

Created	2017-05-18 15:53:53 UTC by Matt Davis
Updated	2017-05-18 16:51:40 UTC by Matt Davis
Location	42.2027459, -70.9884384

Section 1: General Information

Inspection ID	BT-110
Outfall ID	MQR-069
Outfall GIS ID	125
Inspector	CPO GH
Date	2017-05-18
Time	2:53:00
Temperature	93
Inspection Location	Catch basin
Investigation performed at manhole upstream of outfall?	Yes
Visual evidence of contamination present?	No

Section 2: Outfall Description

Outfall Tidally Influenced?	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	Did not find outfall. New construction along stream in this area. Inspected upstream CB. Dry

Section 7: Media

Photos

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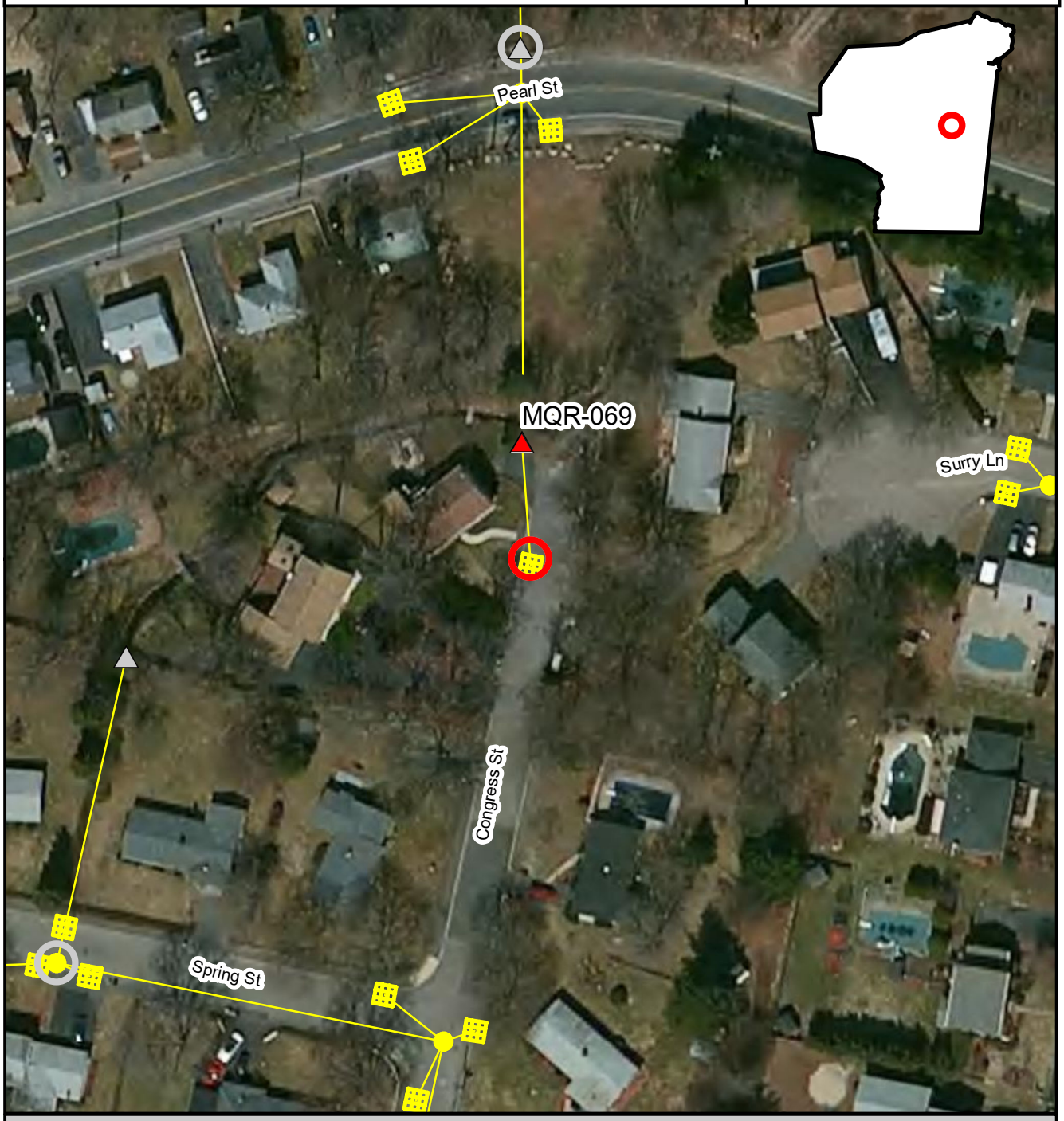
Braintree IDDE Inspections

Inspection ID
BT-110



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 5/18/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-111, MQR-063, 2017-05-18, 15:04:00

Created	2017-05-18 16:04:26 UTC by Matt Davis
Updated	2017-05-18 16:51:24 UTC by Matt Davis
Location	42.2028392, -70.9859126

Section 1: General Information

Inspection ID	BT-111
Outfall ID	MQR-063
Outfall GIS ID	127
Inspector	CPO GH
Date	2017-05-18
Time	15:04:00
Temperature	93
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	12
Outfall Condition	Normal
Headwall Present	Yes
Headwall Condition	Good
Sediment Present?	Yes
Sediment Depth (%)	10
Outfall Submerged	Partially
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	Standing Water

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	Yes
Pool quality Comments	Standing water in pool
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	Pool with standing water at discharge point. Significant sediment build up past discharge point of outfall

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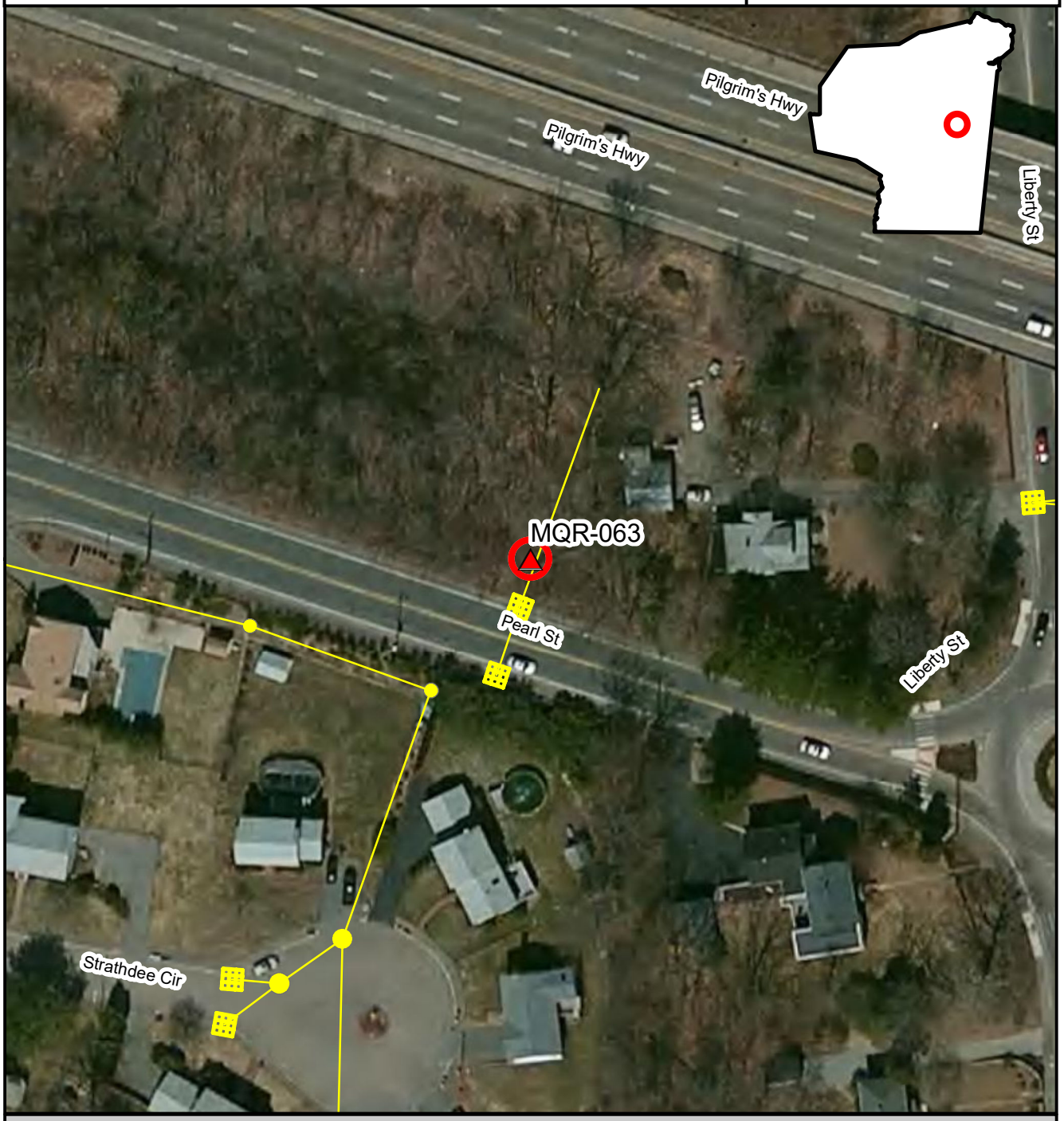
Section 7: Media

Photos

Braintree IDDE Inspections

Inspection ID
BT-111



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 5/18/2017

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-112, MQR-065, 2017-05-18, 15:10:00

Created	2017-05-18 16:10:22 UTC by Matt Davis
Updated	2017-06-02 14:55:43 UTC by Matt Davis
Location	42.2031313, -70.9871593

Section 1: General Information

Inspection ID	BT-112
Outfall ID	MQR-065
Outfall GIS ID	128
Inspector	CPO GH
Date	2017-05-18
Time	15:10:00
Temperature	93
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Double
Closed Pipe Diameter (in)	24
Outfall Condition	Cracking
Headwall Present	Yes
Headwall Condition	Fair
Sediment Present?	Yes
Sediment Depth (%)	25
Outfall Submerged	Partially
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	Standing Water

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	Yes
Deposits/Stains	Sediments
Deposits/stains Comments	Iron stains
Pool quality issues?	Yes
Pool Quality Description	standing water
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No

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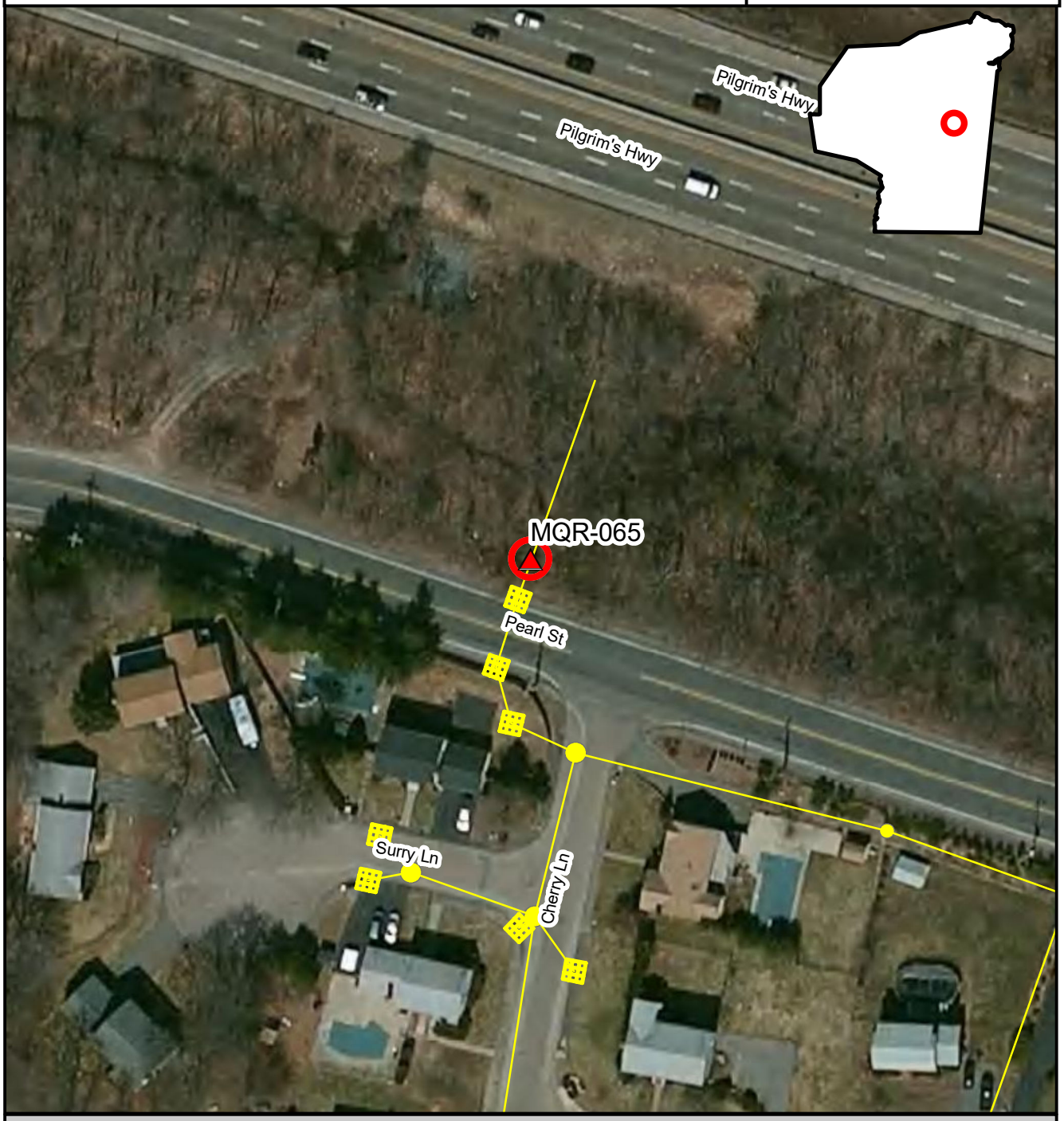
Section 6: General Comments	Larger 24" RCP pipe with smaller 10" CMP pipe as well. Standing water present

Section 7: Media

Photos

Braintree IDDE Inspections

Inspection ID
BT-112



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 5/18/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-113, SMB-012, 2017-06-02, 6:20:00

Created	2017-06-02 10:20:03 UTC by Matt Davis
Updated	2017-06-02 10:23:28 UTC by Matt Davis
Location	42.2028613, -70.9847188

Section 1: General Information

Inspection ID	BT-113
Outfall ID	SMB-012
Outfall GIS ID	129
Inspector	CPO GH
Date	2017-06-02
Time	6:20:00
Temperature	65
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	Yes
Sediment Depth (%)	10
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	Highway fencing along Route 3 prevented direct access. Outfall could be was visually inspected from distance. No flow present.

Section 7: Media

Photos

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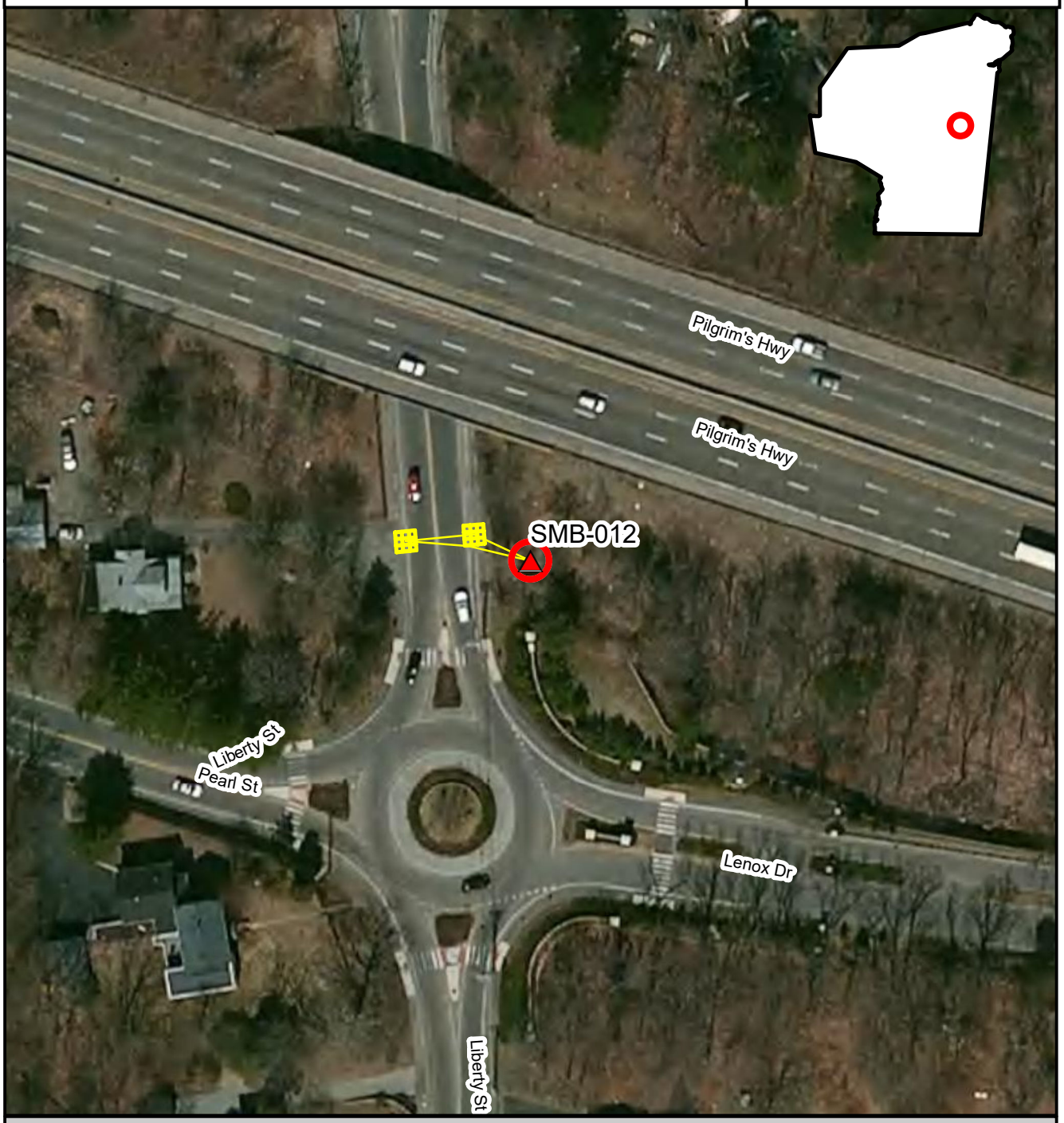
BT-113

Braintree IDDE Inspections

Inspection ID
BT-113



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 6/2/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-114, SMB-013, 2017-06-02, 6:35:00

Created	2017-06-02 10:35:23 UTC by Matt Davis
Updated	2017-06-02 10:46:17 UTC by Matt Davis
Location	42.1982314, -70.9849875

Section 1: General Information

Inspection ID	BT-114
Outfall ID	SMB-013
Outfall GIS ID	132
Inspector	CPO GH
Date	2017-06-02
Time	6:35:00
Temperature	65
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	PVC
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	12
Outfall Condition	Normal
Headwall Present	Yes
Headwall Condition	Fair
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	Outfall is located in side of conduit that runs across road for river.

Section 7: Media

Photos

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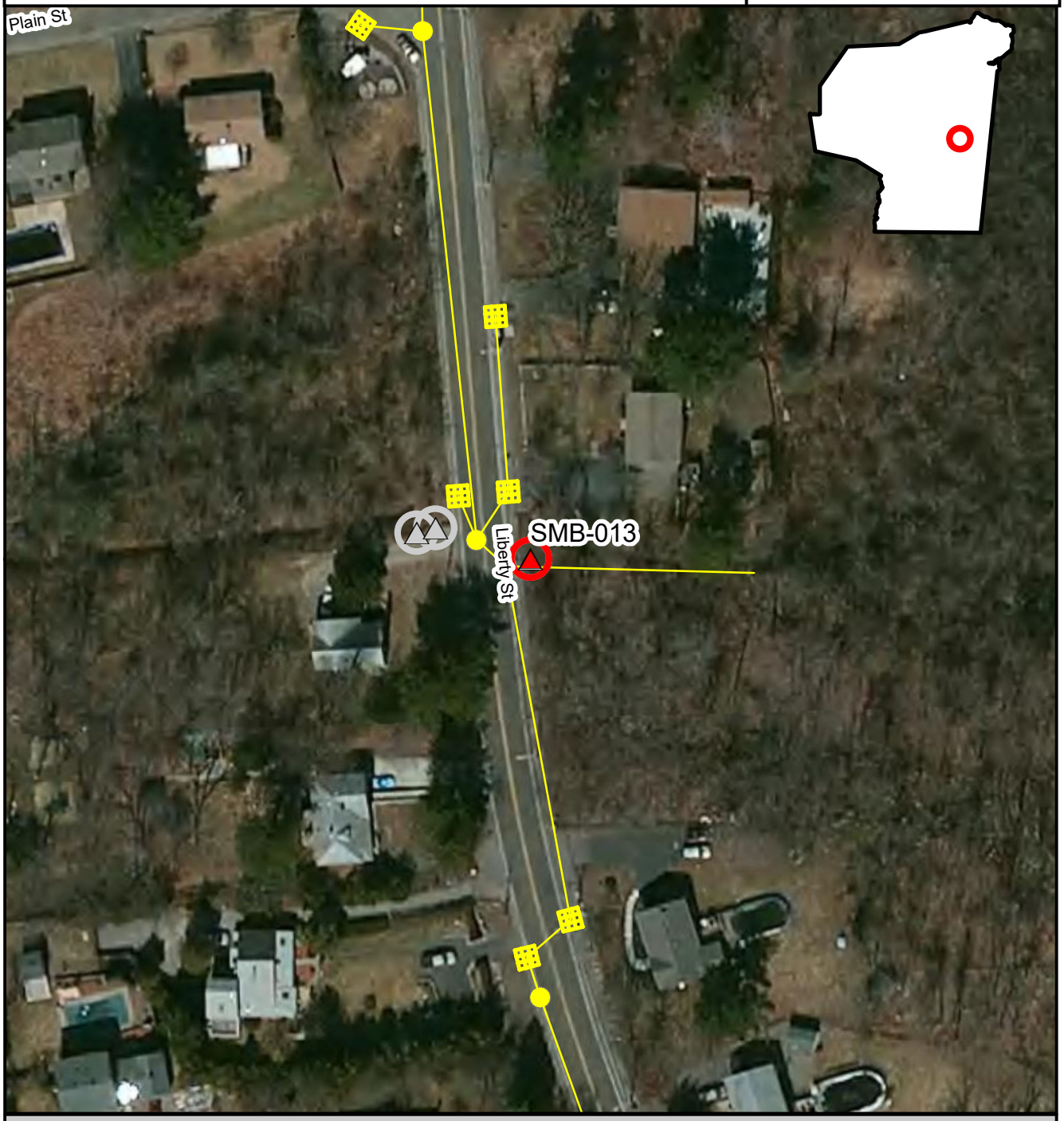
Braintree IDDE Inspections

Inspection ID
BT-114



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 6/2/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-115, SMB-015, 2017-06-02, 6:42:00

Created	2017-06-02 10:42:39 UTC by Matt Davis
Updated	2017-06-02 10:46:01 UTC by Matt Davis
Location	42.1982716, -70.9852187

Section 1: General Information

Inspection ID	BT-115
Outfall ID	SMB-015
Outfall GIS ID	6021701
Inspector	CPO GH
Date	2017-06-02
Time	6:42:00
Temperature	65
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Outfall Condition	Normal
Headwall Present	Yes
Headwall Condition	Fair
Sediment Present?	No
Outfall Submerged	Partially
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	Standing Water

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	Yes
Deposits/Stains	Sediments
Deposits/stains Comments	Brown stain on bottom of pipe and in the area
Pool quality issues?	Yes
Pool Quality Description	Colors
Pool quality Comments	Orange benthic growth throughout
Pipe benthic growth present?	Yes
Pipe benthic growth description	Orange
Pipe benthic growth Comments	Orange benthic growth

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No

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Intermittent flow trap used?	No

Section 7: Media

Photos

BT-115

Braintree IDDE Inspections

Inspection ID
BT-115

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 6/2/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-116, SMB-014, 2017-06-02, 6:46:00

Created	2017-06-02 10:46:29 UTC by Matt Davis
Updated	2017-06-02 10:48:05 UTC by Matt Davis
Location	42.1982794, -70.9851798

Section 1: General Information

Inspection ID	BT-116
Outfall ID	SMB-014
Outfall GIS ID	6021702
Inspector	CPO GH
Date	2017-06-02
Time	6:46:00
Temperature	65
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	PVC
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	12
Outfall Condition	Normal
Headwall Present	Yes
Headwall Condition	Fair
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	PVC pipe cast into side of culvert that runs under the road

Section 7: Media

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Photos

Braintree IDDE Inspections

Inspection ID
BT-116

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 6/2/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-117, SMB-019, 2017-06-02, 6:59:00

Created	2017-06-02 10:59:21 UTC by Matt Davis
Updated	2017-06-02 11:03:21 UTC by Matt Davis
Location	42.1942322, -70.9819491

Section 1: General Information

Inspection ID	BT-117
Outfall ID	SMB-019
Outfall GIS ID	192
Inspector	CPO GH
Date	2017-06-02
Time	6:59:00
Temperature	65
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	circular with flared opening
Closed Pipe Diameter (in)	18
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	Yes
Sediment Depth (%)	20
Outfall Submerged	Partially
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	Standing Water

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No

Section 7: Media

Photos

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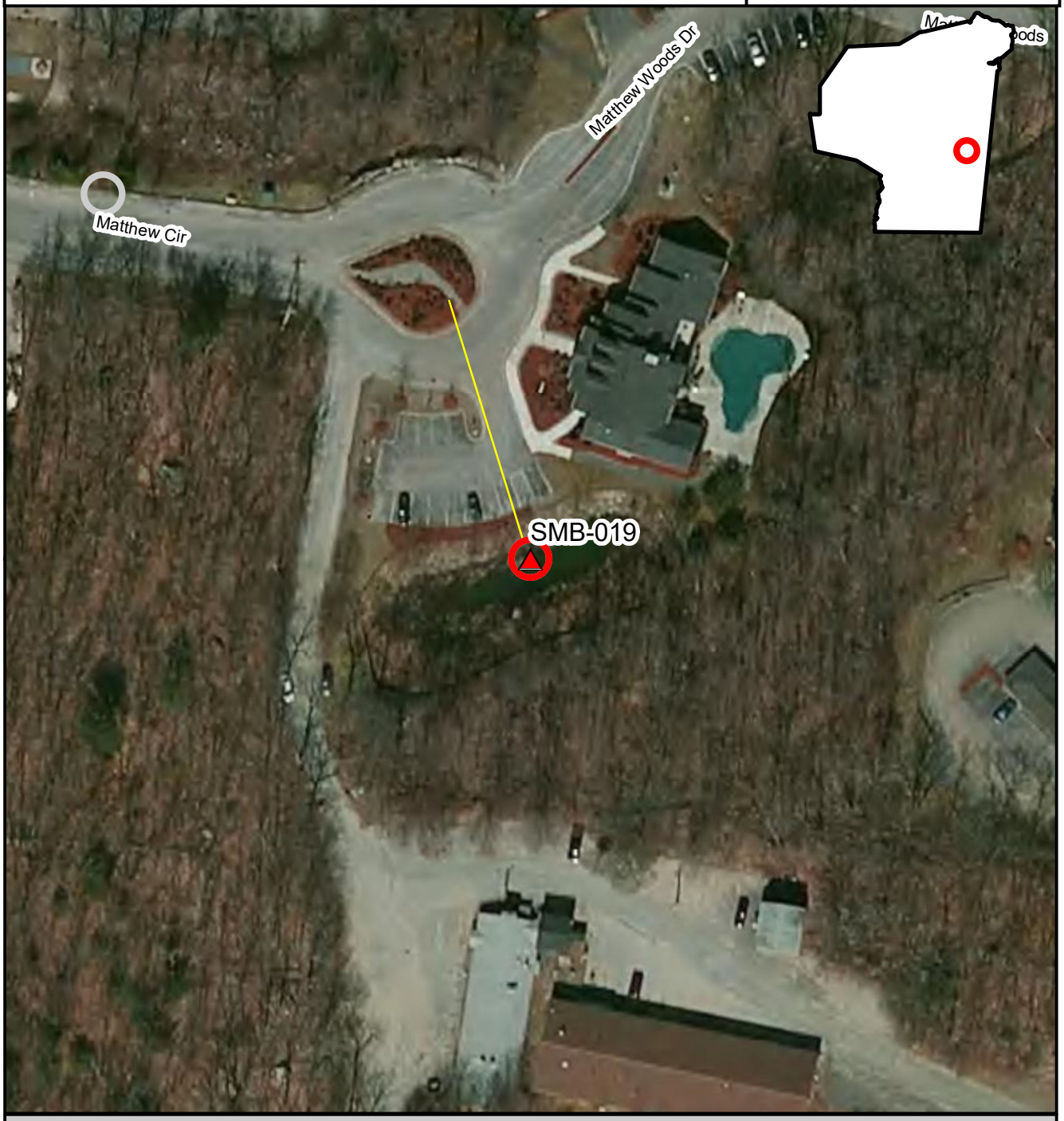
Braintree IDDE Inspections

Inspection ID
BT-117



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 6/2/2017

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-118, SMB-019, 2017-06-02, 7:20:00

Created	2017-06-02 11:20:28 UTC by Matt Davis
Updated	2017-06-02 11:22:43 UTC by Matt Davis
Location	42.1947655, -70.982837

Section 1: General Information

Inspection ID	BT-118
Outfall ID	SMB-019
Outfall GIS ID	191
Inspector	CPO GH
Date	2017-06-02
Time	7:20:00
Temperature	65
Inspection Location	Manhole
Investigation performed at manhole upstream of outfall?	Yes
Visual evidence of contamination present?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	Opened manhole in sidewalk. Outfall could not be found. Manhole was dry

Section 7: Media

Photos

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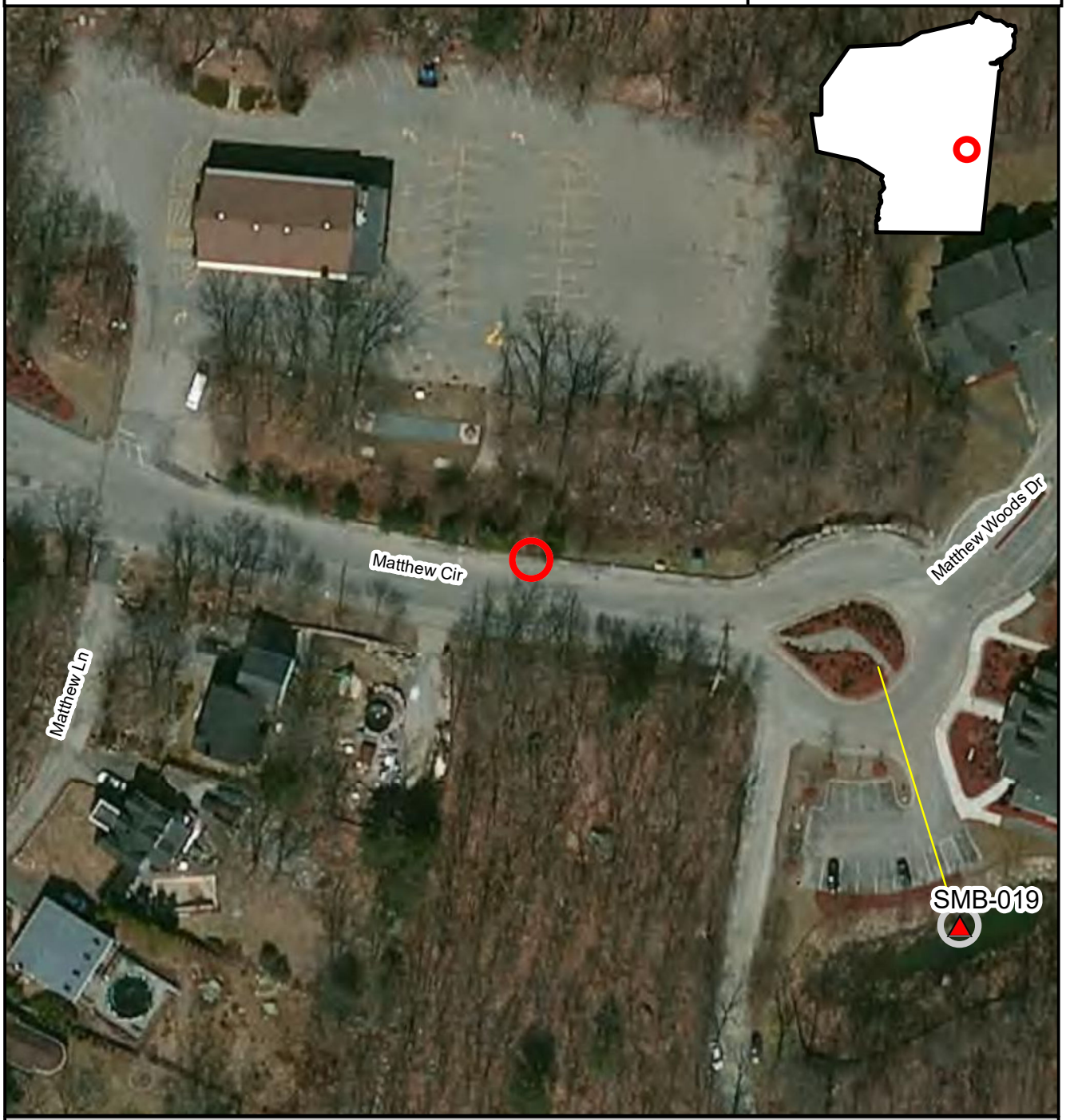
Braintree IDDE Inspections

Inspection ID
BT-118



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 6/2/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-119, SMB-022, 2017-06-02, 7:34:00

Created	2017-06-02 11:34:04 UTC by Matt Davis
Updated	2017-06-02 11:42:59 UTC by Matt Davis
Location	42.1922453, -70.9869056

Section 1: General Information

Inspection ID	BT-119
Outfall ID	SMB-022
Outfall GIS ID	6021703
Inspector	CPO GH
Date	2017-06-02
Time	7:34:00
Temperature	65
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	circular with a beveled mouth
Closed Pipe Diameter (in)	12
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	Yes
Sediment Depth (%)	10
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	Standing Water

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No

Section 7: Media

Photos

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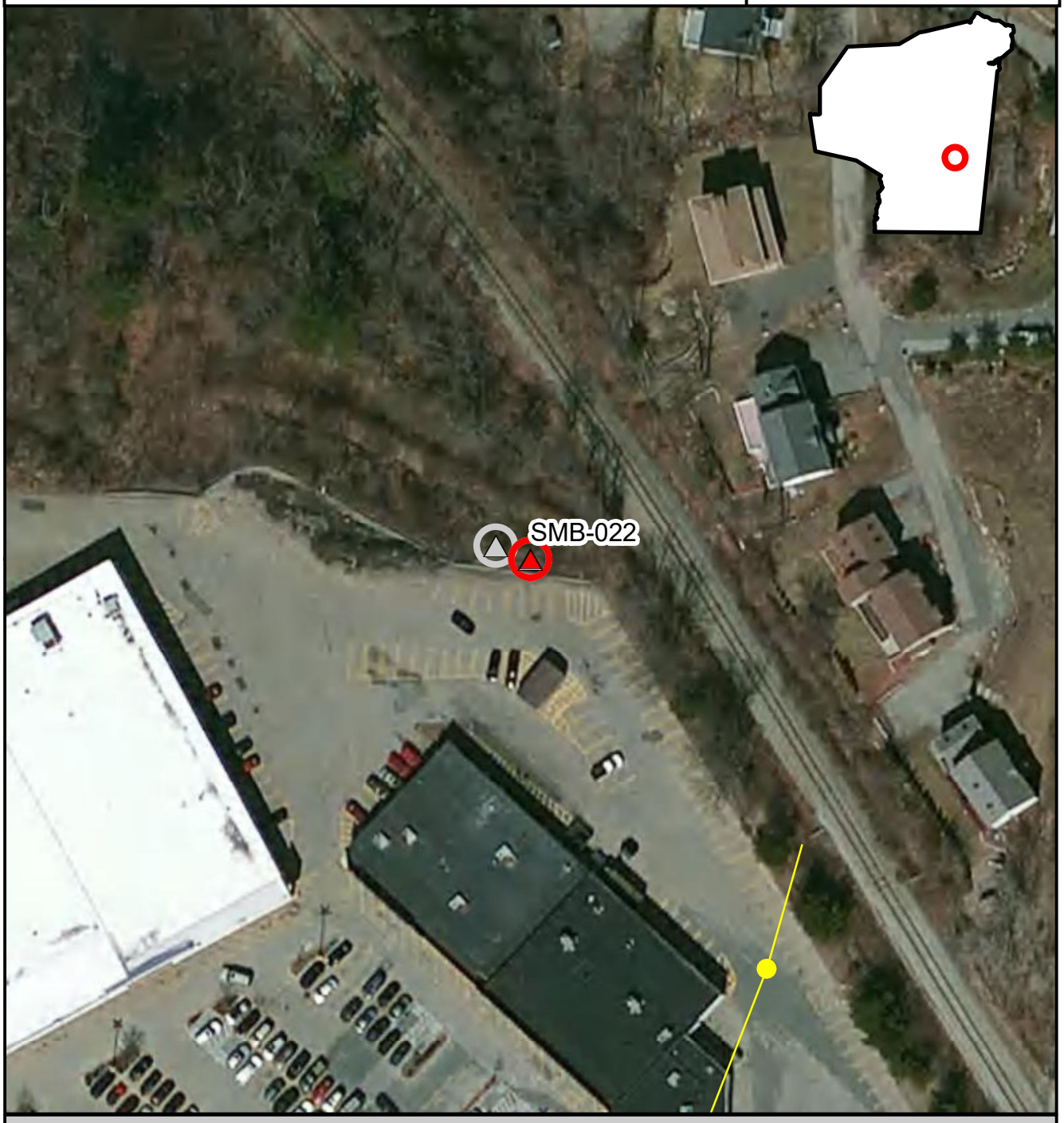
BT-119

Braintree IDDE Inspections

Inspection ID
BT-119



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 6/2/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-120, SMB-023, 2017-06-02, 7:39:00

Created	2017-06-02 11:39:16 UTC by Matt Davis
Updated	2017-06-02 11:43:29 UTC by Matt Davis
Location	42.1922046, -70.986974

Section 1: General Information

Inspection ID	BT-120
Outfall ID	SMB-023
Outfall GIS ID	155
Inspector	CPO GH
Date	2017-06-02
Time	7:39:00
Temperature	65
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	circular with beveled mouth
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	No
Outfall Submerged	Partially
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	Yes
Deposits/Stains	Flow line
Pool quality issues?	Yes
Pool Quality Description	Floatables
Pool quality Comments	Excessive floatables
Pipe benthic growth present?	Yes
Pipe benthic growth description	Green

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	Located off of shopping center rear parking area. Lots of trash and other floatables

Section 7: Media

Photos

Braintree IDDE Inspections

Inspection ID
BT-120

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 6/2/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-121, SMB-028, 2017-06-02, 8:08:00

Created	2017-06-02 12:08:02 UTC by Matt Davis
Updated	2017-06-02 12:14:38 UTC by Matt Davis
Location	42.1868596, -70.9762526

Section 1: General Information

Inspection ID	BT-121
Outfall ID	SMB-028
Outfall GIS ID	158
Inspector	CPO GH
Date	2017-06-02
Time	8:08:00
Temperature	63
Inspection Location	Manhole
Investigation performed at manhole upstream of outfall?	Yes
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	Manhole pulled in road shoulder. No flow. 2 inlet pipes and one outlet. Discharge of outfall is located opposite of the manhole but is covered in leaves and debris. Moved leaves and used crowbar to find outfall but no successful ID.

Section 7: Media

Photos

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Braintree IDDE Inspections

Inspection ID
BT-121

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 6/2/2017

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-122, SMB-026, 2017-06-02, 8:50:00

Created	2017-06-02 12:50:37 UTC by Matt Davis
Updated	2017-07-11 17:01:34 UTC by Matt Davis
Location	42.1881213, -70.9802669

Section 1: General Information

Inspection ID	BT-122
Outfall ID	SMB-026
Outfall GIS ID	157
Inspector	CPO GH
Date	2017-06-02
Time	8:50:00
Temperature	68
Inspection Location	Manhole
Investigation performed at manhole upstream of outfall?	Yes
Reason why investigation performed at upstream manhole	No access due to RR
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Headwall Present	No
Sediment Present?	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	Yes
Flow Velocity	Moderate
Color Severity	Faint colors in sample bottle
Color Description	Brown
Turbidity	Slight cloudiness
Floatables (does not include trash)	None

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	Yes

Field Measurements Results

Temperature (C)	13.7
pH (pH units)	8.42

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Salinity (ppt)	0
Conductivity (uS)	416
Ammonia (Mg/L)	0.2
Surfactants (ppm)	0.25
Chlorine (ppm)	0
Were laboratory samples collected?	Yes
Measurements/samples collected from	manhole
E. Coli (MPN/100 ml)	120
Intermittent flow trap used?	No
Section 6: General Comments	Outfall was indicated by residents to be other side of MBTA tracks. Manhole in backyard next to garage was flowing and sampled. Observed significant foam. Catch basin by road was observed to be flowing.

Section 7: Media

Photos

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Braintree IDDE Inspections

Inspection ID
BT-122

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 6/2/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-123, SMB-026, 2017-06-02, 9:50:00

Created	2017-06-02 13:50:52 UTC by Matt Davis
Updated	2017-07-11 17:02:20 UTC by Matt Davis
Location	42.1878453, -70.9811059

Section 1: General Information

Inspection ID	BT-123
Outfall ID	SMB-026
Outfall GIS ID	157Mh
Inspector	CPO GH
Date	2017-06-02
Time	9:50:00
Inspection Location	Manhole
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Section 6: General Comments	First upstream MH on O Toole terrace

Section 7: Media

Photos

Braintree IDDE Inspections

Inspection ID
BT-123

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 6/2/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-124, SMB-026, 2017-06-02, 9:54:00

Created	2017-06-02 13:54:09 UTC by Matt Davis
Updated	2017-06-02 13:56:14 UTC by Matt Davis
Location	42.1878349, -70.9812238

Section 1: General Information

Inspection ID	BT-124
Outfall ID	SMB-026
Outfall GIS ID	Upstream MH 2 on O toole terrace
Inspector	CPO GH
Date	2017-06-02
Time	9:54:00
Inspection Location	Manhole
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Section 6: General Comments	Second upstream manhole

Section 7: Media

Photos

Braintree IDDE Inspections

Inspection ID
BT-124

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 6/2/2017

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-125, MQR-003, 2017-06-02, 10:17

Created	2017-06-02 14:17:54 UTC by Matt Davis
Updated	2019-02-14 21:22:46 UTC by Matt Davis
Location	42.2005972, -71.0032893

Section 1: General Information

Inspection ID	BT-125
Outfall ID	MQR-003
Outfall GIS ID	116
Inspector	CPO GH
Date	2017-06-02
Time	10:17
Temperature	72
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	Faint
Odor Description	Sewage

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	stone
Closed Pipe Shape	Double
Closed Pipe Diameter (in)	30
Outfall Condition	Cracking
Headwall Present	No
Sediment Present?	No
Outfall Submerged	Partially
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	Yes
Flow Velocity	Moderate
Flow Width (in)	30
Flow Depth (in)	8
Color Severity	Faint colors in sample bottle
Color Description	Gray
Turbidity	Opaque
Floatables (does not include trash)	None

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

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Section 5: Field Measurements

Were field measurements performed?	No
Reason field measurements not performed	Bacteria only
Were laboratory samples collected?	Yes
Measurements/samples collected from	Outfall
E. Coli (MPN/100 ml)	39000
Intermittent flow trap used?	No
Section 6: General Comments	Third visit

Section 7: Media

Photos

BT-125

Braintree IDDE Inspections

Inspection ID
BT-125

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 6/2/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-126, CDS-022, 2017-06-02, 11:53:00

Created	2017-06-02 15:53:38 UTC by Matt Davis
Updated	2017-06-02 16:27:29 UTC by Matt Davis
Location	42.1833625, -70.9946891

Section 1: General Information

Inspection ID	BT-126
Outfall ID	CDS-022
Outfall GIS ID	237
Inspector	CPO GH
Date	2017-06-02
Time	11:53:00
Temperature	72
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	No
Outfall Submerged	Partially
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	Standing Water

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	In rear of church parking lot. No headwall, some pipe exposed

Section 7: Media

Photos

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BT-126

Braintree IDDE Inspections

Inspection ID
BT-126

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 6/2/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-127, CDS-023, 2017-06-02, 12:05:00

Created	2017-06-02 16:05:36 UTC by Matt Davis
Updated	2017-06-02 16:27:42 UTC by Matt Davis
Location	42.1831097, -70.9949815

Section 1: General Information

Inspection ID	BT-127
Outfall ID	CDS-023
Outfall GIS ID	165
Inspector	CPO GH
Date	2017-06-02
Time	12:05:00
Temperature	76
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	CMP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	36
Outfall Condition	Normal
Headwall Present	Yes
Headwall Condition	Fair
Sediment Present?	Yes
Sediment Depth (%)	50
Outfall Submerged	Partially
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	Standing Water

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No

Section 7: Media

Photos

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BT-127

Braintree IDDE Inspections

Inspection ID
BT-127

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 6/2/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-128, CDS-024, 2017-06-02, 12:19:00

Created	2017-06-02 16:19:30 UTC by Matt Davis
Updated	2017-06-02 16:27:52 UTC by Matt Davis
Location	42.1828412, -70.9942228

Section 1: General Information

Inspection ID	BT-128
Outfall ID	CDS-024
Outfall GIS ID	166
Inspector	CPO GH
Date	2017-06-02
Time	12:19:00
Temperature	76
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	18
Outfall Condition	Cracking
Headwall Present	Yes
Headwall Condition	Poor
Sediment Present?	Yes
Sediment Depth (%)	80
Outfall Submerged	Partially
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	Standing Water

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	Yes
Pool Quality Description	excessive sesiment
Pool quality Comments	Sediment
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No

Section 7: Media

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Photos

Braintree IDDE Inspections

Inspection ID
BT-128

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 6/2/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-129, 2017-06-02, 12:44:00

Created	2017-06-02 16:44:32 UTC by Matt Davis
Updated	2017-06-02 16:51:56 UTC by Matt Davis
Location	42.1841713, -70.9941828

Section 1: General Information

Inspection ID	BT-129
Outfall GIS ID	188
Inspector	CPO GH
Date	2017-06-02
Time	12:44:00
Temperature	78
Inspection Location	Manhole
Investigation performed at manhole upstream of outfall?	Yes
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Open Drainage
Headwall Present	No
Sediment Present?	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	Standing Water

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	Manhole at end of church parking lot. Believed to be a dry well.

Section 7: Media

Photos

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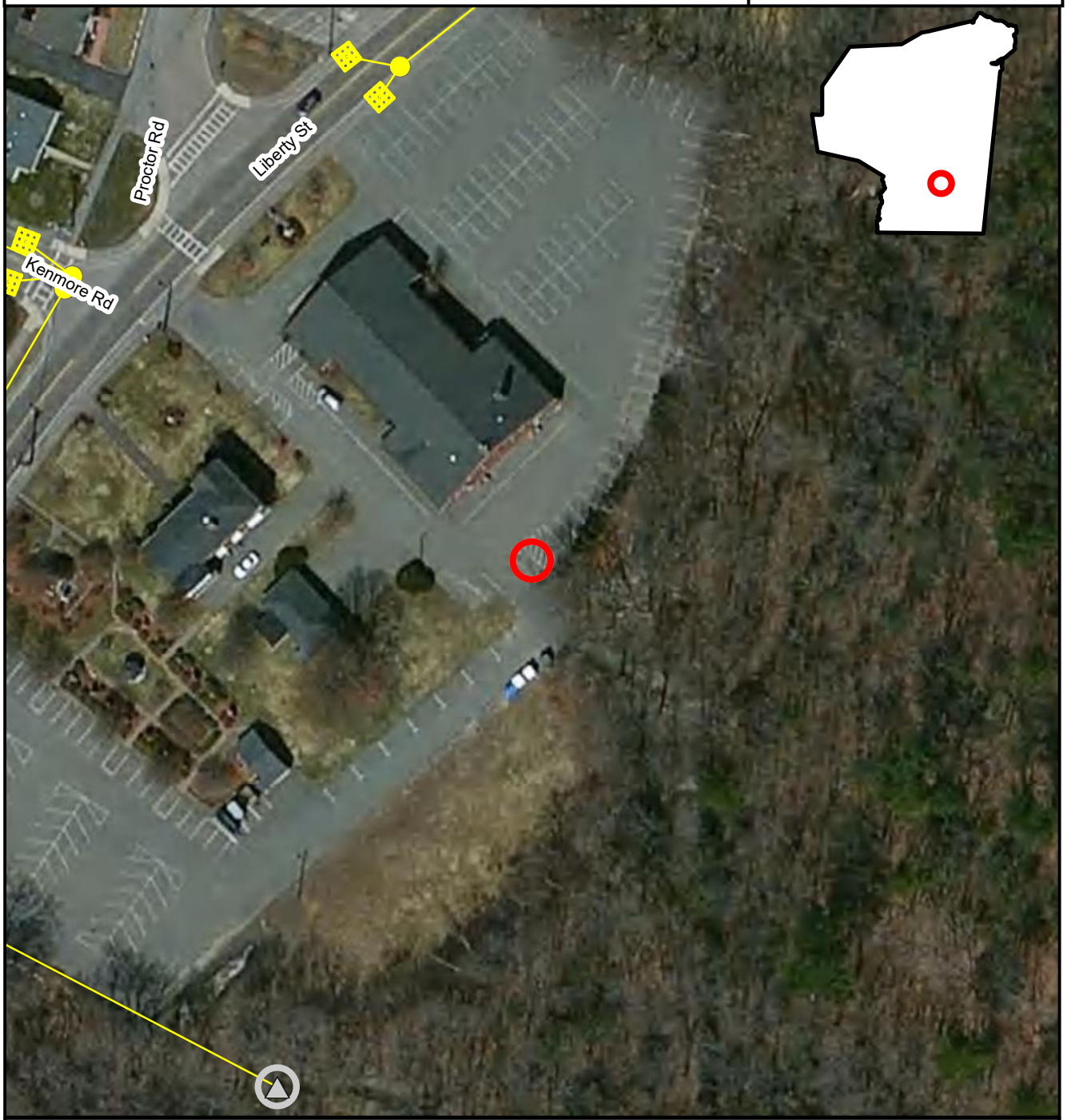
Braintree IDDE Inspections

Inspection ID
BT-129



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 6/2/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-130, CBB-011, 2017-06-02, 13:05:00

Created	2017-06-02 17:05:09 UTC by Matt Davis
Updated	2017-06-02 17:14:32 UTC by Matt Davis
Location	42.1789261, -70.9996183

Section 1: General Information

Inspection ID	BT-130
Outfall ID	CBB-011
Outfall GIS ID	169
Inspector	CPO GH
Date	2017-06-02
Time	13:05:00
Temperature	76
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	18
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	East of path.to Braintree forest.

Section 7: Media

Photos

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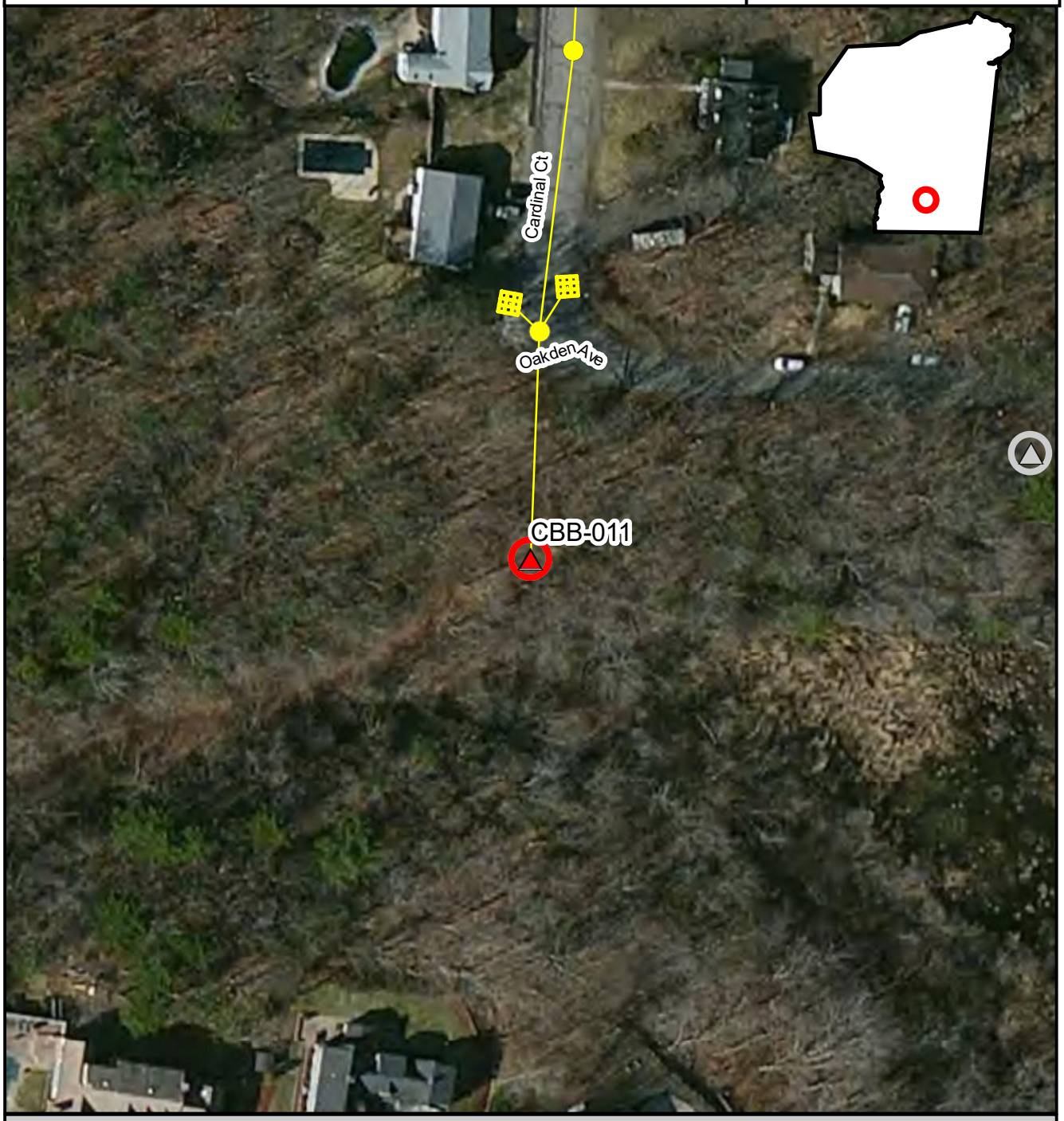
Braintree IDDE Inspections

Inspection ID
BT-130



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 6/2/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-131, CBB-017, 2017-06-02, 13:21:00

Created	2017-06-02 17:21:59 UTC by Matt Davis
Updated	2017-06-02 17:24:19 UTC by Matt Davis
Location	42.1793203, -70.9951235

Section 1: General Information

Inspection ID	BT-131
Outfall ID	CBB-017
Outfall GIS ID	234
Inspector	CPO GH
Date	2017-06-02
Time	13:21:00
Temperature	76
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	12
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No

Section 7: Media

Photos

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BT-131

Braintree IDDE Inspections

Inspection ID
BT-131

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 6/2/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-132, CBB-029, 2017-06-02, 13:29:00

Created	2017-06-02 17:29:38 UTC by Matt Davis
Updated	2017-06-02 17:36:32 UTC by Matt Davis
Location	42.1785279, -70.9903314

Section 1: General Information

Inspection ID	BT-132
Outfall ID	CBB-029
Outfall GIS ID	226
Inspector	CPO GH
Date	2017-06-02
Time	13:29:00
Temperature	76
Inspection Location	Catch basin
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Box
Closed Pipe Diameter (in)	12
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	No
Outfall Submerged	Fully
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	Off of Devon Wood lane catch basin

Section 7: Media

Photos

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Braintree IDDE Inspections

Inspection ID
BT-132

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 6/2/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-133, CBB-030, 2017-06-02, 13:36:00

Created	2017-06-02 17:36:35 UTC by Matt Davis
Updated	2017-06-02 17:38:38 UTC by Matt Davis
Location	42.1785005, -70.9896251

Section 1: General Information

Inspection ID	BT-133
Outfall ID	CBB-030
Outfall GIS ID	227
Inspector	CPO GH
Date	2017-06-02
Time	13:36:00
Temperature	76
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	12
Outfall Condition	Normal
Headwall Present	Yes
Headwall Condition	Fair
Sediment Present?	Yes
Sediment Depth (%)	20
Outfall Submerged	Fully
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	Standing Water

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No

Section 7: Media

Photos

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Braintree IDDE Inspections

Inspection ID
BT-133

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 6/2/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-134, CDS-015, 2017-06-13, 6:58:00

Created	2017-06-13 10:58:21 UTC by Matt Davis
Updated	2017-06-13 11:02:51 UTC by Matt Davis
Location	42.1857776, -71.0078618

Section 1: General Information

Inspection ID	BT-134
Outfall ID	CDS-015
Outfall GIS ID	145
Inspector	CPO GH
Date	2017-06-13
Time	6:58:00
Temperature	79
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	unknown
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	12
Outfall Condition	significant sediment
Headwall Present	No
Sediment Present?	Yes
Sediment Depth (%)	25
Outfall Submerged	Partially
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	Standing Water

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	Significant sediment present at outfall. 10" diameter was measured likely 12" , less likely but 15" possible

Section 7: Media

Photos

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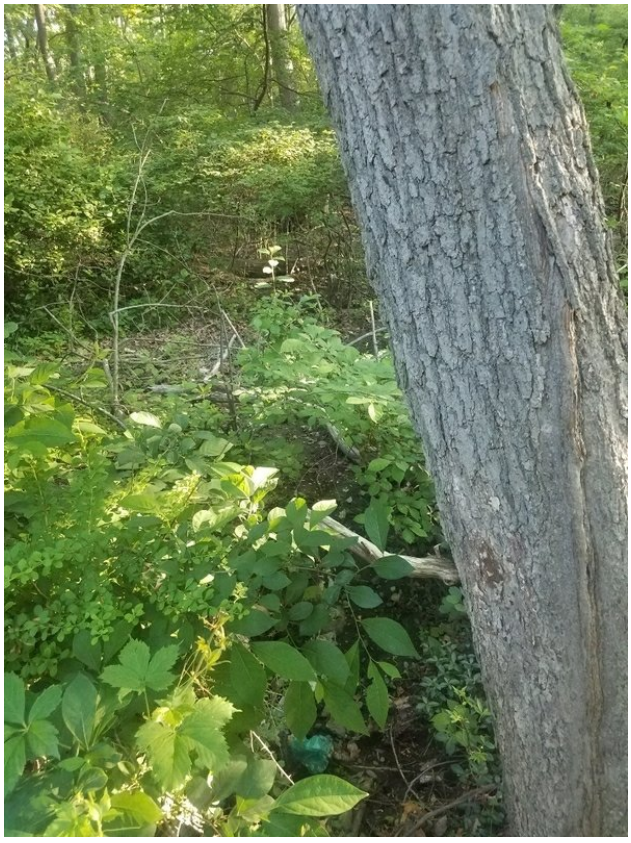

Braintree IDDE Inspections

Inspection ID
BT-134

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 6/13/2017

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-135, CBB-002, 2017-06-13, 7:13:00

Created	2017-06-13 11:13:26 UTC by Matt Davis
Updated	2017-06-13 11:18:04 UTC by Matt Davis
Location	42.1838641, -71.0111549

Section 1: General Information

Inspection ID	BT-135
Outfall ID	CBB-002
Outfall GIS ID	182
Inspector	CPO GH
Date	2017-06-13
Time	7:13:00
Temperature	79
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	18
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Intermittent flow trap used?	No
Section 6: General Comments	Outfall believed to be on this side of the road vs the other as shown. Pipe located in bridge abutment.

Section 7: Media

Photos

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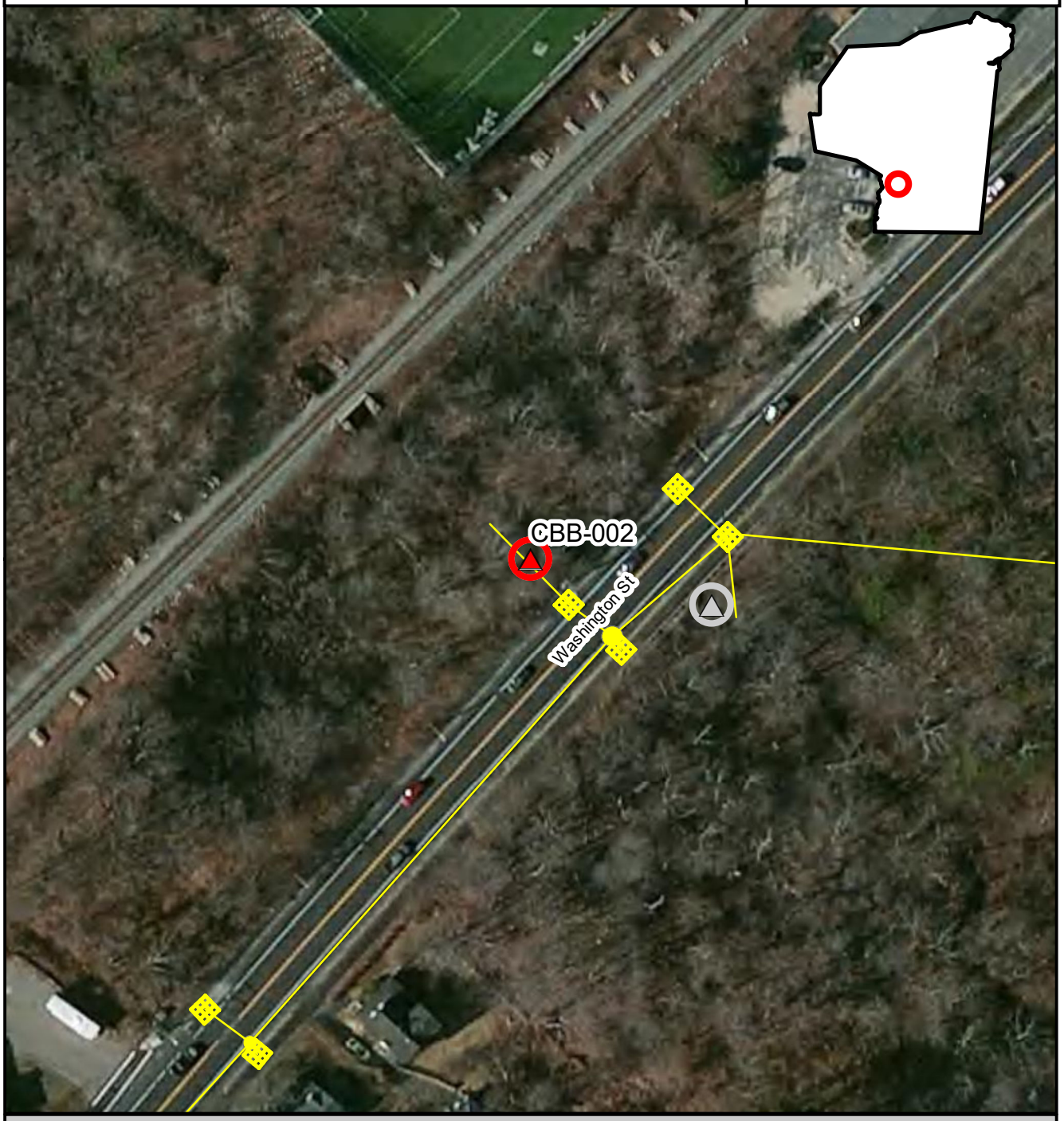
Braintree IDDE Inspections

Inspection ID
BT-135



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 6/13/2017

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-136, CBB-003, 2017-06-13, 7:18:00

Created	2017-06-13 11:18:42 UTC by Matt Davis
Updated	2017-06-13 11:57:17 UTC by Matt Davis
Location	42.1838542, -71.0110717

Section 1: General Information

Inspection ID	BT-136
Outfall ID	CBB-003
Outfall GIS ID	190
Inspector	CPO GH
Date	2017-06-13
Time	7:18:00
Temperature	79
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	12
Outfall Condition	Cracking
Headwall Present	No
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	Yes
Flow Velocity	Moderate
Flow Width (in)	4
Flow Depth (in)	0.5
Color Severity	None
Turbidity	No cloudiness
Floatables (does not include trash)	None

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	Yes

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Field Measurements Results

Temperature (C)	19.9
pH (pH units)	6.5
Salinity (ppt)	0
Conductivity (uS)	552
Ammonia (Mg/L)	0
Surfactants (ppm)	0.5
Chlorine (ppm)	0
Were laboratory samples collected?	Yes
Measurements/samples collected from	Outfall
E. Coli (MPN/100 ml)	62
Intermittent flow trap used?	No
Section 6: General Comments	Moderate flow from structure. End of pipe is cracked. No odors. Opposite side of culvert from 182. Surfactant greater 0.25 but less than 0.50

Section 7: Media

Photos

Braintree IDDE Inspections

Inspection ID
BT-136

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 6/13/2017

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-137, CBB-007, 2017-06-13, 8:15:00

Created	2017-06-13 12:15:51 UTC by Matt Davis
Updated	2017-06-13 12:20:50 UTC by Matt Davis
Location	42.1778276, -71.0034349

Section 1: General Information

Inspection ID	BT-137
Outfall ID	CBB-007
Outfall GIS ID	177
Inspector	CPO GH
Date	2017-06-13
Time	8:15:00
Temperature	80
Inspection Location	Manhole
Investigation performed at manhole upstream of outfall?	Yes
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	18
Outfall Condition	Normal
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	Standing Water

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	Inspected upstream manhole. Standing water, no flow. Discharge to outfall is 18". Inlet at 11 o clock 12" and two inlets at 2 and 10 o clock are 10". Did not access due to no residents home at property owners address

Section 7: Media

Photos

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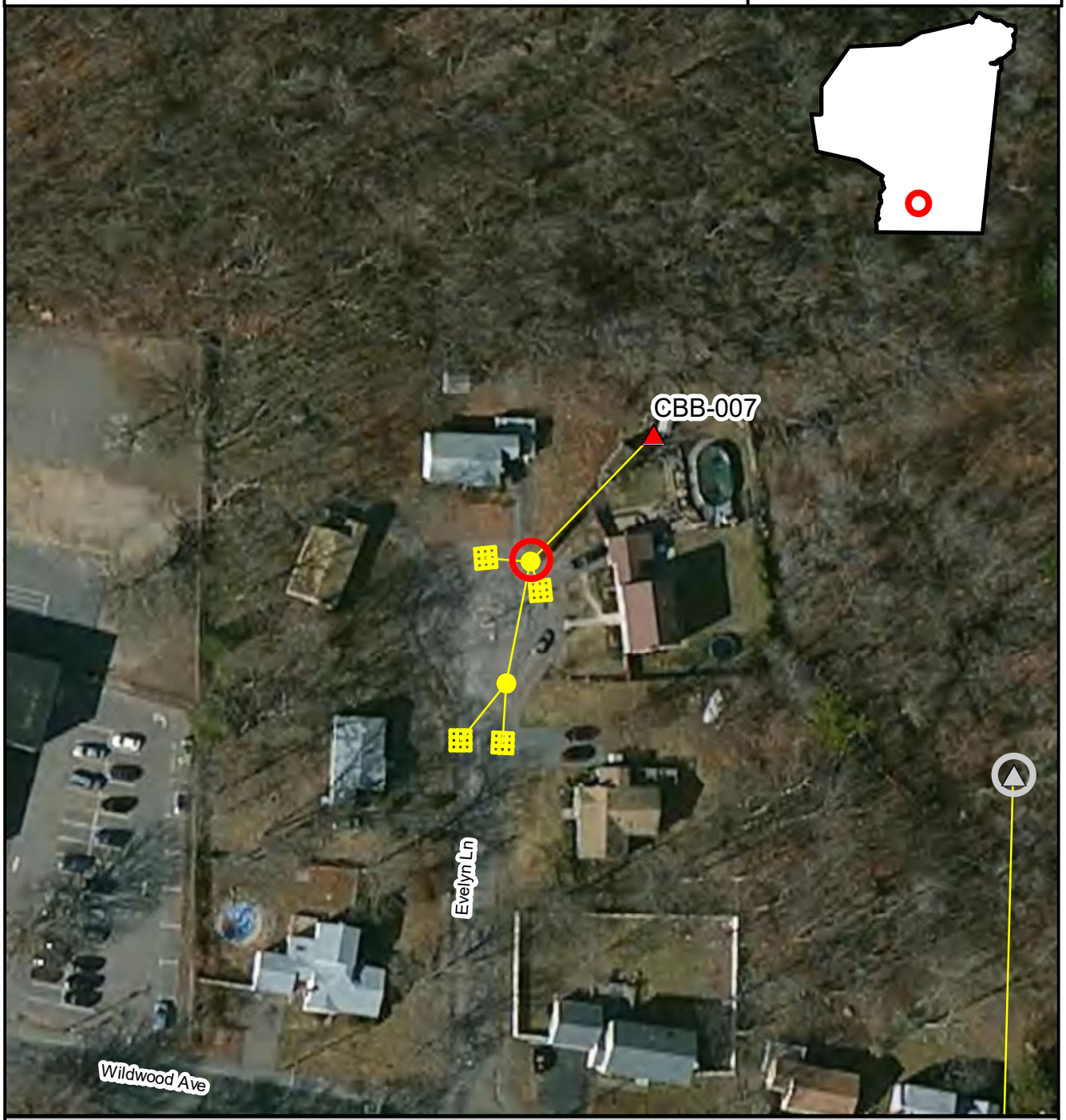
Braintree IDDE Inspections

Inspection ID
BT-137



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 6/13/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-138, CBB-008, 2017-06-13, 8:40:00

Created	2017-06-13 12:40:02 UTC by Matt Davis
Updated	2017-07-11 16:48:09 UTC by Matt Davis
Location	42.1773599, -71.0023701

Section 1: General Information

Inspection ID	BT-138
Outfall ID	CBB-008
Outfall GIS ID	252
Inspector	CPO GH
Date	2017-06-13
Time	8:40:00
Temperature	82
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	24
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	No
Outfall Submerged	Partially
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	Yes
Flow Velocity	Trickle
Flow Width (in)	10
Flow Depth (in)	2
Color Severity	None
Turbidity	No cloudiness
Floatables (does not include trash)	None

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	Yes

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Field Measurements Results

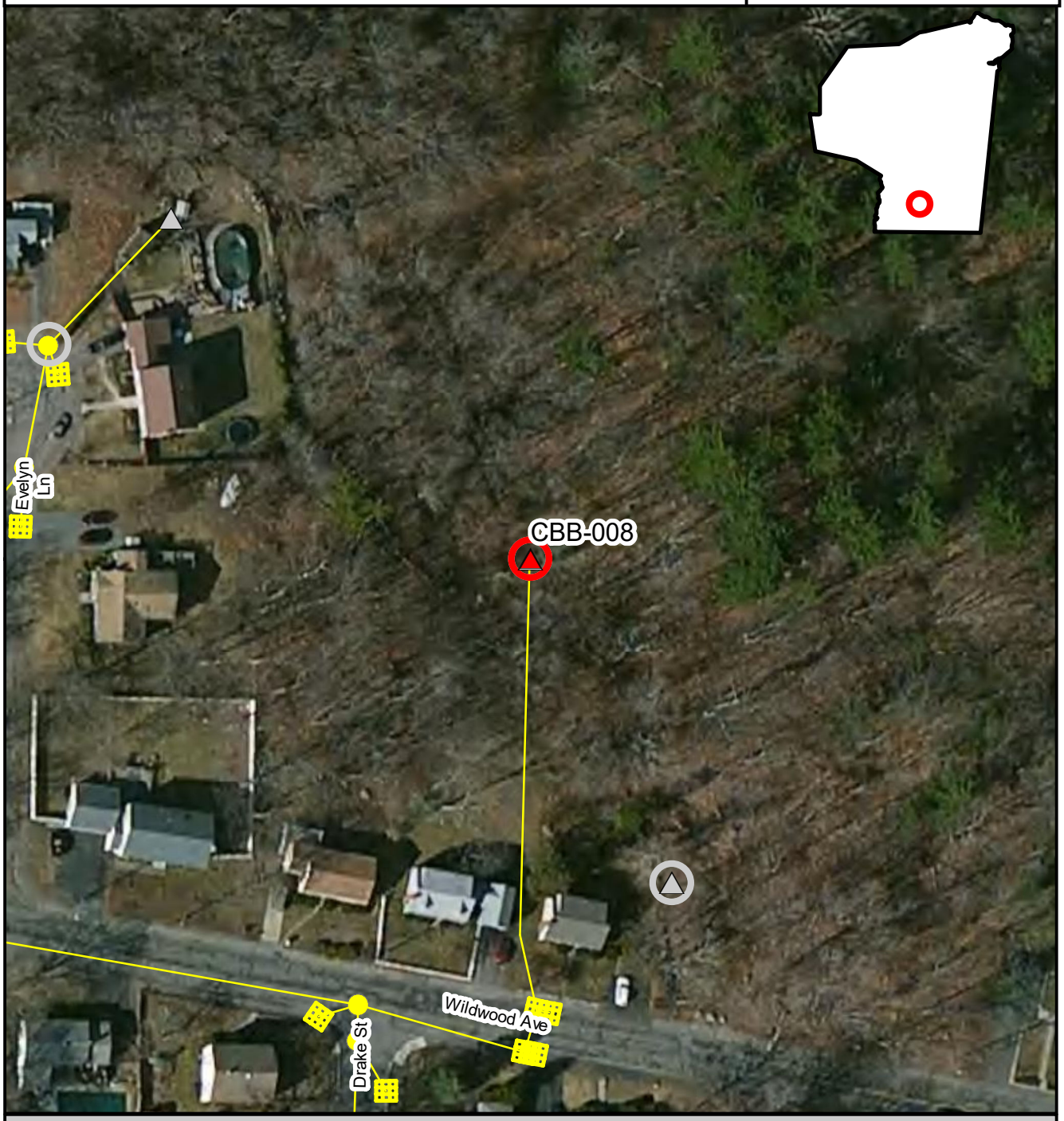
Temperature (C)	17.86
pH (pH units)	6.99
Salinity (ppt)	0
Conductivity (uS)	594
Ammonia (Mg/L)	0
Surfactants (ppm)	0.25
Chlorine (ppm)	0
Were laboratory samples collected?	Yes
Measurements/samples collected from	Outfall
E. Coli (MPN/100 ml)	7
Intermittent flow trap used?	No
Section 6: General Comments	Could hear flow running upstream. Could see flow moving from top of water surface. Velocity is approximate and based on visual observations. Did not pull manhole due to traffic concerns.

Section 7: Media

Photos

Braintree IDDE Inspections

Inspection ID
BT-138



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 6/13/2017

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-139, CBB-010, 2017-06-13, 8:59:00

Created	2017-06-13 12:59:56 UTC by Matt Davis
Updated	2017-06-13 13:02:40 UTC by Matt Davis
Location	42.1769906, -71.0021752

Section 1: General Information

Inspection ID	BT-139
Outfall ID	CBB-010
Outfall GIS ID	061317-001
Inspector	CPO GH
Date	2017-06-13
Time	8:59:00
Temperature	81
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	CMP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	12
Outfall Condition	Normal
Headwall Present	Yes
Headwall Condition	Fair
Sediment Present?	Yes
Sediment Depth (%)	50
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

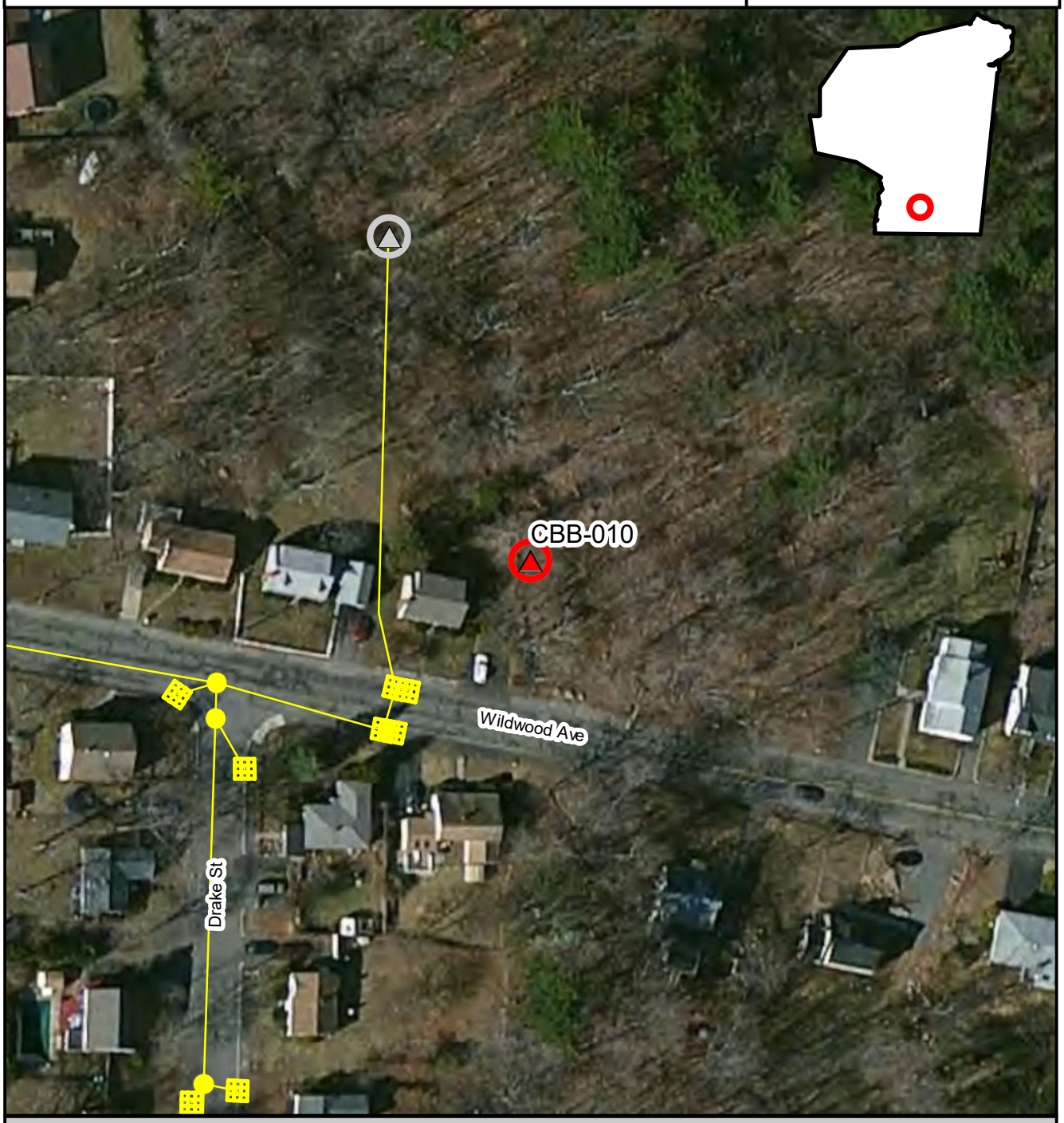
Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	Pipe is heavily sedimented. Believed to be 12" but difficult to determine with sediment. No flow.

Section 7: Media

Photos

Braintree IDDE Inspections

Inspection ID
BT-139



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 6/13/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-140, CBB-019, 2017-06-13, 9:13:00

Created	2017-06-13 13:14:00 UTC by Matt Davis
Updated	2017-06-13 13:24:09 UTC by Matt Davis
Location	42.1703634, -71.0011402

Section 1: General Information

Inspection ID	BT-140
Outfall ID	CBB-019
Outfall GIS ID	175
Inspector	CPO GH
Date	2017-06-13
Time	9:13:00
Temperature	83
Inspection Location	Manhole
Investigation performed at manhole upstream of outfall?	Yes
Visual evidence of contamination present?	No

Section 2: Outfall Description

Headwall Present	Yes
Headwall Condition	Poor
Sediment Present?	Yes
Sediment Depth (%)	100
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	Two 15" inlets with 15" outlet. Inlets at 1 and 3 o clock. The outfall is so sedimented in no observations could be made except for grate and scouring. GPS coordinates is at the outfall. No flow.

Section 7: Media

Photos

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Braintree IDDE Inspections

Inspection ID
BT-140

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 6/13/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-141, CBB-016, 2017-06-13, 9:37:00

Created	2017-06-13 13:37:05 UTC by Matt Davis
Updated	2017-06-13 13:40:14 UTC by Matt Davis
Location	42.1718516, -71.0028073

Section 1: General Information

Inspection ID	BT-141
Outfall ID	CBB-016
Outfall GIS ID	176
Inspector	CPO GH
Date	2017-06-13
Time	9:37:00
Temperature	83
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Outfall Condition	heavy sedimentation
Headwall Present	No
Sediment Present?	Yes
Sediment Depth (%)	90
Outfall Submerged	Partially
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	Standing Water

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	Due to significant sedimentation unable to determine outfall pipe diameter. No flow

Section 7: Media

Photos

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Braintree IDDE Inspections

Inspection ID
BT-141

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 6/13/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-142, CCR-007, 2017-06-13, 10:07:00

Created	2017-06-13 14:07:09 UTC by Matt Davis
Updated	2017-07-11 17:07:00 UTC by Matt Davis
Location	42.1680334, -71.0056

Section 1: General Information

Inspection ID	BT-142
Outfall ID	CCR-007
Outfall GIS ID	179
Inspector	CPO GH
Date	2017-06-13
Time	10:07:00
Temperature	83
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	clay
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	12
Outfall Condition	Cracking
Headwall Present	No
Sediment Present?	Yes
Sediment Depth (%)	25
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	Outfall accessed with landowners permission. Upstream manhole checked no flow

Section 7: Media

Photos

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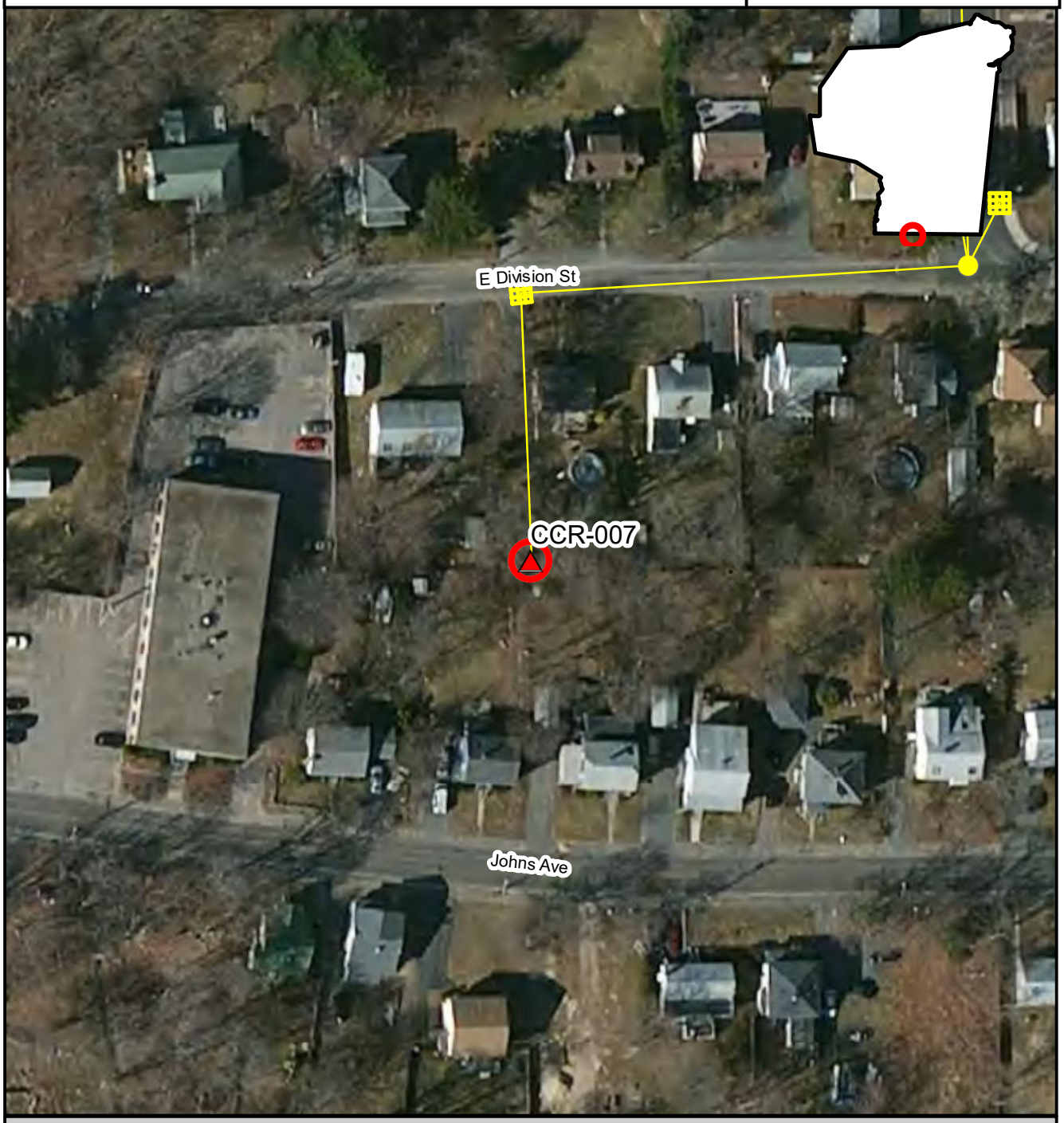
BT-142

Braintree IDDE Inspections

Inspection ID
BT-142



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 6/13/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-143, CBB-009, 2017-06-13, 11:00:00

Created	2017-06-13 15:00:46 UTC by Matt Davis
Updated	2017-06-13 15:23:03 UTC by Matt Davis
Location	42.1819493, -70.9992461

Section 1: General Information

Inspection ID	BT-143
Outfall ID	CBB-009
Outfall GIS ID	170
Inspector	CPO GH
Date	2017-06-13
Time	11:00:00
Temperature	85
Inspection Location	Manhole
Investigation performed at manhole upstream of outfall?	Yes
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular

Section 3: Physical Indicators (flow flowing)

Flow Present	Yes

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	Yes

Field Measurements Results

Temperature (C)	20.46
pH (pH units)	5.89
Salinity (ppt)	0
Conductivity (uS)	430
Ammonia (Mg/L)	0
Surfactants (ppm)	0.25
Chlorine (ppm)	0
Were laboratory samples collected?	Yes
Measurements/samples collected from	upstream manhole
E. Coli (MPN/100 ml)	7
Section 6: General Comments	Surfactant is less than 0.25. Flow coming out pf 1200 inlet. Flow was trickle.

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Section 7: Media

Photos

Braintree IDDE Inspections

Inspection ID
BT-143

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 6/13/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-144, CDS-004, 2017-06-13, 11:39:00

Created	2017-06-13 15:39:30 UTC by Matt Davis
Updated	2017-06-13 15:42:45 UTC by Matt Davis
Location	42.1951075, -70.9960992

Section 1: General Information

Inspection ID	BT-144
Outfall ID	CDS-004
Outfall GIS ID	146
Inspector	CPO GH
Date	2017-06-13
Time	11:39:00
Temperature	82
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Outfall Condition	filled in with debris
Headwall Present	Yes
Headwall Condition	Poor
Sediment Present?	Yes
Sediment Depth (%)	100
Outfall Submerged	Partially
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	Standing Water
Section 6: General Comments	Flow off of roadway has filled in outfall. Small amount of standing water. Significant scouring. Appears to be significant sheet flow off of roadway

Section 7: Media

Photos

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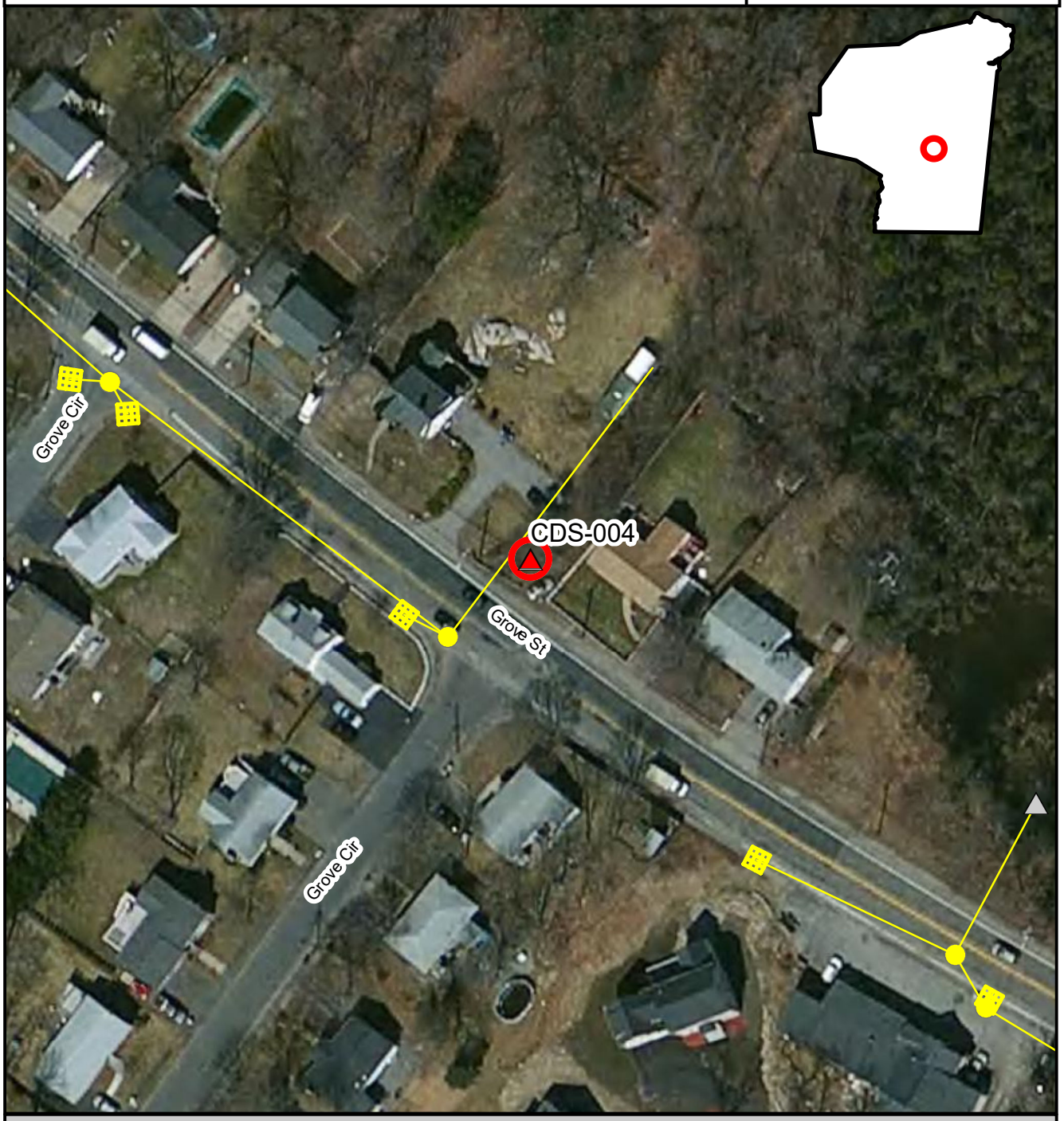
Braintree IDDE Inspections

Inspection ID
BT-144



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 6/13/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-145, CDS-002, 2017-06-13, 11:51:00

Created	2017-06-13 15:51:06 UTC by Matt Davis
Updated	2017-06-13 16:48:20 UTC by Matt Davis
Location	42.1930467, -70.9975829

Section 1: General Information

Inspection ID	BT-145
Outfall ID	CDS-002
Outfall GIS ID	148
Inspector	CPO GH
Date	2017-06-13
Time	11:51:00
Temperature	92
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	15
Outfall Condition	Normal
Headwall Present	Yes
Headwall Condition	Good
Sediment Present?	Yes
Sediment Depth (%)	10
Outfall Submerged	Partially
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	Standing Water

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	Yes
Deposits/Stains	Sediments
Deposits/stains Comments	Iron color
Pool quality issues?	Yes
Pool Quality Description	Oil sheen
Pool quality Comments	Slight oil sheen
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No

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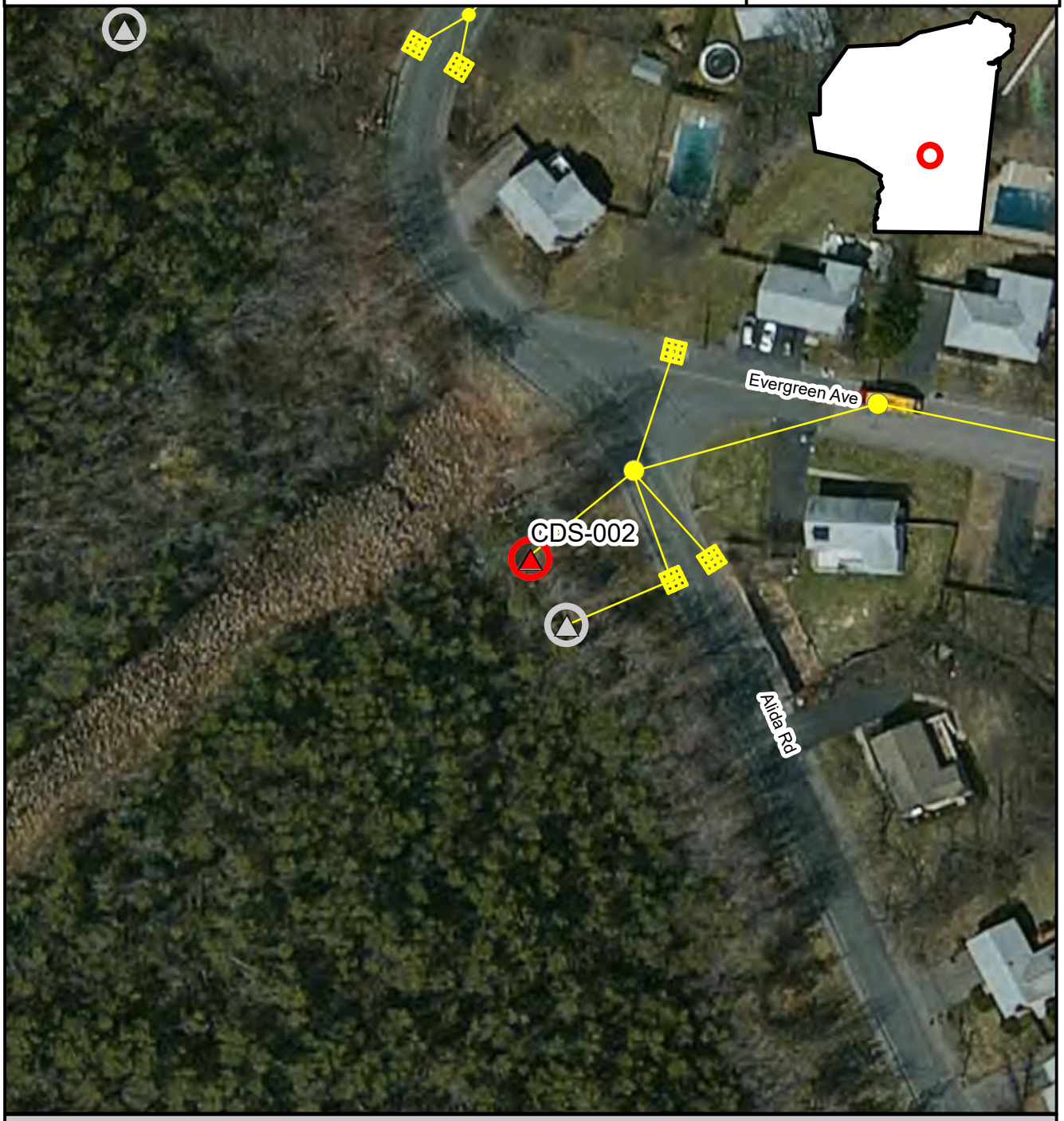
Intermittent flow trap used?	No
Section 6: General Comments	Iron color in pool with slight oil sheen. No flow, standing water

Section 7: Media

Photos

Braintree IDDE Inspections

Inspection ID
BT-145



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 6/13/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-146, CDS-003, 2017-06-13, 11:55:00

Created	2017-06-13 15:55:10 UTC by Matt Davis
Updated	2017-06-13 16:24:45 UTC by Matt Davis
Location	42.1928889, -70.9975357

Section 1: General Information

Inspection ID	BT-146
Outfall ID	CDS-003
Outfall GIS ID	061317-002
Inspector	CPO GH
Date	2017-06-13
Time	11:55:00
Temperature	92
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	Faint
Odor Description	Sulfide

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Shape	Circular
Outfall Condition	Normal
Headwall Present	Yes
Headwall Condition	Good
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	Yes
Flow Velocity	Trickle
Flow Width (in)	4
Flow Depth (in)	0.25
Color Severity	Faint colors in sample bottle
Color Description	Brown
Turbidity	Slight cloudiness
Floatables (does not include trash)	None

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	Yes
Deposits/Stains	Sediments
Deposits/stains Comments	Iron
Pool quality issues?	No
Pipe benthic growth present?	No

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Section 5: Field Measurements

Were field measurements performed?	Yes

Field Measurements Results

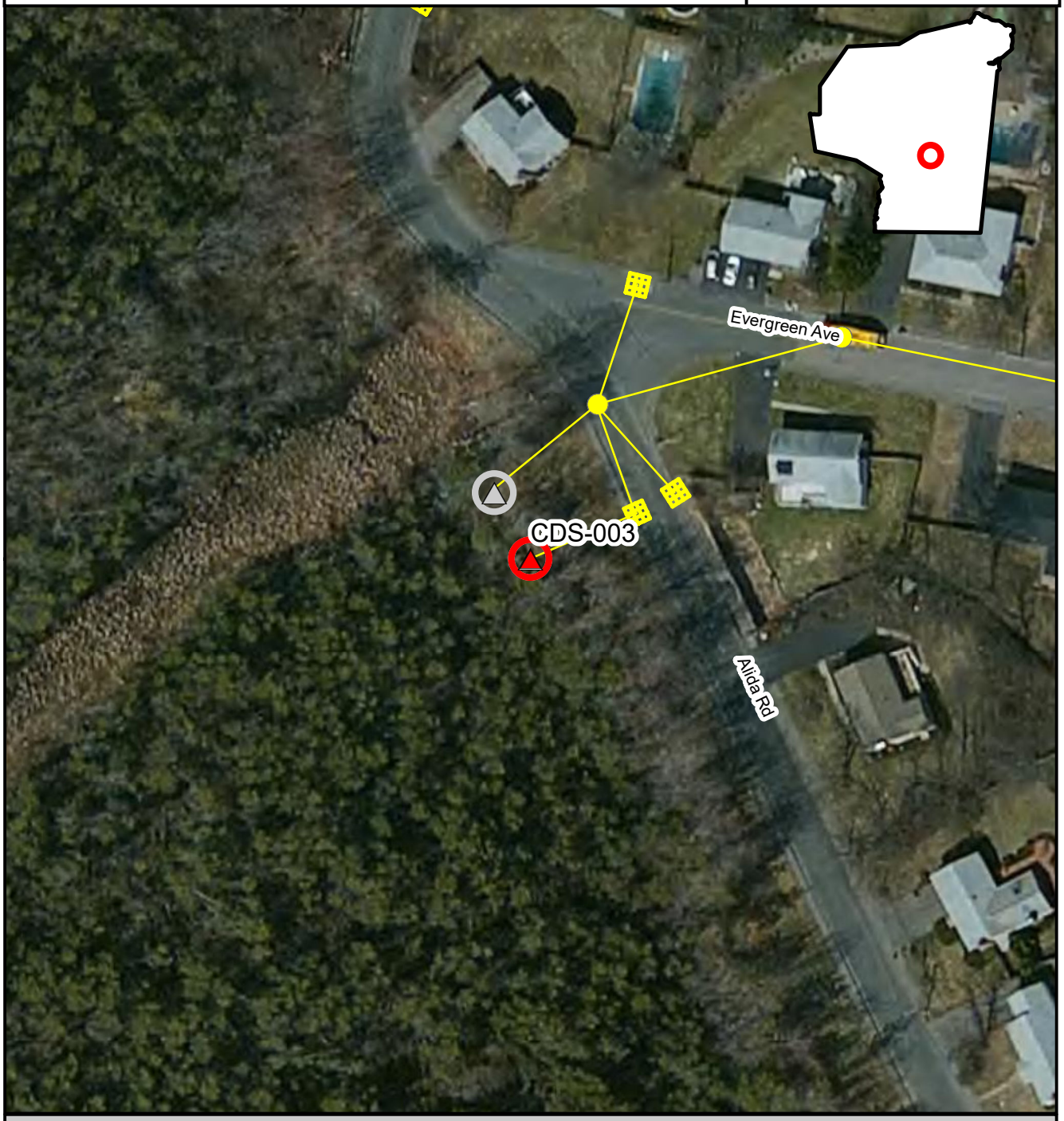
Temperature (C)	24.03
pH (pH units)	6.46
Salinity (ppt)	0.018
Conductivity (uS)	370
Ammonia (Mg/L)	0.4
Surfactants (ppm)	0
Chlorine (ppm)	0
Were laboratory samples collected?	Yes
E. Coli (MPN/100 ml)	8
Intermittent flow trap used?	No
Section 6: General Comments	In addition visually inspected two catch basins as shown on GIS upstream of outfall. Observed water in both catch basins. Drain MH would require police detail

Section 7: Media

Photos

Braintree IDDE Inspections

Inspection ID
BT-146



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 6/13/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-147, CDS-009, 2017-06-13, 12:27:00

Created	2017-06-13 16:27:43 UTC by Matt Davis
Updated	2017-06-13 16:51:04 UTC by Matt Davis
Location	42.19143972, -70.99670369

Section 1: General Information

Inspection ID	BT-147
Outfall ID	CDS-009
Outfall GIS ID	149
Inspector	CPO GH
Date	2017-06-13
Time	12:27:00
Temperature	96
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	18
Outfall Condition	Normal
Headwall Present	Yes
Headwall Condition	Good
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	Yes
Flow Velocity	Trickle
Flow Width (in)	3
Flow Depth (in)	0.25
Color Severity	Faint colors in sample bottle
Color Description	Gray
Turbidity	No cloudiness
Floatables (does not include trash)	None

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

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Section 5: Field Measurements

Were field measurements performed?	Yes

Field Measurements Results

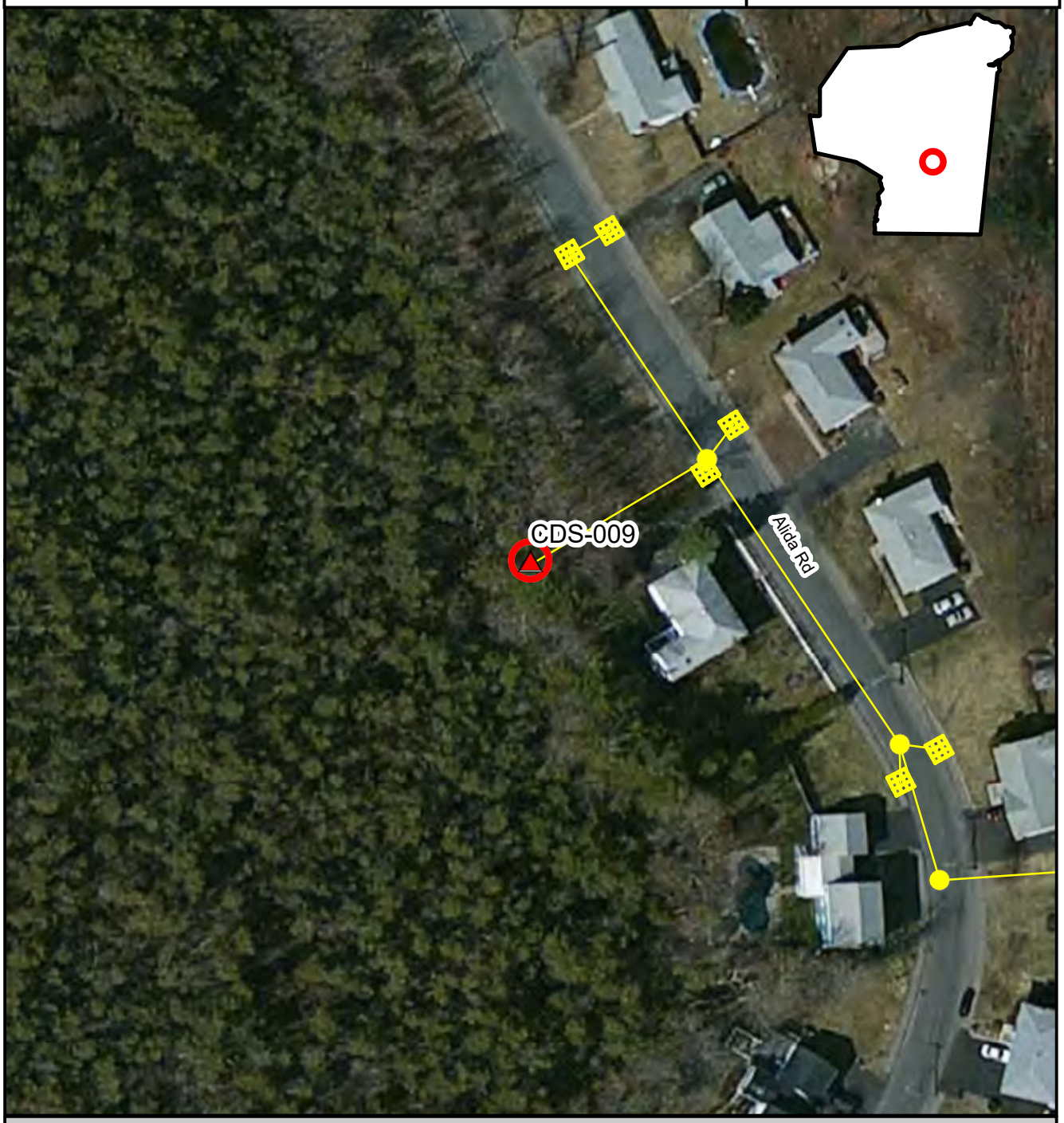
Temperature (C)	21.66
pH (pH units)	6.77
Salinity (ppt)	0.27
Conductivity (uS)	523
Ammonia (Mg/L)	0
Surfactants (ppm)	0.25
Chlorine (ppm)	0
Were laboratory samples collected?	Yes
Measurements/samples collected from	Outfall
E. Coli (MPN/100 ml)	40
Intermittent flow trap used?	No
Section 6: General Comments	Surfactants less than 0.25

Section 7: Media

Photos

Braintree IDDE Inspections

Inspection ID
BT-147



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 6/13/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-148, CDS-012, 2017-06-13, 12:58:00

Created	2017-06-13 16:58:20 UTC by Matt Davis
Updated	2017-06-13 17:02:45 UTC by Matt Davis
Location	42.1901207, -70.9968183

Section 1: General Information

Inspection ID	BT-148
Outfall ID	CDS-012
Outfall GIS ID	153
Inspector	CPO GH
Date	2017-06-13
Time	12:58:00
Temperature	95
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	15
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	Yes
Sediment Depth (%)	40
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

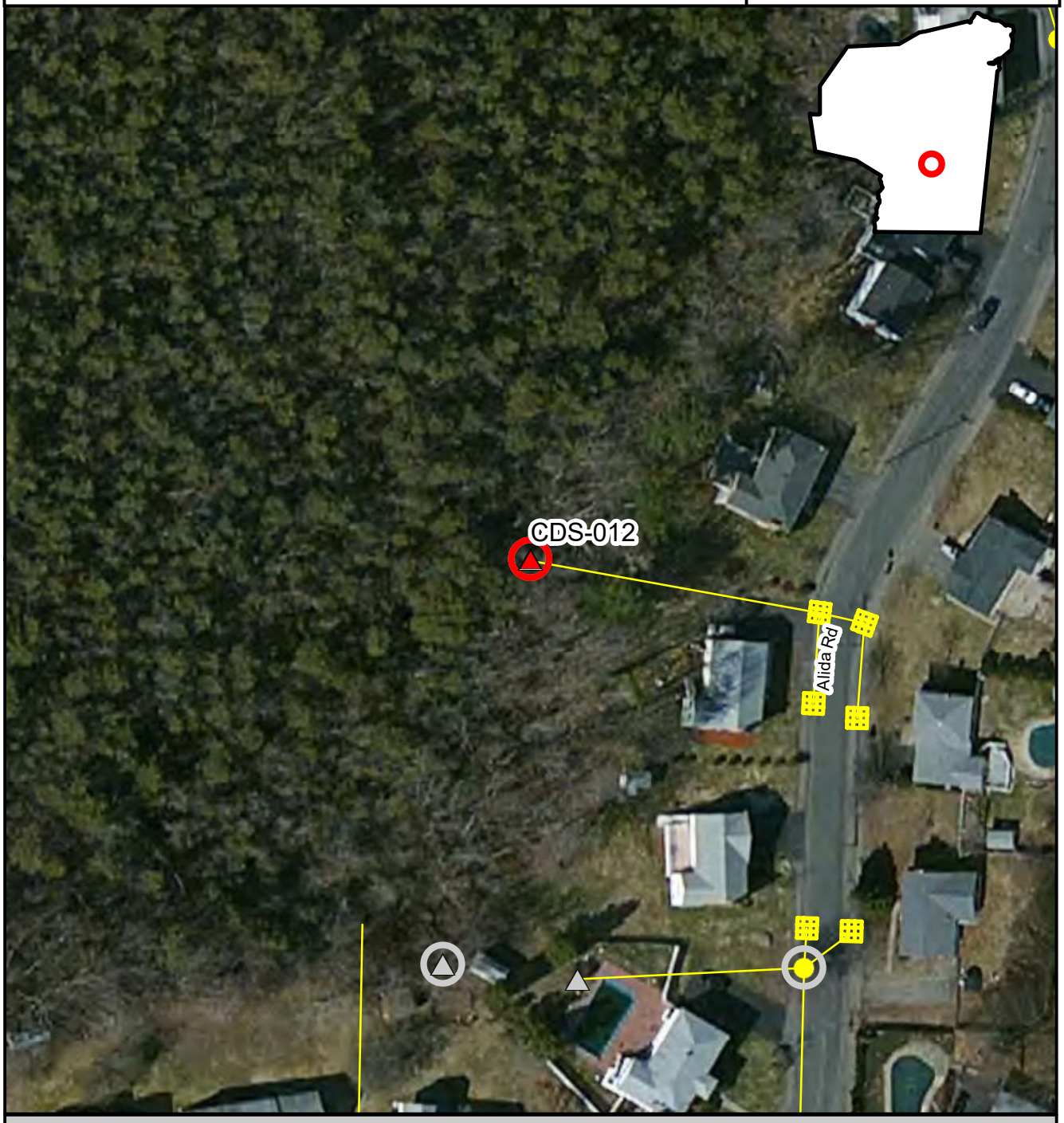
Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	6" of sediment. Permission from address 236 to access outfall.

Section 7: Media

Photos

Braintree IDDE Inspections

Inspection ID
BT-148



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 6/13/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-149, CDS-013, 2017-06-13, 13:31:00

Created	2017-06-13 17:31:59 UTC by Matt Davis
Updated	2017-06-13 17:41:50 UTC by Matt Davis
Location	42.189125, -70.9973226

Section 1: General Information

Inspection ID	BT-149
Outfall ID	CDS-013
Outfall GIS ID	151
Inspector	CPO GH
Date	2017-06-13
Time	13:31:00
Temperature	96
Inspection Location	Manhole
Investigation performed at manhole upstream of outfall?	Yes
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Headwall Present	Yes
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	Yes
Flow Velocity	Moderate

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	Yes

Field Measurements Results

Temperature (C)	24.46
pH (pH units)	7.25
Salinity (ppt)	0.16
Conductivity (uS)	225
Ammonia (Mg/L)	0.1
Surfactants (ppm)	0
Chlorine (ppm)	0
Were laboratory samples collected?	Yes
Measurements/samples collected from	upstream manhole. no property permission

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E. Coli (MPN/100 ml)	94
Intermittent flow trap used?	No
Section 6: General Comments	Sample was collected at MH upstream of outfall. No one home at adjacent properties. Upstream tracking not initiated due to traffic concerns. Need to schedule PD detail. Inlet at 3 o clock is flowing. Inlets at 12,3, and 9. All inlets 15", outlet 21"

Section 7: Media

Photos

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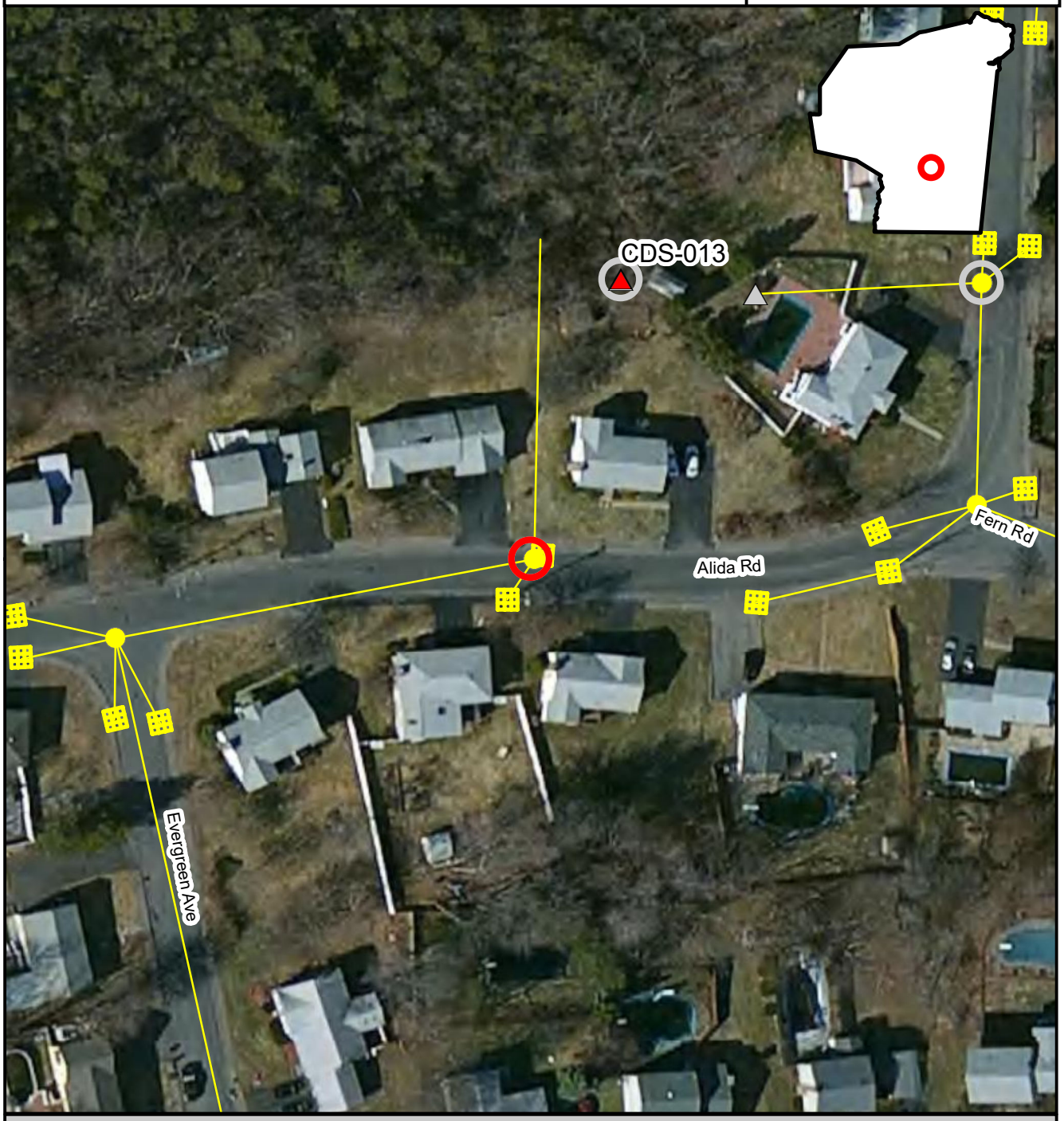
BT-149

Braintree IDDE Inspections

Inspection ID
BT-149



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 6/13/2017

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-150, SMB-016, 2017-06-29, 6:46:00

Created	2017-06-29 10:46:10 UTC by Matt Davis
Updated	2017-06-29 10:51:20 UTC by Matt Davis
Location	42.19897099, -70.986747

Section 1: General Information

Inspection ID	BT-150
Outfall ID	SMB-016
Outfall GIS ID	137
Inspector	CPO GH
Date	2017-06-29
Time	6:46:00
Temperature	66
Inspection Location	Manhole
Investigation performed at manhole upstream of outfall?	Yes
Reason why investigation performed at upstream manhole	Outfall access issues due to private property
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Outfall Condition	Cracking
Headwall Present	No
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	Pipes of various sizes. Drawing in field notebook to show catch basin.

Section 7: Media

Photos

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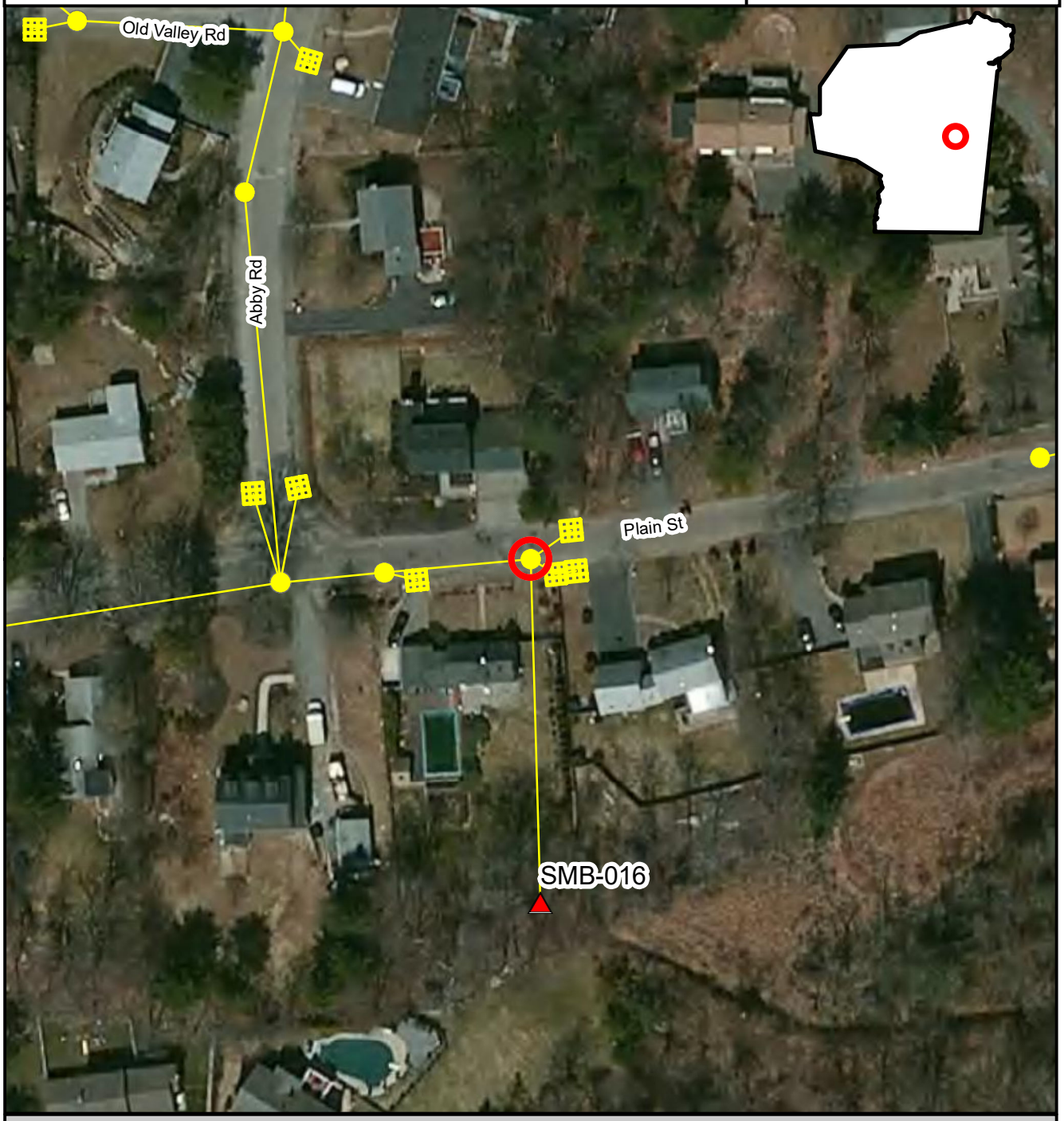
Braintree IDDE Inspections

Inspection ID
BT-150



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 6/29/2017

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-151, MLR-001, 2017-06-29, 7:03:00

Created	2017-06-29 11:03:33 UTC by Matt Davis
Updated	2017-06-29 11:15:06 UTC by Matt Davis
Location	42.1762413, -70.9797063

Section 1: General Information

Inspection ID	BT-151
Outfall ID	MLR-001
Outfall GIS ID	233
Inspector	CPO GH
Date	2017-06-29
Time	7:03:00
Temperature	72
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	15
Outfall Condition	Normal
Headwall Present	Yes
Headwall Condition	Fair
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	Significant scouring

Section 7: Media

Photos

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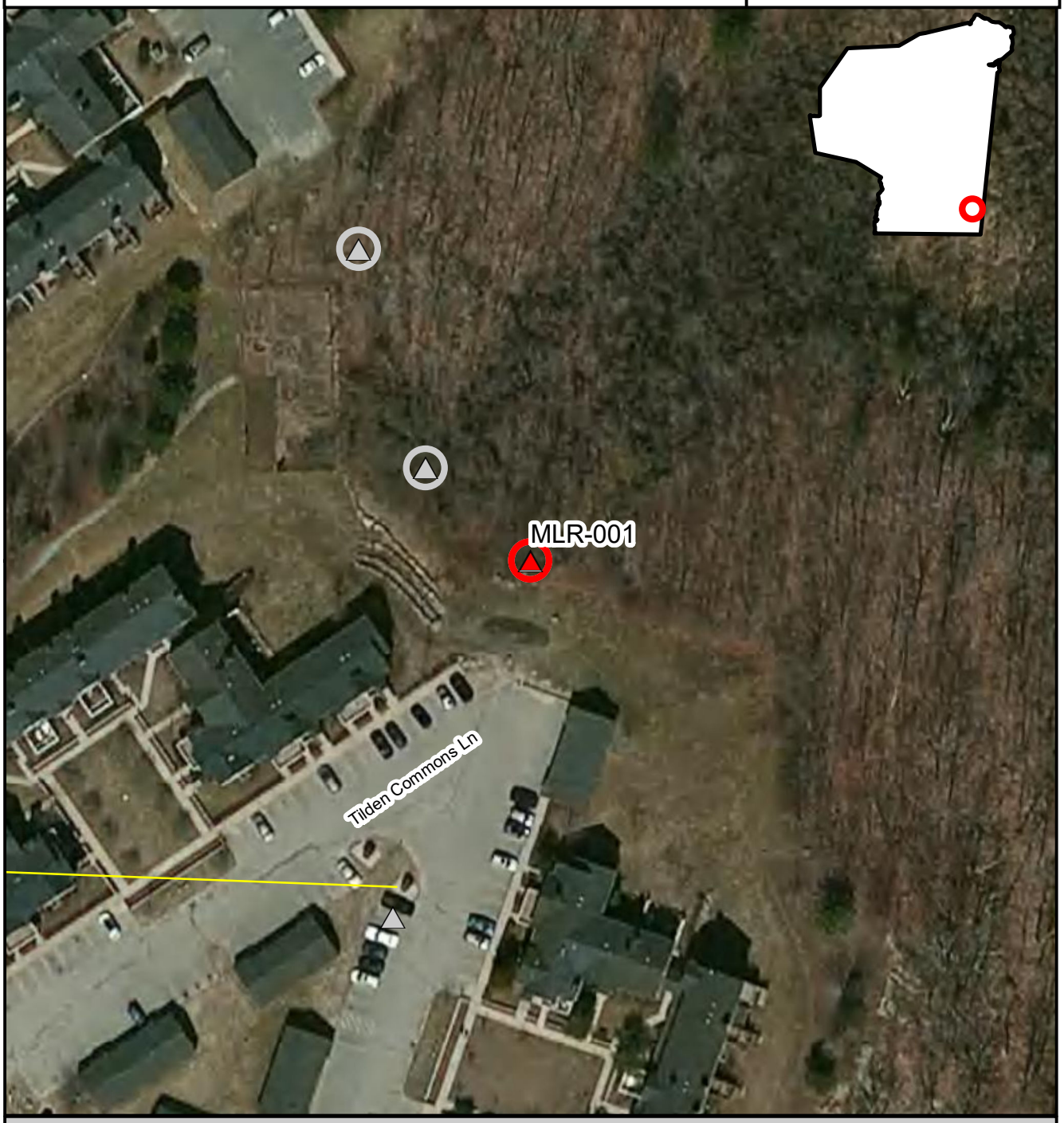
BT-151

Braintree IDDE Inspections

Inspection ID
BT-151



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 6/29/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-152, MLR-002, 2017-06-29, 7:08:00

Created	2017-06-29 11:08:35 UTC by Matt Davis
Updated	2017-06-29 11:14:25 UTC by Matt Davis
Location	42.176714, -70.9800519

Section 1: General Information

Inspection ID	BT-152
Outfall ID	MLR-002
Outfall GIS ID	229
Inspector	CPO GH
Date	2017-06-29
Time	7:08:00
Temperature	72
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	12
Outfall Condition	Normal
Headwall Present	Yes
Headwall Condition	Good
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	Tree growth close to outfall

Section 7: Media

Photos

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Braintree IDDE Inspections

Inspection ID
BT-152

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 6/29/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-153, MLR-007, 2017-06-29, 7:18:00

Created	2017-06-29 11:18:52 UTC by Matt Davis
Updated	2017-06-29 11:22:26 UTC by Matt Davis
Location	42.1775932, -70.9822924

Section 1: General Information

Inspection ID	BT-153
Outfall ID	MLR-007
Outfall GIS ID	228
Inspector	CPO GH
Date	2017-06-29
Time	7:18:00
Temperature	72
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	15
Outfall Condition	Normal
Headwall Present	Yes
Headwall Condition	Good
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No

Section 7: Media

Photos

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BT-153

Braintree IDDE Inspections

Inspection ID
BT-153

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 6/29/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-154, CBB-023, 2017-06-29, 7:43:00

Created	2017-06-29 11:44:00 UTC by Matt Davis
Updated	2017-06-29 11:58:35 UTC by Matt Davis
Location	42.1802008, -70.9926634

Section 1: General Information

Inspection ID	BT-154
Outfall ID	CBB-023
Outfall GIS ID	168
Inspector	CPO GH
Date	2017-06-29
Time	7:43:00
Temperature	72
Inspection Location	Manhole
Investigation performed at manhole upstream of outfall?	Yes
Reason why investigation performed at upstream manhole	Private property with a fence. Residents could not be contacted
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	18
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	Standing Water

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No

Section 7: Media

Photos

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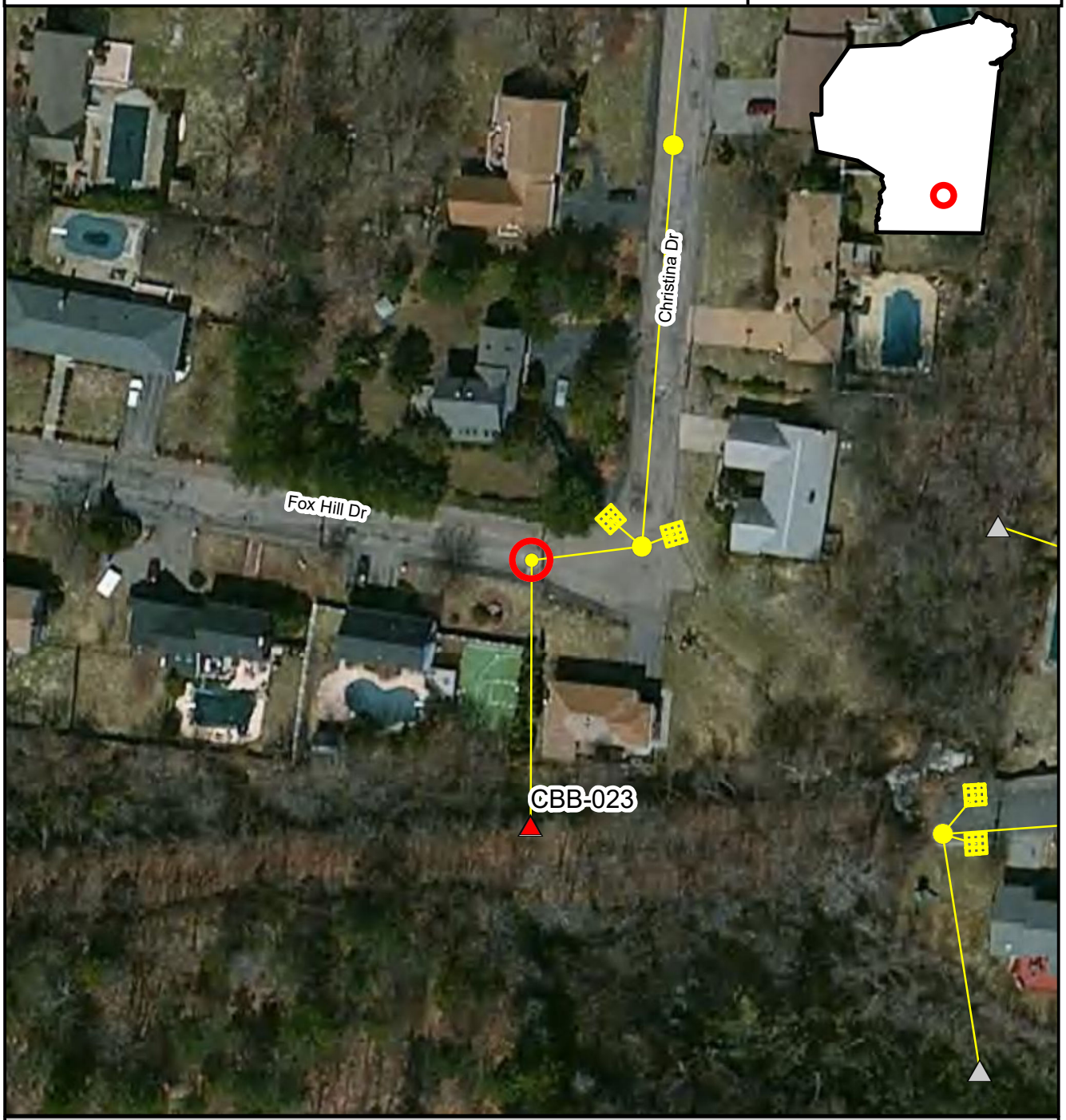
Braintree IDDE Inspections

Inspection ID
BT-154



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 6/29/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-155, CBB-026, 2017-06-29, 7:56:00

Created	2017-06-29 11:56:12 UTC by Matt Davis
Updated	2017-06-29 11:58:25 UTC by Matt Davis
Location	42.1800882, -70.9910366

Section 1: General Information

Inspection ID	BT-155
Outfall ID	CBB-026
Outfall GIS ID	163
Inspector	CPO GH
Date	2017-06-29
Time	7:56:00
Temperature	68
Inspection Location	Manhole
Investigation performed at manhole upstream of outfall?	Yes
Reason why investigation performed at upstream manhole	Access was restricted due to no contact with home/landowners in vicinity of outfall
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	24
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	Standing Water

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	No flow, standing water. Upstream MH

Section 7: Media

Photos

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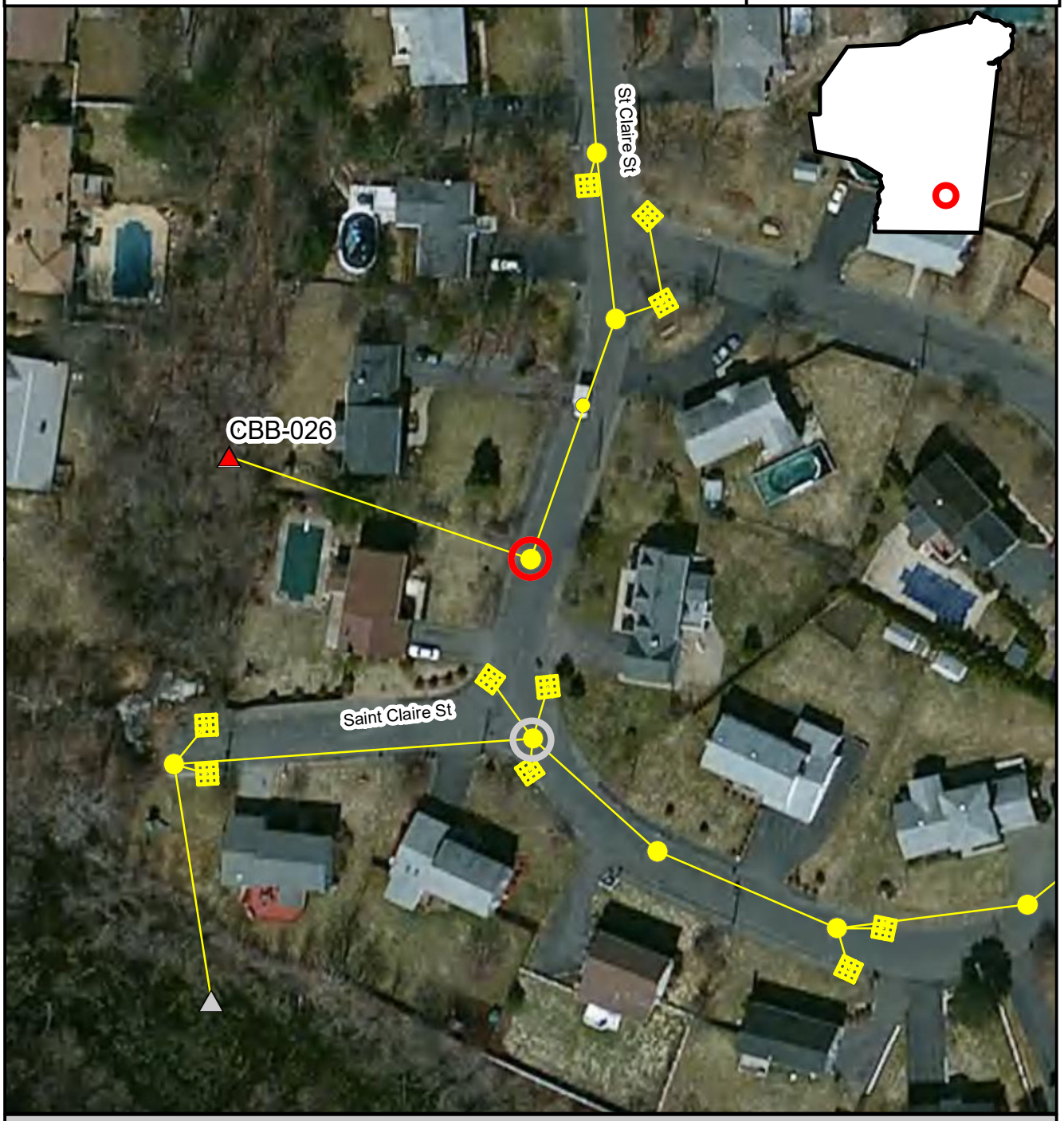
BT-155

Braintree IDDE Inspections

Inspection ID
BT-155



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 6/29/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-156, SMB-033, 2017-06-29, 8:33:00

Created	2017-06-29 12:33:19 UTC by Matt Davis
Updated	2017-06-29 12:35:29 UTC by Matt Davis
Location	42.1857893, -70.9809308

Section 1: General Information

Inspection ID	BT-156
Outfall ID	SMB-033
Outfall GIS ID	159
Inspector	CPO GH
Date	2017-06-29
Time	8:33:00
Temperature	74
Inspection Location	Manhole
Investigation performed at manhole upstream of outfall?	Yes
Reason why investigation performed at upstream manhole	Access issues. Property/land owners not home
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	24
Outfall Condition	Normal
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	Standing Water

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No

Section 7: Media

Photos

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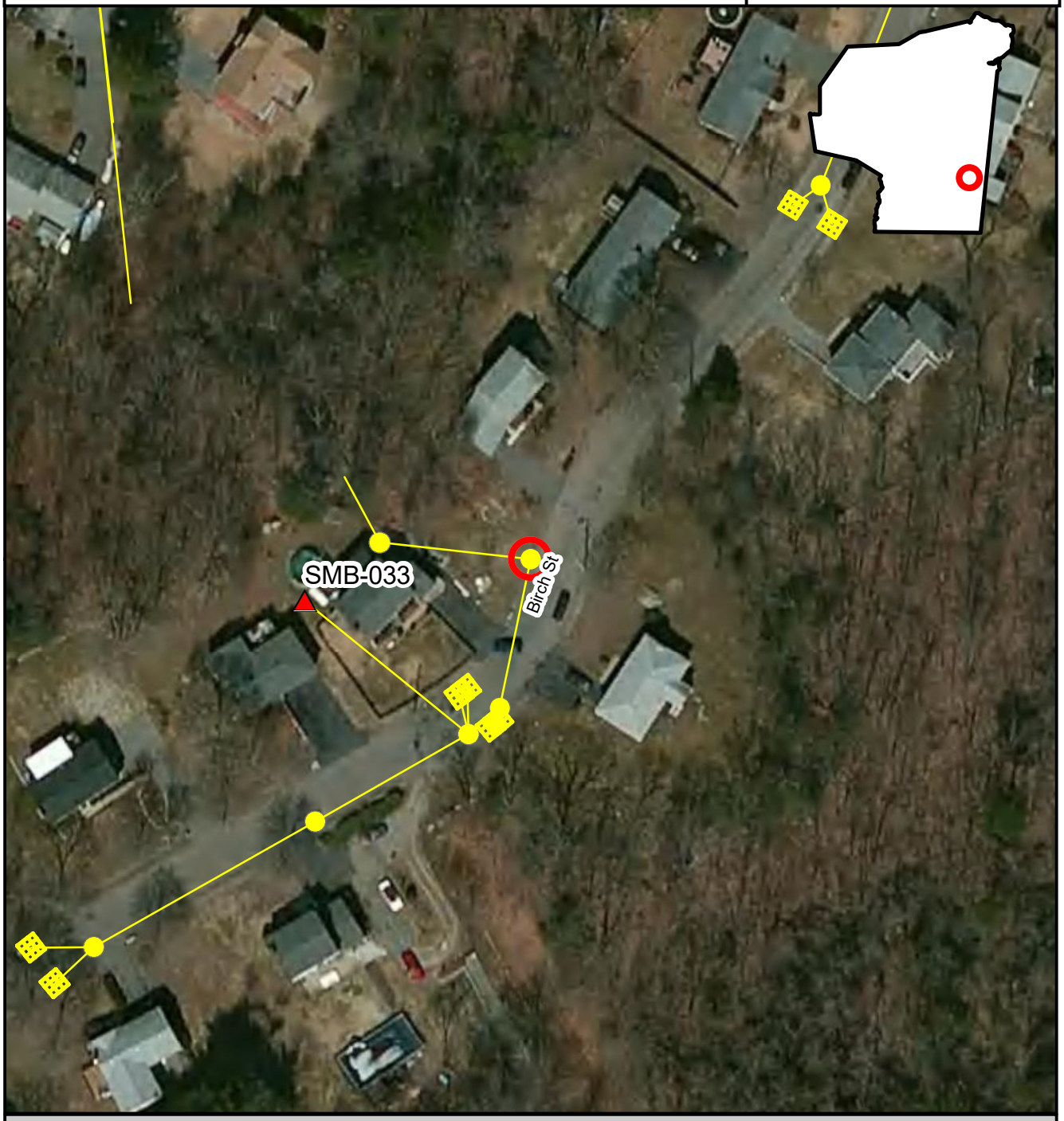
DRAIN

Braintree IDDE Inspections

Inspection ID
BT-156



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 6/29/2017

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-157, SMB-034, 2017-06-29, 8:43:00

Created	2017-06-29 12:43:38 UTC by Matt Davis
Updated	2017-06-29 12:45:51 UTC by Matt Davis
Location	42.1862088, -70.9846983

Section 1: General Information

Inspection ID	BT-157
Outfall ID	SMB-034
Outfall GIS ID	161
Inspector	CPO GH
Date	2017-06-29
Time	8:43:00
Temperature	72
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	15
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	Yes
Sediment Depth (%)	10
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	Beveled mouth on outfall. Actual dimension may differ.

Section 7: Media

Photos

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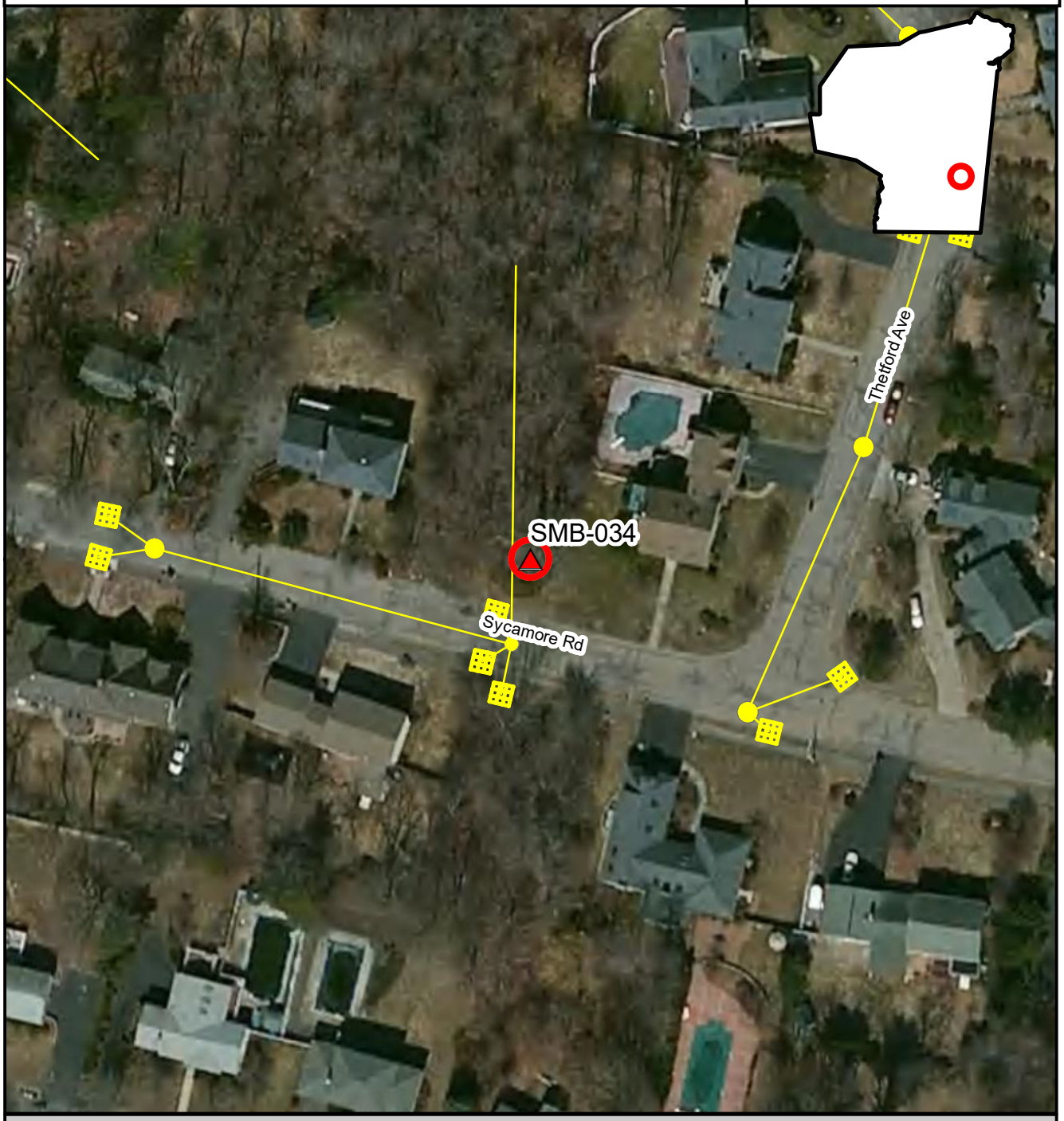
Braintree IDDE Inspections

Inspection ID
BT-157



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 6/29/2017

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-158, SMB-024, 2017-06-29, 8:53:00

Created	2017-06-29 12:53:22 UTC by Matt Davis
Updated	2017-06-29 12:55:45 UTC by Matt Davis
Location	42.1900681, -70.9858414

Section 1: General Information

Inspection ID	BT-158
Outfall ID	SMB-024
Outfall GIS ID	156
Inspector	CPO GH
Date	2017-06-29
Time	8:53:00
Temperature	74
Inspection Location	Manhole
Investigation performed at manhole upstream of outfall?	Yes
Reason why investigation performed at upstream manhole	Acess to private property due to homeowners not being home. Fences in back of properties would make access difficult if permission was granted
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	18
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	Dry manhole. Outfall on private property. No one home to permit access to outfall. Inpsection performed at upstream manhole.

Section 7: Media

Photos

Braintree IDDE Inspections

Inspection ID
BT-158

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 6/29/2017

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-159, CDS-019, 2017-06-29, 9:07:00

Created	2017-06-29 13:07:50 UTC by Matt Davis
Updated	2017-06-29 13:10:21 UTC by Matt Davis
Location	42.1887027, -70.9913931

Section 1: General Information

Inspection ID	BT-159
Outfall ID	CDS-019
Outfall GIS ID	154
Inspector	CPO GH
Date	2017-06-29
Time	9:07:00
Temperature	76
Inspection Location	Manhole
Investigation performed at manhole upstream of outfall?	Yes
Reason why investigation performed at upstream manhole	Property/landowners not home to give permission
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	15
Outfall Condition	Normal
Sediment Present?	No
Outfall Submerged	Partially
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	Standing Water

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	Outfall on private property. No one home to permit access to outfall. Inpsection performed at upstream manhole.

Section 7: Media

Photos

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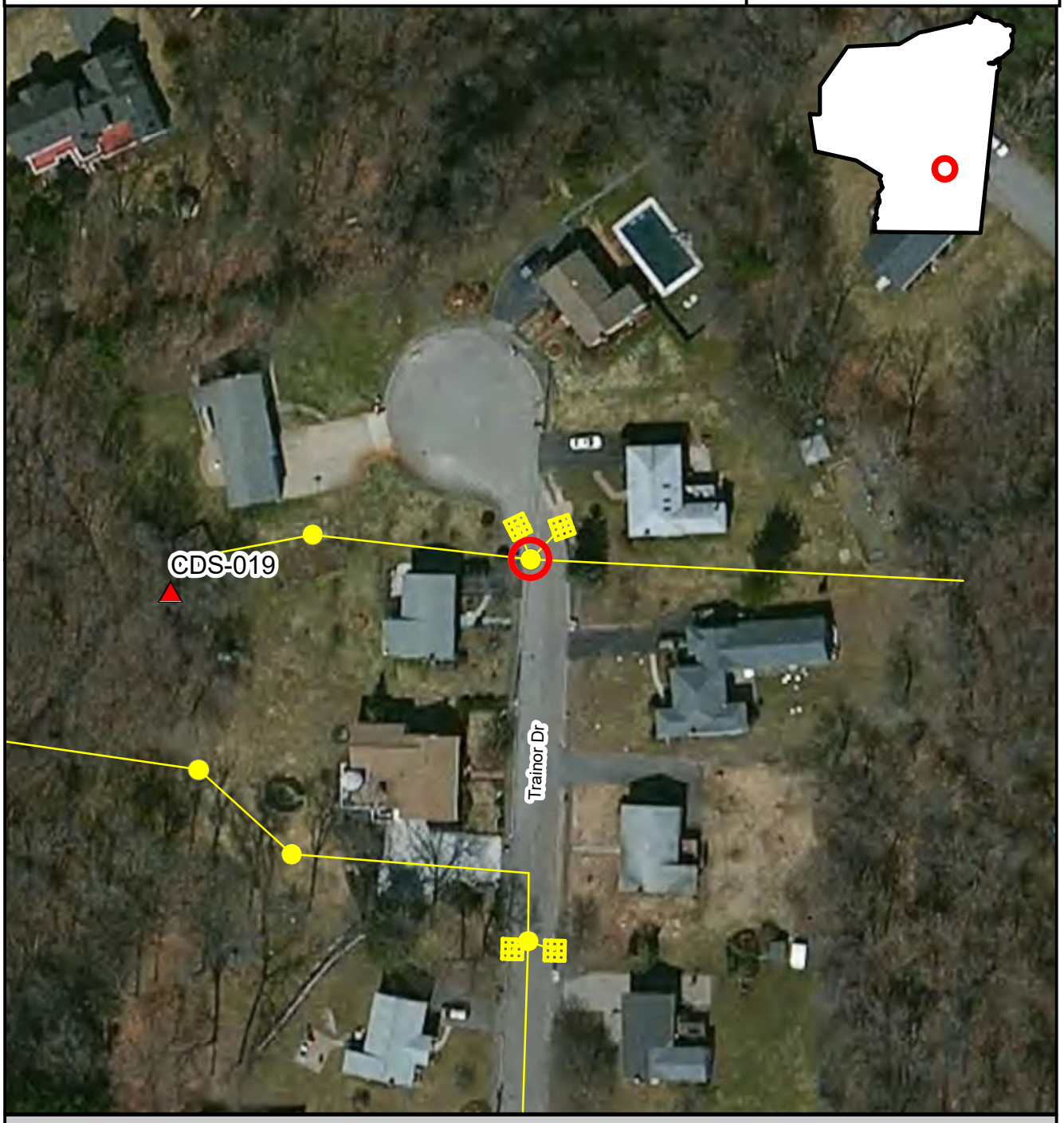
Braintree IDDE Inspections

Inspection ID
BT-159



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 6/29/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-160, CDS-011, 2017-06-29, 9:17:00

Created	2017-06-29 13:17:57 UTC by Matt Davis
Updated	2017-06-29 13:21:03 UTC by Matt Davis
Location	42.1884211, -71.0050241

Section 1: General Information

Inspection ID	BT-160
Outfall ID	CDS-011
Outfall GIS ID	142
Inspector	CPO GH
Date	2017-06-29
Time	9:17:00
Temperature	74
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	15
Outfall Condition	destroyed
Headwall Present	No
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	Pieces of pipe in drainage area. Appears pipe may have been destroyed in recent construction. Significant washout undermining road bank..

Section 7: Media

Photos

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Braintree IDDE Inspections

Inspection ID
BT-160

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 6/29/2017

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-161, CDS-007, 2017-06-29, 9:36:00

Created	2017-06-29 13:36:50 UTC by Matt Davis
Updated	2017-06-29 13:39:20 UTC by Matt Davis
Location	42.1893292, -70.999939

Section 1: General Information

Inspection ID	BT-161
Outfall ID	CDS-007
Outfall GIS ID	150
Inspector	CPO GH
Date	2017-06-29
Time	9:36:00
Temperature	76
Inspection Location	Manhole
Investigation performed at manhole upstream of outfall?	Yes
Reason why investigation performed at upstream manhole	Knocked on door. No h9me/landowner home to give access permission.
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	18
Outfall Condition	Cracking
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	Standing Water

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	Outfall on private property. No one home to permit access to outfall. Inpsection performed at upstream manhole.

Section 7: Media

Photos

Braintree IDDE Inspections

Inspection ID
BT-161

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 6/29/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-162, CCR-005, 2017-06-29, 10:06:00

Created	2017-06-29 14:06:54 UTC by Matt Davis
Updated	2017-07-05 12:14:13 UTC by Matt Davis
Location	42.1746117, -71.0200383

Section 1: General Information

Inspection ID	BT-162
Outfall ID	CCR-005
Outfall GIS ID	184
Inspector	CPO GH
Date	2017-06-29
Time	10:06:00
Temperature	76
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	12
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	Yes
Sediment Depth (%)	80
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	Pipe buried under yard waste

Section 7: Media

Sketches

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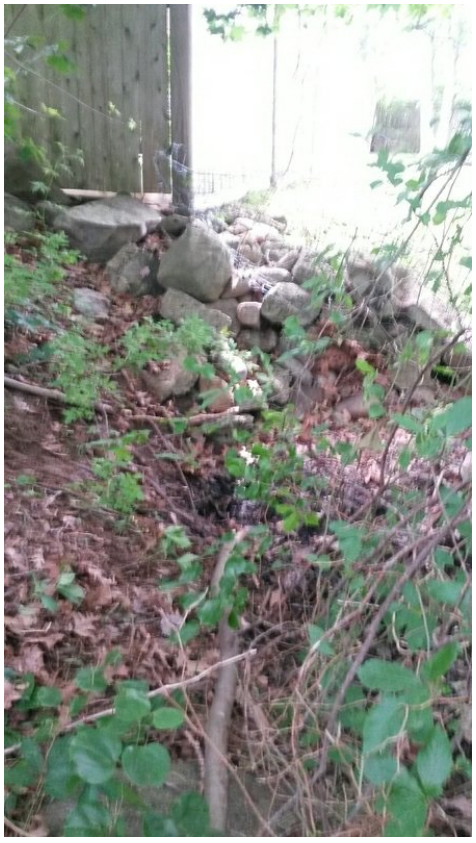

Braintree IDDE Inspections

Inspection ID
BT-162

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 6/29/2017

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-163, 2017-06-29, 10:34:00

Created	2017-06-29 14:34:40 UTC by Matt Davis
Updated	2017-06-29 14:52:30 UTC by Matt Davis
Location	42.1722258, -71.0077804

Section 1: General Information

Inspection ID	BT-163
Outfall GIS ID	251
Inspector	CPO GH
Date	2017-06-29
Time	10:34:00
Temperature	78
Inspection Location	Manhole
Investigation performed at manhole upstream of outfall?	Yes
Reason why investigation performed at upstream manhole	Land owner/homeowner not home to provide access permission
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	36
Outfall Condition	Cracking
Sediment Present?	No
Outfall Submerged	Partially
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	Standing Water

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	Outfall on private property. No one home to permit access to outfall. Inpsection performed at upstream manhole.

Section 7: Media

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Photos

Braintree IDDE Inspections

Inspection ID
BT-163

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 6/29/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-164, CBB-022, 2017-06-29, 11:04:00

Created	2017-06-29 15:04:37 UTC by Matt Davis
Updated	2017-06-29 15:18:57 UTC by Matt Davis
Location	42.16871676, -71.00217339

Section 1: General Information

Inspection ID	BT-164
Outfall ID	CBB-022
Outfall GIS ID	178
Inspector	CPO GH
Date	2017-06-29
Time	11:04:00
Temperature	70
Inspection Location	Manhole
Investigation performed at manhole upstream of outfall?	Yes
Reason why investigation performed at upstream manhole	No permission to access
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	18
Outfall Condition	Normal
Sediment Present?	Yes
Sediment Depth (%)	15
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	Standing Water

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

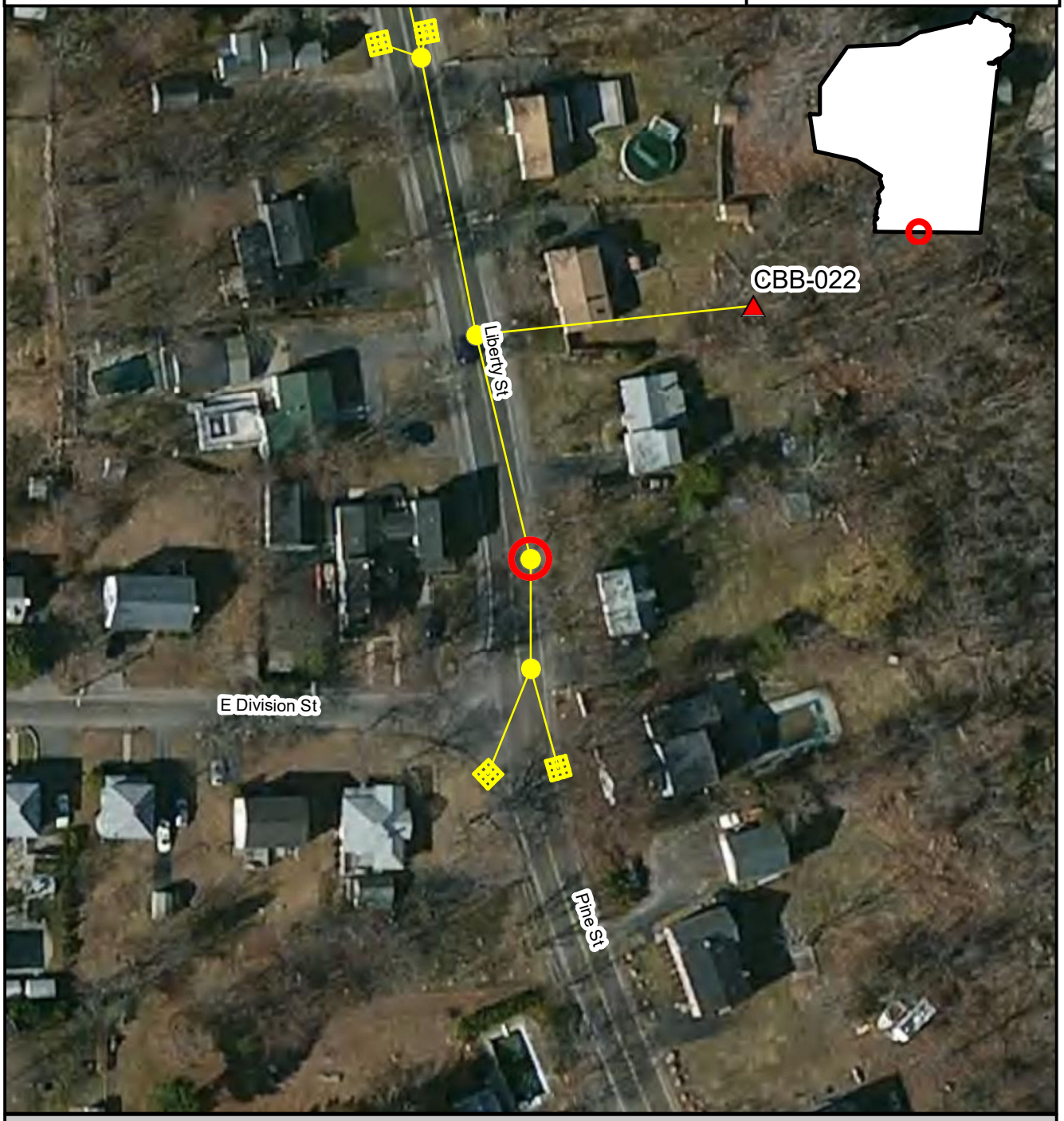
Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	Outfall on private property. No one home to permit access to outfall. Inpsection performed at upstream manhole.

Section 7: Media

Photos

Braintree IDDE Inspections

Inspection ID
BT-164



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 6/29/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-165, MQR-054, 2017-06-29, 11:35:00

Created	2017-06-29 15:35:24 UTC by Matt Davis
Updated	2017-06-29 16:03:14 UTC by Matt Davis
Location	42.2045228, -70.9851369

Section 1: General Information

Inspection ID	BT-165
Outfall ID	MQR-054
Outfall GIS ID	25
Inspector	CPO GH
Date	2017-06-29
Time	11:35:00
Temperature	78
Inspection Location	Manhole
Investigation performed at manhole upstream of outfall?	Yes
Reason why investigation performed at upstream manhole	No permission for access
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	25
Outfall Condition	Normal
Outfall Submerged	No

Section 3: Physical Indicators (flow flowing)

Flow Present	Standing Water
Section 6: General Comments	Outfall on private property. No one home to permit access to outfall. Inpsection performed at upstream manhole.

Section 7: Media

Photos

Braintree IDDE Inspections

Inspection ID
BT-165

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 6/29/2017

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-166, MQR-044, 2017-06-29, 11:54:00

Created	2017-06-29 15:54:30 UTC by Matt Davis
Updated	2017-06-29 15:56:16 UTC by Matt Davis
Location	42.2057409, -70.9828737

Section 1: General Information

Inspection ID	BT-166
Outfall ID	MQR-044
Outfall GIS ID	26
Inspector	CPO GH
Date	2017-06-29
Time	11:54:00
Temperature	78
Inspection Location	Manhole
Investigation performed at manhole upstream of outfall?	Yes
Reason why investigation performed at upstream manhole	Private property access issues. House for sale, no one home
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	24
Outfall Condition	Normal
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

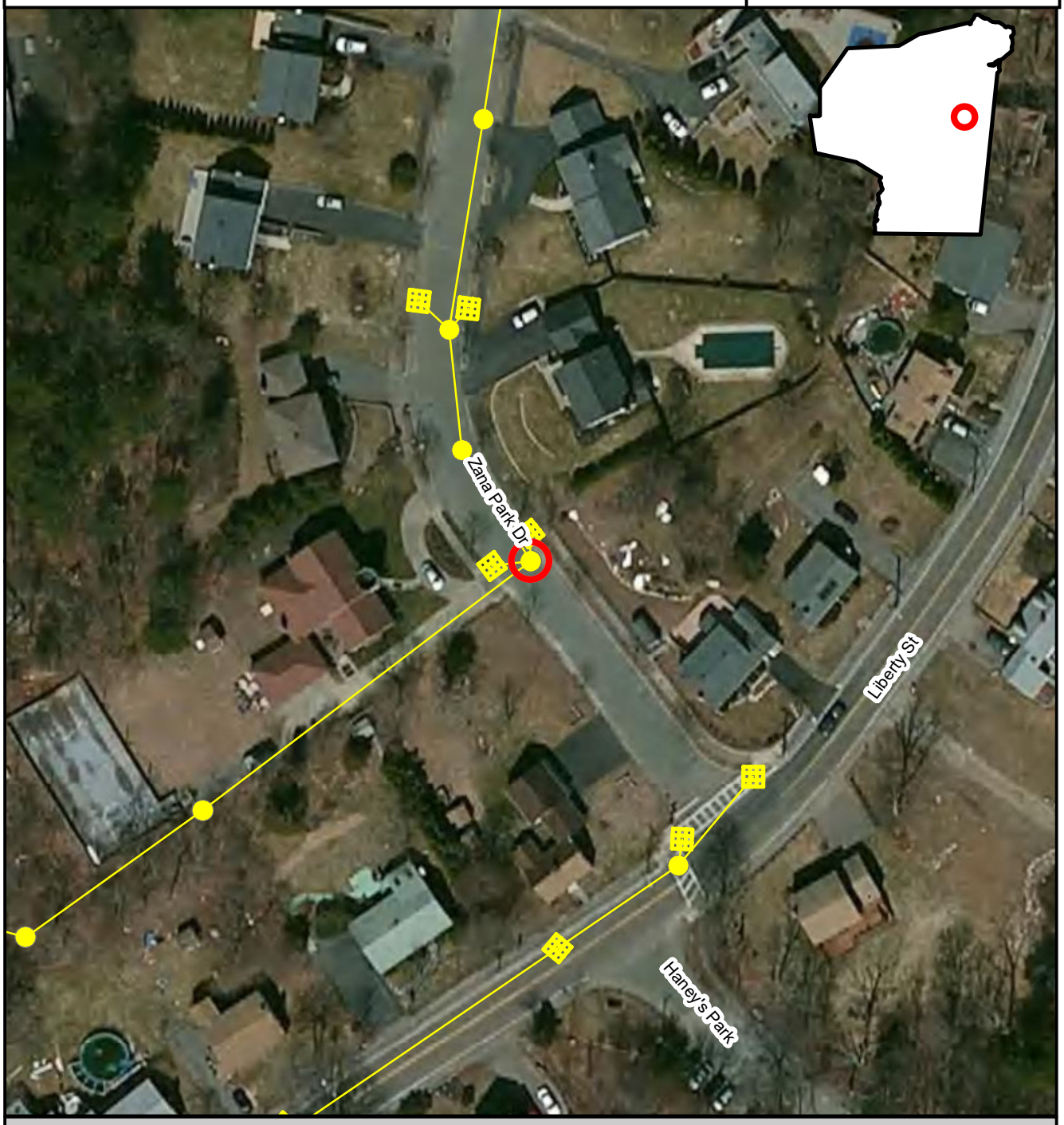
Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	Outfall on private property. No one home to permit access to outfall. Inpsection performed at upstream manhole.

Section 7: Media

Photos

Braintree IDDE Inspections

Inspection ID
BT-166



N

Inspection Date: 6/29/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-167, MQR-003, 2017-07-06, 06:22

Created	2017-07-06 10:22:24 UTC by Matt Davis
Updated	2019-02-14 21:18:37 UTC by Matt Davis
Location	42.2005514, -71.0032569

Section 1: General Information

Inspection ID	BT-167
Outfall ID	MQR-003
Outfall GIS ID	116
Inspector	CPO GH
Date	2017-07-06
Time	06:22
Temperature	68
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	Faint
Odor Description	Sewage

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	granite
Closed Pipe Shape	Box
Closed Pipe Diameter (in)	24
Outfall Condition	Cracking
Headwall Present	No
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	Yes
Flow Velocity	Moderate
Flow Width (in)	24
Flow Depth (in)	4
Color Severity	None
Turbidity	No cloudiness
Floatables (does not include trash)	None

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

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Were field measurements performed?	Yes

Field Measurements Results

Temperature (C)	18.11
pH (pH units)	7.04
Salinity (ppt)	0.73
Conductivity (uS)	1259
Ammonia (Mg/L)	2
Surfactants (ppm)	0.25
Chlorine (ppm)	0
Were laboratory samples collected?	Yes
Measurements/samples collected from	Outfall
E. Coli (MPN/100 ml)	16000
Intermittent flow trap used?	No

Section 7: Media

Photos

Braintree IDDE Inspections

Inspection ID
BT-167

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 7/6/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-168, 2017-07-06, 10:50:00

Created	2017-07-06 14:50:49 UTC by Matt Davis
Updated	2017-07-06 14:53:53 UTC by Matt Davis
Location	42.2071414, -71.0122451

Section 1: General Information

Inspection ID	BT-168
Outfall GIS ID	77
Inspector	CPO GH
Date	2017-07-06
Time	10:50:00
Temperature	75
Inspection Location	Manhole
Investigation performed at manhole upstream of outfall?	Yes
Reason why investigation performed at upstream manhole	Could not locate outfall during outfall inspection due to buried outfall.
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	15
Outfall Condition	Cracking
Headwall Present	No
Sediment Present?	Yes
Sediment Depth (%)	100
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	Dry outfall. Manhole inspection for follow up investigation

Section 7: Media

Photos

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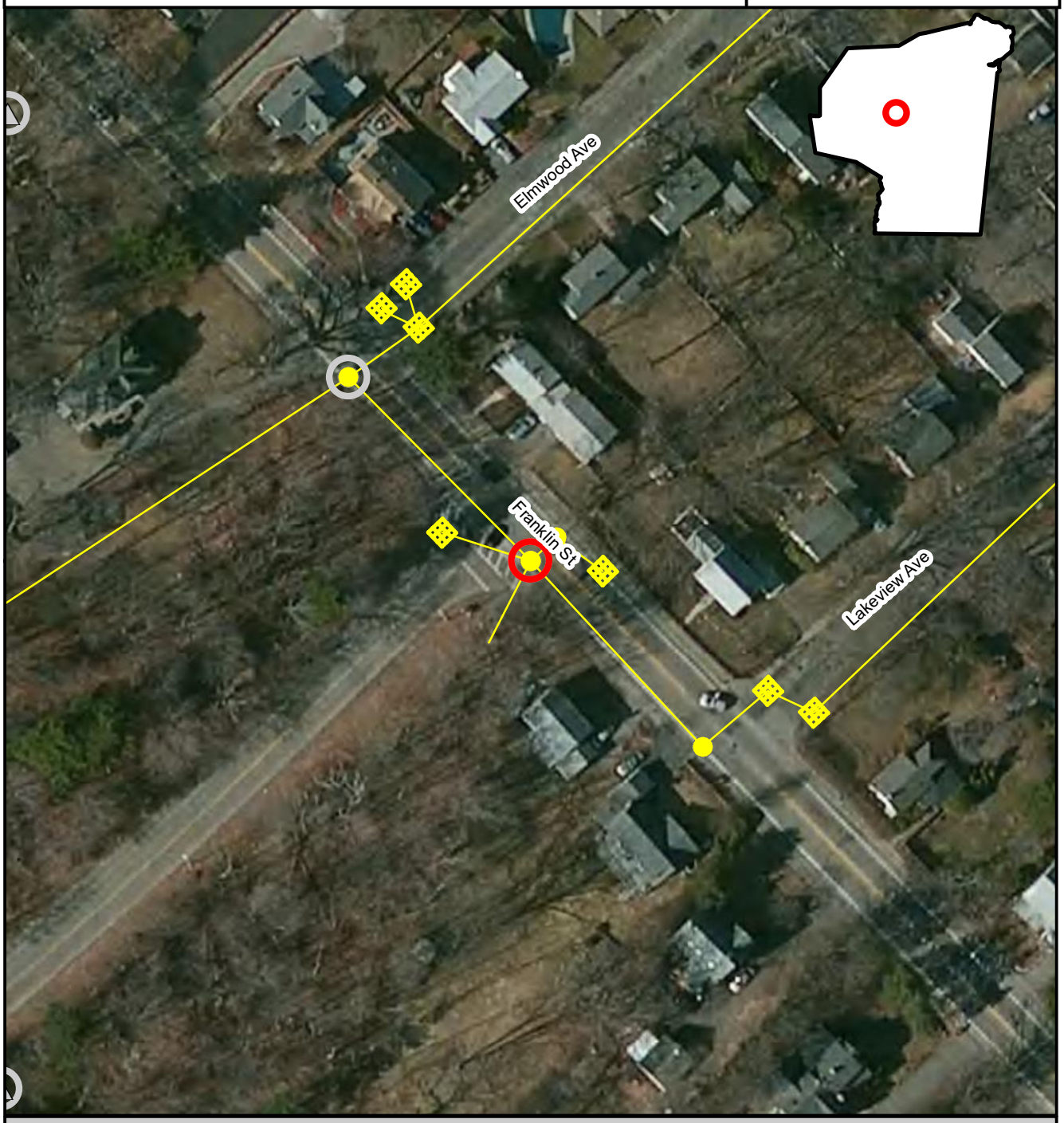
Braintree IDDE Inspections

Inspection ID
BT-168



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 7/6/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-169, CBB-027, 2017-07-06, 12:23:00

Created	2017-07-06 16:23:14 UTC by Matt Davis
Updated	2017-07-06 16:37:18 UTC by Matt Davis
Location	42.172047, -70.9964762

Section 1: General Information

Inspection ID	BT-169
Outfall ID	CBB-027
Outfall GIS ID	173
Inspector	CPO GH
Date	2017-07-06
Time	12:23:00
Temperature	78
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	24
Outfall Condition	Normal
Headwall Present	Yes
Headwall Condition	Fair
Sediment Present?	Yes
Sediment Depth (%)	50
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	Outfall dry. Permission granted from abutters to address #69 Canavan drive. Outfall has large amount of debris and leaves between discharge grate.

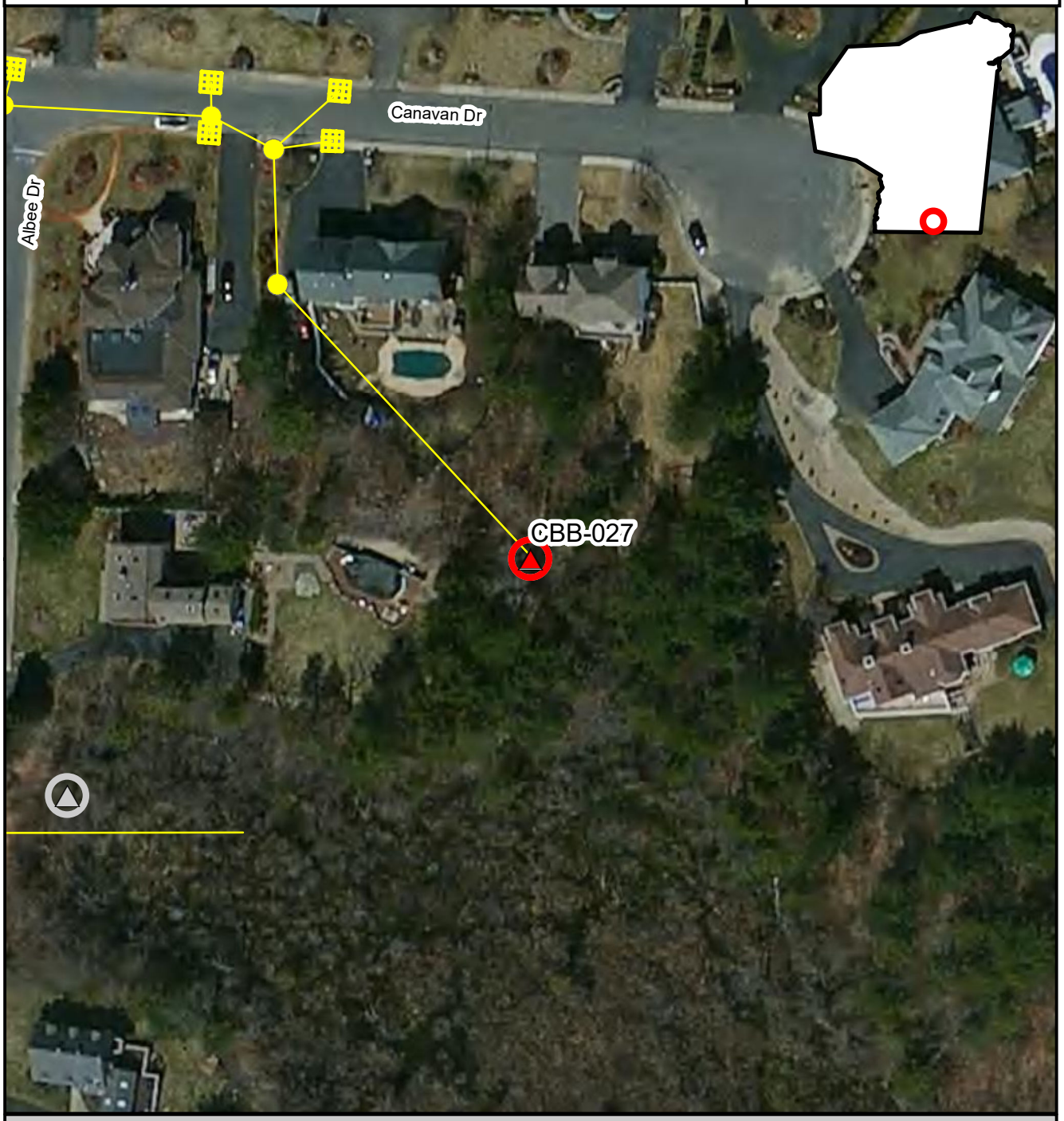
Section 7: Media

Photos

BT-169

Braintree IDDE Inspections

Inspection ID
BT-169



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 7/6/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-170, CBB-024, 2017-07-06, 12:32:00

Created	2017-07-06 16:32:38 UTC by Matt Davis
Updated	2017-07-06 16:37:32 UTC by Matt Davis
Location	42.1716641, -70.9973794

Section 1: General Information

Inspection ID	BT-170
Outfall ID	CBB-024
Outfall GIS ID	174
Inspector	CPO GH
Date	2017-07-06
Time	12:32:00
Temperature	80
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	24
Outfall Condition	Normal
Headwall Present	Yes
Headwall Condition	Poor
Sediment Present?	Yes
Sediment Depth (%)	20
Outfall Submerged	Partially
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	Standing Water

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	Outfall partially submerged and buried by debris.

Section 7: Media

Photos

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BT-170

Braintree IDDE Inspections

Inspection ID
BT-170

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 7/6/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-171, CBB-018, 2017-07-06, 12:51:00

Created	2017-07-06 16:51:19 UTC by Matt Davis
Updated	2017-07-06 16:54:08 UTC by Matt Davis
Location	42.1803108, -70.9940528

Section 1: General Information

Inspection ID	BT-171
Outfall ID	CBB-018
Outfall GIS ID	163
Inspector	CPO GH
Date	2017-07-06
Time	12:51:00
Temperature	80
Inspection Location	Manhole
Investigation performed at manhole upstream of outfall?	Yes
Reason why investigation performed at upstream manhole	No residents home to give permission/access to outfall
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	15
Outfall Condition	Normal
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	Standing Water

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

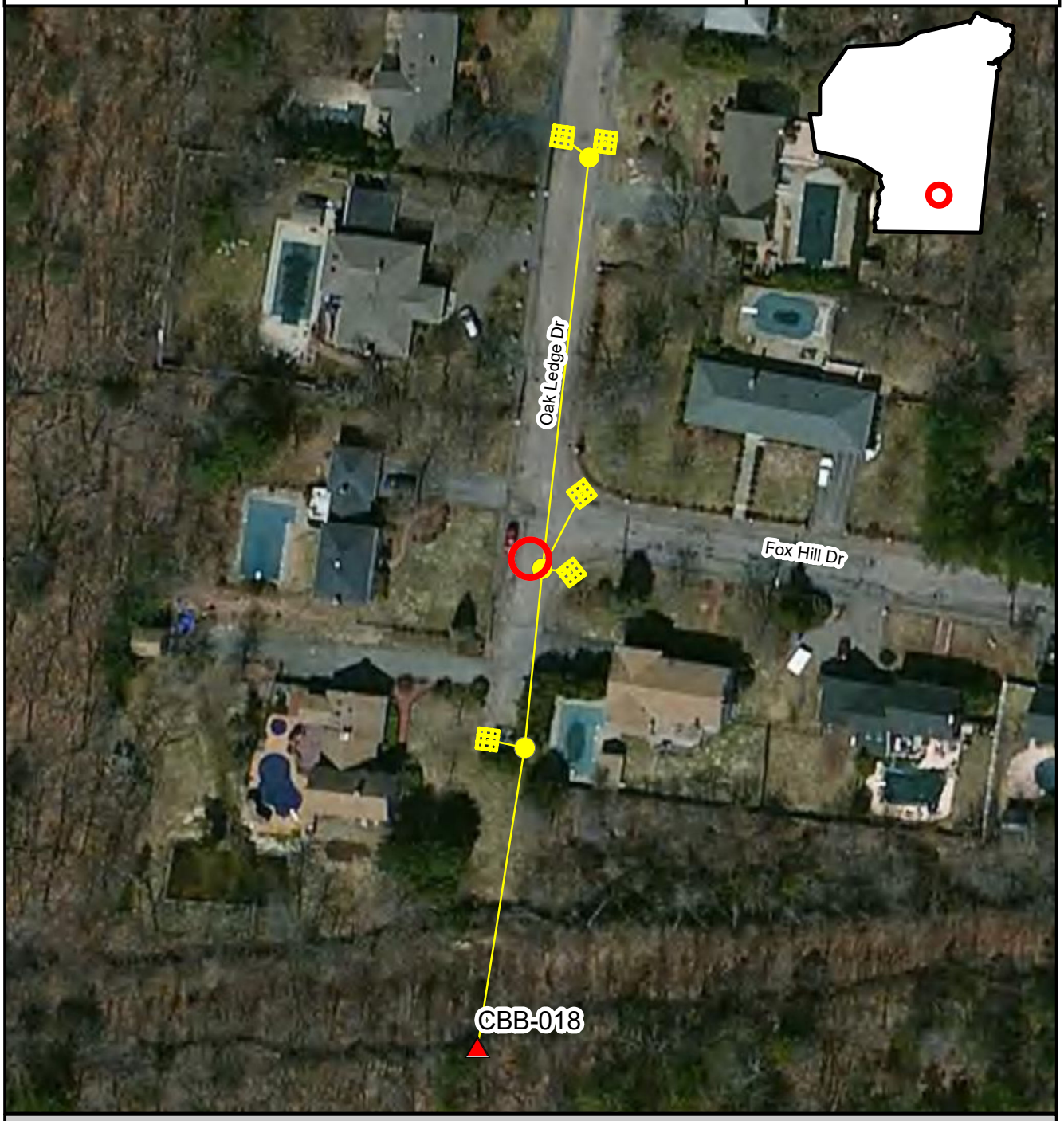
Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	No flow observed. Only standing water in manhole. No one home to permit access

Section 7: Media

Photos

Braintree IDDE Inspections

Inspection ID
BT-171



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 7/6/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-172, CBB-028, 2017-07-06, 13:09:00

Created	2017-07-06 17:09:40 UTC by Matt Davis
Updated	2017-07-06 17:13:14 UTC by Matt Davis
Location	42.1797835, -70.9910773

Section 1: General Information

Inspection ID	BT-172
Outfall ID	CBB-028
Outfall GIS ID	164
Inspector	CPO GH
Date	2017-07-06
Time	13:09:00
Temperature	82
Inspection Location	Manhole
Investigation performed at manhole upstream of outfall?	Yes
Reason why investigation performed at upstream manhole	Could not find outfall. Sesrched brush and right of way area
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	24
Outfall Condition	Normal
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	Standing Water

Section 4: Physical Indicators (all outfalls)

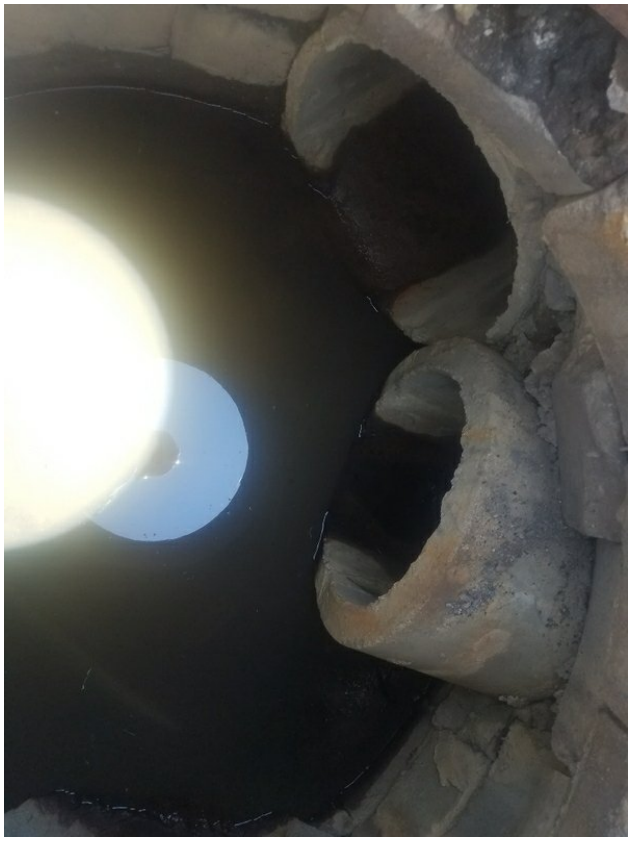
Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	Manhole was dry, standing water in bottom of manhole.

Section 7: Media

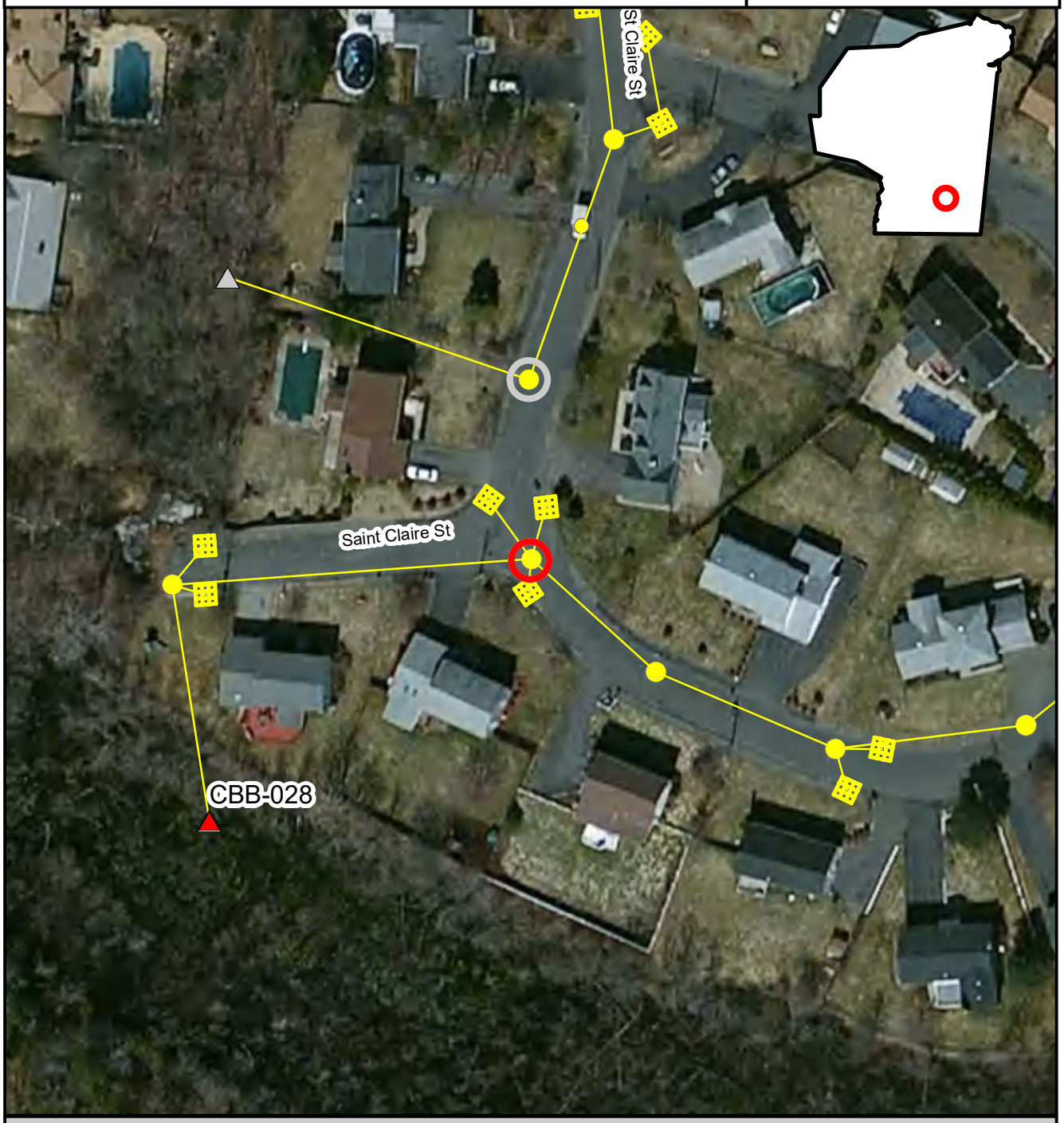
Photos



DRAIN

Braintree IDDE Inspections

Inspection ID
BT-172



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 7/6/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-173, CBB-031, 2017-07-06, 13:34:00

Created	2017-07-06 17:34:31 UTC by Matt Davis
Updated	2017-07-06 17:59:14 UTC by Matt Davis
Location	42.1813904, -70.9880739

Section 1: General Information

Inspection ID	BT-173
Outfall ID	CBB-031
Outfall GIS ID	162
Inspector	CPO GH
Date	2017-07-06
Time	13:34:00
Temperature	82
Inspection Location	Manhole
Investigation performed at manhole upstream of outfall?	Yes
Reason why investigation performed at upstream manhole	No access to outfall due to no residents home at time of inspection
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	24
Outfall Condition	Normal
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	Yes
Flow Velocity	Moderate
Flow Depth (in)	1
Color Severity	None
Turbidity	No cloudiness
Floatables (does not include trash)	None

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	Yes

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Field Measurements Results

Temperature (C)	21.06
pH (pH units)	6.43
Salinity (ppt)	0.27
Conductivity (uS)	526
Ammonia (Mg/L)	0
Surfactants (ppm)	0.25
Chlorine (ppm)	0
Were laboratory samples collected?	Yes
Measurements/samples collected from	outlet of manhole
E. Coli Modifier Text (optional, e.g. '<')	<
E. Coli (MPN/100 ml)	2
Intermittent flow trap used?	No
Section 6: General Comments	Outfall is on private property. Homeowner was not available to grant permission. Inspection was performed at upstream manhole. Inlets were flowing. Followed SOPs and measured outlet as if it was an outfall. No parameters exceeded thresholds. Unable to me

Section 7: Media

Photos

Braintree IDDE Inspections

Inspection ID
BT-173

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 7/6/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-174, SMB-006, 2017-07-18, 5:59:00

Created	2017-07-18 09:59:16 UTC by Matt Davis
Updated	2017-07-19 14:31:05 UTC by Matt Davis
Location	42.2168912, -70.9740776

Section 1: General Information

Inspection ID	BT-174
Outfall ID	SMB-006
Outfall GIS ID	19
Inspector	CPO GH
Date	2017-07-18
Time	5:59:00
Temperature	74
Inspection Location	Manhole
Investigation performed at manhole upstream of outfall?	Yes
Reason why investigation performed at upstream manhole	Access restricted due to private property and lack of easement. No contact made with land owners due to early AM
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	18
Outfall Condition	Normal
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	Outfall could not be accessed. Three 12" RCP pipes for inlets.18" RCP outlet

Section 7: Media

Photos

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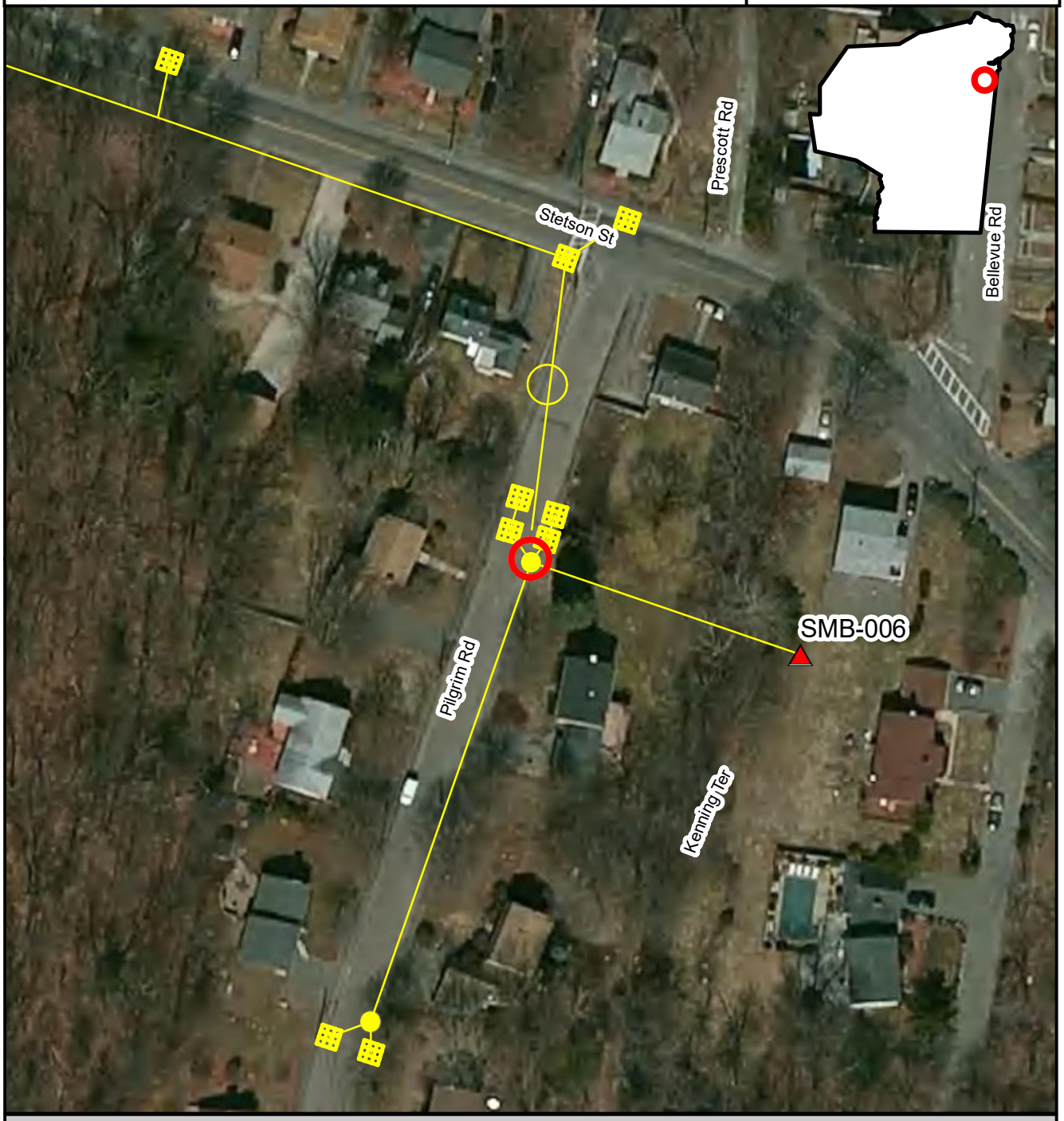
Braintree IDDE Inspections

Inspection ID
BT-174



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 7/18/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-175, SMB-010, 2017-07-18, 6:23:00

Created	2017-07-18 10:23:01 UTC by Matt Davis
Updated	2017-07-19 14:30:37 UTC by Matt Davis
Location	42.2106406, -70.9779368

Section 1: General Information

Inspection ID	BT-175
Outfall ID	SMB-010
Outfall GIS ID	18
Inspector	CPO GH
Date	2017-07-18
Time	6:23:00
Temperature	74
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Outfall Condition	Normal
Headwall Present	Yes
Headwall Condition	Fair
Sediment Present?	Yes
Sediment Depth (%)	60
Outfall Submerged	Partially
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	Standing Water

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	Yes
Pool Quality Description	excessive sedimwnt
Pool quality Comments	Excessive sediment in pool
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	Outfall behind ball field

Section 7: Media

Photos

Braintree IDDE Inspections

Inspection ID
BT-175

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 7/18/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-176, FMR-018, 2017-07-18, 6:48:00

Created	2017-07-18 10:48:41 UTC by Matt Davis
Updated	2017-07-19 14:20:30 UTC by Matt Davis
Location	42.202259, -71.0244487

Section 1: General Information

Inspection ID	BT-176
Outfall ID	FMR-018
Outfall GIS ID	94
Inspector	CPO GH
Date	2017-07-18
Time	6:48:00
Temperature	74
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	12
Outfall Condition	Normal
Headwall Present	Yes
Headwall Condition	Good
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	Yes
Pipe benthic growth description	Green
Pipe benthic growth Comments	Slight green growth

Section 5: Field Measurements

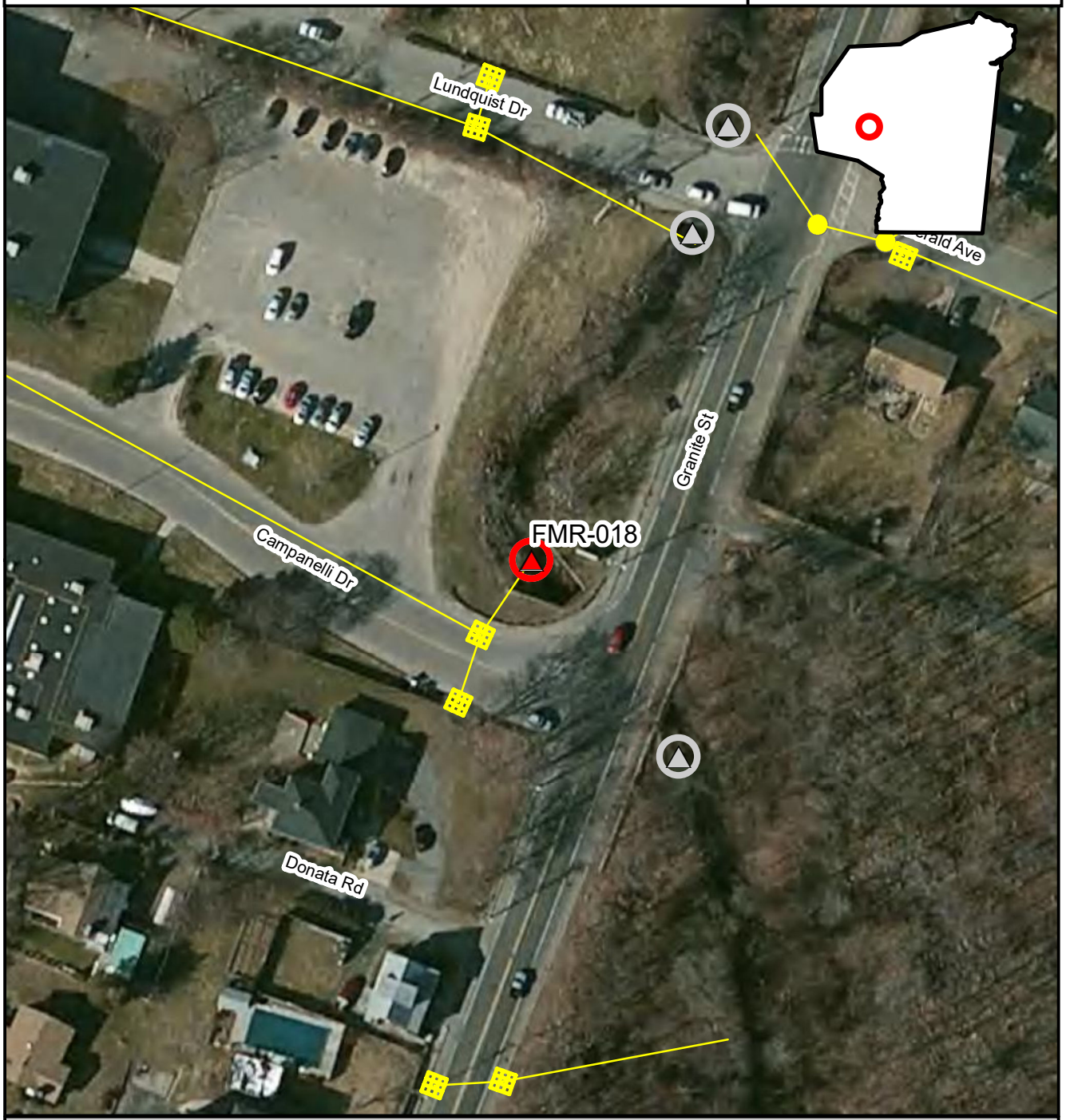
Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	Slight green/mossy growth caused moisture in bottom of pipe

Section 7: Media

Photos

Braintree IDDE Inspections

Inspection ID
BT-176



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 7/18/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-177, FMR-017, 2017-07-18, 6:54:00

Created	2017-07-18 10:54:15 UTC by Matt Davis
Updated	2017-07-19 14:21:31 UTC by Matt Davis
Location	42.20287066, -71.0241152

Section 1: General Information

Inspection ID	BT-177
Outfall ID	FMR-017
Outfall GIS ID	93
Inspector	CPO GH
Date	2017-07-18
Time	6:54:00
Temperature	74
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	18
Outfall Condition	Normal
Headwall Present	Yes
Headwall Condition	Good
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	Diameter based on visual inspection

Section 7: Media

Photos

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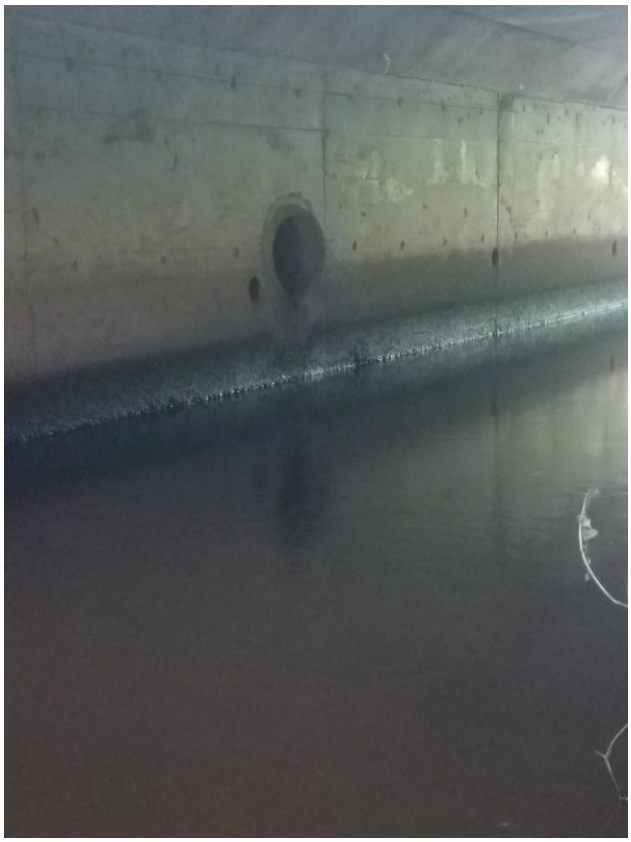

BT-177

Braintree IDDE Inspections

Inspection ID
BT-177

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 7/18/2017

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-178, FMR-016, 2017-07-18, 6:58:00

Created	2017-07-18 10:58:23 UTC by Matt Davis
Updated	2017-07-19 14:21:01 UTC by Matt Davis
Location	42.2027895, -71.0242072

Section 1: General Information

Inspection ID	BT-178
Outfall ID	FMR-016
Outfall GIS ID	92
Inspector	CPO GH
Date	2017-07-18
Time	6:58:00
Temperature	74
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	24
Outfall Condition	Normal
Headwall Present	Yes
Headwall Condition	Good
Sediment Present?	No
Outfall Submerged	Partially
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	Standing Water

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	24" pipe based on visual observations. 20% of pipe filled with standing water

Section 7: Media

Photos

Braintree IDDE Inspections

Inspection ID
BT-178

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 7/18/2017

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-179, FMR-015, 2017-07-18, 7:06:00

Created	2017-07-18 11:06:49 UTC by Matt Davis
Updated	2017-07-19 14:20:04 UTC by Matt Davis
Location	42.2019992, -71.0242419

Section 1: General Information

Inspection ID	BT-179
Outfall ID	FMR-015
Outfall GIS ID	95
Inspector	CPO GH
Date	2017-07-18
Time	7:06:00
Temperature	74
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	CMP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	10
Outfall Condition	Normal
Headwall Present	Yes
Headwall Condition	Fair
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No

Section 7: Media

Photos

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Braintree IDDE Inspections

Inspection ID
BT-179

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 7/18/2017

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-180, FMR-014, 2017-07-18, 7:30:00

Created	2017-07-18 11:30:53 UTC by Matt Davis
Updated	2017-07-19 14:18:54 UTC by Matt Davis
Location	42.1986227, -71.0245273

Section 1: General Information

Inspection ID	BT-180
Outfall ID	FMR-014
Outfall GIS ID	96
Inspector	CPO GH
Date	2017-07-18
Time	7:30:00
Temperature	74
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	42
Outfall Condition	Normal
Headwall Present	Yes
Headwall Condition	Good
Sediment Present?	No
Outfall Submerged	Partially
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	Standing Water

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	6" standing water

Section 7: Media

Photos

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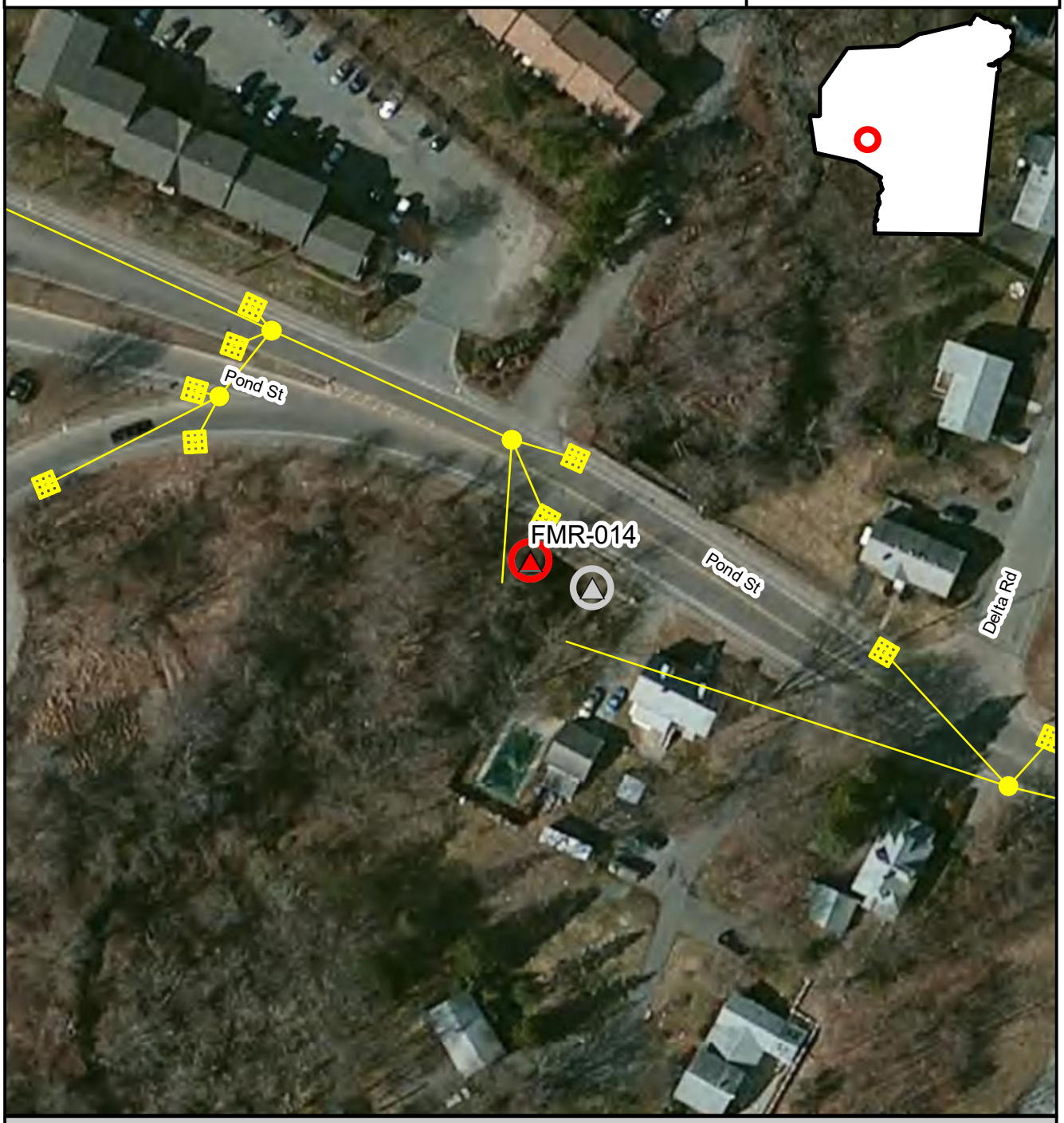
BT-180

Braintree IDDE Inspections

Inspection ID
BT-180



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 7/18/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-181, FMR-013, 2017-07-18, 7:35:00

Created	2017-07-18 11:35:10 UTC by Matt Davis
Updated	2017-07-19 14:19:24 UTC by Matt Davis
Location	42.198616, -71.0243812

Section 1: General Information

Inspection ID	BT-181
Outfall ID	FMR-013
Outfall GIS ID	106
Inspector	CPO GH
Date	2017-07-18
Time	7:35:00
Temperature	74
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	24
Outfall Condition	Normal
Headwall Present	Yes
Headwall Condition	Good
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No

Section 7: Media

Photos

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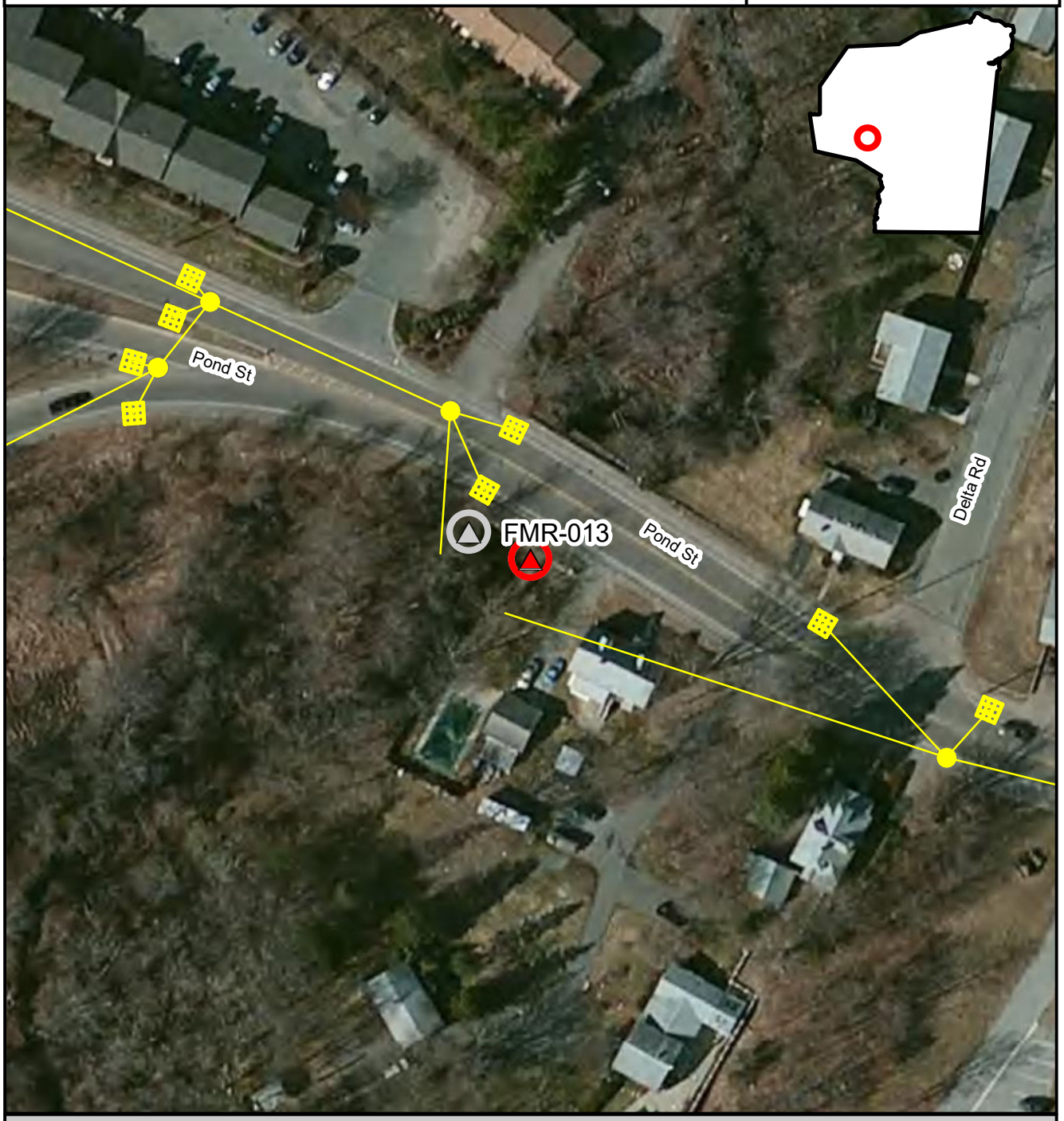
BT-181

Braintree IDDE Inspections

Inspection ID
BT-181



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 7/18/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-182, SMB-017, 2017-07-18, 7:58:00

Created	2017-07-18 11:58:10 UTC by Matt Davis
Updated	2017-07-18 12:21:26 UTC by Matt Davis
Location	42.1981126, -70.986811

Section 1: General Information

Inspection ID	BT-182
Outfall ID	SMB-017
Outfall GIS ID	130
Inspector	CPO GH
Date	2017-07-18
Time	7:58:00
Temperature	76
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	24
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	No
Outfall Submerged	Partially
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	Yes
Flow Velocity	Moderate
Flow Width (in)	18
Flow Depth (in)	4
Color Severity	None
Turbidity	No cloudiness
Floatables (does not include trash)	None

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	Yes

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Field Measurements Results

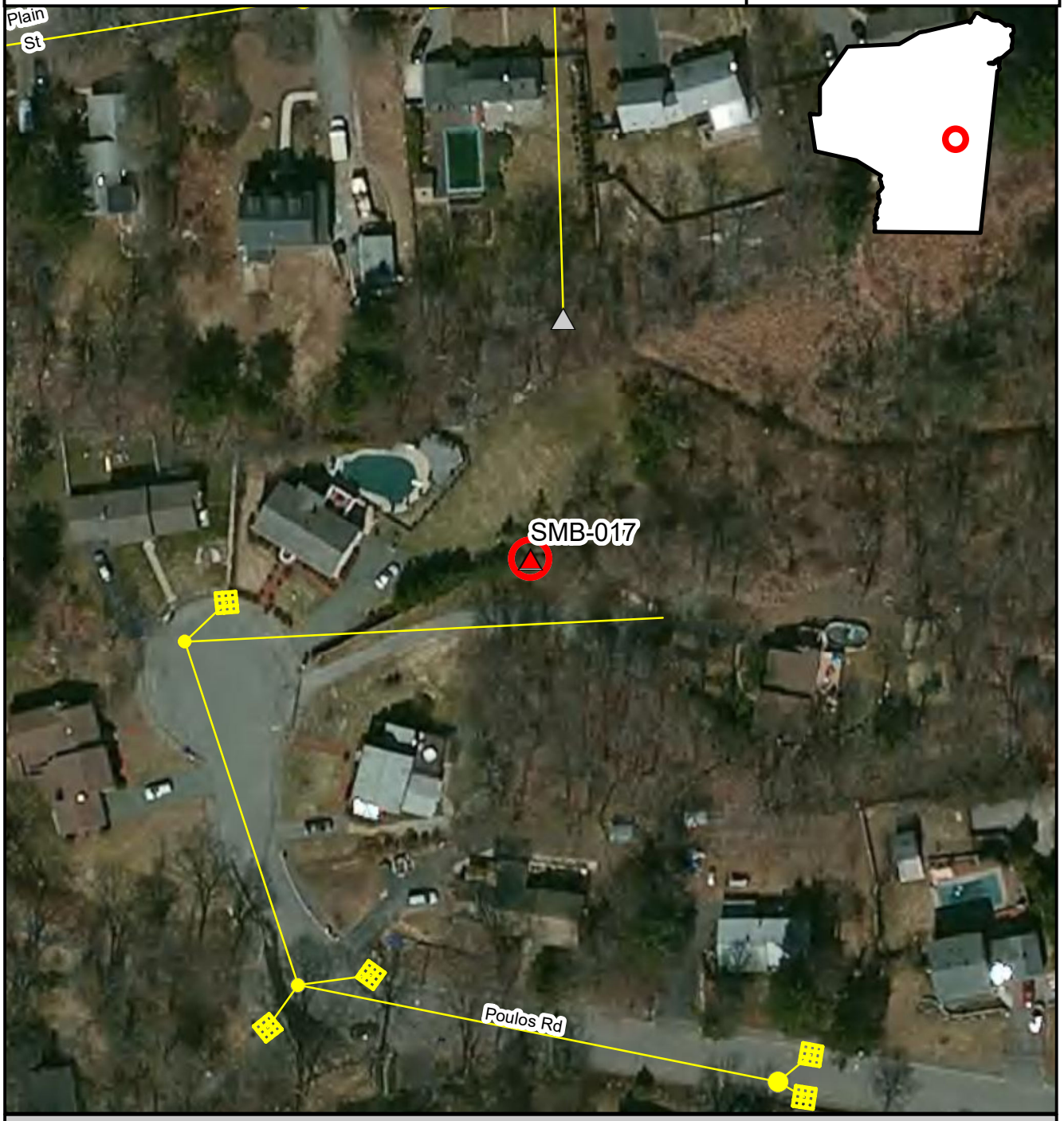
Temperature (C)	18.94
pH (pH units)	7.4
Salinity (ppt)	0.37
Conductivity (uS)	670
Ammonia (Mg/L)	0
Surfactants (ppm)	0
Chlorine (ppm)	0
Were laboratory samples collected?	Yes
Measurements/samples collected from	Outfall
E. Coli (MPN/100 ml)	120
Intermittent flow trap used?	No
Section 6: General Comments	Outfall flowing, sampling conducted. No field results indicated contamination

Section 7: Media

Photos

Braintree IDDE Inspections

Inspection ID
BT-182



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 7/18/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-183, MLR-003, 2017-07-18, 8:42:00

Created	2017-07-18 12:42:29 UTC by Matt Davis
Updated	2017-07-19 14:25:51 UTC by Matt Davis
Location	42.1763824, -70.9799185

Section 1: General Information

Inspection ID	BT-183
Outfall ID	MLR-003
Outfall GIS ID	232
Inspector	CPO GH
Date	2017-07-18
Time	8:42:00
Temperature	77
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	12
Outfall Condition	Normal
Headwall Present	Yes
Headwall Condition	Good
Sediment Present?	Yes
Sediment Depth (%)	2
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	Yes
Deposits/Stains	iron stains
Deposits/stains Comments	Staining in scour and discharge area
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	Significant iron staining

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Section 7: Media

Photos

BT-183

Braintree IDDE Inspections

Inspection ID
BT-183

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 7/18/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-184, CBB-012, 2017-07-18, 9:09:00

Created	2017-07-18 13:09:20 UTC by Matt Davis
Updated	2017-07-19 14:11:52 UTC by Matt Davis
Location	42.17250424, -71.00459944

Section 1: General Information

Inspection ID	BT-184
Outfall ID	CBB-012
Outfall GIS ID	250
Inspector	CPO GH
Date	2017-07-18
Time	9:09:00
Temperature	76
Inspection Location	Manhole
Investigation performed at manhole upstream of outfall?	Yes
Reason why investigation performed at upstream manhole	Outfall could not be located. Suspected to be buried.
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Outfall Condition	Normal
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	Yes
Flow Velocity	Moderate
Color Severity	Faint colors in sample bottle
Color Description	Brown
Turbidity	Slight cloudiness
Floatables (does not include trash)	None

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	Yes

Field Measurements Results

Temperature (C)	21.13
pH (pH units)	6.2

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Salinity (ppt)	0.27
Conductivity (uS)	516
Ammonia (Mg/L)	1
Surfactants (ppm)	0.5
Chlorine (ppm)	0
Were laboratory samples collected?	Yes
Measurements/samples collected from	manhole upstream
E. Coli (MPN/100 ml)	70
Intermittent flow trap used?	No
Section 6: General Comments	Outfall could not be located. Suspected to be buried. Manhole upstream inspected.

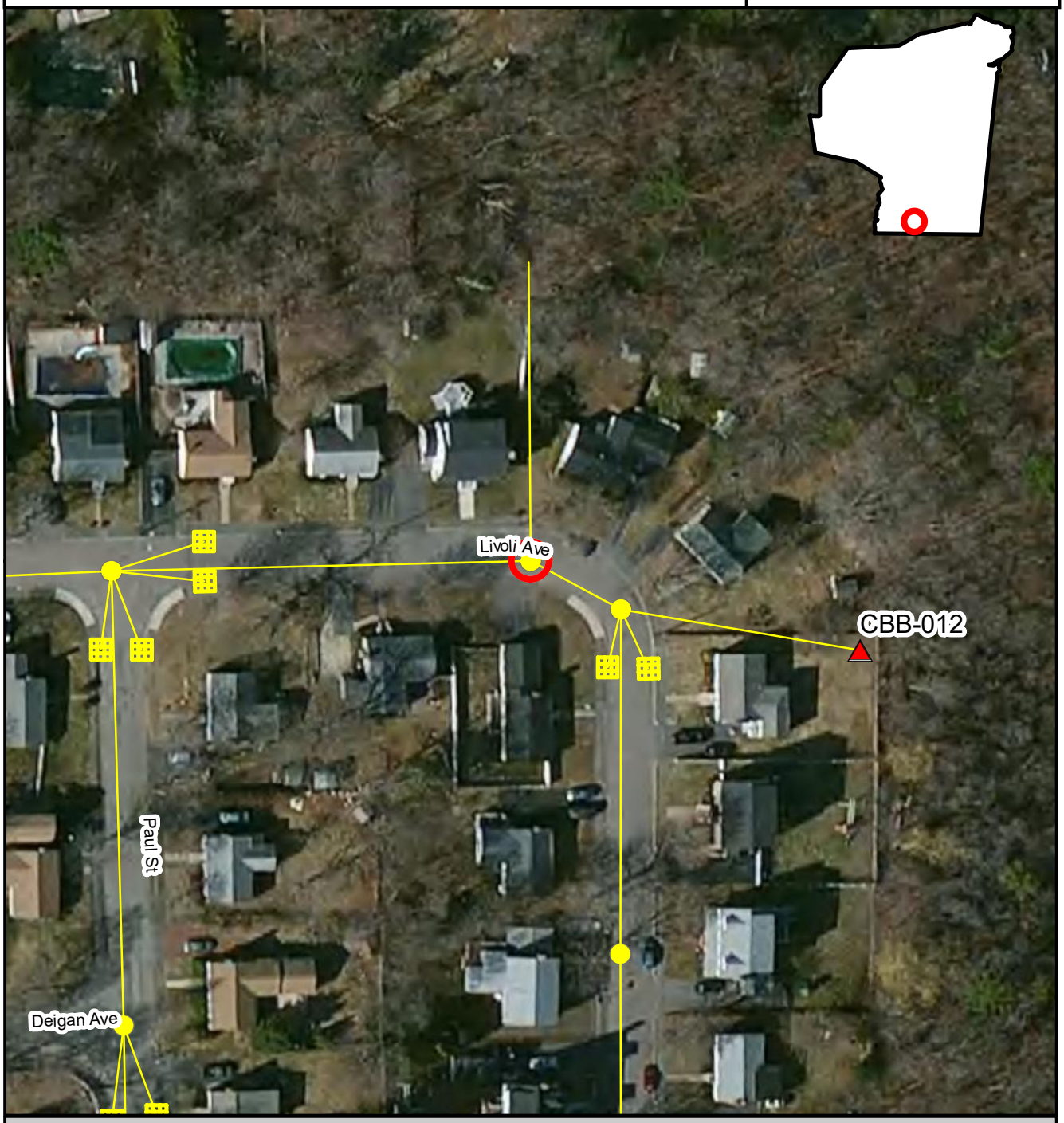
Section 7: Media

Photos

BT-184

Braintree IDDE Inspections

Inspection ID
BT-184



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 7/18/2017

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-185, CBB-001, 2017-07-18, 10:58:00

Created	2017-07-18 14:58:43 UTC by Matt Davis
Updated	2017-07-19 14:30:03 UTC by Matt Davis
Location	42.1800582, -71.0164973

Section 1: General Information

Inspection ID	BT-185
Outfall ID	CBB-001
Outfall GIS ID	183
Inspector	CPO GH
Date	2017-07-18
Time	10:58:00
Temperature	82
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	12
Outfall Condition	Cracking
Headwall Present	No
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	No flow from outfall. Small constant non odorous flow from small diameter black PVC pipe

Section 7: Media

Photos

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BT-185

Braintree IDDE Inspections

Inspection ID
BT-185

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 7/18/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-186, CCR-006, 2017-07-18, 11:15:00

Created	2017-07-18 15:15:24 UTC by Matt Davis
Updated	2017-07-19 14:29:18 UTC by Matt Davis
Location	42.1734136, -71.0202942

Section 1: General Information

Inspection ID	BT-186
Outfall ID	CCR-006
Outfall GIS ID	185
Inspector	CPO GH
Date	2017-07-18
Time	11:15:00
Temperature	76
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	30
Outfall Condition	Normal
Headwall Present	Yes
Headwall Condition	Good
Sediment Present?	No
Outfall Submerged	Partially
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	Yes
Flow Velocity	Trickle
Flow Width (in)	30
Flow Depth (in)	24
Color Severity	None
Turbidity	Slight cloudiness
Floatables (does not include trash)	None

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

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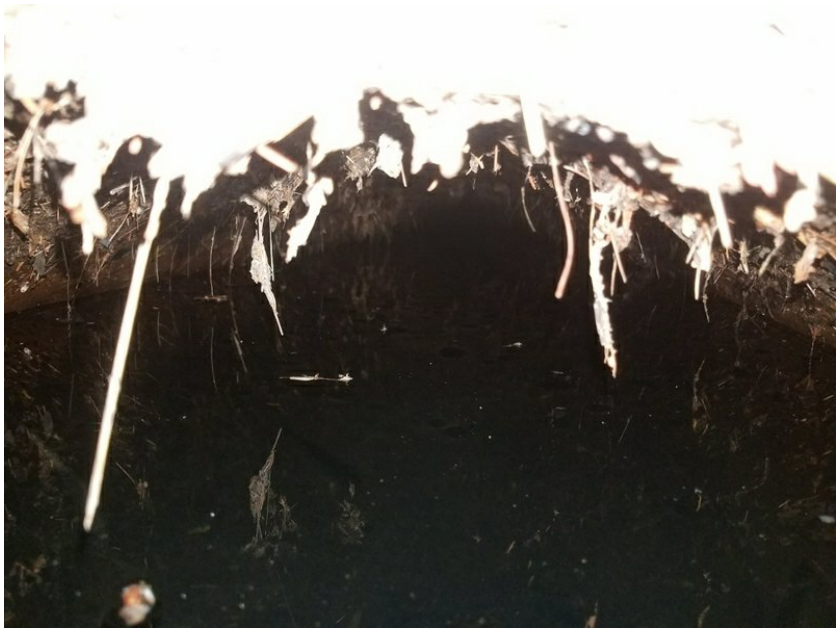
Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	Difficult to determine if it was flowing or standing water but could hear trickle flow coming down pipe. Pooling too significant for quality sample. First sample conducted at first upstream MH

Section 7: Media

Photos



Braintree IDDE Inspections

Inspection ID
BT-186

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 7/18/2017

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-187, MQR-055, 2017-07-18, 12:45:00

Created	2017-07-18 16:45:03 UTC by Matt Davis
Updated	2017-07-19 14:28:41 UTC by Matt Davis
Location	42.2095187, -70.992486

Section 1: General Information

Inspection ID	BT-187
Outfall ID	MQR-055
Outfall GIS ID	220
Inspector	CPO GH
Date	2017-07-18
Time	12:45:00
Temperature	85
Inspection Location	Manhole
Investigation performed at manhole upstream of outfall?	Yes
Reason why investigation performed at upstream manhole	Noone home at residence for permission and no right of way visible on parcel map.
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	18
Outfall Condition	Normal
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	Outfall is on private property. Homeowner was unavailable to grant access to property.

Section 7: Media

Photos

BT-187

Braintree IDDE Inspections

Inspection ID
BT-187

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 7/18/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-188, MQR-045, 2017-07-18, 13:01:00

Created	2017-07-18 17:01:06 UTC by Matt Davis
Updated	2017-07-19 14:27:14 UTC by Matt Davis
Location	42.2088759, -70.9904072

Section 1: General Information

Inspection ID	BT-188
Outfall ID	MQR-045
Outfall GIS ID	219
Inspector	CPO GH
Date	2017-07-18
Time	13:01:00
Temperature	85
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	PVC
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	6
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No

Section 7: Media

Photos

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BT-188

Braintree IDDE Inspections

Inspection ID
BT-188

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 7/18/2017

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-189, MQR-060, 2017-07-18, 13:13:00

Created	2017-07-18 17:13:07 UTC by Matt Davis
Updated	2017-07-19 14:26:41 UTC by Matt Davis
Location	42.2111169, -70.994996

Section 1: General Information

Inspection ID	BT-189
Outfall ID	MQR-060
Outfall GIS ID	221
Inspector	CPO GH
Date	2017-07-18
Time	13:13:00
Temperature	85
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	18
Outfall Condition	Normal
Headwall Present	Yes
Headwall Condition	Fair
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No

Section 7: Media

Photos

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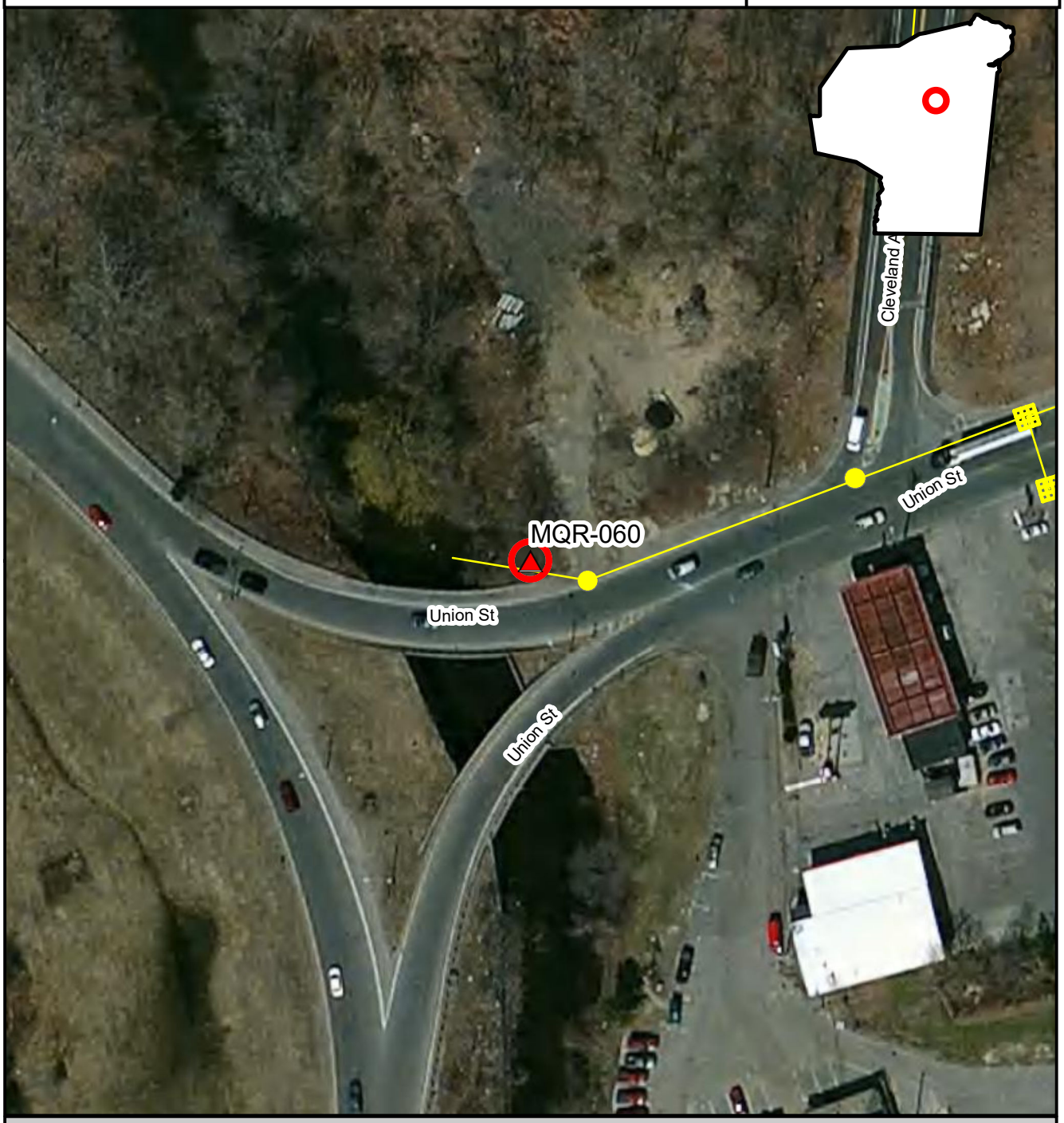
BT-189

Braintree IDDE Inspections

Inspection ID
BT-189



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 7/18/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-190, TWB-031, 2017-08-01, 5:48:00

Created	2017-08-01 09:48:28 UTC by Matt Davis
Updated	2017-08-02 15:03:29 UTC by Matt Davis
Location	42.2232836, -71.0273771

Section 1: General Information

Inspection ID	BT-190
Outfall ID	TWB-031
Outfall GIS ID	85
Inspector	CPO GH
Date	2017-08-01
Time	5:48:00
Temperature	65
Inspection Location	Manhole
Investigation performed at manhole upstream of outfall?	Yes
Reason why investigation performed at upstream manhole	Could not locate outfall due to highway fence.
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	Steel
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	12
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

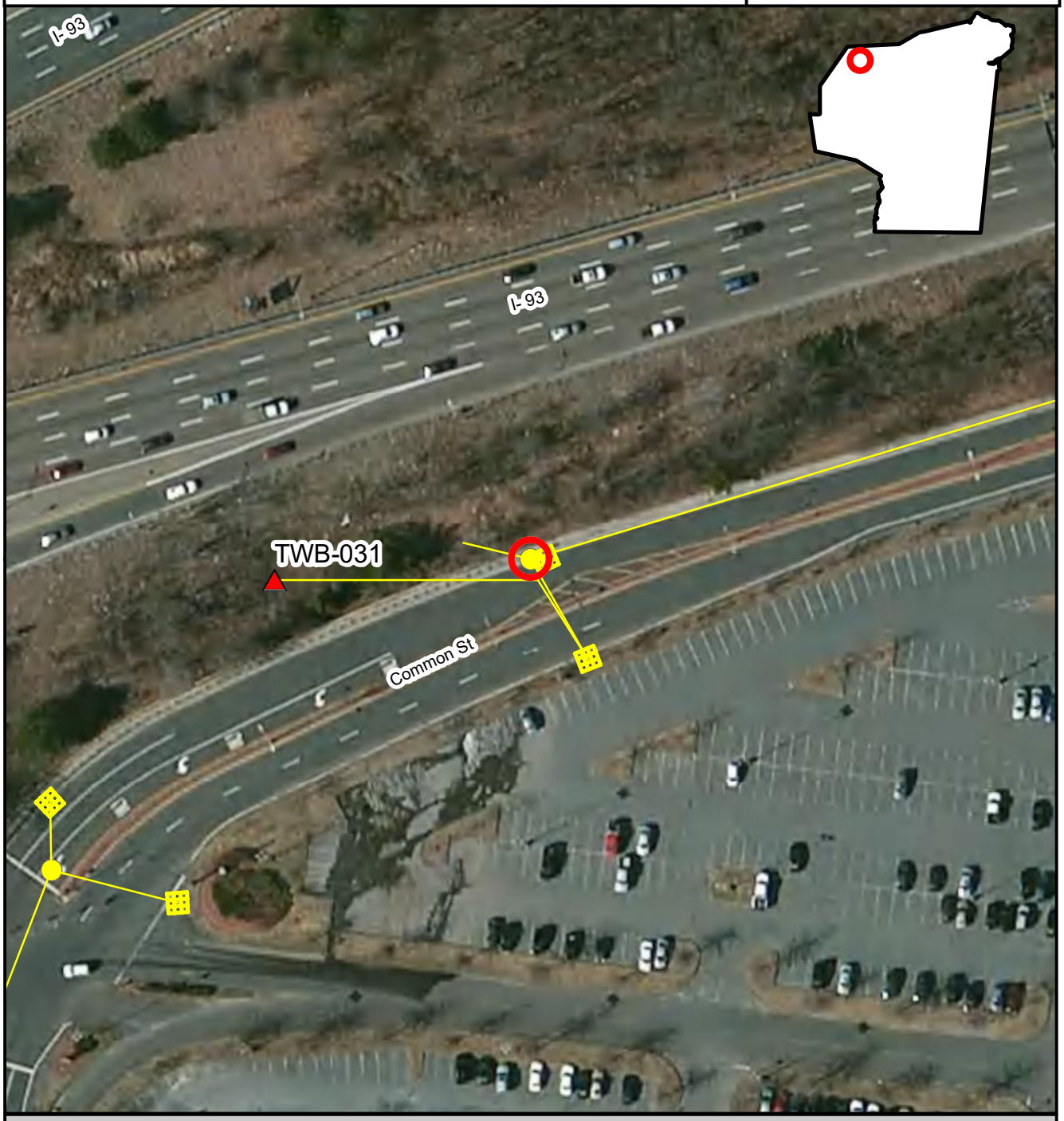
Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	All inlets are 12" 12 o clock inlet is only RCP pipe all others steel.

Section 7: Media

Photos

Braintree IDDE Inspections

Inspection ID
BT-190



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 8/1/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-191, TWB-034, 2017-08-01, 5:59:00

Created	2017-08-01 09:59:02 UTC by Matt Davis
Updated	2017-08-02 15:04:03 UTC by Matt Davis
Location	42.2218551, -71.0285452

Section 1: General Information

Inspection ID	BT-191
Outfall ID	TWB-034
Outfall GIS ID	83
Inspector	CPO GH
Date	2017-08-01
Time	5:59:00
Temperature	65
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	Steel
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	16
Outfall Condition	Normal
Headwall Present	Yes
Headwall Condition	Good
Sediment Present?	Yes
Sediment Depth (%)	10
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	Yes
Deposits/Stains	Sediments
Deposits/stains Comments	Iron present/coloration on pipes
Pool quality issues?	Yes
Pool Quality Description	Colors
Pool quality Comments	Rust
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
E. Coli (MPN/100 ml)	0

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Intermittent flow trap used?	No
Section 6: General Comments	3 pipes all 16 inch steel in single headwall

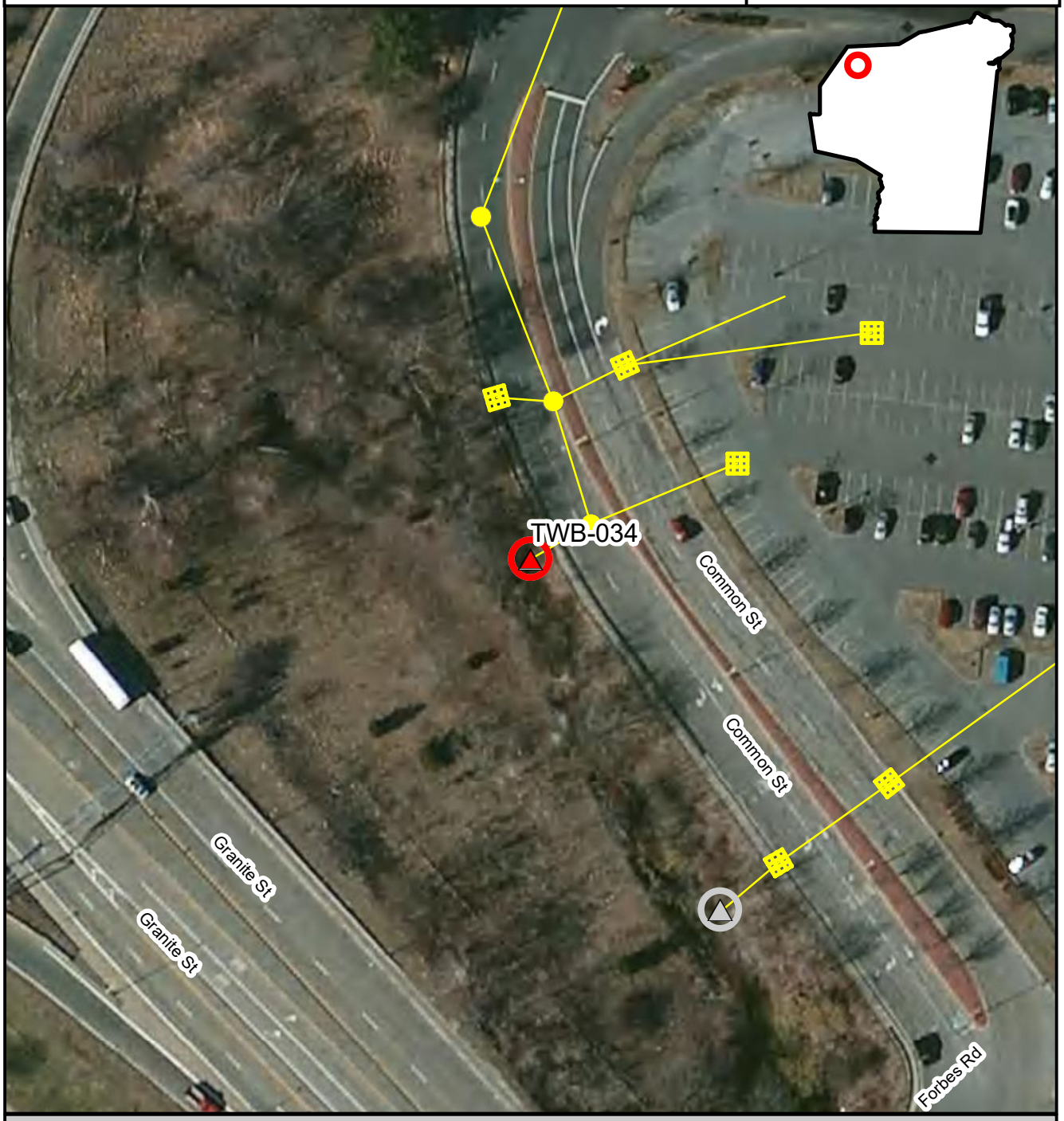
Section 7: Media

Photos

BT-191

Braintree IDDE Inspections

Inspection ID
BT-191



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 8/1/2017

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-192, TWB-036, 2017-08-01, 6:11:00

Created	2017-08-01 10:11:00 UTC by Matt Davis
Updated	2017-08-02 15:04:33 UTC by Matt Davis
Location	42.2212752, -71.0281238

Section 1: General Information

Inspection ID	BT-192
Outfall ID	TWB-036
Outfall GIS ID	84
Inspector	CPO GH
Date	2017-08-01
Time	6:11:00
Temperature	65
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	10
Outfall Condition	Normal
Headwall Present	Yes
Headwall Condition	Good
Sediment Present?	Yes
Sediment Depth (%)	95
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	Yes
Deposits/Stains	Sediments
Deposits/stains Comments	Pipe almostt totaLly blocked with sediment
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
E. Coli (MPN/100 ml)	0
Intermittent flow trap used?	No
Section 6: General Comments	Lots of sediment

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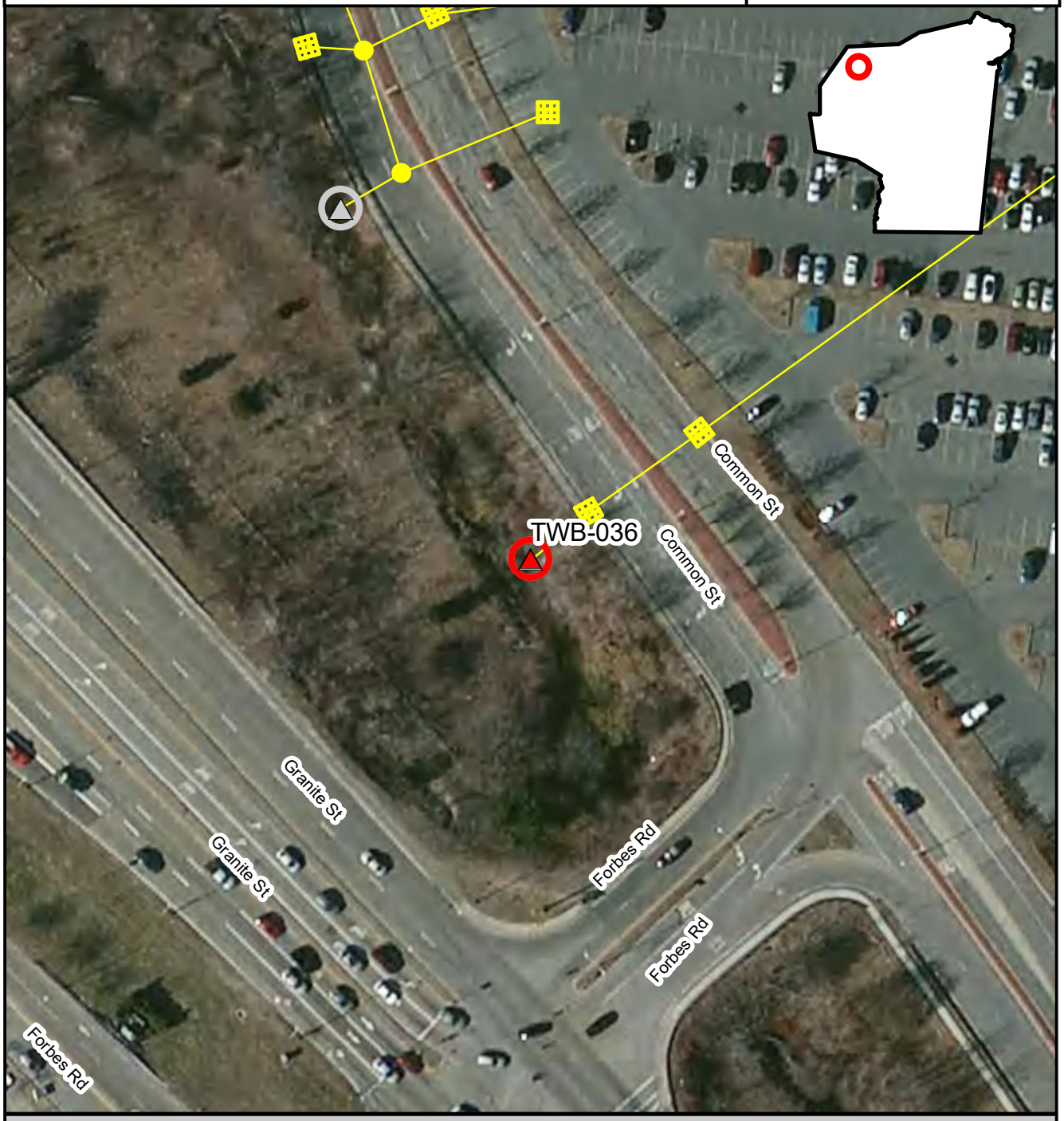
Section 7: Media

Photos

Braintree IDDE Inspections

Inspection ID
BT-192



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 8/1/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-193, TWB-037, 2017-08-01, 6:29:00

Created	2017-08-01 10:29:48 UTC by Matt Davis
Updated	2017-08-04 14:37:05 UTC by Matt Davis
Location	42.2201308, -71.0271832

Section 1: General Information

Inspection ID	BT-193
Outfall ID	TWB-037
Outfall GIS ID	209
Inspector	CPO GH
Date	2017-08-01
Time	6:29:00
Temperature	65
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	18
Outfall Condition	Cracking
Headwall Present	No
Sediment Present?	Yes
Sediment Depth (%)	40
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	Yes
Pool Quality Description	iron in water
Pool quality Comments	Iron in stream water
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	Outfall in poor condition

Section 7: Media

Photos

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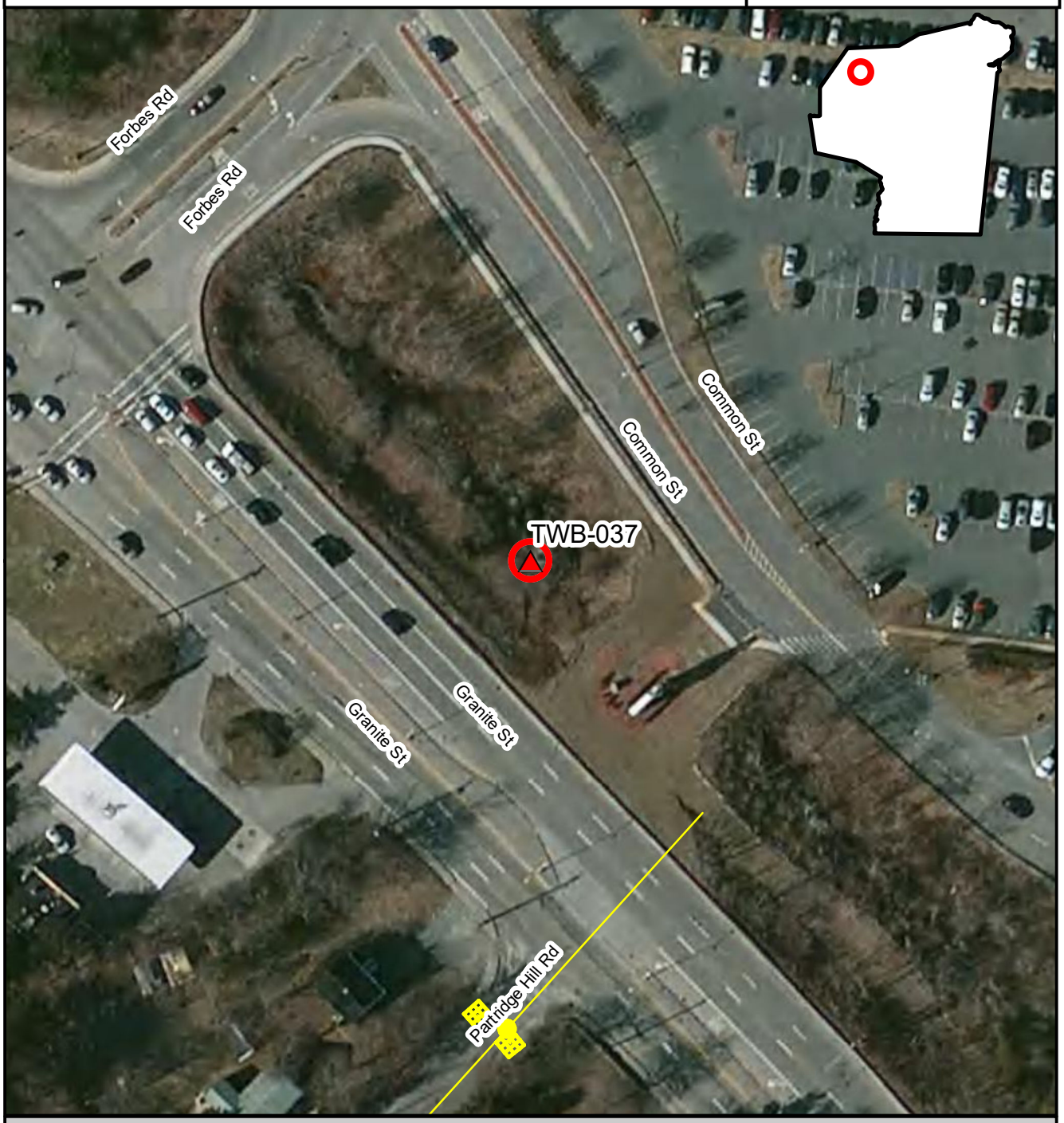
BT-193

Braintree IDDE Inspections

Inspection ID
BT-193



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 8/1/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-194, FMR-028, 2017-08-01, 7:08:00

Created	2017-08-01 11:08:42 UTC by Matt Davis
Updated	2017-08-04 14:38:48 UTC by Matt Davis
Location	42.2100714, -71.0259821

Section 1: General Information

Inspection ID	BT-194
Outfall ID	FMR-028
Outfall GIS ID	243
Inspector	CPO GH
Date	2017-08-01
Time	7:08:00
Temperature	67
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	Steel
Closed Pipe Shape	Double
Closed Pipe Diameter (in)	25
Outfall Condition	Normal
Headwall Present	Yes
Headwall Condition	Good
Sediment Present?	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	Yes
Flow Velocity	Trickle
Flow Width (in)	4
Flow Depth (in)	0.5
Color Severity	None
Turbidity	Slight cloudiness
Floatables (does not include trash)	None

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	Yes
Deposits/Stains	Sediments
Deposits/stains Comments	Iron staining
Pool quality issues?	Yes
Pool Quality Description	Colors
Pool quality Comments	Lots of iron

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Pipe benthic growth present?	No

Section 5: Field Measurements

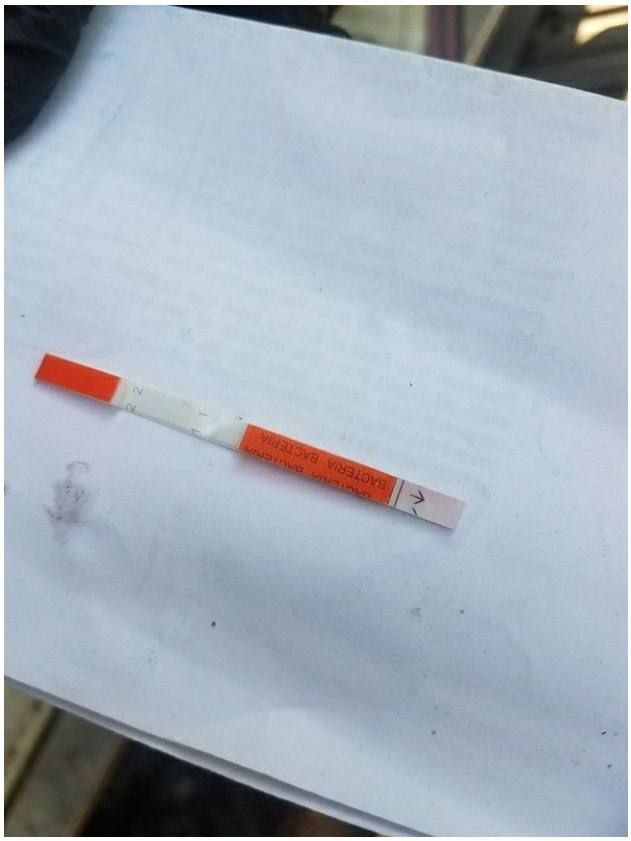
Were field measurements performed?	Yes

Field Measurements Results

Temperature (C)	22.59
pH (pH units)	7.49
Salinity (ppt)	0.4
Conductivity (uS)	771
Ammonia (Mg/L)	0.2
Surfactants (ppm)	0.25
Chlorine (ppm)	0
Were laboratory samples collected?	Yes
Measurements/samples collected from	Outfall
E. Coli (MPN/100 ml)	16
Intermittent flow trap used?	No
Section 6: General Comments	Double outfall. Both measured 25" ID. One flowing other was dry. Bacteria field strips attempted. Watersafe : not valid test results Quick: not valid test results

Section 7: Media

Photos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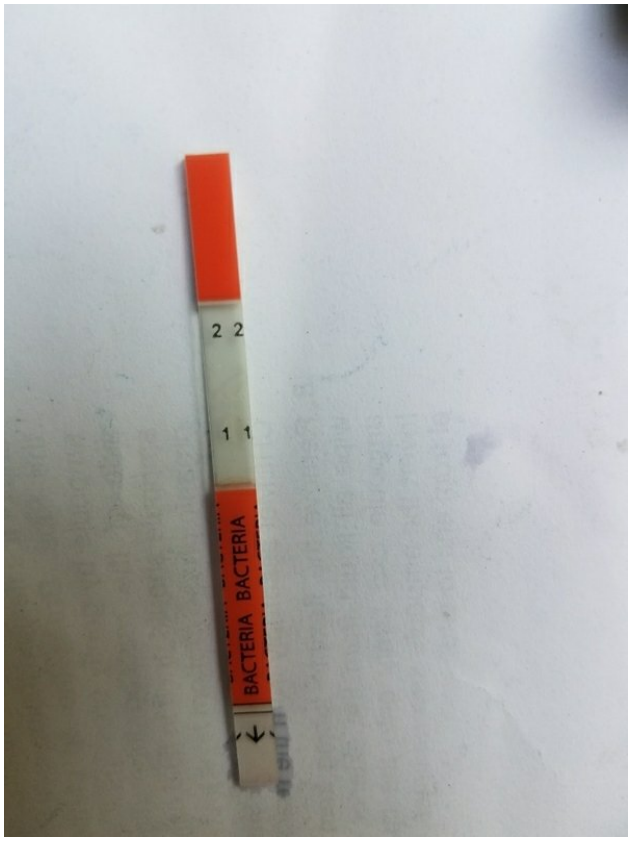
2 2
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BACTERIA

Braintree IDDE Inspections

Inspection ID
BT-194

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 8/1/2017

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-195, FMR-027, 2017-08-01, 7:13:00

Created	2017-08-01 11:13:22 UTC by Matt Davis
Updated	2017-08-01 11:15:41 UTC by Matt Davis
Location	42.2100436, -71.0259779

Section 1: General Information

Inspection ID	BT-195
Outfall ID	FMR-027
Outfall GIS ID	86
Inspector	CPO GH
Date	2017-08-01
Time	7:13:00
Temperature	67
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Single
Closed Pipe Diameter (in)	36
Outfall Condition	Cracking
Headwall Present	No
Sediment Present?	Yes
Sediment Depth (%)	50
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	Standing Water

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	Yes
Deposits/Stains	Sediments
Deposits/stains Comments	Iron staining
Pool quality issues?	Yes
Pool Quality Description	Colors
Pool quality Comments	Iron staining
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	Flow from adjacent outfall joins with the flow from this outfall

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Section 7: Media

Photos

Braintree IDDE Inspections

Inspection ID
BT-195

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 8/1/2017

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-196, FMR-031, 2017-08-01, 12:55:00

Created	2017-08-01 11:55:14 UTC by Matt Davis
Updated	2017-08-08 12:29:28 UTC by Matt Davis
Location	42.209739, -71.0383593

Section 1: General Information

Inspection ID	BT-196
Outfall ID	FMR-031
Outfall GIS ID	208
Inspector	CPO GH
Date	2017-08-01
Time	12:55:00
Temperature	69
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	PVC
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	25
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	Yes
Sediment Depth (%)	5
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	Standing Water

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	Inlet to retention/stormwater pond

Section 7: Media

Photos

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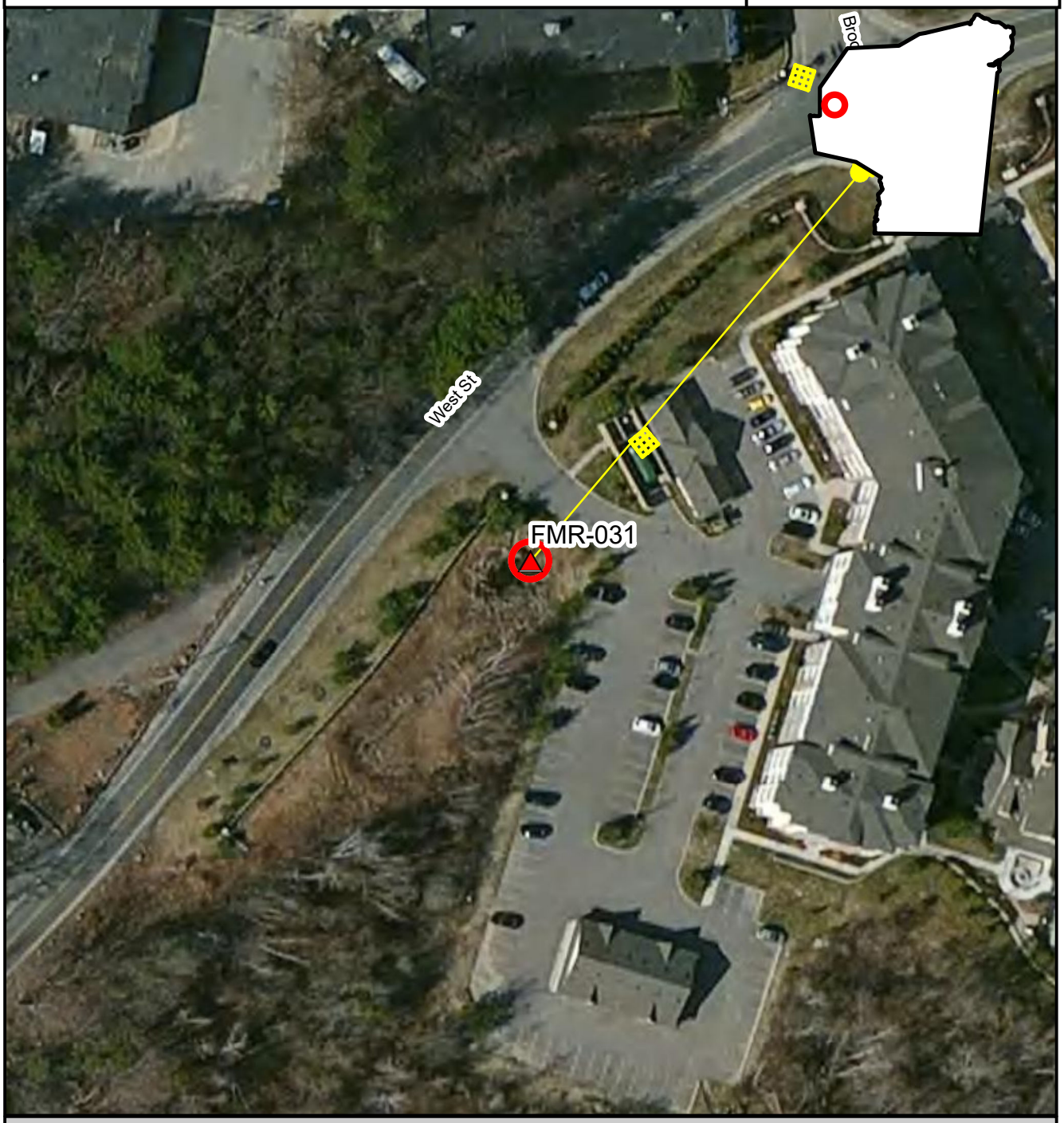
Braintree IDDE Inspections

Inspection ID
BT-196



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 8/1/2017

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-197, TWB-041, 2017-08-01, 11:22:00

Created	2017-08-01 12:22:40 UTC by Matt Davis
Updated	2017-08-02 13:57:19 UTC by Matt Davis
Location	42.2133768, -71.0227516

Section 1: General Information

Inspection ID	BT-197
Outfall ID	TWB-041
Outfall GIS ID	87
Inspector	CPO GH
Date	2017-08-01
Time	11:22:00
Temperature	72
Inspection Location	Catch basin
Investigation performed at manhole upstream of outfall?	Yes
Reason why investigation performed at upstream manhole	Could not locate outfall in heavily vegetated area.
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	unknown
Outfall Condition	buried/could not locate
Headwall Present	No
Sediment Present?	Yes
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

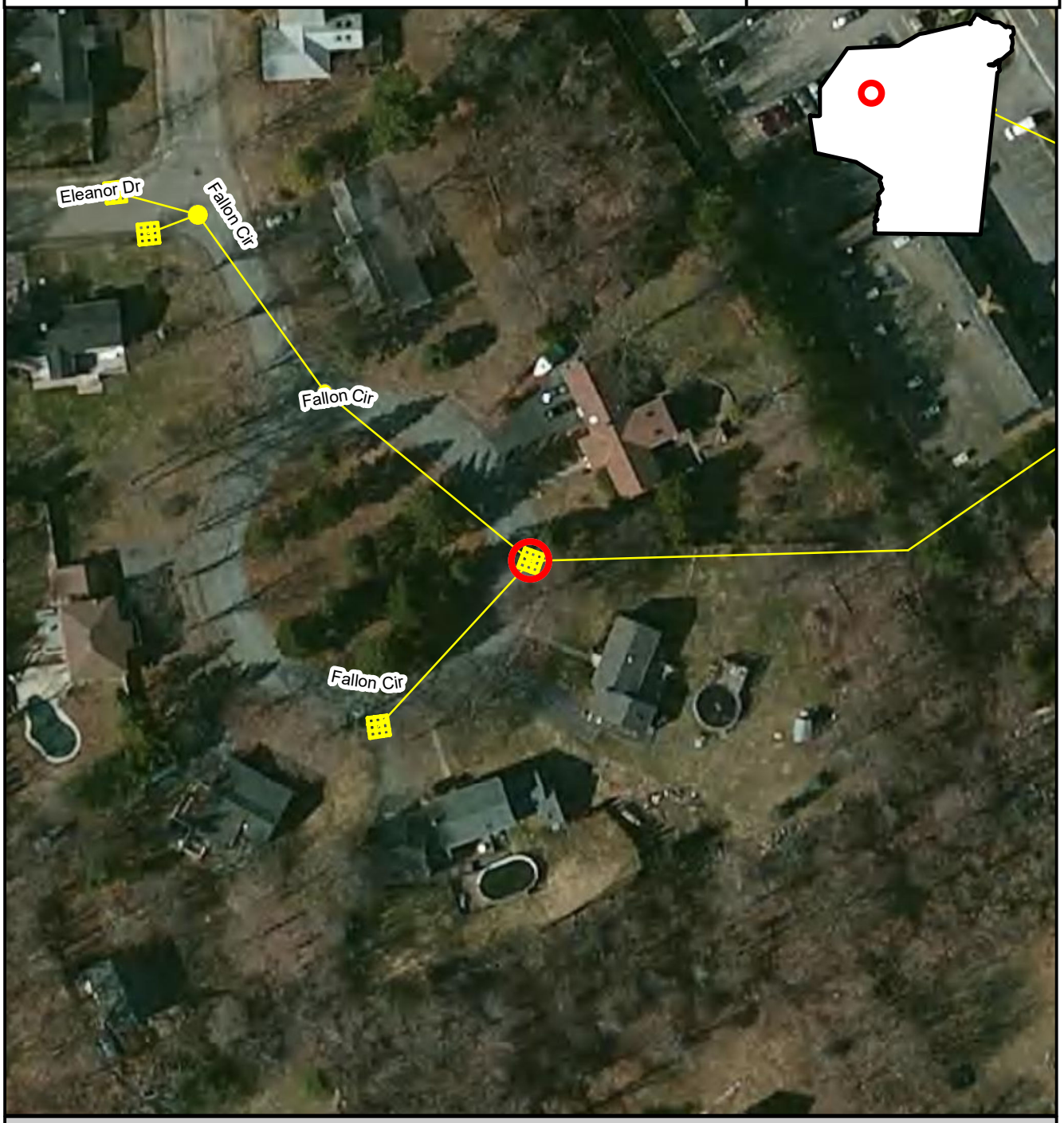
Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	Inspected area behind house number 80. Found scoured area but no outfall. According to GIS catch basin is nearest upstream. Observed two inlet pipes and one outlet from catch basin. No flow

Section 7: Media

Photos

Braintree IDDE Inspections

Inspection ID
BT-197



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 8/1/2017

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-198, FMR-010, 2017-08-01, 10:51:00

Created	2017-08-01 12:51:47 UTC by Matt Davis
Updated	2017-08-02 13:57:07 UTC by Matt Davis
Location	42.1953342, -71.0214468

Section 1: General Information

Inspection ID	BT-198
Outfall ID	FMR-010
Outfall GIS ID	104
Inspector	CPO GH
Date	2017-08-01
Time	10:51:00
Temperature	75
Inspection Location	Manhole
Investigation performed at manhole upstream of outfall?	Yes
Reason why investigation performed at upstream manhole	No resideent home to give permission to access outfall and no ROW
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	Outfall on private property. No one home to permit access to outfall. Inpsection performed at upstream manhole.

Section 7: Media

Photos

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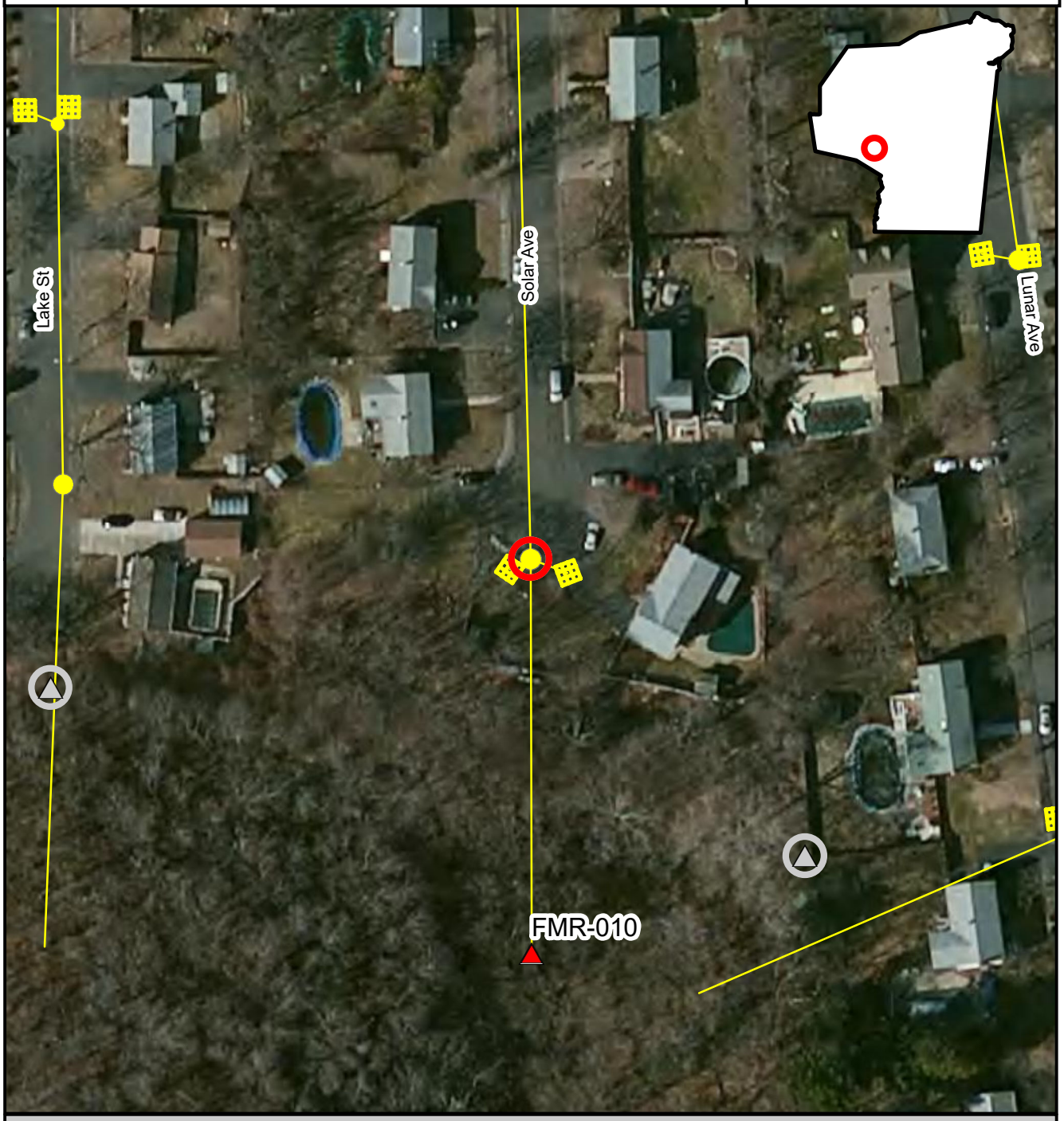
Braintree IDDE Inspections

Inspection ID
BT-198



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 8/1/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-199, FMR-009, 2017-08-01, 9:07:00

Created	2017-08-01 13:07:03 UTC by Matt Davis
Updated	2017-08-01 13:23:59 UTC by Matt Davis
Location	42.1948587, -71.0209343

Section 1: General Information

Inspection ID	BT-199
Outfall ID	FMR-009
Outfall GIS ID	105
Inspector	CPO GH
Date	2017-08-01
Time	9:07:00
Temperature	75
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	12
Outfall Condition	Cracking
Headwall Present	No
Sediment Present?	Yes
Sediment Depth (%)	40
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	Permission given by resident to access outfall

Section 7: Media

Photos

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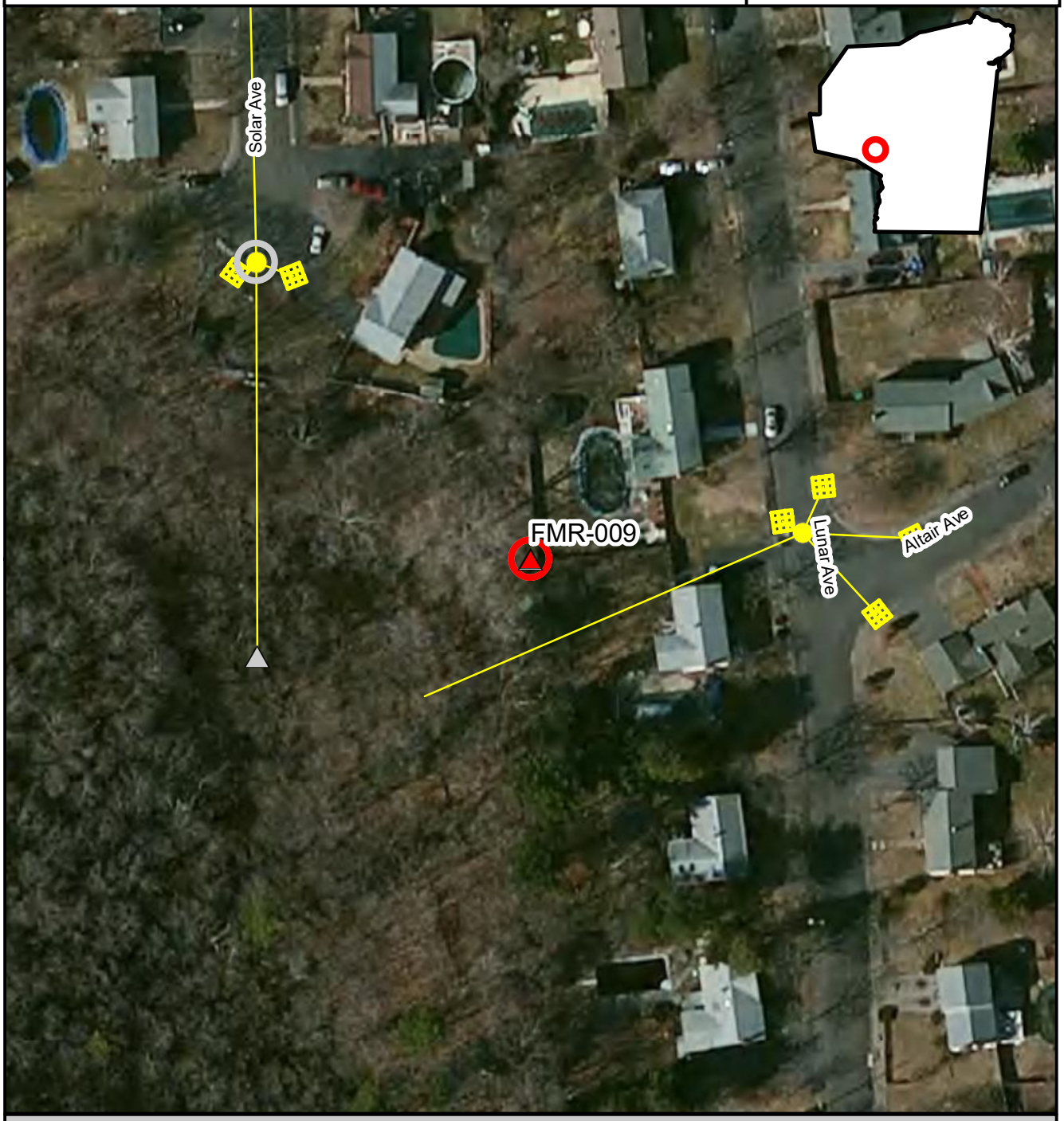
Sketches

Braintree IDDE Inspections

Inspection ID
BT-199



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 8/1/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-200, FMR-011, 2017-08-01, 9:20:00

Created	2017-08-01 13:20:11 UTC by Matt Davis
Updated	2017-08-01 13:23:50 UTC by Matt Davis
Location	42.1951245, -71.0224763

Section 1: General Information

Inspection ID	BT-200
Outfall ID	FMR-011
Outfall GIS ID	103
Inspector	CPO GH
Date	2017-08-01
Time	9:20:00
Temperature	75
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	HDPE
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	15
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	Yes
Sediment Depth (%)	80
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	Yes
Pool Quality Description	significant sediemnt
Pool quality Comments	Significant sediment blocking outfall
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
E. Coli (MPN/100 ml)	0
Intermittent flow trap used?	No

Section 7: Media

Photos

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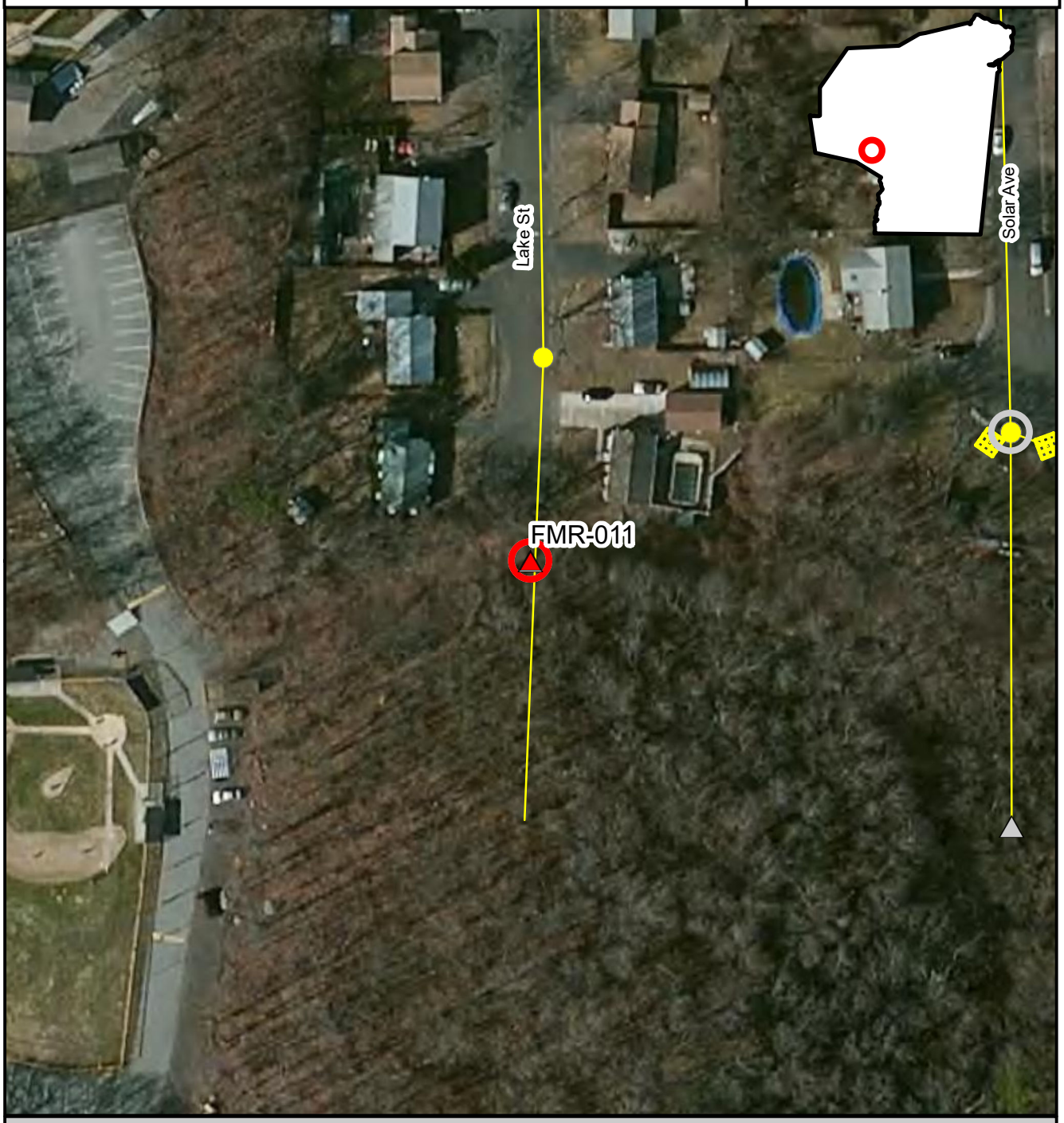
Braintree IDDE Inspections

Inspection ID
BT-200



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 8/1/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-201, FMR-019, 2017-08-01, 9:31:00

Created	2017-08-01 13:31:28 UTC by Matt Davis
Updated	2017-08-04 14:34:20 UTC by Matt Davis
Location	42.1953058, -71.0257664

Section 1: General Information

Inspection ID	BT-201
Outfall ID	FMR-019
Outfall GIS ID	99
Inspector	CPO GH
Date	2017-08-01
Time	9:31:00
Temperature	78
Inspection Location	Manhole
Investigation performed at manhole upstream of outfall?	Yes
Reason why investigation performed at upstream manhole	No access due to residents not being home. No ROW via GIS
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	Yes
Sediment Depth (%)	5
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
E. Coli (MPN/100 ml)	0
Intermittent flow trap used?	No
Section 6: General Comments	Outfall is 15". Inlets range between 12" and 10". Drawing in field book

Section 7: Media

Photos

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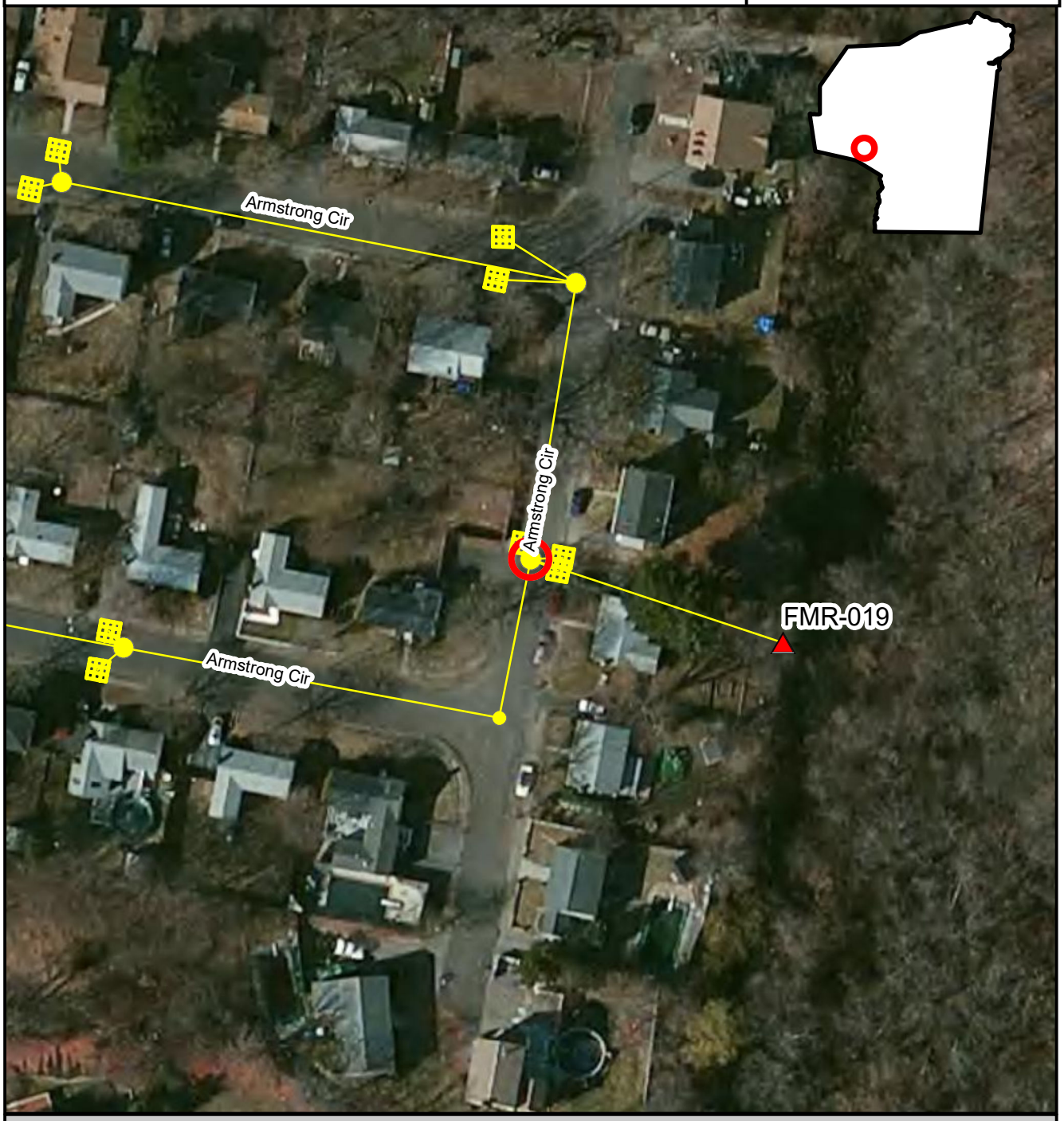
Braintree IDDE Inspections

Inspection ID
BT-201



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 8/1/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-202, FMR-022, 2017-08-01, 9:52:00

Created	2017-08-01 13:52:13 UTC by Matt Davis
Updated	2017-08-04 14:34:55 UTC by Matt Davis
Location	42.1941113, -71.0260453

Section 1: General Information

Inspection ID	BT-202
Outfall ID	FMR-022
Outfall GIS ID	100
Inspector	CPO GH
Date	2017-08-01
Time	9:52:00
Temperature	78
Inspection Location	Manhole
Investigation performed at manhole upstream of outfall?	Yes
Reason why investigation performed at upstream manhole	Inspected area behind house #51. Scouring observed but could not find an outfall
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	15
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	Standing Water

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	Sketch in field book

Section 7: Media

Photos

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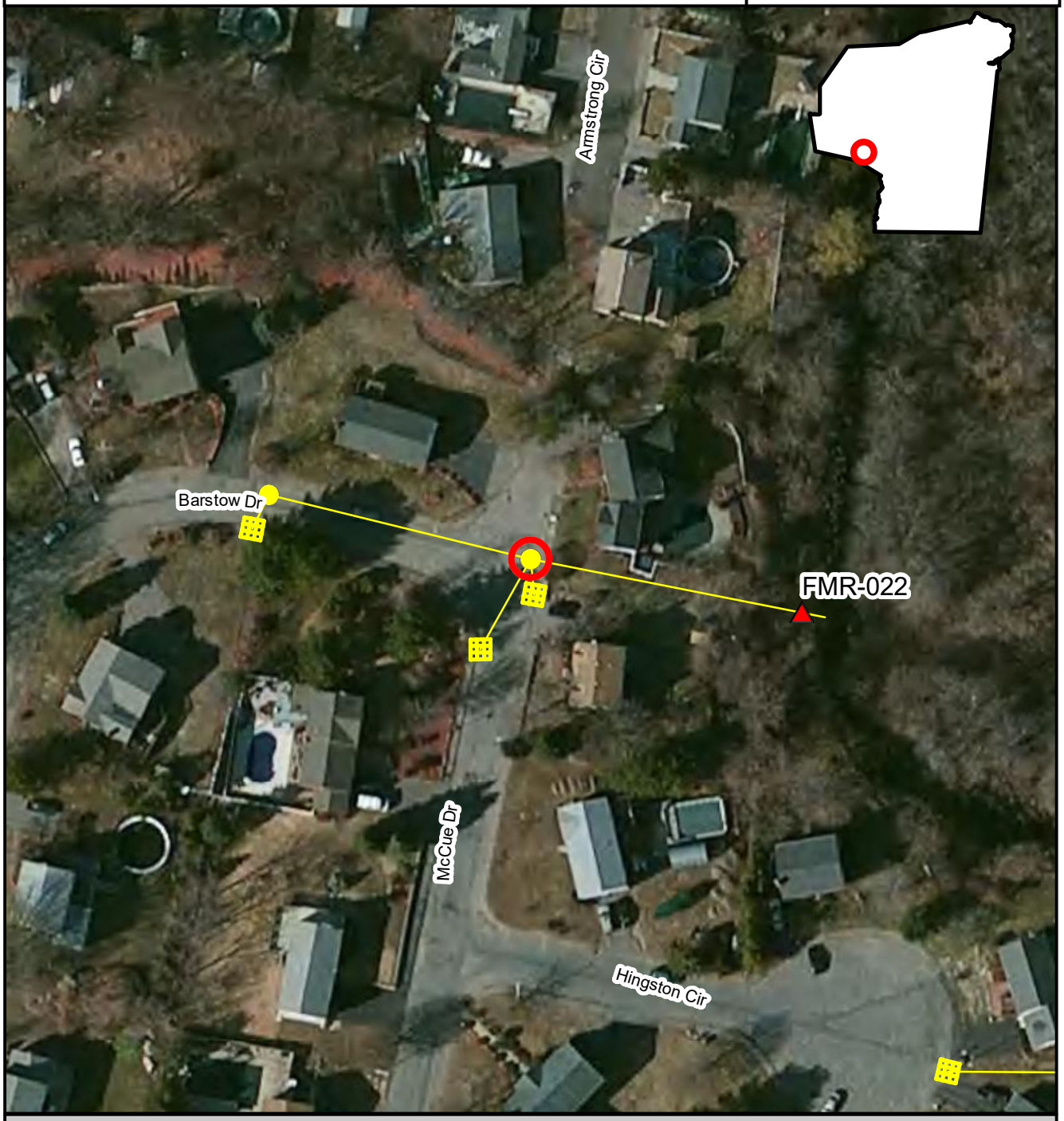
P24733

P24733

Braintree IDDE Inspections

Inspection ID
BT-202



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 8/1/2017

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-203, FMR-021, 2017-08-01, 10:44:00

Created	2017-08-01 14:44:37 UTC by Matt Davis
Updated	2017-08-04 14:30:53 UTC by Matt Davis
Location	42.1927131, -71.0241992

Section 1: General Information

Inspection ID	BT-203
Outfall ID	FMR-021
Outfall GIS ID	101
Inspector	CPO GH
Date	2017-08-01
Time	10:44:00
Temperature	78
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	24
Outfall Condition	Normal
Headwall Present	Yes
Headwall Condition	Fair
Sediment Present?	Yes
Sediment Depth (%)	50
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No

Section 7: Media

Photos

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Braintree IDDE Inspections

Inspection ID
BT-203

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 8/1/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-204, FMR-029, 2017-08-01, 13:02:00

Created	2017-08-01 15:02:46 UTC by Matt Davis
Updated	2017-08-10 14:44:54 UTC by Matt Davis
Location	42.19748369, -71.03130486

Section 1: General Information

Inspection ID	BT-204
Outfall ID	FMR-029
Outfall GIS ID	98
Inspector	CPO GH
Date	2017-08-01
Time	13:02:00
Temperature	82
Inspection Location	Manhole
Investigation performed at manhole upstream of outfall?	Yes
Reason why investigation performed at upstream manhole	Outfall could not be located in woody area where GIS shows. Permission from house #85 Fitzgeralds to access woods
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	12
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

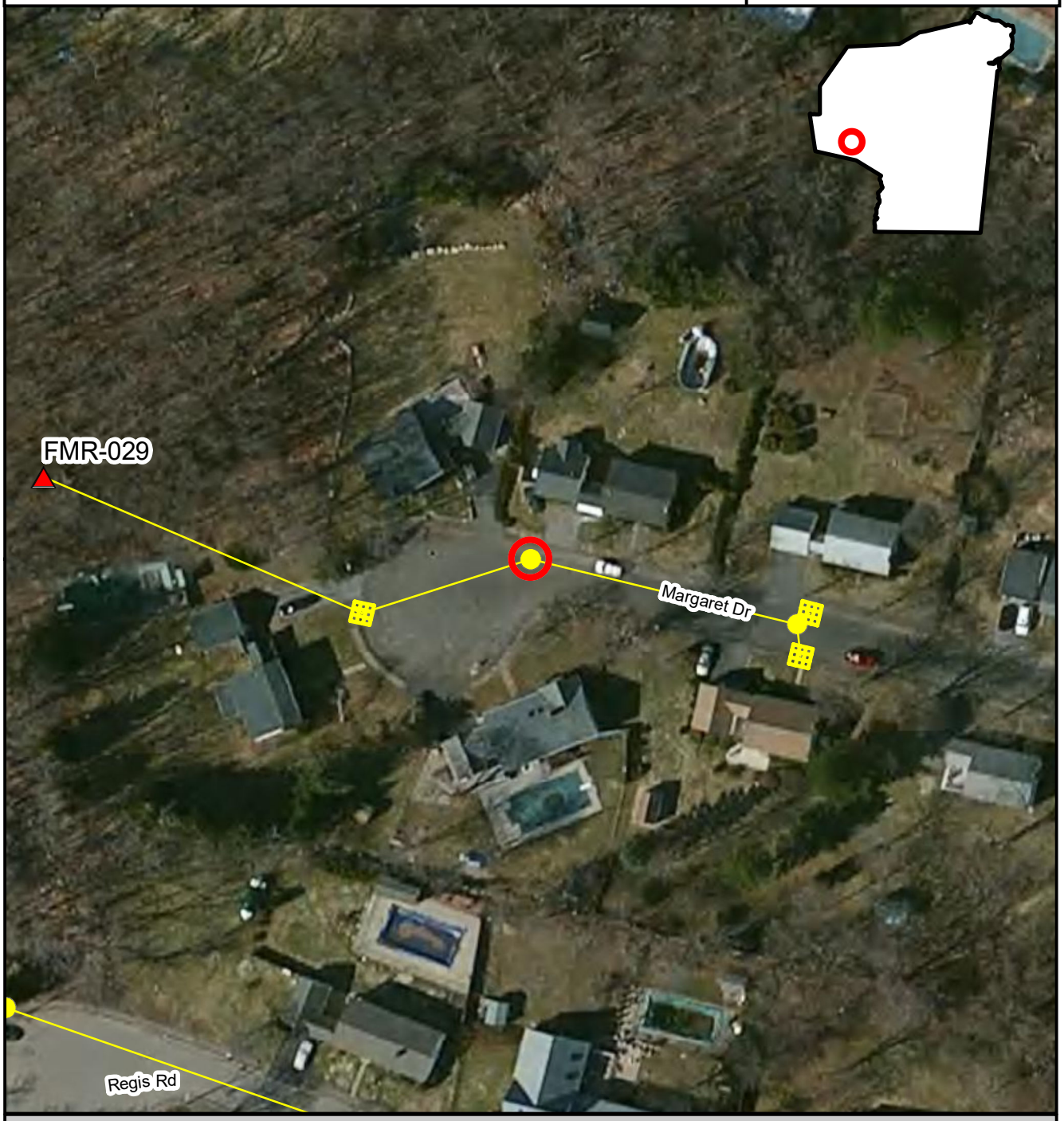
Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	Outfall on private property. No one home to permit access to outfall. Inpsection performed at upstream manhole.

Section 7: Media

Photos

Braintree IDDE Inspections

Inspection ID
BT-204



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 8/1/2017

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-205, FMR-030, 2017-08-01, 13:24:00

Created	2017-08-01 15:24:46 UTC by Matt Davis
Updated	2017-08-02 13:56:26 UTC by Matt Davis
Location	42.1988523, -71.0326546

Section 1: General Information

Inspection ID	BT-205
Outfall ID	FMR-030
Outfall GIS ID	97
Inspector	CPO GH
Date	2017-08-01
Time	13:24:00
Temperature	85
Inspection Location	Manhole
Investigation performed at manhole upstream of outfall?	Yes
Reason why investigation performed at upstream manhole	Attempted to get permission but person that ansered door indicated home owner would not be home until 6 PM to give permission.
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	15
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	Standing Water

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

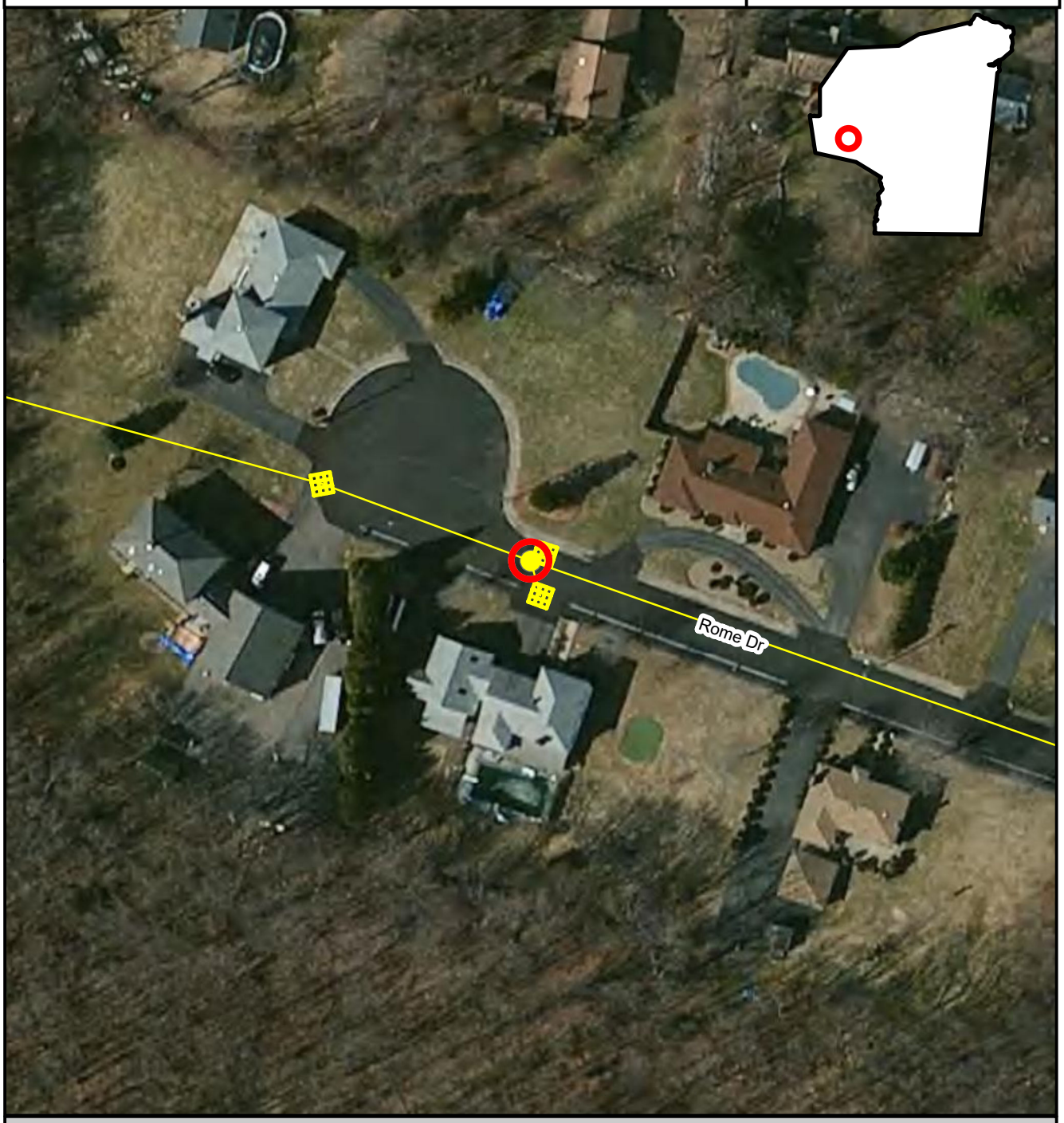
Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	Outfall on private property. No one home to permit access to outfall. Inpsection performed at upstream manhole.

Section 7: Media

Photos

Braintree IDDE Inspections

Inspection ID
BT-205



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 8/1/2017

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-206, MQR-034, 2017-08-10, 7:22:00

Created	2017-08-10 11:22:24 UTC by Matt Davis
Updated	2017-08-10 11:49:47 UTC by Matt Davis
Location	42.2247924, -70.9952867

Section 1: General Information

Inspection ID	BT-206
Outfall ID	MQR-034
Outfall GIS ID	214
Inspector	GH RS
Date	2017-08-10
Time	7:22:00
Temperature	73
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	Steel
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	8
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No
Section 6: General Comments	Two pipes; second one is a 15" corrugated pvc.

Section 7: Media

Photos

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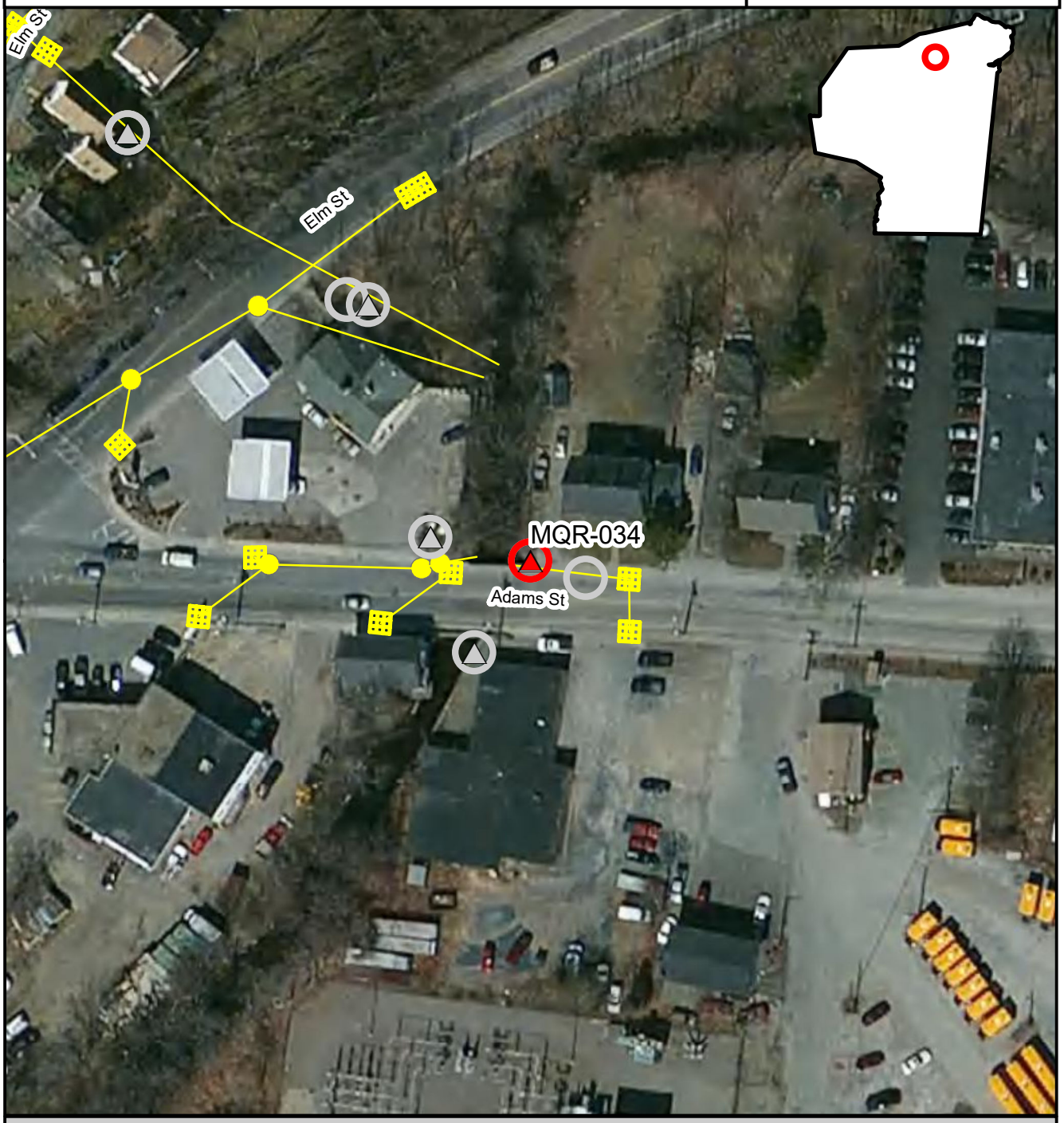
Braintree IDDE Inspections

Inspection ID
BT-206



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 8/10/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-207, MQR-037, 2017-08-10, 7:35:00

Created	2017-08-10 11:35:32 UTC by Matt Davis
Updated	2017-08-10 14:34:52 UTC by Matt Davis
Location	42.2251487, -70.9955155

Section 1: General Information

Inspection ID	BT-207
Outfall ID	MQR-037
Inspector	Gh Rs
Date	2017-08-10
Time	7:35:00
Temperature	73
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	PVC
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	6
Outfall Condition	Normal
Headwall Present	Yes
Headwall Condition	Good
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No
Section 6: General Comments	1 of two pipes.

Section 7: Media

Photos

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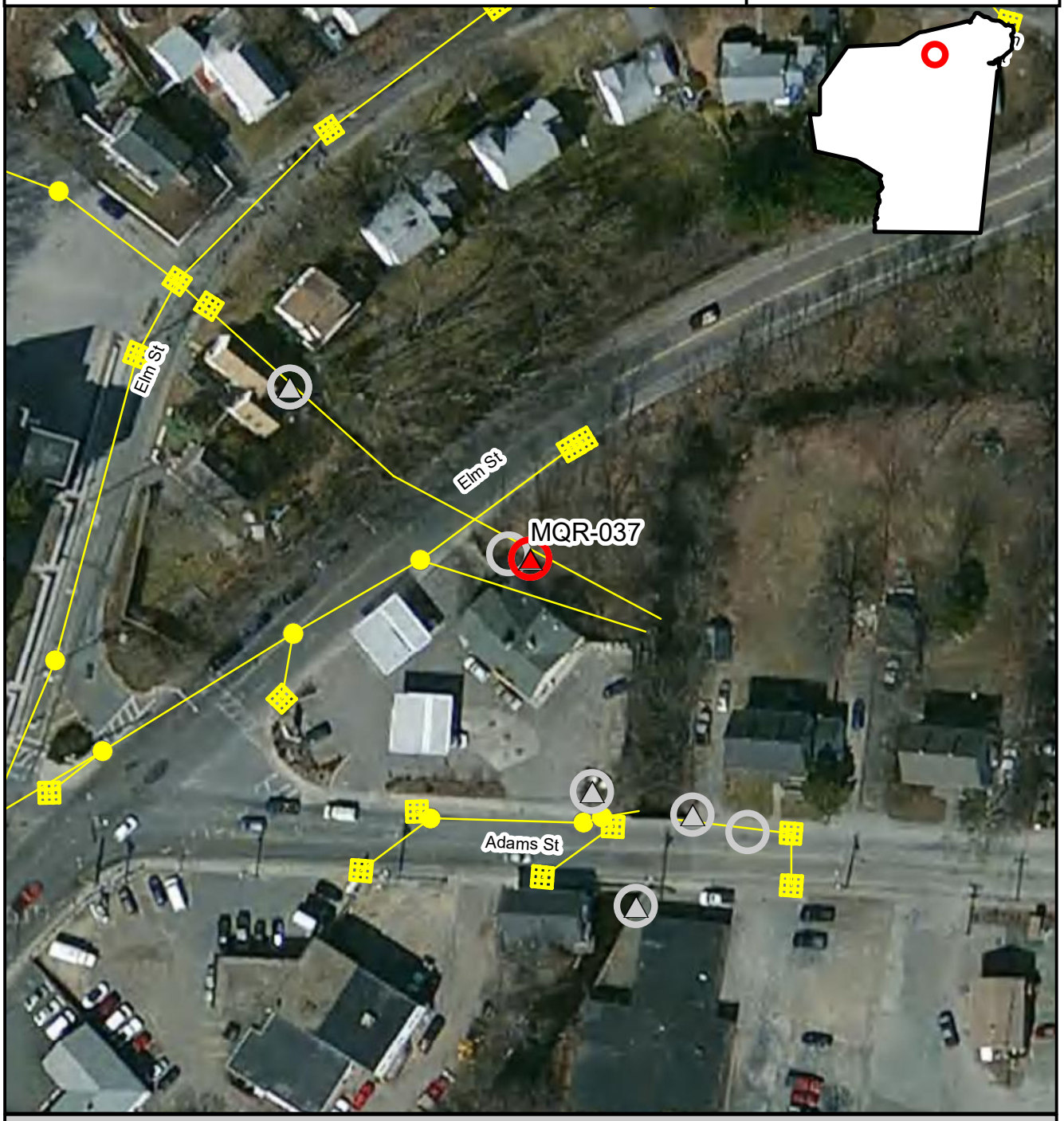
Braintree IDDE Inspections

Inspection ID
BT-207



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 8/10/2017

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-208, MQR-037, 2017-08-10, 7:40:00

Created	2017-08-10 11:40:21 UTC by Matt Davis
Updated	2017-08-10 11:48:59 UTC by Matt Davis
Location	42.2251567, -70.9955597

Section 1: General Information

Inspection ID	BT-208
Outfall ID	MQR-037
Inspector	Gh Rs
Date	2017-08-10
Time	7:40:00
Temperature	73
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	Noticeable from a distance
Odor Description	none

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	15
Outfall Condition	Cracking
Headwall Present	No
Sediment Present?	Yes
Sediment Depth (%)	20
Outfall Submerged	Partially
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No
Section 6: General Comments	Second pipe in same general area

Section 7: Media

Photos

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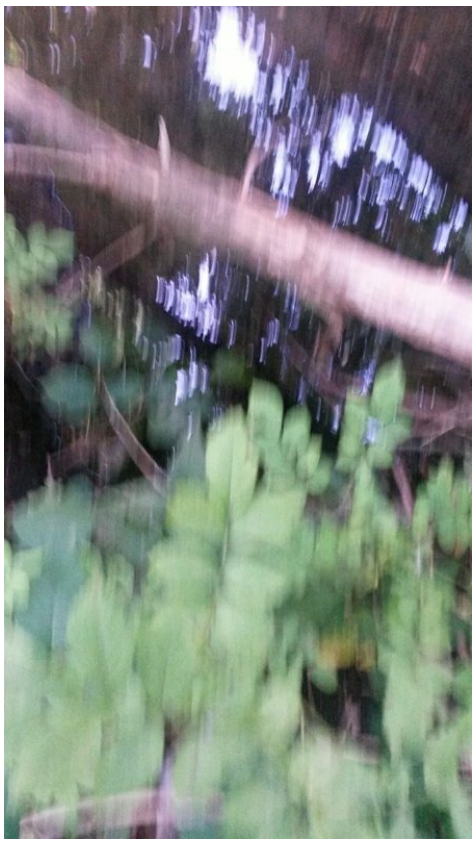
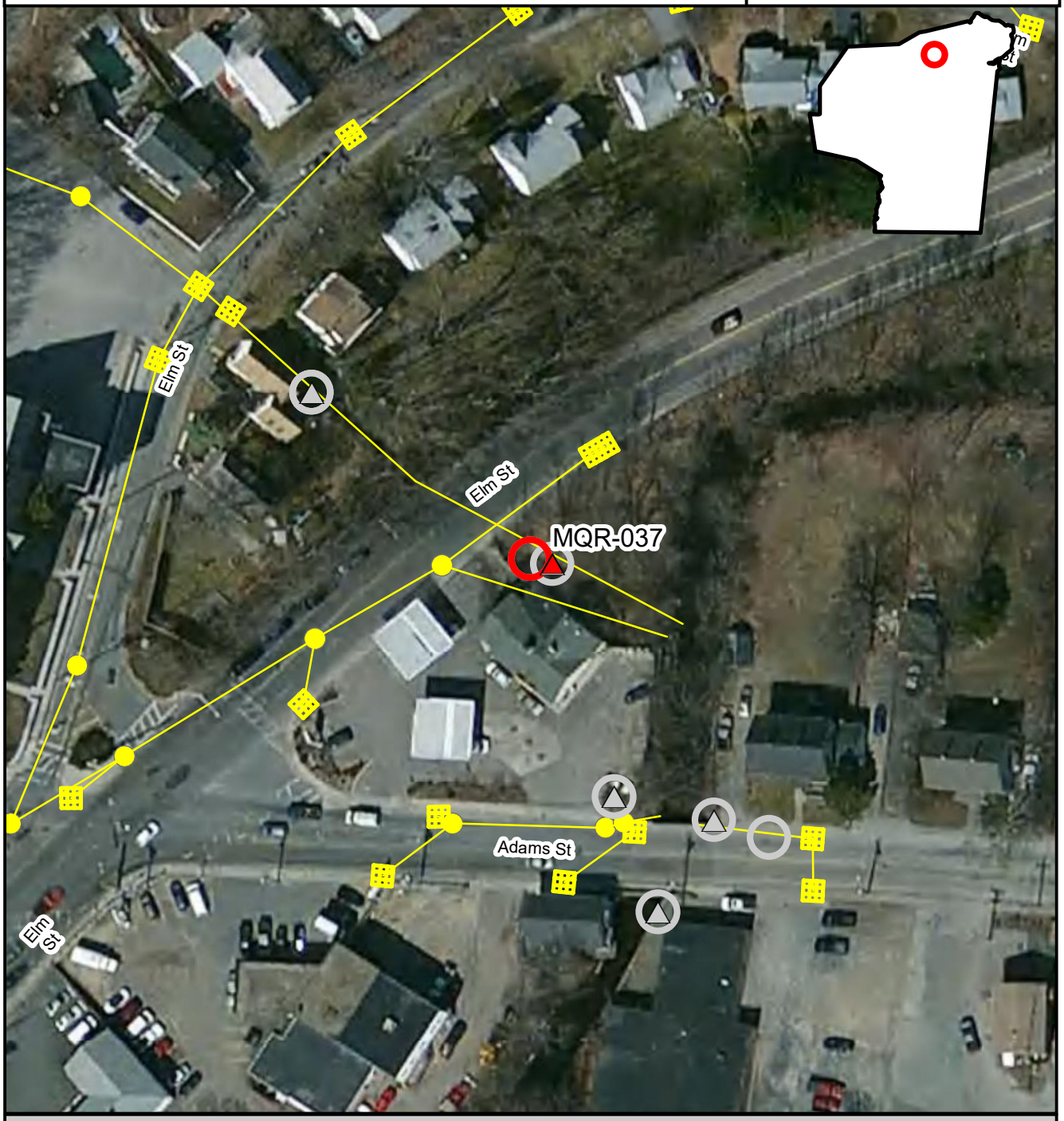


Braintree IDDE Inspections

Inspection ID
BT-208



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 8/10/2017

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-209, MQR-034, 2017-08-10, 8:01:00

Created	2017-08-10 12:01:03 UTC by Matt Davis
Updated	2017-08-15 13:49:20 UTC by Matt Davis
Location	42.2247515, -70.9950935

Section 1: General Information

Inspection ID	BT-209
Outfall ID	MQR-034
Outfall GIS ID	215
Inspector	GH RS
Date	2017-08-10
Time	8:01:00
Temperature	74
Inspection Location	Manhole
Investigation performed at manhole upstream of outfall?	Yes
Reason why investigation performed at upstream manhole	No easement and no one home
Visual evidence of contamination present?	No
Odor Severity	None

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pipe benthic growth present?	No
Section 6: General Comments	Some standing water

Section 7: Media

Photos

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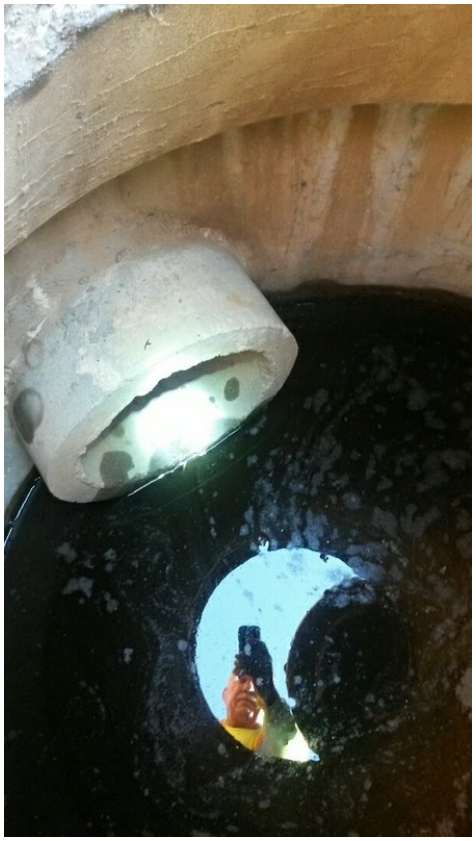
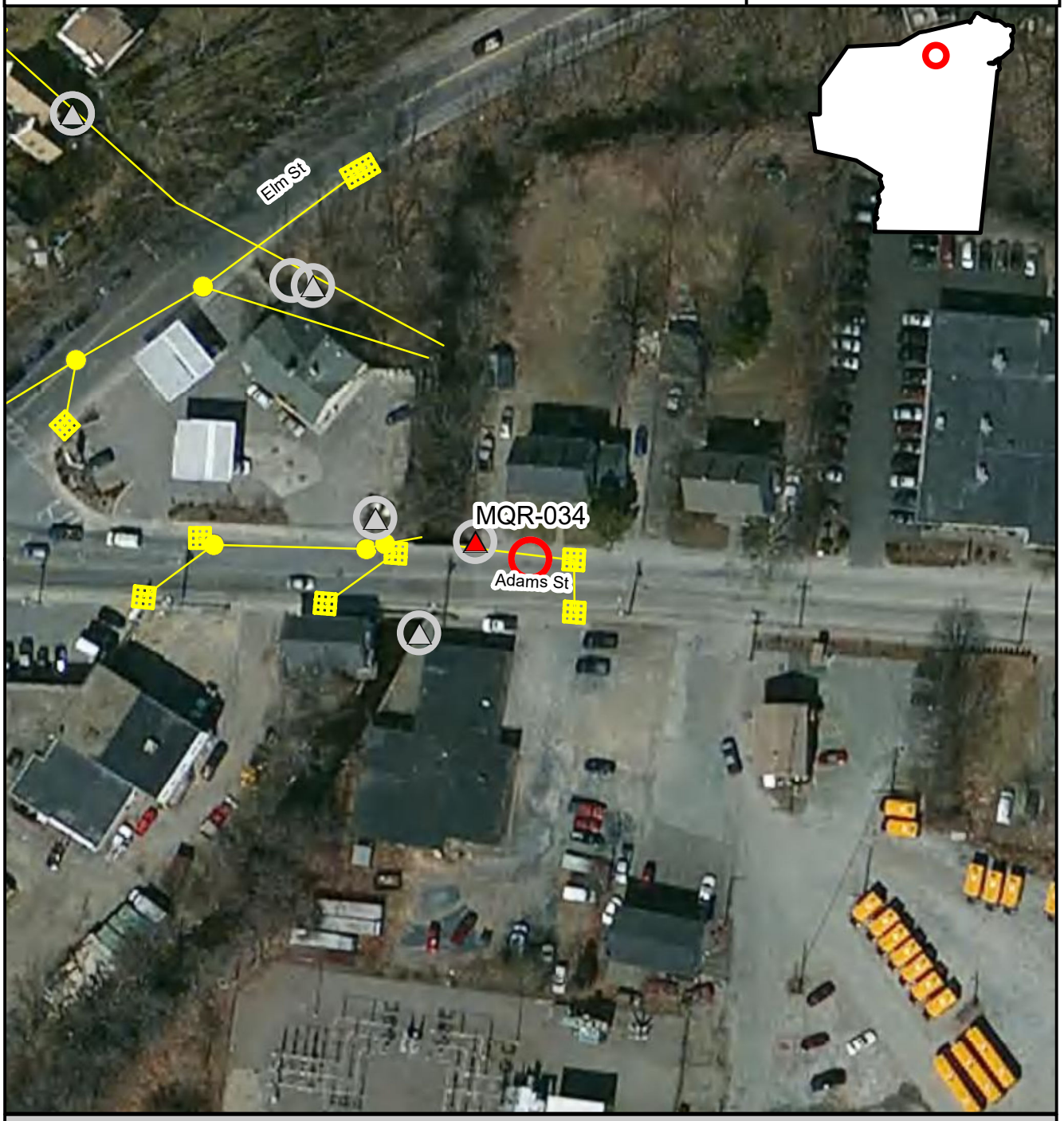


Braintree IDDE Inspections

Inspection ID
BT-209



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 8/10/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-210, WFR-015, 2017-08-10, 9:07:00

Created	2017-08-10 13:07:21 UTC by Matt Davis
Updated	2017-08-10 13:14:34 UTC by Matt Davis
Location	42.2297526, -70.9878626

Section 1: General Information

Inspection ID	BT-210
Outfall ID	WFR-015
Outfall GIS ID	1
Inspector	CPO GH
Date	2017-08-10
Time	9:07:00
Temperature	78
Inspection Location	Catch basin
Investigation performed at manhole upstream of outfall?	Yes
Reason why investigation performed at upstream manhole	Could not locate outfall
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	10
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

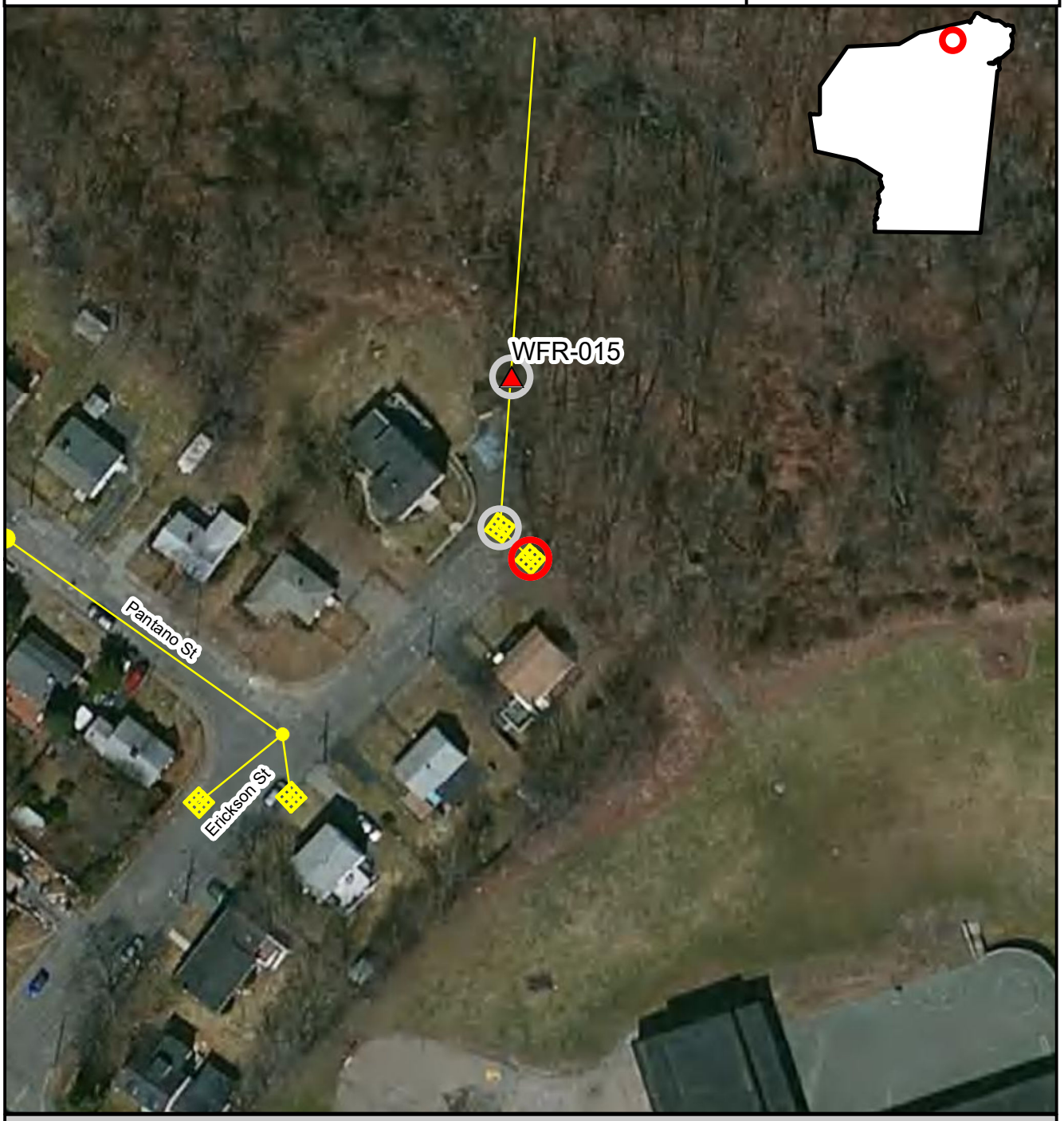
Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	Checked first upstream catch basin as there was no manhole present or on maps.

Section 7: Media

Photos

Braintree IDDE Inspections

Inspection ID
BT-210



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 8/10/2017

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-211, WFR-002, 2017-08-10, 10:00:00

Created	2017-08-10 14:00:18 UTC by Matt Davis
Updated	2017-08-10 14:41:47 UTC by Matt Davis
Location	42.2315391, -70.9710085

Section 1: General Information

Inspection ID	BT-211
Outfall ID	WFR-002
Outfall GIS ID	4
Inspector	CPO GH
Date	2017-08-10
Time	10:00:00
Temperature	73
Inspection Location	Catch basin
Investigation performed at manhole upstream of outfall?	Yes
Reason why investigation performed at upstream manhole	Could not locate outfall. Only 2 catch basins connected. Downstream catch basin dry
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	10
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No

Section 7: Media

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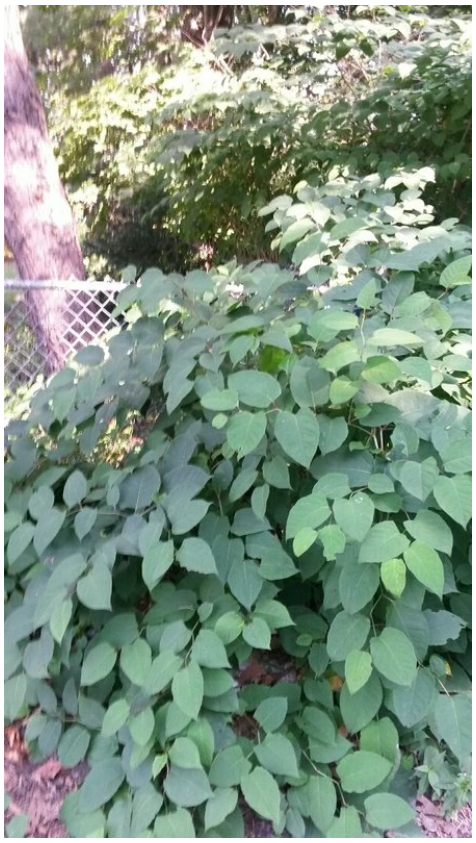
Photos



Braintree IDDE Inspections

Inspection ID
BT-211

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 8/10/2017

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-212, 2017-08-10, 10:35:00

Created	2017-08-10 14:35:35 UTC by Matt Davis
Updated	2017-08-10 14:40:42 UTC by Matt Davis
Location	42.231374, -70.9998578

Section 1: General Information

Inspection ID	BT-212
Outfall GIS ID	249
Inspector	Gh Rs
Date	2017-08-10
Time	10:35:00
Temperature	73
Inspection Location	Manhole
Investigation performed at manhole upstream of outfall?	Yes
Reason why investigation performed at upstream manhole	Could not access outfall
Visual evidence of contamination present?	No
Odor Severity	None

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pipe benthic growth present?	No
Section 6: General Comments	First upstream manhole

Section 7: Media

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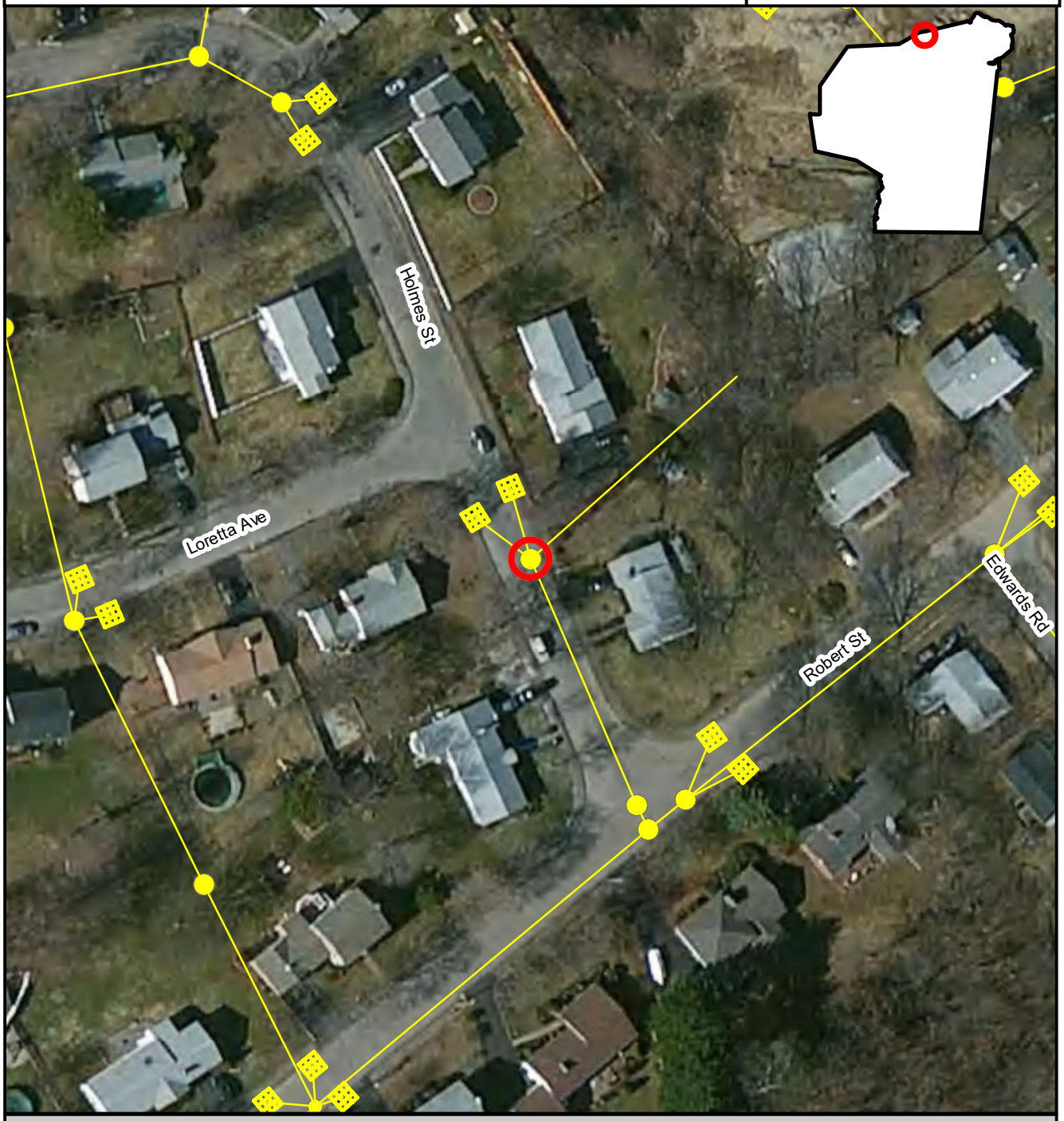
Photos

Braintree IDDE Inspections

Inspection ID
BT-212



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 8/10/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-213, WFR-015, 2017-08-10, 10:49:00

Created	2017-08-10 14:49:49 UTC by Matt Davis
Updated	2017-08-10 14:55:56 UTC by Matt Davis
Location	42.22981402, -70.98790772

Section 1: General Information

Inspection ID	BT-213
Outfall ID	WFR-015
Outfall GIS ID	1
Inspector	Gh Rs
Date	2017-08-10
Time	10:49:00
Temperature	73
Inspection Location	Catch basin
Investigation performed at manhole upstream of outfall?	Yes
Reason why investigation performed at upstream manhole	Could not locate outfall
Visual evidence of contamination present?	No
Odor Severity	None

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

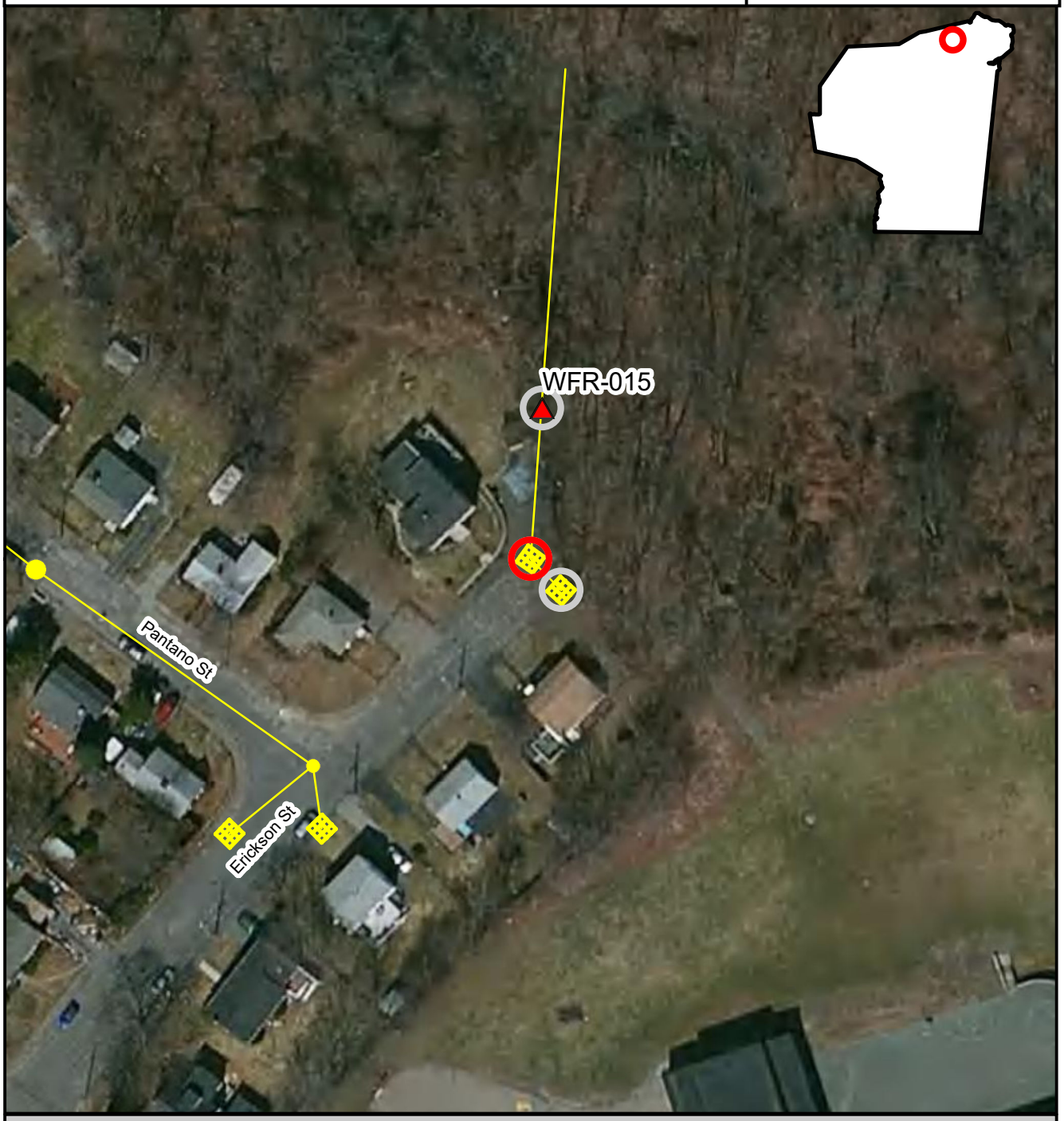
Deposits/stains present?	No
Pipe benthic growth present?	No
Section 6: General Comments	Only 2 catch basins connected to the outfall. Checked first upstream catch basin.

Section 7: Media

Photos

Braintree IDDE Inspections

Inspection ID
BT-213



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 8/10/2017

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-214, WFR-002, 2017-08-10, 11:02:00

Created	2017-08-10 15:02:06 UTC by Matt Davis
Updated	2017-08-10 15:04:05 UTC by Matt Davis
Location	42.2314491, -70.971047

Section 1: General Information

Inspection ID	BT-214
Outfall ID	WFR-002
Outfall GIS ID	4
Inspector	Gh Rs
Date	2017-08-10
Time	11:02:00
Temperature	74
Inspection Location	Catch basin
Investigation performed at manhole upstream of outfall?	Yes
Reason why investigation performed at upstream manhole	Could not locate outfall
Visual evidence of contamination present?	No
Odor Severity	None

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pipe benthic growth present?	No
Section 6: General Comments	Only 2 catch basins connected to the outfall. Checked first upstream catch basin.

Section 7: Media

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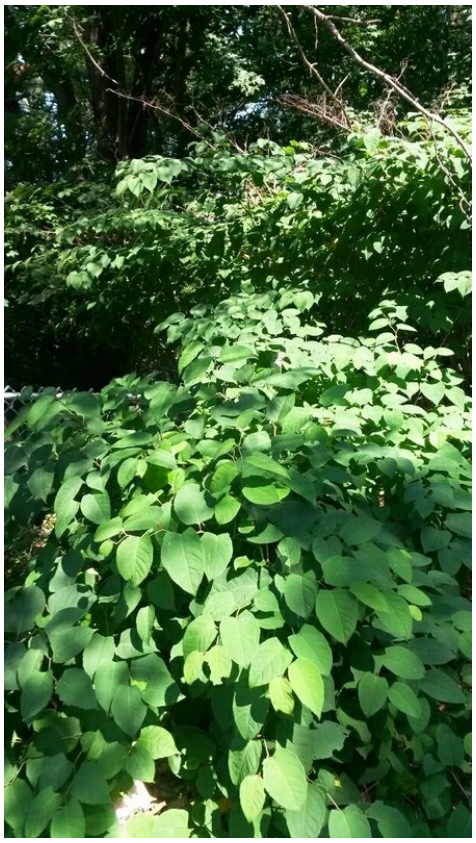
Photos



Braintree IDDE Inspections

Inspection ID
BT-214

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 8/10/2017

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-215, TWB-001, 2017-08-10, 11:23:00

Created	2017-08-10 15:23:51 UTC by Matt Davis
Updated	2017-08-10 15:27:39 UTC by Matt Davis
Location	42.2288753, -71.005884

Section 1: General Information

Inspection ID	BT-215
Outfall ID	TWB-001
Outfall GIS ID	33
Inspector	Gh Rs
Date	2017-08-10
Time	11:23:00
Temperature	75
Inspection Location	Manhole
Investigation performed at manhole upstream of outfall?	Yes
Reason why investigation performed at upstream manhole	Outfall not visible due to RR tracks.
Visual evidence of contamination present?	No
Odor Severity	None

Section 3: Physical Indicators (flow flowing)

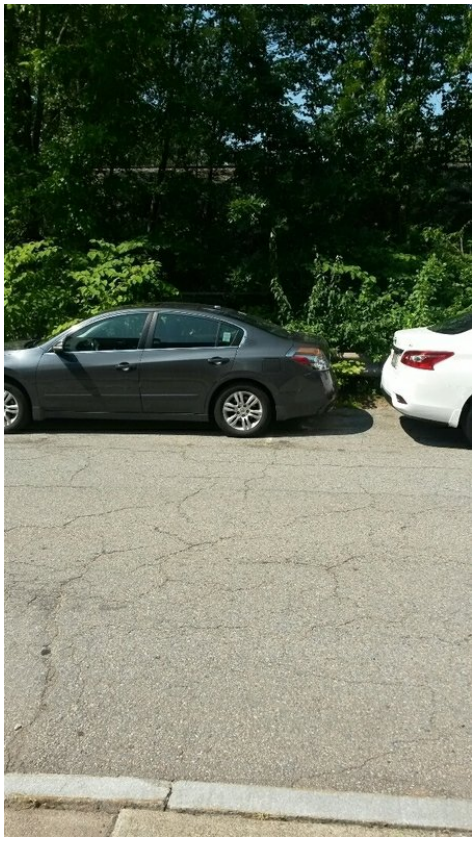
Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pipe benthic growth present?	No
Section 6: General Comments	Access to the outfall was blocked by RR fence. Upstream manhole inspected. Could only get manhole open enough to see that it was dry.

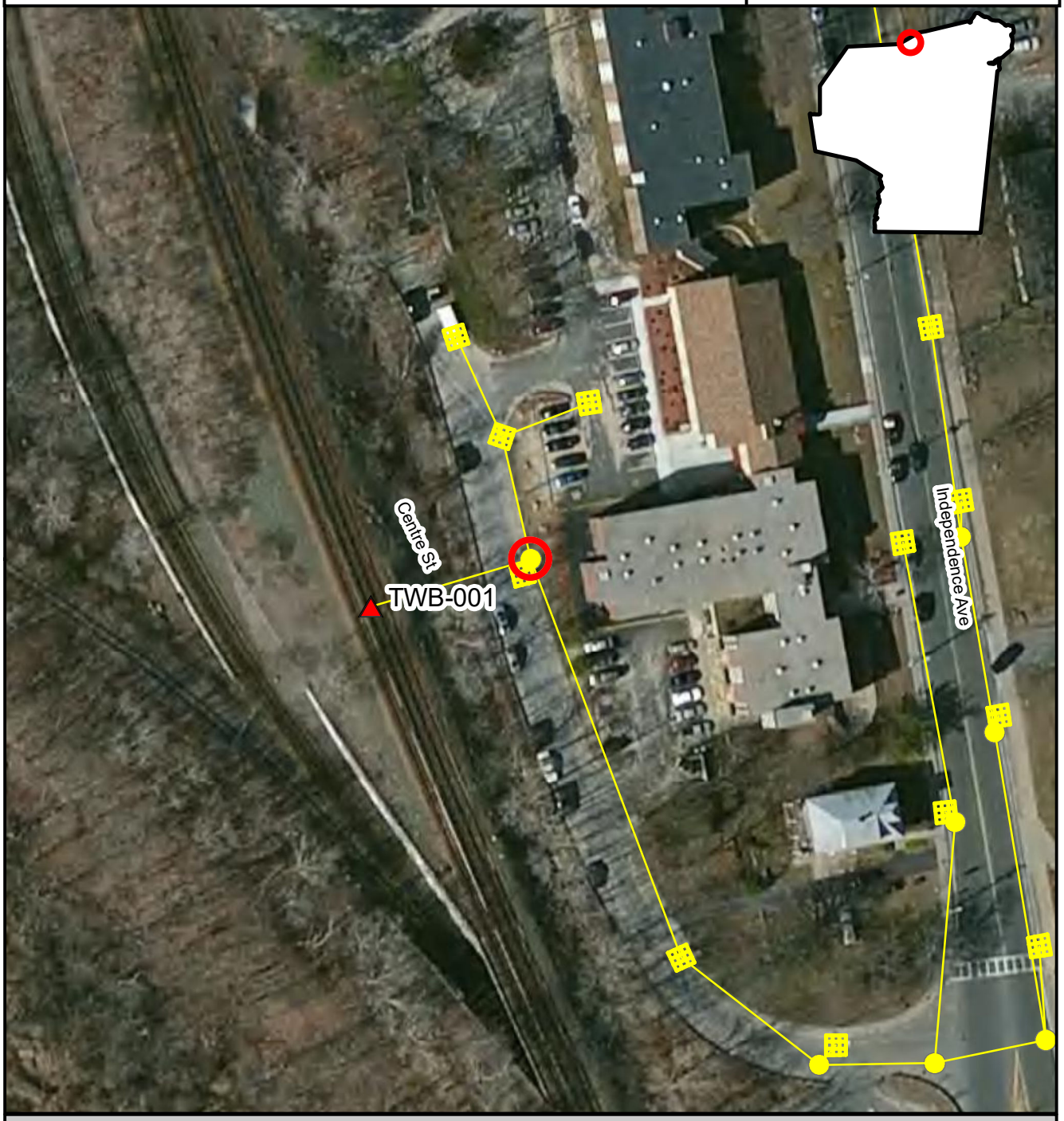
Section 7: Media

Photos



Braintree IDDE Inspections

Inspection ID
BT-215



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 8/10/2017

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-216, MQR-032, 2017-08-10, 12:27:00

Created	2017-08-10 16:27:40 UTC by Matt Davis
Updated	2017-08-10 19:26:36 UTC by Matt Davis
Location	42.2223844, -70.9938629

Section 1: General Information

Inspection ID	BT-216
Outfall ID	MQR-032
Outfall GIS ID	41
Inspector	RS GH
Date	2017-08-10
Time	12:27:00
Temperature	88
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	CMP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	12
Outfall Condition	Normal
Headwall Present	Yes
Headwall Condition	Poor
Sediment Present?	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No

Section 7: Media

Photos

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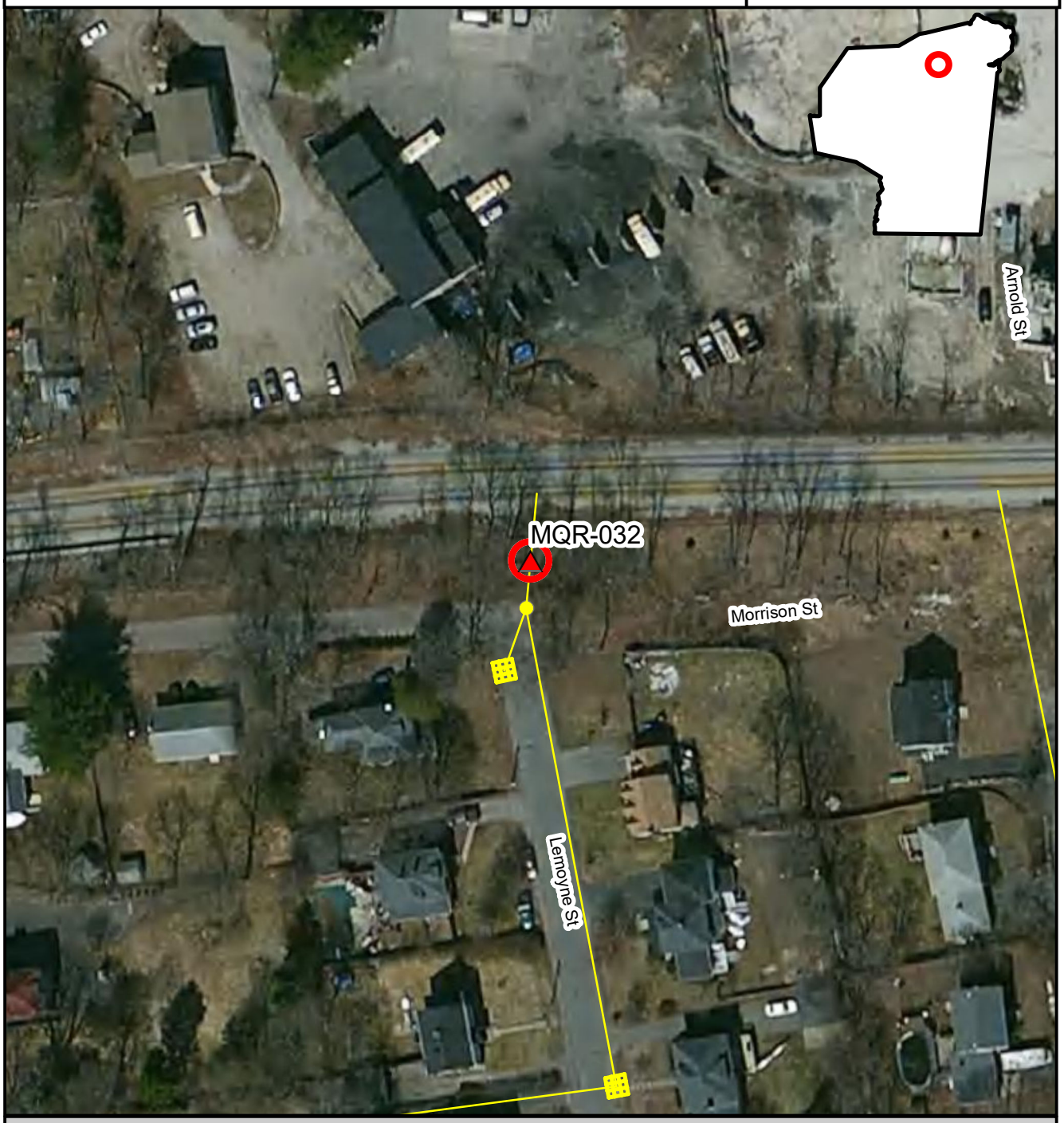
Braintree IDDE Inspections

Inspection ID
BT-216



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 8/10/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-217, MQR-032, 2017-08-10, 12:32:00

Created	2017-08-10 16:32:25 UTC by Matt Davis
Updated	2017-08-10 16:34:48 UTC by Matt Davis
Location	42.2224407, -70.9938839

Section 1: General Information

Inspection ID	BT-217
Outfall ID	MQR-032
Outfall GIS ID	41
Inspector	Gh Rs
Date	2017-08-10
Time	12:32:00
Temperature	88
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	CMP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	12
Outfall Condition	Normal
Headwall Present	Yes
Headwall Condition	Poor
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 7: Media

Photos

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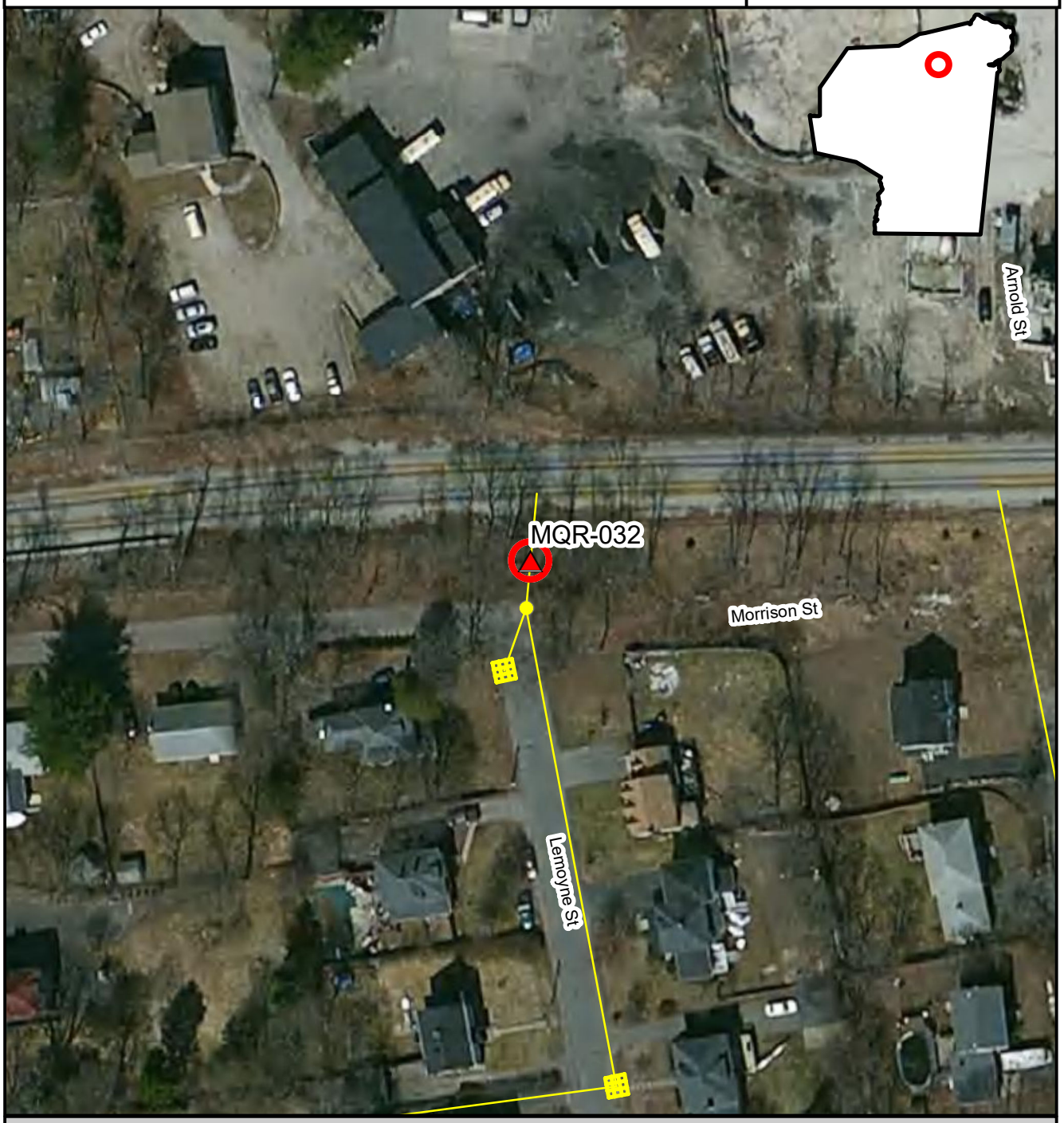
Braintree IDDE Inspections

Inspection ID
BT-217



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 8/10/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-218, MQR-023, 2017-08-10, 12:47:00

Created	2017-08-10 16:47:41 UTC by Matt Davis
Updated	2017-08-10 16:51:35 UTC by Matt Davis
Location	42.2212349, -70.9902089

Section 1: General Information

Inspection ID	BT-218
Outfall ID	MQR-023
Outfall GIS ID	46
Inspector	Gh Rs
Date	2017-08-10
Time	12:47:00
Temperature	88
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	12
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No
Section 6: General Comments	Flared outlet

Section 7: Media

Photos

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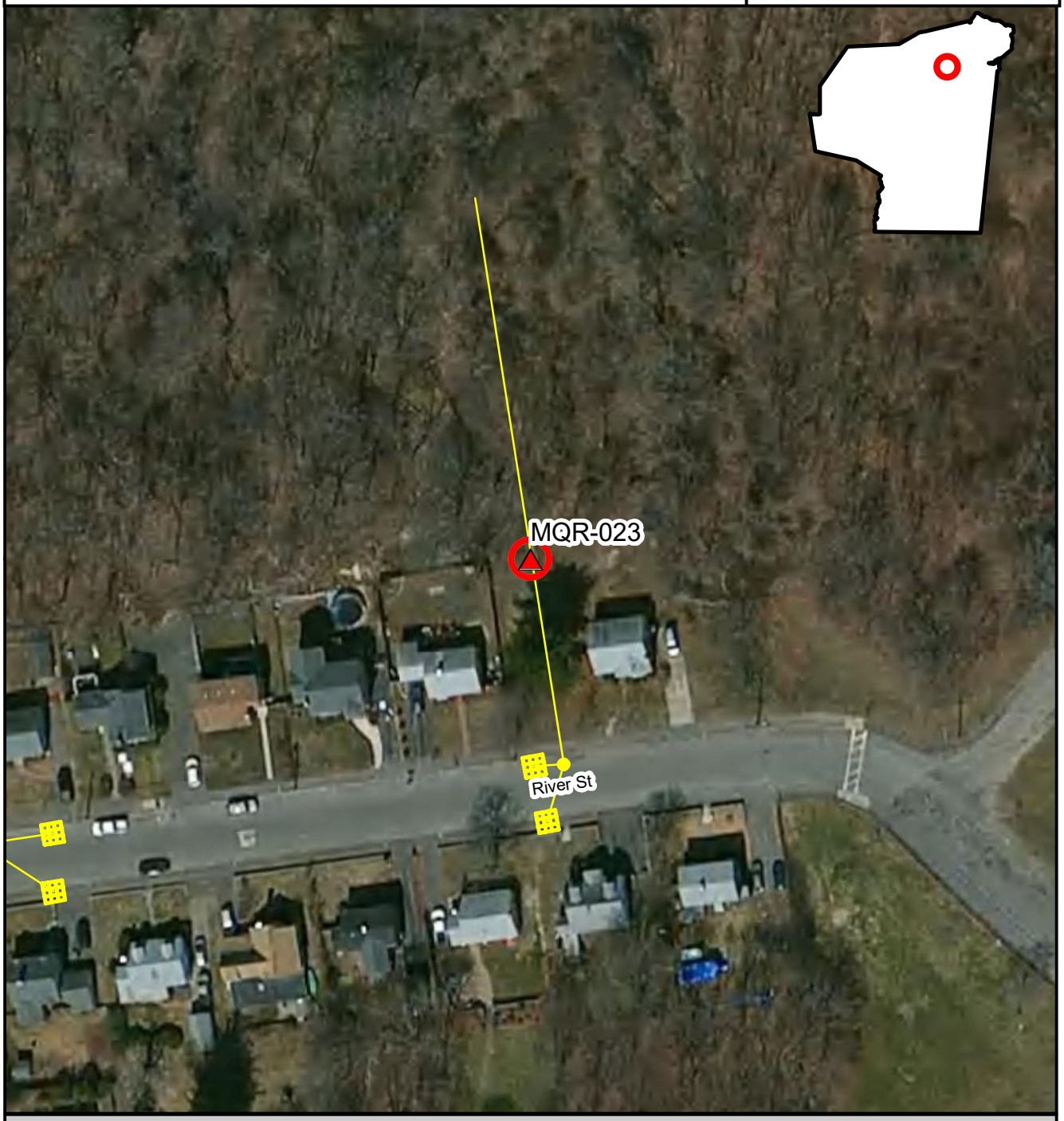
Braintree IDDE Inspections

Inspection ID
BT-218



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 8/10/2017

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-219, MQR-056, 2017-08-10, 13:02:00

Created	2017-08-10 17:02:47 UTC by Matt Davis
Updated	2017-08-10 17:33:39 UTC by Matt Davis
Location	42.2200576, -70.9989245

Section 1: General Information

Inspection ID	BT-219
Outfall ID	MQR-056
Outfall GIS ID	43
Inspector	Gh Rs
Date	2017-08-10
Time	13:02:00
Temperature	88
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	Steel
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	12
Outfall Condition	Normal
Headwall Present	Yes
Headwall Condition	Fair
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No
Section 6: General Comments	Pipe is in wall of bridge abutment

Section 7: Media

Photos

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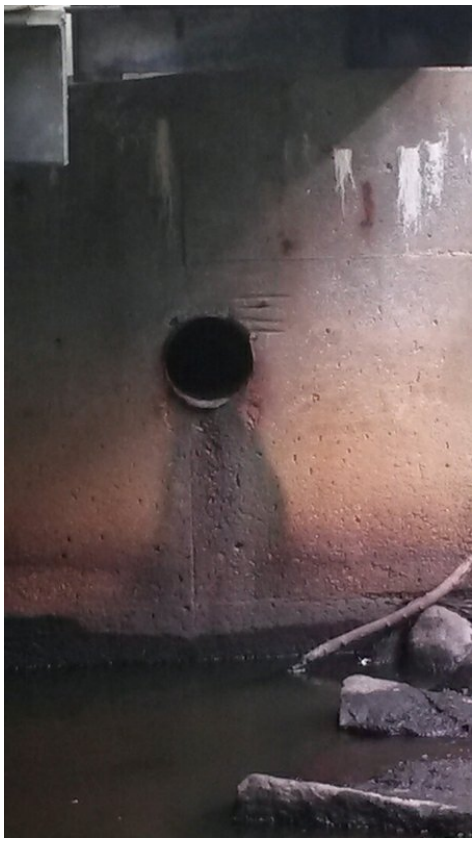

Braintree IDDE Inspections

Inspection ID
BT-219

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 8/10/2017

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-220, MQR-058, 2017-08-10, 13:11:00

Created	2017-08-10 17:11:56 UTC by Matt Davis
Updated	2017-08-10 17:23:58 UTC by Matt Davis
Location	42.2201177, -70.9991417

Section 1: General Information

Inspection ID	BT-220
Outfall ID	MQR-058
Outfall GIS ID	42
Inspector	Gh Rs
Date	2017-08-10
Time	13:11:00
Temperature	88
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	Faint
Odor Description	rotted foliage

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	Steel
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	12
Outfall Condition	Normal
Headwall Present	Yes
Headwall Condition	Good
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No
Section 6: General Comments	A slight dribble of flow. Could not sample or measure flow

Section 7: Media

Photos

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Braintree IDDE Inspections

Inspection ID
BT-220

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 8/10/2017

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-221, MQR-047, 2017-08-10, 14:12:00

Created	2017-08-10 18:12:29 UTC by Matt Davis
Updated	2017-08-10 18:14:54 UTC by Matt Davis
Location	42.2168458, -70.9969965

Section 1: General Information

Inspection ID	BT-221
Outfall ID	MQR-047
Outfall GIS ID	238
Inspector	Gh Rs
Date	2017-08-10
Time	14:12:00
Temperature	88
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	CMP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	12
Outfall Condition	Corrosion
Headwall Present	No
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 7: Media

Photos

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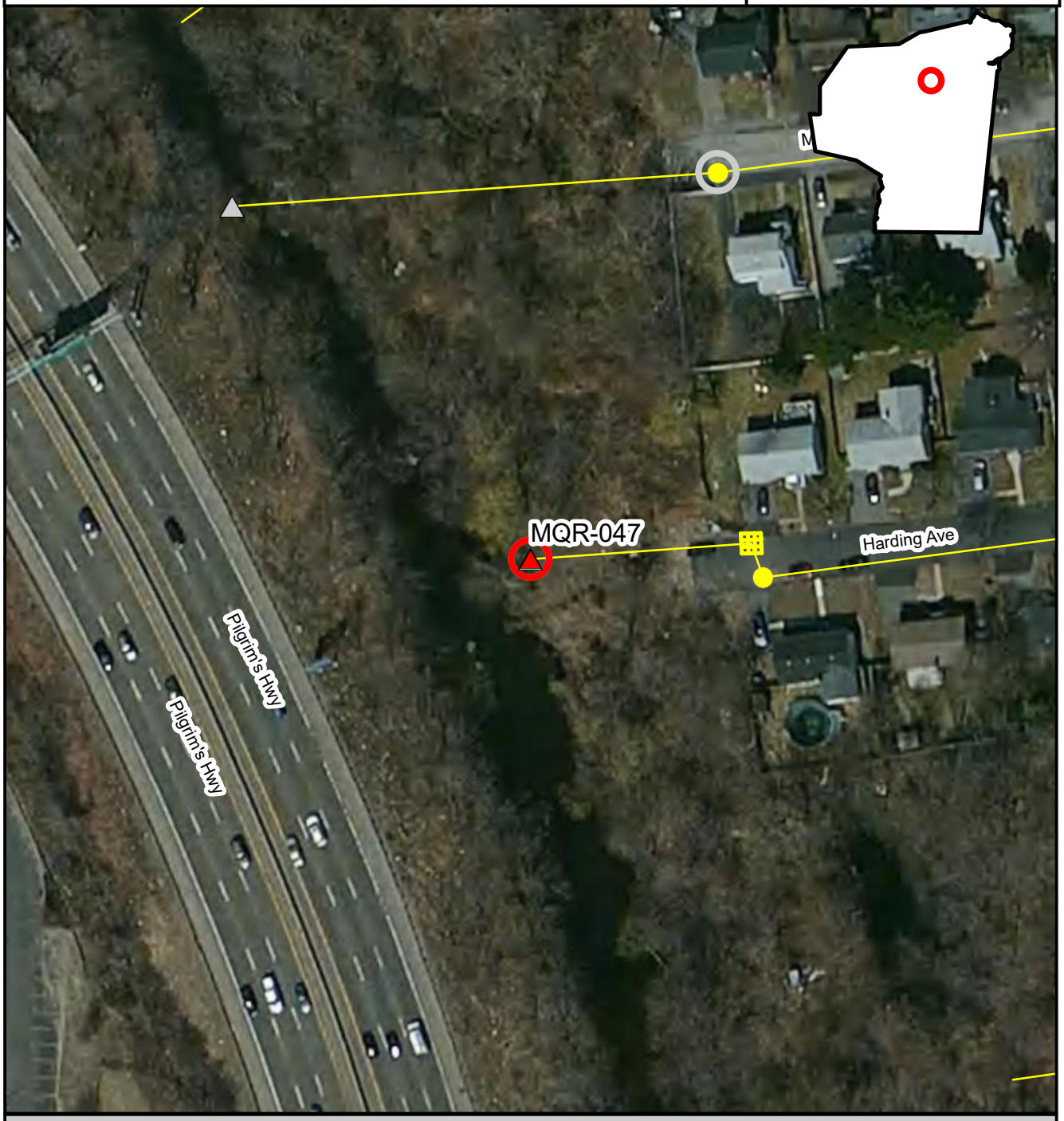
Inspection ID
BT-221



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 8/10/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-222, TWB-010, 2017-08-11, 7:11:00

Created	2017-08-11 11:11:45 UTC by Matt Davis
Updated	2017-08-11 11:14:31 UTC by Matt Davis
Location	42.222978, -71.007484

Section 1: General Information

Inspection ID	BT-222
Outfall ID	TWB-010
Outfall GIS ID	60
Inspector	Gh Rs
Date	2017-08-11
Time	7:11:00
Temperature	70
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	PVC
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	12
Outfall Condition	Normal
Headwall Present	Yes
Headwall Condition	Good
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 7: Media

Photos

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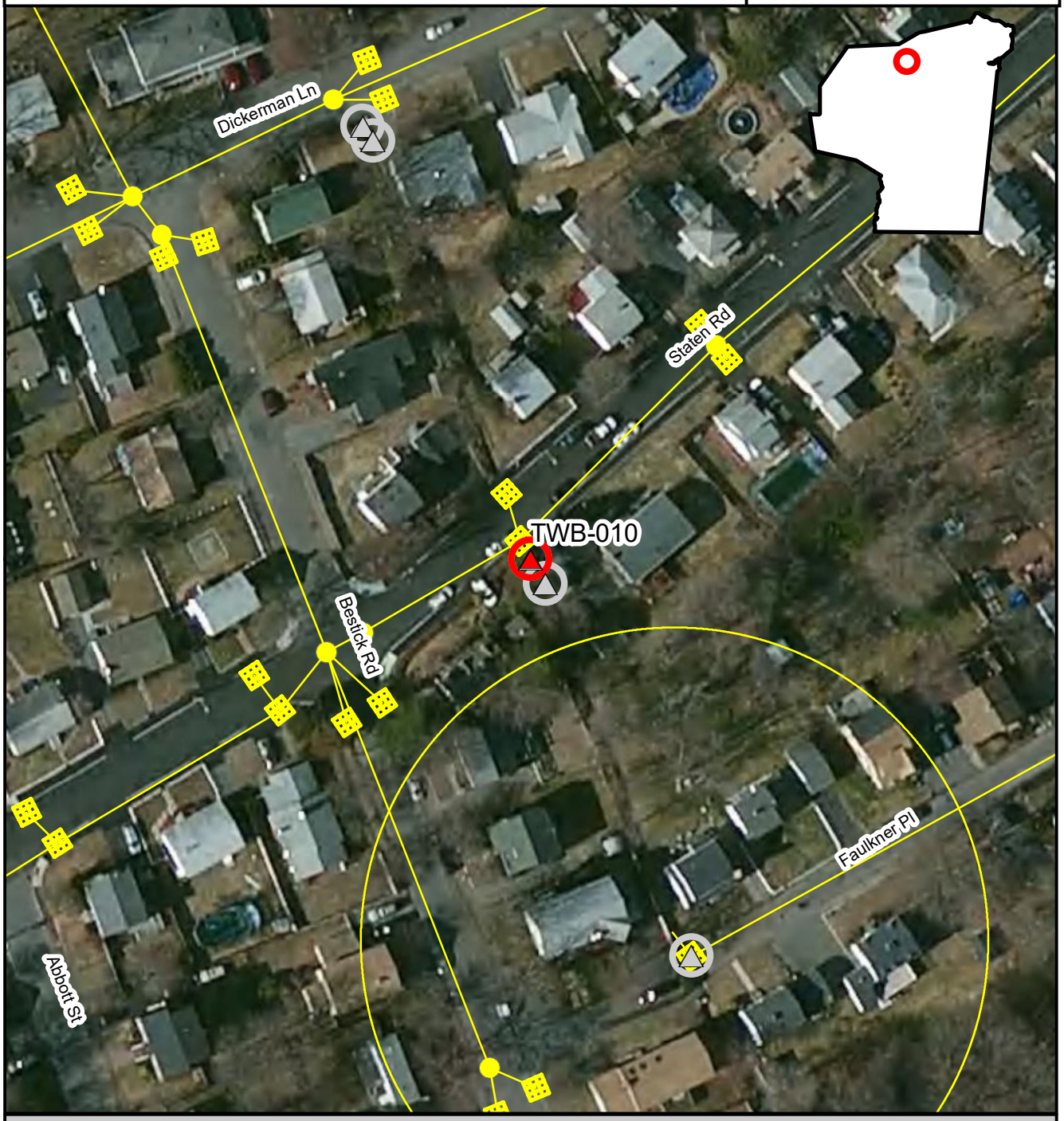
Braintree IDDE Inspections

Inspection ID
BT-222



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 8/11/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-223, TWB-011, 2017-08-11, 7:16:00

Created	2017-08-11 11:16:21 UTC by Matt Davis
Updated	2017-08-11 11:20:15 UTC by Matt Davis
Location	42.222835, -71.007388

Section 1: General Information

Inspection ID	BT-223
Outfall ID	TWB-011
Outfall GIS ID	61
Inspector	Gh Rs
Date	2017-08-11
Time	7:16:00
Temperature	70
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	PVC
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	12
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No
Section 6: General Comments	Outfall drops into brook under road. Only a single catch basin connected

Section 7: Media

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Photos

Braintree IDDE Inspections

Inspection ID
BT-223

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 8/11/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-224, TWB-009, 2017-08-11, 7:30:00

Created	2017-08-11 11:31:01 UTC by Matt Davis
Updated	2017-08-11 11:35:15 UTC by Matt Davis
Location	42.223653, -71.007763

Section 1: General Information

Inspection ID	BT-224
Outfall ID	TWB-009
Outfall GIS ID	59
Inspector	Gh Rs
Date	2017-08-11
Time	7:30:00
Temperature	70
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	PVC
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	12
Outfall Condition	Normal
Headwall Present	Yes
Headwall Condition	Good
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 7: Media

Photos

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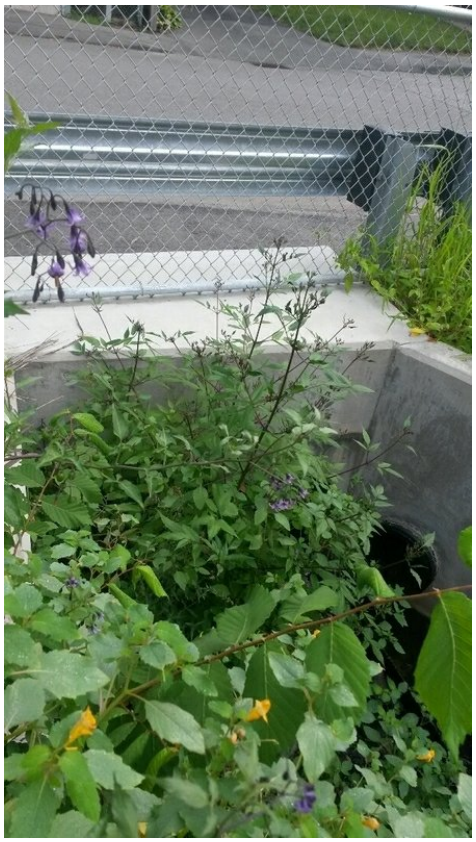

Braintree IDDE Inspections

Inspection ID
BT-224

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 8/11/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-225, TWB-008, 2017-08-11, 7:35:00

Created	2017-08-11 11:35:30 UTC by Matt Davis
Updated	2017-08-11 11:38:39 UTC by Matt Davis
Location	42.223582, -71.007796

Section 1: General Information

Inspection ID	BT-225
Outfall ID	TWB-008
Outfall GIS ID	58
Inspector	Gh Rs
Date	2017-08-11
Time	7:35:00
Temperature	70
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	PVC
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	12
Outfall Condition	Normal
Headwall Present	Yes
Headwall Condition	Good
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 7: Media

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Photos

Braintree IDDE Inspections

Inspection ID
BT-225

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 8/11/2017

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-226, MQR-048, 2017-08-11, 8:12:00

Created	2017-08-11 12:13:00 UTC by Matt Davis
Updated	2017-08-11 12:18:49 UTC by Matt Davis
Location	42.215188, -70.995967

Section 1: General Information

Inspection ID	BT-226
Outfall ID	MQR-048
Outfall GIS ID	51
Inspector	Gh Rs
Date	2017-08-11
Time	8:12:00
Temperature	70
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	CMP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	12
Outfall Condition	Normal
Headwall Present	Yes
Headwall Condition	Fair
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 7: Media

Photos

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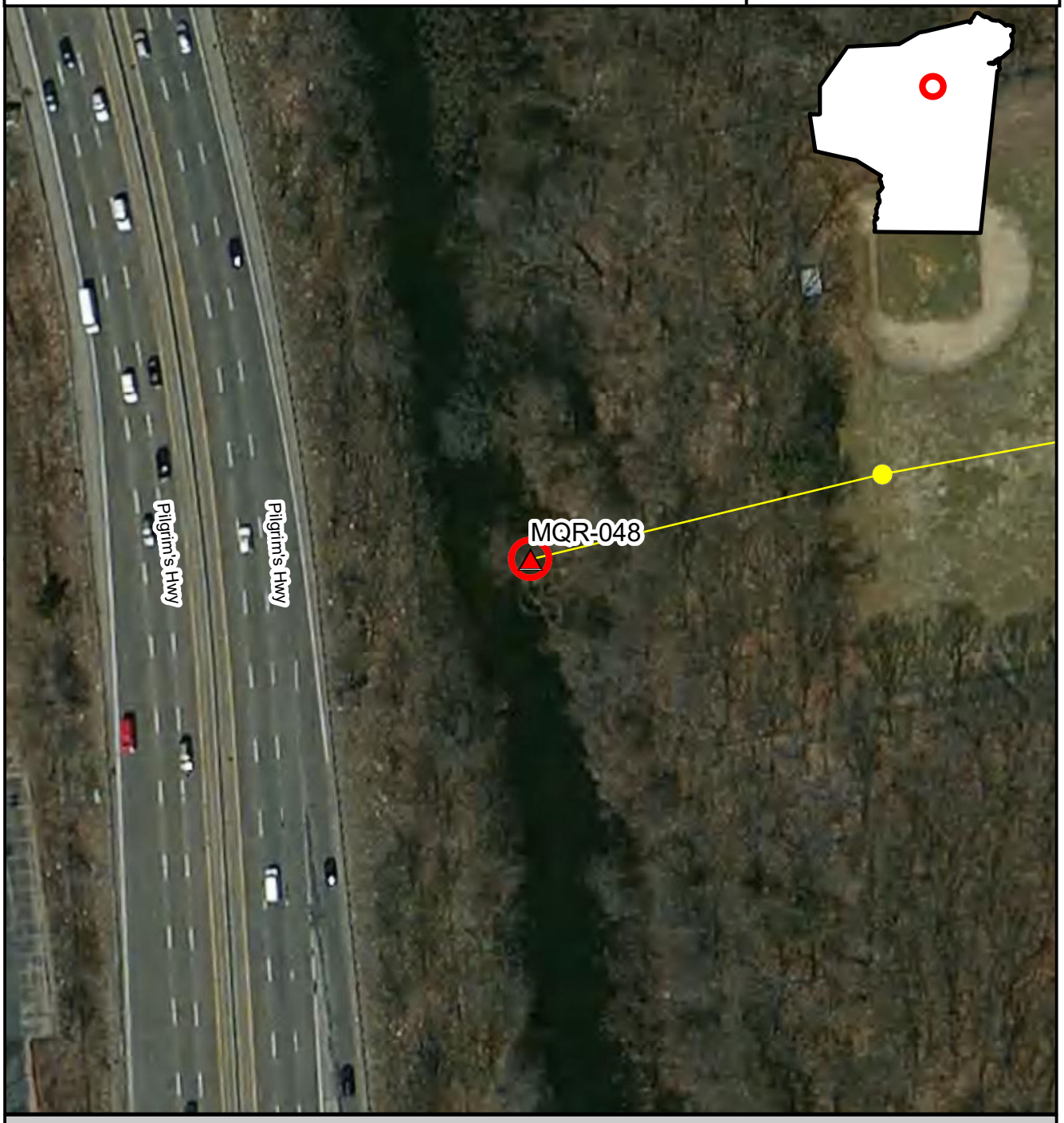
Braintree IDDE Inspections

Inspection ID
BT-226



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 8/11/2017

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-227, TWB-018, 2017-08-11, 9:17:00

Created	2017-08-11 13:17:50 UTC by Matt Davis
Updated	2017-08-11 13:20:44 UTC by Matt Davis
Location	42.2230062, -71.016644

Section 1: General Information

Inspection ID	BT-227
Outfall ID	TWB-018
Outfall GIS ID	54
Inspector	RS GH
Date	2017-08-11
Time	9:17:00
Temperature	76
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	PVC
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	12
Outfall Condition	Normal
Headwall Present	Yes
Headwall Condition	Good
Sediment Present?	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	Standing Water

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

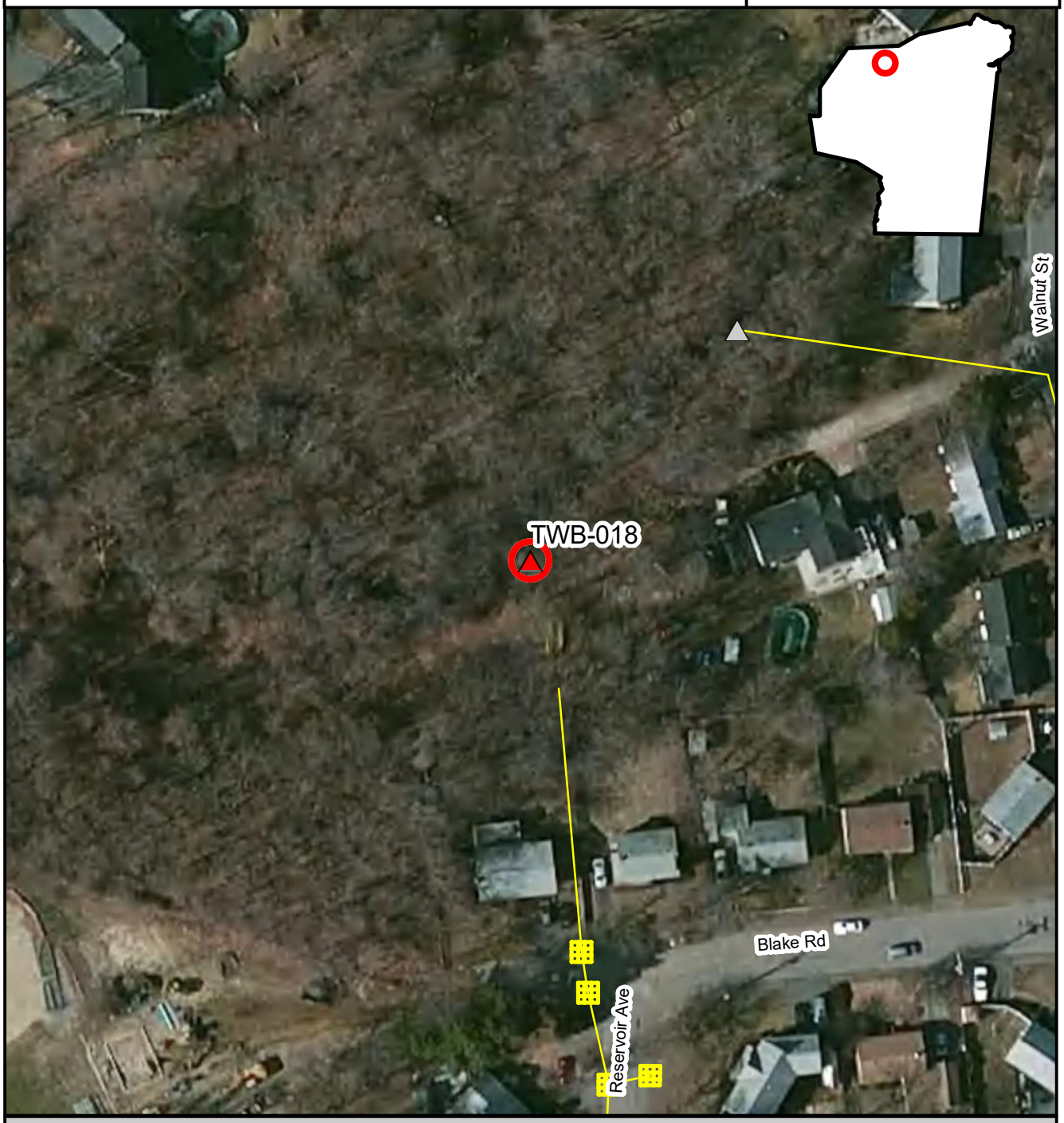
Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No

Section 7: Media

Photos

Braintree IDDE Inspections

Inspection ID
BT-227



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 8/11/2017

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-228, TWB-018, 2017-08-11, 9:28:00

Created	2017-08-11 13:28:34 UTC by Matt Davis
Updated	2017-08-11 13:32:41 UTC by Matt Davis
Location	42.2230715, -71.0166859

Section 1: General Information

Inspection ID	BT-228
Outfall ID	TWB-018
Outfall GIS ID	54
Inspector	Gh Rs
Date	2017-08-11
Time	9:28:00
Temperature	74
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	PVC
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	12
Outfall Condition	Normal
Headwall Present	Yes
Headwall Condition	Good
Sediment Present?	No
Outfall Submerged	Partially
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 7: Media

Photos

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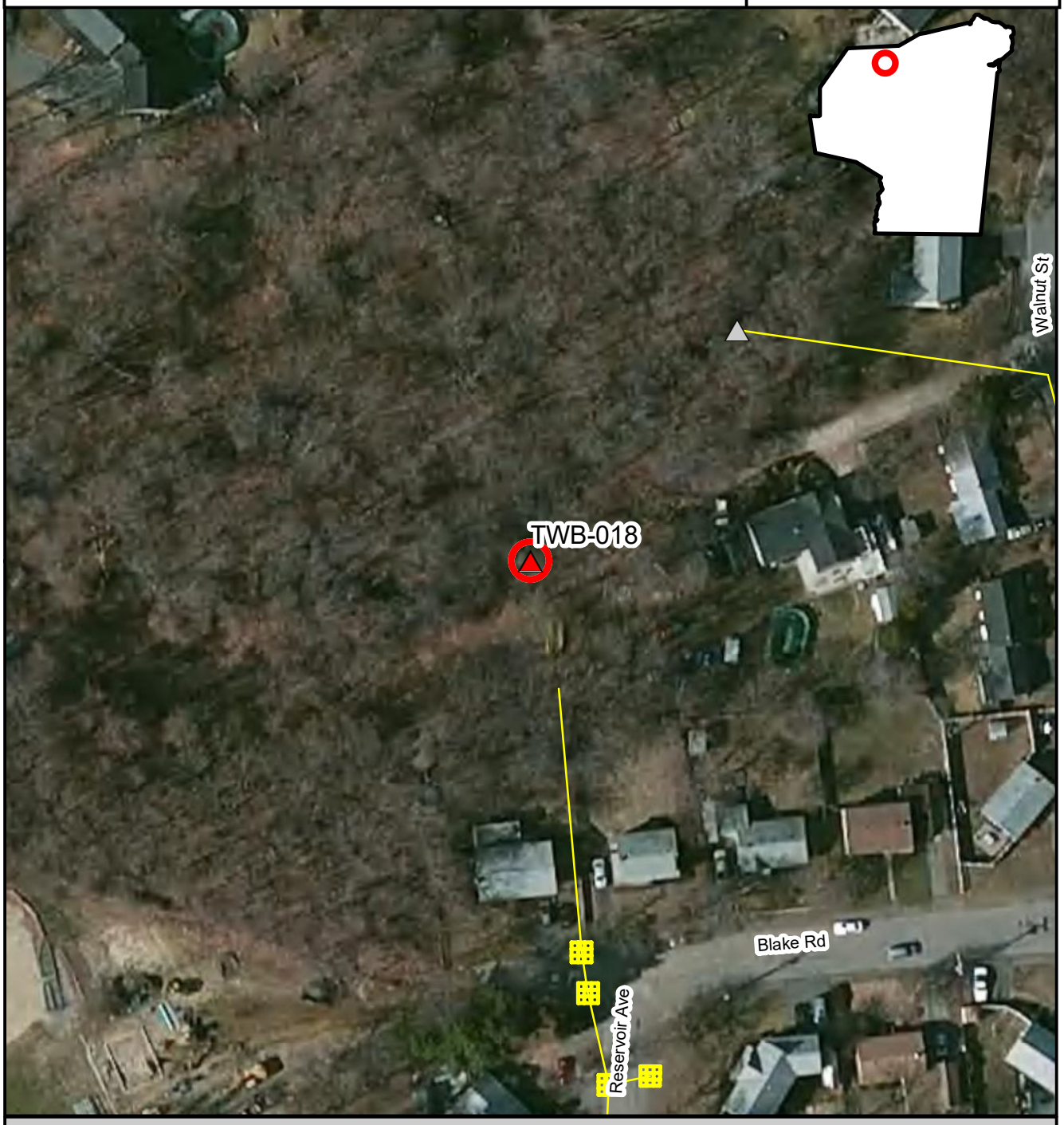
Braintree IDDE Inspections

Inspection ID
BT-228



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 8/11/2017

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-229, TWB-017, 2017-08-11, 9:39:00

Created	2017-08-11 13:39:21 UTC by Matt Davis
Updated	2017-08-11 13:45:02 UTC by Matt Davis
Location	42.2240704, -71.0187367

Section 1: General Information

Inspection ID	BT-229
Outfall ID	TWB-017
Outfall GIS ID	53
Inspector	Gh Rs
Date	2017-08-11
Time	9:39:00
Temperature	76
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	30
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No
Section 6: General Comments	Flared outlet

Section 7: Media

Photos

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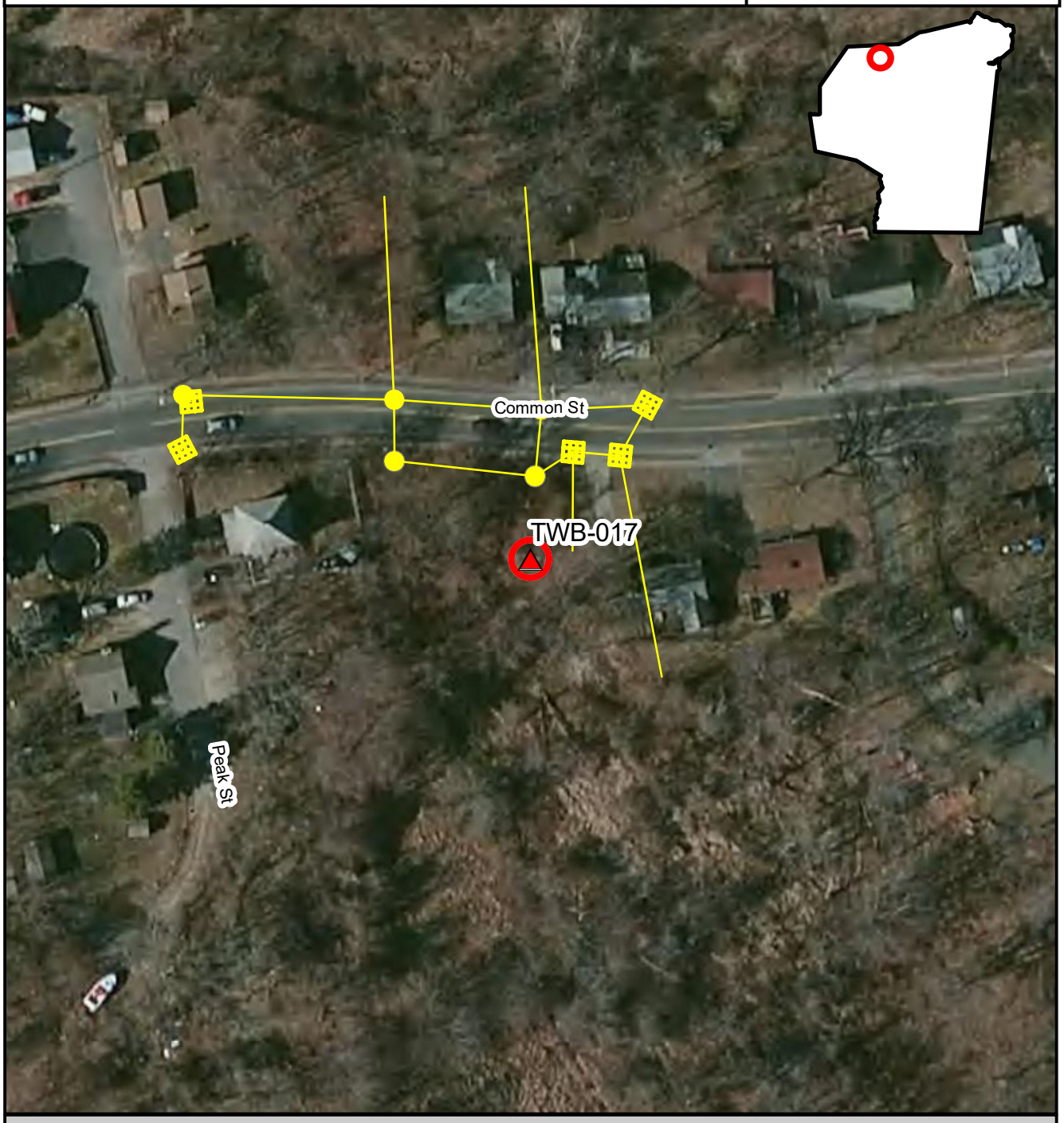
Braintree IDDE Inspections

Inspection ID
BT-229



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 8/11/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-230, TWB-022, 2017-08-11, 10:37:00

Created	2017-08-11 14:37:41 UTC by Matt Davis
Updated	2017-08-11 14:42:34 UTC by Matt Davis
Location	42.2206086, -71.006615

Section 1: General Information

Inspection ID	BT-230
Outfall ID	TWB-022
Inspector	RS GH
Date	2017-08-11
Time	10:37:00
Temperature	78
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	CMP
Closed Pipe Shape	Elliptical
Closed Pipe Diameter (in)	36
Outfall Condition	Normal
Headwall Present	Yes
Headwall Condition	Fair
Sediment Present?	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	Standing Water

Section 4: Physical Indicators (all outfalls)

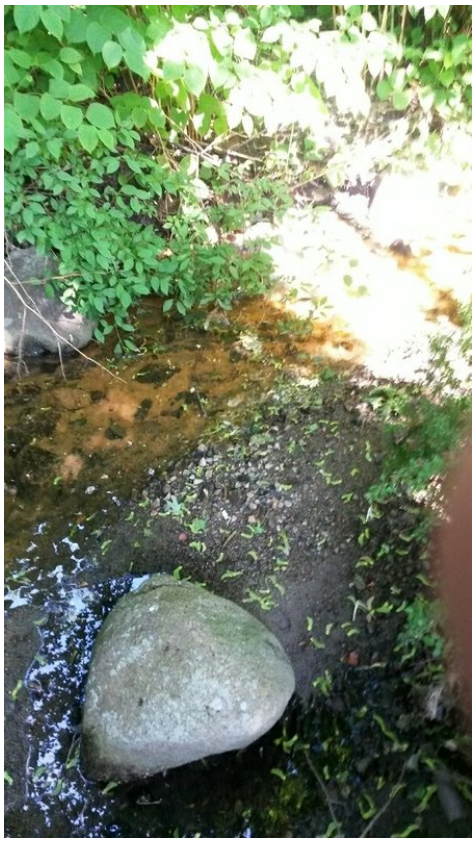
Deposits/stains present?	Yes
Deposits/Stains	rust
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No

Section 7: Media

Photos



Braintree IDDE Inspections

Inspection ID
BT-230

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 8/11/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-231, TWB-022, 2017-08-11, 10:51:00

Created	2017-08-11 14:51:22 UTC by Matt Davis
Updated	2017-08-11 14:56:52 UTC by Matt Davis
Location	42.220629, -71.0064595

Section 1: General Information

Inspection ID	BT-231
Outfall ID	TWB-022
Outfall GIS ID	66
Inspector	Gh Rs
Date	2017-08-11
Time	10:51:00
Temperature	75
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	CMP
Closed Pipe Shape	Elliptical
Closed Pipe Diameter (in)	36
Outfall Condition	Normal
Headwall Present	Yes
Headwall Condition	Fair
Sediment Present?	No
Outfall Submerged	Partially
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

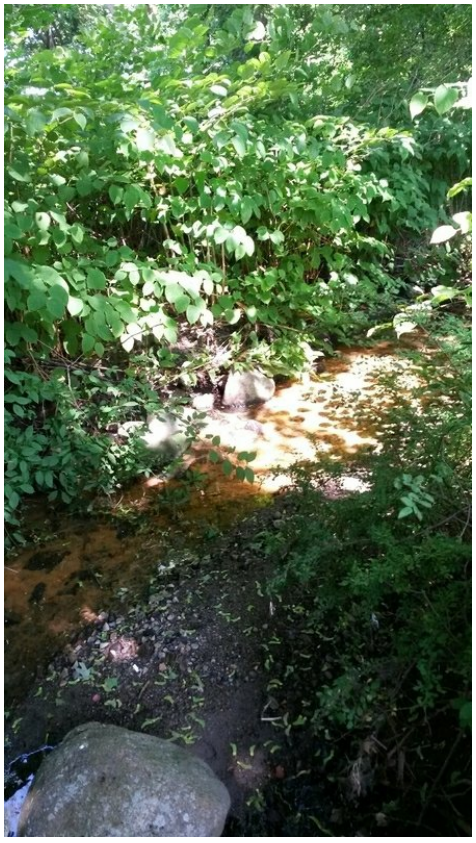
Flow Present	Standing Water
Color Severity	None
Turbidity	No cloudiness
Floatables (does not include trash)	None

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	Yes
Deposits/Stains	rust
Pool quality issues?	No
Pipe benthic growth present?	No

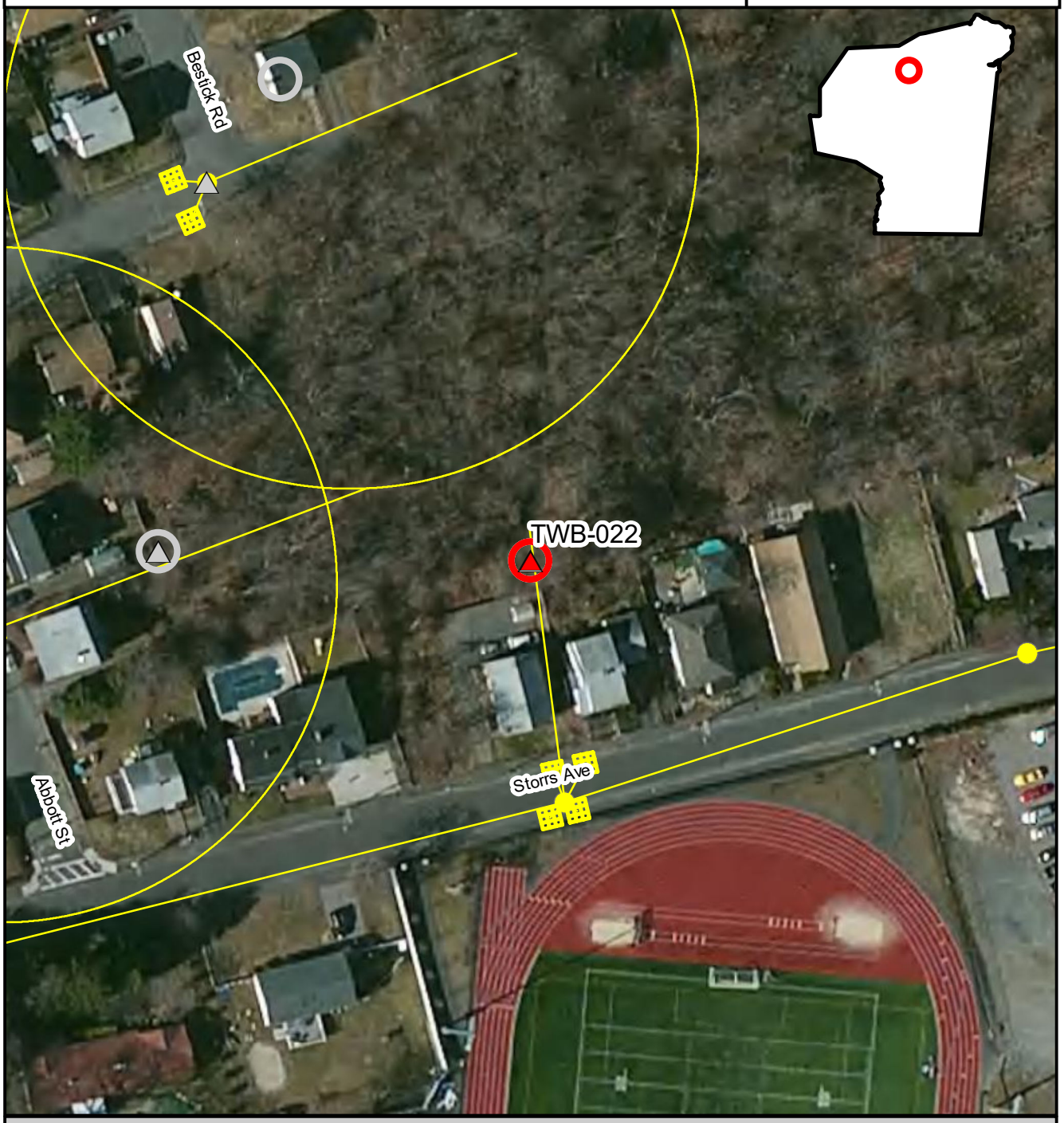
Section 7: Media

Photos



Braintree IDDE Inspections

Inspection ID
BT-231



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 8/11/2017

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-232, TWB-028, 2017-08-11, 11:07:00

Created	2017-08-11 15:07:58 UTC by Matt Davis
Updated	2017-08-11 15:13:13 UTC by Matt Davis
Location	42.2189143, -71.0047764

Section 1: General Information

Inspection ID	BT-232
Outfall ID	TWB-028
Outfall GIS ID	216
Inspector	Gh Rs
Date	2017-08-11
Time	11:07:00
Temperature	80
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	unknown covered with debris
Closed Pipe Shape	unknown
Closed Pipe Diameter (in)	0
Outfall Condition	covered by debris
Headwall Present	Yes
Headwall Condition	Poor
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 7: Media

Photos

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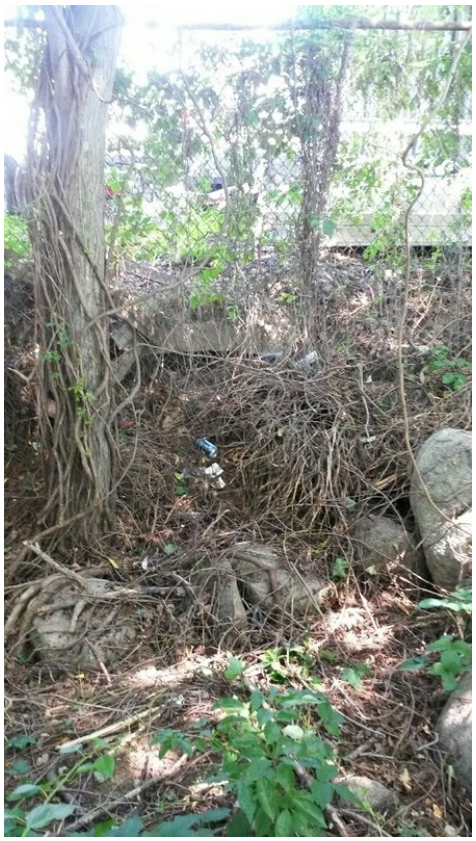
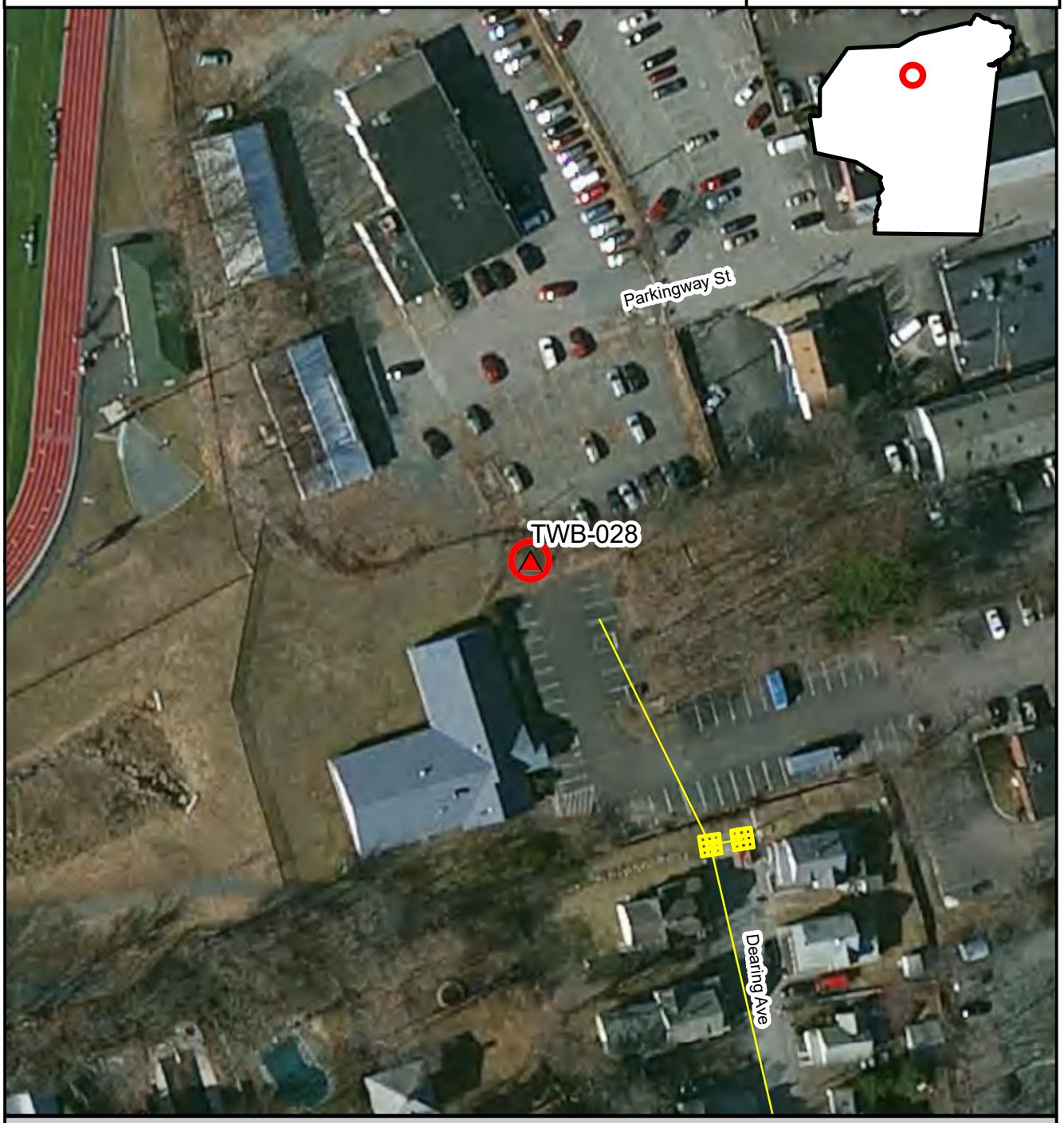


Braintree IDDE Inspections

Inspection ID
BT-232



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 8/11/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-233, MQR-080, 2017-08-11, 11:22:00

Created	2017-08-11 15:22:47 UTC by Matt Davis
Updated	2017-08-11 15:29:42 UTC by Matt Davis
Location	42.211065, -71.001456

Section 1: General Information

Inspection ID	BT-233
Outfall ID	MQR-080
Outfall GIS ID	72
Inspector	Gh Rs
Date	2017-08-11
Time	11:22:00
Temperature	80
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	30
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	Yes
Sediment Depth (%)	1
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 7: Media

Photos

Braintree IDDE Inspections

Inspection ID
BT-233

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 8/11/2017

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-234, MQR-043, 2017-08-22, 6:06:00

Created	2017-08-22 10:06:55 UTC by Matt Davis
Updated	2017-08-22 10:11:07 UTC by Matt Davis
Location	42.2238226, -70.9973754

Section 1: General Information

Inspection ID	BT-234
Outfall ID	MQR-043
Outfall GIS ID	37
Inspector	CPO
Date	2017-08-22
Time	6:06:00
Temperature	72
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	15
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No
Section 6: General Comments	Located in side of steep embankment. Questionable structural integrity of building/shed that is directly above the outfall.

Section 7: Media

Photos

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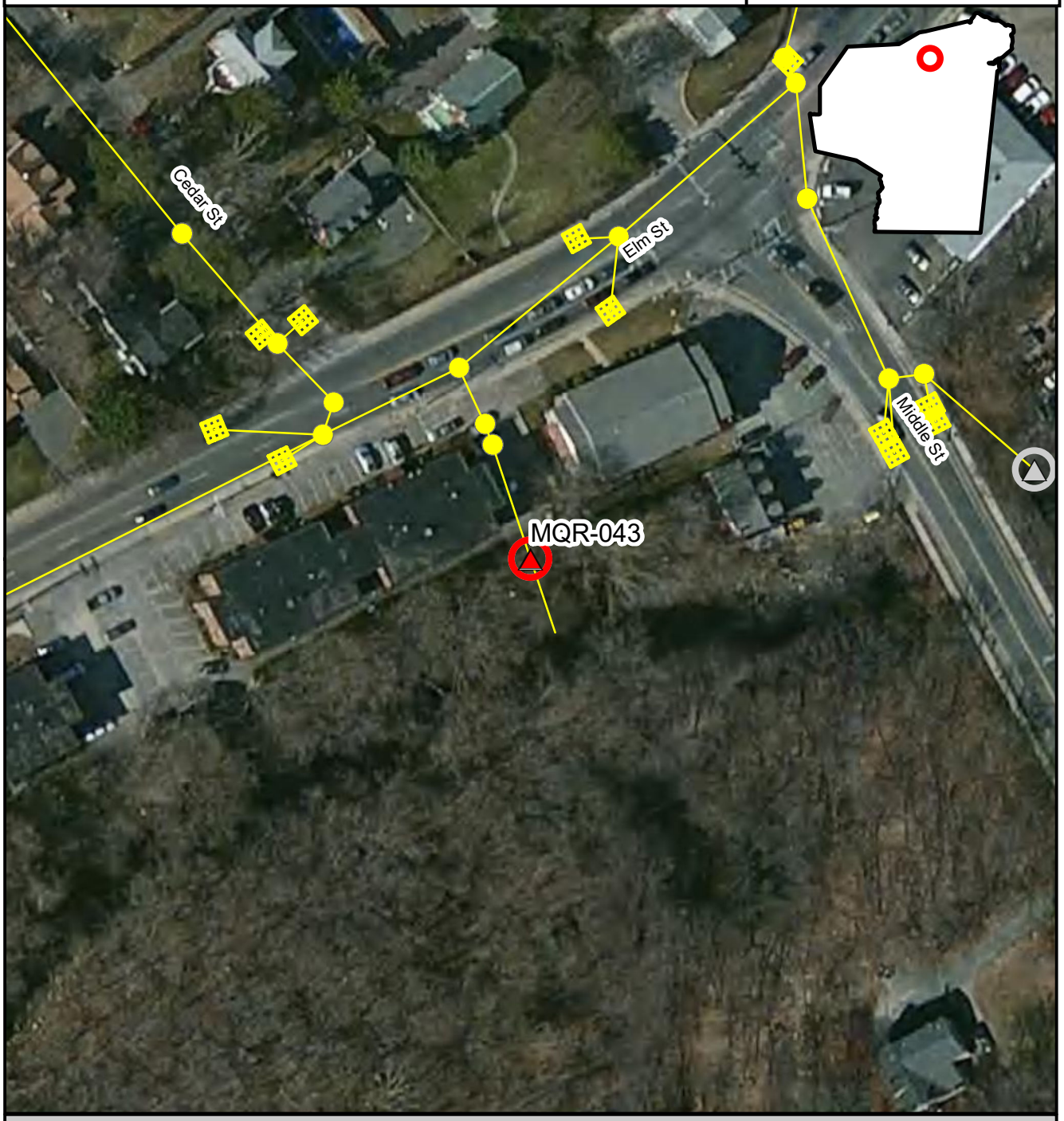
Braintree IDDE Inspections

Inspection ID
BT-234



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 8/22/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-235, WFR-014, 2017-08-22, 6:37:00

Created	2017-08-22 10:37:04 UTC by Matt Davis
Updated	2017-08-28 17:21:00 UTC by Matt Davis
Location	42.2293707, -70.985813

Section 1: General Information

Inspection ID	BT-235
Outfall ID	WFR-014
Outfall GIS ID	3
Inspector	CPO
Date	2017-08-22
Time	6:37:00
Temperature	75
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	18
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No
Section 6: General Comments	Heavily brush area on the border of school and private residence. Significant scouring. Some exposed pipe at grade.

Section 7: Media

Photos

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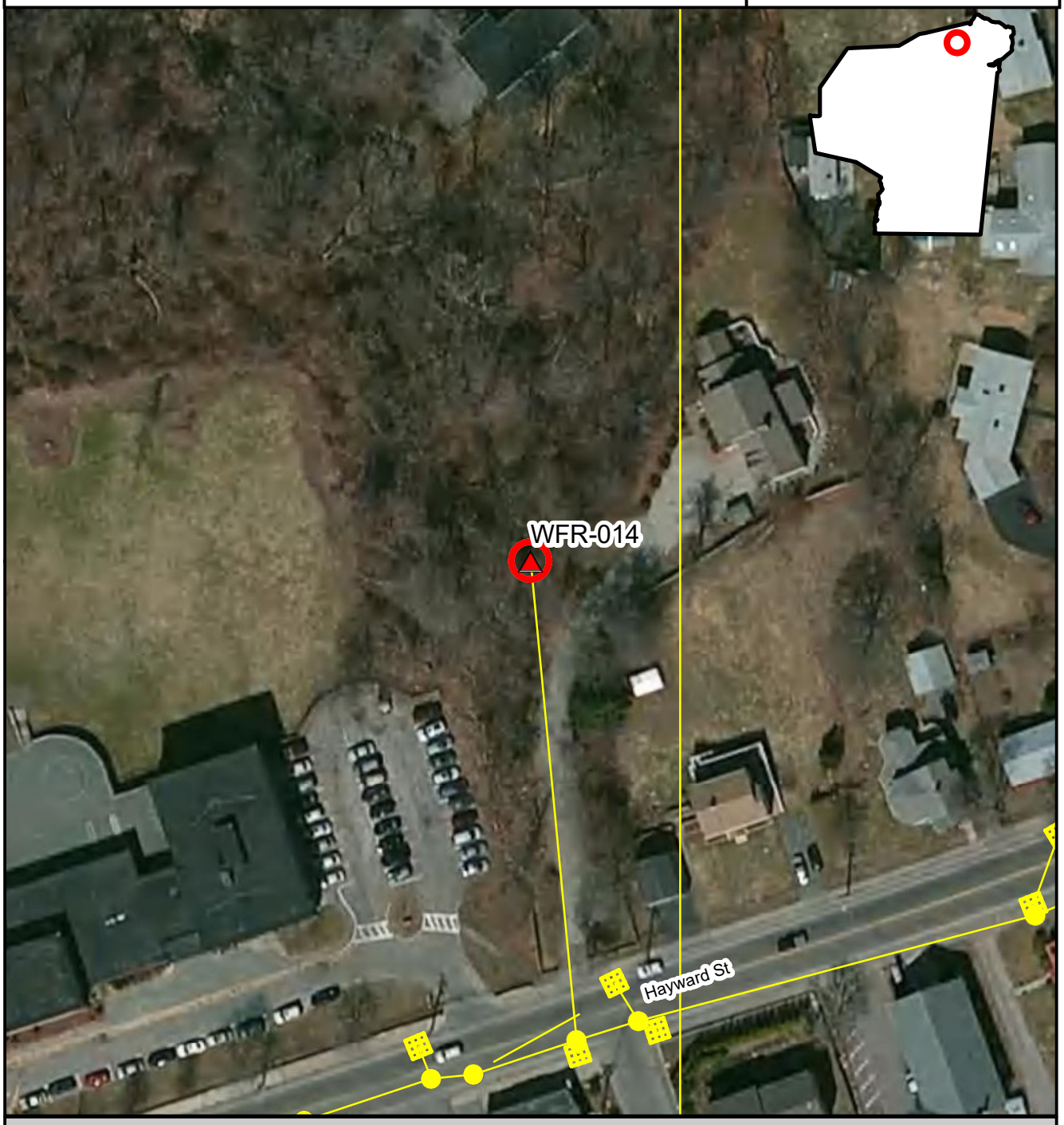
BT-235

Braintree IDDE Inspections

Inspection ID
BT-235



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 8/22/2017

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-236, MQR-028, 2017-08-22, 6:55:00

Created	2017-08-22 10:55:19 UTC by Matt Davis
Updated	2017-08-22 10:58:13 UTC by Matt Davis
Location	42.2292864, -70.9915453

Section 1: General Information

Inspection ID	BT-236
Outfall ID	MQR-028
Outfall GIS ID	32
Inspector	CPO
Date	2017-08-22
Time	6:55:00
Temperature	74
Inspection Location	Manhole
Investigation performed at manhole upstream of outfall?	Yes
Reason why investigation performed at upstream manhole	No access at residence.
Visual evidence of contamination present?	No
Odor Severity	None

Section 3: Physical Indicators (flow flowing)

Flow Present	Standing Water
Color Severity	None
Turbidity	No cloudiness
Floatables (does not include trash)	None

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pipe benthic growth present?	No
Section 6: General Comments	Popped manhole with some standing water in bottom. Upstream MH was location of inspection. Multiple inlets. Sizes and orientations recorded in field book.

Section 7: Media

Photos

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Brown AND Caldwell

Braintree IDDE Inspections

Inspection ID
BT-236

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 8/22/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-237, MQR-030, 2017-08-22, 7:07:00

Created	2017-08-22 11:07:50 UTC by Matt Davis
Updated	2017-08-22 11:09:38 UTC by Matt Davis
Location	42.2247308, -70.9933146

Section 1: General Information

Inspection ID	BT-237
Outfall ID	MQR-030
Outfall GIS ID	36
Inspector	CPO
Date	2017-08-22
Time	7:07:00
Temperature	74
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	12
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No
Section 6: General Comments	Water quality in river appeared poor.

Section 7: Media

Photos

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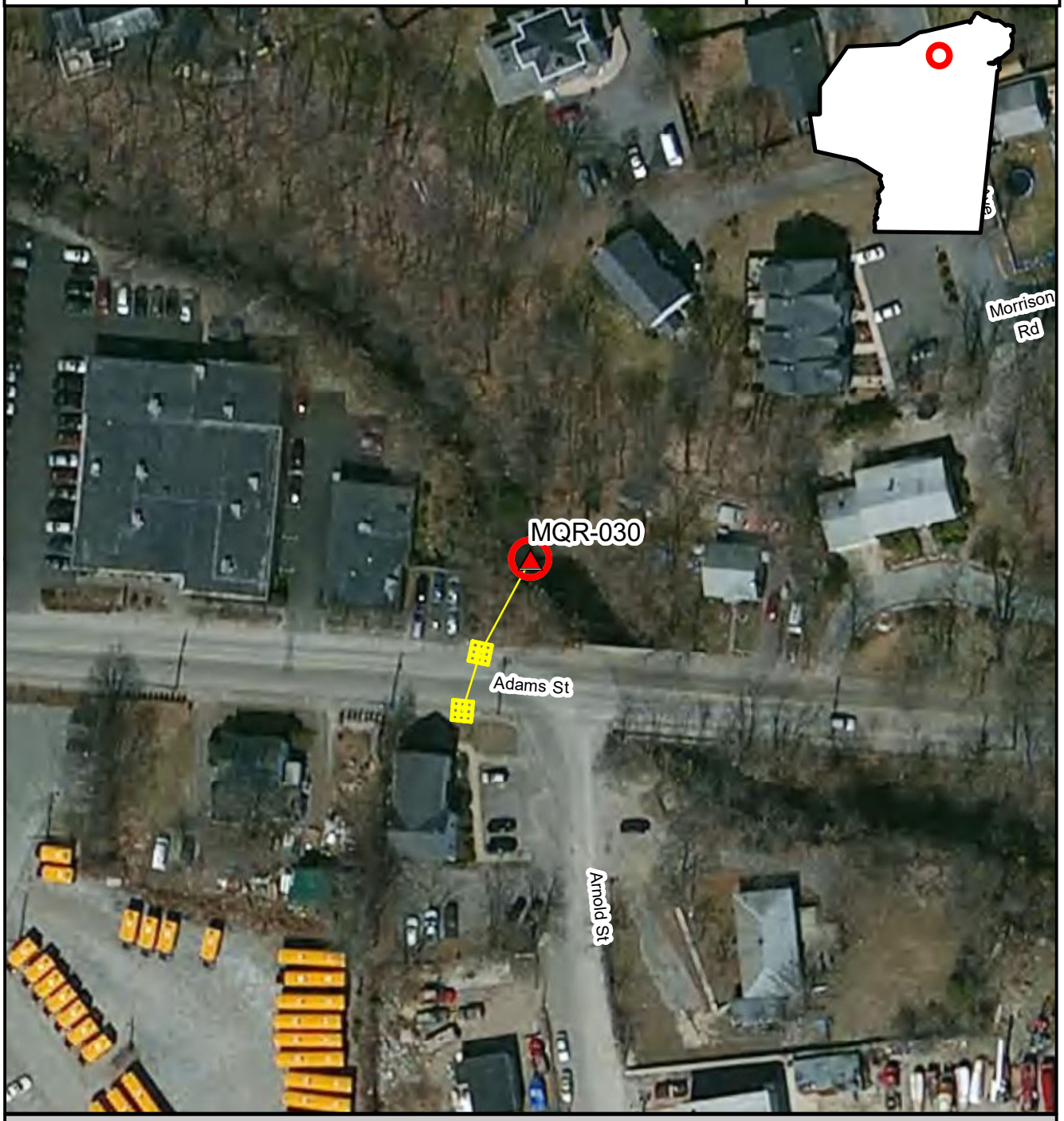
Braintree IDDE Inspections

Inspection ID
BT-237



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 8/22/2017

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-238, MQR-020, 2017-08-22, 7:26:00

Created	2017-08-22 11:26:39 UTC by Matt Davis
Updated	2017-08-22 11:29:35 UTC by Matt Davis
Location	42.2206297, -70.9868018

Section 1: General Information

Inspection ID	BT-238
Outfall ID	MQR-020
Outfall GIS ID	247
Inspector	CPO
Date	2017-08-22
Time	7:26:00
Temperature	76
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	18
Outfall Condition	Normal
Headwall Present	Yes
Headwall Condition	Fair
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No
Section 6: General Comments	Pipe has beveled/flared outlet structure. Buried in lawn debris

Section 7: Media

Photos

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Braintree IDDE Inspections

Inspection ID
BT-238

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 8/22/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-239, MQR-052, 2017-08-22, 7:51:00

Created	2017-08-22 11:51:51 UTC by Matt Davis
Updated	2017-08-22 11:54:59 UTC by Matt Davis
Location	42.2174732, -70.996616

Section 1: General Information

Inspection ID	BT-239
Outfall ID	MQR-052
Outfall GIS ID	49
Inspector	CPO
Date	2017-08-22
Time	7:51:00
Temperature	76
Inspection Location	Manhole
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	24
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	No
Outfall Submerged	Partially
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No
Section 6: General Comments	Standing water. Inlet is 18" outlet is 24"

Section 7: Media

Photos

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BT-239

Braintree IDDE Inspections

Inspection ID
BT-239

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 8/22/2017

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-240, MQR-042, 2017-08-22, 8:13:00

Created	2017-08-22 12:13:56 UTC by Matt Davis
Updated	2017-08-22 12:17:31 UTC by Matt Davis
Location	42.216183, -70.9954961

Section 1: General Information

Inspection ID	BT-240
Outfall ID	MQR-042
Outfall GIS ID	50
Inspector	CPO
Date	2017-08-22
Time	8:13:00
Temperature	76
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	PVC
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	12
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No
Section 6: General Comments	Flared/beveled end of PVC pipe

Section 7: Media

Photos

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BT-240

Braintree IDDE Inspections

Inspection ID
BT-240

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 8/22/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-241, MQR-053, 2017-08-22, 8:40:00

Created	2017-08-22 12:40:20 UTC by Matt Davis
Updated	2017-08-22 12:45:01 UTC by Matt Davis
Location	42.2217374, -70.9987194

Section 1: General Information

Inspection ID	BT-241
Outfall ID	MQR-053
Outfall GIS ID	40
Inspector	CPO
Date	2017-08-22
Time	8:40:00
Temperature	76
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	PVC
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	15
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No
Section 6: General Comments	Possible MBTA outfall.

Section 7: Media

Photos

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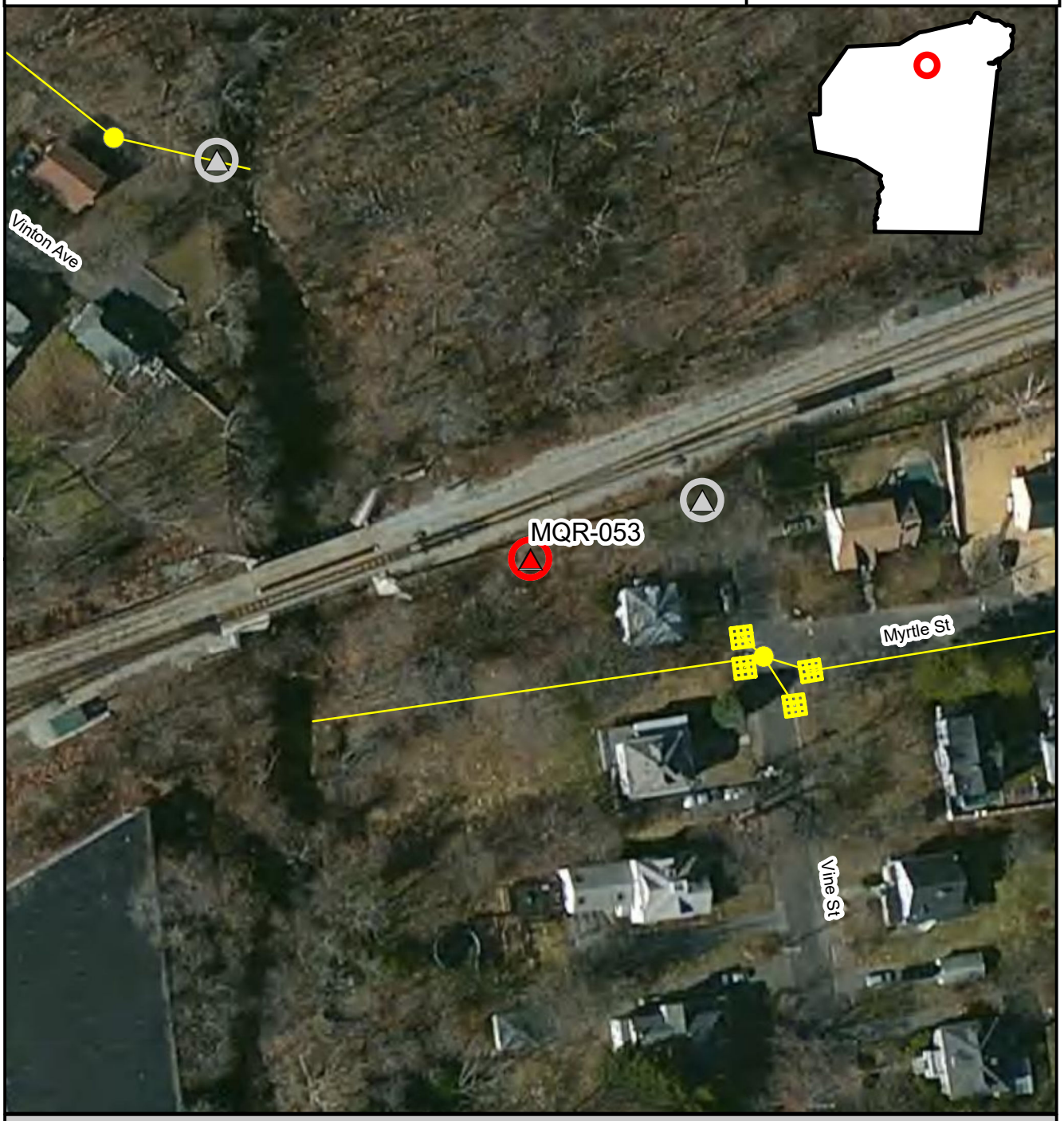
Braintree IDDE Inspections

Inspection ID
BT-241



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 8/22/2017

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-242, MQR-059, 2017-08-22, 9:01:00

Created	2017-08-22 13:01:41 UTC by Matt Davis
Updated	2017-08-22 13:04:48 UTC by Matt Davis
Location	42.2222076, -70.9993554

Section 1: General Information

Inspection ID	BT-242
Outfall ID	MQR-059
Outfall GIS ID	39
Inspector	CPO
Date	2017-08-22
Time	9:01:00
Temperature	76
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	12
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 7: Media

Photos

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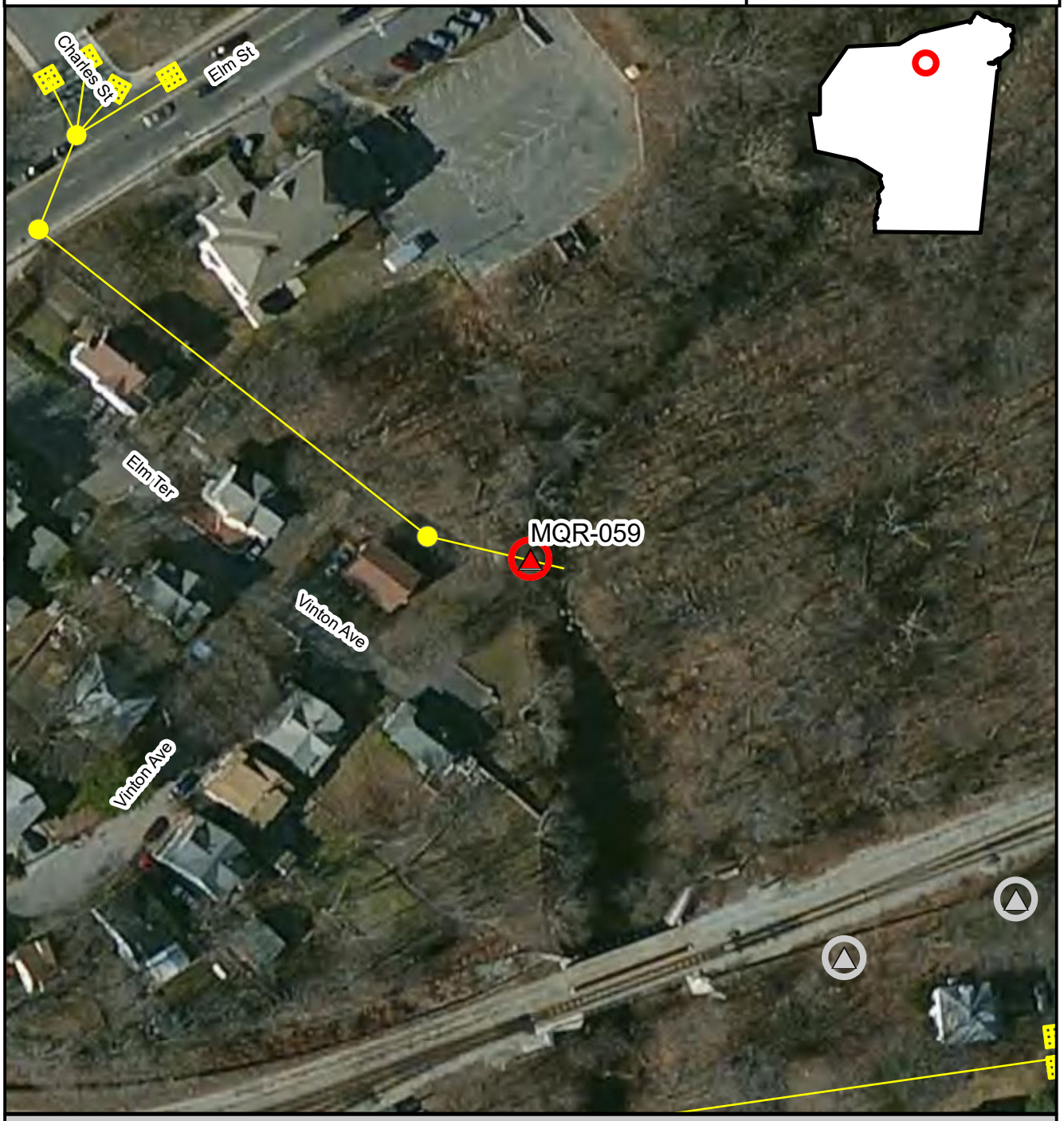
BT-242

Braintree IDDE Inspections

Inspection ID
BT-242



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 8/22/2017

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-243, MQR-026, 2017-08-22, 9:21:00

Created	2017-08-22 13:21:04 UTC by Matt Davis
Updated	2017-08-22 13:23:32 UTC by Matt Davis
Location	42.220806, -70.9913617

Section 1: General Information

Inspection ID	BT-243
Outfall ID	MQR-026
Outfall GIS ID	45
Inspector	CPO
Date	2017-08-22
Time	9:21:00
Temperature	76
Inspection Location	Manhole
Investigation performed at manhole upstream of outfall?	Yes
Reason why investigation performed at upstream manhole	No permission given from land owners. Not home, no right of way.
Visual evidence of contamination present?	No
Odor Severity	None

Section 3: Physical Indicators (flow flowing)

Flow Present	Standing Water
Color Severity	None
Turbidity	No cloudiness
Floatables (does not include trash)	None

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pipe benthic growth present?	No
Section 6: General Comments	Standing water. No flow and everything below invert of pipes.

Section 7: Media

Photos

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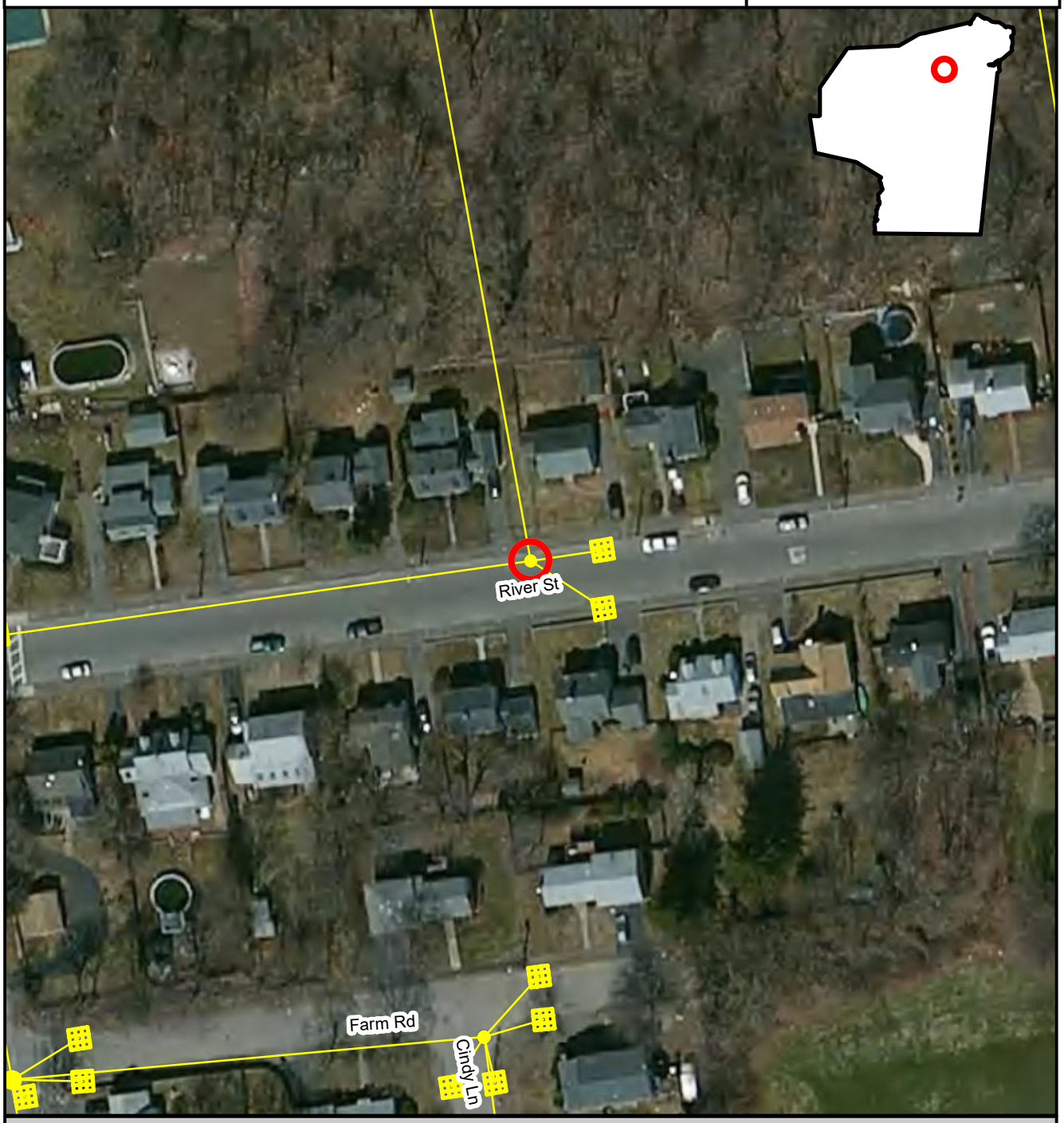
Braintree IDDE Inspections

Inspection ID
BT-243



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 8/22/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-244, MQR-073, 2017-08-22, 9:40:00

Created	2017-08-22 13:40:50 UTC by Matt Davis
Updated	2017-08-22 13:44:42 UTC by Matt Davis
Location	42.2241518, -71.0025561

Section 1: General Information

Inspection ID	BT-244
Outfall ID	MQR-073
Outfall GIS ID	35
Inspector	CPO
Date	2017-08-22
Time	9:40:00
Temperature	76
Inspection Location	Manhole
Investigation performed at manhole upstream of outfall?	Yes
Reason why investigation performed at upstream manhole	Land owners did not answer door to grant permission to access property. No ROW
Visual evidence of contamination present?	No
Odor Severity	None

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pipe benthic growth present?	No
Section 6: General Comments	2 inlet pipes drawn and noted in field book. 15" outlet pipe

Section 7: Media

Photos

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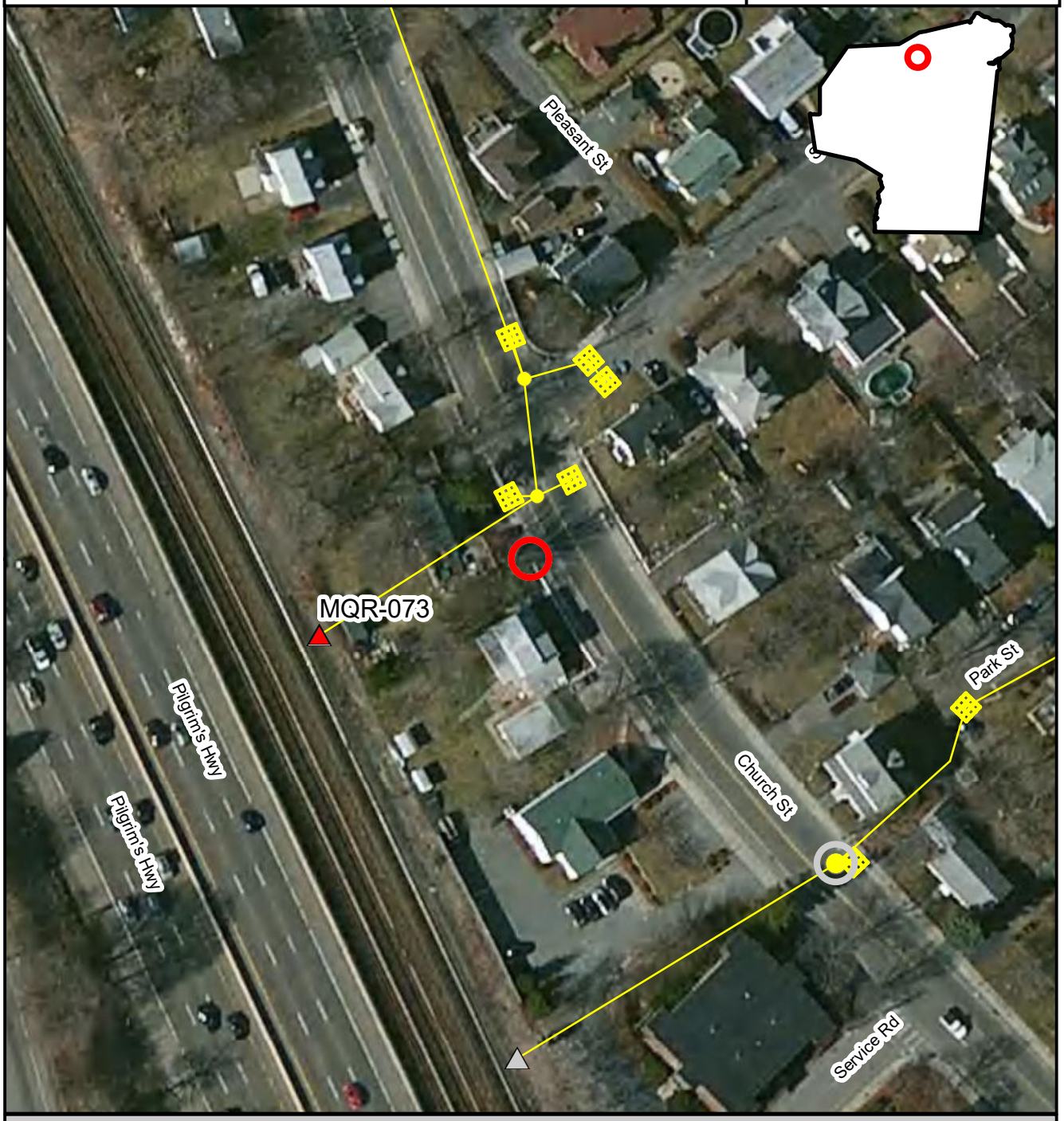
Braintree IDDE Inspections

Inspection ID
BT-244



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 8/22/2017

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-245, MQR-019, 2017-08-22, 10:13:00

Created	2017-08-22 14:13:25 UTC by Matt Davis
Updated	2017-08-22 14:19:44 UTC by Matt Davis
Location	42.2239877, -70.9851343

Section 1: General Information

Inspection ID	BT-245
Outfall ID	MQR-019
Outfall GIS ID	0
Inspector	CPO
Date	2017-08-22
Time	10:13:00
Temperature	76
Inspection Location	Catch basin
Investigation performed at manhole upstream of outfall?	Yes
Reason why investigation performed at upstream manhole	No property owners home to provide permission to access the outfall.
Visual evidence of contamination present?	No
Odor Severity	None

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pipe benthic growth present?	No
Section 6: General Comments	This was conducted at a catch basin. That was appeared to be the closest upstream structure to the outfall so it was used as a manhole. This was noted as such.

Section 7: Media

Photos

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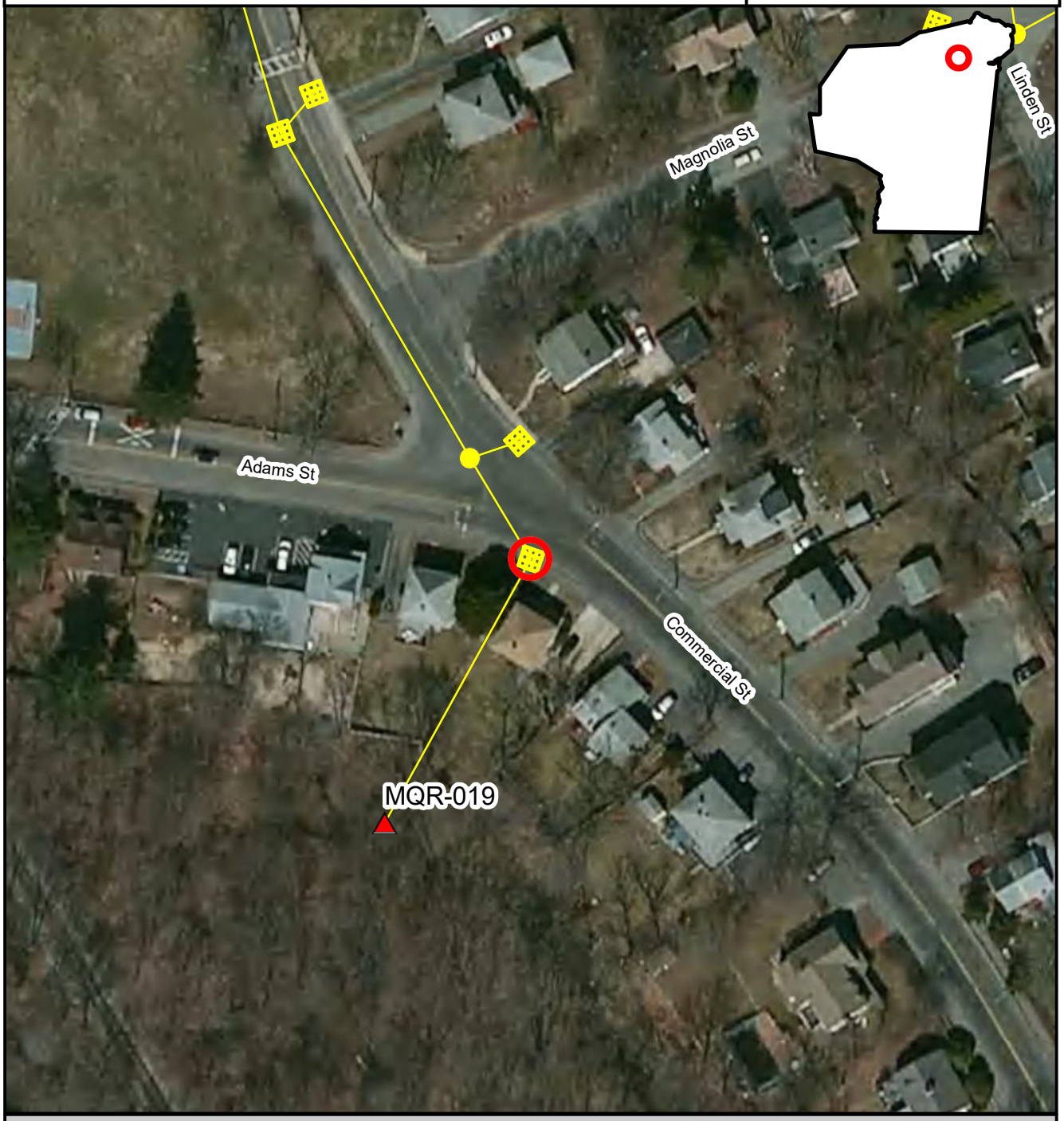
Braintree IDDE Inspections

Inspection ID
BT-245



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 8/22/2017

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-246, WFR-006, 2017-08-22, 10:38:00

Created	2017-08-22 14:38:05 UTC by Matt Davis
Updated	2017-08-22 15:02:42 UTC by Matt Davis
Location	42.2316857, -70.9796542

Section 1: General Information

Inspection ID	BT-246
Outfall ID	WFR-006
Outfall GIS ID	224
Inspector	CPO GH
Date	2017-08-22
Time	10:38:00
Temperature	76
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	24
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	Standing Water

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	Yes
Pool Quality Description	Oil sheen
Pool quality Comments	Excessive sheen in water in pool.
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	Pool WQ may indicate future WQ samples would be beneficial

Section 7: Media

Photos

Braintree IDDE Inspections

Inspection ID
BT-246

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 8/22/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-247, FMR-004, 2017-08-22, 11:04:00

Created	2017-08-22 15:04:58 UTC by Matt Davis
Updated	2017-08-22 15:14:01 UTC by Matt Davis
Location	42.1999956, -71.015175

Section 1: General Information

Inspection ID	BT-247
Outfall ID	FMR-004
Outfall GIS ID	112
Inspector	CPO
Date	2017-08-22
Time	11:04:00
Temperature	78
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	18
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No
Section 6: General Comments	No flow from this outfall. 3 adjacent pipes.

Section 7: Media

Photos

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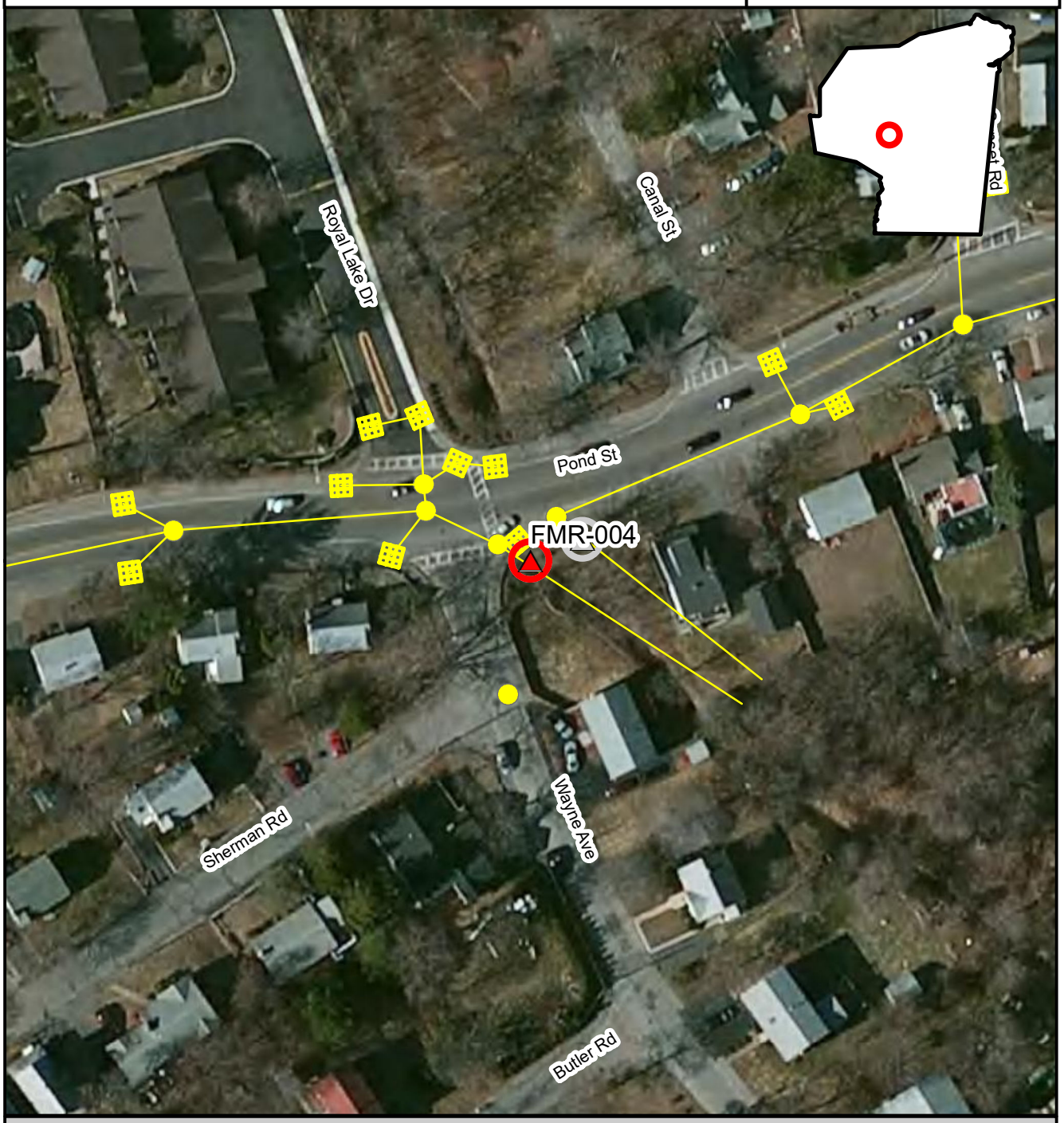
Braintree IDDE Inspections

Inspection ID
BT-247



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 8/22/2017

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-248, FMR-003, 2017-08-22, 11:08:00

Created	2017-08-22 15:08:57 UTC by Matt Davis
Updated	2017-08-22 15:14:14 UTC by Matt Davis
Location	42.2000272, -71.0150685

Section 1: General Information

Inspection ID	BT-248
Outfall ID	FMR-003
Outfall GIS ID	113
Inspector	CPO
Date	2017-08-22
Time	11:08:00
Temperature	78
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	18
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	No
Outfall Submerged	Partially
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	Standing Water
Color Severity	None
Turbidity	Opaque
Floatables (does not include trash)	None

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No
Section 6: General Comments	Standing water in pipe discharge pool. Slight sheen over top of outfall. Two culverts on both sides of the road allow brook passage.

Section 7: Media

Photos

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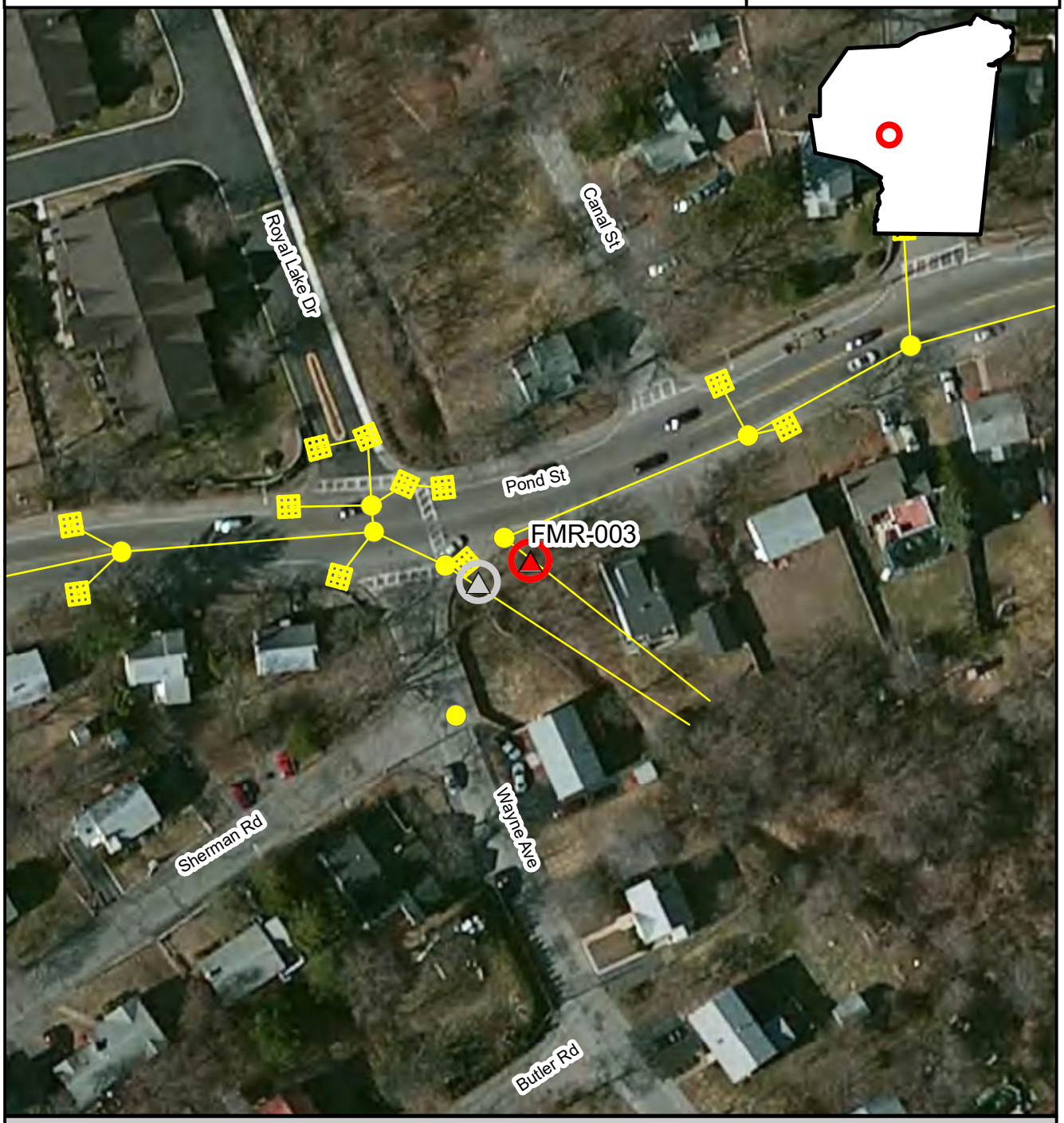
BT-248

Braintree IDDE Inspections

Inspection ID
BT-248



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 8/22/2017

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-249, FMR-002, 2017-08-22, 11:23:00

Created	2017-08-22 15:24:00 UTC by Matt Davis
Updated	2017-08-22 15:27:37 UTC by Matt Davis
Location	42.198604, -71.0137437

Section 1: General Information

Inspection ID	BT-249
Outfall ID	FMR-002
Outfall GIS ID	109
Inspector	CPO
Date	2017-08-22
Time	11:23:00
Temperature	78
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	30
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	Yes
Sediment Depth (%)	50
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No
Section 6: General Comments	30 " pipe 50% full of rock and sediment

Section 7: Media

Photos

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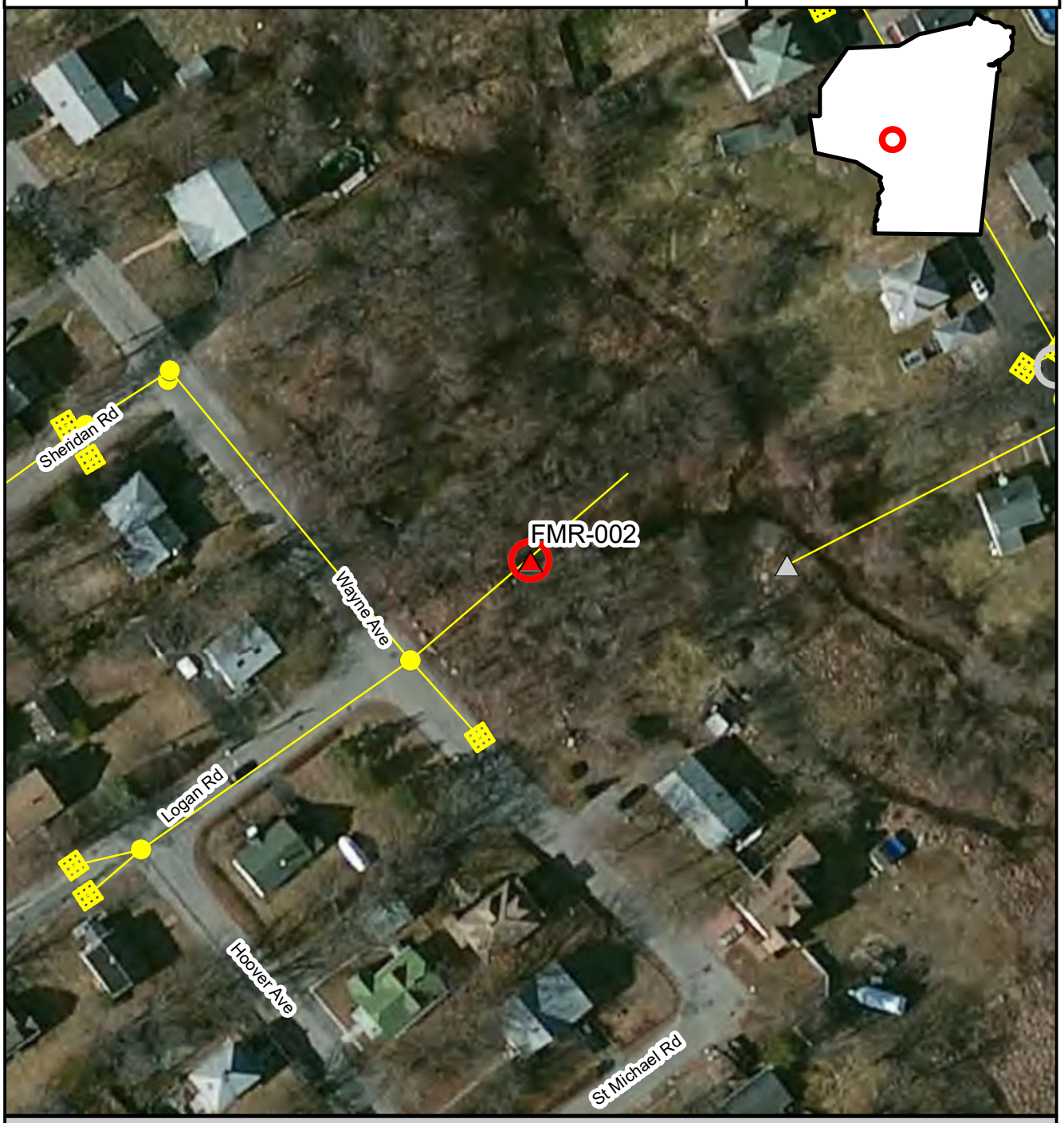
Braintree IDDE Inspections

Inspection ID
BT-249



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 8/22/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-250, FMR-001, 2017-08-22, 11:46:00

Created	2017-08-22 15:46:23 UTC by Matt Davis
Updated	2017-08-22 15:52:48 UTC by Matt Davis
Location	42.1988927, -71.0126723

Section 1: General Information

Inspection ID	BT-250
Outfall ID	FMR-001
Outfall GIS ID	114
Inspector	CPO
Date	2017-08-22
Time	11:46:00
Temperature	81
Inspection Location	Manhole
Investigation performed at manhole upstream of outfall?	Yes
Reason why investigation performed at upstream manhole	Could not locate outfall via right of way and permission from landowner. Very brushy with thorns.
Visual evidence of contamination present?	No
Odor Severity	None

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pipe benthic growth present?	No
Section 6: General Comments	Significant sediment in the manhole at inlets and the outlet pipe. 6" from top of sediment to top of outlet pipe 10" from top of sediment to top of pipe at 10 o clock

Section 7: Media

Photos

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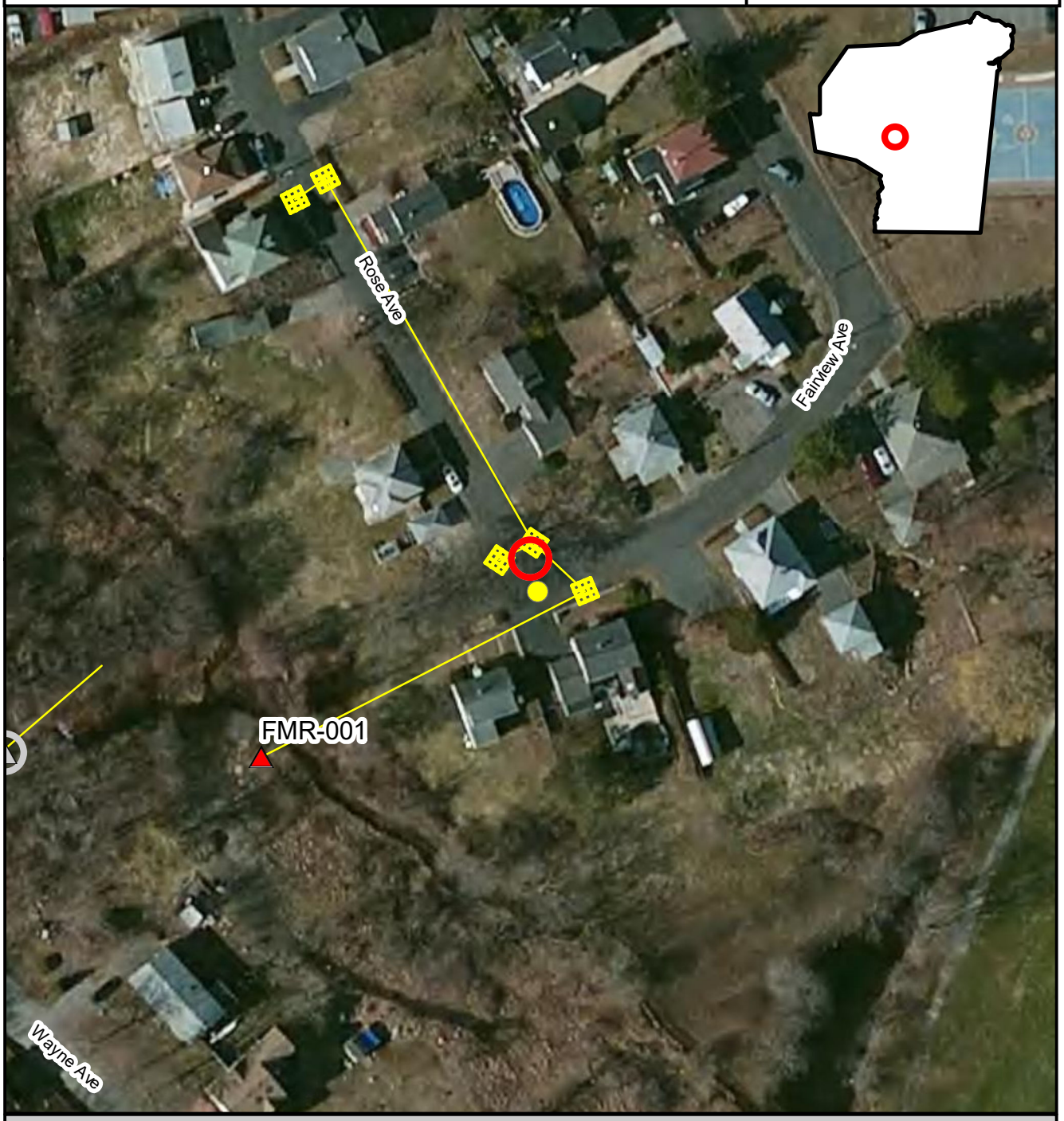
Braintree IDDE Inspections

Inspection ID
BT-250



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 8/22/2017

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-251, MQR-046, 2017-09-12, 8:01:00

Created	2017-09-12 12:01:02 UTC by Matt Davis
Updated	2017-09-12 12:03:46 UTC by Matt Davis
Location	42.2143169, -70.9940592

Section 1: General Information

Inspection ID	BT-251
Outfall ID	MQR-046
Outfall GIS ID	237
Inspector	CPO
Date	2017-09-12
Time	8:01:00
Temperature	70
Inspection Location	Manhole
Investigation performed at manhole upstream of outfall?	Yes
Reason why investigation performed at upstream manhole	To identify if pitfall exists
Visual evidence of contamination present?	No
Odor Severity	None

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	Yes
Deposits/Stains	Sediments
Deposits/stains Comments	In upstream pipe
Pipe benthic growth present?	No

Section 7: Media

Photos

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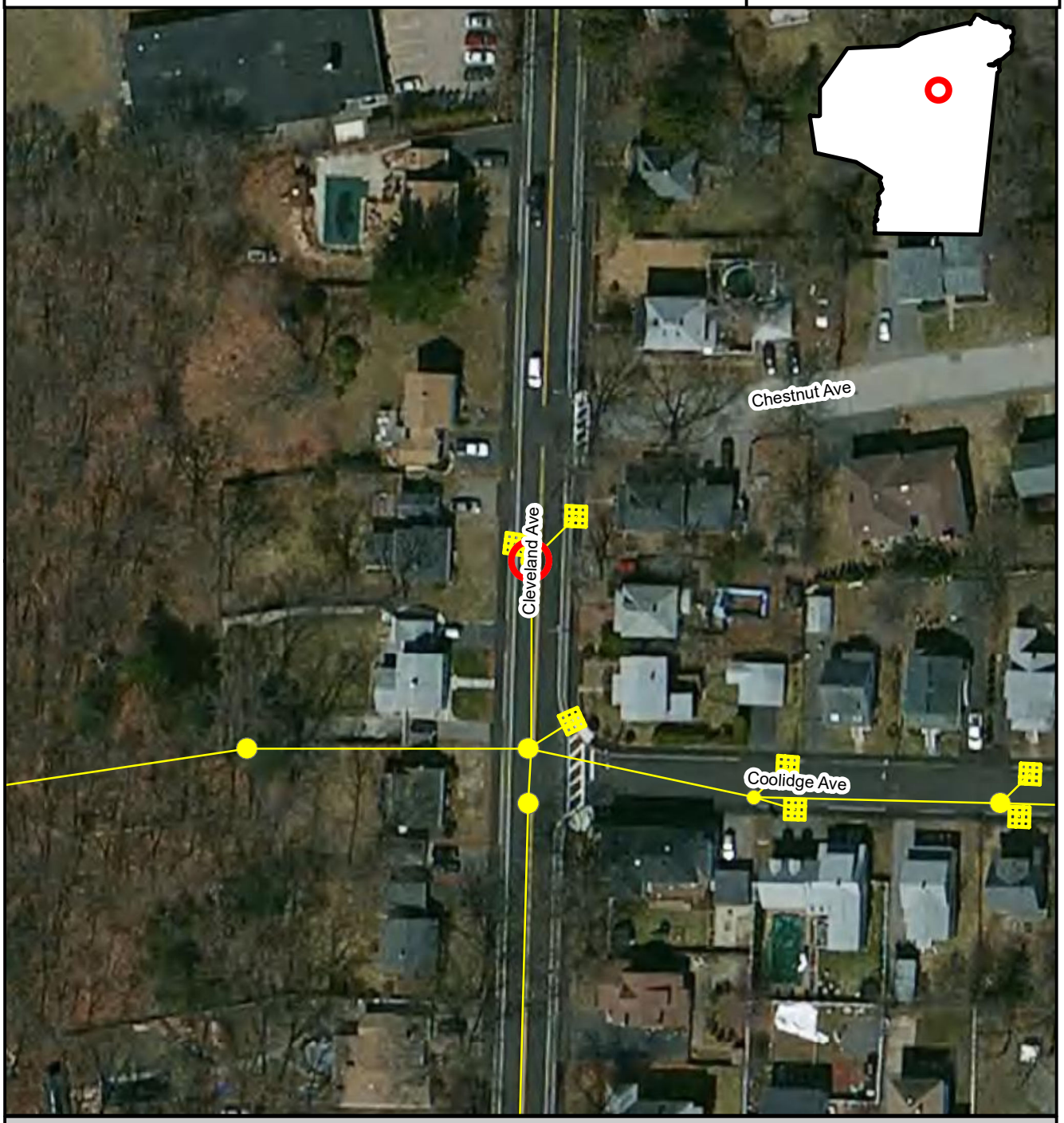
Braintree IDDE Inspections

Inspection ID
BT-251



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 9/12/2017

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-252, MQR-005, 2017-09-12, 8:23:00

Created	2017-09-12 12:23:16 UTC by Matt Davis
Updated	2017-09-12 13:05:18 UTC by Matt Davis
Location	42.2222824, -70.9738223

Section 1: General Information

Inspection ID	BT-252
Outfall ID	MQR-005
Outfall GIS ID	7
Inspector	CPO
Date	2017-09-12
Time	8:23:00
Temperature	70
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	Steel
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	18
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	Yes

Section 3: Physical Indicators (flow flowing)

Flow Present	Yes
Flow Velocity	Moderate
Flow Width (in)	4
Flow Depth (in)	1
Color Severity	None
Turbidity	No cloudiness
Floatables (does not include trash)	None

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	Yes

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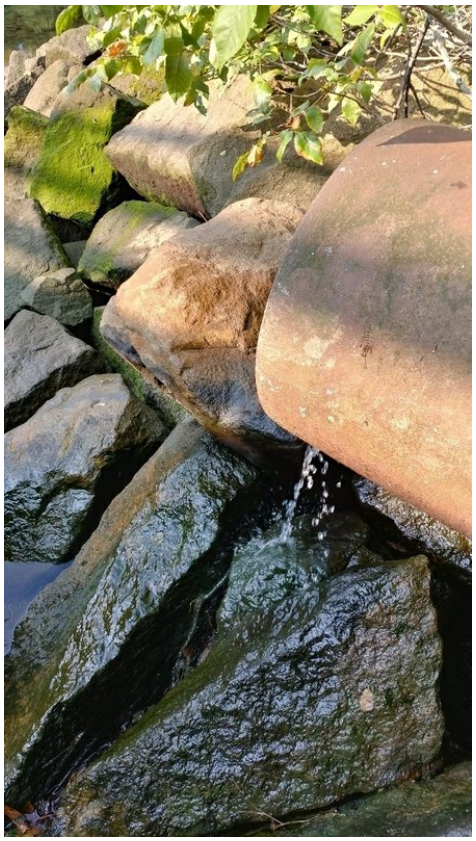
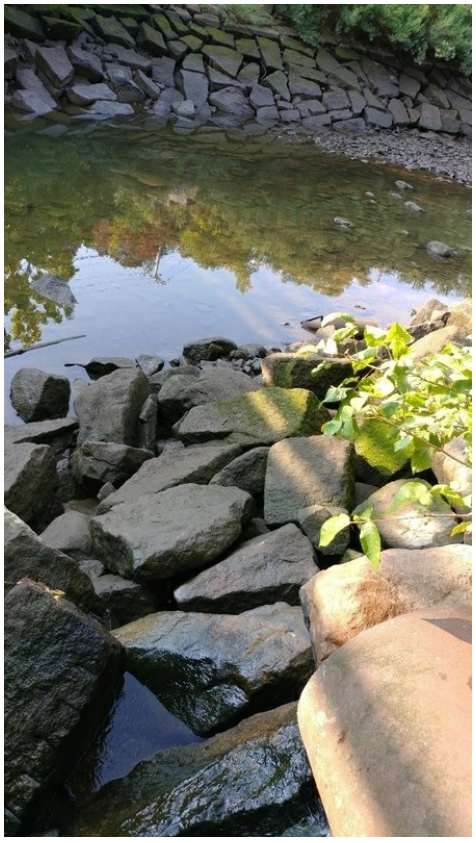
Field Measurements Results

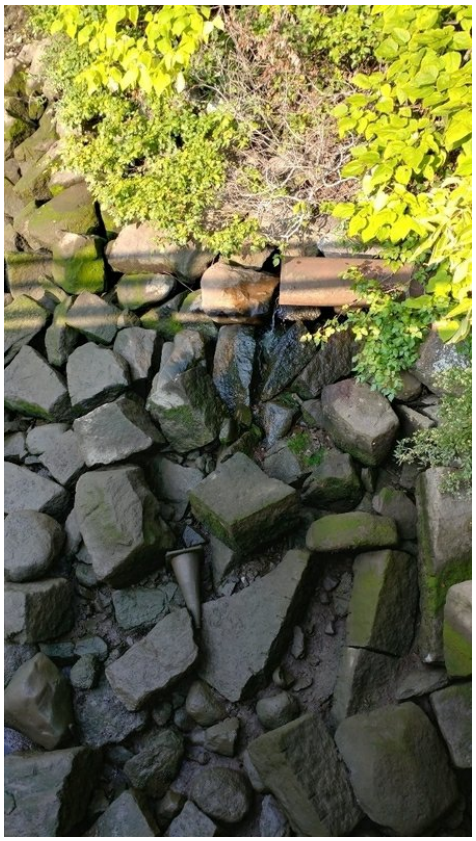
Temperature (C)	19.2
pH (pH units)	8.16
Salinity (ppt)	722
Conductivity (uS)	1026
Ammonia (Mg/L)	4
Surfactants (ppm)	0.75
Chlorine (ppm)	0
Were laboratory samples collected?	Yes
Measurements/samples collected from	Outfall
E. Coli (MPN/100 ml)	140000
Intermittent flow trap used?	No
Section 6: General Comments	Depth less then 1 inch. velocity not measured or required. Third visit also BT-26 and BT-86

Section 7: Media

Photos

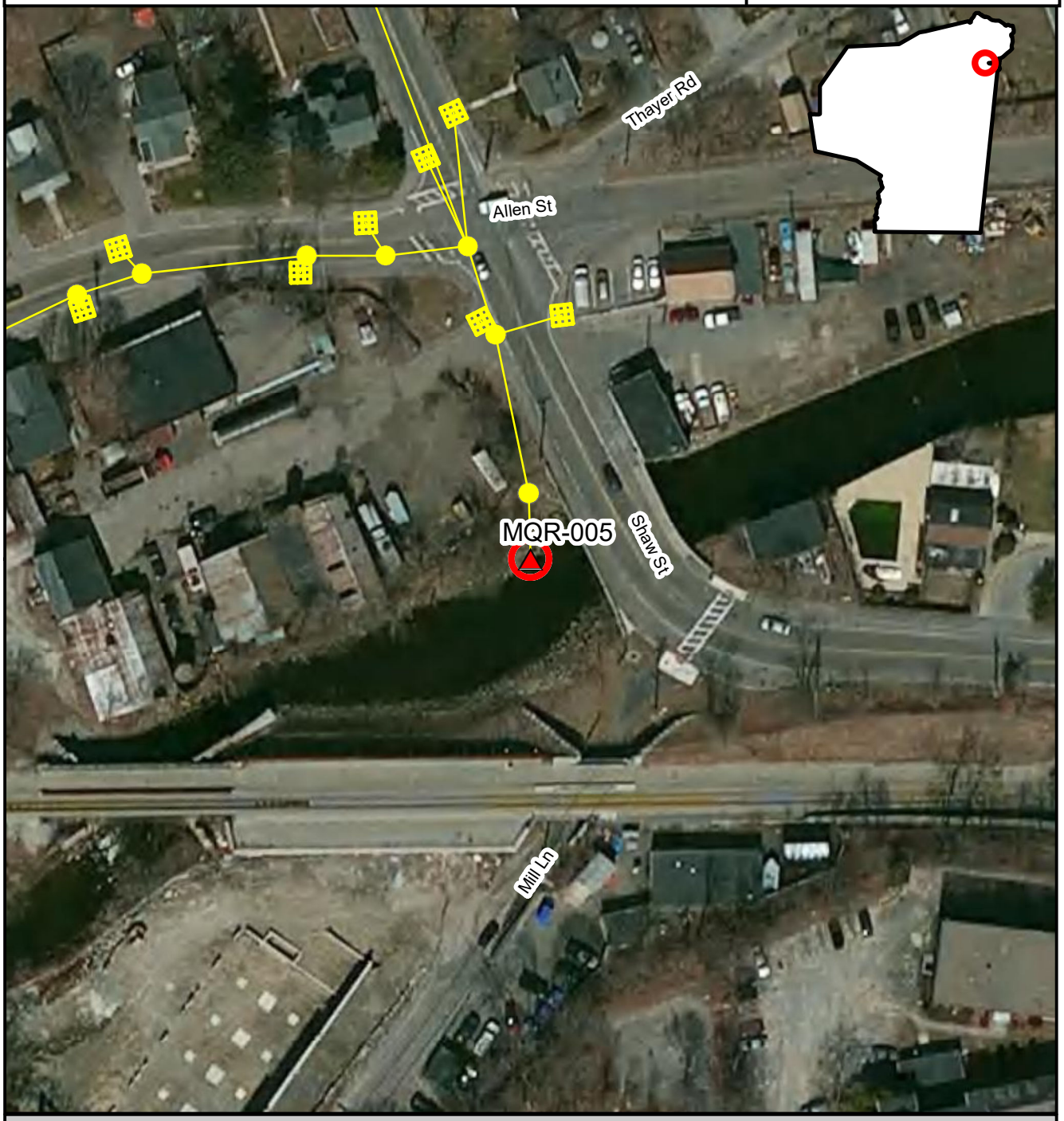






Braintree IDDE Inspections

Inspection ID
BT-252



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 9/12/2017

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-253, TWB-003, 2017-09-12, 12:26:00

Created	2017-09-12 16:26:43 UTC by Matt Davis
Updated	2017-09-13 13:00:28 UTC by Matt Davis
Location	42.2274299, -71.0047595

Section 1: General Information

Inspection ID	BT-253
Outfall ID	TWB-003
Outfall GIS ID	34
Inspector	CPO
Date	2017-09-12
Time	12:26:00
Temperature	80
Inspection Location	Manhole
Investigation performed at manhole upstream of outfall?	Yes
Reason why investigation performed at upstream manhole	Could not locate outfall
Visual evidence of contamination present?	No
Odor Severity	None

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

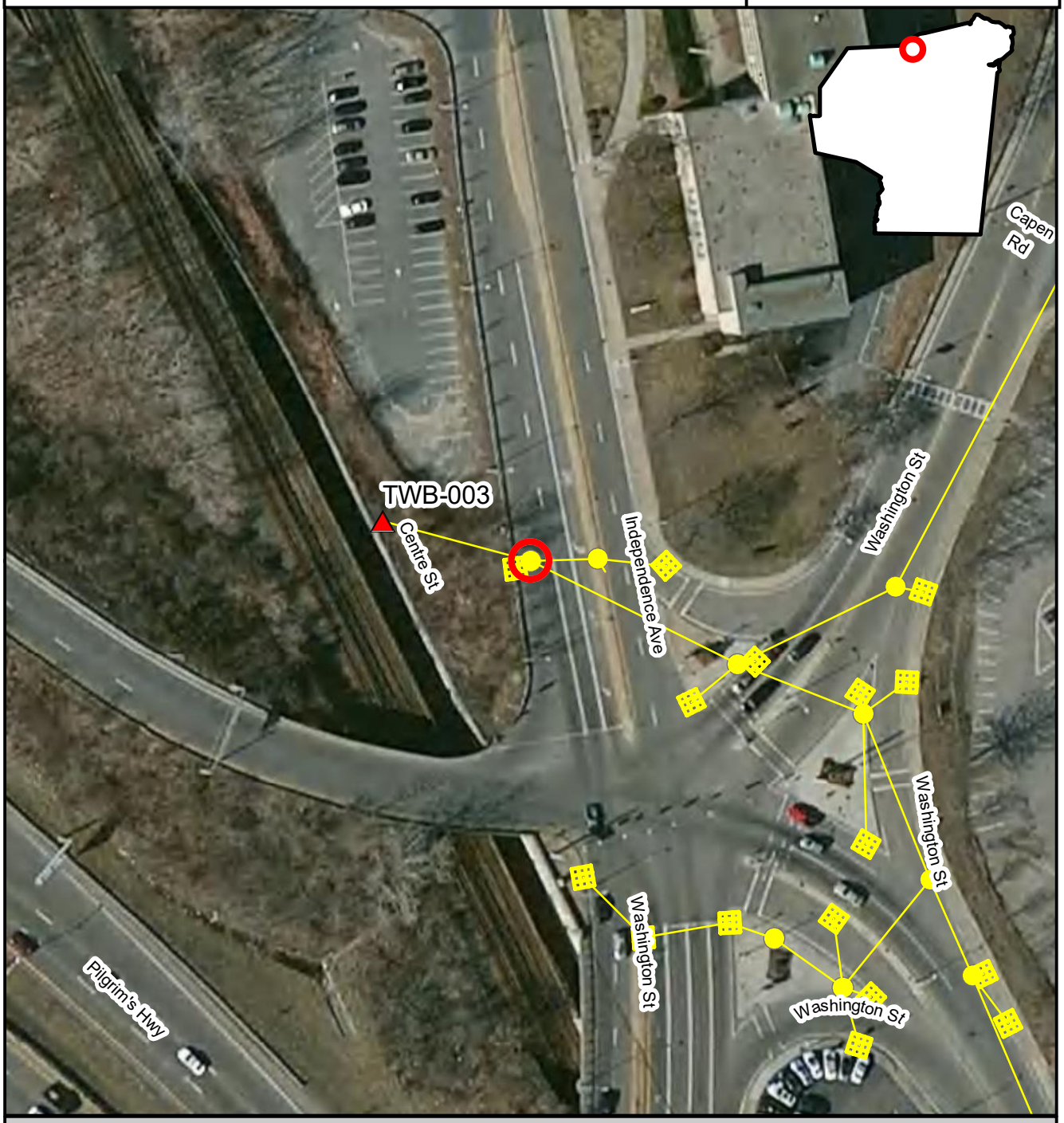
Deposits/stains present?	No
Pipe benthic growth present?	No
Section 6: General Comments	Access to oufall was blocked by RR Fence. Inpsection performed at upstream manhole.

Section 7: Media

Photos

Braintree IDDE Inspections

Inspection ID
BT-253



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 9/12/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-254, MQR-071, 2017-09-12, 12:40:00

Created	2017-09-12 16:40:32 UTC by Matt Davis
Updated	2017-09-13 13:01:01 UTC by Matt Davis
Location	42.2237395, -71.0019475

Section 1: General Information

Inspection ID	BT-254
Outfall ID	MQR-071
Outfall GIS ID	35
Inspector	CPO
Date	2017-09-12
Time	12:40:00
Temperature	80
Inspection Location	Manhole
Investigation performed at manhole upstream of outfall?	Yes
Reason why investigation performed at upstream manhole	Could not locate outfall
Visual evidence of contamination present?	No
Odor Severity	None

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

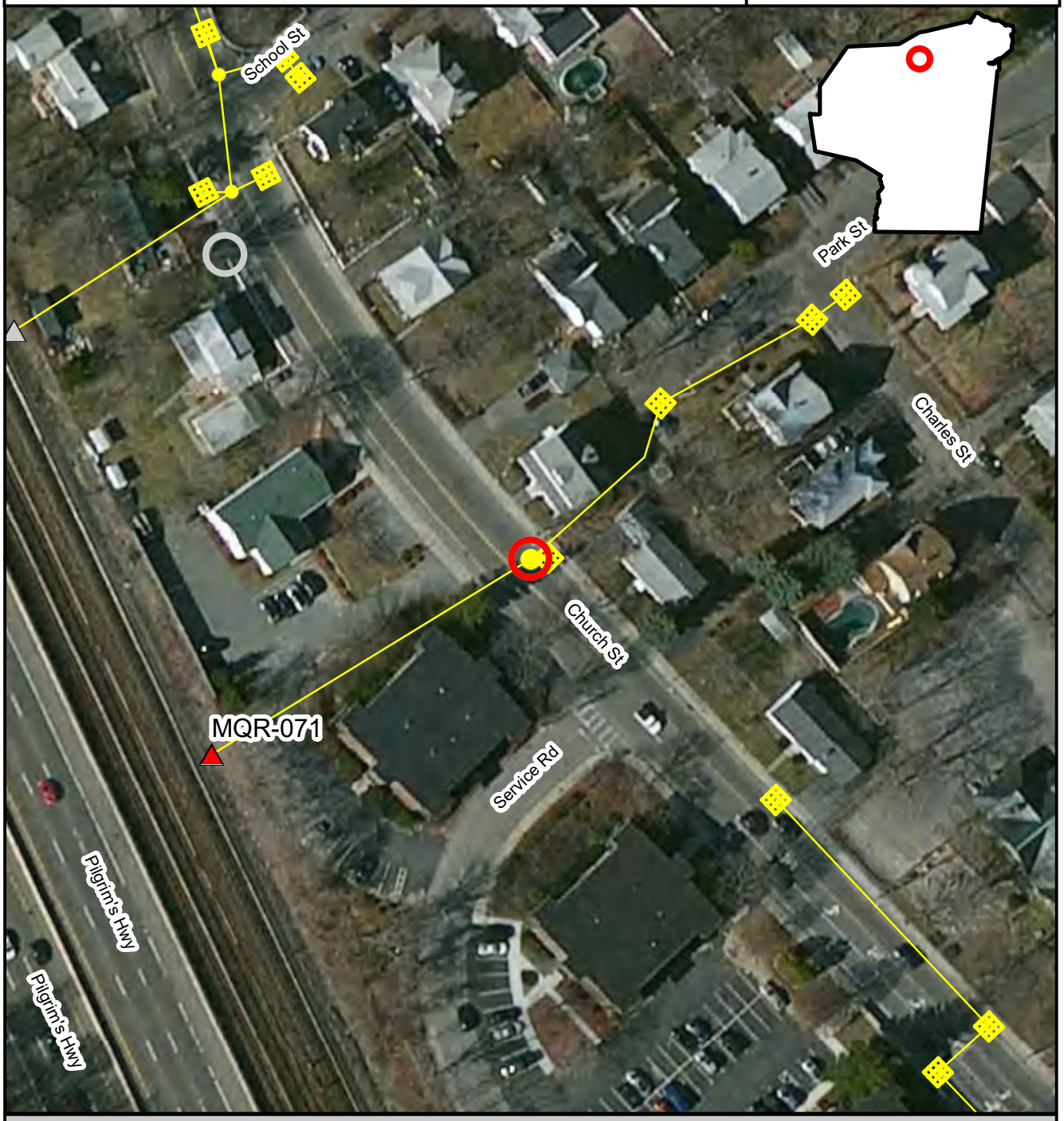
Deposits/stains present?	No
Pipe benthic growth present?	No
Section 6: General Comments	Outfall was on private property. No one was home to grant access. Inspection performed at upstream manhole.

Section 7: Media

Photos

Braintree IDDE Inspections

Inspection ID
BT-254



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 9/12/2017

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-255, TWB-019, 2017-09-12, 13:01:00

Created	2017-09-12 17:01:38 UTC by Matt Davis
Updated	2017-09-12 17:06:34 UTC by Matt Davis
Location	42.2218491, -71.0043287

Section 1: General Information

Inspection ID	BT-255
Outfall ID	TWB-019
Inspector	CPO
Date	2017-09-12
Time	13:01:00
Temperature	80
Inspection Location	Manhole
Investigation performed at manhole upstream of outfall?	Yes
Reason why investigation performed at upstream manhole	Could not locate outfall
Visual evidence of contamination present?	No
Odor Severity	None

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pipe benthic growth present?	No

Section 7: Media

Photos

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Braintree IDDE Inspections

Inspection ID
BT-255

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 9/12/2017

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-256, SMB-004, 2017-09-12, 13:33:00

Created	2017-09-12 17:33:53 UTC by Matt Davis
Updated	2017-09-13 13:01:43 UTC by Matt Davis
Location	42.2197461, -70.9690116

Section 1: General Information

Inspection ID	BT-256
Outfall ID	SMB-004
Outfall GIS ID	15
Inspector	CPO
Date	2017-09-12
Time	13:33:00
Temperature	85
Inspection Location	Manhole
Investigation performed at manhole upstream of outfall?	Yes
Reason why investigation performed at upstream manhole	Could not locate outfall
Visual evidence of contamination present?	No
Odor Severity	None

Section 3: Physical Indicators (flow flowing)

Flow Present	Standing Water
Color Severity	None
Turbidity	No cloudiness
Floatables (does not include trash)	None

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pipe benthic growth present?	No

Section 7: Media

Photos

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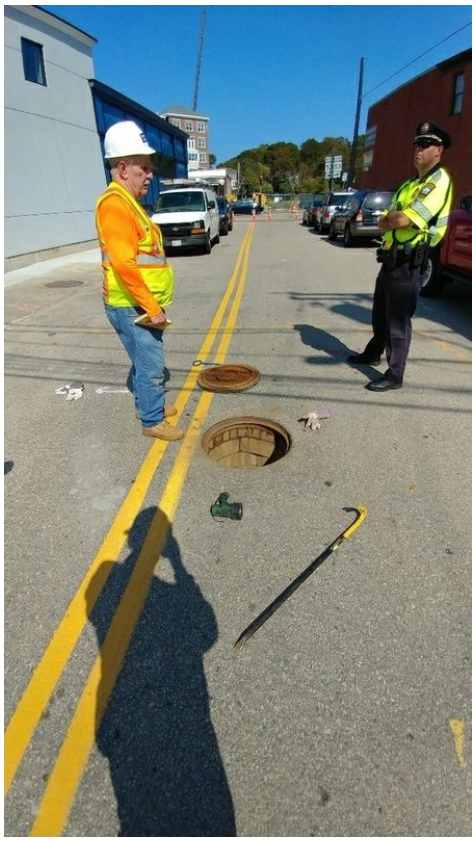
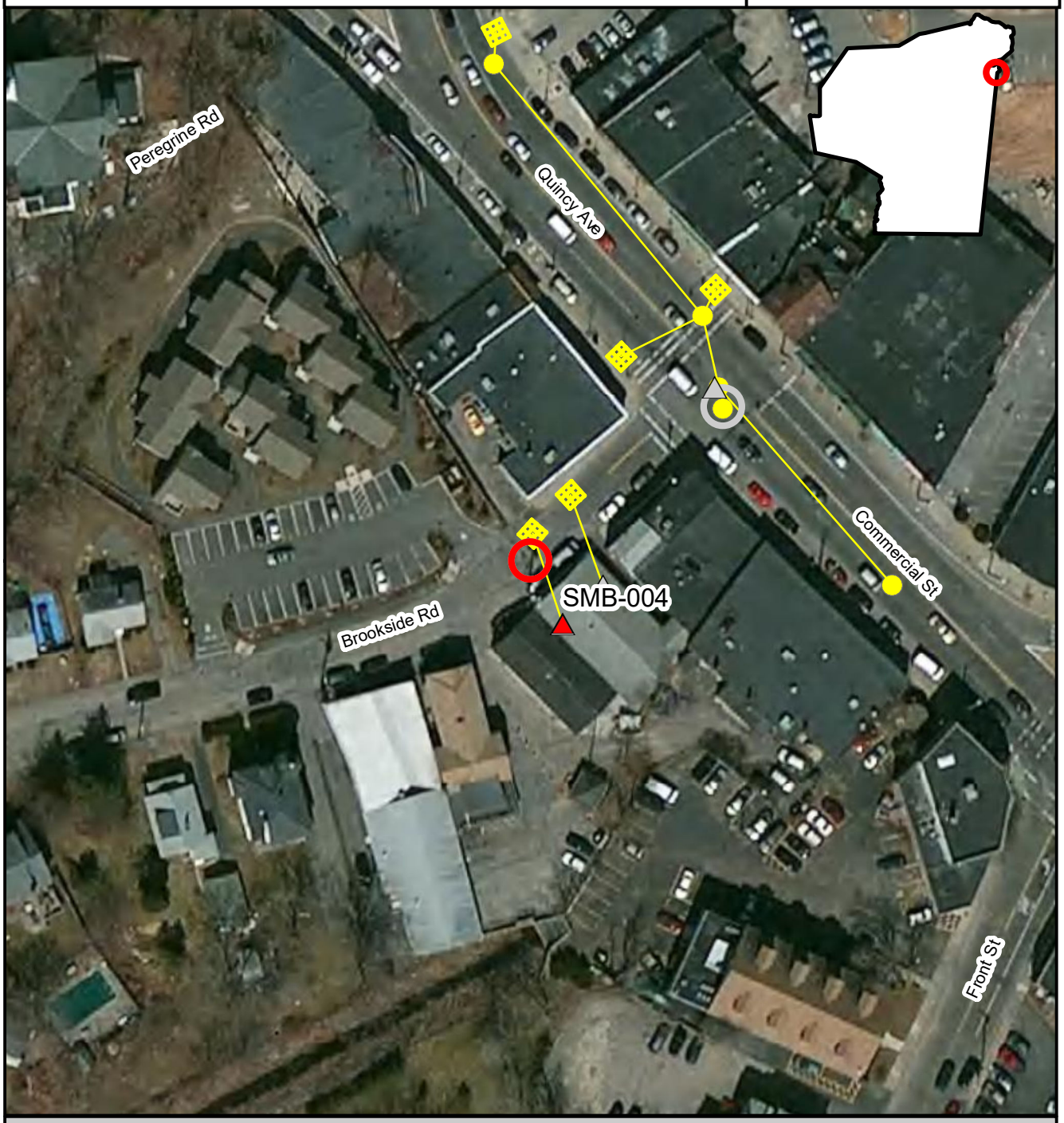


Braintree IDDE Inspections

Inspection ID
BT-256



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 9/12/2017

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-257, FMR-025, 2017-09-12, 14:22:00

Created	2017-09-12 18:22:57 UTC by Matt Davis
Updated	2017-09-12 18:31:01 UTC by Matt Davis
Location	42.20822, -71.025153

Section 1: General Information

Inspection ID	BT-257
Outfall ID	FMR-025
Outfall GIS ID	91
Inspector	CPO
Date	2017-09-12
Time	14:22:00
Temperature	85
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	can not tell
Closed Pipe Diameter (in)	18
Outfall Condition	terrible nearly crushed with overburden
Headwall Present	No
Sediment Present?	Yes
Sediment Depth (%)	80
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

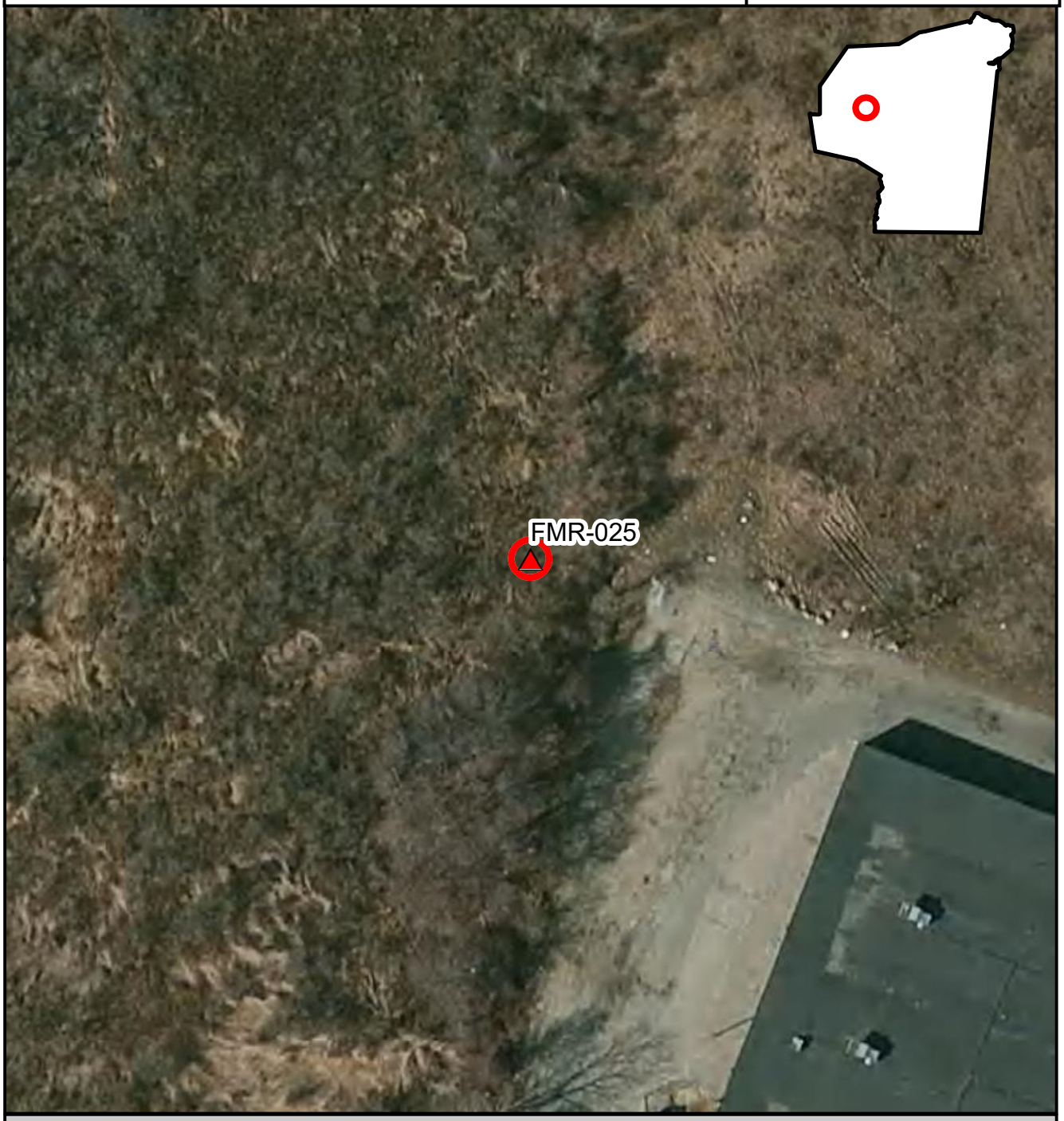
Deposits/stains present?	Yes
Deposits/Stains	Sediments
Deposits/stains Comments	80 ├âΓÇö almost plugged
Pool quality issues?	No
Pipe benthic growth present?	No
Section 6: General Comments	Outfall pipe destroyed. Could not determine size.

Section 7: Media

Photos

Braintree IDDE Inspections

Inspection ID
BT-257



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 9/12/2017

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-258, MQR-101, 2017-09-27, 7:28:00

Created	2017-09-27 11:28:56 UTC by Matt Davis
Updated	2017-09-27 11:34:26 UTC by Matt Davis
Location	42.1962148, -71.0042931

Section 1: General Information

Inspection ID	BT-258
Outfall ID	MQR-101
Inspector	Gsh AL
Date	2017-09-27
Time	7:28:00
Temperature	75
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Elliptical
Closed Pipe Diameter (in)	12
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No
Section 6: General Comments	Outfall is elliptical. GPS number created by us as was not in town system.

Section 7: Media

Photos

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Braintree IDDE Inspections

Inspection ID
BT-258

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 9/27/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-259, MQR-103, 2017-09-27, 7:44:00

Created	2017-09-27 11:44:12 UTC by Matt Davis
Updated	2017-09-27 11:49:15 UTC by Matt Davis
Location	42.1962783, -71.0047287

Section 1: General Information

Inspection ID	BT-259
Outfall ID	MQR-103
Outfall GIS ID	138
Inspector	Gsh AL
Date	2017-09-27
Time	7:44:00
Temperature	75
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	PVC
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	8
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	Yes
Sediment Depth (%)	50
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	Yes
Deposits/Stains	Sediments
Pool quality issues?	No
Pipe benthic growth present?	No

Section 7: Media

Photos

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Braintree IDDE Inspections

Inspection ID
BT-259

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 9/27/2017

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-260, MQR-102, 2017-09-27, 7:52:00

Created	2017-09-27 11:52:24 UTC by Matt Davis
Updated	2017-09-27 11:56:08 UTC by Matt Davis
Location	42.1964682, -71.0048175

Section 1: General Information

Inspection ID	BT-260
Outfall ID	MQR-102
Outfall GIS ID	135
Inspector	Gsh AL
Date	2017-09-27
Time	7:52:00
Temperature	75
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	12
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	Yes
Sediment Depth (%)	5
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 7: Media

Photos

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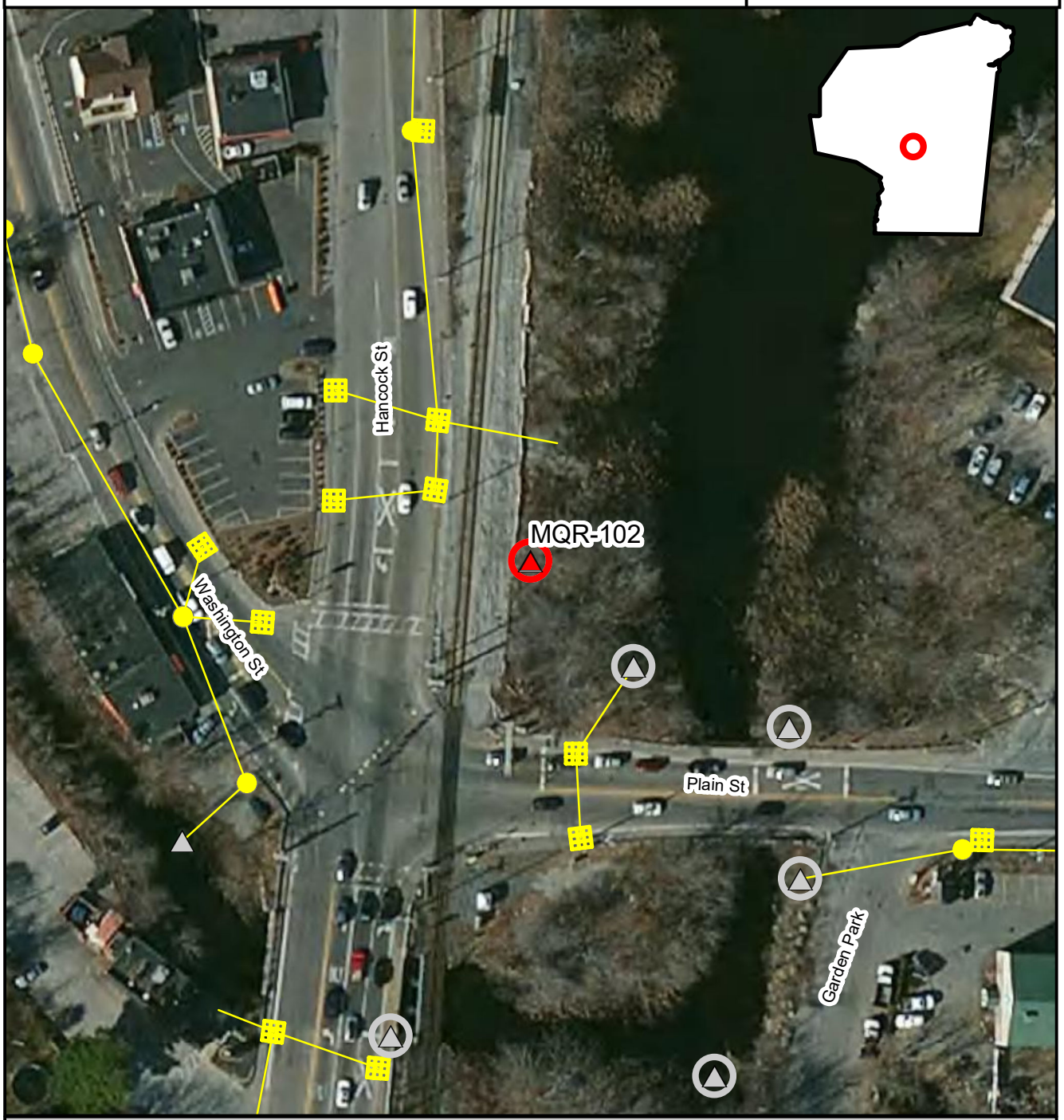
Braintree IDDE Inspections

Inspection ID
BT-260



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 9/27/2017

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-261, MQR-109, 2017-09-27, 8:49:00

Created	2017-09-27 12:49:48 UTC by Matt Davis
Updated	2017-09-27 13:07:22 UTC by Matt Davis
Location	42.1974074, -71.0081689

Section 1: General Information

Inspection ID	BT-261
Outfall ID	MQR-109
Outfall GIS ID	133
Inspector	Gsh AL
Date	2017-09-27
Time	8:49:00
Temperature	77
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	15
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 7: Media

Photos

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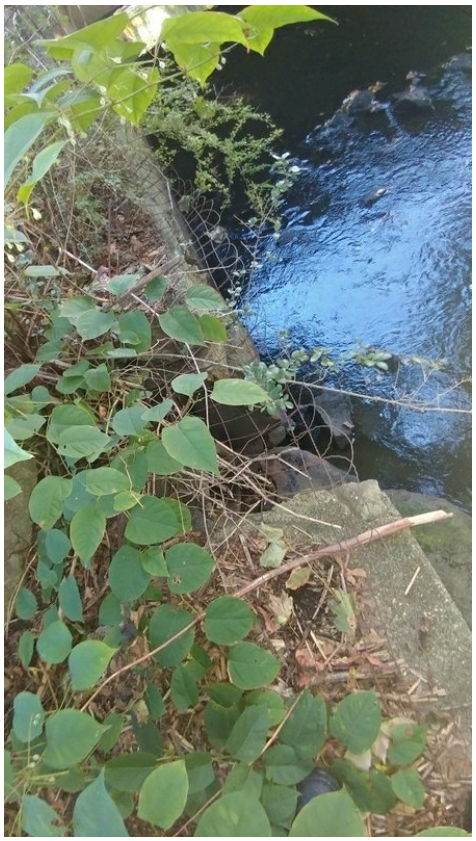
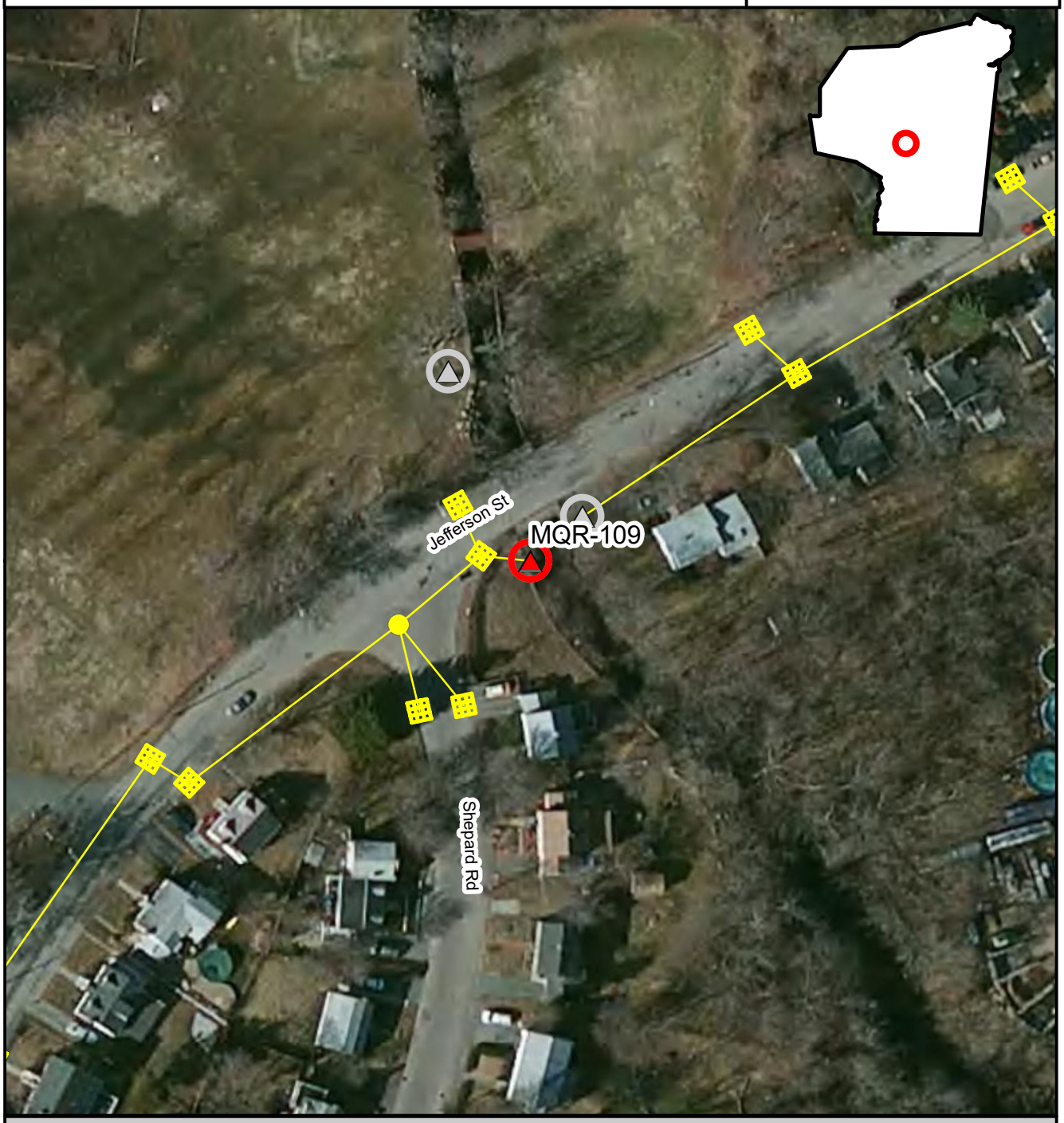


Braintree IDDE Inspections

Inspection ID
BT-261



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 9/27/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-262, MQR-108, 2017-09-27, 9:00:00

Created	2017-09-27 13:00:45 UTC by Matt Davis
Updated	2017-09-27 13:07:12 UTC by Matt Davis
Location	42.1974844, -71.0081446

Section 1: General Information

Inspection ID	BT-262
Outfall ID	MQR-108
Inspector	Gsh AL
Date	2017-09-27
Time	9:00:00
Temperature	77
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Elliptical
Closed Pipe Diameter (in)	12
Outfall Condition	Cracking
Headwall Present	No
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No
Section 6: General Comments	Located adjacent to 133. Not on town map.

Section 7: Media

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Photos

Braintree IDDE Inspections

Inspection ID
BT-262

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 9/27/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-263, MQR-112, 2017-09-27, 09:21

Created	2017-09-27 13:21:52 UTC by Matt Davis
Updated	2019-02-14 21:45:07 UTC by Matt Davis
Location	42.1977047, -71.0083256

Section 1: General Information

Inspection ID	BT-263
Outfall ID	MQR-112
Outfall GIS ID	198
Inspector	Gsh AL
Date	2017-09-27
Time	09:21
Temperature	80
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	unknown
Closed Pipe Shape	unknown crushed
Closed Pipe Diameter (in)	12
Outfall Condition	crushed
Headwall Present	No
Sediment Present?	Yes
Sediment Depth (%)	90
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 7: Media

Photos

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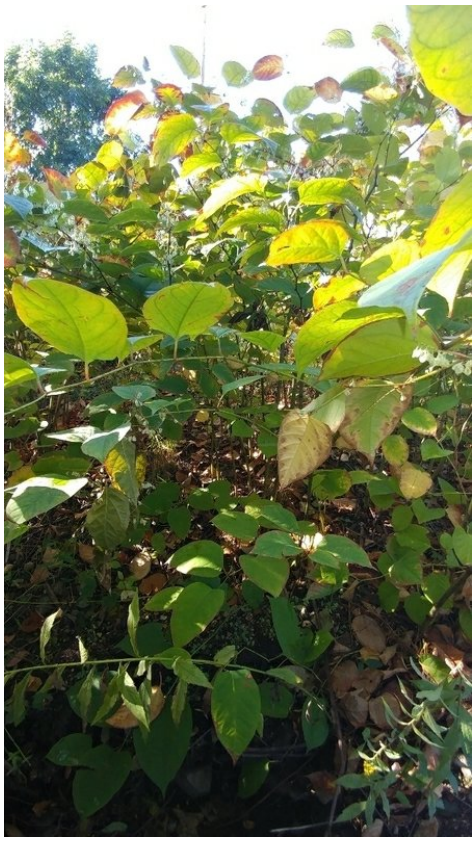
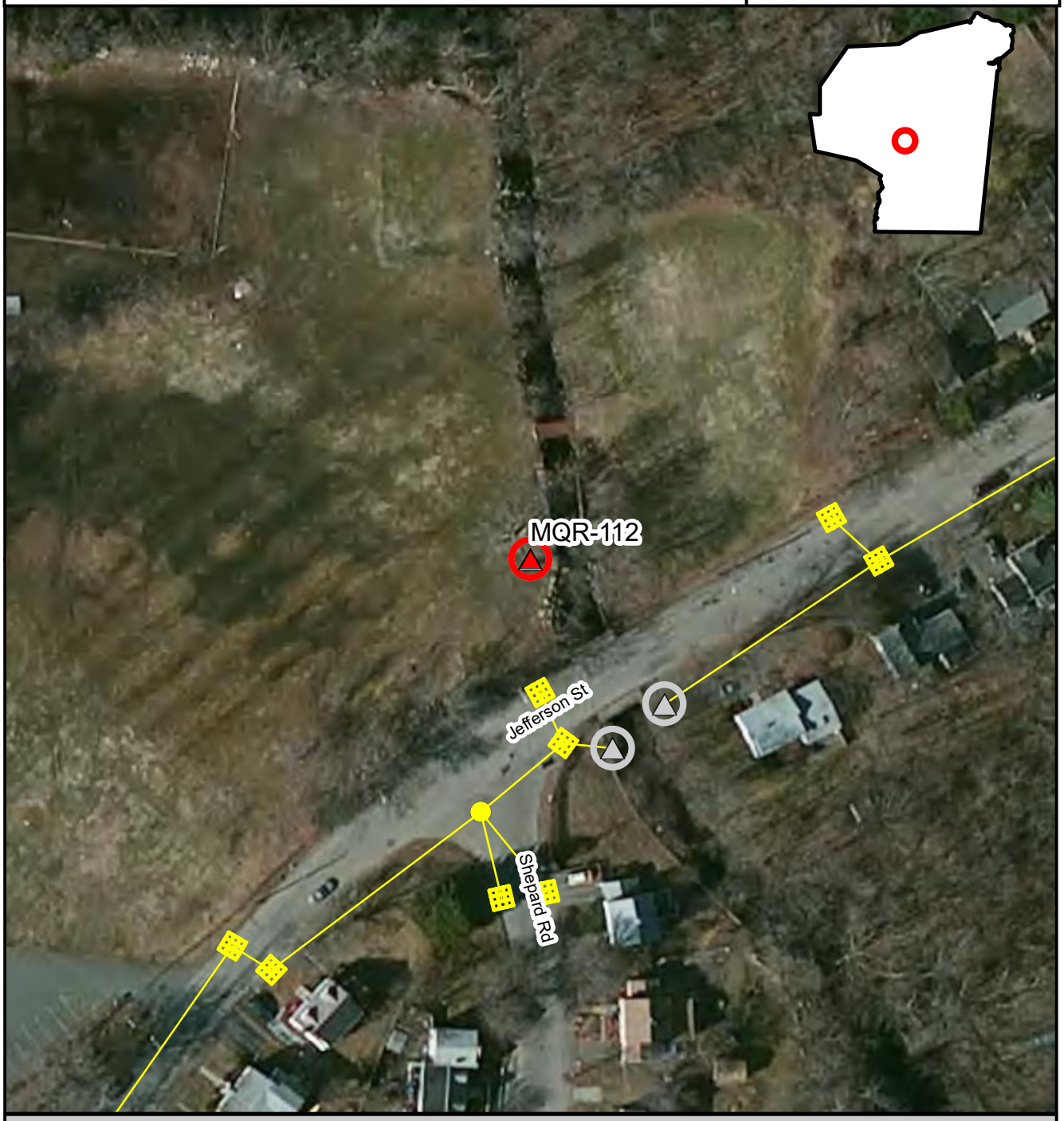


Braintree IDDE Inspections

Inspection ID
BT-263



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 9/27/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-264, FMR-007, 2017-09-27, 9:51:00

Created	2017-09-27 13:51:24 UTC by Matt Davis
Updated	2017-09-27 14:01:01 UTC by Matt Davis
Location	42.196242, -71.01573

Section 1: General Information

Inspection ID	BT-264
Outfall ID	FMR-007
Outfall GIS ID	107
Inspector	Gsh AL
Date	2017-09-27
Time	9:51:00
Temperature	80
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	24
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	Yes
Sediment Depth (%)	15
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 7: Media

Photos

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Braintree IDDE Inspections

Inspection ID
BT-264

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 9/27/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-265, TWB-002, 2017-09-27, 12:04:00

Created	2017-09-27 16:04:54 UTC by Matt Davis
Updated	2017-10-04 15:54:24 UTC by Matt Davis
Location	42.2319999, -70.9991099

Section 1: General Information

Inspection ID	BT-265
Outfall ID	TWB-002
Outfall GIS ID	218
Inspector	Gsh AL
Date	2017-09-27
Time	12:04:00
Temperature	80
Inspection Location	Manhole
Investigation performed at manhole upstream of outfall?	Yes
Reason why investigation performed at upstream manhole	No outfalls
Visual evidence of contamination present?	No
Odor Severity	None

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pipe benthic growth present?	No
Section 6: General Comments	Outfall replaced with field of underground drywells.

Section 7: Media

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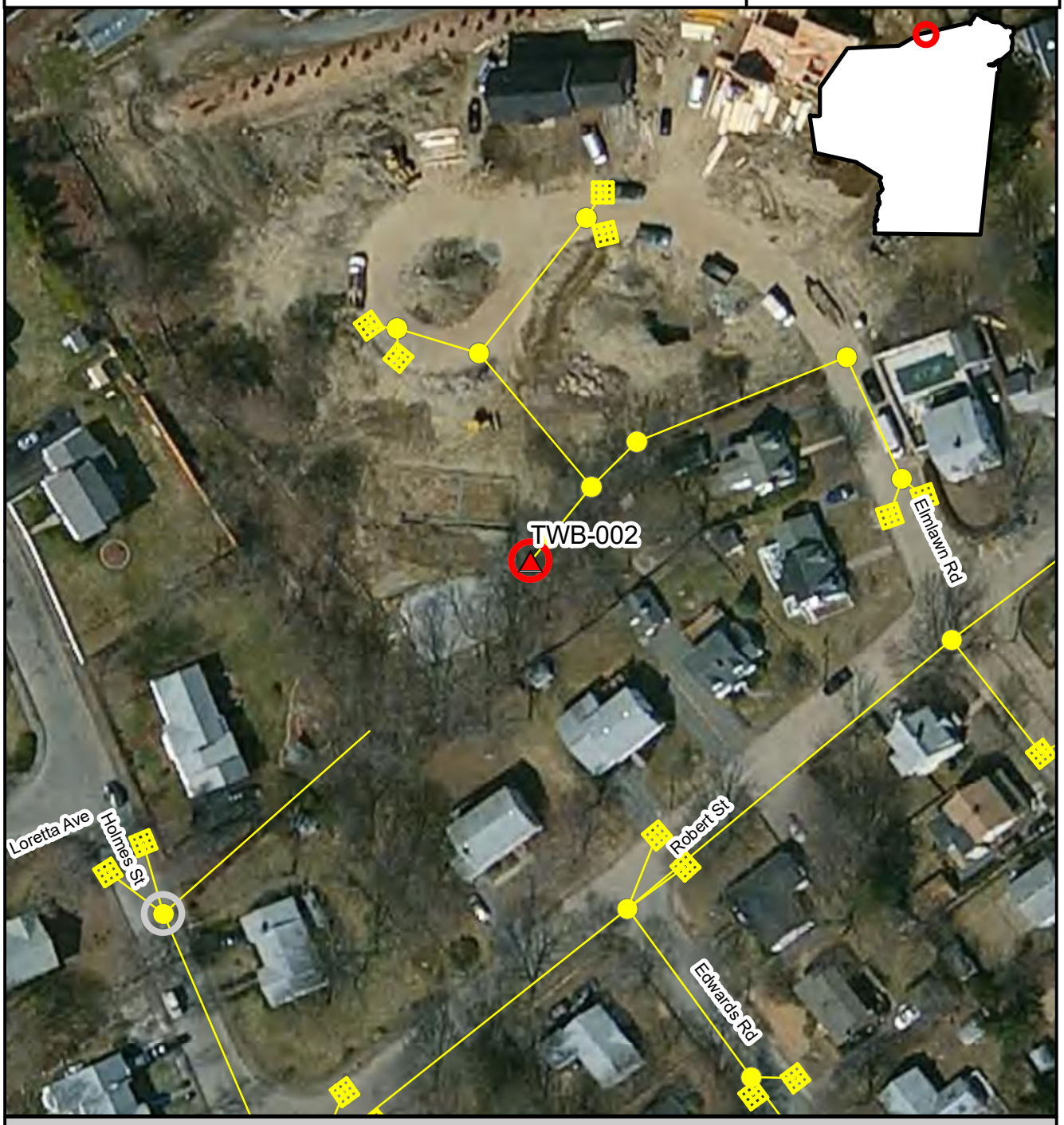
Photos

Braintree IDDE Inspections

Inspection ID
BT-265



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 9/27/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-266, MQR-064, 2017-11-21, 8:35:00

Created	2017-11-21 13:35:06 UTC by Matt Davis
Updated	2017-11-21 13:41:28 UTC by Matt Davis
Location	42.2172292, -71.0007553

Section 1: General Information

Inspection ID	BT-266
Outfall ID	MQR-064
Outfall GIS ID	218
Inspector	Gsh
Date	2017-11-21
Time	8:35:00
Temperature	40
Inspection Location	Catch basin
Investigation performed at manhole upstream of outfall?	Yes
Reason why investigation performed at upstream manhole	Blocked by RR
Visual evidence of contamination present?	No
Odor Severity	None

Section 3: Physical Indicators (flow flowing)

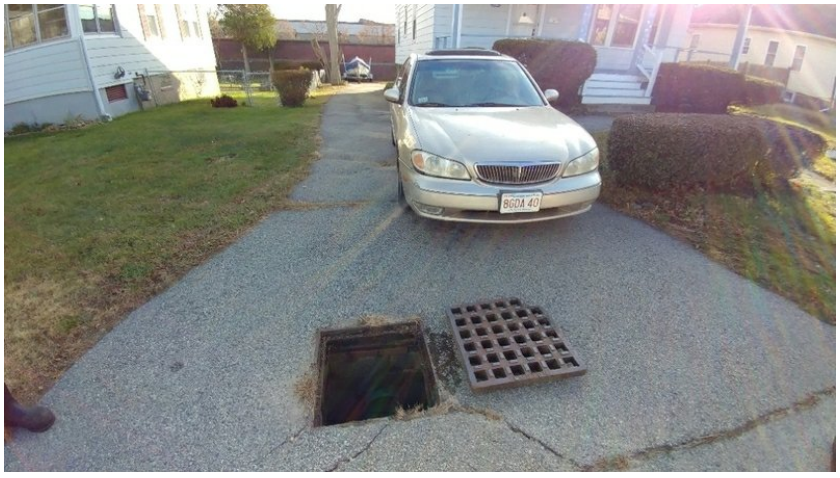
Flow Present	Standing Water
Color Severity	None
Turbidity	No cloudiness
Floatables (does not include trash)	None

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pipe benthic growth present?	No
Section 6: General Comments	Standing water and leaves

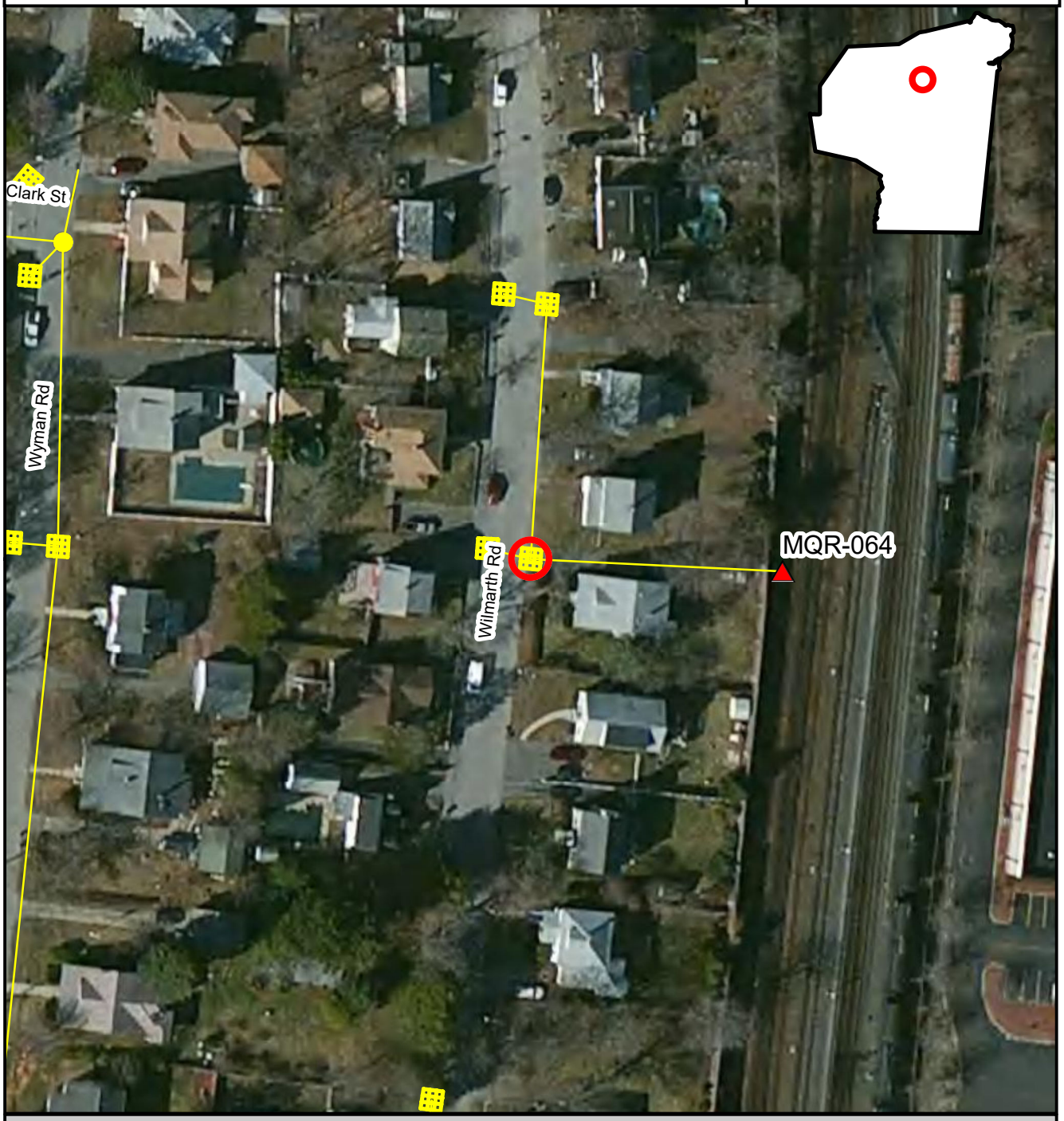
Section 7: Media

Photos



Braintree IDDE Inspections

Inspection ID
BT-266



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 11/21/2017

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-267, MQR-050, 2017-11-21, 8:57:00

Created	2017-11-21 13:57:16 UTC by Matt Davis
Updated	2017-11-21 13:59:41 UTC by Matt Davis
Location	42.2180762, -70.9977079

Section 1: General Information

Inspection ID	BT-267
Outfall ID	MQR-050
Outfall GIS ID	47
Inspector	Gsh
Date	2017-11-21
Time	8:57:00
Temperature	47
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	PVC
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	12
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 7: Media

Photos

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Braintree IDDE Inspections

Inspection ID
BT-267

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 11/21/2017

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-268, MQR-068, 2017-11-21, 9:47:00

Created	2017-11-21 14:47:32 UTC by Matt Davis
Updated	2017-11-21 15:44:24 UTC by Matt Davis
Location	42.2159067, -71.0009992

Section 1: General Information

Inspection ID	BT-268
Outfall ID	MQR-068
Inspector	Gsh
Date	2017-11-21
Time	9:47:00
Temperature	48
Inspection Location	Manhole
Investigation performed at manhole upstream of outfall?	Yes
Reason why investigation performed at upstream manhole	RR blocking
Visual evidence of contamination present?	No
Odor Severity	None

Section 3: Physical Indicators (flow flowing)

Flow Present	Yes
Flow Velocity	Trickle
Color Severity	None
Turbidity	No cloudiness
Floatables (does not include trash)	None

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	Yes

Field Measurements Results

Temperature (C)	13.5
pH (pH units)	6.56
Salinity (ppt)	2.42
Conductivity (uS)	4424
Ammonia (Mg/L)	0
Surfactants (ppm)	0.5
Chlorine (ppm)	0
Were laboratory samples collected?	Yes
Measurements/samples collected from	upstreammh
E. Coli (MPN/100 ml)	0
Intermittent flow trap used?	No

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Section 6: General Comments	It is likely that outfall is on other side of RR. May be outfall GPS 69 which we could not locate.

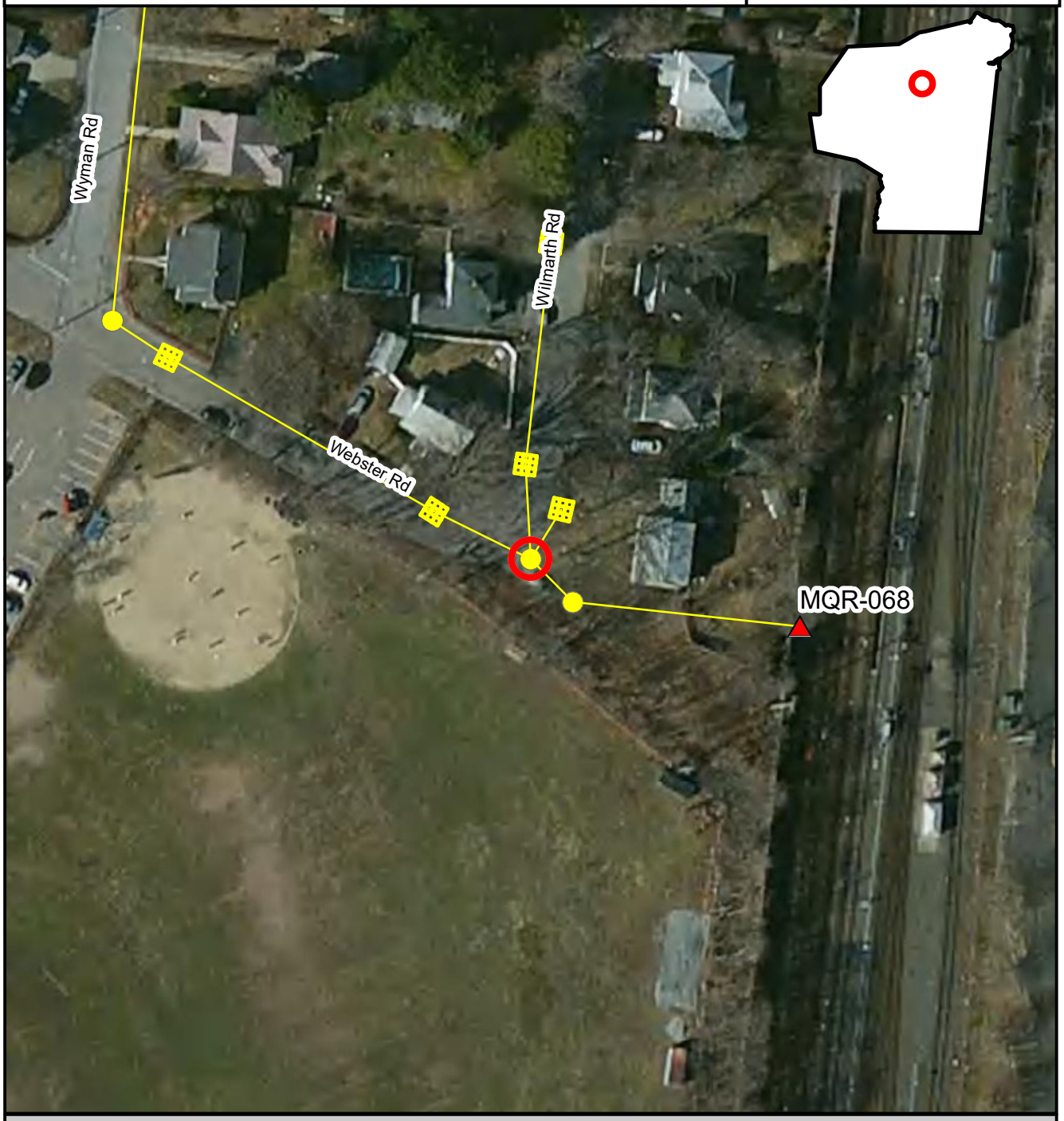
Section 7: Media

Photos

BT-268

Braintree IDDE Inspections

Inspection ID
BT-268



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 11/21/2017

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-269, FMR-024, 2017-11-21, 10:36:00

Created	2017-11-21 15:36:03 UTC by Matt Davis
Updated	2017-11-21 15:43:51 UTC by Matt Davis
Location	42.2054694, -71.0261973

Section 1: General Information

Inspection ID	BT-269
Outfall ID	FMR-024
Outfall GIS ID	207
Inspector	Gsh
Date	2017-11-21
Time	10:36:00
Temperature	48
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	PVC
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	12
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	Yes
Sediment Depth (%)	90
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No
Section 6: General Comments	Pipe is 90% buried and in a different location than shown on town map

Section 7: Media

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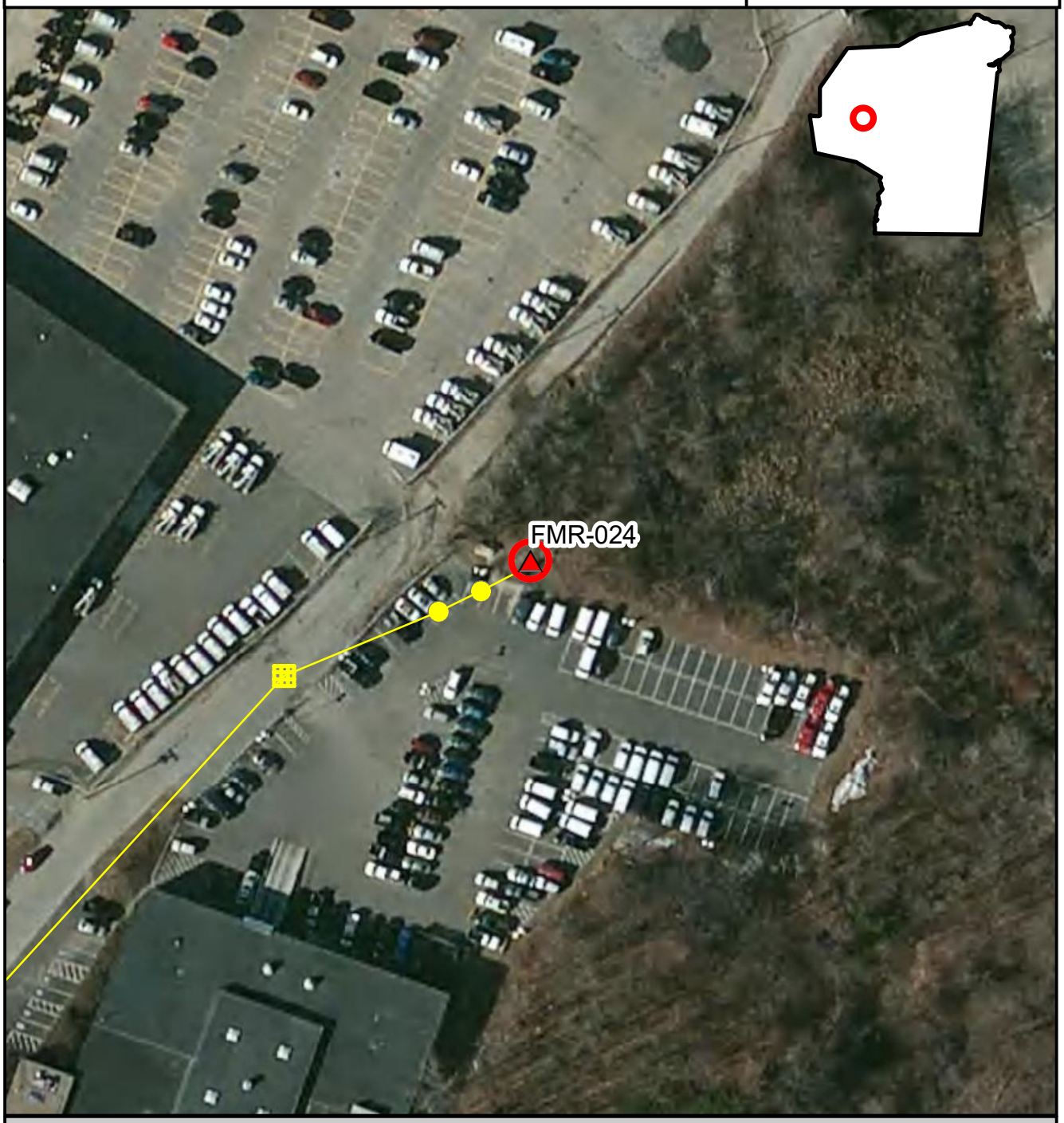
Photos

Braintree IDDE Inspections

Inspection ID
BT-269



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 11/21/2017

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-270, FMR-020, 2017-11-21, 10:55:00

Created	2017-11-21 15:55:19 UTC by Matt Davis
Updated	2017-11-21 16:02:21 UTC by Matt Davis
Location	42.1931431, -71.0242712

Section 1: General Information

Inspection ID	BT-270
Outfall ID	FMR-020
Outfall GIS ID	102
Inspector	Gsh
Date	2017-11-21
Time	10:55:00
Temperature	50
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	12
Outfall Condition	buried
Headwall Present	No
Sediment Present?	Yes
Sediment Depth (%)	90
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 7: Media

Photos

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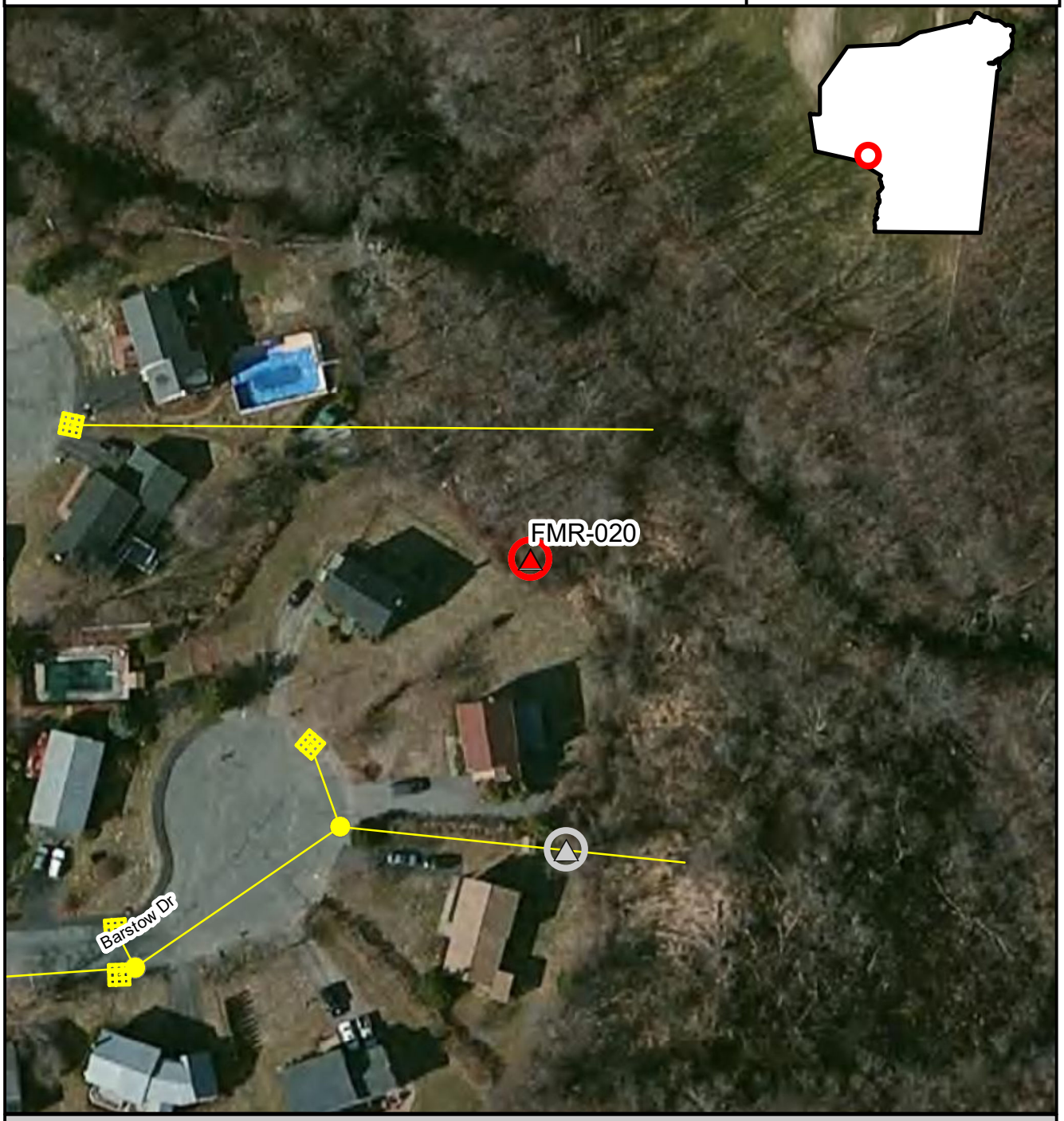
Braintree IDDE Inspections

Inspection ID
BT-270



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 11/21/2017

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-271, TWB-039, 2017-11-21, 11:17:00

Created	2017-11-21 16:17:13 UTC by Matt Davis
Updated	2017-11-21 16:22:32 UTC by Matt Davis
Location	42.2132927, -71.0169606

Section 1: General Information

Inspection ID	BT-271
Outfall ID	TWB-039
Outfall GIS ID	89
Inspector	Gsh
Date	2017-11-21
Time	11:17:00
Temperature	50
Inspection Location	Catch basin
Investigation performed at manhole upstream of outfall?	Yes
Reason why investigation performed at upstream manhole	Out fall could not be found
Visual evidence of contamination present?	No
Odor Severity	None

Section 3: Physical Indicators (flow flowing)

Flow Present	Standing Water
Color Severity	None
Turbidity	No cloudiness
Floatables (does not include trash)	None

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pipe benthic growth present?	No
Section 6: General Comments	Outlet plugged

Section 7: Media

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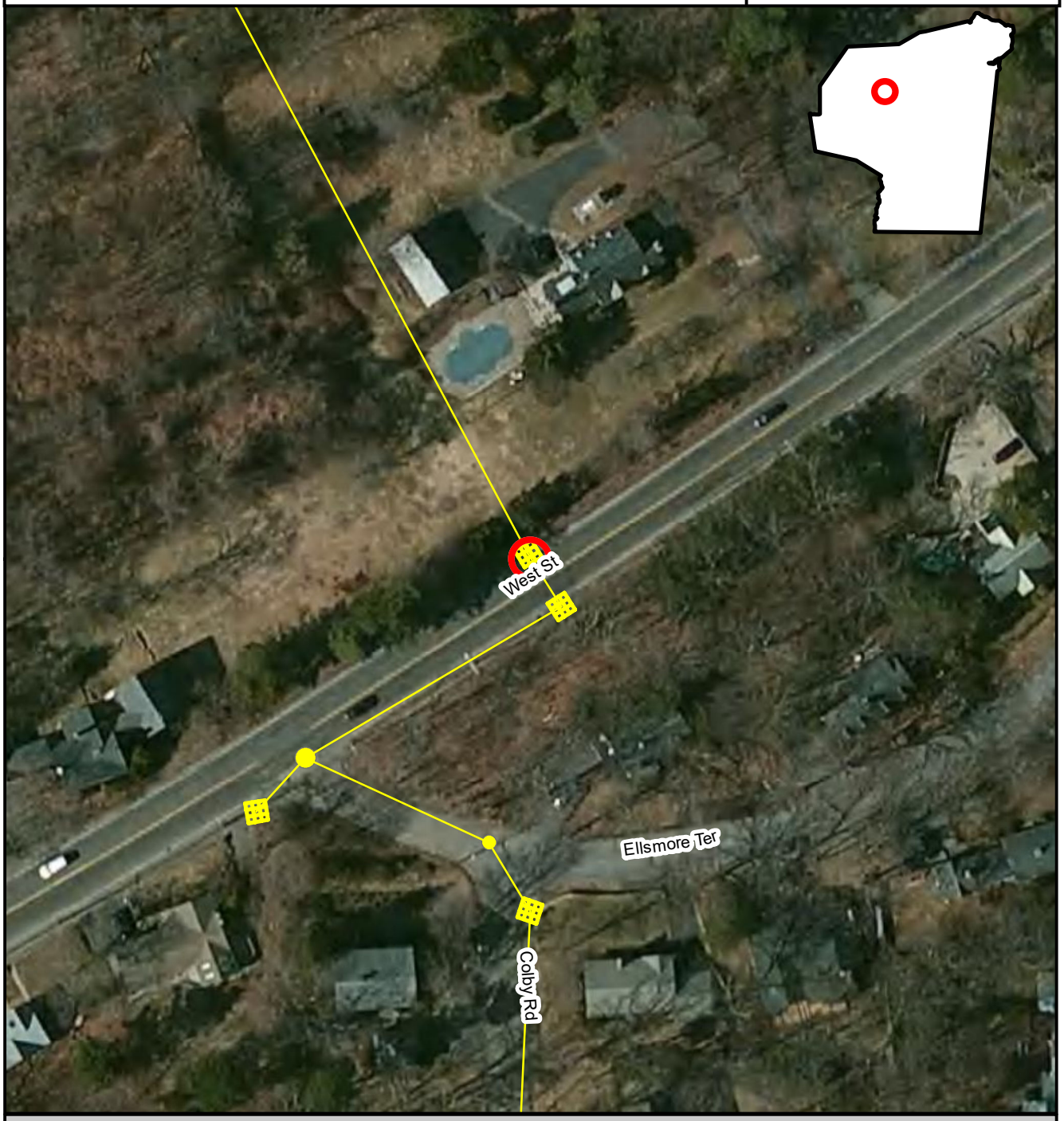
Photos

Sketches

Braintree IDDE Inspections

Inspection ID
BT-271



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 11/21/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-272, TWB-014, 2017-11-21, 11:33:00

Created	2017-11-21 16:33:31 UTC by Matt Davis
Updated	2017-11-21 16:36:02 UTC by Matt Davis
Location	42.2231237, -71.0155194

Section 1: General Information

Inspection ID	BT-272
Outfall ID	TWB-014
Outfall GIS ID	211
Inspector	Gsh
Date	2017-11-21
Time	11:33:00
Temperature	52
Inspection Location	Manhole
Investigation performed at manhole upstream of outfall?	Yes
Reason why investigation performed at upstream manhole	Outfall could not be located
Visual evidence of contamination present?	No
Odor Severity	None

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pipe benthic growth present?	No
Section 6: General Comments	Outfall is on private property. No one home to provide access. Inspection performed at upstream manhole.

Section 7: Media

Photos

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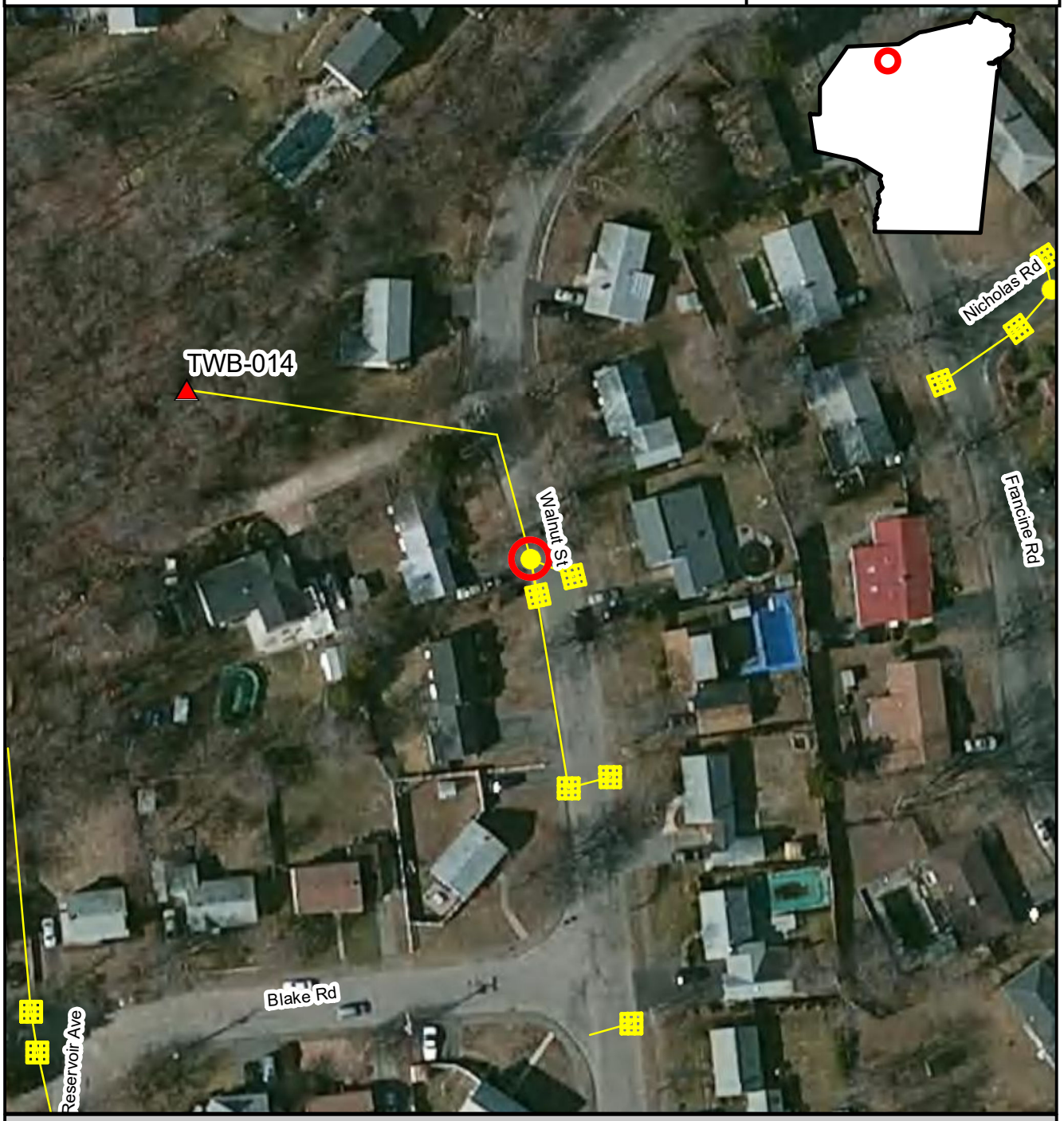
Braintree IDDE Inspections

Inspection ID
BT-272



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 11/21/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-273, 2017-11-21, 12:34:00

Created	2017-11-21 17:34:26 UTC by Matt Davis
Updated	2017-11-21 17:37:50 UTC by Matt Davis
Location	42.2199235, -70.986728

Section 1: General Information

Inspection ID	BT-273
Outfall GIS ID	222
Inspector	Gsh
Date	2017-11-21
Time	12:34:00
Temperature	50
Inspection Location	Manhole
Investigation performed at manhole upstream of outfall?	Yes
Reason why investigation performed at upstream manhole	Pitfall doesn't ecist
Visual evidence of contamination present?	No
Odor Severity	None

Section 3: Physical Indicators (flow flowing)

Flow Present	Standing Water
Color Severity	None
Turbidity	No cloudiness
Floatables (does not include trash)	None

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pipe benthic growth present?	No
Section 6: General Comments	Pipe now drains to outfall GIS 247. Outfall GPS 222 no longer exists.

Section 7: Media

Photos

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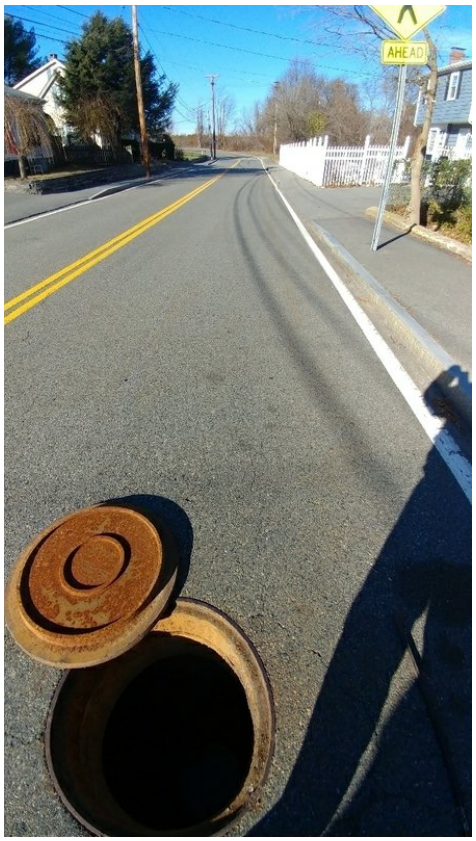
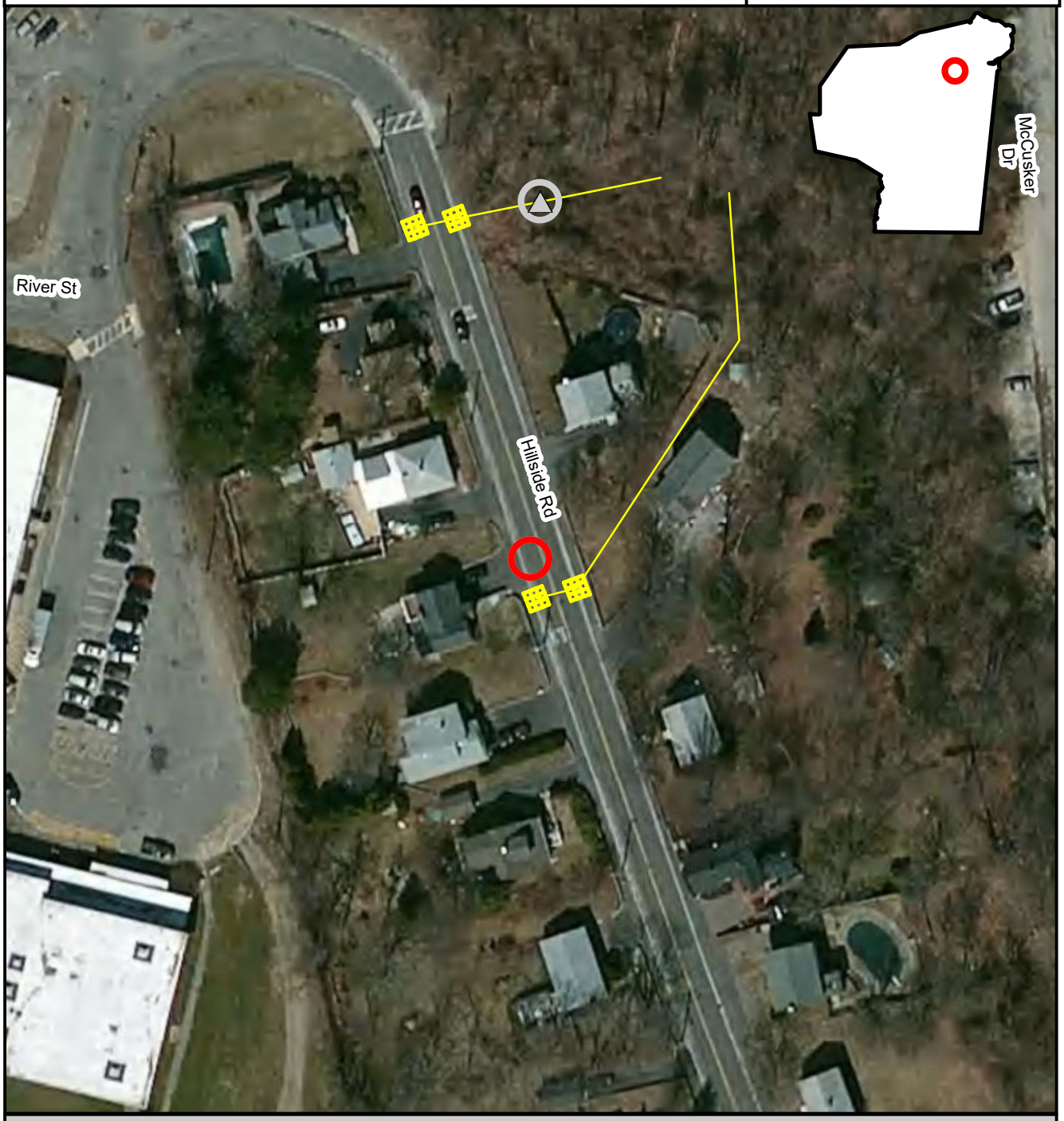

AHEAD

Braintree IDDE Inspections

Inspection ID
BT-273



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 11/21/2017

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-274, MQR-051, 2017-11-21, 13:20:00

Created	2017-11-21 18:20:21 UTC by Matt Davis
Updated	2017-11-21 18:26:58 UTC by Matt Davis
Location	42.2283424, -70.9993354

Section 1: General Information

Inspection ID	BT-274
Outfall ID	MQR-051
Inspector	Gsh
Date	2017-11-21
Time	13:20:00
Temperature	50
Inspection Location	Manhole
Investigation performed at manhole upstream of outfall?	Yes
Reason why investigation performed at upstream manhole	Could not locate.
Visual evidence of contamination present?	No
Odor Severity	None

Section 3: Physical Indicators (flow flowing)

Flow Present	Yes
Flow Velocity	Trickle
Color Severity	None
Turbidity	No cloudiness
Floatables (does not include trash)	None

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	Yes

Field Measurements Results

Temperature (C)	15.01
pH (pH units)	6.89
Salinity (ppt)	0.38
Conductivity (uS)	780
Ammonia (Mg/L)	0
Surfactants (ppm)	0.025
Chlorine (ppm)	0
Were laboratory samples collected?	Yes
Measurements/samples collected from	catchbasin
E. Coli (MPN/100 ml)	870
Intermittent flow trap used?	No

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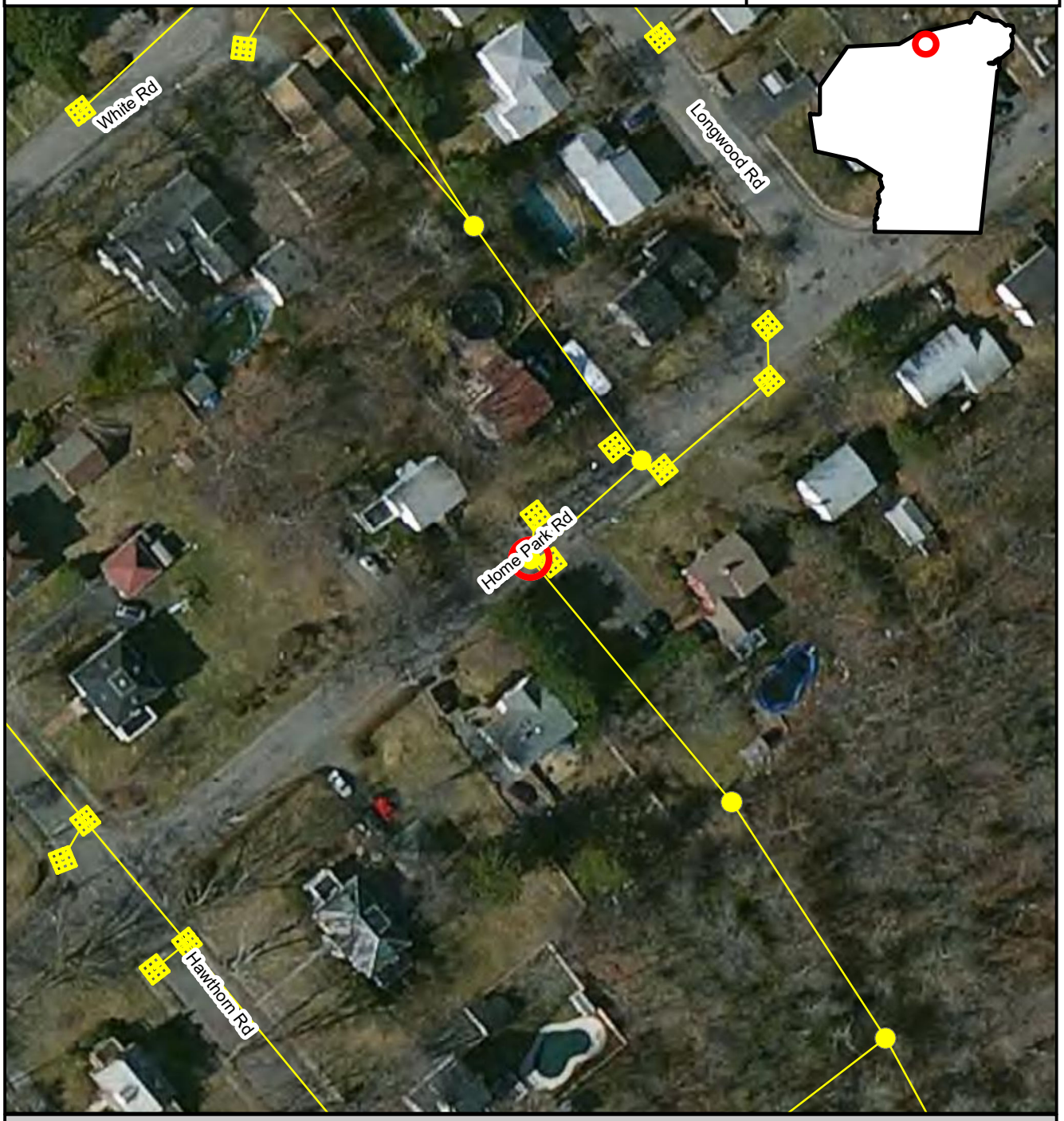
Section 6: General Comments	Manhole is approx. 14 ft deep. Two 36 in pipes connect at bottom. Convey drainage and brook. Final outlet is at outfall GPS 244.

Section 7: Media

Photos

Braintree IDDE Inspections

Inspection ID
BT-274



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 11/21/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-275, SMB-005, 2017-11-21, 14:01:00

Created	2017-11-21 19:01:48 UTC by Matt Davis
Updated	2017-11-21 19:03:45 UTC by Matt Davis
Location	42.2174532, -70.9700893

Section 1: General Information

Inspection ID	BT-275
Outfall ID	SMB-005
Outfall GIS ID	17
Inspector	Gsh
Date	2017-11-21
Time	14:01:00
Temperature	55
Inspection Location	Manhole
Investigation performed at manhole upstream of outfall?	Yes
Reason why investigation performed at upstream manhole	Couldn't find outfall
Visual evidence of contamination present?	No
Odor Severity	None

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pipe benthic growth present?	No
Section 6: General Comments	Outfall is on private property. No one home to provide access. Inspection performed at upstream manhole.

Section 7: Media

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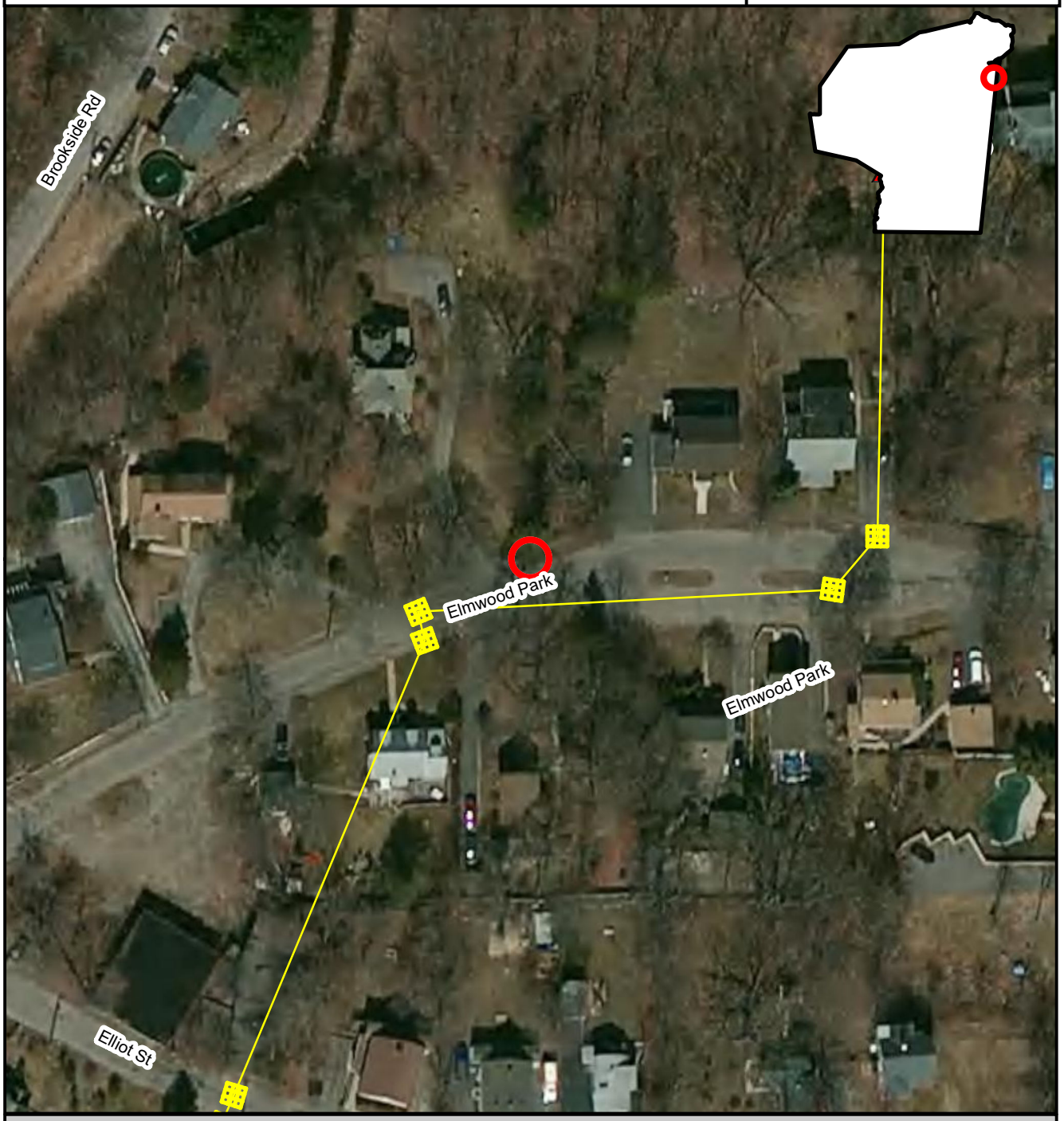
Photos

Braintree IDDE Inspections

Inspection ID
BT-275



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 11/21/2017

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-276, MQR-106, 2017-11-21, 14:30:00

Created	2017-11-21 19:30:10 UTC by Matt Davis
Updated	2017-11-21 19:32:51 UTC by Matt Davis
Location	42.1957512, -71.005107

Section 1: General Information

Inspection ID	BT-276
Outfall ID	MQR-106
Outfall GIS ID	137
Inspector	Gsh
Date	2017-11-21
Time	14:30:00
Temperature	53
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	12
Outfall Condition	Normal
Headwall Present	Yes
Headwall Condition	Good
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No
Section 6: General Comments	New Location of 136 .Pipe is coming out of route 37 abutment.

Section 7: Media

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Photos

Braintree IDDE Inspections

Inspection ID
BT-276

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 11/21/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-277, MQR-111, 2017-11-21, 14:41:00

Created	2017-11-21 19:41:29 UTC by Matt Davis
Updated	2017-11-21 19:44:53 UTC by Matt Davis
Location	42.1945569, -71.0072882

Section 1: General Information

Inspection ID	BT-277
Outfall ID	MQR-111
Outfall GIS ID	140
Inspector	Gsh
Date	2017-11-21
Time	14:41:00
Temperature	50
Inspection Location	Manhole
Investigation performed at manhole upstream of outfall?	Yes
Reason why investigation performed at upstream manhole	Fences blocked entrance to outfall
Visual evidence of contamination present?	No
Odor Severity	None

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pipe benthic growth present?	No
Section 6: General Comments	Access to outfall prevented by private fences. Inspection performed at upstream manhole.

Section 7: Media

Photos

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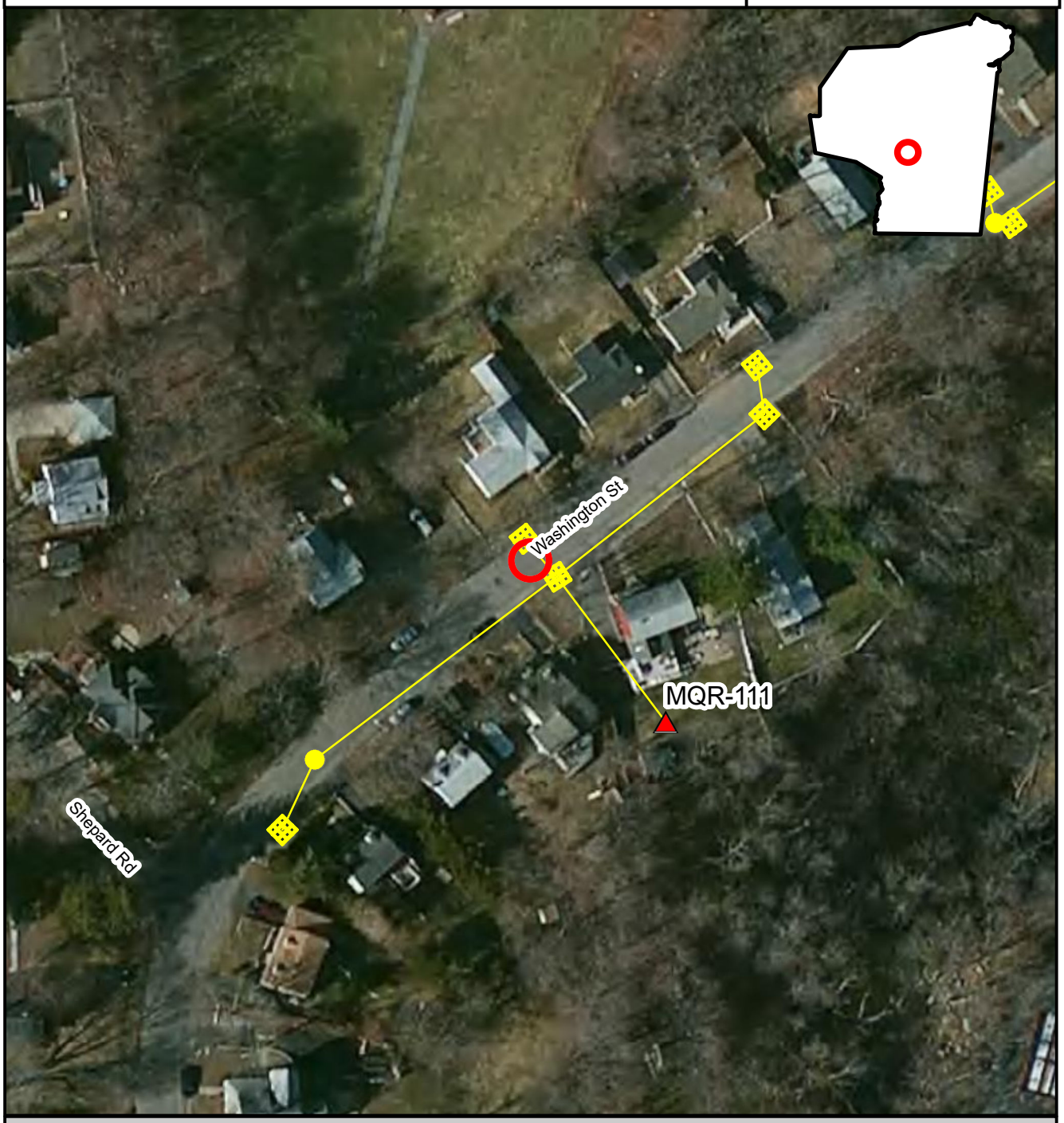
Braintree IDDE Inspections

Inspection ID
BT-277



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 11/21/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-278, MQR-061, 2017-11-21, 15:03:00

Created	2017-11-21 20:03:24 UTC by Matt Davis
Updated	2017-11-21 20:05:49 UTC by Matt Davis
Location	42.2194858, -71.0014627

Section 1: General Information

Inspection ID	BT-278
Outfall ID	MQR-061
Outfall GIS ID	217
Inspector	Gsh
Date	2017-11-21
Time	15:03:00
Temperature	50
Inspection Location	Manhole
Investigation performed at manhole upstream of outfall?	Yes
Reason why investigation performed at upstream manhole	RR blocks access
Visual evidence of contamination present?	No
Odor Severity	None

Section 3: Physical Indicators (flow flowing)

Flow Present	Standing Water
Color Severity	None
Turbidity	No cloudiness
Floatables (does not include trash)	None

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pipe benthic growth present?	No
Section 6: General Comments	Could not locate outfall. Likely on RR property.

Section 7: Media

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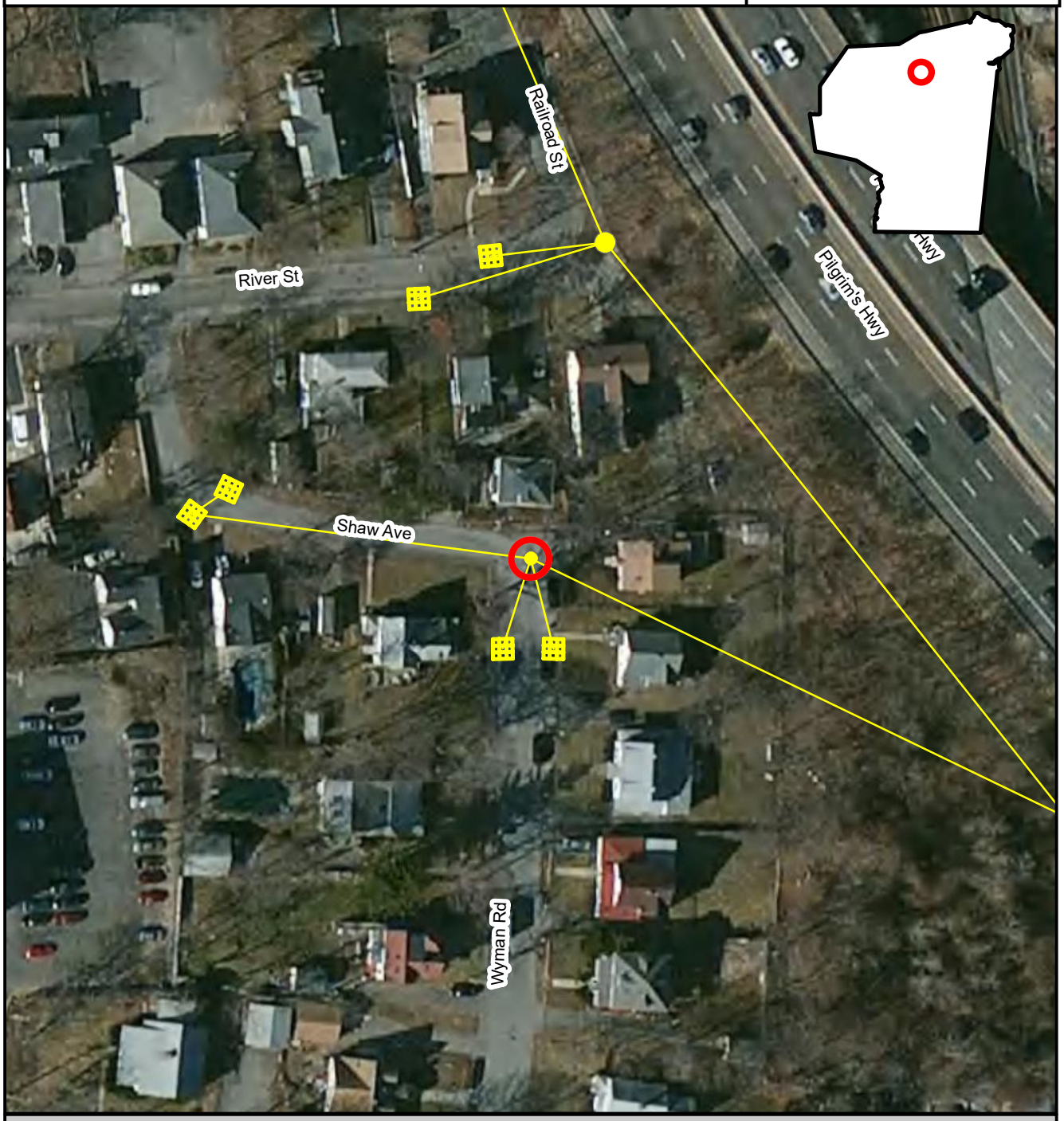
Photos

Braintree IDDE Inspections

Inspection ID
BT-278



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 11/21/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-279, 2017-12-08, 7:20:00

Created	2017-12-08 12:20:05 UTC by Matt Davis
Updated	2017-12-08 12:39:07 UTC by Matt Davis
Location	42.1921354, -71.0287248

Section 1: General Information

Inspection ID	BT-279
Outfall GIS ID	12082017-1
Inspector	CPO
Date	2017-12-08
Time	7:20:00
Temperature	28
Inspection Location	Brook
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Open Drainage
Open Drainage Material	Earthen
Open Drainage Shape	Trapezoid
Open Drainage Depth (in)	4
Open Drainage Top Width (in)	24
Open Drainage Bottom Width (in)	24
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	No
Outfall Submerged	Partially
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	Yes
Flow Velocity	Moderate
Flow Width (in)	24
Flow Depth (in)	4
Color Severity	Faint colors in sample bottle
Color Description	Orange
Turbidity	Cloudy
Floatables (does not include trash)	None

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	Yes
Deposits/Stains	Sediments
Deposits/stains Comments	Orange staining on some rocks
Pool quality issues?	No

Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	Yes

Field Measurements Results

Temperature (C)	5
pH (pH units)	0
Salinity (ppt)	328
Conductivity (uS)	713
Ammonia (Mg/L)	0.25
Surfactants (ppm)	0.25
Chlorine (ppm)	0
Were laboratory samples collected?	Yes
Measurements/samples collected from	stream
E. Coli (MPN/100 ml)	8
Intermittent flow trap used?	No
Section 6: General Comments	Town requested that we sample brook as they suspect that there may be an upstream discharge from washing buses. Town agreed that it should be billed as an outfall inspection.

Section 7: Media

Photos

BT-279

Braintree IDDE Inspections

Inspection ID
BT-279

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 12/8/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-280, MQR-072, 2017-12-08, 8:04:00

Created	2017-12-08 13:04:00 UTC by Matt Davis
Updated	2017-12-08 13:05:39 UTC by Matt Davis
Location	42.2140289, -71.0011148

Section 1: General Information

Inspection ID	BT-280
Outfall ID	MQR-072
Outfall GIS ID	70
Inspector	CPO
Date	2017-12-08
Time	8:04:00
Temperature	28
Inspection Location	Manhole
Investigation performed at manhole upstream of outfall?	Yes
Reason why investigation performed at upstream manhole	Could not locate outfall
Visual evidence of contamination present?	No
Odor Severity	None

Section 3: Physical Indicators (flow flowing)

Flow Present	Standing Water
Color Severity	None
Turbidity	No cloudiness
Floatables (does not include trash)	None

Section 4: Physical Indicators (all outfalls)

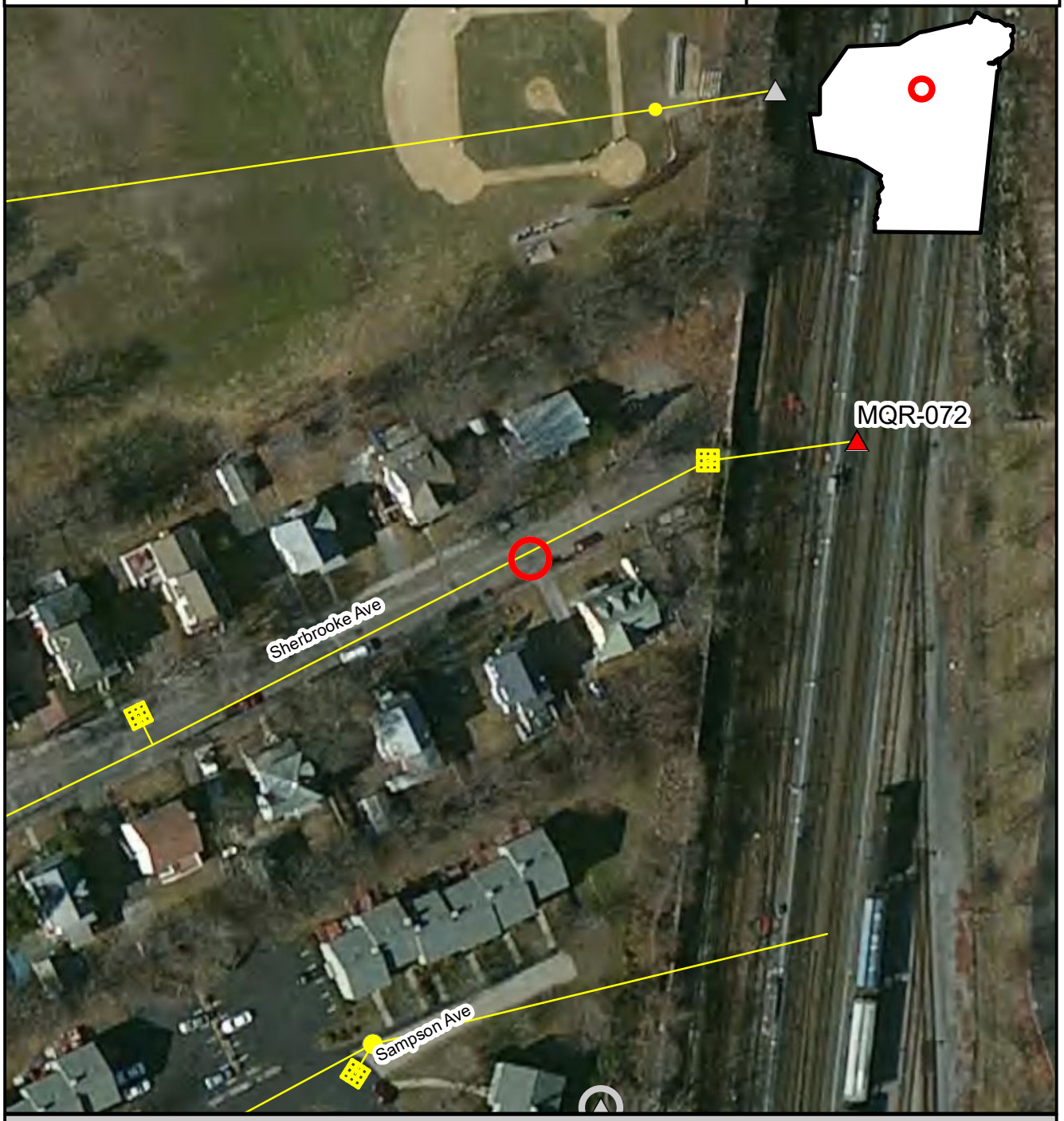
Deposits/stains present?	No
Pipe benthic growth present?	No
Section 6: General Comments	Standing water in outfall pipe. No samples collected.

Section 7: Media

Photos

Braintree IDDE Inspections

Inspection ID
BT-280



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 12/8/2017

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-281, MQR-077, 2017-12-08, 8:20:00

Created	2017-12-08 13:20:24 UTC by Matt Davis
Updated	2017-12-08 13:22:19 UTC by Matt Davis
Location	42.2132199, -71.0009942

Section 1: General Information

Inspection ID	BT-281
Outfall ID	MQR-077
Outfall GIS ID	71
Inspector	CPO
Date	2017-12-08
Time	8:20:00
Temperature	34
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	15
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	Yes
Sediment Depth (%)	50
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 7: Media

Photos

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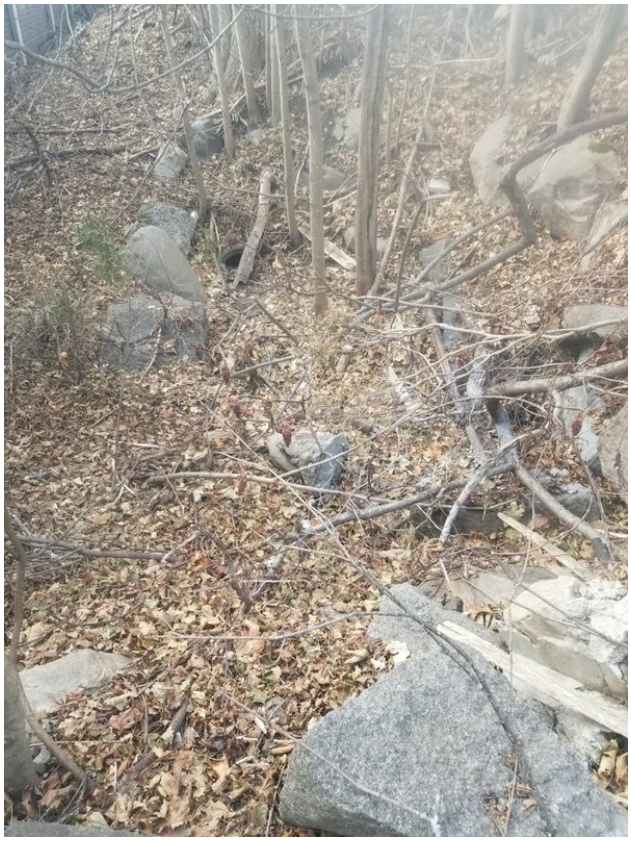
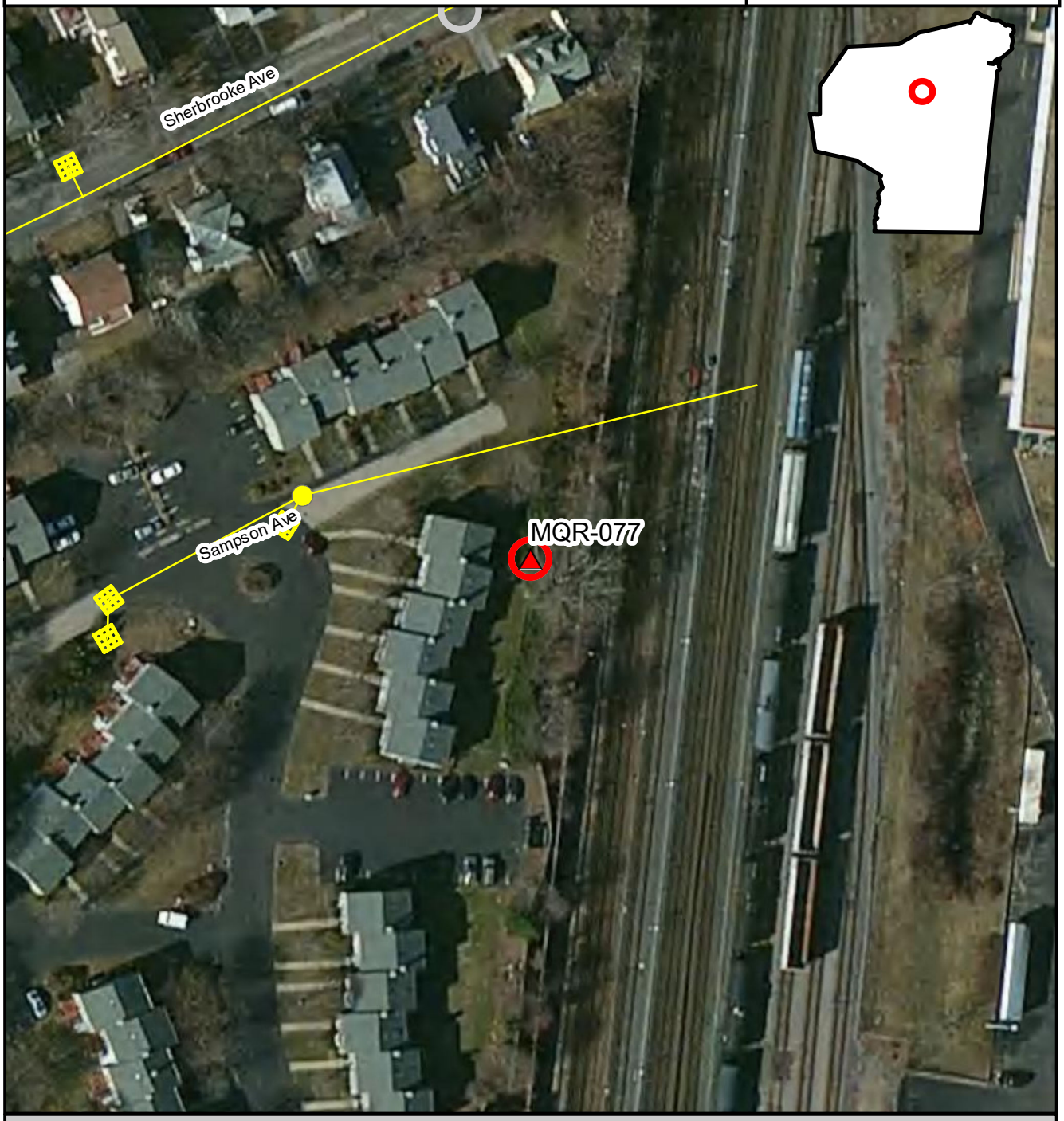


Braintree IDDE Inspections

Inspection ID
BT-281



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 12/8/2017

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-282, MQR-078, 2017-12-08, 8:25:00

Created	2017-12-08 13:25:34 UTC by Matt Davis
Updated	2017-12-08 13:28:11 UTC by Matt Davis
Location	42.212292, -71.0013721

Section 1: General Information

Inspection ID	BT-282
Outfall ID	MQR-078
Outfall GIS ID	120817-2
Inspector	CPO
Date	2017-12-08
Time	8:25:00
Temperature	34
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Open Drainage
Open Drainage Material	Earthen
Open Drainage Shape	Parabolic
Open Drainage Depth (in)	1
Open Drainage Top Width (in)	6
Open Drainage Bottom Width (in)	6
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	No
Outfall Submerged	Partially
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	Standing Water
Color Severity	None
Turbidity	No cloudiness
Floatables (does not include trash)	None

Section 4: Physical Indicators (all outfalls)

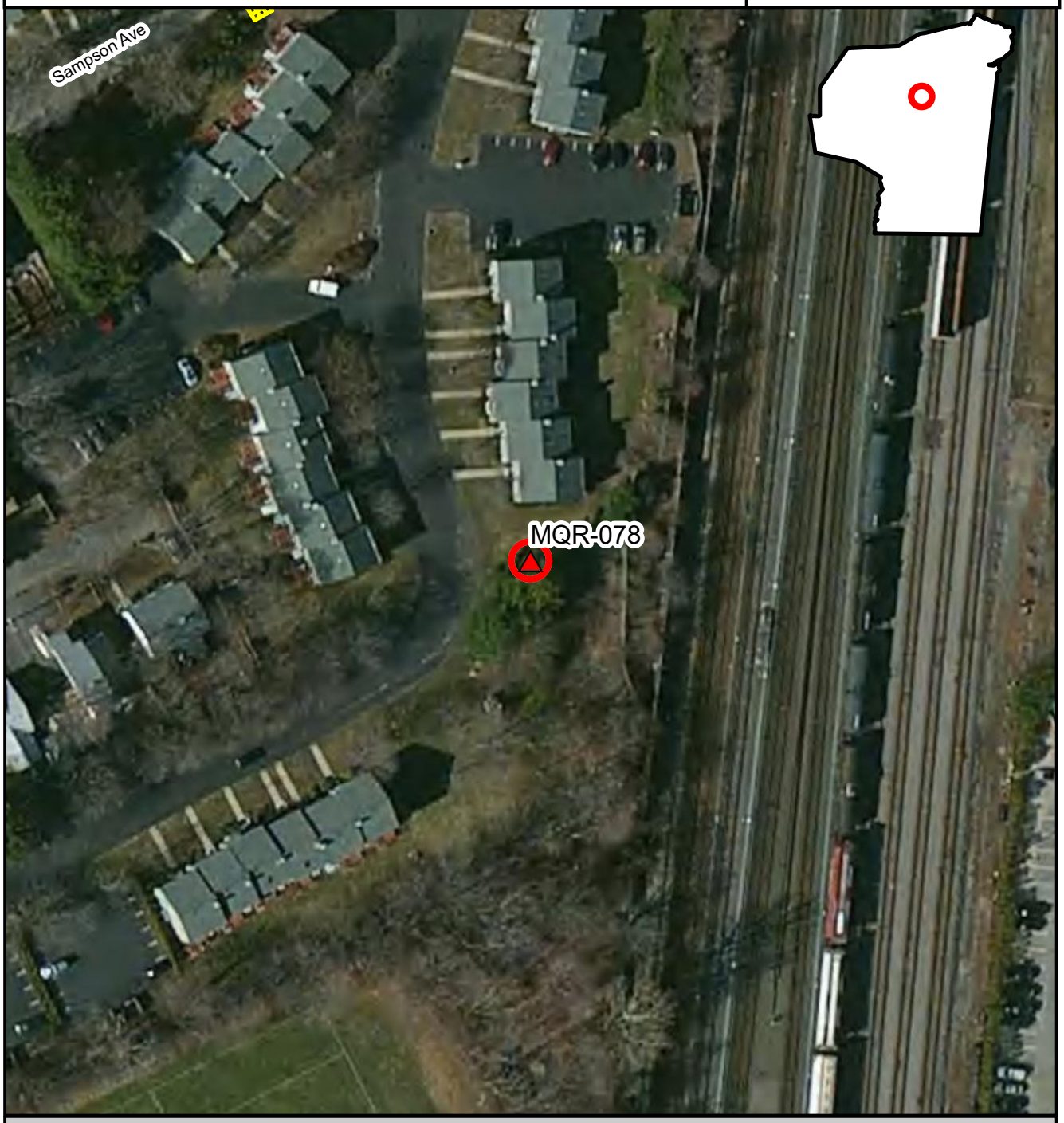
Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No
Section 6: General Comments	Inspection took place at downstream end of open channel before pipe inlet. Pipe goes underground to an outfall, but could not access the area where the outfall is located to determine location (access blocked by MBTA tracks).

Section 7: Media

Photos

Braintree IDDE Inspections

Inspection ID
BT-282



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 12/8/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-283, MQR-049, 2017-12-08, 9:41:00

Created	2017-12-08 14:41:55 UTC by Matt Davis
Updated	2017-12-08 14:44:18 UTC by Matt Davis
Location	42.2133037, -70.9940728

Section 1: General Information

Inspection ID	BT-283
Outfall ID	MQR-049
Outfall GIS ID	236
Inspector	CPO
Date	2017-12-08
Time	9:41:00
Temperature	36
Inspection Location	Manhole
Investigation performed at manhole upstream of outfall?	Yes
Reason why investigation performed at upstream manhole	Outfall could not be ID'd due to private property.
Visual evidence of contamination present?	No
Odor Severity	None

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pipe benthic growth present?	No
Section 6: General Comments	Opened MH with town. Paved over. Drainage now connected to outfall GIS 52. Outfall GIS 236 no longer exists

Section 7: Media

Photos

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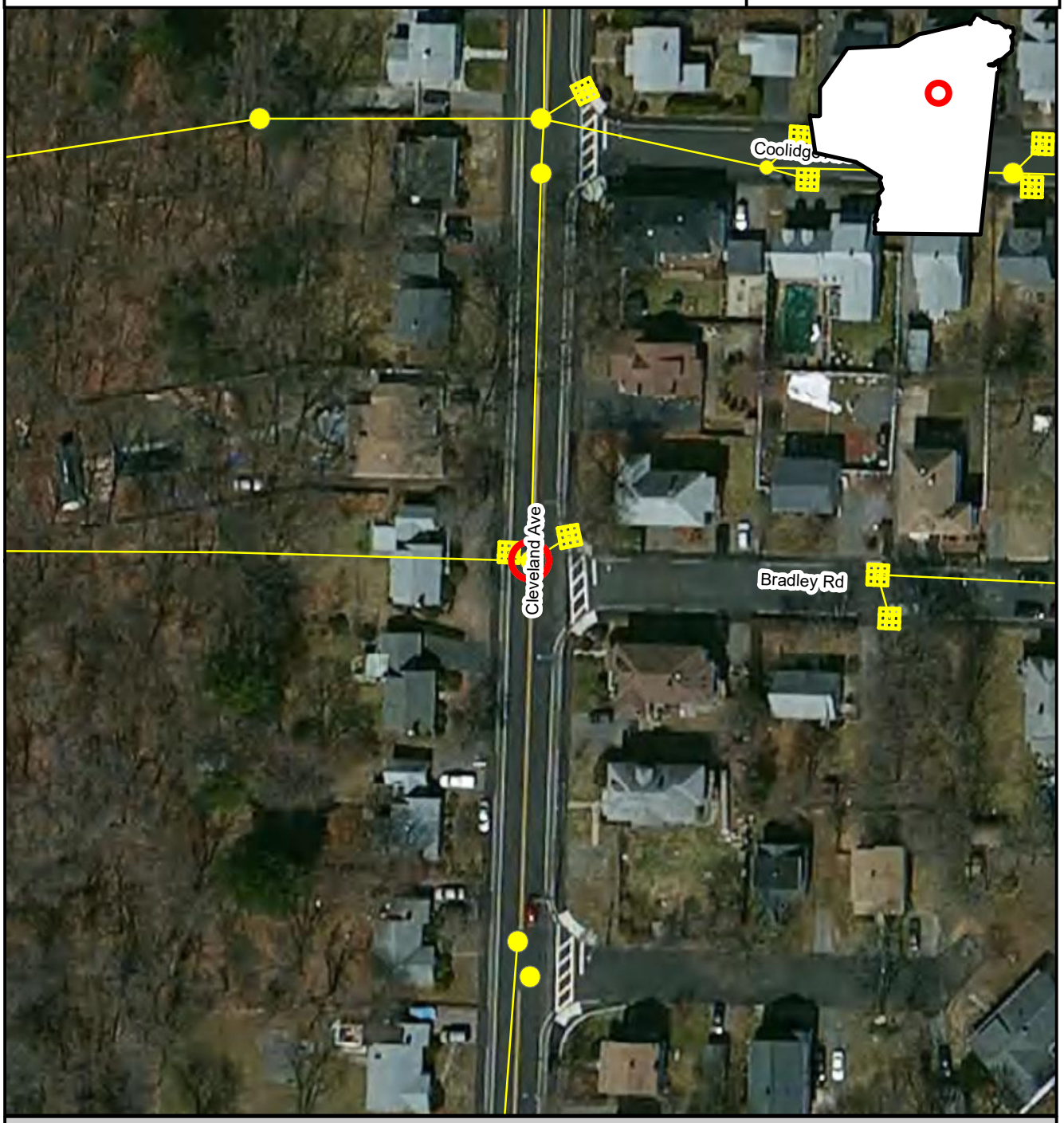
Braintree IDDE Inspections

Inspection ID
BT-283



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 12/8/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-284, CDS-005, 2017-12-08, 10:03:00

Created	2017-12-08 15:03:26 UTC by Matt Davis
Updated	2017-12-08 15:06:38 UTC by Matt Davis
Location	42.1898303, -71.0062495

Section 1: General Information

Inspection ID	BT-284
Outfall ID	CDS-005
Outfall GIS ID	14
Inspector	CPO
Date	2017-12-08
Time	10:03:00
Temperature	36
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	Steel
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	18
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	No
Outfall Submerged	Fully
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	Standing Water
Color Severity	None
Turbidity	No cloudiness
Floatables (does not include trash)	None

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No
Section 6: General Comments	Metal pipe drains to MBTA RCP outlet structure. Outlet is 24"

Section 7: Media

Photos

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Braintree IDDE Inspections

Inspection ID
BT-284

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 12/8/2017

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-285, WFR-015, 2018-04-09, 10:43:00

Created	2018-04-09 14:43:32 UTC by Matt Davis
Updated	2018-04-09 19:38:39 UTC by Matt Davis
Location	42.2299593, -70.9877458

Section 1: General Information

Inspection ID	BT-285
Outfall ID	WFR-015
Outfall GIS ID	1
Inspector	Gsh
Date	2018-04-09
Time	10:43:00
Temperature	40
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	PVC
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	10
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	Yes
Sediment Depth (%)	30
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 7: Media

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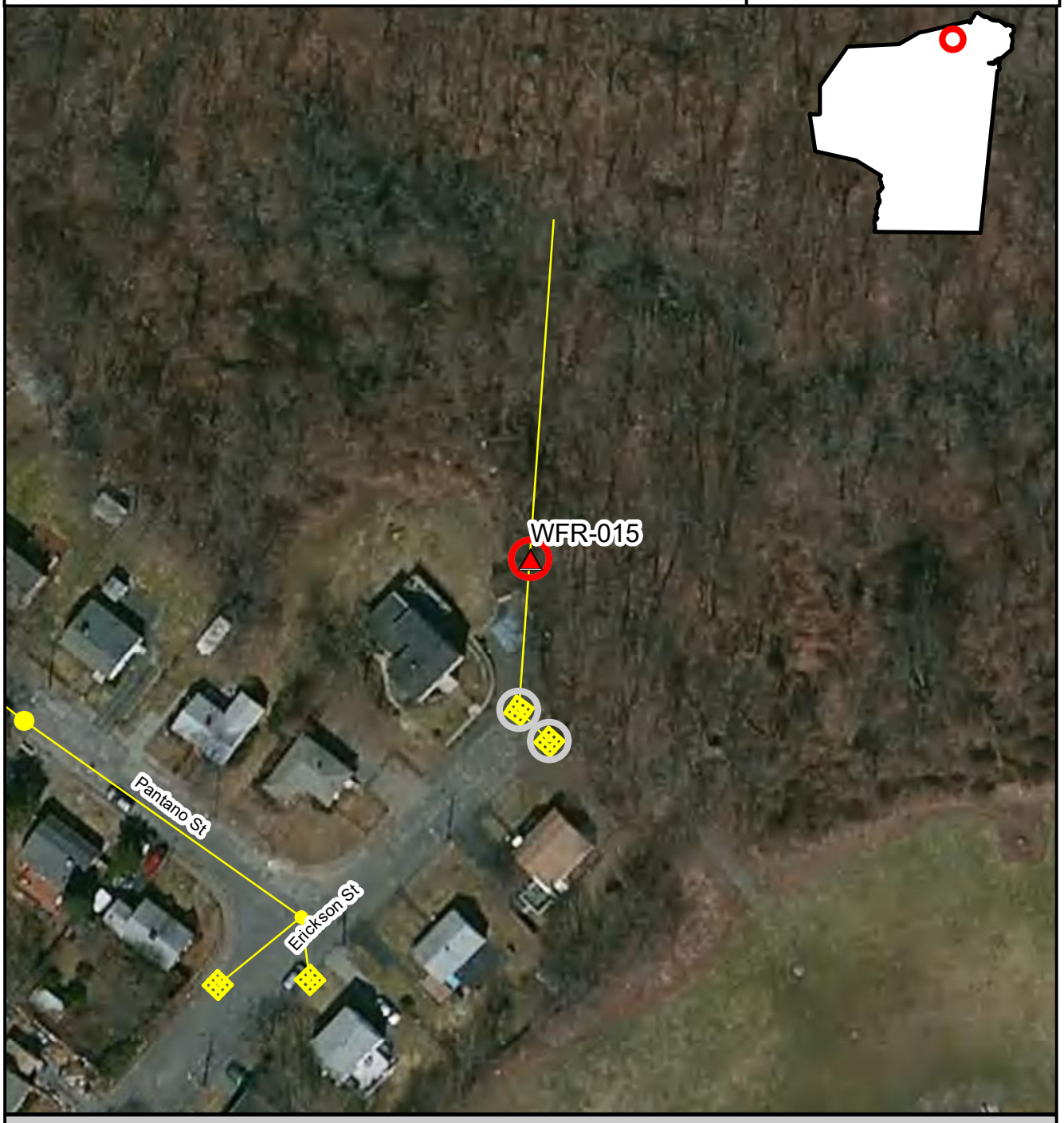
Photos

Sketches

Braintree IDDE Inspections

Inspection ID
BT-285



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 4/9/2018

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-286, WFR-013, 2018-04-09, 10:57

Created	2018-04-09 14:57:57 UTC by Matt Davis
Updated	2019-02-14 21:49:37 UTC by Matt Davis
Location	42.231102, -70.9866514

Section 1: General Information

Inspection ID	BT-286
Outfall ID	WFR-013
Outfall GIS ID	501
Inspector	Gsh
Date	2018-04-09
Time	10:57
Temperature	40
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	12
Outfall Condition	broken and exposed
Headwall Present	No
Sediment Present?	No
Outfall Submerged	Partially
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 7: Media

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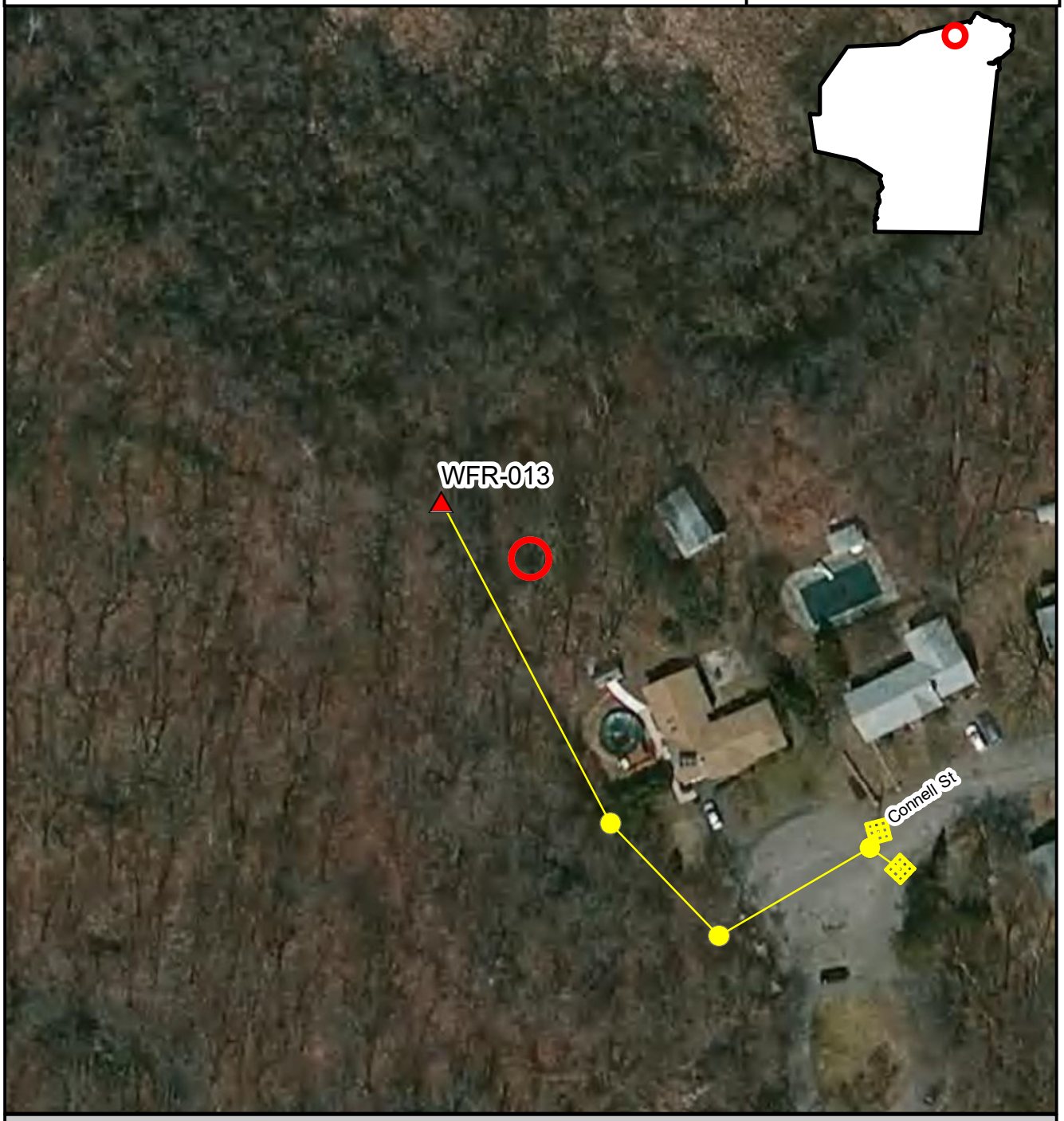
Photos

Braintree IDDE Inspections

Inspection ID
BT-286



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 4/9/2018

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-287, WFR-012, 2018-04-09, 11:07:00

Created	2018-04-09 15:07:21 UTC by Matt Davis
Updated	2018-04-09 15:11:05 UTC by Matt Davis
Location	42.2317712, -70.9850306

Section 1: General Information

Inspection ID	BT-287
Outfall ID	WFR-012
Outfall GIS ID	502
Inspector	Gsh
Date	2018-04-09
Time	11:07:00
Temperature	40
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	12
Outfall Condition	broken
Headwall Present	No
Sediment Present?	Yes
Sediment Depth (%)	5
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

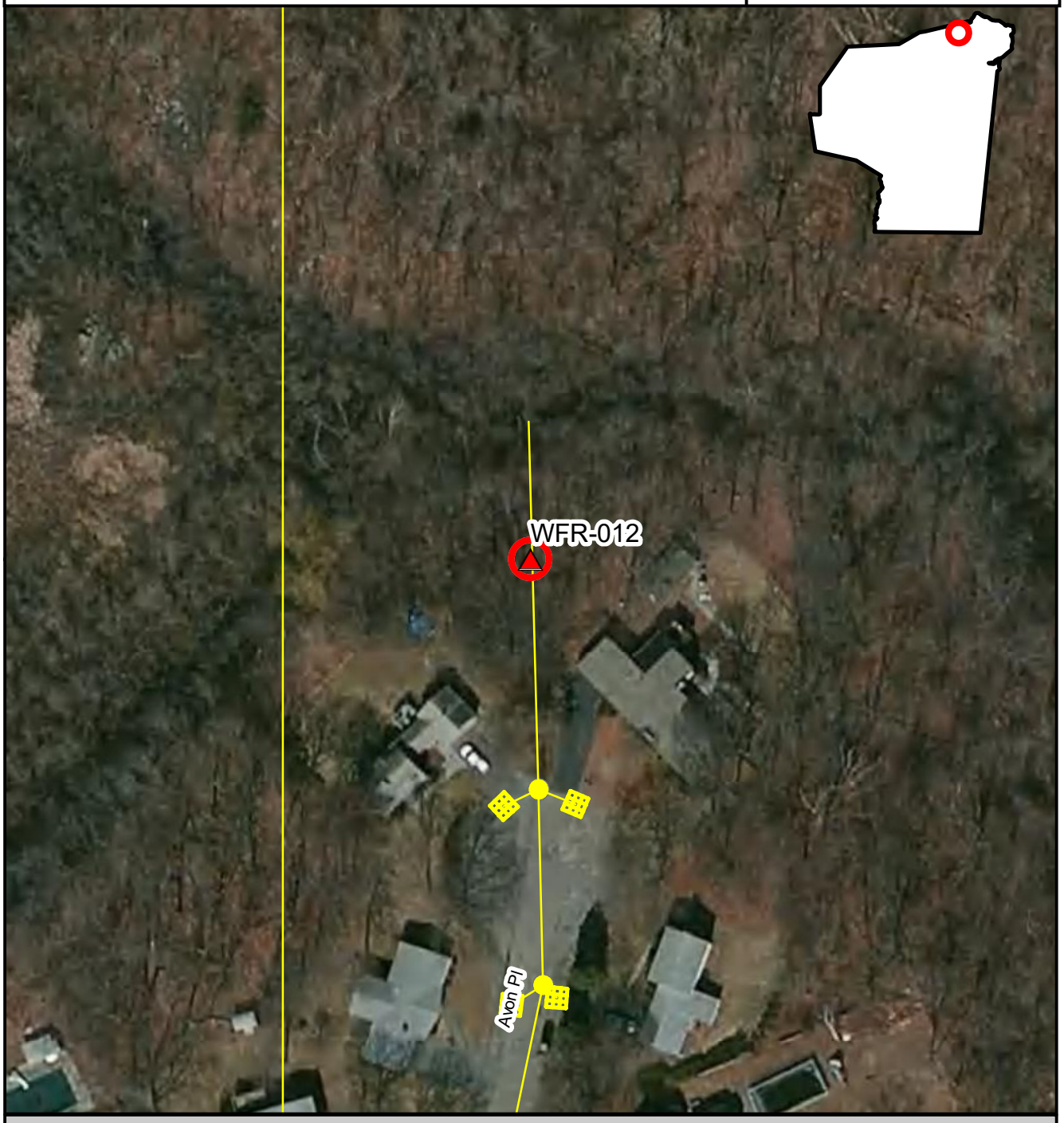
Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 7: Media

Photos

Braintree IDDE Inspections

Inspection ID
BT-287



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 4/9/2018

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-288, WFR-010, 2018-04-09, 11:22:00

Created	2018-04-09 15:22:35 UTC by Matt Davis
Updated	2018-04-09 15:26:21 UTC by Matt Davis
Location	42.2310863, -70.9834103

Section 1: General Information

Inspection ID	BT-288
Outfall ID	WFR-010
Outfall GIS ID	503
Inspector	Gsh
Date	2018-04-09
Time	11:22:00
Temperature	40
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	15
Outfall Condition	Normal
Headwall Present	Yes
Headwall Condition	Fair
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No
Section 6: General Comments	BMP with energy reducer.

Section 7: Media

Photos

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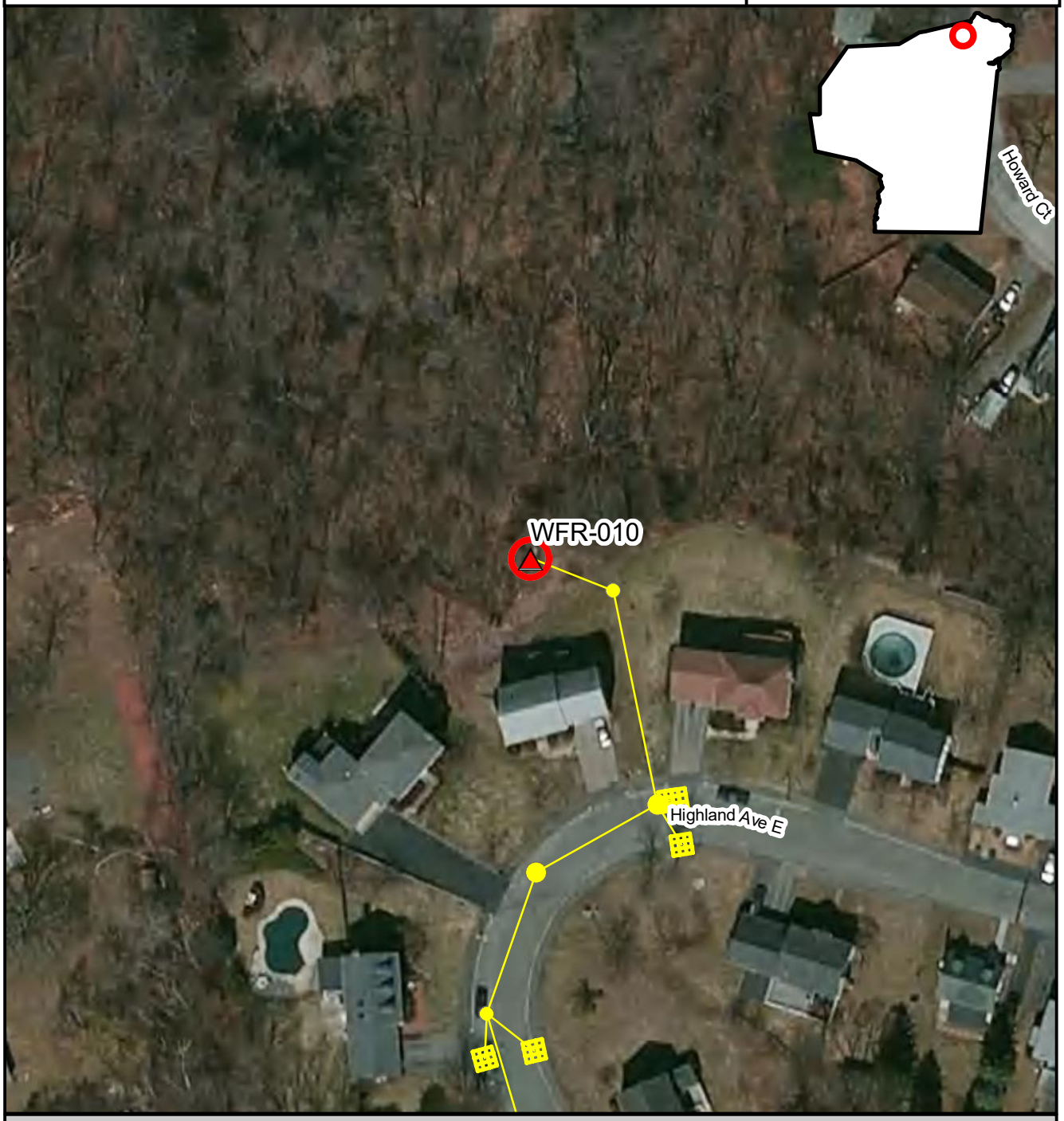
Braintree IDDE Inspections

Inspection ID
BT-288



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 4/9/2018

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-289, MQR-051, 2018-04-09, 13:31:00

Created	2018-04-09 17:31:29 UTC by Matt Davis
Updated	2018-04-09 17:50:06 UTC by Matt Davis
Location	42.2270201, -70.9981466

Section 1: General Information

Inspection ID	BT-289
Outfall ID	MQR-051
Inspector	Gsh
Date	2018-04-09
Time	13:31:00
Temperature	40
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	42
Outfall Condition	Normal
Headwall Present	Yes
Headwall Condition	Good
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	Yes
Flow Velocity	Trickle
Flow Width (in)	12
Flow Depth (in)	2
Color Severity	None
Turbidity	No cloudiness
Floatables (does not include trash)	None

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	Yes
Pipe benthic growth description	Green

Section 5: Field Measurements

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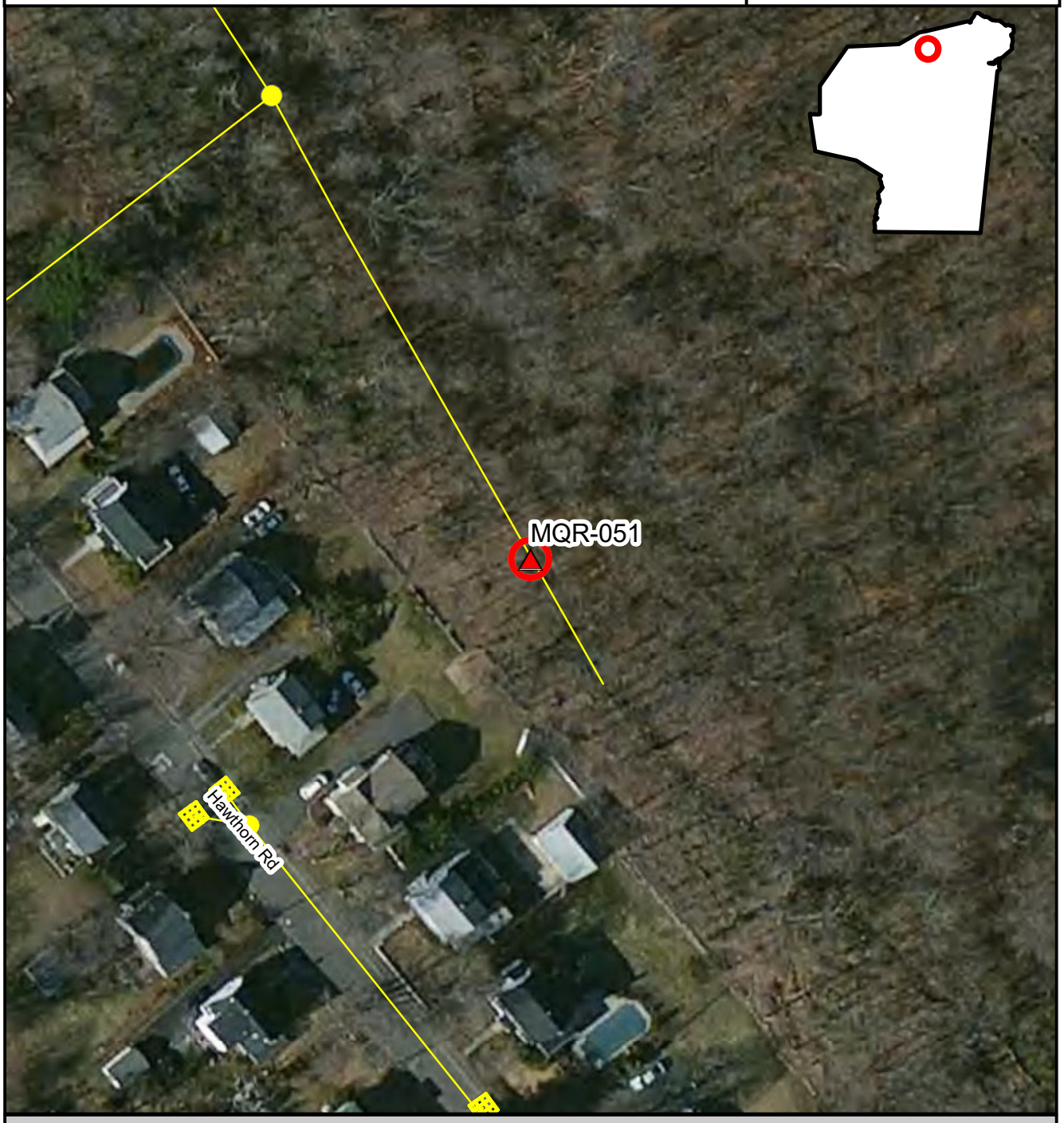
Were field measurements performed?	No
Reason field measurements not performed	Not a sampling event
Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	Drainage and brook surface here and then enter culvert again downstream exiting at GPS outfall 244. Best access between houses opposite 70 Hawthorne

Section 7: Media

Photos

Braintree IDDE Inspections

Inspection ID
BT-289



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 4/9/2018

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-290, SMB-021, 2018-04-24, 7:47:00

Created	2018-04-24 11:47:51 UTC by Matt Davis
Updated	2018-04-24 12:18:14 UTC by Matt Davis
Location	42.1910686, -70.977138

Section 1: General Information

Inspection ID	BT-290
Outfall ID	SMB-021
Outfall GIS ID	516
Inspector	Gsh Cpo
Date	2018-04-24
Time	7:47:00
Temperature	45
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	30
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	Yes
Flow Velocity	Trickle
Flow Width (in)	4
Flow Depth (in)	0.1
Color Severity	Faint colors in sample bottle
Color Description	Orange
Turbidity	No cloudiness
Floatables (does not include trash)	None

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	Yes
Deposits/Stains	rusty
Pool quality issues?	No
Pipe benthic growth present?	No

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Section 5: Field Measurements

Were field measurements performed?	Yes

Field Measurements Results

Temperature (C)	8.8
pH (pH units)	8.23
Salinity (ppt)	513
Conductivity (uS)	1083
Ammonia (Mg/L)	0
Surfactants (ppm)	0.25
Chlorine (ppm)	0
Were laboratory samples collected?	Yes
Measurements/samples collected from	Outfall
E. Coli (MPN/100 ml)	0
Intermittent flow trap used?	No
Section 6: General Comments	Rust stain on pipe invert

Section 7: Media

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Photos

Braintree IDDE Inspections

Inspection ID
BT-290

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 4/24/2018

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-291, SMB-025, 2018-04-24, 8:28:00

Created	2018-04-24 12:28:38 UTC by Matt Davis
Updated	2018-04-24 12:32:31 UTC by Matt Davis
Location	42.1878851, -70.9754127

Section 1: General Information

Inspection ID	BT-291
Outfall ID	SMB-025
Outfall GIS ID	515
Inspector	Gsh Cpo
Date	2018-04-24
Time	8:28:00
Temperature	50
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	unknown
Closed Pipe Shape	unknown
Closed Pipe Diameter (in)	0
Outfall Condition	crished
Headwall Present	No
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No
Section 6: General Comments	Pipe crushed and buried

Section 7: Media

Photos

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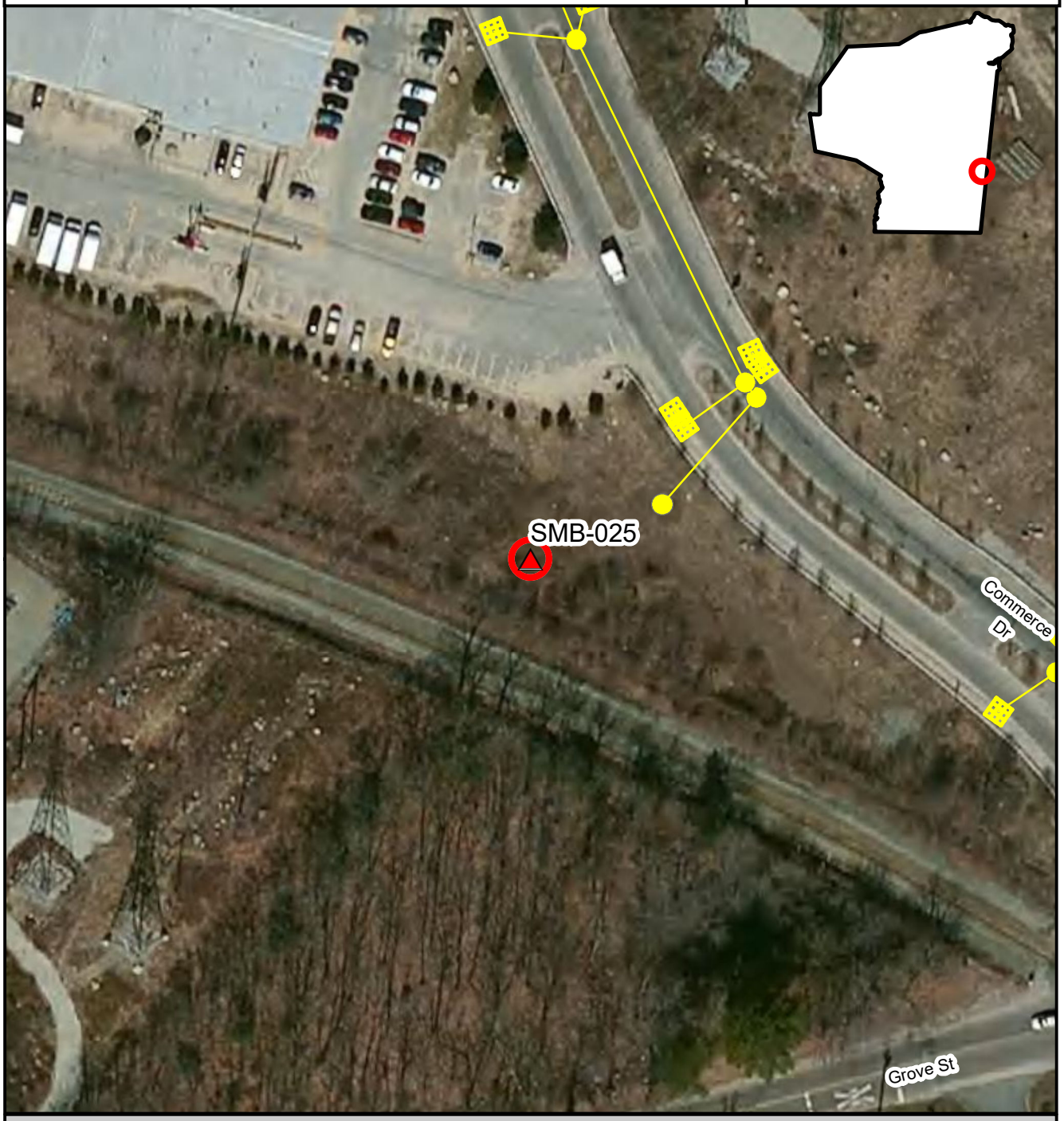
Braintree IDDE Inspections

Inspection ID
BT-291



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 4/24/2018

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-292, CDS-016, 2018-04-24, 8:47:00

Created	2018-04-24 12:47:48 UTC by Matt Davis
Updated	2018-04-24 12:53:22 UTC by Matt Davis
Location	42.189112, -70.9937109

Section 1: General Information

Inspection ID	BT-292
Outfall ID	CDS-016
Outfall GIS ID	513
Inspector	Gsh Cpo
Date	2018-04-24
Time	8:47:00
Temperature	55
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	15
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 7: Media

Photos

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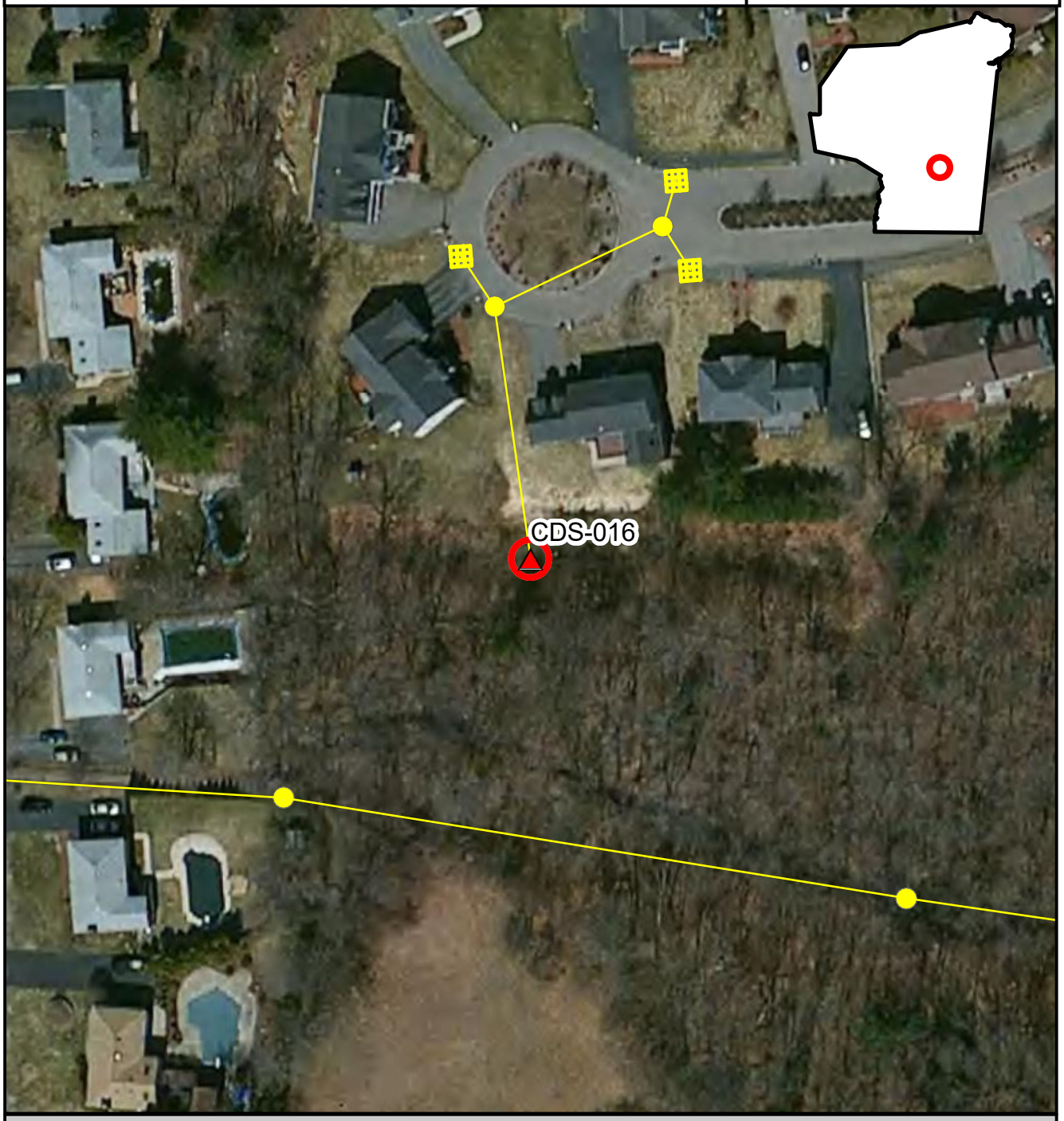
Braintree IDDE Inspections

Inspection ID
BT-292



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 4/24/2018

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-293, CDS-017, 2018-04-24, 8:57:00

Created	2018-04-24 12:57:18 UTC by Matt Davis
Updated	2018-04-24 13:04:10 UTC by Matt Davis
Location	42.1900482, -70.9917575

Section 1: General Information

Inspection ID	BT-293
Outfall ID	CDS-017
Outfall GIS ID	512
Inspector	Gsh Cpo
Date	2018-04-24
Time	8:57:00
Temperature	55
Inspection Location	Detention basin inlet
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	no access
Closed Pipe Shape	no access
Closed Pipe Diameter (in)	0
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No
Section 6: General Comments	Inlet to detention basin.

Section 7: Media

Photos

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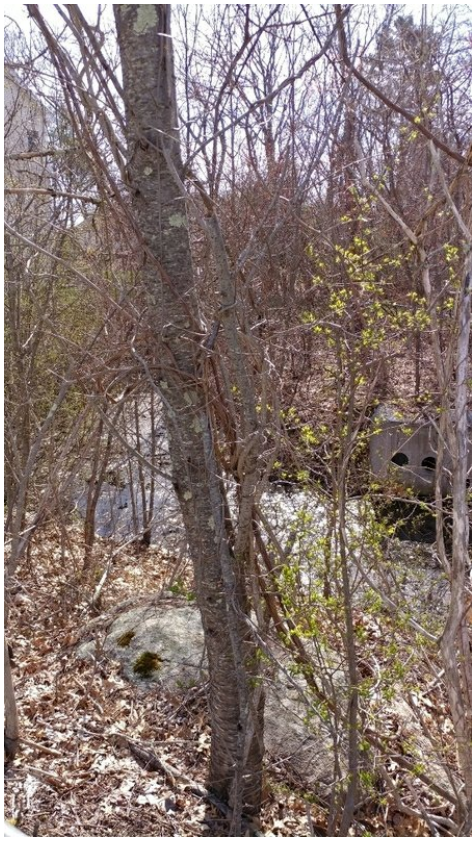
Sketches



Braintree IDDE Inspections

Inspection ID
BT-293

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 4/24/2018

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-294, CDS-018, 2018-04-24, 9:08:00

Created	2018-04-24 13:08:18 UTC by Matt Davis
Updated	2018-04-24 13:12:02 UTC by Matt Davis
Location	42.1915134, -70.990329

Section 1: General Information

Inspection ID	BT-294
Outfall ID	CDS-018
Outfall GIS ID	511
Inspector	Gsh Cpo
Date	2018-04-24
Time	9:08:00
Temperature	55
Inspection Location	Detention basin inlet
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	12
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	Yes
Sediment Depth (%)	50
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No
Section 6: General Comments	Inlet to detention basin.

Section 7: Media

Photos

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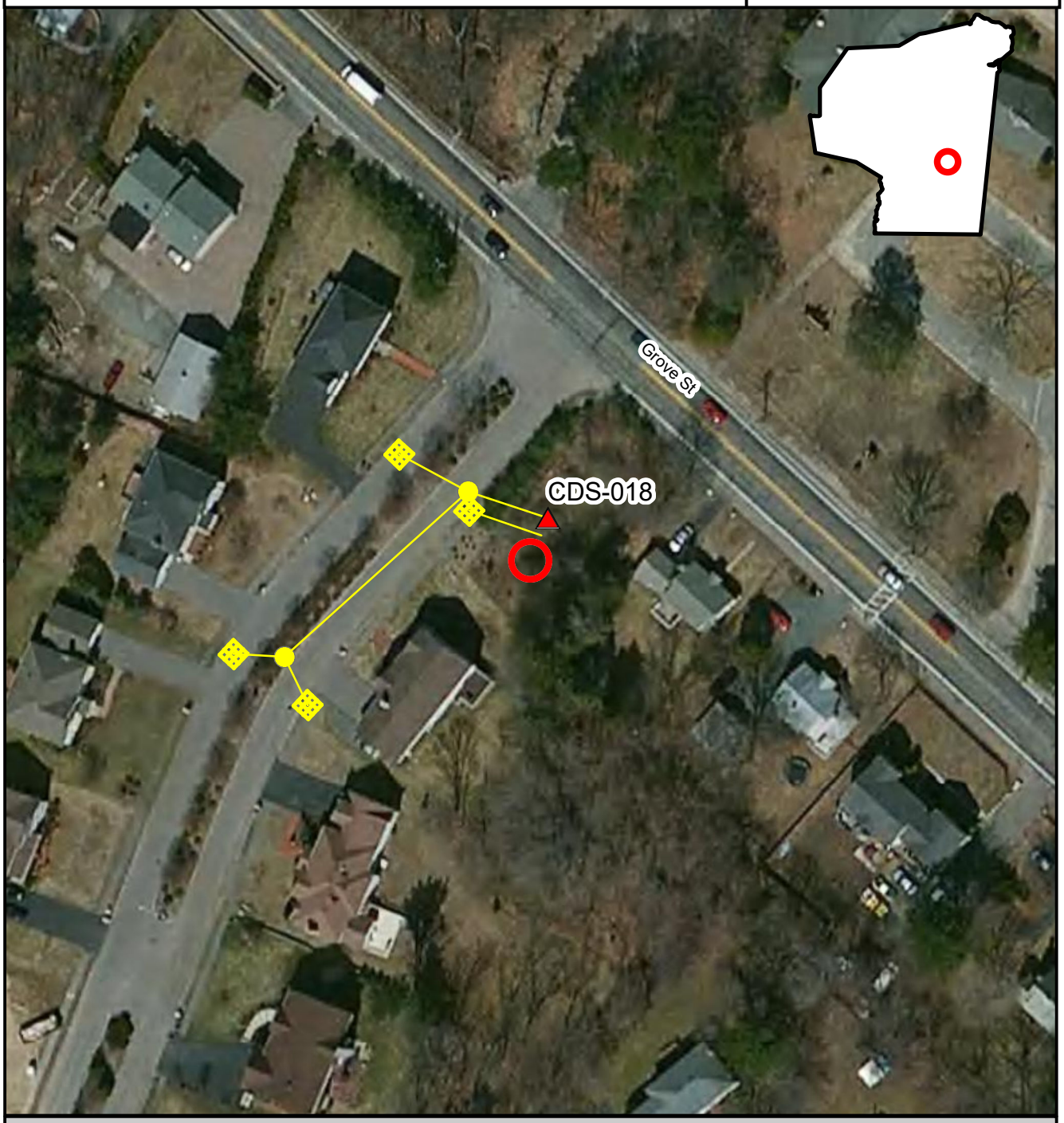
Braintree IDDE Inspections

Inspection ID
BT-294



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 4/24/2018

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-295, CDS-025, 2018-04-24, 9:23:00

Created	2018-04-24 13:23:42 UTC by Matt Davis
Updated	2018-04-24 13:26:17 UTC by Matt Davis
Location	42.1846231, -70.9900376

Section 1: General Information

Inspection ID	BT-295
Outfall ID	CDS-025
Outfall GIS ID	514
Inspector	Gsh Cpo
Date	2018-04-24
Time	9:23:00
Temperature	55
Inspection Location	Manhole
Investigation performed at manhole upstream of outfall?	Yes
Reason why investigation performed at upstream manhole	Could not locate
Visual evidence of contamination present?	No
Odor Severity	None

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pipe benthic growth present?	No
Section 6: General Comments	Outfall is on private property. No one was home to provide access to outfall. Inspection was performed at upstream manhole.

Section 7: Media

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Photos

Sketches

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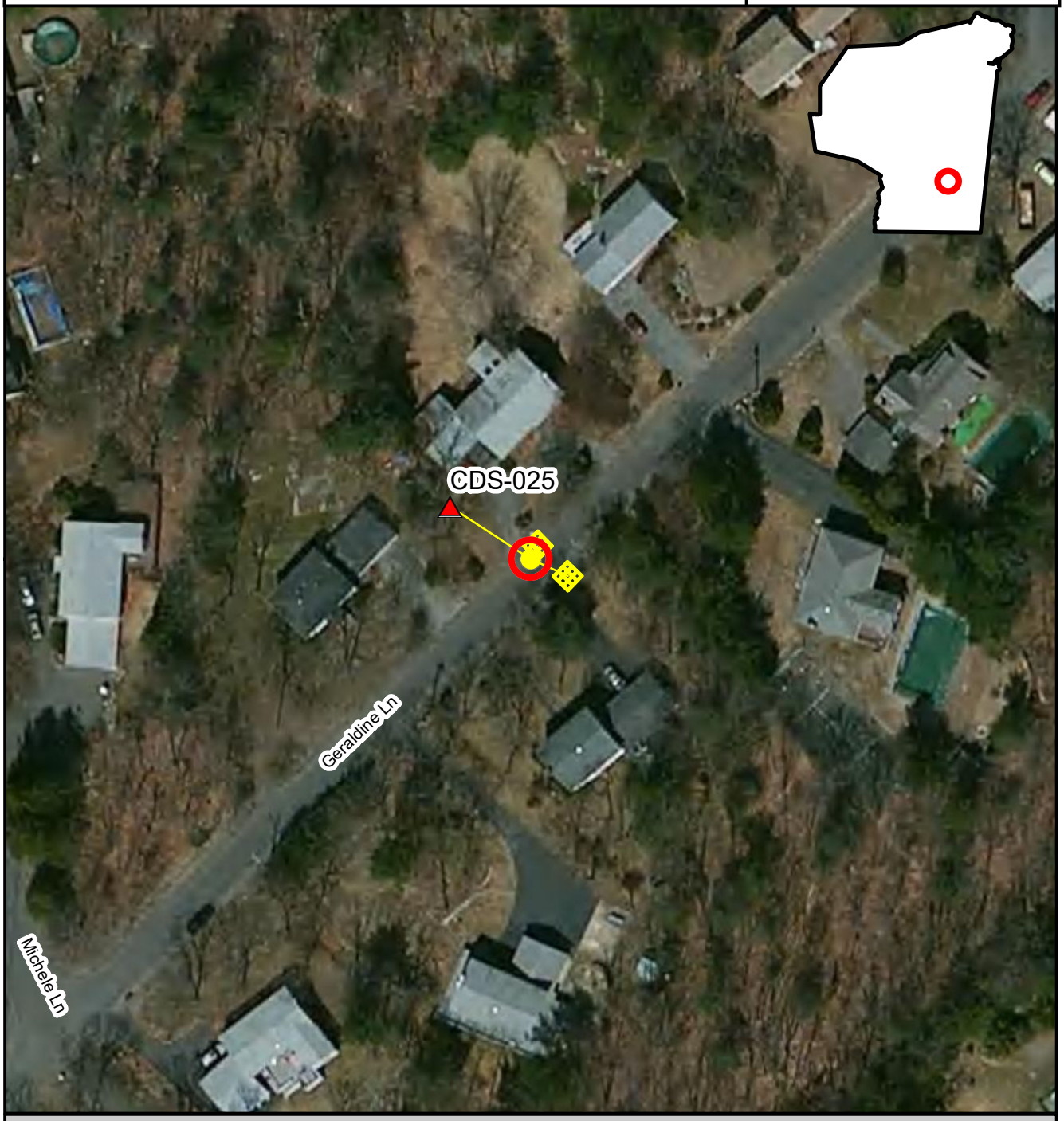
Inspection ID
BT-295



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 4/24/2018

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-296, MQR-070, 2018-04-24, 9:43:00

Created	2018-04-24 13:43:57 UTC by Matt Davis
Updated	2018-04-24 14:03:53 UTC by Matt Davis
Location	42.2145439, -71.0024064

Section 1: General Information

Inspection ID	BT-296
Outfall ID	MQR-070
Outfall GIS ID	69
Inspector	Gsh Cpo
Date	2018-04-24
Time	9:43:00
Temperature	58
Inspection Location	Manhole
Investigation performed at manhole upstream of outfall?	Yes
Reason why investigation performed at upstream manhole	Could mot locate outfall
Visual evidence of contamination present?	No
Odor Severity	None

Section 3: Physical Indicators (flow flowing)

Flow Present	Yes
Flow Velocity	Moderate
Color Severity	None
Turbidity	No cloudiness
Floatables (does not include trash)	None

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	Yes

Field Measurements Results

Temperature (C)	12.2
pH (pH units)	7.6
Salinity (ppt)	444
Conductivity (uS)	932
Ammonia (Mg/L)	0
Surfactants (ppm)	0.25
Chlorine (ppm)	0
Were laboratory samples collected?	Yes
Measurements/samples collected from	manhole
E. Coli (MPN/100 ml)	2

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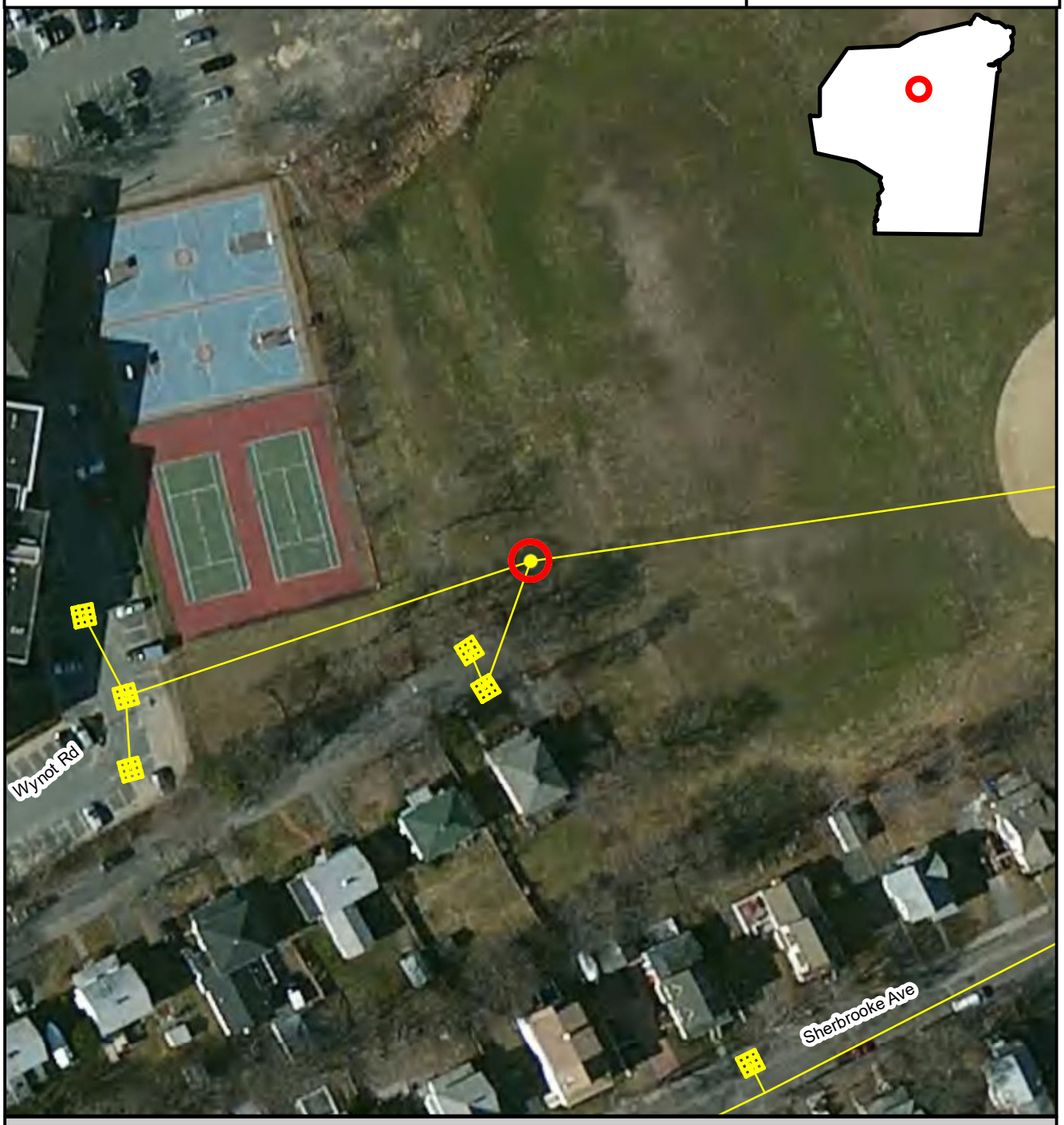
Intermittent flow trap used?	No
Section 6: General Comments	Surfactants reading between 0.25 and 0.5. DUP taken here.

Section 7: Media

Photos

Braintree IDDE Inspections

Inspection ID
BT-296



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 4/24/2018

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-297, 2018-04-24, 10:56:00

Created	2018-04-24 14:56:14 UTC by Matt Davis
Updated	2018-04-26 15:24:10 UTC by Matt Davis
Location	42.2122147, -70.9861472

Section 1: General Information

Inspection ID	BT-297
Outfall GIS ID	509
Inspector	Gsh Cpo
Date	2018-04-24
Time	10:56:00
Temperature	60
Inspection Location	Pipe Inlet
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	unknown
Closed Pipe Shape	unknown
Closed Pipe Diameter (in)	0
Outfall Condition	buried
Headwall Present	No
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No
Section 6: General Comments	Inlet that drains marsh. Not an outfall.

Section 7: Media

Photos

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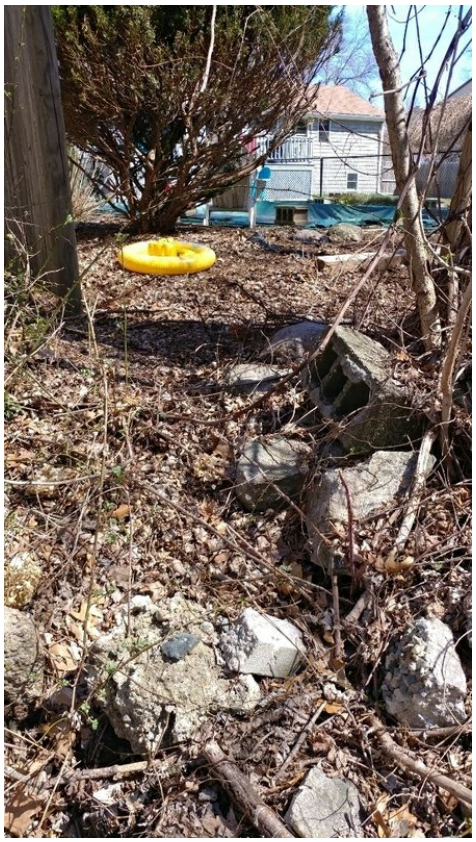
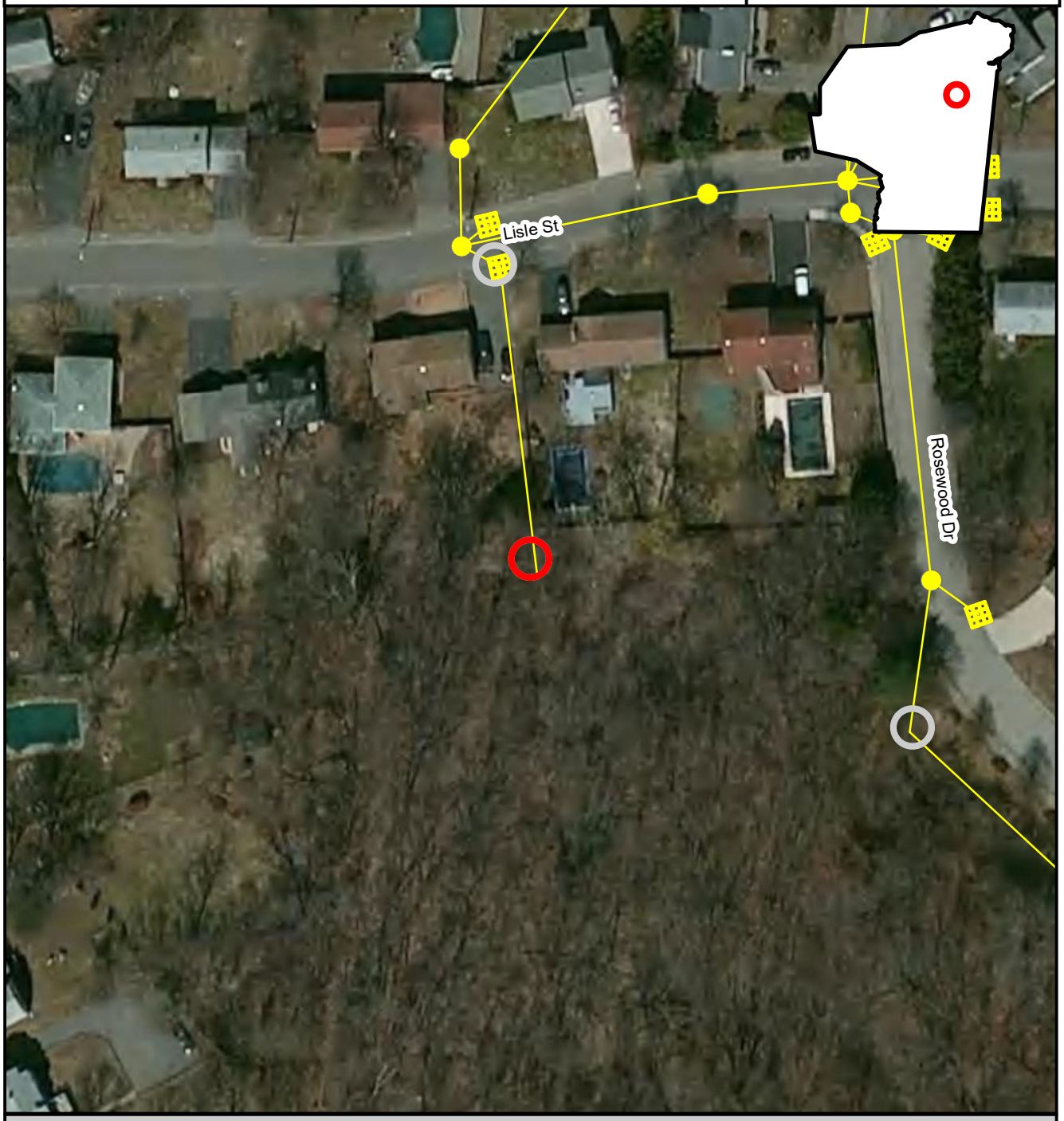


Sketches

Braintree IDDE Inspections

Inspection ID
BT-297



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 4/24/2018

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-298, 2018-04-24, 11:12:00

Created	2018-04-24 15:12:20 UTC by Matt Davis
Updated	2018-04-26 15:26:09 UTC by Matt Davis
Location	42.211922, -70.9854512

Section 1: General Information

Inspection ID	BT-298
Outfall GIS ID	509
Inspector	Gsh Cpo
Date	2018-04-24
Time	11:12:00
Temperature	60
Inspection Location	Detention basin outlet
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	10
Outfall Condition	Normal
Headwall Present	Yes
Headwall Condition	Good
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No
Section 6: General Comments	This is an outlet from a detention basin to the storm drain system. It is not an outfall.

Section 7: Media

Photos

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Braintree IDDE Inspections

Inspection ID
BT-298

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 4/24/2018

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-299, 2018-04-24, 11:20:00

Created	2018-04-24 15:20:33 UTC by Matt Davis
Updated	2018-04-24 15:25:57 UTC by Matt Davis
Location	42.2116479, -70.9849377

Section 1: General Information

Inspection ID	BT-299
Outfall GIS ID	504
Inspector	Gsh Cpo
Date	2018-04-24
Time	11:20:00
Temperature	60
Inspection Location	Detention basin inlet
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	10
Outfall Condition	Normal
Headwall Present	Yes
Headwall Condition	Good
Sediment Present?	Yes
Sediment Depth (%)	40
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No
Section 6: General Comments	Detention basin inlet.

Section 7: Media

Photos

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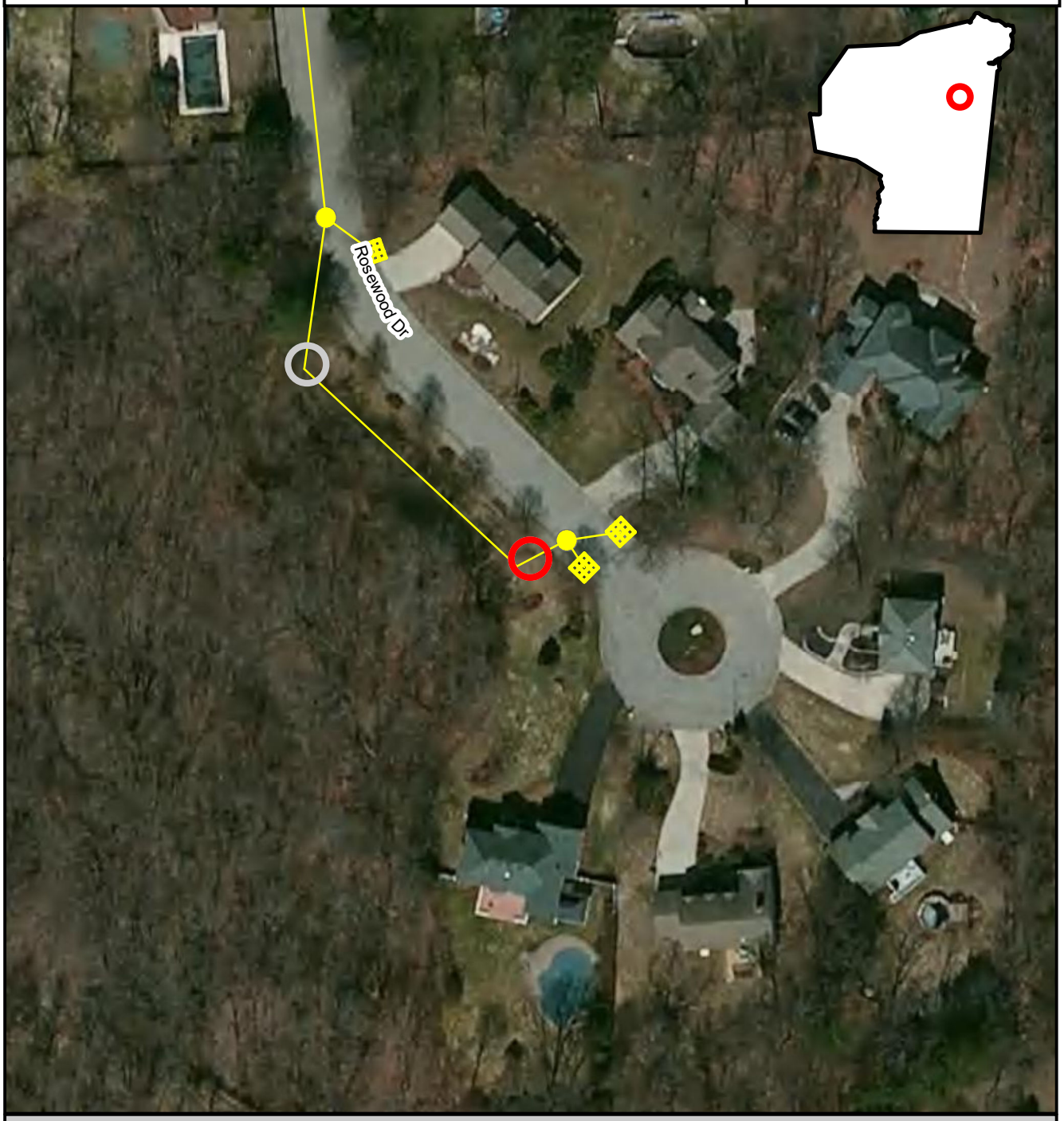
Braintree IDDE Inspections

Inspection ID
BT-299



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 4/24/2018

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-300, SMB-007, 2018-04-24, 12:00:00

Created	2018-04-24 16:00:33 UTC by Matt Davis
Updated	2018-04-24 16:05:42 UTC by Matt Davis
Location	42.21571691, -70.97138766

Section 1: General Information

Inspection ID	BT-300
Outfall ID	SMB-007
Outfall GIS ID	505
Inspector	Gsh Cpo
Date	2018-04-24
Time	12:00:00
Temperature	60
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	unknown
Closed Pipe Shape	unknown
Closed Pipe Diameter (in)	0
Outfall Condition	unknown
Headwall Present	No
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No
Section 6: General Comments	Could not access the outfall due to private fences, but ould visually determine that there was no flow from outfall.

Section 7: Media

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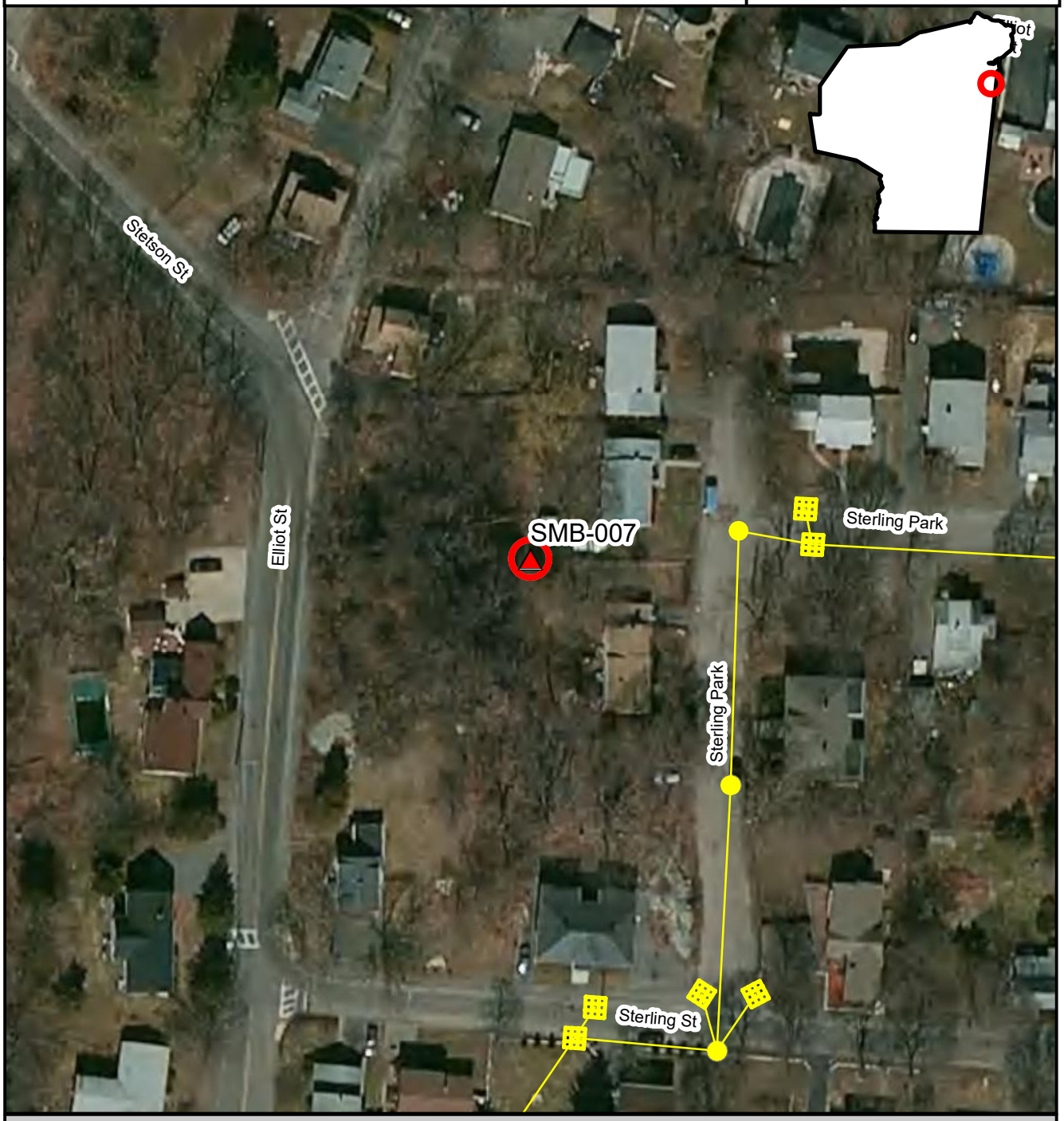
Photos

Braintree IDDE Inspections

Inspection ID
BT-300



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 4/24/2018

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-301, SMB-020, 2018-04-24, 12:16:00

Created	2018-04-24 16:16:00 UTC by Matt Davis
Updated	2018-04-24 16:19:16 UTC by Matt Davis
Location	42.1955623, -70.9883619

Section 1: General Information

Inspection ID	BT-301
Outfall ID	SMB-020
Outfall GIS ID	506
Inspector	Gsh Cpo
Date	2018-04-24
Time	12:16:00
Temperature	60
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	36
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	Yes
Sediment Depth (%)	5
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 7: Media

Photos

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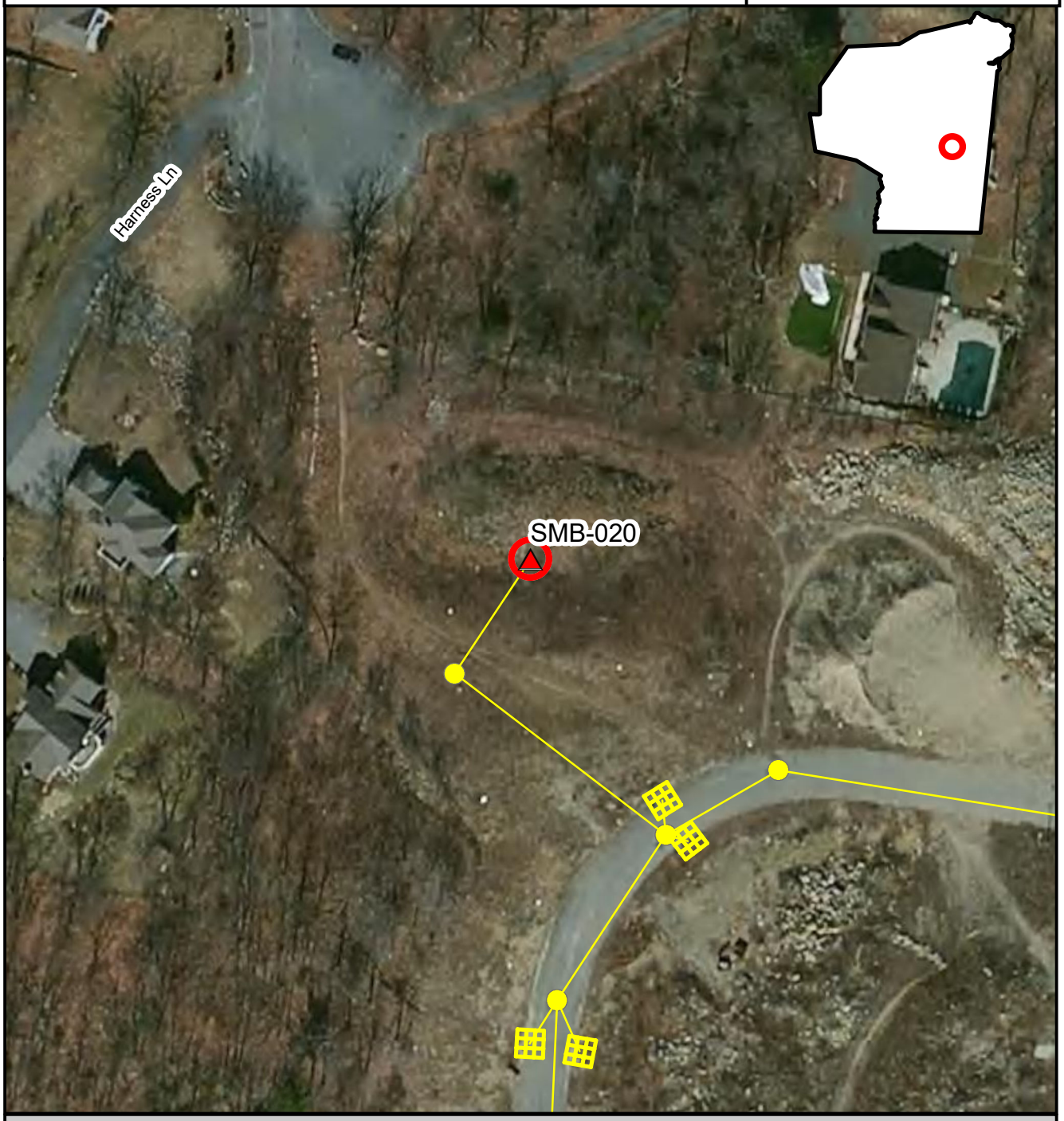
Braintree IDDE Inspections

Inspection ID
BT-301



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 4/24/2018

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-302, 2018-04-24, 14:21:00

Created	2018-04-24 18:21:55 UTC by Matt Davis
Updated	2018-04-24 18:48:06 UTC by Matt Davis
Location	42.2126298, -70.9862368

Section 1: General Information

Inspection ID	BT-302
Outfall GIS ID	509
Inspector	Gsh Cpo
Date	2018-04-24
Time	14:21:00
Temperature	65
Inspection Location	Catch basin
Investigation performed at manhole upstream of outfall?	Yes
Reason why investigation performed at upstream manhole	Catch basin running but not outfall
Section 6: General Comments	Water was flowing in a catch basin coming from the marsh and town wanted it sampled.

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Braintree IDDE Inspections

Inspection ID
BT-302

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 4/24/2018

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-303, TWB-015, 2018-12-12, 8:13:00

Created	2018-12-12 13:13:58 UTC by Matt Davis
Updated	2018-12-12 13:19:42 UTC by Matt Davis
Location	42.2219839, -71.012367

Section 1: General Information

Inspection ID	BT-303
Outfall ID	TWB-015
Outfall GIS ID	56
Inspector	Gsh Cpo
Date	2018-12-12
Time	8:13:00
Temperature	28
Inspection Location	Catch basin
Investigation performed at manhole upstream of outfall?	Yes
Reason why investigation performed at upstream manhole	Catch basin. Could not find Outfall
Visual evidence of contamination present?	No
Odor Severity	None

Section 3: Physical Indicators (flow flowing)

Flow Present	Standing Water
Color Severity	None
Turbidity	No cloudiness
Floatables (does not include trash)	Some
Floatables Description	leaves

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pipe benthic growth present?	No
Section 6: General Comments	Could not find outfall. Inspection performed at catch basin.

Section 7: Media

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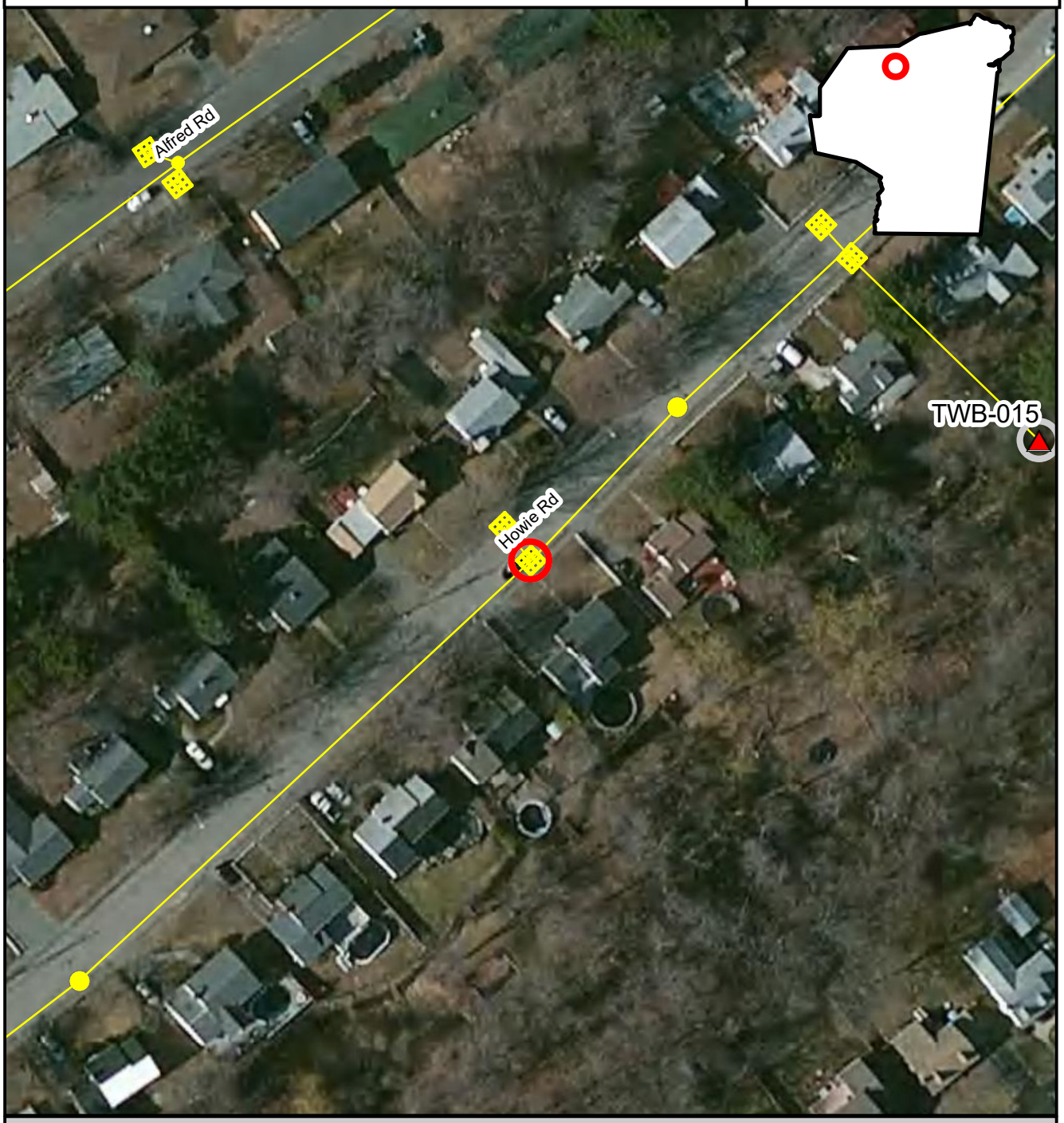
Photos

Braintree IDDE Inspections

Inspection ID
BT-303



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 12/12/2018

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-304, TWB-032, 2018-12-12, 8:33:00

Created	2018-12-12 13:33:20 UTC by Matt Davis
Updated	2018-12-12 13:38:22 UTC by Matt Davis
Location	42.217309, -71.0162486

Section 1: General Information

Inspection ID	BT-304
Outfall ID	TWB-032
Outfall GIS ID	73
Inspector	Gsh Cpo
Date	2018-12-12
Time	8:33:00
Temperature	28
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	clay
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	10
Outfall Condition	buried
Headwall Present	No
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No
Section 6: General Comments	Outfall is a foot below ground and partially obstructed.

Section 7: Media

Photos

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Braintree IDDE Inspections

Inspection ID
BT-304

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 12/12/2018

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-305, TWB-030, 2018-12-12, 9:11:00

Created	2018-12-12 14:11:37 UTC by Matt Davis
Updated	2018-12-12 14:17:31 UTC by Matt Davis
Location	42.2177981, -71.007789

Section 1: General Information

Inspection ID	BT-305
Outfall ID	TWB-030
Outfall GIS ID	67
Inspector	Gsh Cpo
Date	2018-12-12
Time	9:11:00
Temperature	28
Inspection Location	Catch basin
Investigation performed at manhole upstream of outfall?	Yes
Reason why investigation performed at upstream manhole	Catch basin could not locate mh
Visual evidence of contamination present?	No
Odor Severity	None

Section 3: Physical Indicators (flow flowing)

Flow Present	Standing Water
Color Severity	None
Turbidity	Slight cloudiness
Floatables (does not include trash)	Some
Floatables Description	leaves

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pipe benthic growth present?	No
Section 6: General Comments	Could not find outfall. Performed inspection at catch basin. Inlets at 9, 10, and 3 o'clock. Searched for outfall in area adjacent to Archibishop Williams Stadium. There is a BMP in the area. We suspect that the outfall has been rerouted to the BMP, but

Section 7: Media

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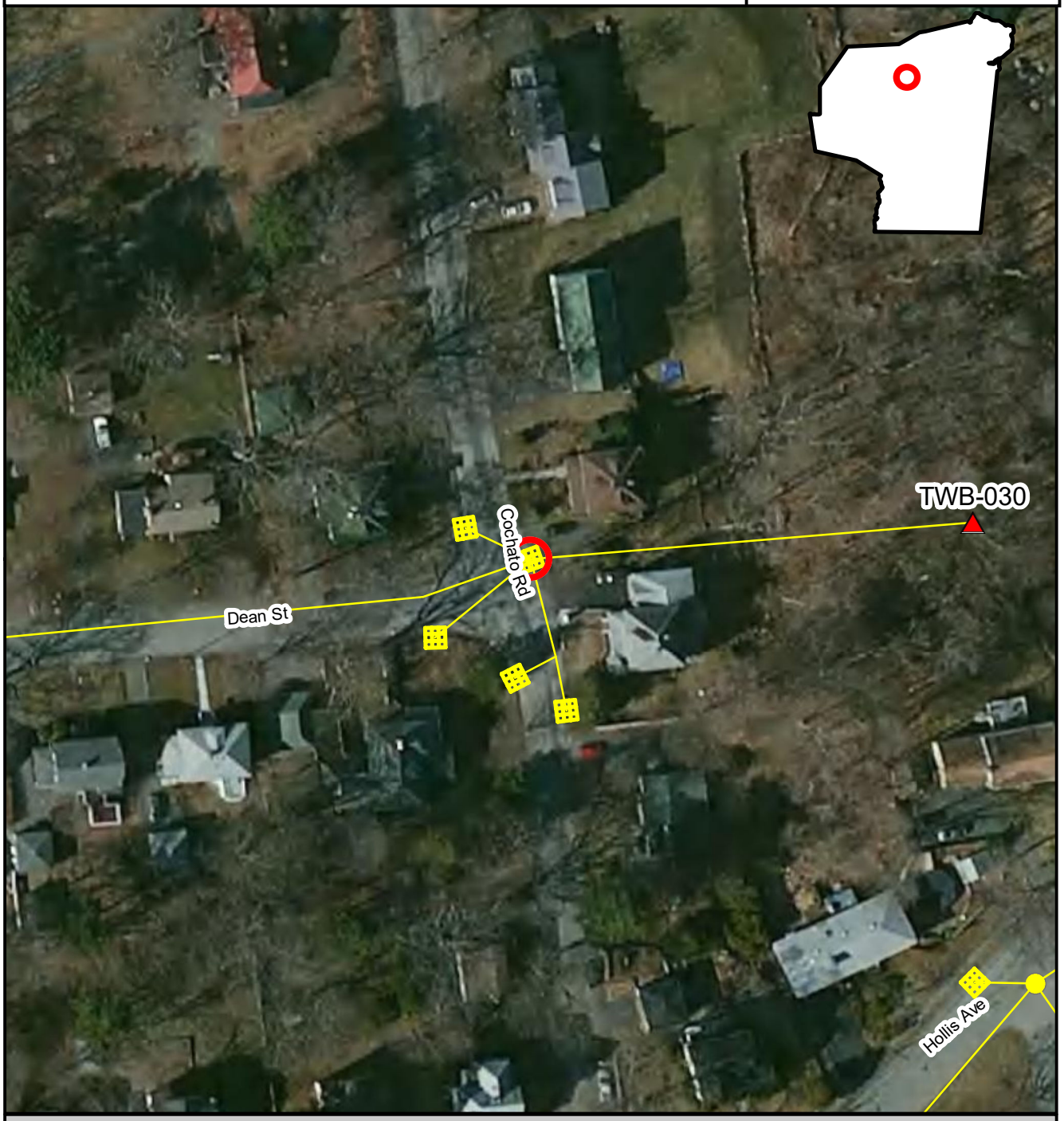
Photos

Sketches

Braintree IDDE Inspections

Inspection ID
BT-305



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 12/12/2018

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-306, MQR-066, 2018-12-12, 9:27:00

Created	2018-12-12 14:27:06 UTC by Matt Davis
Updated	2018-12-12 14:30:31 UTC by Matt Davis
Location	42.2212676, -71.0027928

Section 1: General Information

Inspection ID	BT-306
Outfall ID	MQR-066
Outfall GIS ID	64
Inspector	Gsh Cpo
Date	2018-12-12
Time	9:27:00
Temperature	28
Inspection Location	Manhole
Investigation performed at manhole upstream of outfall?	Yes
Reason why investigation performed at upstream manhole	Outfall on RR property
Visual evidence of contamination present?	No
Odor Severity	None

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pipe benthic growth present?	No
Section 6: General Comments	Outfall not accessible due to train tracks. Performed inspection at manhole. Inlets at 12, 2, and 4 o'clock (pipe outlet at 6 o'clock)

Section 7: Media

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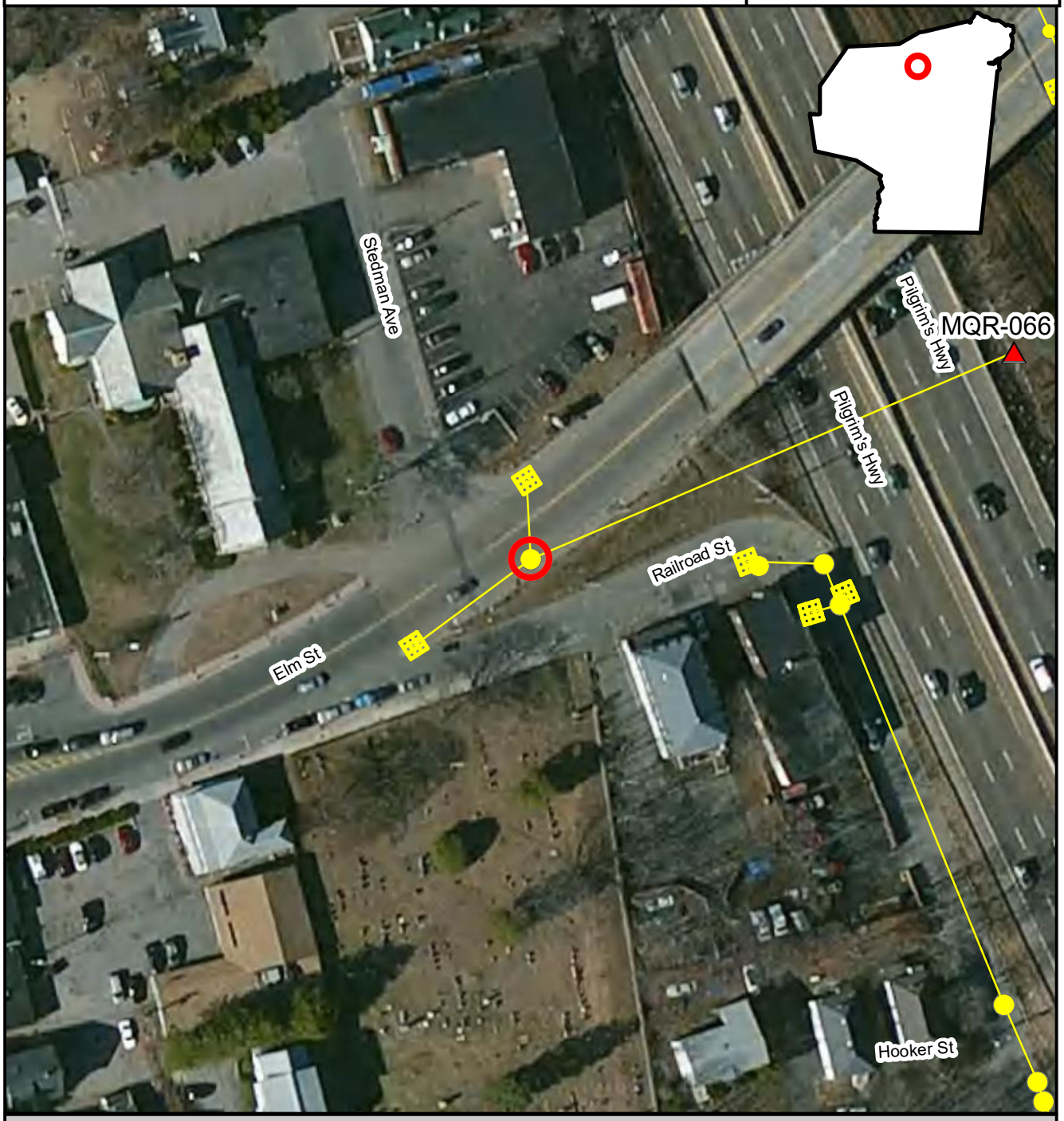
Photos

Braintree IDDE Inspections

Inspection ID
BT-306



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 12/12/2018

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-307, MQR-021, 2018-12-12, 9:54:00

Created	2018-12-12 14:54:58 UTC by Matt Davis
Updated	2018-12-12 15:08:51 UTC by Matt Davis
Location	42.21185157, -70.98245312

Section 1: General Information

Inspection ID	BT-307
Outfall ID	MQR-021
Outfall GIS ID	23
Inspector	Gsh Cpo
Date	2018-12-12
Time	9:54:00
Temperature	30
Inspection Location	Manhole
Investigation performed at manhole upstream of outfall?	Yes
Reason why investigation performed at upstream manhole	Could not find)
Visual evidence of contamination present?	No
Odor Severity	None

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

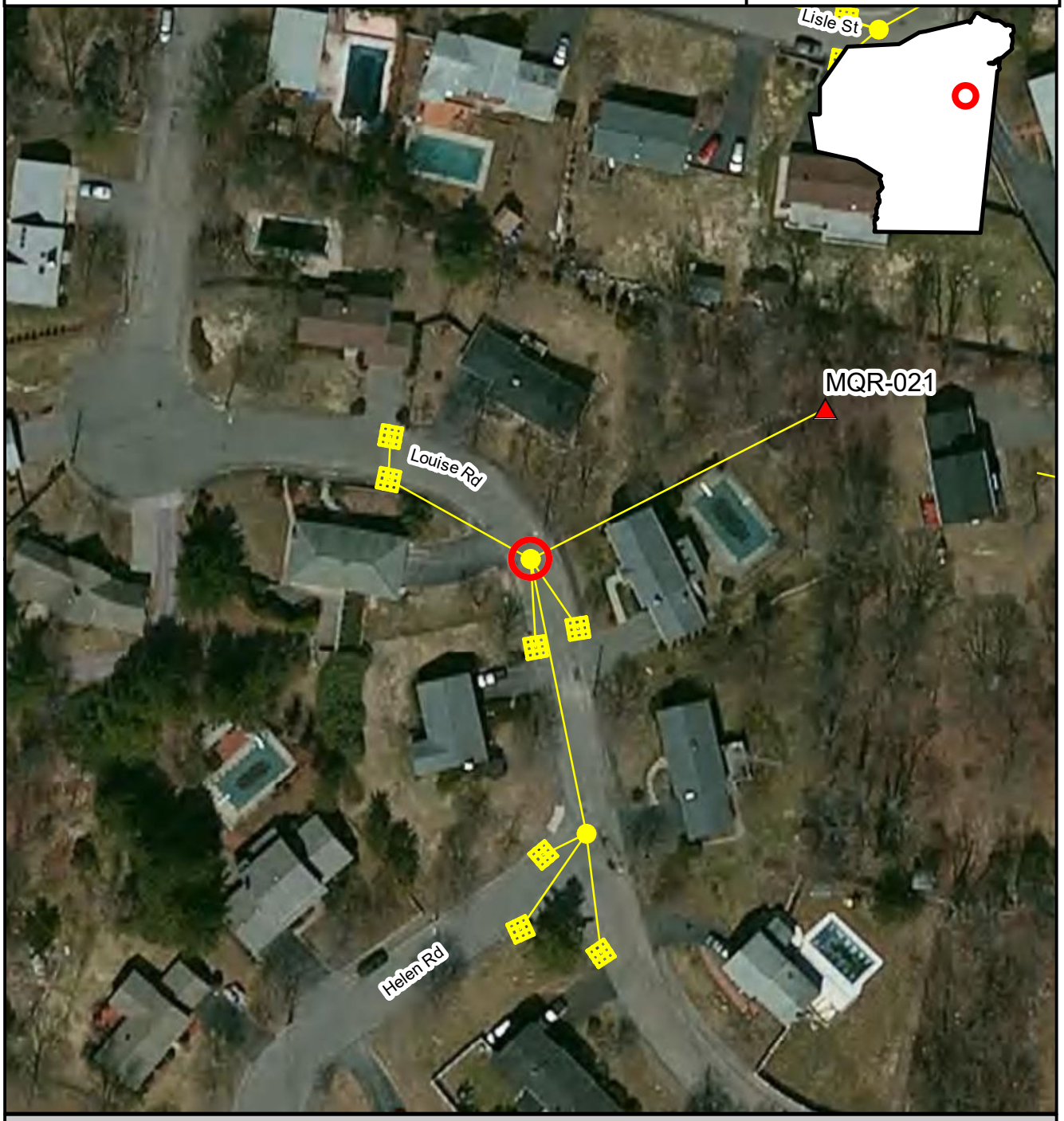
Deposits/stains present?	No
Pipe benthic growth present?	No
Section 6: General Comments	Could not find outfall. Inlets at 8, 9, 10, and 3 o'clock (pipe outlet at 6 o'clock).

Section 7: Media

Photos

Braintree IDDE Inspections

Inspection ID
BT-307



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 12/12/2018

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-308, MQR-074, 2018-12-12, 10:39:00

Created	2018-12-12 15:39:54 UTC by Matt Davis
Updated	2018-12-12 16:08:25 UTC by Matt Davis
Location	42.2019452, -70.9895187

Section 1: General Information

Inspection ID	BT-308
Outfall ID	MQR-074
Outfall GIS ID	124
Inspector	Gsh Cpo
Date	2018-12-12
Time	10:39:00
Temperature	30
Inspection Location	Manhole
Investigation performed at manhole upstream of outfall?	Yes
Reason why investigation performed at upstream manhole	Culvertedbrook that daylights behind fence
Visual evidence of contamination present?	No
Odor Severity	None

Section 3: Physical Indicators (flow flowing)

Flow Present	Yes
Flow Velocity	Trickle
Color Severity	None
Turbidity	Cloudy
Floatables (does not include trash)	None

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	Yes

Field Measurements Results

Temperature (C)	9
pH (pH units)	7.35
Salinity (ppt)	102
Conductivity (uS)	408
Ammonia (Mg/L)	0
Surfactants (ppm)	0.25
Chlorine (ppm)	0
Were laboratory samples collected?	Yes
Measurements/samples collected from	upstream MH
E. Coli (MPN/100 ml)	2

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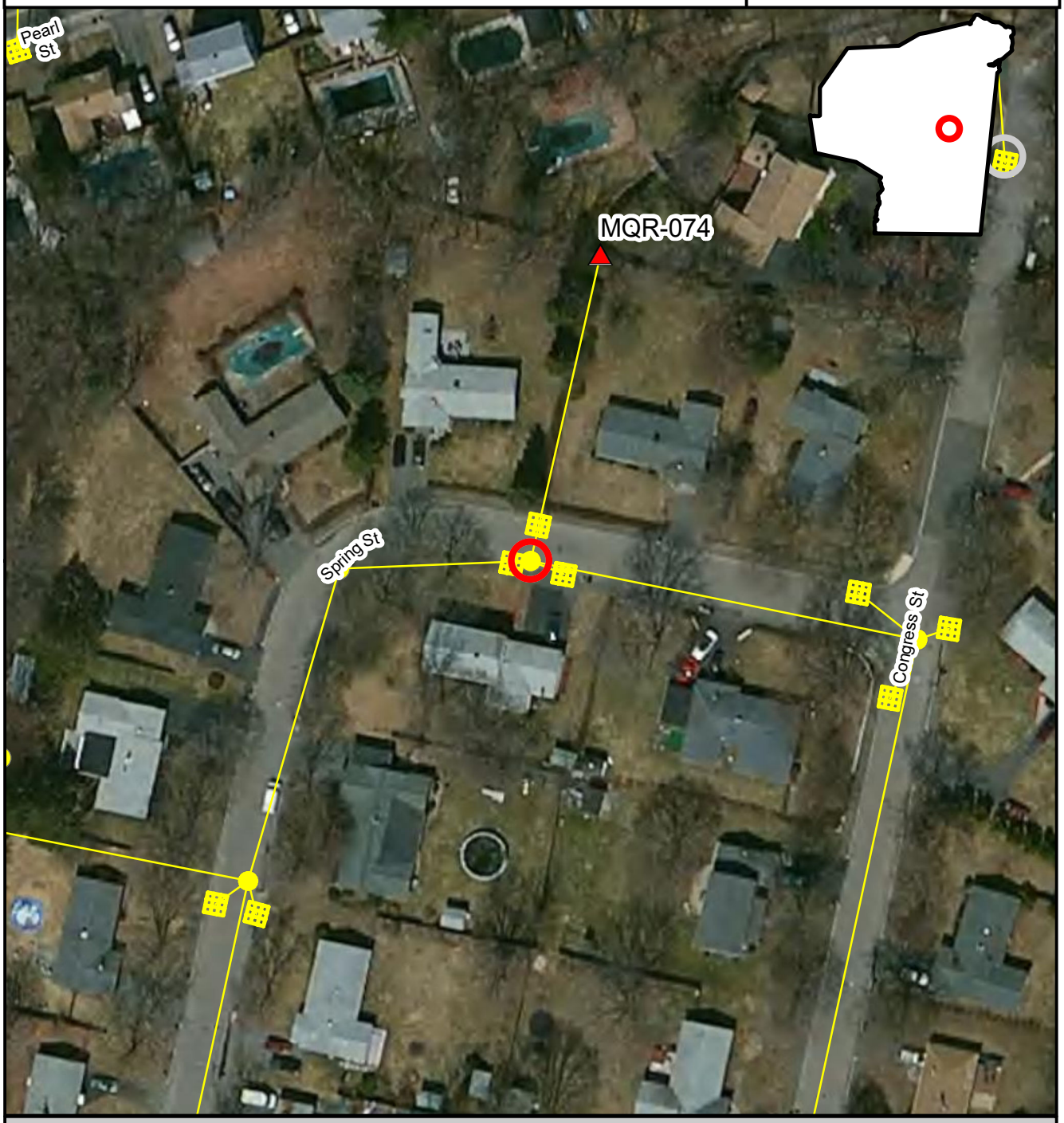
Intermittent flow trap used?	No
Section 6: General Comments	Performed inspection at manhole. Culverted brook. Could not access outfall due to fences.

Section 7: Media

Photos

Braintree IDDE Inspections

Inspection ID
BT-308



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 12/12/2018

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-309, SMB-031, 2018-12-12, 11:45:00

Created	2018-12-12 16:45:25 UTC by Matt Davis
Updated	2018-12-13 16:22:36 UTC by Matt Davis
Location	42.1874357, -70.9851962

Section 1: General Information

Inspection ID	BT-309
Outfall ID	SMB-031
Outfall GIS ID	160
Inspector	Gsh Cpo
Date	2018-12-12
Time	11:45:00
Temperature	30
Inspection Location	Manhole
Investigation performed at manhole upstream of outfall?	Yes
Reason why investigation performed at upstream manhole	Drainage not as shown on map
Visual evidence of contamination present?	No
Odor Severity	None

Section 3: Physical Indicators (flow flowing)

Flow Present	Standing Water
Color Severity	None
Turbidity	Slight cloudiness
Floatables (does not include trash)	None

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pipe benthic growth present?	No
Section 6: General Comments	Deep manhole that is inconsistent with Town's sewer map. Outfall no longer exist. Has been rerouted to this manhole which discharges to BMP.

Section 7: Media

Photos

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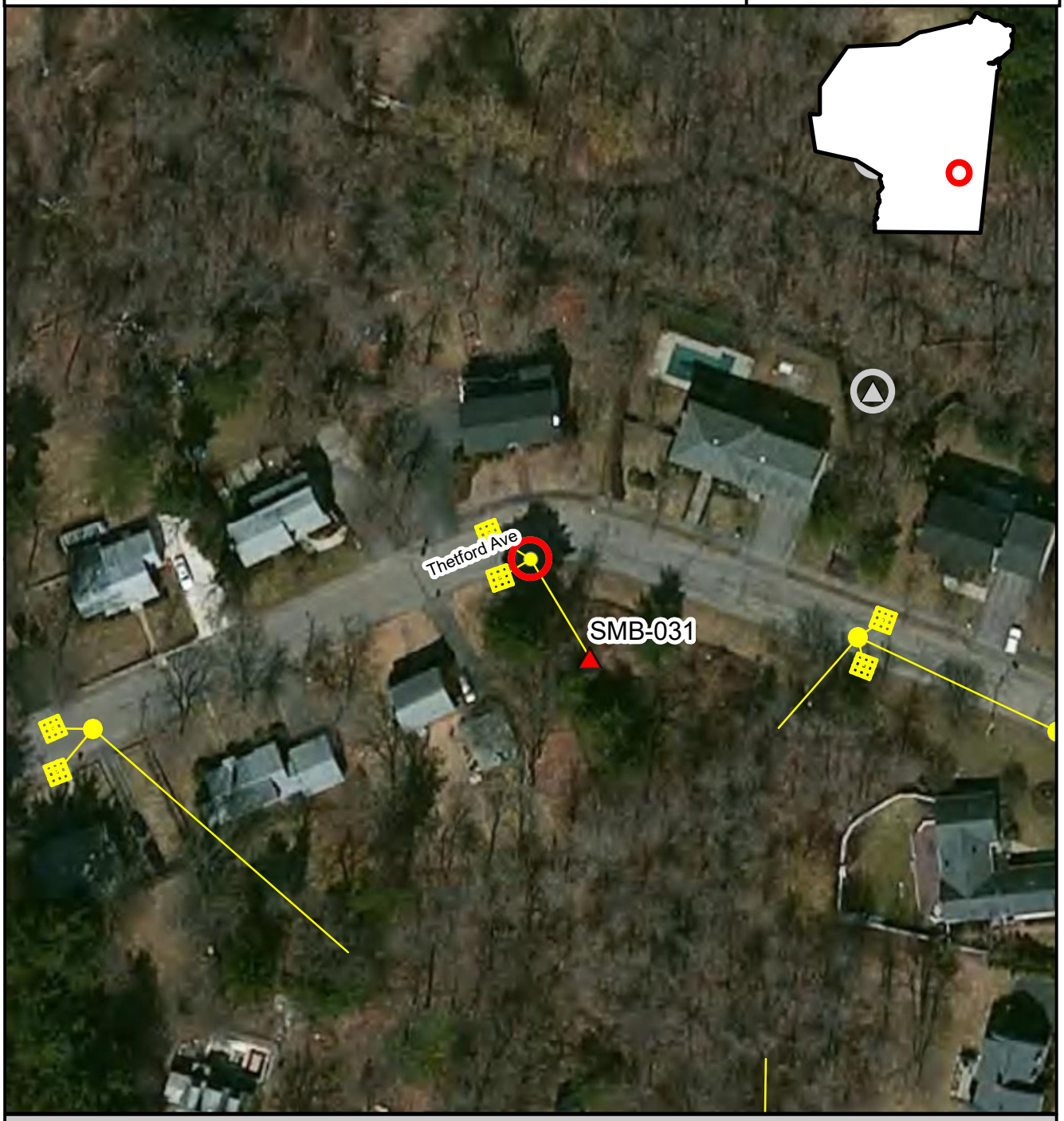
Braintree IDDE Inspections

Inspection ID
BT-309



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 12/12/2018

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-310, CDS-006, 2018-12-13, 9:51:00

Created	2018-12-13 14:51:37 UTC by Matt Davis
Updated	2018-12-13 15:10:29 UTC by Matt Davis
Location	42.1889611, -71.0026853

Section 1: General Information

Inspection ID	BT-310
Outfall ID	CDS-006
Outfall GIS ID	144
Inspector	Gsh Cpo
Date	2018-12-13
Time	9:51:00
Temperature	28
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	18
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	Yes
Sediment Depth (%)	10
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	Yes
Flow Velocity	Trickle
Flow Width (in)	3
Flow Depth (in)	1
Color Severity	None
Turbidity	No cloudiness
Floatables (does not include trash)	None

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	Yes
Pipe benthic growth description	Brown

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Section 5: Field Measurements

Were field measurements performed?	No
Reason field measurements not performed	No sample equipment
Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	Data collected from behind fence near outfall. Need to return to sample. Opened upstream MH and flow entering from multiple directions and will to track upstream but not enough test kits.

Section 7: Media

Photos

Braintree IDDE Inspections

Inspection ID
BT-310

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 12/13/2018

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-311, CDS-006, 2018-12-19, 8:00:00

Created	2018-12-19 13:00:22 UTC by Matt Davis
Updated	2018-12-19 15:23:44 UTC by Matt Davis
Location	42.1887021, -71.0022889

Section 1: General Information

Inspection ID	BT-311
Outfall ID	CDS-006
Outfall GIS ID	144
Inspector	Gsh Cpo
Date	2018-12-19
Time	8:00:00
Temperature	25
Inspection Location	Manhole
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	CMP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	18
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	Yes
Flow Velocity	Moderate
Flow Width (in)	3
Flow Depth (in)	1
Color Severity	None
Turbidity	No cloudiness
Floatables (does not include trash)	None

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	Yes
Pool Quality Description	Colors
Pool quality Comments	Rust colored growth on bottom of pool
Pipe benthic growth present?	Yes
Pipe benthic growth description	Brown

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Pipe benthic growth Comments	On pool bottom

Section 5: Field Measurements

Were field measurements performed?	Yes

Field Measurements Results

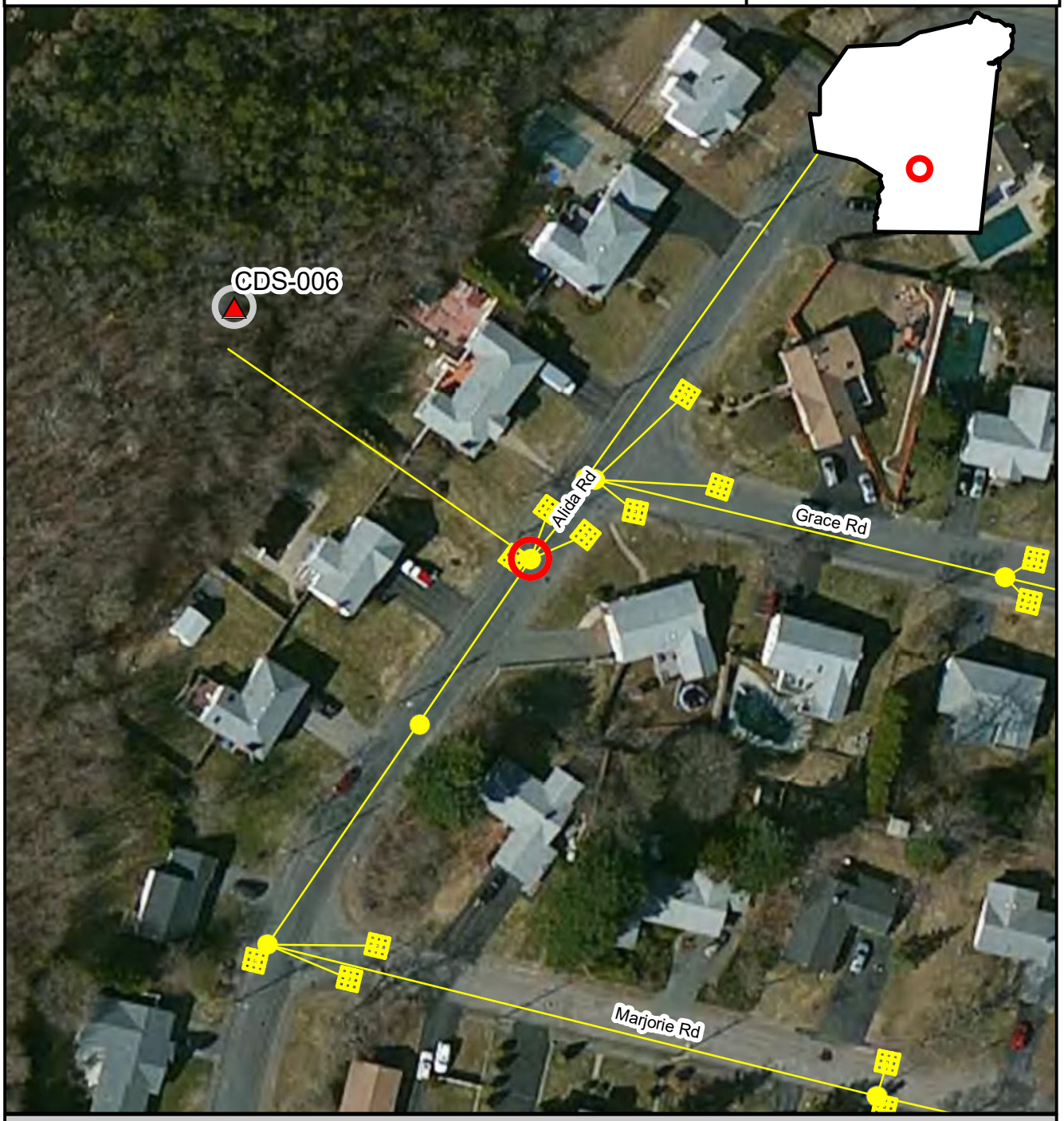
Temperature (C)	4.1
pH (pH units)	8.48
Salinity (ppt)	132
Conductivity (uS)	327
Ammonia (Mg/L)	0
Surfactants (ppm)	0.25
Chlorine (ppm)	0
Were laboratory samples collected?	Yes
Measurements/samples collected from	Outfall
E. Coli (MPN/100 ml)	200
Intermittent flow trap used?	No
Section 6: General Comments	Could not access outfall due to private property. Collected sample at manhole. Surfactants less than 0.25. Ice along curbing at several locations and signs of drainage coming from homes.

Section 7: Media

Photos

Braintree IDDE Inspections

Inspection ID
BT-311



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 12/19/2018

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-312, TWB-015, 2018-12-27, 8:03:00

Created	2018-12-27 13:03:47 UTC by Matt Davis
Updated	2018-12-27 13:21:14 UTC by Matt Davis
Location	42.2227683, -71.0091032

Section 1: General Information

Inspection ID	BT-312
Outfall ID	TWB-015
Outfall GIS ID	56
Inspector	Gsh Cpo
Date	2018-12-27
Time	8:03:00
Temperature	30
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	clay
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	12
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	No
Outfall Submerged	Partially
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	Standing Water
Color Severity	None
Turbidity	No cloudiness
Floatables (does not include trash)	None

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 7: Media

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Photos

Braintree IDDE Inspections

Inspection ID
BT-312

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 12/27/2018

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-313, CCR-004, 2019-05-28, 07:32

Created	2019-05-28 11:32:06 UTC by Matt Davis
Updated	2019-06-25 18:29:57 UTC by Matt Davis
Location	42.1754574, -71.0170945

Section 1: General Information

Inspection ID	BT-313
Outfall ID	CCR-004
Outfall ID	CCR-004
Inspector	Gh6
Date	2019-05-28
Time	07:32
Temperature	60
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	12
Outfall Condition	Normal
Headwall Present	Yes
Headwall Condition	Good
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No
Section 6: General Comments	Next to you use 140

Section 7: Media

Photos

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Braintree IDDE Inspections

Inspection ID
BT-313

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 5/28/2019

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-314, CCR-003, 2019-05-28, 07:47

Created	2019-05-28 11:47:59 UTC by Matt Davis
Updated	2019-05-30 15:04:38 UTC by Matt Davis
Location	42.1777083, -71.0182271

Section 1: General Information

Inspection ID	BT-314
Outfall ID	CCR-003
Inspector	Gh6
Date	2019-05-28
Time	07:47
Temperature	60
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	CMP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	10
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 7: Media

Photos

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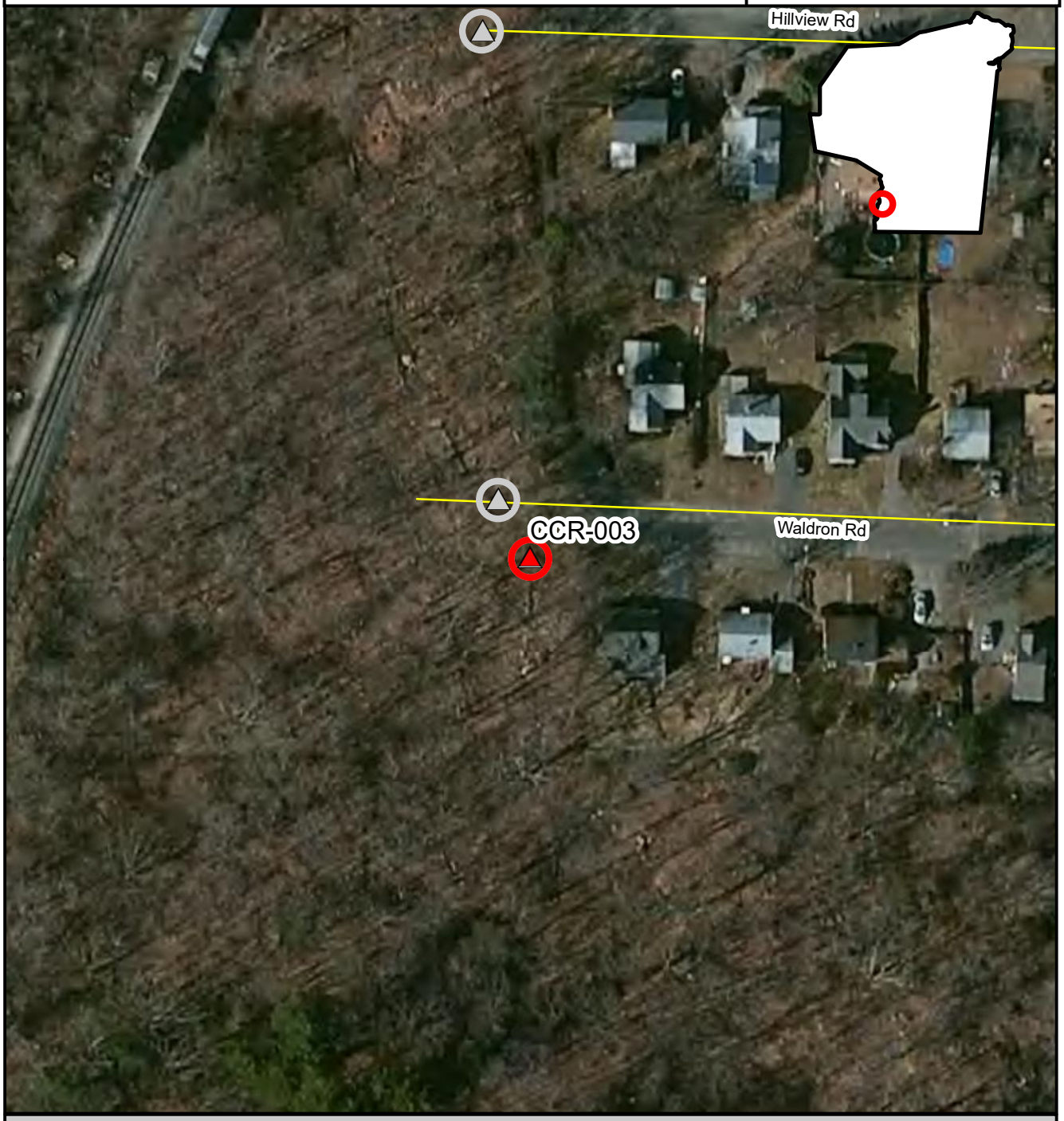
Braintree IDDE Inspections

Inspection ID
BT-314



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 5/28/2019

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-315, CCR-008, 2019-05-28, 07:51

Created	2019-05-28 11:51:04 UTC by Matt Davis
Updated	2019-06-27 16:01:52 UTC by Matt Davis
Location	42.1778308, -71.0182846

Section 1: General Information

Inspection ID	BT-315
Outfall ID	CCR-008
Outfall ID	CCR-008
Inspector	Gh6
Date	2019-05-28
Time	07:51
Temperature	60
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	PVC
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	12
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No
Section 6: General Comments	Two pipes within 20 feet.

Section 7: Media

Photos

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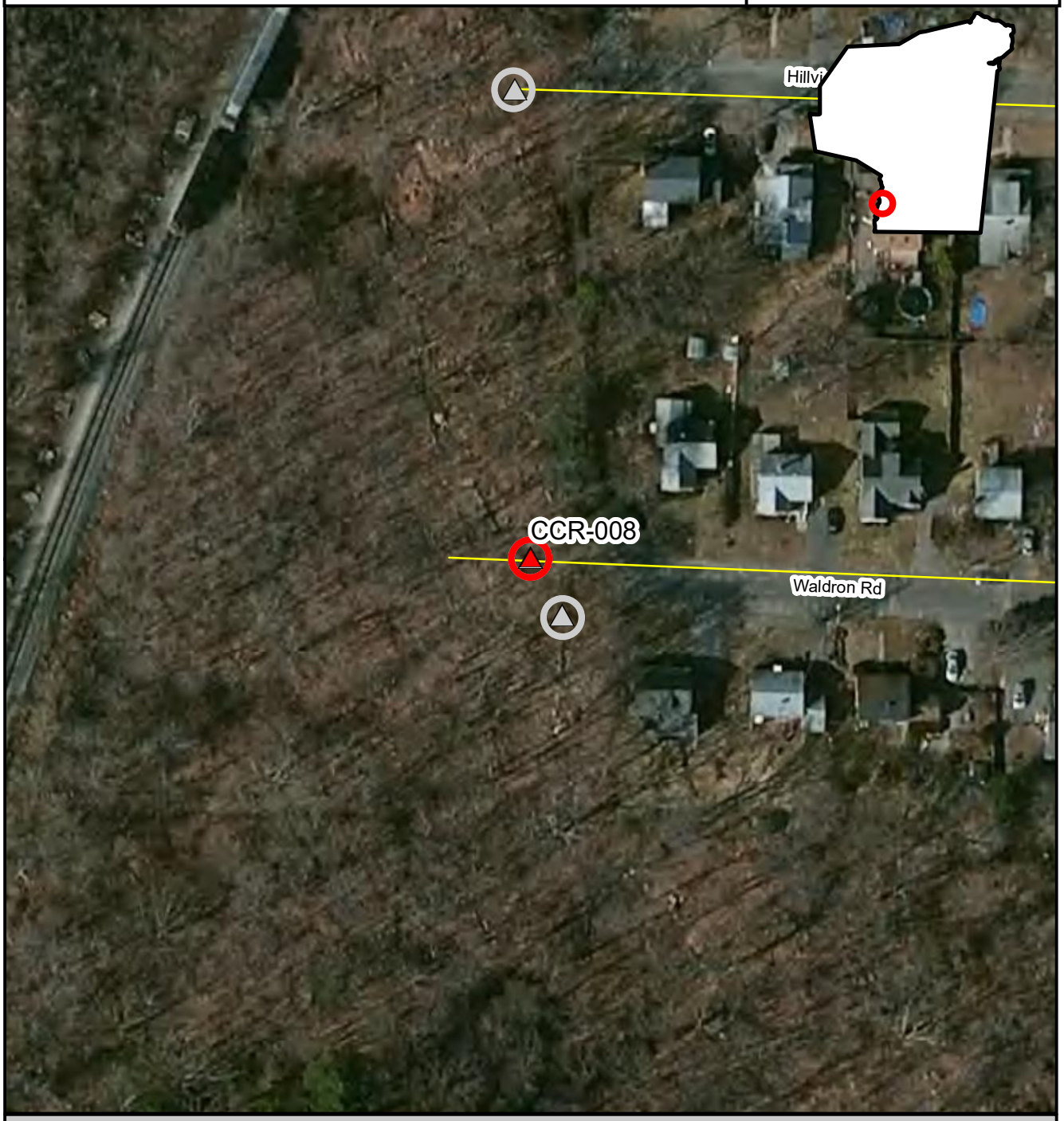
Braintree IDDE Inspections

Inspection ID
BT-315



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 5/28/2019

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-316, CCR-002, 2019-05-28, 07:59

Created	2019-05-28 11:59:10 UTC by Matt Davis
Updated	2019-05-30 15:02:01 UTC by Matt Davis
Location	42.1784739, -71.0182623

Section 1: General Information

Inspection ID	BT-316
Outfall ID	CCR-002
Inspector	Gh6
Date	2019-05-28
Time	07:59
Temperature	70
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	PVC
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	12
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 7: Media

Photos

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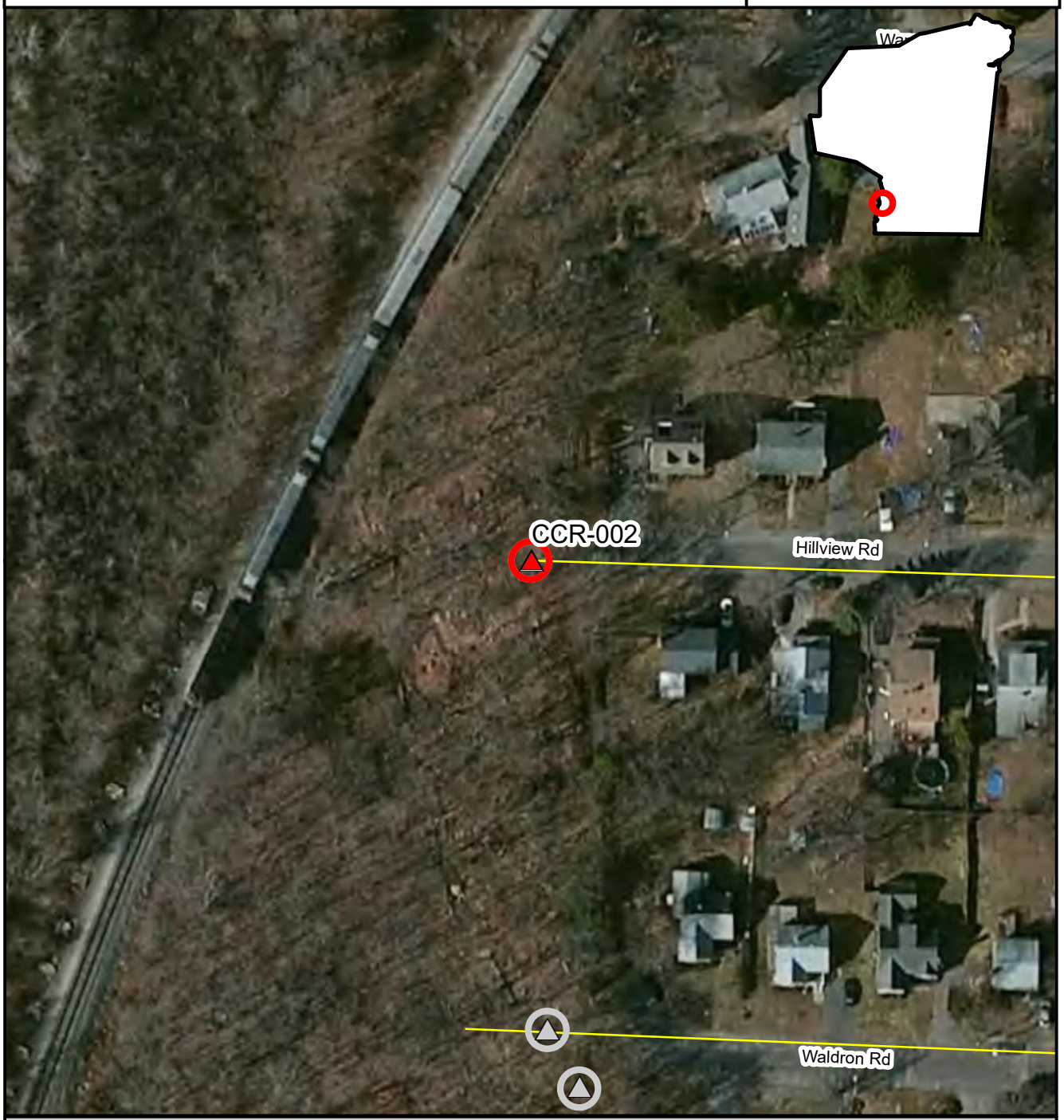
Braintree IDDE Inspections

Inspection ID
BT-316



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 5/28/2019

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-317, CBB-013, 2019-05-28, 08:13

Created	2019-05-28 12:13:21 UTC by Matt Davis
Updated	2019-05-30 15:01:38 UTC by Matt Davis
Location	42.1790424, -70.9984575

Section 1: General Information

Inspection ID	BT-317
Outfall ID	CBB-013
Inspector	Gh6
Date	2019-05-28
Time	08:13
Temperature	60
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	15
Outfall Condition	Cracking
Headwall Present	No
Sediment Present?	Yes
Sediment Depth (%)	66
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

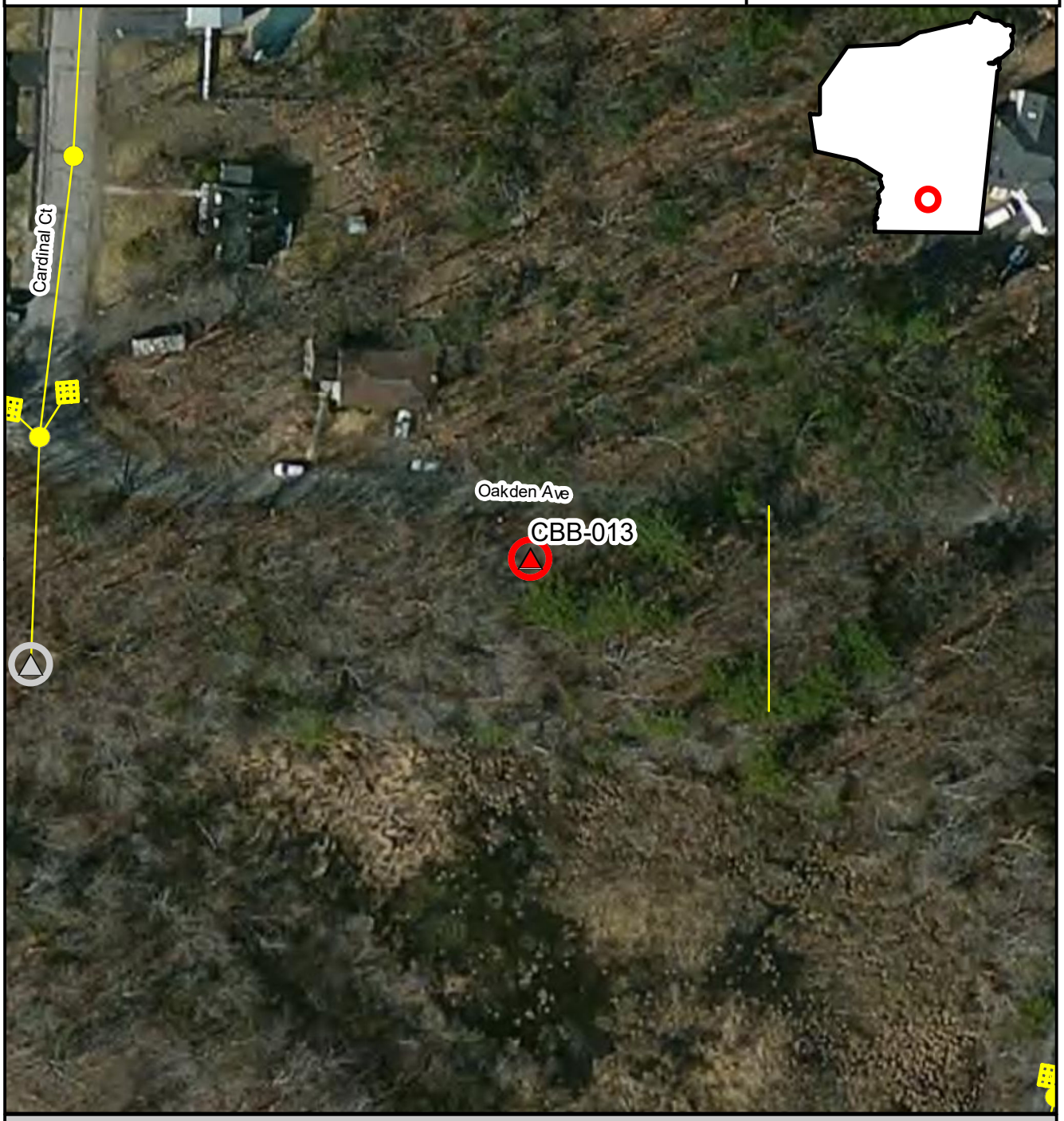
Deposits/stains present?	Yes
Deposits/Stains	Sediments
Deposits/stains Comments	10 inch deep
Pool quality issues?	No
Pipe benthic growth present?	No
Section 6: General Comments	25vfeet of pipe exposed. Opposite House 33

Section 7: Media

Photos

Braintree IDDE Inspections

Inspection ID
BT-317



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 5/28/2019

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-318, CDS-020, 2019-05-28, 08:41

Created	2019-05-28 12:41:54 UTC by Matt Davis
Updated	2019-05-30 14:55:06 UTC by Matt Davis
Location	42.1888678, -70.9898791

Section 1: General Information

Inspection ID	BT-318
Outfall ID	CDS-020
Inspector	Gh6
Date	2019-05-28
Time	08:41
Temperature	60
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	12
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	Yes
Sediment Depth (%)	10
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	Yes
Deposits/Stains	Sediments
Pool quality issues?	No
Pipe benthic growth present?	No
Section 6: General Comments	Fared end. Mos of sediment in flare.

Section 7: Media

Photos

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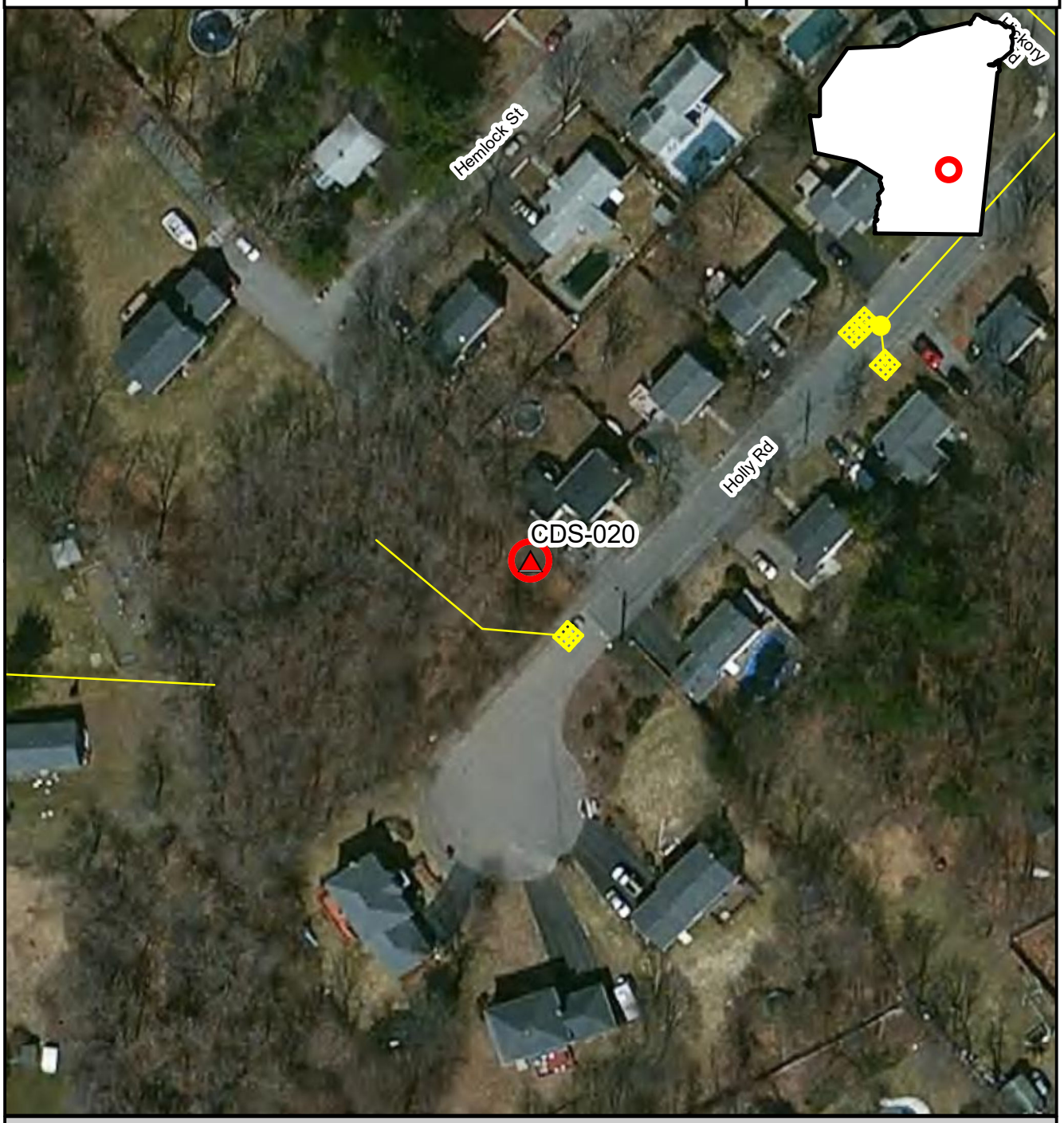
Braintree IDDE Inspections

Inspection ID
BT-318



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 5/28/2019

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-319, CDS-014, 2019-05-28, 08:56

Created	2019-05-28 12:56:35 UTC by Matt Davis
Updated	2019-05-30 15:01:18 UTC by Matt Davis
Location	42.1895917, -70.9963513

Section 1: General Information

Inspection ID	BT-319
Outfall ID	CDS-014
Inspector	Gh
Date	2019-05-28
Time	08:56
Temperature	60
Inspection Location	Manhole
Investigation performed at manhole upstream of outfall?	Yes
Reason why investigation performed at upstream manhole	No access through fence
Visual evidence of contamination present?	No
Odor Severity	None

Section 3: Physical Indicators (flow flowing)

Flow Present	Yes
Flow Velocity	Moderate
Color Severity	None
Turbidity	Slight cloudiness
Floatables (does not include trash)	None

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	Yes

Field Measurements Results

Temperature (C)	13.8
pH (pH units)	7.7
Salinity (ppt)	265
Conductivity (uS)	5.56
Ammonia (Mg/L)	0.25
Surfactants (ppm)	0.25
Chlorine (ppm)	0
Were laboratory samples collected?	Yes
Measurements/samples collected from	inlet pipe in manhole
Intermittent flow trap used?	No
Section 6: General Comments	Yes 396

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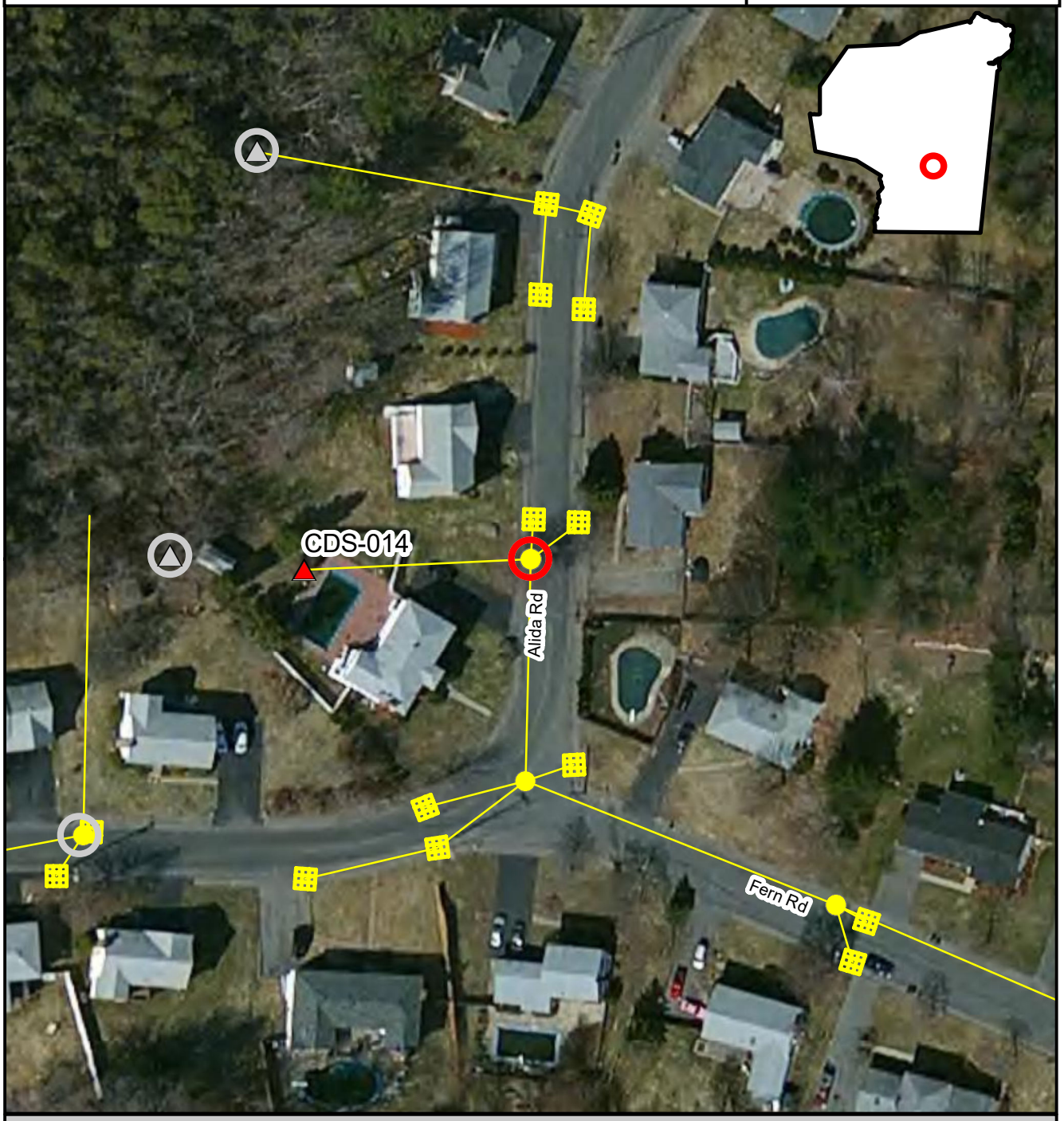
Section 7: Media

Photos

Braintree IDDE Inspections

Inspection ID
BT-319



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 5/28/2019

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-320, CCR-001, 2019-05-28, 09:51

Created	2019-05-28 13:51:12 UTC by Matt Davis
Updated	2019-05-30 15:00:53 UTC by Matt Davis
Location	42.1900369, -71.0090801

Section 1: General Information

Inspection ID	BT-320
Outfall ID	CCR-001
Inspector	Gh
Date	2019-05-28
Time	09:51
Temperature	60
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	Faint
Odor Description	plant rot

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	10
Outfall Condition	Normal
Headwall Present	Yes
Headwall Condition	Good
Sediment Present?	Yes
Sediment Depth (%)	20
Outfall Submerged	Partially
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	Standing Water
Color Severity	None
Turbidity	No cloudiness
Floatables (does not include trash)	Few/slight
Floatables Description	plant leaves

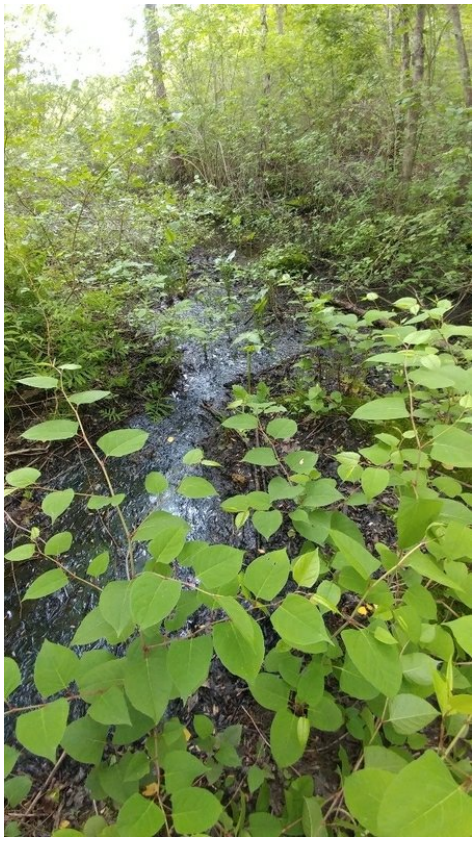
Section 4: Physical Indicators (all outfalls)

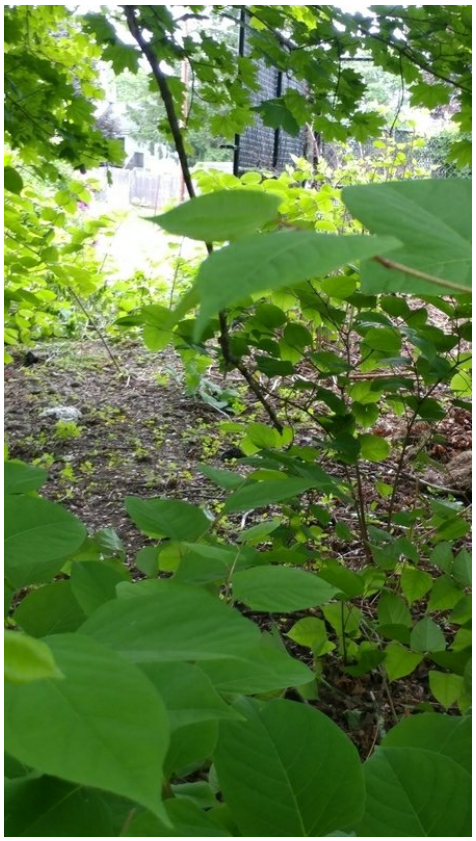
Deposits/stains present?	Yes
Deposits/Stains	Sediments
Deposits/stains Comments	Mub
Pool quality issues?	Yes
Pool Quality Description	Floatables, muddy
Pool quality Comments	Muddy standing water

Pipe benthic growth present?	No

Section 7: Media

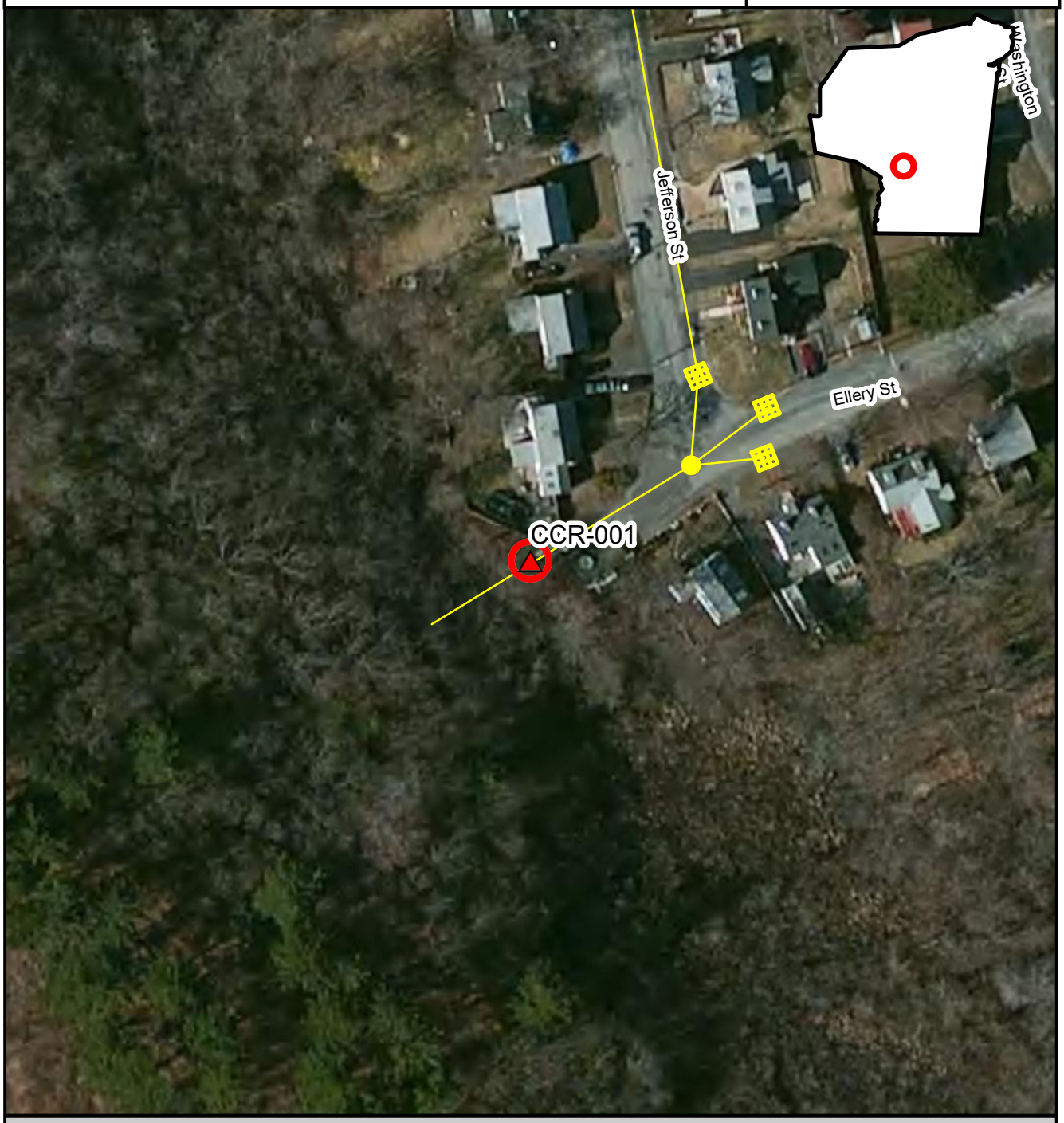
Photos





Braintree IDDE Inspections

Inspection ID
BT-320



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 5/28/2019

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-321, MQR-093, 2019-05-28, 10:16

Created	2019-05-28 14:16:44 UTC by Matt Davis
Updated	2019-05-30 14:57:54 UTC by Matt Davis
Location	42.1998398, -70.9954511

Section 1: General Information

Inspection ID	BT-321
Outfall ID	MQR-093
Inspector	Gh
Date	2019-05-28
Time	10:16
Temperature	60
Inspection Location	Pipe Inlet
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	18
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	No
Outfall Submerged	Partially
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	Yes
Flow Velocity	Trickle
Flow Width (in)	6
Flow Depth (in)	1
Color Severity	None
Turbidity	No cloudiness
Floatables (does not include trash)	None

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 5: Field Measurements

Were field measurements performed?	No
Reason field measurements not performed	Inlet pipe

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Were laboratory samples collected?	No
Intermittent flow trap used?	No
Section 6: General Comments	This is an inlet draining swampy area

Section 7: Media

Photos

Braintree IDDE Inspections

Inspection ID
BT-321

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 5/28/2019

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-322, MQR-097, 2019-05-28, 10:34

Created	2019-05-28 14:34:33 UTC by Matt Davis
Updated	2019-05-30 14:57:29 UTC by Matt Davis
Location	42.1975487, -70.9933267

Section 1: General Information

Inspection ID	BT-322
Outfall ID	MQR-097
Inspector	Gh
Date	2019-05-28
Time	10:34
Temperature	60
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	PVC
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	12
Outfall Condition	Normal
Headwall Present	Yes
Headwall Condition	Fair
Sediment Present?	No
Outfall Submerged	Partially
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

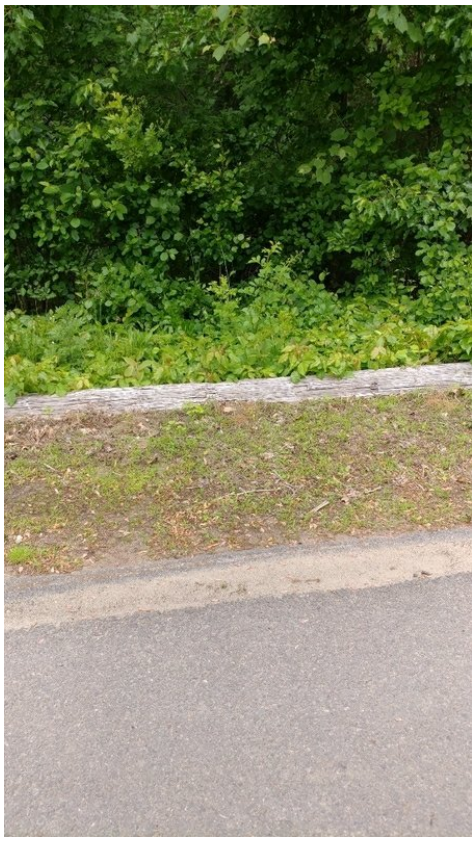
Flow Present	Standing Water
Color Severity	None
Turbidity	No cloudiness
Floatables (does not include trash)	None

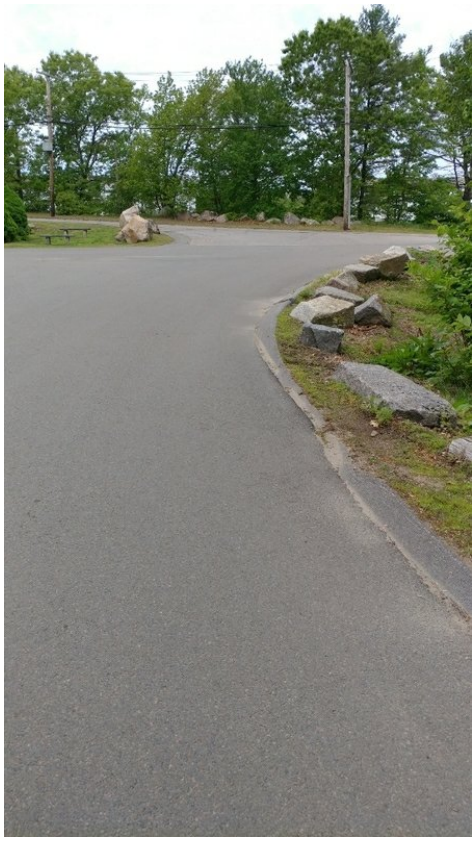
Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No
Section 6: General Comments	Outfall headwall next to piipe going under road

Section 7: Media

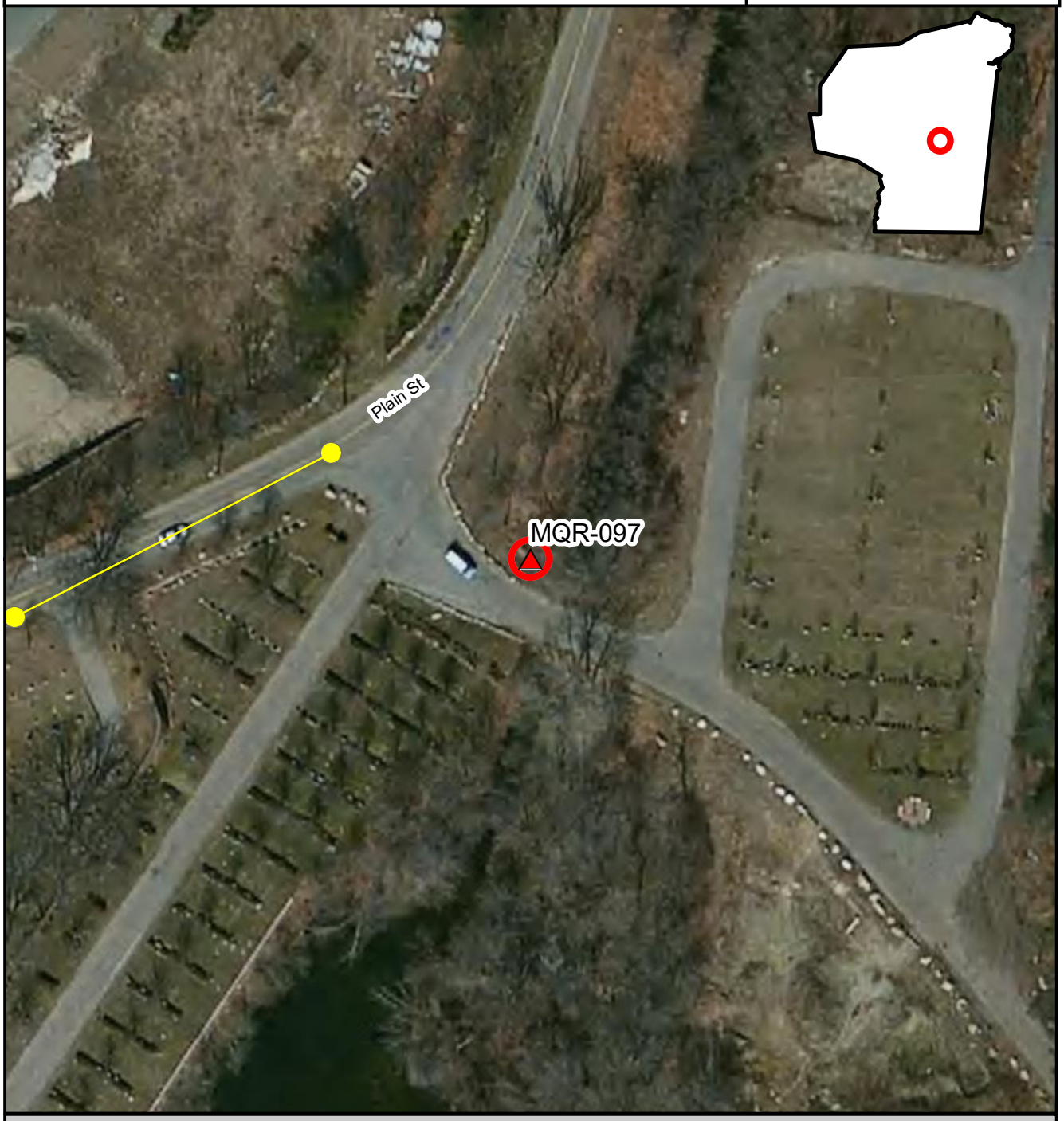
Photos





Braintree IDDE Inspections

Inspection ID
BT-322



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 5/28/2019

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-323, FMR-005, 2019-05-28, 11:06

Created	2019-05-28 15:06:40 UTC by Matt Davis
Updated	2019-05-30 14:57:01 UTC by Matt Davis
Location	42.196584532, -71.014540717

Section 1: General Information

Inspection ID	BT-323
Outfall ID	FMR-005
Inspector	Gh
Date	2019-05-28
Time	11:06
Temperature	60
Inspection Location	Manhole
Investigation performed at manhole upstream of outfall?	Yes
Reason why investigation performed at upstream manhole	Could not locate outfall
Visual evidence of contamination present?	No
Odor Severity	None

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pipe benthic growth present?	No
Section 6: General Comments	Based on manhole inspection outfall pipe goes out between house 40 and 46 Torrey.

Section 7: Media

Photos

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Braintree IDDE Inspections

Inspection ID
BT-323

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 5/28/2019

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-324, FMR-012, 2019-05-28, 13:53

Created	2019-05-28 17:53:25 UTC by Matt Davis
Updated	2019-05-30 14:56:38 UTC by Matt Davis
Location	42.1996751, -71.0234457

Section 1: General Information

Inspection ID	BT-324
Outfall ID	FMR-012
Inspector	Gh
Date	2019-05-28
Time	13:53
Temperature	60
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	Yes
Visual evidence	Benthic growth
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	18
Outfall Condition	Normal
Headwall Present	Yes
Headwall Condition	Good
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	Yes
Flow Velocity	Trickle
Flow Width (in)	3
Flow Depth (in)	0.25
Color Severity	None
Turbidity	No cloudiness
Floatables (does not include trash)	None

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	Yes
Pipe benthic growth description	Brown

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Section 5: Field Measurements

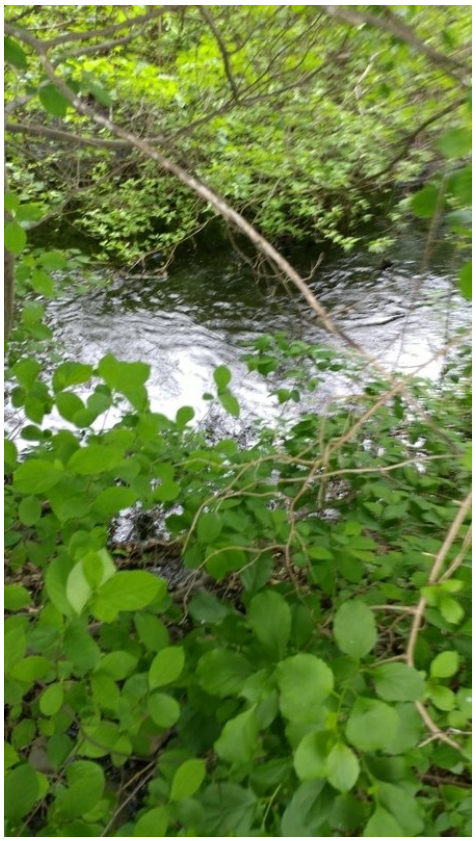
Were field measurements performed?	Yes

Field Measurements Results

Temperature (C)	13.6
pH (pH units)	7.89
Salinity (ppt)	177
Conductivity (uS)	382
Ammonia (Mg/L)	0
Surfactants (ppm)	0.75
Chlorine (ppm)	0
Were laboratory samples collected?	Yes
Measurements/samples collected from	Outfall
Intermittent flow trap used?	No
Section 6: General Comments	Between house 30 and 36.

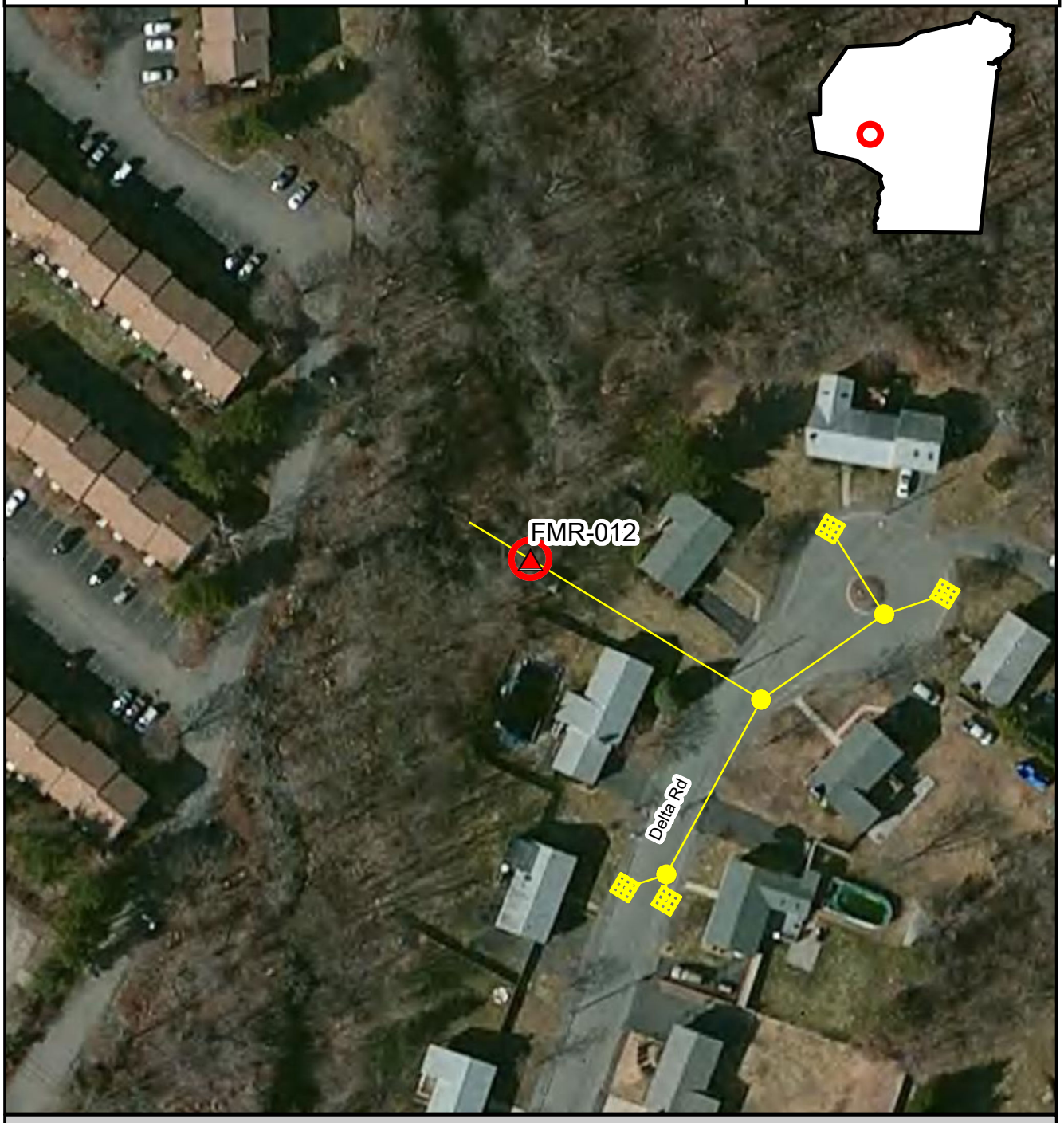
Section 7: Media

Photos



Braintree IDDE Inspections

Inspection ID
BT-324



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 5/28/2019

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-325, SMB-011, 2019-06-04, 07:44

Created	2019-06-04 11:44:14 UTC by Matt Davis
Updated	2019-06-04 11:50:25 UTC by Matt Davis
Location	42.2070739, -70.9807039

Section 1: General Information

Inspection ID	BT-325
Outfall ID	SMB-011
Inspector	Gh
Date	2019-06-04
Time	07:44
Temperature	60
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	CMP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	18
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No
Section 6: General Comments	On property line between 388 and 394

Section 7: Media

Photos

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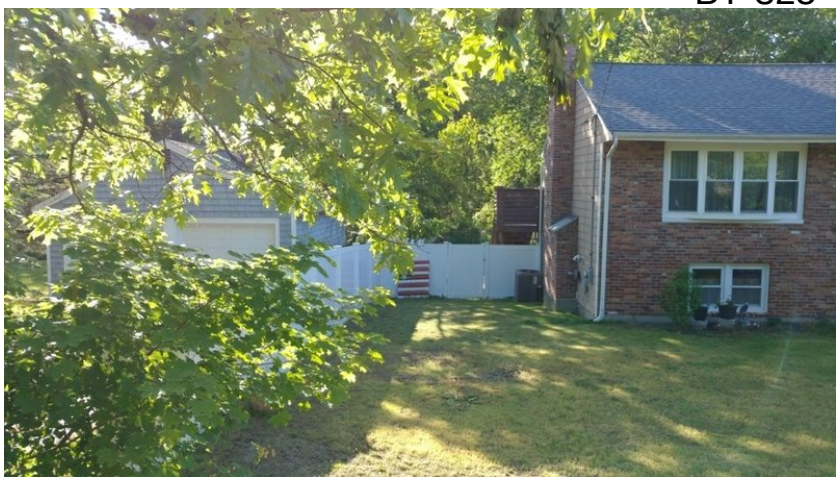
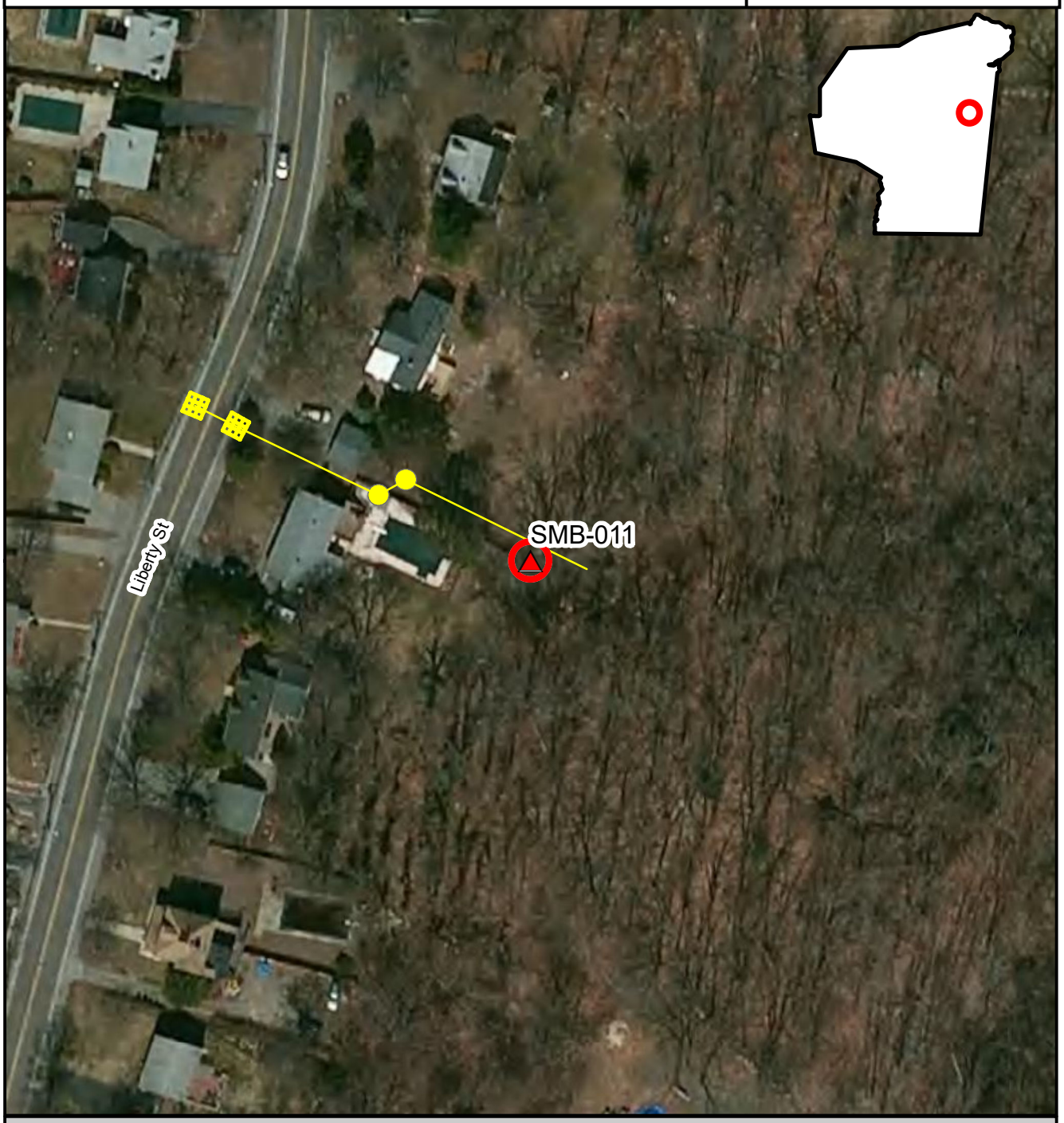


Braintree IDDE Inspections

Inspection ID
BT-325



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 6/4/2019

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-326, SMB-008, 2019-06-04, 08:07

Created	2019-06-04 12:07:52 UTC by Matt Davis
Updated	2019-06-10 17:28:38 UTC by Matt Davis
Location	42.214566, -70.9726398

Section 1: General Information

Inspection ID	BT-326
Outfall ID	SMB-008
Outfall ID	SMB-008
Inspector	Gh
Date	2019-06-04
Time	08:07
Temperature	65
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	CMP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	18
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	No
Outfall Submerged	Partially
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No
Section 6: General Comments	Behind 121 Elliott. Inspected from other side of brook because yard fenced in.

Section 7: Media

Photos

Braintree IDDE Inspections

Inspection ID
BT-326

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 6/4/2019

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-327, SMB-009, 2019-06-04, 08:23

Created	2019-06-04 12:23:21 UTC by Matt Davis
Updated	2019-06-10 17:29:33 UTC by Matt Davis
Location	42.2117043, -70.9745869

Section 1: General Information

Inspection ID	BT-327
Outfall ID	SMB-009
Outfall ID	SMB-009
Inspector	Gh
Date	2019-06-04
Time	08:23
Temperature	65
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	clay
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	24
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

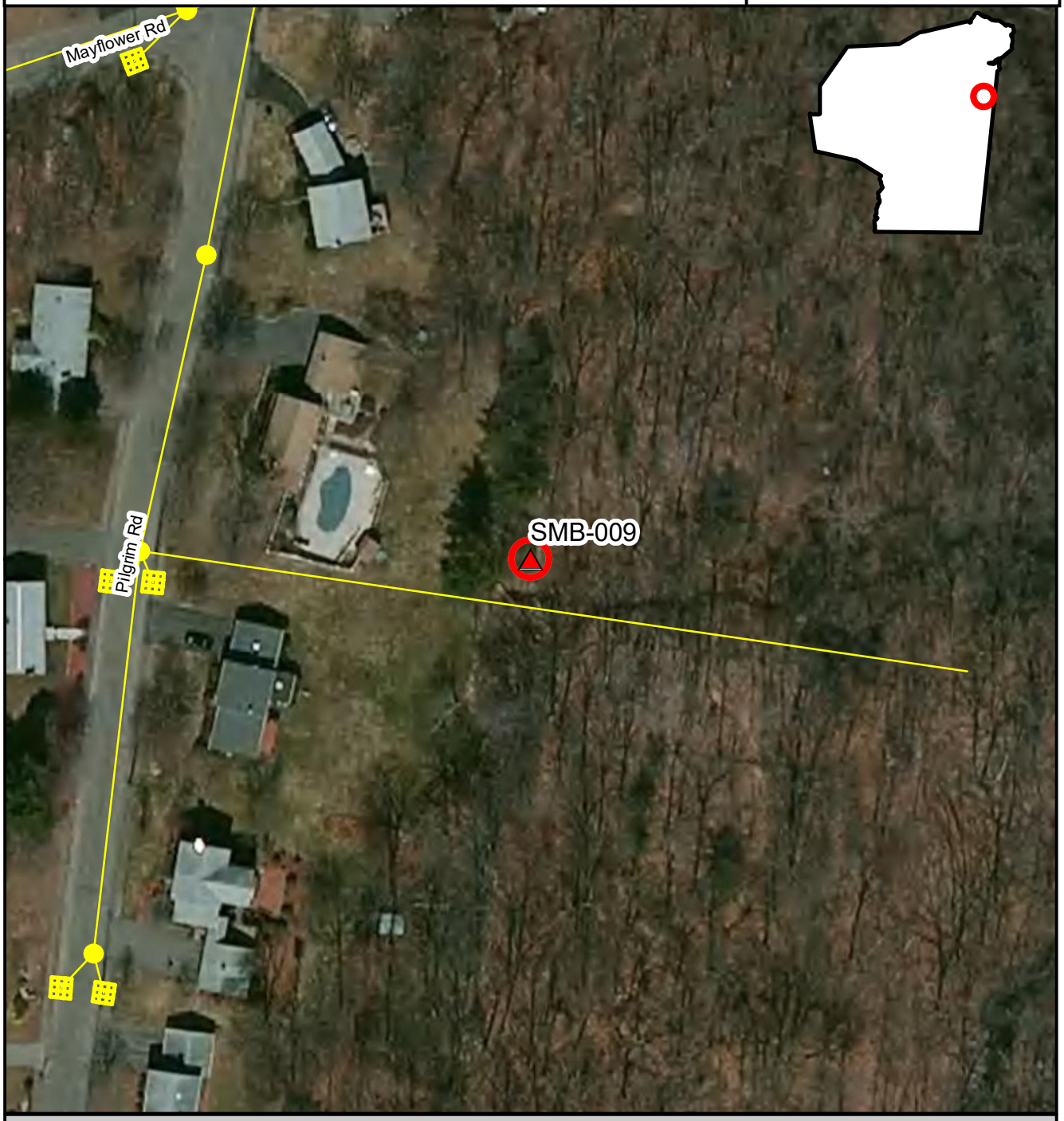
Deposits/stains present?	No
Pool quality issues?	Yes
Pool Quality Description	Floatables
Pool quality Comments	Stagnany
Pipe benthic growth present?	No
Section 6: General Comments	Pipe at rear property line Between 169 and 170

Section 7: Media

Photos

Braintree IDDE Inspections

Inspection ID
BT-327



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 6/4/2019

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-328, MQR-001, 2019-06-04, 08:51

Created	2019-06-04 12:51:08 UTC by Matt Davis
Updated	2019-06-04 13:40:22 UTC by Matt Davis
Location	42.2235054, -70.9687684

Section 1: General Information

Inspection ID	BT-328
Outfall ID	MQR-001
Inspector	Gh
Date	2019-06-04
Time	08:51
Temperature	65
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	CMP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	10
Outfall Condition	plugged
Headwall Present	No
Sediment Present?	Yes
Sediment Depth (%)	98
Outfall Submerged	No
Outfall Tidally Influenced?	Yes

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	Yes
Deposits/Stains	Sediments
Deposits/stains Comments	Pipe plugged
Pool quality issues?	No
Pipe benthic growth present?	No
Section 6: General Comments	Pipe is fully plugged. Opened catch basin and outlet pipe goes in direction of outfall MQR-002.

Section 7: Media

Photos

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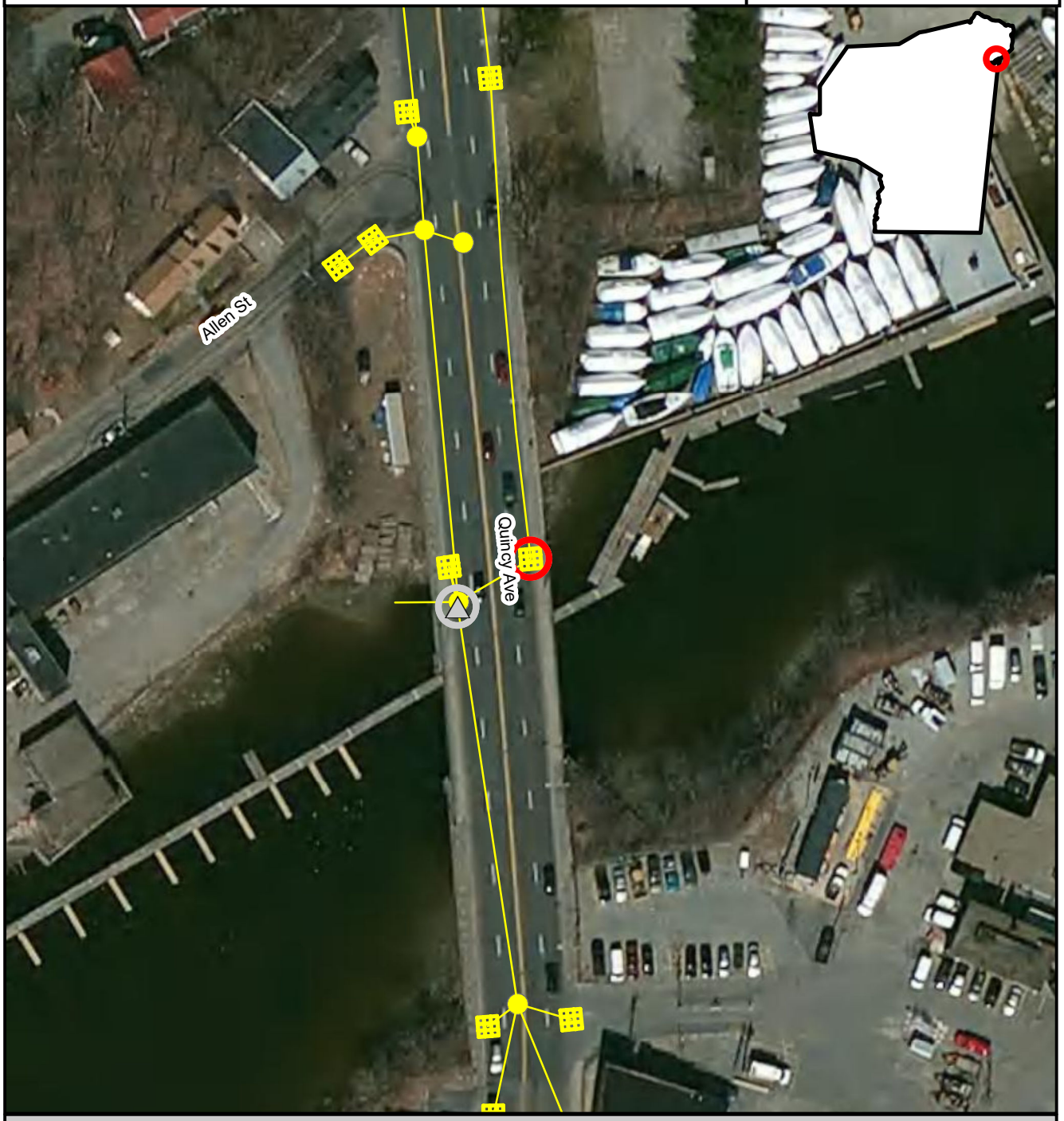
Braintree IDDE Inspections

Inspection ID
BT-328



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 6/4/2019

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-329, MQR-004, 2019-06-04, 09:21

Created	2019-06-04 13:21:00 UTC by Matt Davis
Updated	2019-06-04 13:25:01 UTC by Matt Davis
Location	42.2231721, -70.9708473

Section 1: General Information

Inspection ID	BT-329
Outfall ID	MQR-004
Inspector	Gh
Date	2019-06-04
Time	09:21
Temperature	65
Inspection Location	Catch basin
Investigation performed at manhole upstream of outfall?	Yes
Reason why investigation performed at upstream manhole	Could not locate. Buried under trash
Visual evidence of contamination present?	No
Odor Severity	None

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pipe benthic growth present?	No
Section 6: General Comments	No drain my. Opened catch basin

Section 7: Media

Photos

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Braintree IDDE Inspections

Inspection ID
BT-329

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 6/4/2019

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-330, WFR-OO9, 2019-06-04, 10:09

Created	2019-06-04 14:09:27 UTC by Matt Davis
Updated	2019-06-04 14:20:40 UTC by Matt Davis
Location	42.2283368, -70.9635542

Section 1: General Information

Inspection ID	BT-330
Outfall ID	WFR-OO9
Inspector	Gh
Date	2019-06-04
Time	10:09
Temperature	62
Inspection Location	Catch basin
Investigation performed at manhole upstream of outfall?	Yes
Reason why investigation performed at upstream manhole	Could not locate die to extensive undergrowth
Visual evidence of contamination present?	No
Odor Severity	None

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pipe benthic growth present?	No
Section 6: General Comments	10 in out let from catch basin am a 10 in inlet from other catch basin

Section 7: Media

Photos

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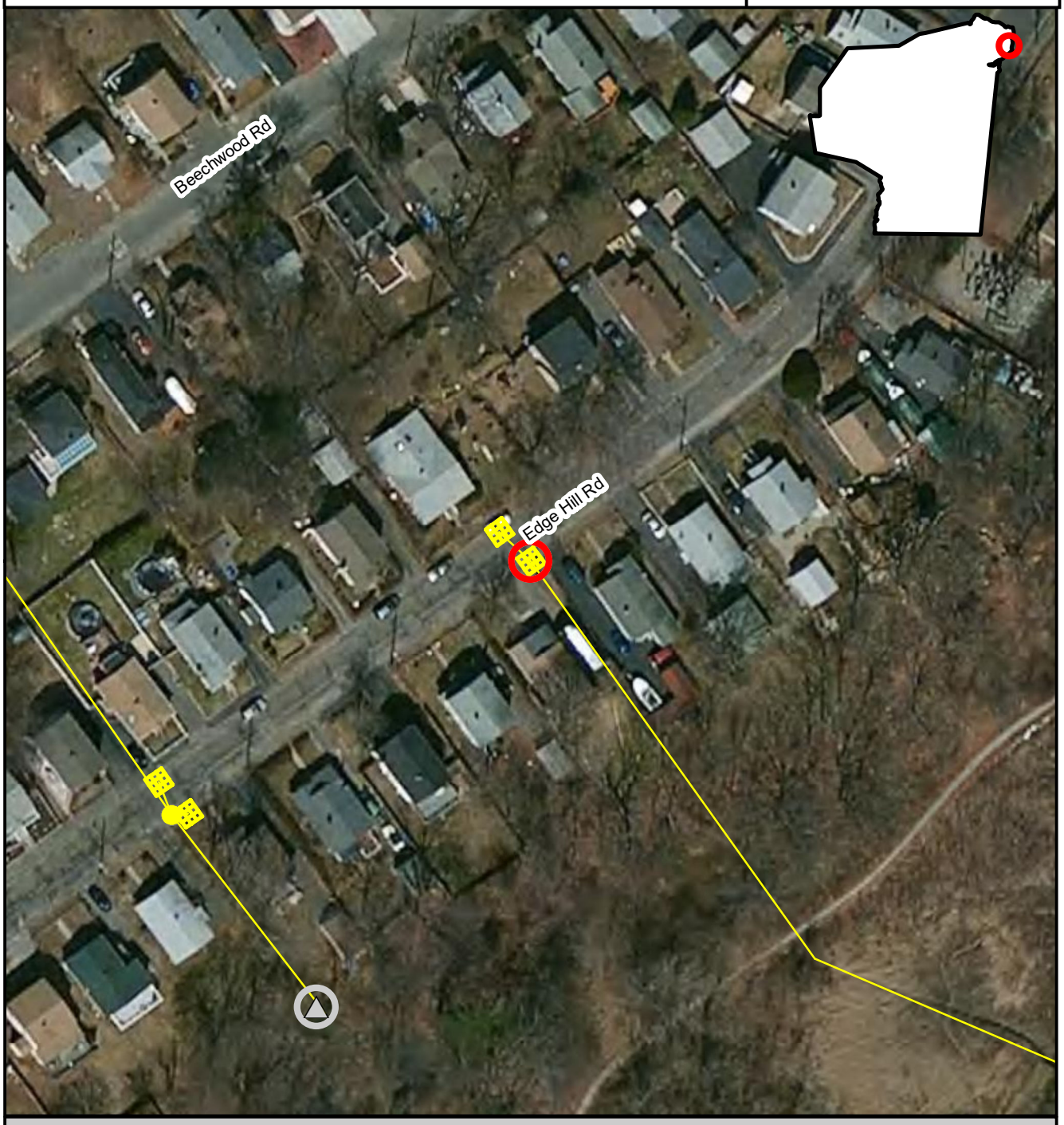
Sketches

Braintree IDDE Inspections

Inspection ID
BT-330



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 6/4/2019

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-331, MQR-024, 2019-06-04, 10:45

Created	2019-06-04 14:45:19 UTC by Matt Davis
Updated	2019-06-04 14:52:24 UTC by Matt Davis
Location	42.2271163, -70.9902409

Section 1: General Information

Inspection ID	BT-331
Outfall ID	MQR-024
Inspector	Gh
Date	2019-06-04
Time	10:45
Temperature	64
Inspection Location	Manhole
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	18
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	Standing Water
Color Severity	None
Turbidity	No cloudiness
Floatables (does not include trash)	None

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No
Section 6: General Comments	Outfall into drain my that straddles brook.

Section 7: Media

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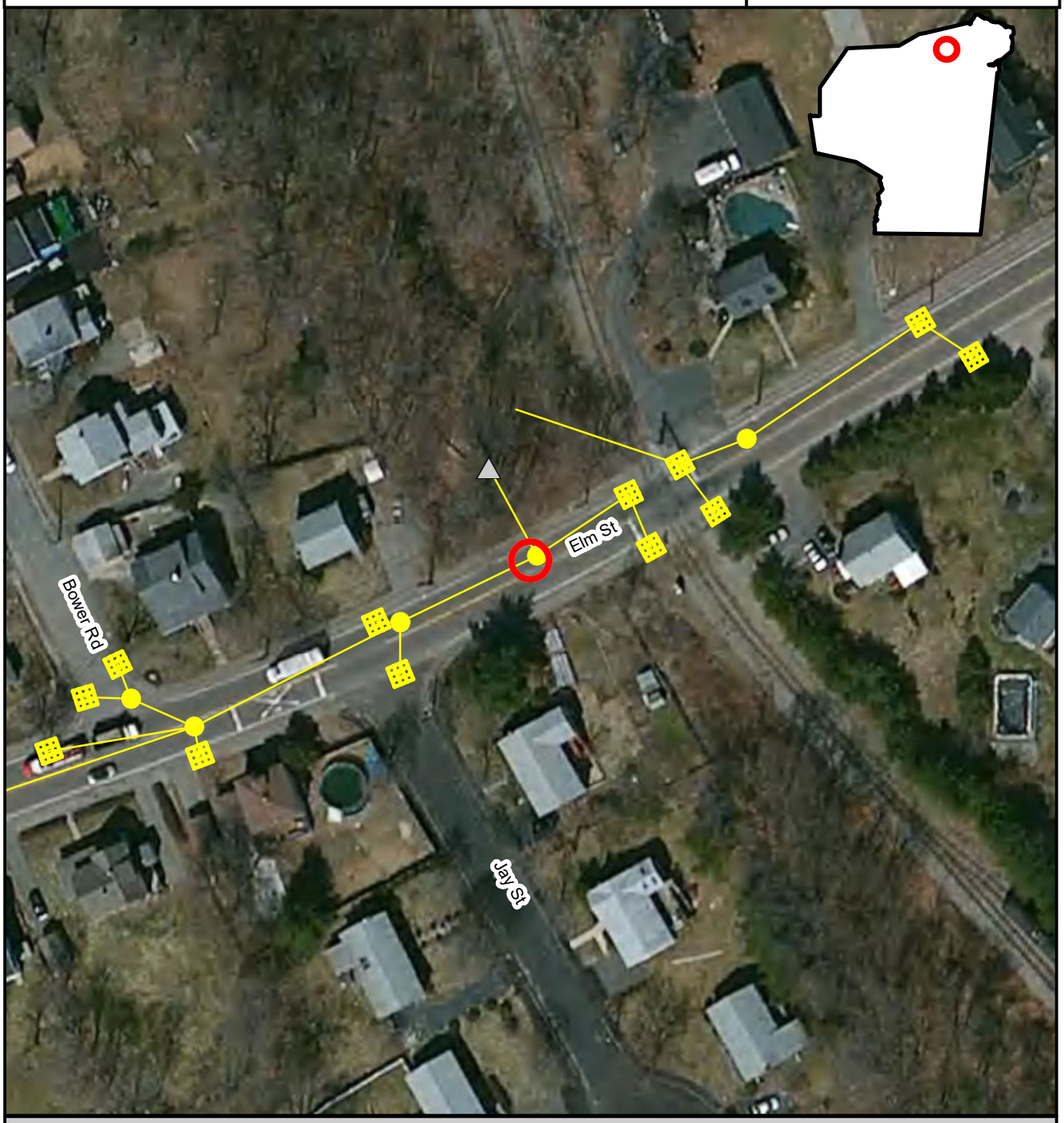
Photos

Braintree IDDE Inspections

Inspection ID
BT-331



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 6/4/2019

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-332, MQR-25, 2019-06-04, 10:52

Created	2019-06-04 14:52:55 UTC by Matt Davis
Updated	2019-06-04 14:57:44 UTC by Matt Davis
Location	42.2271423, -70.9904463

Section 1: General Information

Inspection ID	BT-332
Outfall ID	MQR-25
Inspector	Gh
Date	2019-06-04
Time	10:52
Temperature	64
Inspection Location	Manhole
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	CMP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	18
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	Standing Water
Color Severity	None
Turbidity	No cloudiness
Floatables (does not include trash)	None

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No
Section 6: General Comments	Outfall discharges to same MH as MQR-024 That straddles a brook. See MQR for picture.

Section 7: Media

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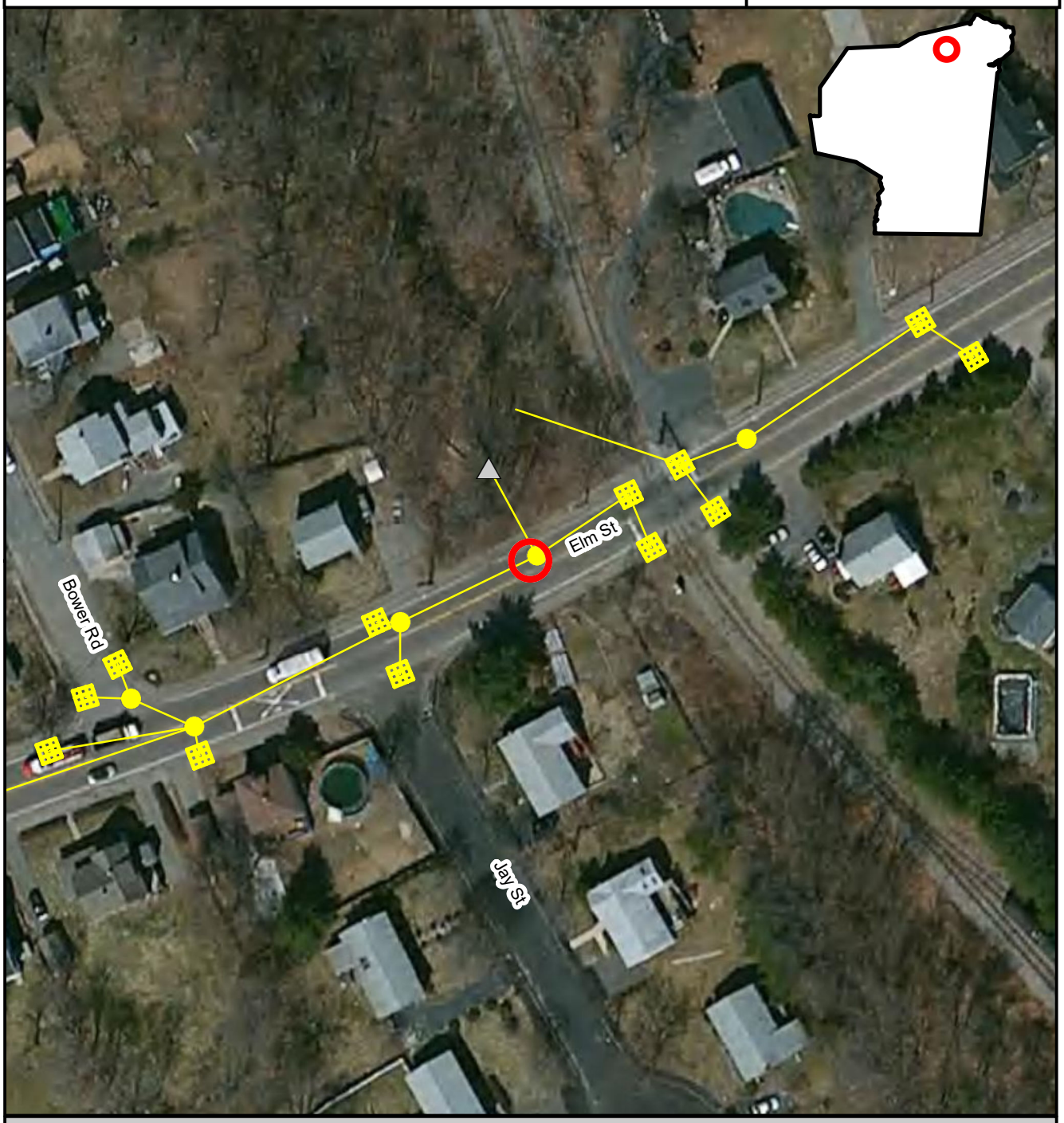
Photos

Braintree IDDE Inspections

Inspection ID
BT-332



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 6/4/2019

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-333, MQR-029, 2019-06-04, 11:08

Created	2019-06-04 15:08:25 UTC by Matt Davis
Updated	2019-06-27 16:02:04 UTC by Matt Davis
Location	42.2285289, -70.9918789

Section 1: General Information

Inspection ID	BT-333
Outfall ID	MQR-029
Outfall ID	MQR-029
Inspector	Gh
Date	2019-06-04
Time	11:08
Temperature	64
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	CMP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	18
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No
Section 6: General Comments	ApproxImately 50 feet behind the middle of house number 41

Section 7: Media

Photos

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Braintree IDDE Inspections

Inspection ID
BT-333

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 6/4/2019

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-334, MQT-057, 2019-06-04, 12:21

Created	2019-06-04 16:21:29 UTC by Matt Davis
Updated	2019-06-04 16:27:25 UTC by Matt Davis
Location	42.2218249, -70.9983691

Section 1: General Information

Inspection ID	BT-334
Outfall ID	MQT-057
Inspector	Gh
Date	2019-06-04
Time	12:21
Temperature	64
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	clay
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	10
Outfall Condition	Cracking
Headwall Present	No
Sediment Present?	Yes
Sediment Depth (%)	50
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No
Section 6: General Comments	On end of Vine Street

Section 7: Media

Photos

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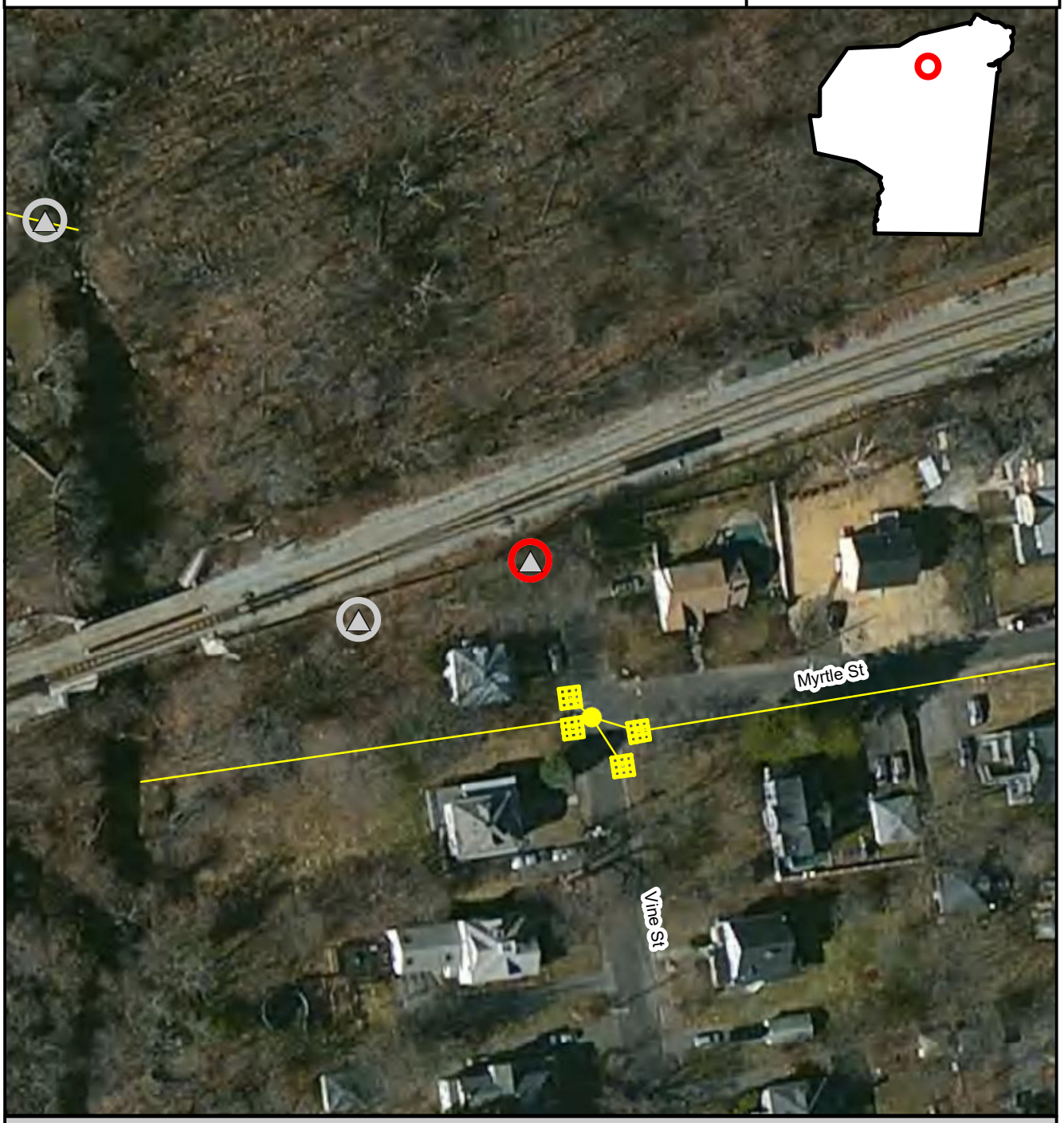
Braintree IDDE Inspections

Inspection ID
BT-334



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 6/4/2019

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-335, 2019-06-04, 12:39

Created	2019-06-04 16:39:03 UTC by Matt Davis
Updated	2019-06-04 16:46:55 UTC by Matt Davis
Location	42.2219544, -71.0012467

Section 1: General Information

Inspection ID	BT-335
Outfall ID	MQR-062
Inspector	Gh
Date	2019-06-04
Time	12:39
Temperature	66
Inspection Location	Manhole
Investigation performed at manhole upstream of outfall?	Yes
Reason why investigation performed at upstream manhole	Access toMBTA Yard blocked by locked gate
Visual evidence of contamination present?	No
Odor Severity	None

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pipe benthic growth present?	No
Section 6: General Comments	Outlet 18. 3 inlets at 12

Section 7: Media

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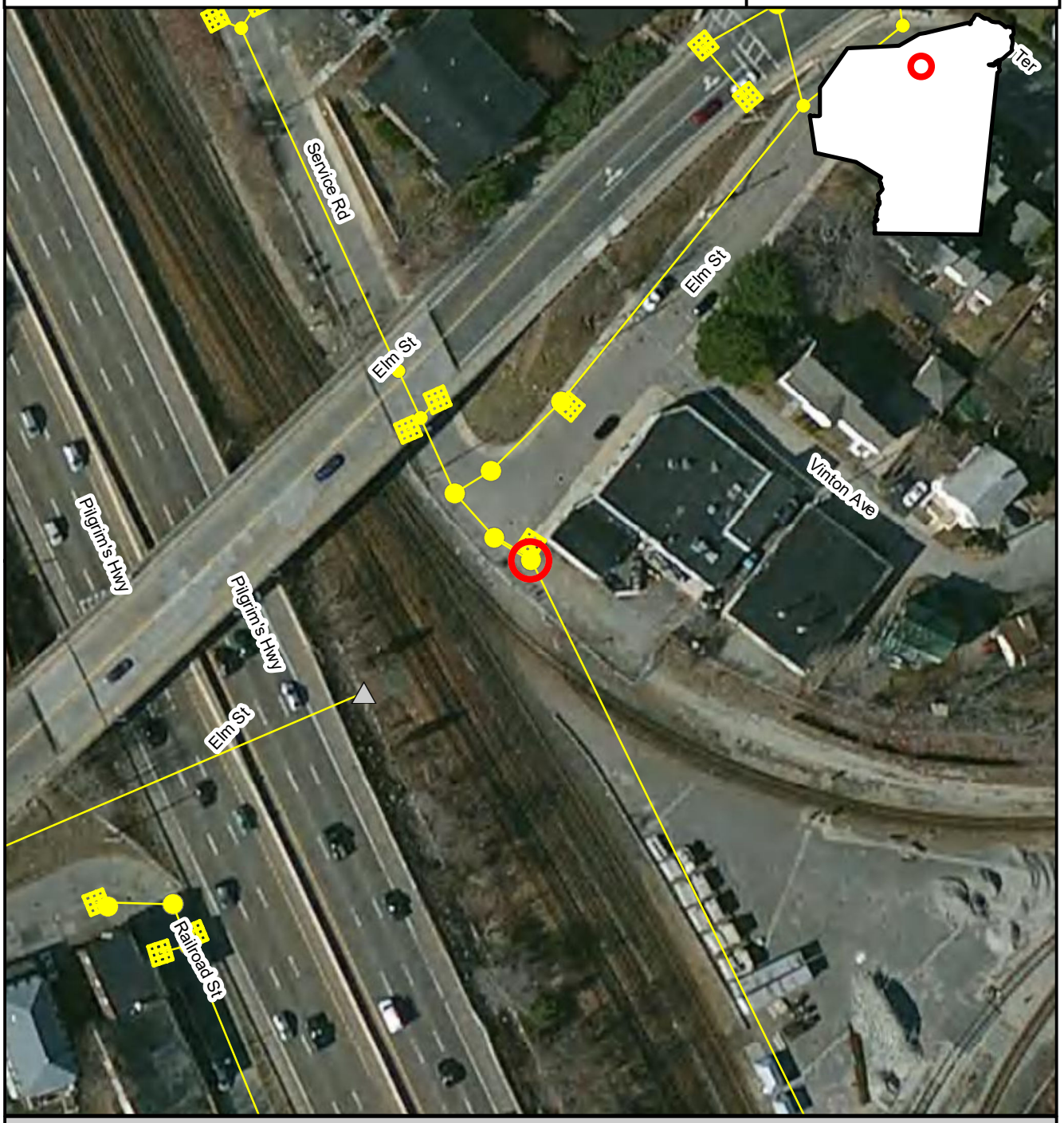
Photos

Sketches

Braintree IDDE Inspections

Inspection ID
BT-335



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 6/4/2019

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-336, 2019-06-04, 12:59

Created	2019-06-04 16:59:40 UTC by Matt Davis
Updated	2019-06-25 19:32:29 UTC by Matt Davis
Location	42.220662, -71.0072787

Section 1: General Information

Inspection ID	BT-336
Outfall ID	TWB-023
Inspector	Gh
Date	2019-06-04
Time	12:59
Temperature	65
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	clay
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	10
Outfall Condition	Cracking
Headwall Present	No
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No
Section 6: General Comments	Just beyond fence house 15 Abbott

Section 7: Media

Photos

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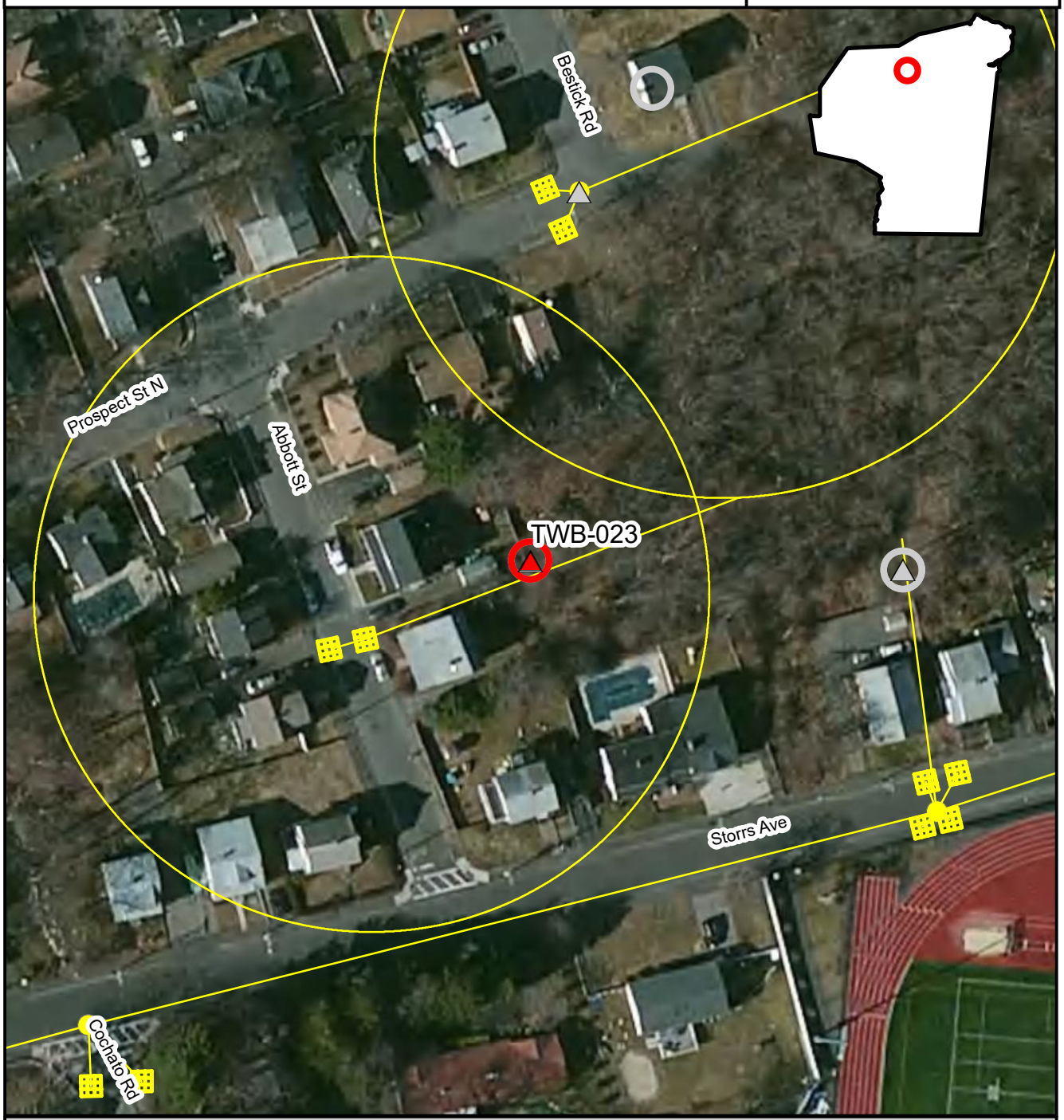
Braintree IDDE Inspections

Inspection ID
BT-336



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 6/4/2019

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-337, 2019-06-04, 13:15

Created	2019-06-04 17:15:20 UTC by Matt Davis
Updated	2019-06-04 17:22:19 UTC by Matt Davis
Location	42.2213753, -71.0070252

Section 1: General Information

Inspection ID	BT-337
Outfall ID	TWB-020
Inspector	Gh
Date	2019-06-04
Time	13:15
Temperature	65
Inspection Location	Manhole
Investigation performed at manhole upstream of outfall?	Yes
Reason why investigation performed at upstream manhole	Outfall likely buried under rubble
Visual evidence of contamination present?	No
Odor Severity	None

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	Yes
Deposits/Stains	Sediments
Deposits/stains Comments	Sediment almost up to bottom of outlet.
Pipe benthic growth present?	No
Section 6: General Comments	My in front of 63 Prospect

Section 7: Media

Photos

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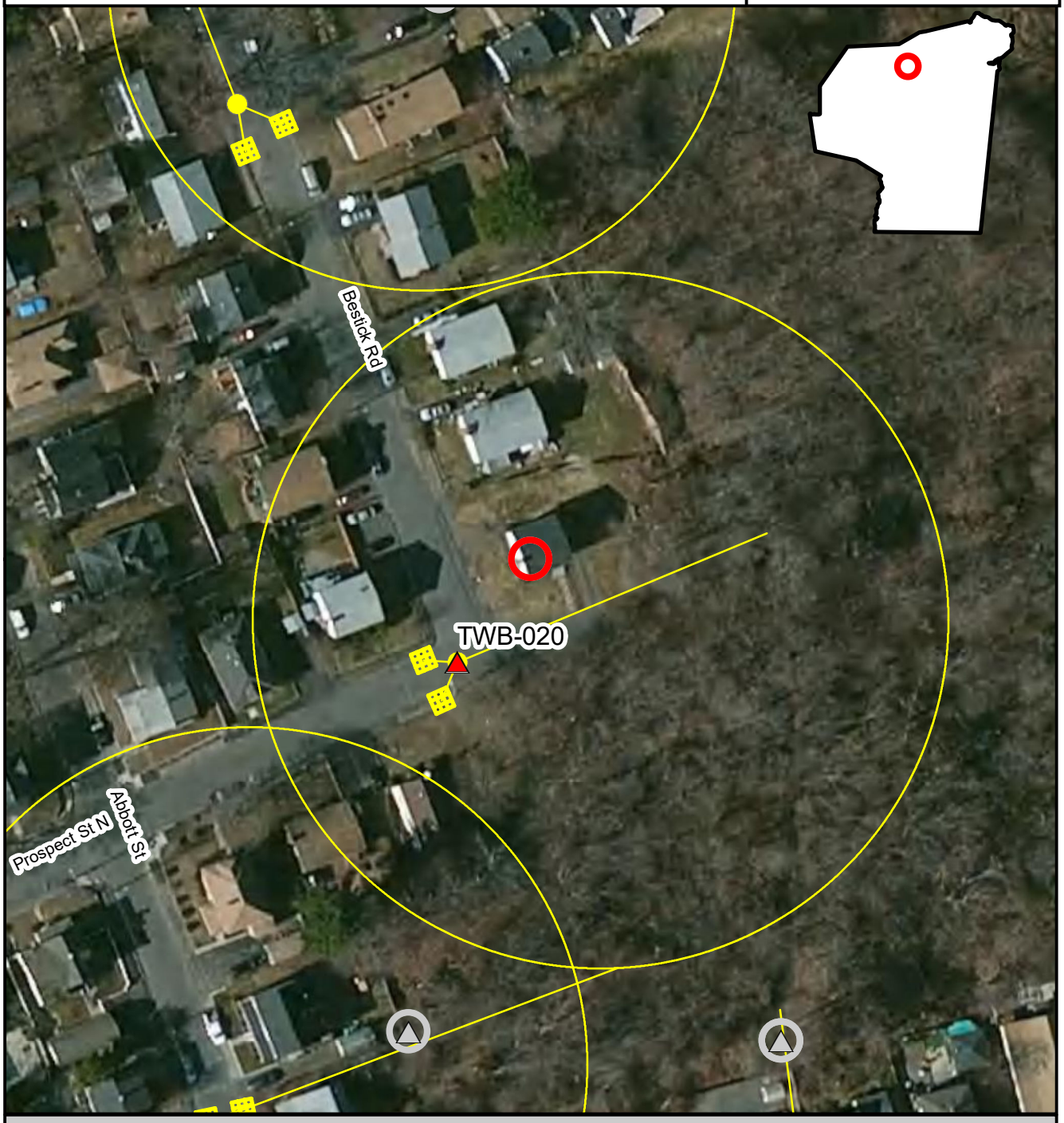
Braintree IDDE Inspections

Inspection ID
BT-337



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 6/4/2019

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-338, 2019-06-04, 13:25

Created	2019-06-04 17:25:33 UTC by Matt Davis
Updated	2019-06-04 17:29:58 UTC by Matt Davis
Location	42.2222344, -71.0072037

Section 1: General Information

Inspection ID	BT-338
Outfall ID	TWB-013
Inspector	Gh
Date	2019-06-04
Time	13:25
Temperature	6493
Inspection Location	Catch basin
Investigation performed at manhole upstream of outfall?	Yes
Reason why investigation performed at upstream manhole	Direct connection from CB to culxerted brook
Visual evidence of contamination present?	No
Odor Severity	None

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pipe benthic growth present?	No
Section 6: General Comments	CB overflows directly to culverted brook.

Section 7: Media

Photos

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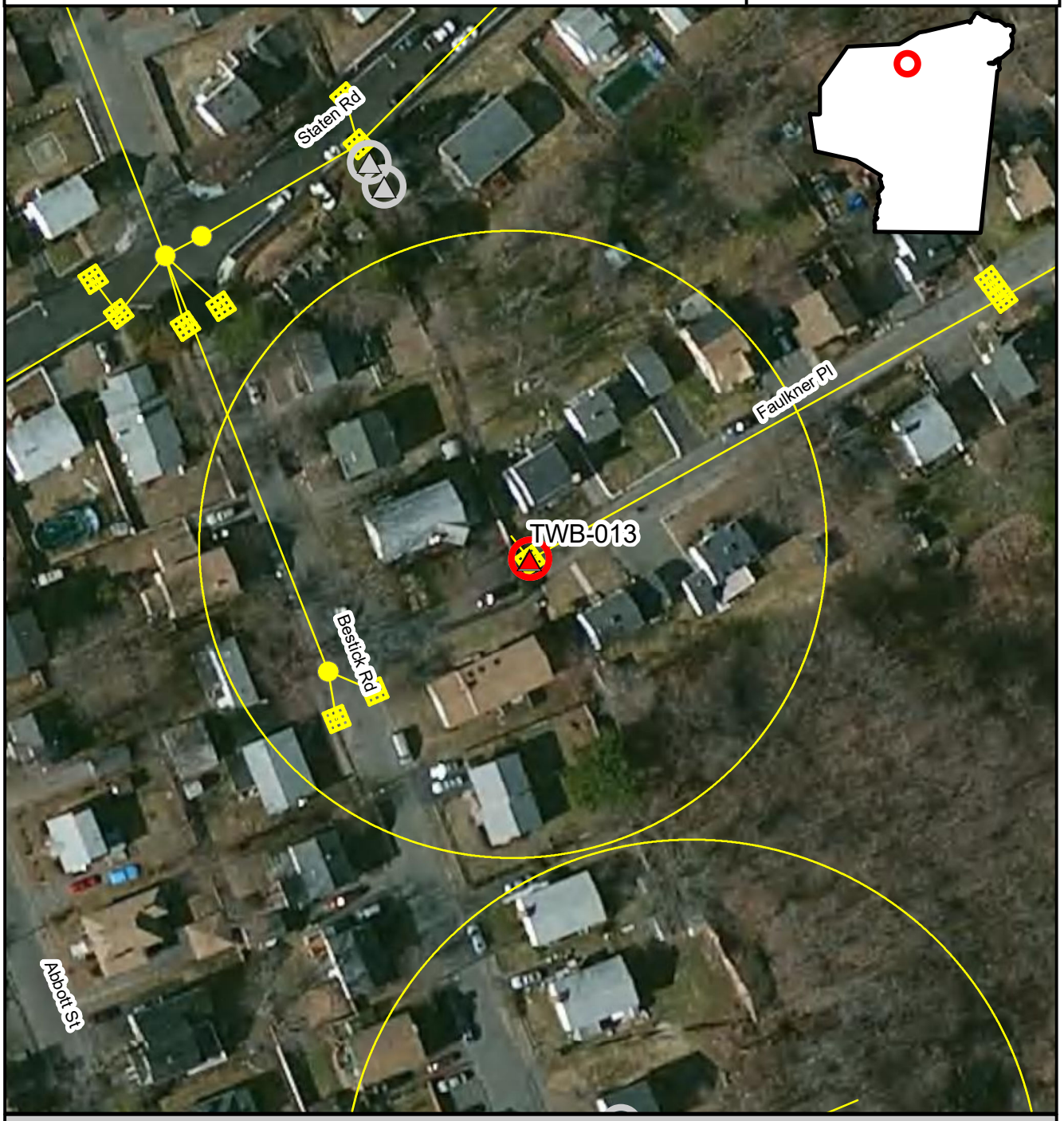
Braintree IDDE Inspections

Inspection ID
BT-338



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 6/4/2019

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-339, 2019-06-10, 07:39

Created	2019-06-10 11:39:05 UTC by Matt Davis
Updated	2019-06-10 11:46:35 UTC by Matt Davis
Location	42.2251181, -71.0332533

Section 1: General Information

Inspection ID	BT-339
Outfall ID	TWB-038
Inspector	Gh
Date	2019-06-10
Time	07:39
Temperature	60
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	CMP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	30
Outfall Condition	Normal
Headwall Present	Yes
Headwall Condition	Good
Sediment Present?	Yes
Sediment Depth (%)	25
Outfall Submerged	Fully
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

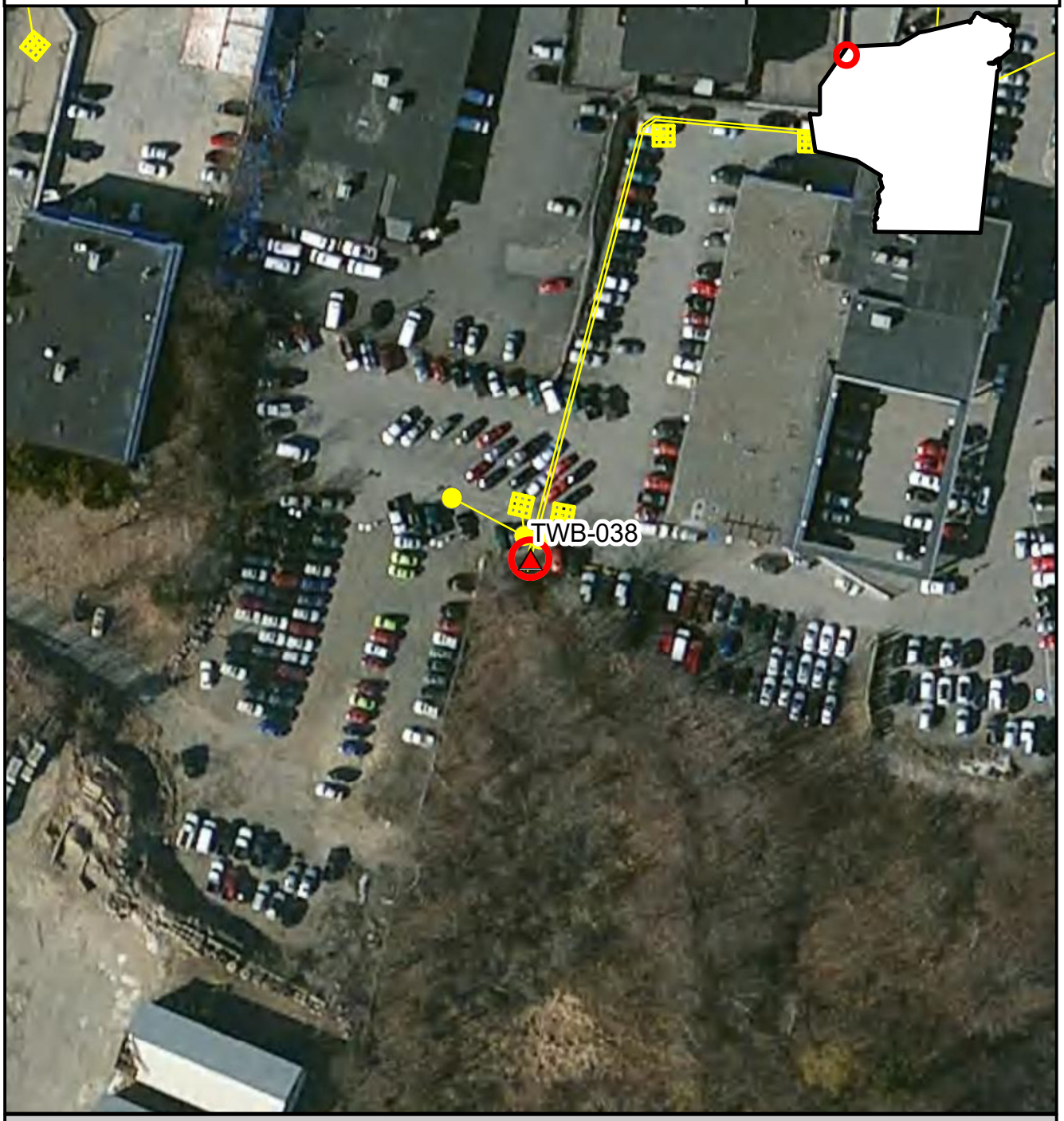
Deposits/stains present?	Yes
Deposits/Stains	Sediments
Deposits/stains Comments	Submerged pipe stagnant pool
Pool quality issues?	Yes
Pool Quality Description	Floatables
Pool quality Comments	Stagnant
Pipe benthic growth present?	No
Section 6: General Comments	Behind Quirk Ford at end of parking lot

Section 7: Media

Photos

Braintree IDDE Inspections

Inspection ID
BT-339



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 6/10/2019

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-340, 2019-06-10, 08:22

Created	2019-06-10 12:22:08 UTC by Matt Davis
Updated	2019-06-10 12:30:48 UTC by Matt Davis
Location	42.2147955, -71.0425338

Section 1: General Information

Inspection ID	BT-340
Outfall ID	TWB-044
Inspector	Gh
Date	2019-06-10
Time	08:22
Temperature	64
Inspection Location	Outfall
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	RCP
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	21
Outfall Condition	Normal
Headwall Present	Yes
Headwall Condition	field stone
Sediment Present?	Yes
Sediment Depth (%)	10
Outfall Submerged	Partially
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	Standing Water
Color Severity	None
Turbidity	No cloudiness
Floatables (does not include trash)	None

Section 4: Physical Indicators (all outfalls)

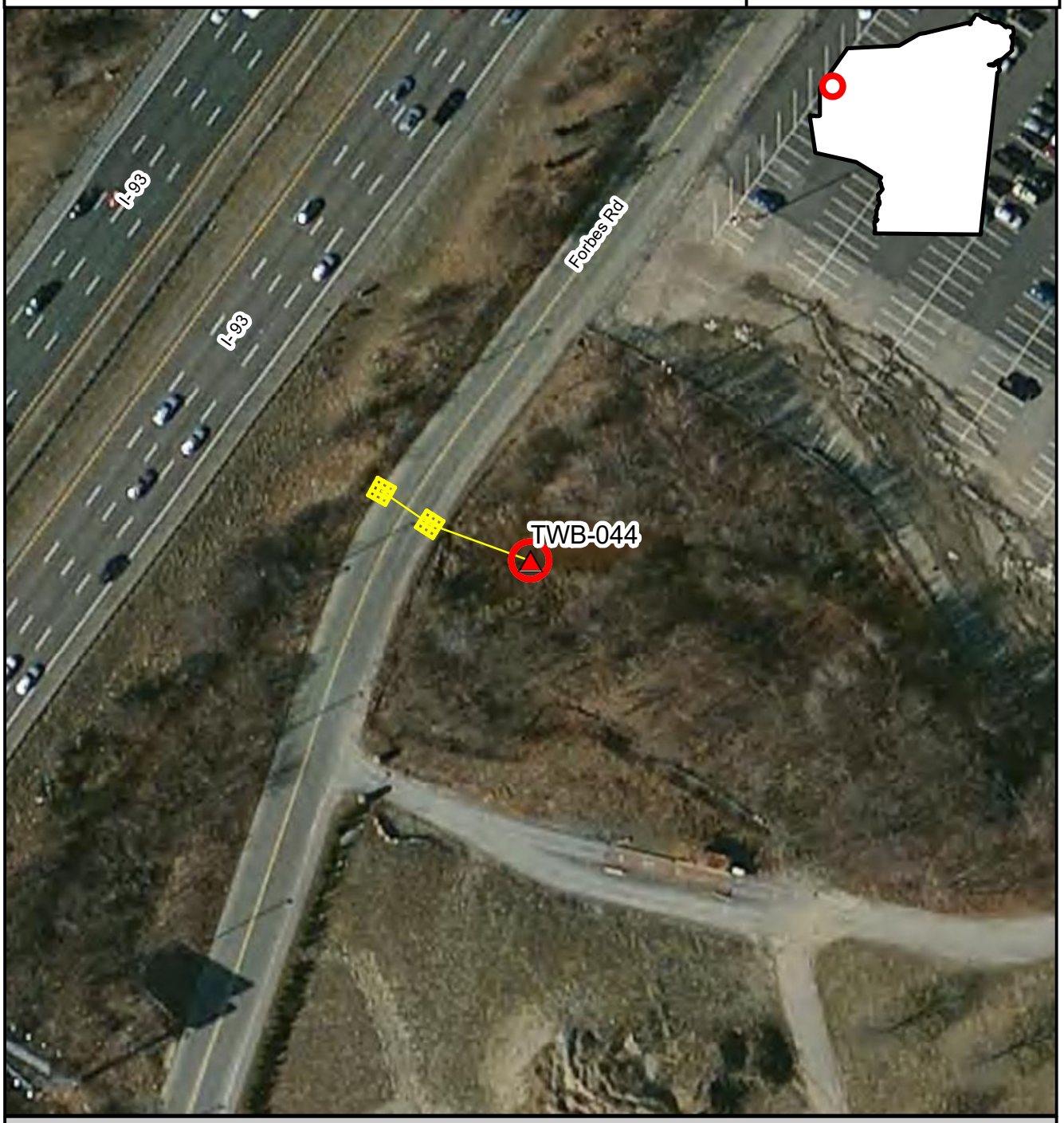
Deposits/stains present?	Yes
Deposits/Stains	Sediments
Deposits/stains Comments	Sandy
Pool quality issues?	No
Pipe benthic growth present?	No

Section 7: Media

Photos

Braintree IDDE Inspections

Inspection ID
BT-340



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 6/10/2019

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-341, 2019-06-10, 08:44

Created	2019-06-10 12:44:55 UTC by Matt Davis
Updated	2019-06-10 12:55:51 UTC by Matt Davis
Location	42.203036, -71.0200751

Section 1: General Information

Inspection ID	BT-341
Outfall ID	SSL-009
Inspector	Gh
Date	2019-06-10
Time	08:44
Temperature	64
Inspection Location	Detention basin inlet
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	not visible
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	0
Outfall Condition	not visible
Headwall Present	No
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No
Section 6: General Comments	Rain garden

Section 7: Media

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Photos

Braintree IDDE Inspections

Inspection ID
BT-341

Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 6/10/2019

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-342, 2019-06-10, 08:44

Created	2019-06-10 12:44:54 UTC by Matt Davis
Updated	2019-06-10 12:56:19 UTC by Matt Davis
Location	42.2030337, -71.0200787

Section 1: General Information

Inspection ID	BT-342
Outfall ID	SSL-007
Inspector	Gh
Date	2019-06-10
Time	08:44
Temperature	649
Inspection Location	Detention basin inlet
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	not visible
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	0
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No

Section 7: Media

Photos

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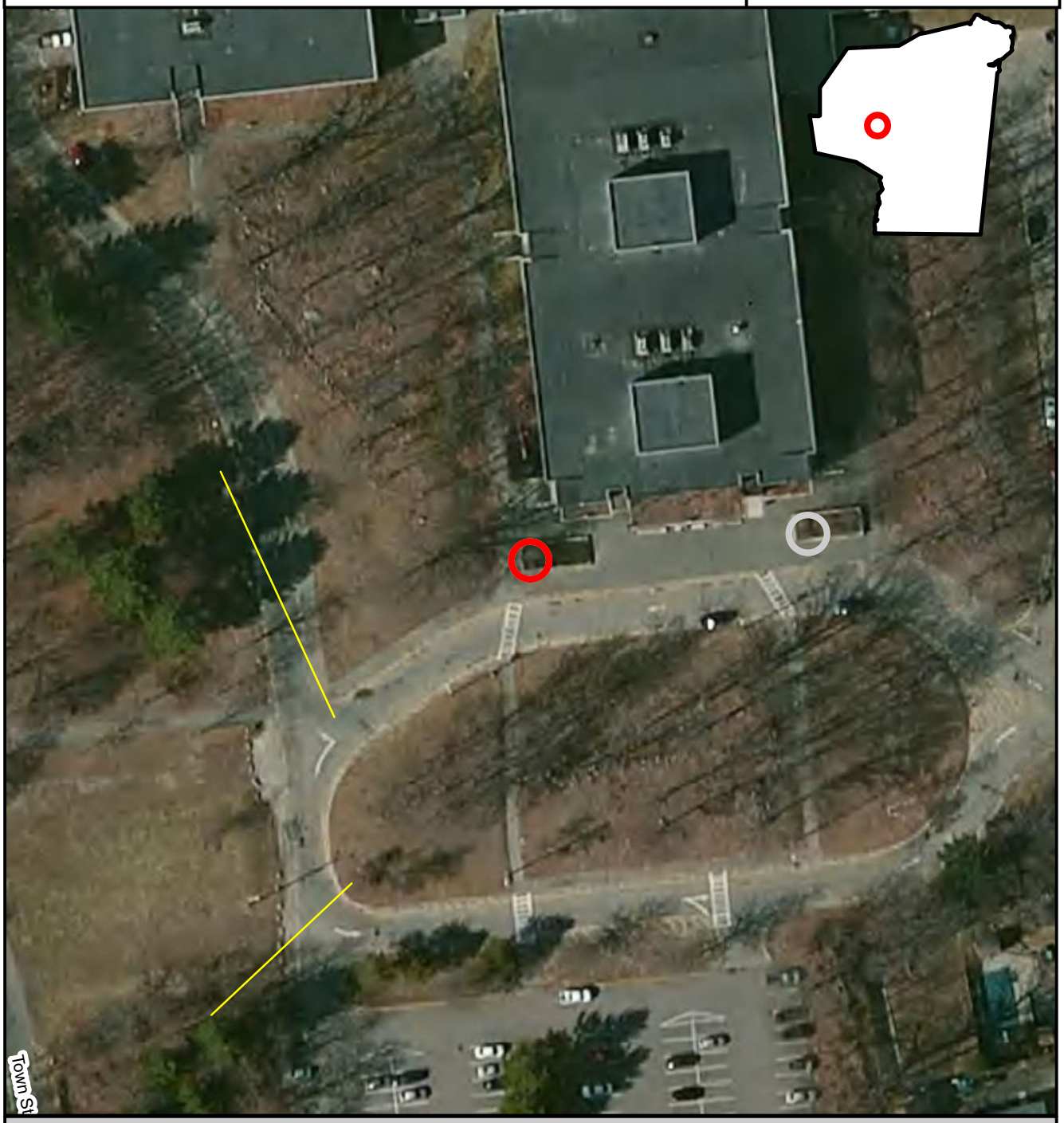
Braintree IDDE Inspections

Inspection ID
BT-342



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 6/10/2019

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-343, 2019-06-10, 09:40

Created	2019-06-10 13:40:37 UTC by Matt Davis
Updated	2019-06-25 16:03:11 UTC by Matt Davis
Location	42.2225826, -71.0104741

Section 1: General Information

Inspection ID	BT-343
Outfall ID	TWB-012
Inspector	Gh
Date	2019-06-10
Time	09:40
Temperature	65
Inspection Location	Catch basin
Investigation performed at manhole upstream of outfall?	Yes
Reason why investigation performed at upstream manhole	No outf all CB goes directly to culverted brook
Visual evidence of contamination present?	No
Odor Severity	None

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pipe benthic growth present?	No
Section 6: General Comments	Catch basin drops directly into culverted brook.

Section 7: Media

Photos

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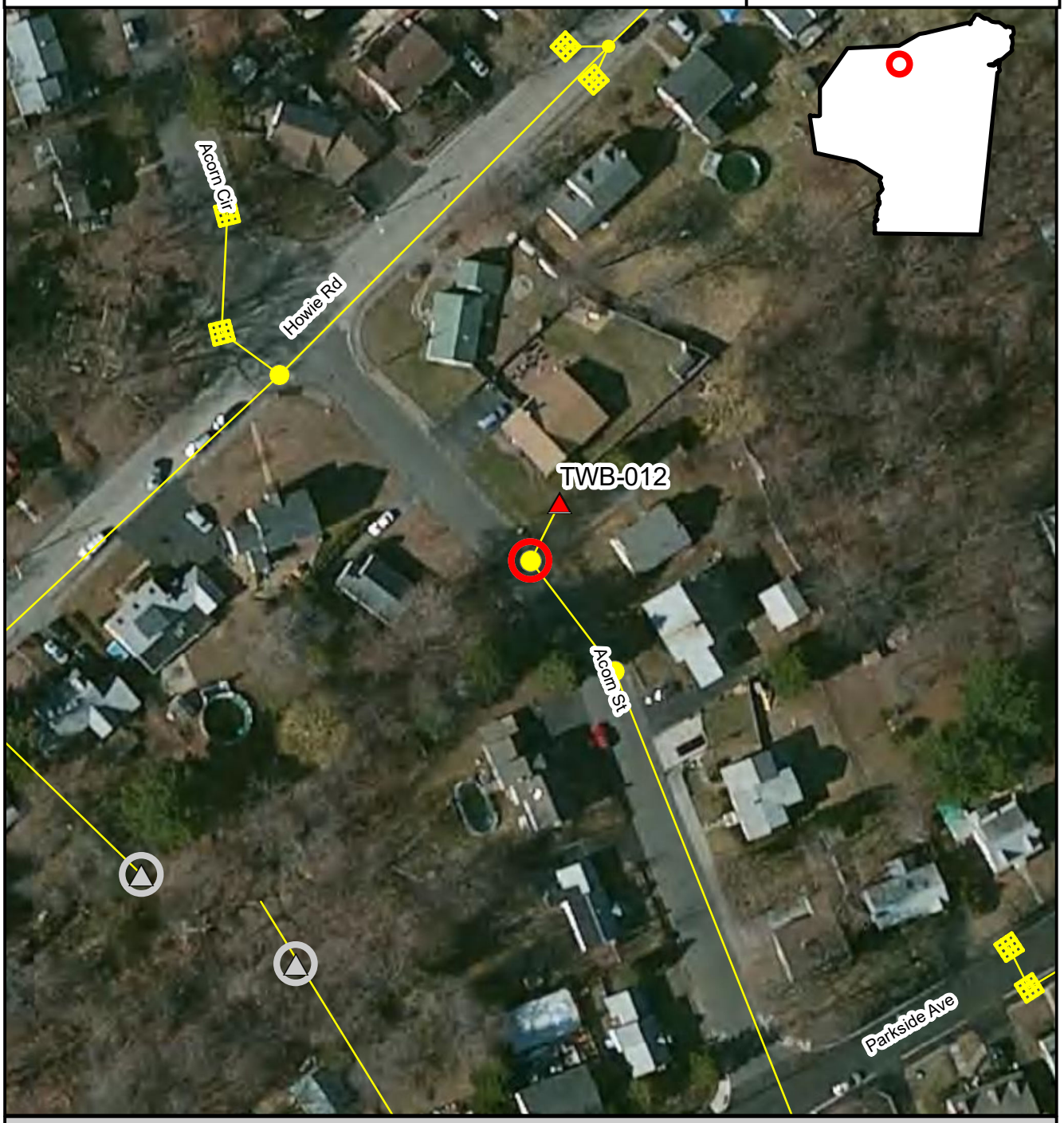
Sketches

Braintree IDDE Inspections

Inspection ID
BT-343



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 6/10/2019

150 75 0 150 Feet

Prepared: July 15, 2019

Brown AND Caldwell

BT-344, 2019-06-10, 10:08

Created	2019-06-10 14:08:35 UTC by Matt Davis
Updated	2019-06-10 14:21:30 UTC by Matt Davis
Location	42.2202075, -70.9687527

Section 1: General Information

Inspection ID	BT-344
Outfall ID	SMB-002
Inspector	Gh
Date	2019-06-10
Time	10:08
Temperature	67
Inspection Location	Manhole
Investigation performed at manhole upstream of outfall?	No
Visual evidence of contamination present?	No
Odor Severity	None

Section 2: Outfall Description

Closed Pipe or Open Drainage	Closed Pipe
Closed Pipe Material	HDPE
Closed Pipe Shape	Circular
Closed Pipe Diameter (in)	12
Outfall Condition	Normal
Headwall Present	No
Sediment Present?	No
Outfall Submerged	No
Outfall Tidally Influenced?	No

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pool quality issues?	No
Pipe benthic growth present?	No
Section 6: General Comments	My straddles a culverted brook. Pipe connecting catch basins is outfall.

Section 7: Media

Photos

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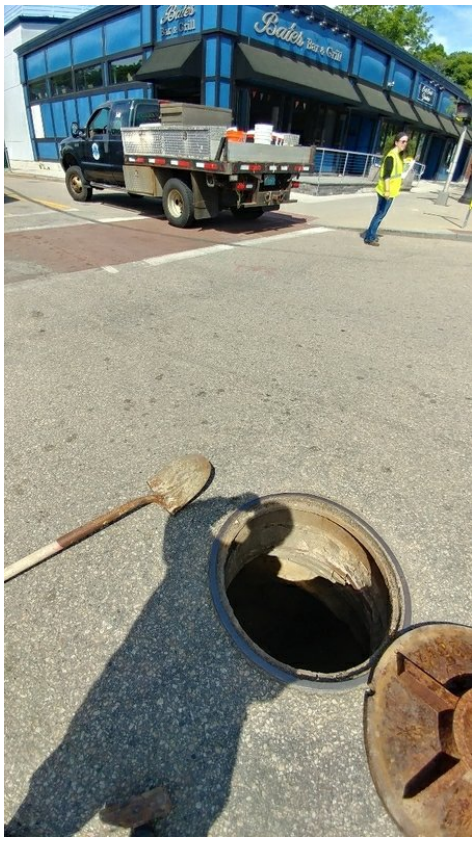
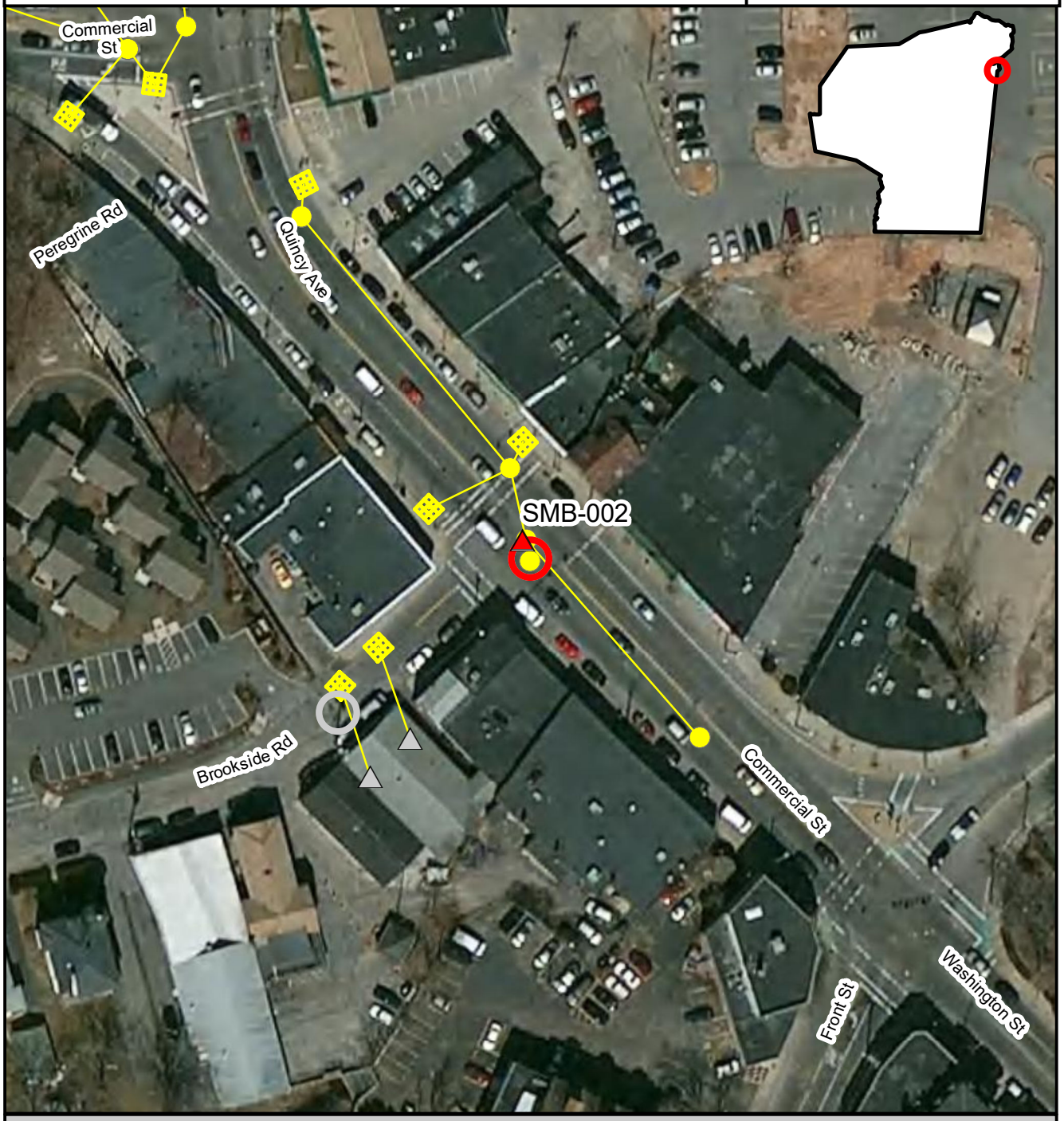


Braintree IDDE Inspections

Inspection ID
BT-344



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 6/10/2019

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell

BT-345, 2019-06-10, 10:32

Created	2019-06-10 14:32:35 UTC by Matt Davis
Updated	2019-06-10 14:35:24 UTC by Matt Davis
Location	42.2074248, -71.0125582

Section 1: General Information

Inspection ID	BT-345
Outfall ID	SSL-015
Inspector	Gh
Date	2019-06-10
Time	10:32
Temperature	67
Inspection Location	Manhole
Investigation performed at manhole upstream of outfall?	Yes
Reason why investigation performed at upstream manhole	Could not locate outfall. Could not open mh
Visual evidence of contamination present?	No
Odor Severity	None

Section 3: Physical Indicators (flow flowing)

Flow Present	No

Section 4: Physical Indicators (all outfalls)

Deposits/stains present?	No
Pipe benthic growth present?	No
Section 6: General Comments	Could not locate outfall or open mh

Section 7: Media

Photos

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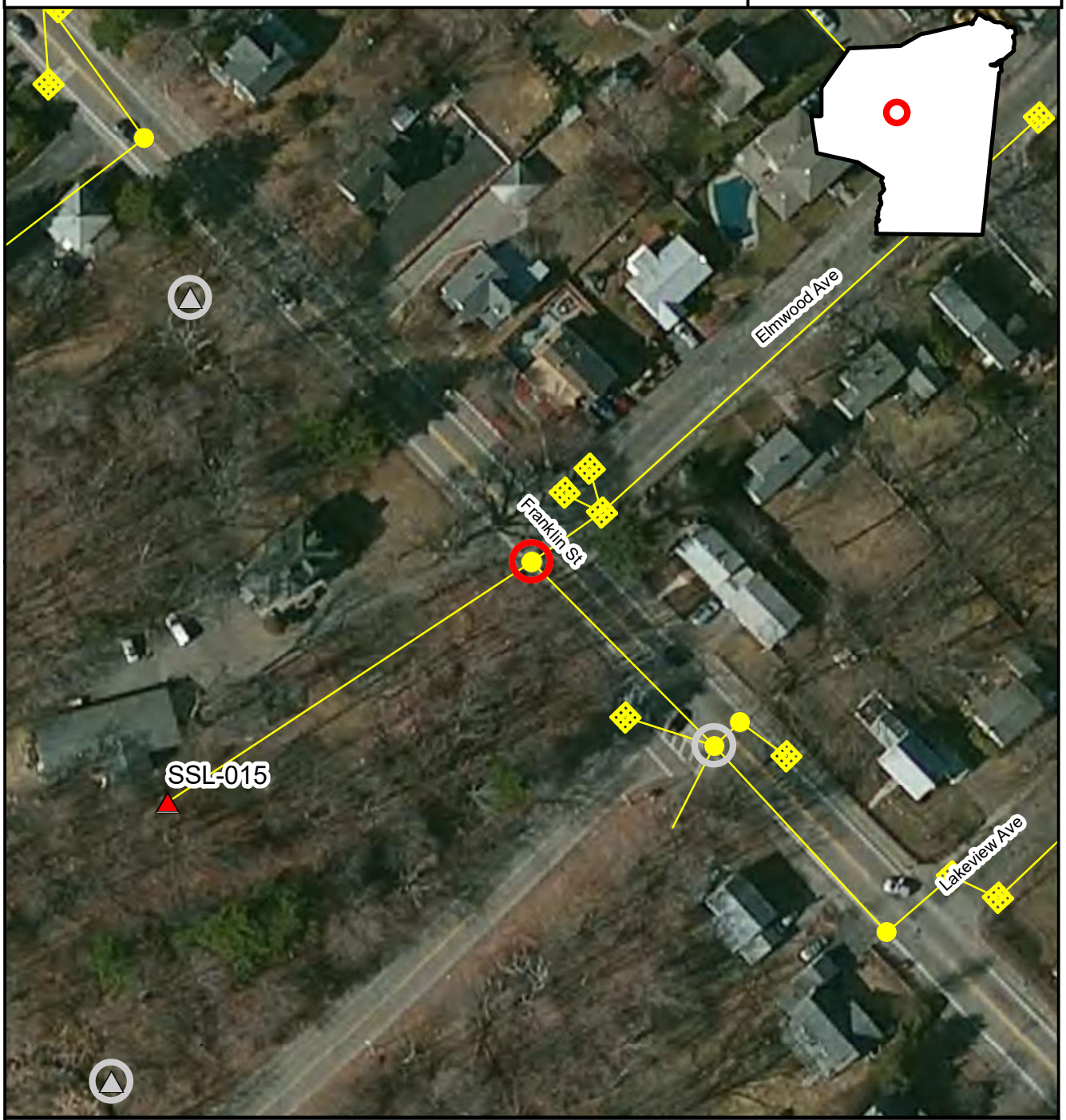
Braintree IDDE Inspections

Inspection ID
BT-345



Inspection Location | Outfall | Outfall Catchment | Storm Drains | Catch Basins | Manholes

N

Inspection Date: 6/10/2019

Prepared: July 15, 2019

150 75 0 150 Feet

Brown AND Caldwell