



Stormwater Asset Management Program

Town of Alton, NH

April 2024

Tighe&Bond

Executive Summary

Section 1 Introduction

1.1 Alton’s Stormwater System1-2
1.2 Overview of Asset Management Principles1-3
1.3 Development of the Stormwater Asset Management Program1-5
1.4 Stakeholder Group, Vision Statement, and Level of Service Goals1-6

Section 2 Culvert Asset Inventory

2.1 Culvert Asset Inventory2-1
2.2 Summary Statistics2-2
2.3 Age of Culvert Assets.....2-3

Section 3 Culvert Condition Assessment

3.1 Methodology and Procedures3-1
3.1.1 Culvert Mapping and Assessment Staff Training3-2
3.2 Results3-2
3.2.1 Condition of Assessed Culverts.....3-2
3.2.2 Operation and Maintenance Statistics3-4

Section 4 Drainage Structure Inventory and Catch Basin Cleaning Field Form

4.1 Drainage Structure Inventory4-1
4.2 Catch Basin Cleaning Field Form4-1

Section 5 Evaluation of Culvert Condition and Performance

5.1 The Case for Asset Management5-1
5.2 Priority Ranking of Inspected Culverts.....5-1
5.3 Probability of Failure (PoF)5-2
5.4 Consequence of Failure (CoF)5-3
5.5 Overall Criticality or “Risk”5-3
5.6 Follow Up Structural Culvert Inspections5-5

Section 6 Recommendations

6.1 Capital Improvements6-2
6.2 Further Investigation or Study6-3
6.3 Prioritized Maintenance and Repairs.....6-5
6.4 Opportunistic Repair or Replacement6-5
6.5 Programmatic Recommendations6-6
6.5.1 Routine Inspection Program.....6-6
6.5.2 Staff Training.....6-6
6.5.3 Data Collection and Tracking6-6

6.5.4 Annual Update of Asset Prioritization and Recommendations.....6-6
6.5.5 Public Outreach and Education Program6-6
6.5.6 Public Works Staff and Equipment Evaluation6-7

Section 7 Life Cycle Cost Analysis and Five-Year Action Plan

7.1 Life Cycle Cost Analysis.....7-1
7.2 Five-Year Action Plan7-2

Section 8 Funding Strategy and Permitting

8.1 Funding Strategy8-1
8.2 Permitting for Culvert Repair and Replacement8-4

Section 9 Implementation Plan

9.1 Staffing and Responsibilities9-1
9.2 Standard Operating Procedures.....9-1
9.3 Ongoing Program Implementation9-1

Section 10 Communication Plan

J:\A\A5073 Town of Alton\P004 Stormwater Asset Management\Report\AMP User Manual\Alton AMP User Manual.docx

List of Figures

Figure 1-1 Result of a Failed Culvert in Alton	1-2
Figure 1-2 The Five Core Questions for Implementing Asset Management	1-4
Figure 1-3 Run-to-Failure Management Model	1-5
Figure 1-4 Asset Management Model	1-5
Figure 3-1 Distribution of Culvert Inlets by Condition	3-3
Figure 3-2 Distribution of Culvert Pipe by Condition	3-3
Figure 3-3 Distribution of Culvert Outlets by Condition	3-3
Figure 5-1 Criticality Matrix	5-1
Figure 5-2 Culvert Risk Matrix.....	5-4

List of Tables

Table 2-1 Estimated Service Life for Drainage Assets	2-3
Table 3-1 Distribution of Culvert Inlets by Condition	3-3
Table 3-2 Distribution of Culvert Pipes by Condition	3-3
Table 3-3 Distribution of Culvert Outlets by Condition	3-3
Table 5-1 Criticality Category Ratings	5-4
Table 6-1 Recommended Repair or Replacement Capital Improvements	6-2
Table 6-2 Culverts Recommended for Further In-Depth Condition Assessment	6-4
Table 6-3 Recommended Repair or Replacement Capital Improvements	6-5
Table 8-1 Summary of Typical Stormwater Program Expenditures	8-1
Table 8-2 Summary of Stormwater-Related Funding Programs.....	8-2
Table 9-1 AMP Staff and Responsibilities	9-1
Table 10-1 Communication Plan Timeline	10-1

Appendices

Appendix A	Level of Service Goals
Appendix B	Stormwater Infrastructure Overview Map and Culvert Mapbook
Appendix C	Data Collection Field Forms
Appendix D	Standard Operating Procedure: Updating Asset Mapping and Condition Data
Appendix E	SADES Data Collection Specifications Guide Culverts and Closed Drainage Systems
Appendix F	Could Not Locate & Could Not Access Culverts
Appendix G	Culverts Needing Maintenance
Appendix H	Standard Operating Procedure: Culvert Maintenance
Appendix I	Probability of Failure and Consequence of Failure Rankings
Appendix J	Overall Risk Scores and Rankings
Appendix K	Opinions of Probable Project Costs
Appendix L	Standard Operating Procedure: Updating Asset Prioritization
Appendix M	Five Year Action Plan
Appendix N	Summary of NHDES Funding Programs
Appendix O	Public Education Communication Examples

Executive Summary

The Town of Alton has developed a Stormwater Asset Management Program (AMP), funded in parts by NHDES and the Town, to proactively manage the Town's stormwater system assets to best serve the Alton community and safeguard the Town's investment. A goal of the AMP is to create a risk-based capital improvement planning methodology for Alton's stormwater assets that is defensible to the public and decision makers. The following outlines the key steps involved in development of the AMP which are discussed in more detail in this Plan:

1. Established a Vision Statement and Level of Service goals for stormwater system assets;
2. Developed an inventory and digital map of the Town's culvert assets as well as some drainage structures, outfalls, and drainage pipes. The State's culvert and drainage structure assets are also shown on the map in a separate layer. Both layers can be turned on to be viewed together;
3. Conducted field inspections to assess the condition of the culvert assets;
4. Performed a risk-based prioritization assessment of the culvert assets to identify high-priority culverts for repair or replacement;
5. Created recommendations for capital improvement projects and future AMP implementation;
6. Established a Five-Year Action Plan and considered funding options available for implementing the recommended capital improvement projects; and
7. Outlined the means for ongoing implementation and communication of the AMP.

Key recommendations from the AMP as discussed in this Plan include the following:

- Repair and replace the high priority culverts as laid out in Section 6.1 and the Five-Year Action Plan in **Appendix M**. Estimated AMP implementation costs are included in this the Five-Year Action Plan.
- Implement a culvert inspection program to conduct routine culvert condition assessments throughout the Town.
- Increase the frequency of culvert cleaning and maintenance and improve tracking efforts.
- Continue catch basin cleaning and maintenance.
- Continue street sweeping of Town-owned roads.
- Collect asset management, inventory, inspection, and maintenance data on a continuous basis to improve the Town's asset management database and track Stormwater AMP efforts.
- Develop a consistent workflow and record management process to continue adding new assets into the GIS mapping as well all available data describing the assets (i.e. age of asset installation to better understand the future lifespan of the drainage system).

- Evaluate the necessity of hiring additional staff and creating a dedicated stormwater division within the DPW to manage all aspects of the Stormwater Asset Management Program. This could improve the workflow and tracking of drainage-related expenditures.
- Implement the communication plan outlined in Section 10.

This Asset Management Program is intended to facilitate ongoing implementation of the AMP program and be adapted as needed for future implementation. The Town should regularly review this Plan, implement the provisions, track progress and Level of Service goal attainment, and adjust or add goals as the AMP program develops.

Section 1

Introduction

The Town of Alton is responsible for operating and maintaining a stormwater system to manage rainwater that travels off land surfaces during storms and from snowmelt (known as stormwater runoff), as well as protecting public health and safety and preserving environmental resources. Historically, the primary goals of managing stormwater runoff were to prevent immediate threats to life and property due to flooding and to maintain safe and passable streets. In the last 20 years, federal and state regulations and guidelines (e.g., the New Hampshire Stormwater Manual) have imposed increasingly stringent requirements on communities to locally manage stormwater runoff in order to address the serious adverse impacts that increased runoff quantity, temperature, and pollutants such as nutrients, bacteria, and sediment, carried by this runoff are having on local waterbodies. Likewise, land development and increasing storm intensity have increased the rate and volume of runoff that drainage systems and natural waterways must convey.

Historically drainage systems in communities are only repaired and replaced as problems arise. However, the Town recognizes that the stormwater system, much like the Town's water distribution system, is a necessary public utility that should be managed to benefit residents and local businesses. For this reason, an American Rescue Plan Act (ARPA) grant application was completed by Tighe & Bond and the Town in June 2021 to secure funding through the New Hampshire Department of Environmental Services (NHDES) Wastewater Engineering Bureau to establish an asset management program for Alton's stormwater system. In November 2021, NHDES notified that the Town qualified for the ARPA Grant. This grant covers 60% of the cost associated with the Town's development of an AMP plan. The Town is contributing the remaining 40% in a cash match and in-kind services to support this effort.

Culvert assets were chosen to be the focus of this AMP since culverts have the highest consequence of failure, and the Town has recently experienced culvert failures due to flooding from significant storm events. **Figure 1-1** shows the result of a failed culvert on a major roadway in Alton after a significant rain event in summer of 2023 which led to closure of the roadway. In the future and as discussed below, we recommend further expanding portions of this AMP for additional Town-owned stormwater infrastructure such as drainage structures, outfalls, drainage pipes, etc..



Figure 1-1 Result of a Failed Culvert in Alton¹

The Town's objectives of the AMP project are as follows:

- Further asset inventory work completed to date;
- Understand condition of the existing drainage system;
- Identify drainage improvement needs areas;
- Maintain high water quality of the Town's waterbodies;
- Develop and distribute public educational materials about the AMP;
- Identify a funding strategy for the Town's stormwater program;
- Move from a reactive program to a consistently proactive program;
- And create a risk-based AMP and capital improvement planning methodology that is defensible to the public and decision makers.

1.1 Alton's Stormwater System

The Town of Alton is located mostly within the Winnepesaukee River Watershed with small portions in the Merrimack River and Piscataqua-Salmon Falls Watersheds. As of the date of this report, the Town of Alton owns, operates, and maintains 386 culverts.

Additionally, 359 drainage structures (catch basins, drop inlets, manholes), 59 outfalls, and 59 drainage pipes were mapped and added to the Town's stormwater inventory during development of this AMP.²

The Town monitors and maintains its stormwater system by completing catch basin cleaning and inspections and street sweeping. However, until this Asset Management

¹ <https://www.wmur.com/article/flood-roads-alton-new-hampshire-71723/44565718>, July 17, 2023.

² The reported number of mapped Alton-owned drainage structures, outfalls, and drainage pipes does not reflect the total number of these structures throughout Town since these structures were mapped c. Additional field investigation should be conducted to identify and map any additional Town-owned drainage structures, outfalls, and drainage pipes.

Program, the Town did not have any of its stormwater infrastructure mapped in Geographic Information System (GIS), a digital platform providing the ability to keep a well-maintained record of assets.

Much like the Town's water distribution system, drainage infrastructure has a monetary value. This Asset Management Program puts forth a strategy to safeguard the Town's investment and keep it functional.

1.2 Overview of Asset Management Principles

The United States Environmental Protection Agency (USEPA) defines asset management as **"maintaining a desired level of service for what you want your assets to provide at the lowest life cycle cost. Lowest life cycle cost refers to the best appropriate cost for rehabilitating, repairing or replacing an asset."**³ Utilities that use asset management planning as a tool to help them in the economic delivery of services, find it beneficial in terms of maximizing the value of assets. Asset management includes the planning, design, construction, operation, maintenance, rehabilitation, and replacement of infrastructure that performs a function for the Town in a cost-effective manner. There are numerous benefits of asset management that include but are not limited to:

- Understanding the Town's stormwater system assets, desired level of services, and costs associated with operation and maintenance and replacement.
- Communicating with transparency, justifying investments to the community, and demonstrating a responsible investment in infrastructure.
- Budgeting based on improved understanding about the timing and expense of rehabilitation, repair, and/or replacement needs.
- Prolonging asset life.
- Meeting level of service expectations.
- Addressing regulatory requirements.
- Improving responses to emergencies.
- Providing methodologies for determining replacement of existing equipment prior to failure.
- Providing DPW staff with the necessary tools by acquiring equipment for recording and transfer to new or existing software systems.
- Outlining predetermined schedules for equipment replacement prior to failure.
- Identifying annual budget line item costs and the effects on existing rate charge systems for implementation of Asset Management Plans.

The general process of asset management is shown in **Figure 1-2** and involves defining the following items:

³ EPA, "Asset Management: A Best Practices Guide," April 2008.
https://www.epa.gov/sites/production/files/2015-02/documents/asset_management_best_practices_guide.pdf

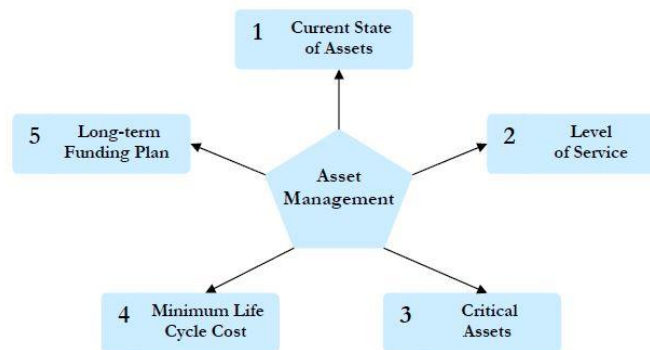


Figure 1-2 The Five Core Questions for Implementing Asset Management⁴

1. **Current State of Assets:** Inventory the available assets throughout the stormwater system. The inventory list consists of asset location, condition, maintenance history, service life, and value, if possible.
2. **Level of Service:** Determine a system operation that is sustainable by considering water quality, water quantity, system reliability, regulatory requirements, and environmental standards.
3. **Critical Assets:** Assign criticality scores to the assets required for continued sustainable system operation. An asset's risk of failing due to their condition, consequences in the event of failure and cost of repair or replacement in the event of failure may dictate the criticality score.
4. **Minimum Life Cycle Cost:** Analyze existing operation and maintenance (O&M) procedures and activities to determine how they may be optimized based on cost, criticality, and level of service.
5. **Long-Term Funding Plan:** Establish the financial capital necessary to maintain a desired level of service by proactively evaluating rate structure and available funding opportunities.

Often communities conduct O&M activities on a reactive basis, with resources allocated to emergency response and rehabilitation or replacement of failed assets. This is classified as a Run-to-Failure Management Model, as shown in **Figure 1-3**.

⁴ U.S. EPA, "Asset Management: A Best Practices Guide," April 2008.

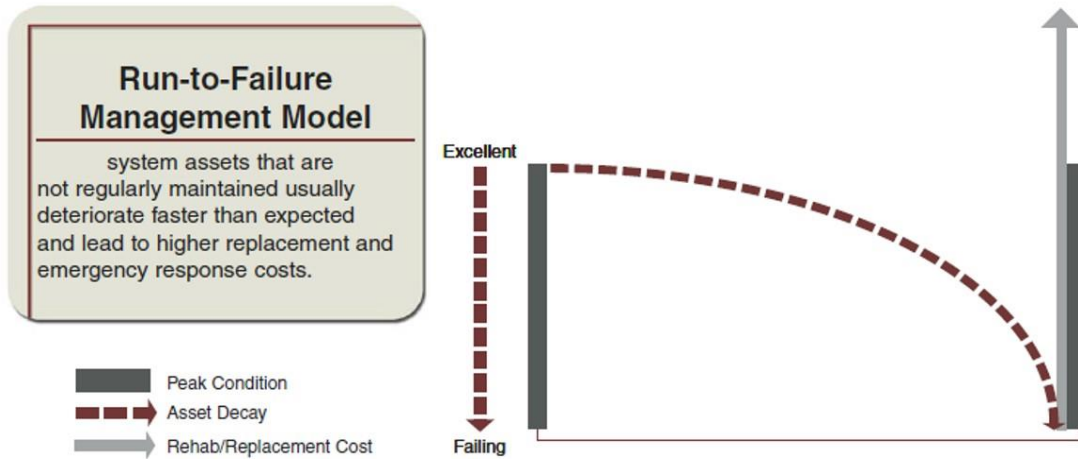


Figure 1-3 Run-to-Failure Management Model⁵

Under this model, assets that have not yet failed are aging, defects are worsening, and future problems are developing. Ultimately, this can lead to higher costs for maintenance and replacement or repair. Alternatively, utilizing an asset management approach, as shown in **Figure 1-4**, allows aging infrastructure to be maintained and replaced prior to failure. This prevents adverse consequences of failure and distributes costs over the service life of the asset.

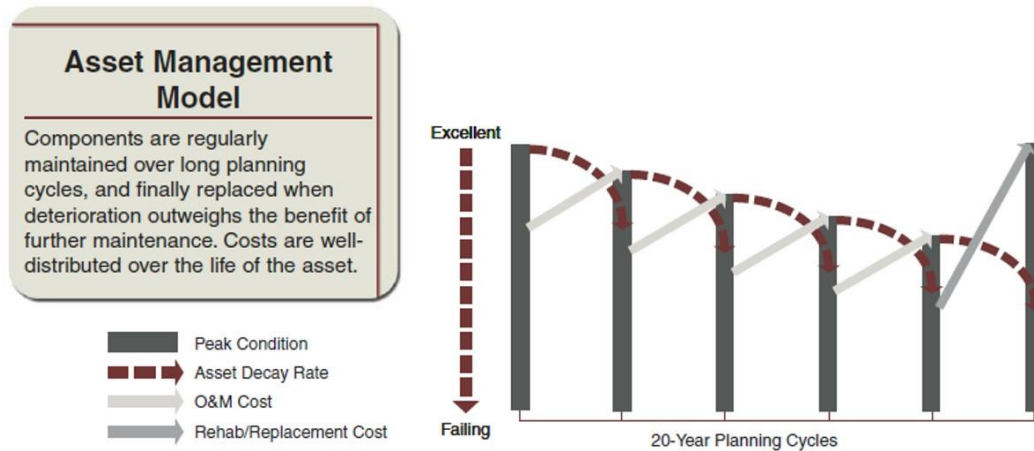


Figure 1-4 Asset Management Model⁴

1.3 Development of the Stormwater Asset Management Program

Tighe & Bond worked closely with the Town of Alton staff to develop this Stormwater AMP to provide the Town with its desired level of service based on the goals presented above. This Stormwater AMP focused on evaluating culverts for the Town’s stormwater asset

⁵ U.S. EPA, "Fact Sheet: Asset Management for Sewer Collection Systems," April 2002.

inventory. The plan was developed through the following major steps, which are described in detail in subsequent sections.

1. Define the AMP stakeholder group, vision statement, and Level of Service (LOS) Goals for the AMP (Section 1.4);
2. Determine culvert assessment procedures and create map for field data collection (Sections 2 and 3);
3. Develop an inventory of all Town-owned culverts in Alton and collect condition assessment information (Sections 2 and 3). Additionally, map any drainage structures, outfalls, and drainage pipes found while investigating the culverts to add to the Town's stormwater inventory (Section 4). Note that condition assessments of these assets are not included in the scope of this AMP and should be completed by the Town in the future;
4. Determine a risk-based prioritization for culvert repairs and replacement (Section 5). Note that prioritization of the drainage structure, outfall, and drainage pipe assets mapped as part of this AMP is not included in the scope of this AMP and should be completed by the Town in the future;
5. Conduct follow-up inspection of top ten high critical culverts (Section 5.6); and
6. Develop a written AMP that includes:
 - o A description of the culvert inventory and results (Sections 2 and 3);
 - o A description of the drainage structure inventory and catch basin cleaning field form (Section 4);
 - o The culvert risk-based asset prioritization process (Section 5);
 - o Recommendations for capital improvements, further investigation, maintenance, and programmatic improvements (Section 6);
 - o Cost analysis and funding strategy (Sections 7 and 8);
 - o A program implementation plan (Section 9); and
 - o A program communication plan (Section 10).

1.4 Stakeholder Group, Vision Statement, and Level of Service Goals

To guide the development of the AMP, a diverse stakeholder group was identified comprising of Town staff, NHDES, engineering consultants, and members of committees working to preserve water quality in Lake Winnepesaukee and the surrounding area. The roles of the identified stakeholders at the time of development of the AMP program include:

- Scott Kinmond, Town of Alton, Public Works Director
- Courtney Mitchell, Town of Alton, Assistant Director of Public Works
- Ryan Heath, Town of Alton, Town Administrator
- Dana Rhodes, Town of Alton, Conservation Commission Member and Alton Shores Association, Roads Director
- Mike Vignale, KV Partners LLC, On-call Planning Board Review Consultant
- Bill Meyer, Cyanobacteria Mitigation Steering Committee, Member

- Bree Rossiter, Lake Winnepesaukee Association Conservation, Program Manager
- Eliza Styczynski, NHDES, Sustainability Engineer
- Deborah Loiselle, NHDES, Stormwater Coordinator

During a workshop held in November 2022, the stakeholder group developed a vision statement and Level of Service (LOS) goals for the AMP which define “the way in which the community leaders, managers, and operators want the community’s assets to perform over the long-term.”⁶ The following is the defined vision statement for Alton’s Stormwater AMP:

“The Town of Alton would like to build and continuously improve upon an asset management program to create a data-driven approach to support risk-based defensible decision making. The Town will strive to provide continuous, reliable, sustainable, high-quality service to the community in order to protect its public health, water quality, infrastructure, public assets, and the environment. We are a resource for the community and will provide educational materials and public outreach on a continuous basis to meet these objectives.”

During the workshop, nearly 20 LOS goals were identified for the AMP. However, significant staffing changes have occurred since these goals were developed as both the Town’s Public Works Director and Assistant Public Works Director have transitioned to part-time schedules in the interim as new staff are identified to step into these roles full-time. These changes greatly impact the staff and resources currently available to implement all of these LOS goals. As such, some of these goals have been reserved for future consideration for the program when the Town’s capacity for program implementation increases. The LOS goals for the AMP are provided in **Appendix A** and include two tables, one with the current LOS goals and second with the LOS goals for future consideration. The LOS goals are intended to be ongoing goals for the program. The Town should regularly review the LOS goals, track metrics to evaluate attainment of the goals, and adjust goals or add new goals as the AMP program develops.

⁶ NHDES “Asset Management Handbook and Toolkit”, November 2023

Section 2

Culvert Asset Inventory

Under the project scope of work during the development of this AMP program, the inventory, fieldwork, data analysis, and capital improvement recommendations provided in this Plan focus on the Town's culvert system. As implementation of the AMP program is ongoing, the Town should expand these components of the program to include additional Town-owned stormwater infrastructure including drainage structures, outfalls, structural Best Management Practices (BMPs), etc. As discussed in Section 1, any drainage structures, outfalls, and drainage pipes found while investigating Town-owned culverts were mapped and added to the Town's stormwater inventory; however, additional inventory and mapping work, condition assessments, and prioritization of these assets were not included in the scope of this AMP and should be completed by the Town in the future.

2.1 Culvert Asset Inventory

A geographic information system, ArcGIS® (GIS), was selected as the software for mapping and managing of the Town's culvert asset inventory since it is widely used in the industry, provides many functionalities, and is also used by the State for managing the inventory of State-owned culverts. ArcGIS® gives Alton the ability to keep a well-maintained record of its stormwater assets.

Tighe & Bond developed an ESRI ArcGIS® map to facilitate data collection for creating an inventory of the Town's culvert assets. The format for data collection in the map was based on the New Hampshire Statewide Asset Data Exchange System, *Data Collection Specifications Guide Culverts and Closed Drainage Systems* for streamlined data management and evaluation purposes. Based on this SADES guide, each culvert consists of three components: an inlet, pipe, and outlet. Each culvert component is mapped and assessed individually. Data collection consists of completing data entry fields unique to each culvert component and adding photos of each culvert part.

Components of the data entry included information such as asset ID, date inspected, end treatment type (for inlets and outlets), material type, condition, pipe shape, pipe dimensions, height of fill, category type, need for maintenance, whether the pipe is rehabilitated or connects to another system, and any inspector comments. A unique asset ID was assigned to each culvert component with a prefix based on the type of component such as CLVTIn-1, CLVTPipe-1, and CLVTOut-1 for culvert inlets, pipes, and outlets, respectively. The number at the end of the prefix was assigned chronologically as assets were mapped. More detail on the methodology, procedures, and results of the culvert condition assessments are described in Sections 3 and 5.

Using this ESRI ArcGIS® map, the Town conducted fieldwork during the summer and fall of 2023 to map and assess the condition of all known Town-owned culverts, creating a digital culvert inventory.

The Town also mapped any Town-owned drainage structures, outfalls, and drainage pipes found during the fieldwork to begin creating an inventory of these assets; however, developing a full inventory of these assets was outside the scope of this AMP. Additional mapping and condition assessment work should be conducted to complete this inventory of drainage structures, outfalls, drainages pipes, etc. Select Public Works staff have

training on the GIS map and tablets available in their trucks which the Town plans to use to add or edit assets in the GIS map as they are encountered in the field.

An overview map of the mapped stormwater infrastructure and a mapbook of the Town-owned culverts are included in **Appendix B**.

2.2 Summary Statistics

During the fieldwork conducted during the summer and fall of 2023, a total of 386 Town-owned culverts were mapped and inspected. Based on review of the data collected, the following presents key statistics about Alton's culverts:

Culvert Inlets:

- 100 % of the mapped culvert inlets have end treatment type cataloged. Of these end treatment types, approximately:
 - 77% are headwalls (with no wingwalls),
 - 14% have no end treatment,
 - 7% are flared end sections, and
 - 2% are headwalls (with wingwalls).
- 100% of the mapped culvert inlets have materials listed. Of these materials, approximately:
 - 63% are masonry,
 - 15% are concrete,
 - 15% are not applicable (i.e. have no end treatment),
 - 4% are plastic,
 - 2% are metal, and
 - 1% is other.

Culvert Pipes:

- 100% of the mapped culvert pipes have materials listed. Of these materials:
 - 64% are plastic,
 - 17% are concrete,
 - 16% are metal, and
 - 3% are not applicable (unable to access or locate pipe for inspection).
- 100% of the culvert pipes have sizes listed. Of these sizes⁷:
 - 33% 15" in diameter,
 - 15% are 12",

⁷ When multiple dimensions were collected for a culvert (i.e. if the culvert was box-shaped), the maximum dimension was used for the pipe size analysis.

- 11% are 24",
- 8% are 18", and
- 33% are other sizes, with the next most prevalent following 18" being 14" and 16".

Note that the New Hampshire Department of Transportation (NHDOT) classifies stream crossings with a width greater than 10-feet as a bridge; however, no Town-owned culverts are wide enough to meet this classification.

Culvert Outlets:

- 100 % of the mapped culvert inlets have end treatment type cataloged. Of these end treatment types:
 - 65% are headwalls (with no wingwalls),
 - 20% have no end treatment,
 - 12% are flared end sections, and
 - 2% are headwalls (with wingwalls).
- 100% of the mapped culvert inlets have materials listed. Of these materials:
 - 58% are masonry,
 - 21% are not applicable (i.e. have no end treatment),
 - 11% are plastic,
 - 9% are concrete, and
 - 2% are metal.

2.3 Age of Culvert Assets

Implementing a comprehensive asset management program requires knowledge about the age of the Town’s infrastructure. No known digitized information on age of assets was available during the development of this AMP.

For comprehensive asset management, it is also important to understand the typical service life of an asset. **Table 2-1** summarizes the expected service life for a variety of infrastructure in Alton’s stormwater system. Expected service life is based on Tighe & Bond experience, manufacturer recommendations, and guidance from professional organizations.

Table 2-1
Estimated Service Life for Drainage Assets⁸

Asset	Estimated Service Life (years)
Drain Pipe (Gravity)/Culvert <i>(Brick, Vitrified Clay, Ductile Iron, Stone)</i>	100

⁸ Infrastructure Optimization (IO) Toolset software developed by Woolpert, Inc. (ESRI® ArcGIS extension package), documented in the Town of Grand Rapids, MI Environmental Protection Services Department, "Stormwater Asset Management and Capital Improvement Plan," May 2013, Updated March 2016.

Asset	Estimated Service Life (years)
Drain Pipe (Gravity) <i>(Concrete, HDPE/PPP, PVC, Cast Iron)</i>	75
Drain Pipe (Gravity)/Culvert <i>(Corrugated Metal)</i>	65
Drain Pipe (Gravity)/Culvert <i>(Asbestos Cement)</i>	50
Catch Basin <i>(Brick, Concrete, Block, Precast, Fieldstone)</i>	50
Manhole <i>(Brick, Concrete, Block, Precast, Fieldstone)</i>	100

It must be noted that installed infrastructure components will have longer or shorter service lives depending on the original material and quality of the infrastructure and installation, the specific environment and conditions, and operation and maintenance. For example, some pipes are assumed to have a service life of 100 years, but if a 95-year-old pipe is inspected and found to be in excellent condition, the service life could be adjusted to 125 years. Given the New England weather conditions, corrugated metal pipes (CMPs) are typically found in poor condition and do not last until the end of their design service life.

Because digitized data on asset age was not available, this information should be obtained to assess the expected service life of the Town's stormwater assets. Therefore, priority rankings in this plan currently do not include asset age, but instead material data and field conditions analysis.

Section 3

Culvert Condition Assessment

The Town, with assistance from Tighe & Bond, completed culvert assessments to collect inventory and condition information to be used in the risk-based prioritization. The following section describes the process, procedures, and results completed as part of these assessments.

3.1 Methodology and Procedures

As part of the Stormwater Asset Management Program, The Town, with assistance from Tighe & Bond, completed 11 days of field assessments of Town-owned and operated culverts in August through October 2023.

Privately-owned and State-owned culverts were not included in the inventory and were not inspected. As discussed in Section 2.1, Tighe & Bond utilized the following state-accepted culvert inspection protocol when developing the data collection form used for culvert assessments:

- *Data Collection Specifications Guide Culverts and Closed Drainage Systems (CCDS)*, developed by the New Hampshire Statewide Asset Data Exchange System (SADES) in partnership with New Hampshire Department of Transportation and University of New Hampshire Technology Transfer Center, May 2023.

ESRI's mobile application Field Maps was used to collect data during field assessments for culverts. A copy of the culvert data collection form is included in **Appendix C**, and a Standard Operating Procedure for mapping assets and adding condition assessment data in Field Maps is included in **Appendix D**. In Field Maps, photos were taken and stored. This application was able to link to the location of the culvert point in GIS. Based on the SADES guide, each culvert consists of three components for inspection: an inlet, pipe, and outlet. Each culvert component was mapped and assessed individually.

The culvert assessment identified characteristics such as shape, dimensions, materials, and condition. The following lists some of the components of the culvert systems for which data was collected in the field to identify existing conditions and inform the risk-based prioritization and recommended improvements.

Culvert Pipe:

- Material Type;
- Pipe Condition;
- Pipe Shape;
- Pipe Dimensions;
- Category Type the pipe is associated with;
- Height of Fill
- Whether the Pipe Connects to Another System;
- Whether the Pipe is Rehabilitated;
- Need for Maintenance; and
- Any Notes on the Inspected Pipe.

Culvert Inlet/Outlet:

- Inlet/Outlet End Treatment Type;
- Material Type;
- Inlet/Outlet Condition
- Need for Maintenance; and
- Any Field Notes

As part of the AMP, a Drainage Structure Inventory and Catch Basin Cleaning Field Form was also developed in GIS. An example of the GIS form is included in **Appendix C**. This field form can be used to keep an inventory of updated information on the Town's drainage structures and track catch basin cleaning efforts.

3.1.1 Culvert Mapping and Assessment Staff Training

Tighe & Bond and Alton Public Works staff, including the Assistant Director of Public Works and a Water Operator, attended the SADES Culverts and Closed Drainage Systems Training on May 25, 2023. The training discussed the SADES *Data Collection Specifications Guide Culverts and Closed Drainage Systems* protocol for culvert mapping and condition assessment. As noted in Sections 2.1 and 3.1, this protocol was used as the basis for the mapping and inspection methodologies for Alton's culverts. This SADES protocol is provided in **Appendix E** for reference as a staff training tool and Standard Operating Procedure for assessing the condition of the Town's stormwater assets.

3.2 Results

Over the 11 days of fieldwork in August through October 2023, 388 culverts were mapped and inspected, two (2) of which were later changed from Town-owned to private after discussion with the Town. The two private culverts were removed from the Town's culvert inventory and from the risk-based prioritization, resulting in a total of 386 Town-owned culverts. Photos of the two private culverts are linked in the ArcGIS® map. The full inventory of information collected during the field effort was delivered separately to the Town electronically.

44 culverts had inlets, pipes, or outlets that could not be accessed for inspection, mainly due to vegetative overgrowth. 32 culverts had inlets, pipes, or outlets that could not be located. Lists of the culverts that could not be accessed or located are provided in **Appendix F**. Additionally, 170 culverts were noted as needing maintenance due to issues such as debris blockage, rust, deterioration, cracks, etc. A list of these culverts requiring maintenance is included in **Appendix G**.

While completing the fieldwork, some closed drainage outfall systems were mapped as well, including 59 stormwater outfalls and 59 drainage pipes. 359 drainage structures were also mapped during the field efforts. Most of the outfalls and drainage pipes have minimal condition assessment data collected but should be re-inspected in the future to collect the data specifically needed to fully assess the condition and criticality for this type of stormwater infrastructure. The drainage structures did not have condition assessments performed as this was outside the scope of this AMP.

The mapping performed of the closed drainage outfall systems and drainage structures are not comprehensive inventories of the Town's assets for these types of infrastructure, and it is recommended that the Town continue to map and inspect this stormwater infrastructure.

3.2.1 Condition of Assessed Culverts

Tables 3-1 through 3-3 and Figures 3-1 through 3-3 demonstrate the distribution of the culvert inlets, pipes, and outlets by condition. During the field inspections, no culverts were identified as being in active failure mode; however, a number of culverts were identified to be in poor condition as shown below and should be addressed over the next five years.

Table 3-1
Distribution of Culvert Inlets by Condition

Condition	Number Inspected	% Total Number of Culvert Inlets
No Rating ⁹	37	10%
Good	228	59%
Fair	69	18%
Poor	52	13%

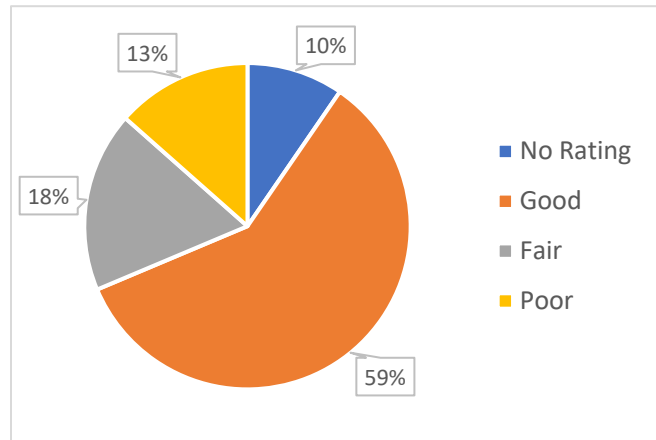


Figure 3-1 Distribution of Culvert Inlets by Condition

Table 3-2
Distribution of Culvert Pipes by Condition

Condition	Number Inspected	% Total Number of Culvert Pipes
No Rating ⁹	47	7%
Good	267	43%
Fair	267	43%
Poor	47	7%

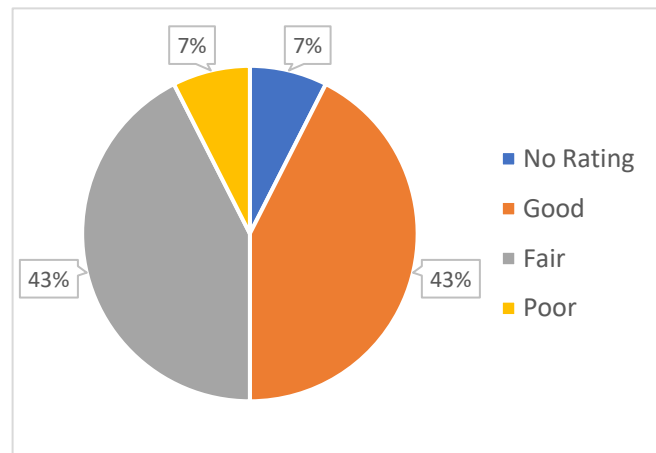


Figure 3-2 Distribution of Culvert Pipe by Condition

Table 3-3
Distribution of Culvert Outlets by Condition

Condition	Number Inspected	% Total Number of Culvert Outlets
No Rating ⁹	60	16%
Good	222	57%
Fair	53	14%
Poor	51	13%

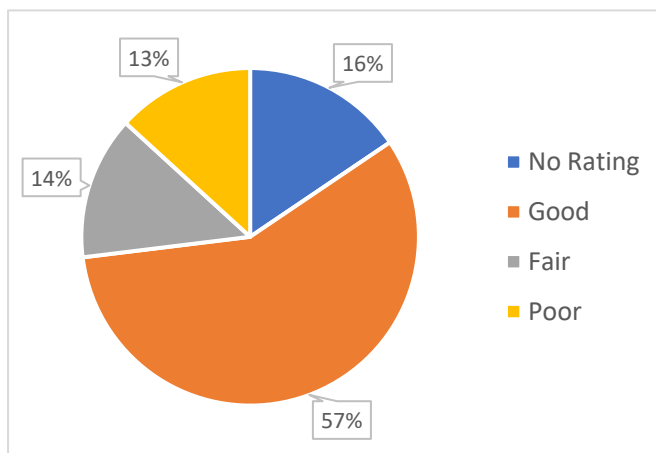


Figure 3-3 Distribution of Culvert Outlets by Condition

⁹ The majority of culverts listed with a condition of 'No Rating' represent culverts that could not be located or accessed for condition assessment or had no end treatment type.

3.2.2 Operation and Maintenance Statistics

Operation and maintenance concerns were noted during inspections. Concerns such as blockages, deterioration, cracks, corrosion, and joint separation were considered.

The top three most frequent maintenance concerns observed were deterioration, debris/sediment blockage, and joint separation, respectively. Deterioration was present at 50 inlets, 14 pipes, and 38 outlets. Blockage by debris or sediment was found at 5 inlets, 54 pipes, and 2 outlets. Joint separation was present at 14 inlets, no pipes, and 13 outlets. Additional less frequent maintenance concerns observed included vegetative overgrowth, rot and rust, cracks and corrosion, and distortion of shape. The table in **Appendix G** lists the structure ID, condition, end treatment type, material type, and maintenance concern of note. Tighe & Bond recommends further assessment, monitoring, and maintenance of these culvert structures to ensure proper functioning. **Appendix H** provides a standard operating procedure for culvert maintenance.

Section 4

Drainage Structure Inventory and Catch Basin Cleaning Field Form

As discussed above, the project scope of work during the development of this AMP program focused mainly on the Town's culvert system. However, as part of the AMP scope, a Drainage Structure Inventory and Catch Basin Cleaning Field Form was developed in GIS. Additionally, some drainage structures, outfalls, and drainage pipes were mapped during investigation of the Town-owned culverts. These assets do not have condition assessments or asset prioritizations performed as this was outside the scope of this AMP and should be conducted by the Town in the future.

4.1 Drainage Structure Inventory

The SADES program has developed inventory data for some drainage structures in the Town of Alton as well as a drainage structure inventory field form with a protocol for assessing the condition of drainage structures which is included in **Appendix E**.

As discussed in Sections 1.1 and 2.1, the Town mapped 359¹⁰ drainage structures (catch basins, drop inlets, manholes) found during the fieldwork for the AMP to begin creating an inventory of the Town-owned drainage structures. However, developing a full inventory of these assets was outside the scope of this AMP, thus additional mapping and condition assessment work should be conducted to complete this inventory of Town-owned drainage structures.

4.2 Catch Basin Cleaning Field Form

As part of the AMP, a Drainage Structure Inventory and Catch Basin Cleaning Field Form was developed in GIS for the Town's use. The form follows the SADES inventory and condition assessment field form structure and includes additional fields to track catch basin cleaning. An example of the GIS form is included in **Appendix C**. This field form should be used to keep an inventory of drainage structures and conditions and track catch basin cleaning efforts throughout Town.

¹⁰ The reported number of mapped Alton-owned drainage structures does not reflect the total number of these structures throughout Town since these structures were mapped as they were found while mapping and investigating Town-owned culverts. Additional field investigation should be conducted to identify and map any additional Town-owned drainage structures.

Section 5

Evaluation of Culvert Condition and Performance

5.1 The Case for Asset Management

Alton historically has managed their stormwater culvert system by relying on the institutional system knowledge of personnel to plan for capital projects that they judge to be the highest priority. However, priority is often given to immediate problems as they arise. By approaching capital projects in this way, Alton could be underestimating the urgency of other stormwater culvert system upgrades. For example, are there aging culverts in need of preventative maintenance at risk of failure? Are there maintenance issues that could be proactively addressed?

For this reason, a more proactive, data-driven decision-making process (discussed below) would help target stormwater culvert assets that should be prioritized before they run to failure and become an emergency. The current funding prioritization process for maintenance and capital projects does not consider “criticality” of culvert system components. **The relationship between the probability and consequence of failure determines the criticality of an asset**, as demonstrated in Figure 5-1. An asset in new condition (low probability of failure) with a low consequence of failure is considered a low risk asset. Conversely, an asset that is in poor condition (high probability of failure) and has a high consequence of failure is considered a critical asset with a high risk for the Town and should be at the top of the priority list.

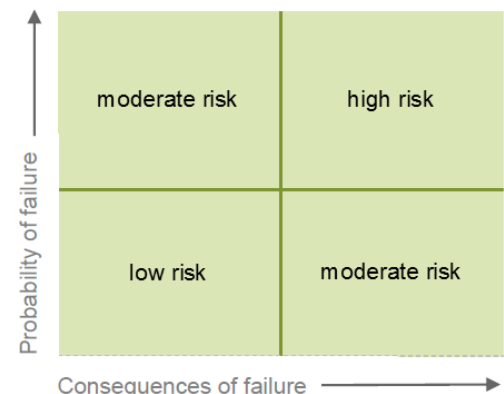


Figure 5-1 Criticality Matrix

Adopting an asset management approach for strategic maintenance and risk-based capital improvements will save Alton time and money in the long-term.

5.2 Priority Ranking of Inspected Culverts

Tighe & Bond utilized the culvert inspection results in assessing the criticality of each culvert structure. To determine a culvert’s criticality, there are two important questions:

1. How likely is the culvert to fail?
2. If the culvert does fail, how impactful are the consequences?

In the context of asset management, criticality is defined as an asset’s probability of failure (PoF) multiplied by the severity and extent of the consequences of that failure (CoF). **Criticality allows the Town to manage its overall risk and provides a logical framework for allocation of operation and maintenance dollars and capital expenditures.**

The likelihood that an infrastructure component will fail is a function of the component's condition, performance, reliability, and maintenance history. Failure refers to the state of not meeting a desirable or intended objective. There are several modes of failure¹¹ that may occur, including:

- **Mortality** – The asset stops functioning due to a physical condition or break;
- **Capacity** – The asset is functioning but will not provide the quantity of service required;
- **Level of Service** – Changes in needs or in regulations demand a higher level of service than the asset can deliver; and
- **Financial Inefficiency** – The asset is costing more to repair than it would to replace.

If a component of Alton's culvert system fails, the consequences widely differ in severity and impact to the Town and its residents. It is important to consider all of the possible costs of failure, including cost of repair/replacement, collateral damage, social costs, legal costs (i.e., injuries or damages caused by failure), environmental costs, and other considerations such as inability to deliver desired level or service or loss of confidence in the culvert system.

Tighe & Bond's methodology for determining PoF and CoF and subsequently criticality for Alton's culverts is described below. The asset prioritization for the culverts was completed and ranked together using customized criteria described below. It should be noted that additional factors such as age, FEMA floodplain mapping, endangered species habitat, water main crossings, and impaired waters and TMDLs or other water quality data could be used in the Town's PoF and CoF analysis; however, since Alton is in the early stages of their asset management program and this data is limited, we used the data available supplemented with visual inspections.

5.3 Probability of Failure (PoF)

This section discusses the various factors and methodology to determine PoF. The raw data of the inventory and associated PoF ranking for each of the assessed culvert structures was delivered separately to the Town electronically. The parameters used to calculate PoF for the culvert assets vary slightly by type of structure assessed. The PoF parameters for inlets and outlets were identical, assessing material type and condition. The PoF parameters for pipes also included material type and condition with the addition of height of fill.

Appendix I contains the various criteria, ranking, weight and maximum score for determining each asset's PoF. Some culvert components were listed as "No Rating" for condition in the field, a majority of which were due to being unable to locate or access these culverts. These culvert components were given a medium ranking score for condition as the condition of these components is unknown. A total PoF "deficiency score" was calculated by summing the ranking points for each asset's criteria. This total PoF score

¹¹ Modes of failure adapted from University of Southern Maine. Issue Brief, "Asset Management for Stormwater," April 2014. Available at: http://digitalcommons.usm.maine.edu/cgi/viewcontent.cgi?article=1000&context=sustainable_communities.

was divided by the maximum possible score to normalize the PoF for each culvert asset on a 0-1 scale, with a minimum score of 0 (low PoF) and a maximum score of 1 (higher, more severe PoF).

5.4 Consequence of Failure (CoF)

A Consequence of Failure assessment typically considers hypothetical failure scenarios and the cost or impact of failure on the community, local government, or regulatory compliance. Typical CoF for culverts considers extent and severity of flooding and associated impact on the community (e.g., disruption of emergency services due to decreased access or reroute required, impaired ability for residents to egress from their homes/roadway to a main road, or impact to sensitive populations such as schools or nursing homes) and the extent and severity of water quality degradation (e.g., impact on sensitive species or public recreational uses). In many ways, the CoF rating is subjective since it is often difficult to foresee all the direct and indirect consequences of a failure of an individual piece of equipment or infrastructure.

Limited data was available when selecting the CoF factors, so accessible data was used for analysis. The parameters used to calculate CoF for the culvert assets vary slightly by type of structure assessed. The CoF parameters for inlets and outlets were identical, assessing detour length, dead ends, roadway class, and an estimated non-digitized 100-year floodplain. The CoF parameters for pipes also included these factors with the addition of pipe size. Digitized FEMA floodplain data and data on endangered species habitat and water main crossings were unavailable at the time of the risk-based prioritization. If any of this data becomes available for use, it is recommended that the data be incorporated into the CoF analysis and overall prioritization rankings.

The raw data of the inventory and associated CoF ranking for each of the assessed culvert structures was delivered separately to the Town electronically. **Appendix I** contains the various criteria, ranking, weight and maximum score for determining each asset's CoF. A total CoF "deficiency score" was calculated by summing the ranking points for each asset's criteria. This total CoF score was divided by the maximum possible score to normalize the CoF for each culvert asset on a 0-1 scale, with a minimum score of 0 (low CoF) and a maximum score of 1 (higher, more severe CoF).

5.5 Overall Criticality or "Risk"

Overall criticality or risk for each culvert was determined by evaluating the normalized PoF and CoF to determine the criticality category and recommended action for each culvert according to Table 5-1.

Table 5-1
Criticality Category Ratings

Criticality Category	Value	Suggested Action
High	If CoF > 0.5 and PoF > 0.5	Priority Attention – Replacement, Repair, Follow Up Condition Assessments
Medium	If CoF ≤ 0.5 and PoF ≥ 0.5 Or	Aggressive Maintenance
	If CoF ≥ 0.5 and PoF ≤ 0.5	Aggressive Monitoring
Low	If CoF < 0.5 and PoF < 0.5	Routine Maintenance

A criticality matrix was created within Excel and the result is shown in Figure 5-2 below. Each culvert is shown per its risk category assigned based on the Probability and Consequence of Failure. Note that each dot in the figure below may represent multiple assets with the same score. As the asset prioritization is updated in the future, this asset risk matrix should be updated to include new data added by expanding the chart’s source data selection in Excel.

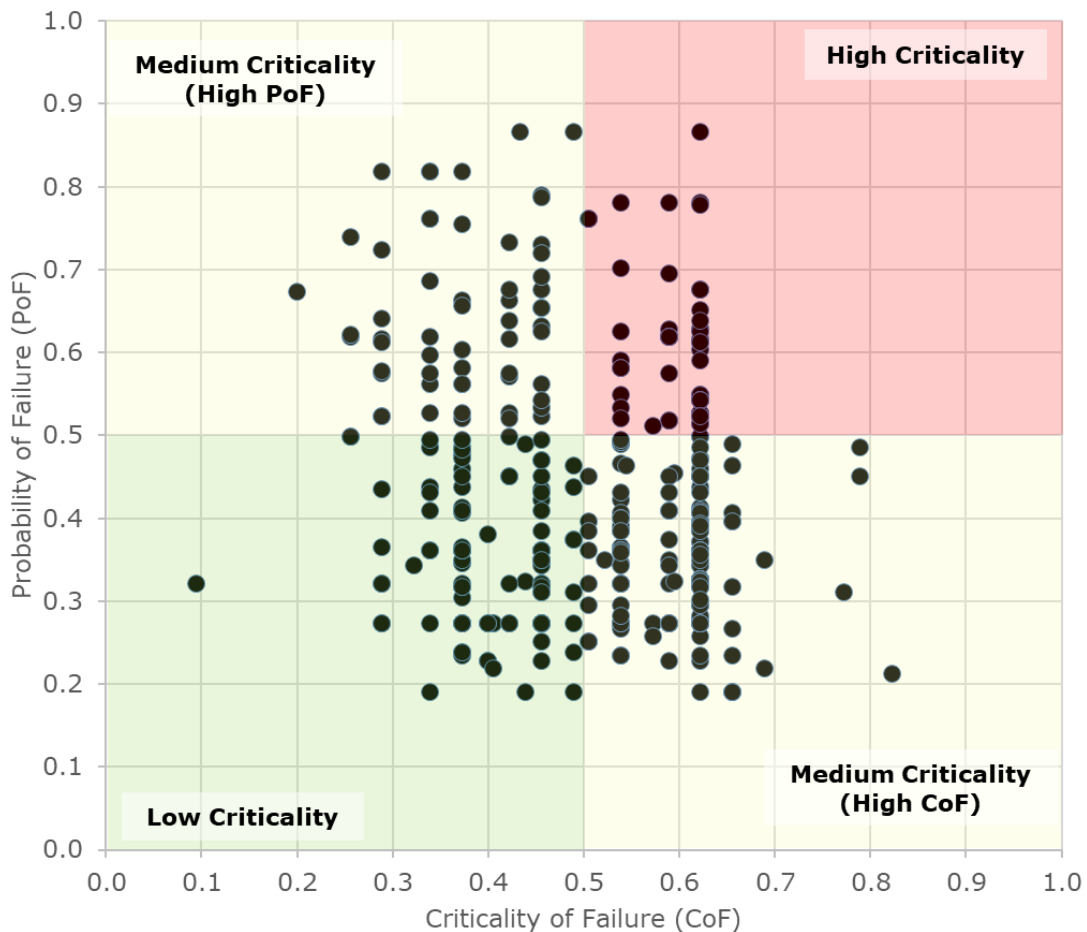


Figure 5-2 Culvert Risk Matrix

The Overall Criticality Scores and Rankings in **Appendix J** provide the overall criticality score for each culvert by summing the PoF and CoF scores for inlet, pipe, and outlet components and multiplying these overall PoF and CoF scores. **Appendix J** also identifies the assigned high, medium, and low criticality category for each culvert based on the methodology described in Table 5-1 above. 52 culverts were determined to be in high criticality category, 225 were determined to be in medium criticality category, and 109 determined to be in low criticality category. As discussed in Section 6.1 below, 12 culverts are recommended for replacement or repair.

5.6 Follow Up Structural Culvert Inspections

Following the initial culvert assessment fieldwork and the asset prioritization, a Tighe & Bond structural engineer conducted a follow up inspection of 15 culverts on December 14, 2023 using Field Maps and a Survey123 form. The 15 culverts selected for further structural inspection included nine (9) culverts within the top ten highest ranked culverts from the criticality assessment, five (5) culverts which were identified as being within the top ten most poor condition culverts based on initial field investigations, and one (1) culvert which overlapped in both categories. The selected culverts for follow up inspection were reviewed with the Town prior to conducting the inspections. As time and budget allows, the Town should continue reviewing high critical culverts. The data collected during the follow up inspections was used to develop recommendations for capital improvement projects as discussed in Section 6.

Section 6

Recommendations

The following section presents recommendations to further refine and implement the Town's Asset Management Program based on work completed to date, including capital improvements, further investigation/study, maintenance needs, and overall programmatic improvements.

For Alton to proceed with a comprehensive Stormwater Asset Management Program, we provide the following recommendations to help the Town plan and schedule key asset management activities with the goal of implementing the asset management program in the near-term.

Recommendations fall into the following categories to address program goals and key concepts:

- **Inventory and Inspections:** Perform routine culvert inspections and continue inventorying and inspecting the remaining stormwater system assets (e.g. drainage structures, stormwater outfalls, drainage pipes, and structural stormwater Best Management Practices). This information will provide a complete picture of the condition of all the Town's stormwater infrastructure.
- **Operation and Maintenance:** Continue conducting routine catch basin cleaning and maintenance and street sweeping of Town-owned roads as well as culvert maintenance.
- **GIS Information Management Software:** Improve data management by using GIS as the data management software for the Town's stormwater assets and improve the data available by regularly updating the dataset as changes are found or system improvements are made. This will enable the Town to keep an updated record of stormwater assets. We recommend coordinating with all Town departments so the same dataset is used for the municipal stormwater program. This will provide consistency in managing data throughout the Town.
- **Workflow and Records Management:** Adopt a consistent workflow and record management process for stormwater management. The Town should evaluate the current process to identify any changes or updates. An updated workflow and records management process should be instated, utilizing GIS and maintained accordingly.
- **Risk Assessment:** Critically rank all stormwater assets to help inform future stormwater capital improvement projects. The ranking should be updated continuously as infrastructure is replaced and/or rehabilitated.
- **Asset Rehabilitation and Replacement:** Plan and complete stormwater culvert maintenance, rehabilitation, and replacement in the next five years from information gained in the asset risk assessment. The Town should also review the assets identified as having a high PoF (such as blocked or failing culverts) for short-term maintenance. As new information is obtained from asset inventory and inspections, new projects may be added to the high-risk category and others may be moved to the low-risk category as work is completed.
- **Training:** Have all necessary Town staff annually trained on how to properly adopt the various components in the asset management program including workflow,

record management, and data collection. The training should be included annually for all necessary employees, and the program's effectiveness should be evaluated at the end of the five years.

6.1 Capital Improvements

Based on the risk-based prioritization analysis, the following capital improvement projects are recommended. Table 6-1 lists the culverts in need of attention and recommended for repair or replacement based on the condition assessment and structural inspection data collected. Of these 12 culverts, six (6) are recommended for repair or consideration for repair and six (6) are recommended for replacement or consideration for replacement. Note that some of the culverts recommended for consideration for repair or replacement did not receive the highest overall risk score from the asset prioritization but were identified as having a high PoF score based on condition assessment data collected during field inspections.

Table 6-1
Recommended Repair or Replacement Capital Improvements

Culvert ID	Location	Recommendation	Reason	Overall Criticality Risk Score
CLVT-94	Alton Mountain Road	Replace	Joint at mid-span appears to be in poor condition and have sediment buildup. Small rip in bottom of pipe approx. 5-ft in.	High
CLVT-226	Prospect Mountain Road	Replace	Pipe deformed, root intrusion at joints, and invert deterioration.	High
CLVT-248	Muchado Hill Road	Replace	Invert deterioration and section loss	High
CLVT-294	Old Wolfeboro Road	Replace	Some fill infiltration. Failed pipe segment.	High
CLVT-321 ¹²	Swan Lake Trail	Consider Replacement	Invert deterioration. Headwall subject to deterioration.	Medium
CLVT-322 ¹⁰	Swan Lake Trail	Consider Replacement	Invert deterioration. Headwall subject to deterioration.	Low

¹² It is recommended that CLVT-321 and CLVT-322 be considered for combined replacement as a single span with a new headwall and wingwalls.

Culvert ID	Location	Recommendation	Reason	Overall Criticality Risk Score
CLVT-351	Drew Hill Road	Repair	Add headwall	High
CLVT-19	Minge Cove Road	Consider Repair	Consider repairing headwall at inlet. Stone is supported by plastic pipe.	High
CLVT-24	Minge Cove Road	Consider Repair	Consider adding headwall.	High
CLVT-81 ¹³	Lakewood Drive	Consider Repair	Possibly undersized. Consider upgrading headwalls, pending a hydraulic analysis.	Medium
CLVT-251	Muchado Hill Rd	Consider Repair	Possibly undersized. Consider upgrading headwalls, pending a hydraulic analysis.	High
CLVT-312	Old Wolfeboro Road	Consider Repair	Consider adding headwalls	High

Opinions of Probable Project Costs (OPCCs) were developed for replacement of the six (6) culverts recommended for replacement in Table 6-1 and are provided in **Appendix K**. Replacement of CLVT-321 and CLVT-322 are included under one OPCC since it is recommended that these culverts be replaced together as a single span. The schedule to complete these projects is included in the Five-Year Action Plan discussed in Section 7.

6.2 Further Investigation or Study

Culverts that could not be assessed because of sediment, debris, overgrowth, or high water levels as provided in **Appendix F**, should be cleaned in order to more accurately update the inventory and determine whether there are any deficiencies. Vegetative overgrowth was a common issue causing inaccessibility to culverts. We recommend revisiting these culverts during the early spring or late fall when the vegetation is likely less dense or completing a targeted clearing effort to provide access to these culverts. For some culverts, enough condition information was able to be obtained to determine a high PoF; however, maintenance and further investigation is recommended to provide additional information about the overall culvert condition.

In particular, we recommend additional in-depth condition assessments in the coming year for the culverts listed in Table 6-2 below as time and budget is available. These culverts received the highest PoF scores (excluding some of the culverts listed above in Table 6-

¹³ Culvert outlet was buried and could not be assessed. Assessment is recommended after performing maintenance and removal of trees over this structure.

1) and also had a high overall criticality risk score. Additional in-depth assessments of these culverts will provide further information on the culvert condition and guide future capital improvement projects.

Table 6-2

Culverts Recommended for Further In-Depth Condition Assessment

Culvert ID	Location	PoF Risk Score	CoF Score	Overall Criticality Risk Score
CLVT-99	Alton Mountain Road	High	High	High
CLVT-269	New Durham Road	High	High	High
CLVT-168	Coffin Brook Road	High	High	High
CLVT-175	Stockbridge Corner Road	High	High	High
CLVT-247	Muchado Hill Road	High	High	High
CLVT-220	Prospect Mountain Road	High	High	High
CLVT-68	Jesus Valley Road	High	High	High
CLVT-139	Avery Hill Road	High	High	High
CLVT-184	Stockbridge Corner Road	High	High	High
CLVT-348	Drew Hill Road	High	High	High

Additional maintenance and repair is recommended at the culverts identified with blockages, deterioration, cracks, corrosion, joint separation, etc. as listed in **Appendix G**.

Costs for annual culvert replacement, repair, and maintenance are included in the Five-Year Action Plan discussed in Section 7. The Town should use additional information from future inspections to revise the PoF score and overall criticality rank. For example, additional evidence of risk of failure for a high CoF culvert could increase the PoF score and the overall criticality risk score to High and require expedited improvements at the asset. **Appendix L** includes a Standard Operating Procedure on updating the asset prioritization.

The Town should then inspect all 386 mapped Town culverts on a routine basis, targeting approximately 39 culverts per year on a 10-year rotating basis. Inspections should start at culverts with a high overall criticality risk score and a high PoF score. Note that the Town should attempt to locate all culvert structures that could not be located during initial field investigations, as listed in **Appendix F**, and culverts that are believed to not exist should be removed from the Town's inventory.

We recommend conducting further stormwater infrastructure mapping and investigation work for all Town-owned drainage structures, outfalls, drainage pipes, and structural BMPs to obtain a complete dataset and picture of the Town's stormwater system.

6.3 Prioritized Maintenance and Repairs

Many of the significant O&M concerns noted during culvert inspections are summarized in Section 3.2.2 Operation and Maintenance Statistics and **Appendix G**. Additional information is included in the culvert inventory dataset that was delivered separately to the Town electronically.

A suggested schedule of targeted maintenance with identified maintenance or repair needs is provided below in Table 6-3, which can be modified and adapted to best fit the Town's needs. The recommended actions below are included in the Five-Year Action Plan discussed in Section 7. A standard operating procedure on culvert maintenance is included in **Appendix H**. Once maintenance or repairs are completed, the Town should update the GIS with a record of the work completed and log updated photos. Before annually updating the risk-based culvert prioritization analysis, the Town should export the current data from the GIS map to Excel and incorporate this data into the Excel-based prioritization analysis spreadsheet to reflect all maintenance or repair work completed to date.

Table 6-3

Recommended Repair or Replacement Capital Improvements

Maintenance Item	Schedule
Targeted culvert replacement recommendations (Table 6-1)	6 culverts in Table 6-1: FY2025 through FY2029. This cost is noted in the Five-Year Action Plan in Appendix M and the OPCCs in Appendix K.
Targeted culvert repair recommendations (Table 6-1)	6 culverts in Table 6-1: FY2025 through FY2029.
Remove debris/sediment blockages from culverts (Appendix G)	Target 61 culvert inlets, pipes, and outlets listed in Appendix G for debris or sediment blockages.
Revisit remaining culverts in Appendix G and complete maintenance	Revisit and monitor the remaining culverts listed in Appendix G as needing maintenance and perform maintenance as needed

6.4 Opportunistic Repair or Replacement

Separate roadway, water, stormwater, or sewer system projects offer a cost-effective opportunity to replace or repair culvert or other stormwater infrastructure that is within the proposed project extents.

Specific improvement projects did not influence the prioritization analysis completed herein. When planning such improvement projects, the Town should evaluate whether an asset replacement or repair is necessary and assess the feasibility of including additional upgrades as part of the project. In some cases, a lower priority asset could be proactively addressed during a planned capital project.

6.5 Programmatic Recommendations

Based on the work completed as part of developing this program, Tighe & Bond is providing the following programmatic recommendations.

6.5.1 Routine Inspection Program

The Town of Alton already conducts routine catch basin cleaning and maintenance and street sweeping of Town-owned roads and should continue these activities. The Town should also develop a routine culvert inspection program. Re-inspections do not need to consist of a full inventory but instead should be completed to collect comparative information and to continue to monitor culvert asset condition over time. Ongoing photographs and condition notes are critical follow up information. As discussed in Section 6.2, the Town should inspect all 386 culverts on a routine basis, targeting approximately 39 culverts per year on a 10-year rotating basis. Inspections should start at culverts with a high overall criticality risk score and a high PoF score. The culvert assessment data collection form could be used when performing these ongoing re-inspections to log data and photographs. Note that the Town should attempt to locate all culvert structures that could not be located during initial field investigations, as listed in **Appendix F**, and culverts that are believed to not exist should be removed from the Town's inventory.

6.5.2 Staff Training

Applicable Town staff should be trained upon hiring and regularly thereafter on how to properly complete the various components in the asset management program, including inventory data collection, inspections, workflow, and record management.

6.5.3 Data Collection and Tracking

The Town should continue to improve its GIS management practices. A consistent workflow and record management process is recommended for culvert and drainage system management. The current culvert data collection form provided in **Appendix C** can be used for new culvert assets located or installed and adapted for future re-inspections as needed. An annual cost is noted in the Five-Year Action Plan for a consultant to provide on-call GIS support as needed.

6.5.4 Annual Update of Asset Prioritization and Recommendations

The asset prioritization should be updated annually based on new data collected during culvert re-inspections and capital improvement work conducted. This annual update should include revised PoF scores, adjusted CoF scores if new applicable data becomes available, updated overall criticality risk scores, updated risk matrix, and recommendations for capital improvement projects. As the Town continues to map and inspect other stormwater infrastructure, the asset prioritization can be expanded to include outfalls, drainage pipes, drainage structures, and structural BMPs. An annual cost is noted in the Five-Year Action Plan for on-call consultant assistance for updating the asset prioritization and recommendations as needed.

6.5.5 Public Outreach and Education Program

As culvert replacements and other system improvements are completed, the Town should consider a public education campaign outlining the work and how it improves both water quality and drainage performance.

6.5.6 Public Works Staff and Equipment Evaluation

The Town should evaluate the necessity of hiring additional staff and purchasing additional vehicles and equipment to implement and oversee the recommendations described in Section 6. In the future, a dedicated “stormwater crew” may improve workflow and tracking of drainage-related expenditures. Organizationally, a stormwater division within the DPW may be beneficial to manage all aspects of the Stormwater Management Program, including the recommendations in this report.

Section 7

Life Cycle Cost Analysis and Five-Year Action Plan

7.1 Life Cycle Cost Analysis

The Town does not currently have detailed operations and maintenance costs or known digitized age information for their stormwater assets. See Section 2.3 for information on typical estimated service life for stormwater infrastructure. As part of the life cycle cost analysis, Opinions of Probable Construction Cost were developed for the six high priority culverts recommended for replacement in Section 6.1 and provided in **Appendix K**. Replacement of two of these culverts are included under one OPCC since it is recommended that these culverts be replaced together as a single span. It should be noted that these OPCCs were developed using the limited information available, with no detailed survey or design having been performed.

The OPCCs presented propose replacement of four of the culverts with a reinforced concrete pipe culvert and two of the culverts with a single precast concrete box culvert. Costs are broken down into separate material categories and categories for mobilization; maintenance of traffic; design, permitting, and bidding services; construction phase services; and contingencies to enable the Town to adjust the overall cost based on tasks performed in-house versus by a hired consultant. If Town staff were to complete the design, permitting, and construction, these costs could be significantly reduced. If culverts were replaced in-kind instead of improving existing conditions (e.g., installing/replacing guardrails), the Town could realize some cost savings.

Due to the limitations highlighted above in addition to a highly volatile economic climate, a 20% construction contingency and a 20% material and bidding contingency have been included in these OPCCs. Upon further assessment and design of each culvert, these contingencies may be lowered to better reflect the advanced design and bidding climate at the time. More detailed cost estimates should be developed for each culvert once the project-specific design, material, permitting needs, and in-house versus contracted work is determined.

The estimated useful service life for these culverts is 75-years based on the proposed concrete material. New culvert structures would be able to withstand more intense and more frequent storm events. This estimated useful life assumes replacement in-kind as a hydraulic capacity analysis was not completed as part of this project to determine if a larger culvert would be needed.

The OPCCs in **Appendix K** can aid the Town in projected budget planning to secure appropriate funds for completing the identified projects in the future. As implementation of the AMP plan is ongoing and new priority capital improvement projects are identified and added to the Five-Year Action Plan, similar life cycle cost analyses for the recommended projects should be conducted for planning and budgeting purposes.

Because digitized data on asset age was not available, it is recommended that this information be digitized and added to the Town's stormwater inventory to help determine

the remaining useful life of the Town's stormwater assets. For more information on the estimated service life of assets, refer to Table 2-1.

7.2 Five-Year Action Plan

Table 6-1 in Section 6.1 presents the Capital Improvement Plan for Alton's culvert system. This Plan presents capital improvements along with associated budgets based on the work completed as previously described in this report. In addition, the Plan includes the programmatic recommendations identified in Section 6.5 as well as areas for further investigation and targeted maintenance and repairs. Recommendations may be for one-time costs or annual costs. Capital and programmatic recommendations were evaluated against the goals of this Program and a Five-Year Action Plan was developed with consideration for desired level of service and available funding. The Five-Year Action Plan is included in **Appendix M** and provides a roadmap for the Town for AMP implementation for the next five years. The Five-Year Action Plan includes the OPCC costs along with estimated on-call consultant assistance costs for GIS items and asset prioritization and capital improvement planning recommendations. Note that the Five-Year Action Plan may not include all ongoing stormwater program and capital projects and proposed in-house costs are not presented. This Five-Year Action Plan provides the Town with the ability to rank expenditures, plan for and normalize expenditures over the planning period, and minimize operating and maintenance costs and should be updated annually.

Additional information about the six high criticality culverts recommended for replacement and the six priority culverts recommended for repair is included in Section 6.1. Detailed Opinion of Probable Construction Costs (OPCCs) for replacing the six high criticality culverts are provided in **Appendix K**.

Section 8

Funding Strategy and Permitting

8.1 Funding Strategy

Generally, there are five categories of stormwater program expenditures which the Town should plan for. Table 8-1 provides a summary of these categories along with the typical funding sources for each category, as excerpted from the NHDES Asset Management Handbook and Toolkit.¹⁴

Table 8-1

Summary of Typical Stormwater Program Expenditures¹¹

Expenditure Type	Description	Funding Source
Operational	Expenses which have no effect on the asset condition but are necessary to keep the asset utilized appropriately.	Annual Budget, Rates, Revenue
Maintenance	The ongoing day-to-day work required to keep assets operating at required service levels.	Annual Budget, Rates, Revenue
Renewal	Significant work that restores or replaces an existing asset towards its original size, condition or capacity.	Annual Budget, Rates, Revenue, Reserve funds, Grants, Loans, Bonds
New Work, Development, Capital Projects	Works to create a new asset, or to upgrade or improve an existing asset beyond its original capacity or performance, in response to changes in usage, customer expectations, or anticipated future need.	Annual Budget, Rates, Revenue, Reserve funds, Grants, Loans
Disposal	Any costs associated with the disposal of a decommissioned asset.	Annual Budget, Rates, Revenue Reserve funds, Grants, Loans

Funding for a municipality's stormwater management program is typically limited to two stable sources that can provide the necessary amount of ongoing funding: a tax rate increase or the introduction of a stormwater user fee. In some cases, there are additional revenue sources; however, these supplemental sources are typically restricted in the amount of revenue they can produce and are often tied to specific activities or uses.

The Town's current annual budget for operating and maintaining the stormwater system is \$1.2 million which is apportioned from the Public Works operating budget. Approximately \$11,200 of this budget is used for catch basin cleaning. Additional funds may be needed in the future to support maintenance of Alton's stormwater system as the recommendations in this AMP are implemented. As the Town has not yet conducted an evaluation for implementing a stormwater utility fee, it is recommended that the Town

¹⁴ NHDES Asset Management Handbook & Toolkit, November 2023.
<https://www.des.nh.gov/sites/g/files/ehbemt341/files/documents/wd-21-04.pdf>

assess the feasibility of such a fee as a potential means to increase funds to support ongoing and planned stormwater system maintenance and improvements. A NHDES Clean Water State Revolving Fund Planning Loan can be pursued to support performing a stormwater utility fee evaluation.

As noted in Table 8-1, grants and loans are external funding sources which also provide financing opportunities that the Town of Alton can pursue. A summary of stormwater-related funding programs, provided by NHDES, is given in Table 8-2. The Town should investigate these further to determine if any are appropriate based on project eligibility. Note that the funding programs listed in Table 8-2 are current as of 2024, but annual changes may occur to these programs in the future.

Table 8-2
Summary of Stormwater-Related Funding Programs¹²

Funding Program	Description
NHDES Watershed Assistance Grants	NHDES provides funding appropriated through EPA under Section 319 of the Clean Water Act for projects to restore impaired waters or protect high quality waters. Watershed Assistance Grants are targeted toward implementation of completed WBPs. Forty percent non-federal match is required.
NHDES Water Quality Planning Grants	NHDES provides funding appropriated through EPA under Section 604b of the Clean Water Act for water quality planning purposes. Eligible projects include water quality monitoring, design of stormwater retrofits and LID projects, adopting ordinances, meeting MS4 permit requirements to address priority water quality planning concerns, and development of WBPs.
NHDES Clean Water State Revolving Fund	The NHDES Clean Water State Revolving Fund (CWSRF) provides low-cost financial assistance for planning, design, and construction projects to municipalities, nonprofits, and local government entities for wastewater infrastructure projects (collection systems, pumping stations, and wastewater treatment) and water pollution control projects (stormwater planning, nonpoint source, and development of watershed protection/ restoration plans).
Conservation Grant Program (Moose Plate)	Funding focus includes preservation, protection, and conservation of water quantity and quality; restoration, enhancement, or conservation of wildlife habitat; soil erosion prevention; flood mitigation; implementation and installation of SCMs respectively for agriculture; forestry; stormwater management; and land protection.
Aquatic Resource Mitigation Fund Program	Focuses on projects to restore natural resources within the context of a proposed land conservation effort. NHDES encourages projects providing connectivity to other protected resources or in close proximity to wetland impacts. Projects to benefit rare resources are viewed favorably.

¹² Information provided through correspondence with NHDES.

Funding Program	Description
Center for Land Conservation Assistance	Funds transaction costs for permanent land protection projects within New Hampshire coastal watershed areas.
Davis Conservation Foundation	Supports organizations with projects related to wildlife, wildlife habitat, environmental protection, or outdoor recreation. Projects that strengthen volunteer activity and community involvement in these categories are of particular interest.
National Fish and Wildlife Foundation, Five Star and Urban Waters Restoration Program	Provides funds to local partnerships for wetland, forest, riparian and coastal habitat restoration, with a focus on urban waters and watersheds.
National Park Service – Rivers and Trails Program	Funds projects focused on protection of natural resources and enhancement of outdoor recreational opportunities.
Natural Resource Conservation Service (NRCS)	Financial/ technical assistance to landowners and agricultural producers for conservation practices to address natural resource concerns or opportunities to help save energy, improve soil, water, plant, air, animal and related resources on agricultural lands and non-industrial private forest.
New England Grassroots Environmental Fund	Funds projects focused on forestry and trails, with a focus on community-based environmental work.
New England Forests and Rivers Fund	Dedicated to restoring and sustaining healthy forests and rivers that provide habitat for native bird and freshwater fish populations in New England.
U.S. Fish and Wildlife Service Grants and Financial Assistance	The U.S. FWS provides financial assistance through grants and cooperative agreement awards to a variety of groups and organizations.
NOAA Climate Program Grants	NOAA’s Climate Program Grants fund high-priority climate science assessments, decision support research, outreach education, and capacity building activities designed to advance the understanding of Earth’s climate system.

For additional information on some of these funding programs, see the Summary of NHDES Funding Programs provided in **Appendix N**.¹²

8.2 Permitting for Culvert Repair and Replacement

Culvert replacement or repair projects typically require permit from or notification to the NHDES Wetlands Bureau. Permitting needs will depend on site-specific conditions, stream type classification, the selected design, and jurisdictional impact areas. The NHDES categorizes stream crossing projects primarily based on the contributing watershed drainage area at the location of the crossing.

- A Tier 1 stream crossing is one which is located on a stream where the contributing watershed is less than 200 acres (0.31 square miles).
- A Tier 2 stream crossing is one which is located on a stream where the contributing watershed is greater than 200 acres (0.31 square miles) and less than 640 acres (1 square mile).
- A Tier 3 stream crossing is one which is located on a stream where:
 - The contributing watershed is greater than 640 acres (1 square mile), or
 - Is within a Designated River Corridor (with limited exceptions), or
 - Is within a FEMA-mapped 100-year floodplain, or
 - Is within an area having documented occurrences of protected species or habitat, or
 - Is within a municipally designated prime wetland or duly-established 100-foot prime wetland buffer.

The following provides a brief description of the level of permitting or authorization from NHDES that may be applicable. The Town should confirm applicable requirements for each culvert prior to performing culvert repairs or replacements. All activities require appropriate erosion, sedimentation, and turbidity controls. Work should only be performed under low flow conditions and “in the dry”. Work in the dry may be achieved by installation of by-pass system or when the stream is not flowing.

- **Culvert Repair/Replacement Statutory Permit-by-Notification (SPN)** – Applicable when proposing minimum impact activities for in-kind repair or replacement of existing legal Tier 1 or Tier 2 stream crossings, including culverts up to and including 48 inches in diameter or their functional hydraulic equivalent, consistent with the [Best Management Practices \(BMP\) for Routine Roadway Maintenance Activities in New Hampshire](#) published by the New Hampshire Department of Transportation (NHDOT) in 2019. The *General Criteria for Project Activities* section (on page 19 of 80) of the manual outlines additional criteria for project qualification. Read the manual and RSA 482-A:3, XVI before proceeding.
- **Routine Roadway Maintenance Activities Registration (RRMN)** – Applicable when proposing minimum impact activities for routine roadway maintenance activities described in Env-Wt 308.04(e) and are consistent with the [Best Management Practices for Routine Roadway Maintenance Activities in New Hampshire](#) published by the NHDOT dated 2019. The *General Criteria for Project*

¹² Information in Appendix N was provided through correspondence with NHDES.

Activities section (on page 19 of 80) of the manual outlines additional criteria for project qualification. Read the manual before proceeding.

- **Wetlands Permit-By-Notification (PBN)** – Applicable for:
 - Repair of an existing legal Tier 1 or Tier 2 stream crossing that exceeds the limitations of the SPN or RRMN, or repair of an existing legal Tier 3 stream crossing, with no impact size limitation, that is classified by the NHDES as a Minimum Impact project, and when the crossing does not have a history of causing or contributing to flooding.
 - Replacement of an existing legal Tier 1 stream crossing that exceeds the limitations of the SPN or RRMN, is classified by the NHDES as a Minimum Impact project, does not have a history of causing or contributing to flooding, and the project impacts less than 50-linear feet along the thread of the channel.

Please visit the [NH Online Forms](#) page to view the PBN application form and checklist.

- **Expedited Minimum Impact Wetlands Permit (EXP)** – Applicable to minimum impact projects that do not qualify for SPN, RRMN, or PBN.
- **Standard Dredge and Fill Wetlands Permit** – Applicable to minor or major projects or those minimum impact projects that do not qualify for SPN, PBN or EXP applications.

As outlined in NH RSA 482:A *Fill and Dredge in Wetlands*, Section XVII, NHDES administers a Culvert Maintainers Program which enables certified municipal public works employees to maintain, repair, replace, or modify culverts in accordance with NHDOT [Best Management Practices for Routine Roadway Maintenance Activities in New Hampshire \(as described above\)](#) without prior notification to NHDES. Certified Culvert Maintainers must provide quarterly reports to the NHDES to identify the work performed in the prior quarter.

Exceptions to activities that may be completed under the Culvert Maintainer Program include:

- Work on culverts with a history of overtopping,
- Work on double culverts regardless of diameter,
- Slip lining or other methods which reduce the diameter of the culvert,
- Culverts with historical significance.

For these scenarios, a routine roadway maintenance notification or permit must be filed before performing work, or NHDES must be contacted for specific questions and instructions. For additional information on the Culvert Maintainers Program, see the [Culvert Maintainer FAQ](#) on the UNH Technology Transfer Center webpage.

Section 9 Implementation Plan

9.1 Staffing and Responsibilities

The Town of Alton’s Director of Public Works is responsible for the ongoing implementation of this Stormwater AMP program with support from the Assistant Director of Public Works and Public Works employees. Table 9-1 outlines responsibilities of the Public Works staff for AMP implementation.

Table 9-1
AMP Staff and Responsibilities

Staff Position	Responsibilities
Director of Public Works	Lead AMP implementation, tracking LOS goal achievement, budgeting, staffing and equipment evaluation, updating asset prioritization, capital planning, and public outreach and education.
Assistant Director of Public Works	Aid with responsibilities of Director of Public Works. Managing GIS data management, tracking LOS goal achievement, updating asset prioritization, capital planning, and public outreach and education.
Public Works Staff	Mapping and inspection of assets. GIS data management and operation and maintenance of assets.

9.2 Standard Operating Procedures

The following lists references to the Standard Operating Procedures (SOPs) for Alton’s AMP program:

- SOP on Key Tasks from Staff Training – See Section 3.1.1
- SOP on Updating Asset Mapping and Condition Data – See Appendix D
- SOP on Culvert Maintenance – See Appendix H
- SOP on Updating the Asset Prioritization and Figure 5-2 Culvert Risk Matrix – See Appendix L
- SOP on Life Cycle Cost Analysis – See Section 7
- SOP on Staffing and Responsibilities – See Section 9.1

9.3 Ongoing Program Implementation

To effectively implement the Town’s AMP, the following ongoing program actions are recommended:

- Repair and replace the high priority culverts as laid out in Section 6.1 and the Five-Year Action Plan in **Appendix M**.

- Implement a culvert inspection program to conduct routine culvert condition assessments throughout the Town.
- Increase the frequency of culvert cleaning and maintenance and improve tracking efforts.
- Continue catch basin cleaning and maintenance.
- Continue street sweeping of Town-owned roads.
- Collect asset management, inventory, inspection, and maintenance data on a continuous basis to improve the Town's asset management database and track Stormwater AMP efforts.
- Develop a consistent workflow and record management process to continue adding new assets into the GIS mapping as well all available data describing the assets (i.e. age of asset installation to better understand the future lifespan of the drainage system).
- Evaluate the necessity of hiring additional staff and creating a dedicated stormwater division within the DPW to manage all aspects of the Stormwater Asset Management Program. This could improve the workflow and tracking of drainage-related expenditures.

Section 10 Communication Plan

Communication with Town staff, stakeholders, and the community is key for effective implementation of the Stormwater AMP. Table 10-1 below provides a communication plan summarizing proposed communication methods, frequencies, and timelines to reach these audiences throughout program implementation. **Appendix O** includes examples of communication methods.

Table 10-1
Communication Plan Timeline

Audience	Communication Method	Frequency	FY24 Timeline	FY25 Timeline
Stakeholder Group (see Section 1.4)	Email with project update	Annually	By June 30, 2024	By June 30, 2025
Community	Department of Public Works Facebook Page Post	Annually	By June 30, 2024	By June 30, 2025
	Educational pamphlet at Town Hall	Update Annually	By June 30, 2024	By June 30, 2025
	Notice of Ongoing Work to specific residences where work is being performed	Prior to when work is performed	Work dependent	Work dependent

J:\A\A5073 Town of Alton\P004 Stormwater Asset Management\Report\AMP User Manual\Alton AMP User Manual.docx

APPENDICES

APPENDIX A

LEVEL OF SERVICE GOALS

Alton Stormwater Asset Management - Level of Service Goals

Service Area	No.	Category	Objective	Tracking Method	Measure/Unit	Frequency	2024			2025		
							Target	Evaluation	Reassessment	Target	Evaluation	Reassessment
							2024 Target	2024 Attainment	Corrective Measures/Comments	2025 Target	2025 Attainment	Corrective Measures/Comments
Asset Preservation and Condition	1	System Reliability	No catch basin sumps will be greater than 50% full	Cleaning records	# of catch basins > 50% full	Annually	0					
	2	Proactive Maintenance	Sweep all Town-owned/maintained streets	Sweeping records	% of streets swept	Annually	100%					
	3	System Reliability	Replace or repair critical drainage or conveyance structures	Work order records	% of stormwater system replaced/repared	Annually	2.5%					
	4	System Reliability	Update Town's GIS stormwater mapping to reflect system improvements and maintenance completed	Various town records	Update frequency	As system improvements and maintenance are completed or annually at a minimum	1					
	5	Proactive Repair & Replacement	Implement long-term Five Year Action Plan to replace, repair, and maintain assets on a proactive schedule	Five Year Action Plan, see Appendix H of AMP User Manual	Implementation frequency	Annually	1					
Health, Safety, Security and Outreach	1	System Reliability	Minimize flooded roadways, particularly in problem areas	Maintenance records	% of flooded roadways	Annually	< 5%					
	2	Climate Adaptation	Design new stormwater improvements to mitigate expected flooding from future storms	Capital planning projects	# of projects designed for future flood mitigation	Annually or as projects are designed	1					
	3	Public Education & Outreach	Distribute stormwater & asset management related public educational materials to the community	Educational materials	# of distributions	Annually	1					
	4	Public Education & Outreach	Create and maintain an online resource portal for easy public access to stormwater & asset management educational materials	Town website	Maintenance frequency	Annually	1					
Service Quality and Cost	1	Support from Decision Makers	Board of Selectmen support for proposed program budget	Board of Selectmen meeting minutes	Budget approval	Annually	1					
	2	State & Federal Grants	Use the long-term Five Year Action Plan to identify grants applicable for proposed capital improvement projects	List of grants identified	# of grants identified	Annually	1					
	3	Proactive Repair & Replacement	Update Town's Stormwater Asset Criticality Ranking and Five Year Action Plan project list	Asset Criticality Ranking and Five Year Action Plan project list	Update frequency	Annually	1					
	4	Support from Decision Makers	Report on the status of the AMP to decision makers	Status reports	Reporting frequency	Annually	1					

Alton Stormwater Asset Management - Level of Service Goals for Future Consideration




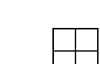



Service Area	No.	Category	Objective	Tracking Method	Measure/Unit	Frequency
Asset Preservation and Condition	1	Water Quality & Reliability	Remove ___ LF of sediment/debris from pipes routinely. Measure in feet of drainage pipes cleared per year.	Cleaning records	LF of pipe cleaned	Annually
Conservation, Compliance and Enforcement	1	Water Quality & System Compliance	Reduce nutrient loading and continue water quality monitoring in the Merrymeeting River watershed	Available water quality monitoring data	% reduction in nutrient loading	Annually
	2	Ecological	Implement measures to protect and restore Cold Water Fisheries, including thermal impacts of runoff and fish passage	List of measures taken	Implementation frequency	Annually
Health, Safety, Security and Outreach	1	Water Quality	Improve Merrymeeting River/Lake Winnepesaukee water quality by improving stormwater quality through AMP implementation	Available water quality data	% reduction in pollutants	Over 20-year period
	2	Water Quality	Work toward Clean Water Act Goals (Impairments & TMDLs)	Evaluation against Clean Water Act Goals	% of goals met	Annually
Service Quality and Cost	1	Sustainable Funding	Evaluate the feasibility of adopting a stormwater rate structure and fees to best meet revenue requirements	Feasibility study	Evaluation/implementation frequency	When program funding need justifies

APPENDIX B

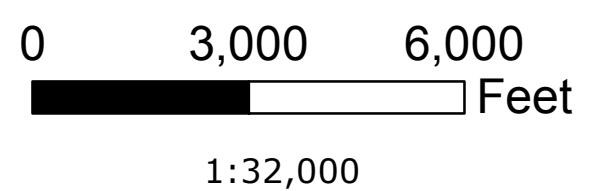
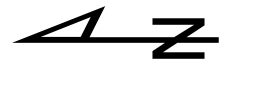
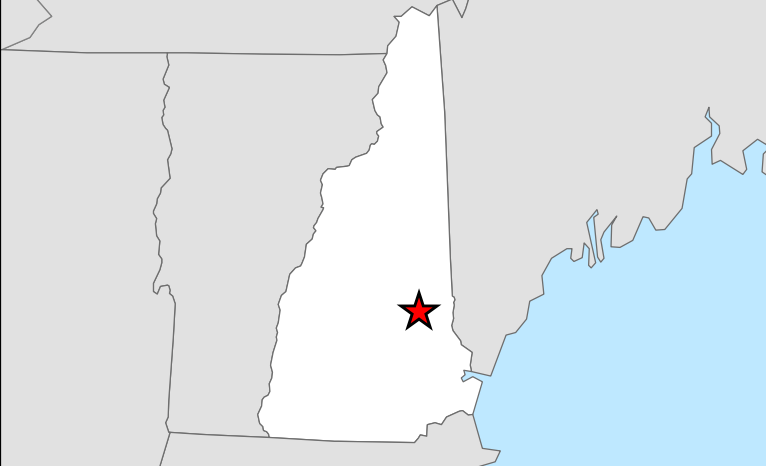
STORMWATER INFRASTRUCTURE OVERVIEW MAP AND CULVERT
MAPBOOK

FIGURE 1 ALTON STORMWATER INFRASTRUCTURE

LEGEND

-  Outfall
-  Culvert Inlet
-  Culvert Outlet
-  Drainage Structure
-  Stormwater Main
-  Culvert
-  Town Boundary

LOCUS MAP

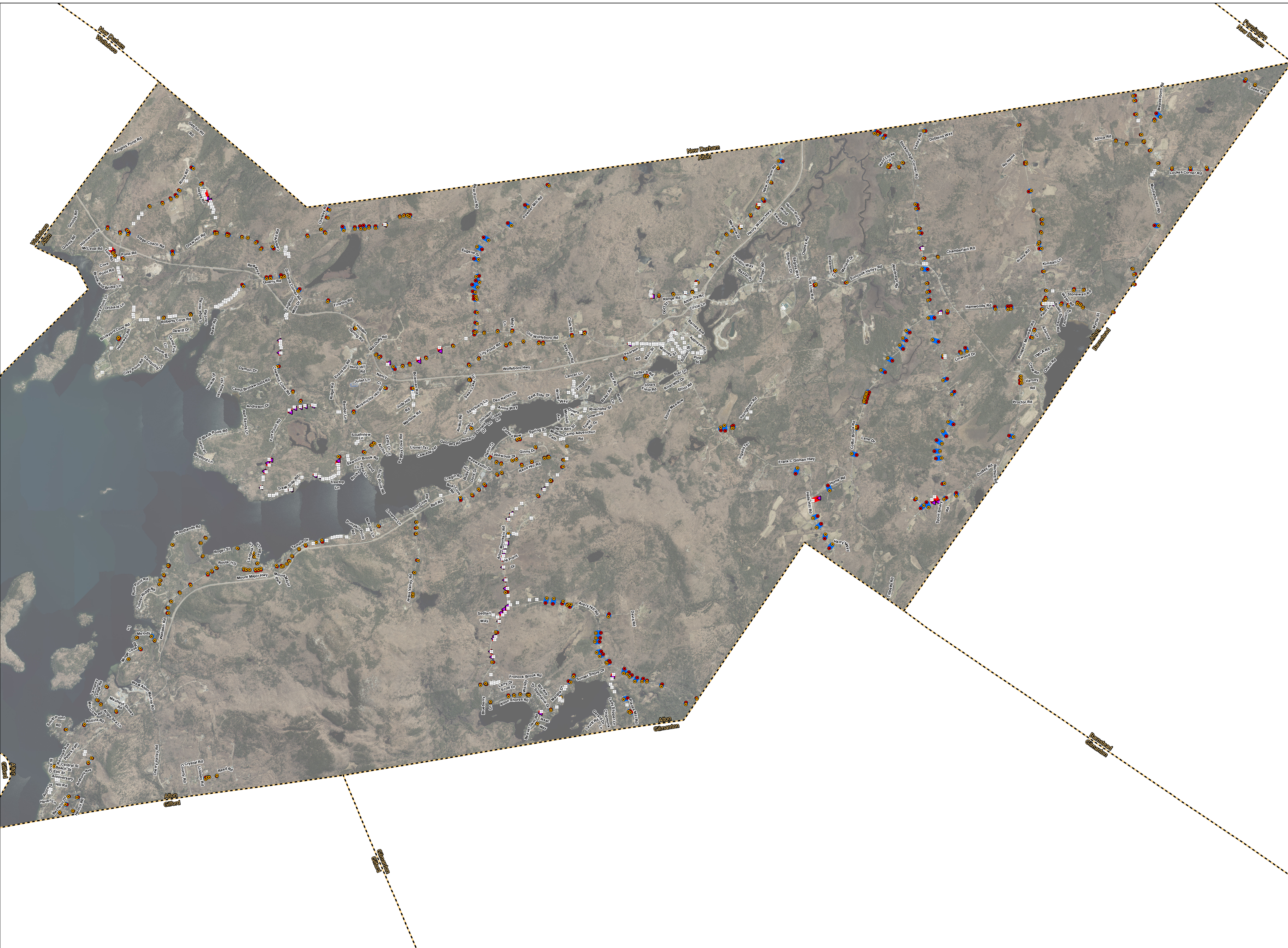


NOTES

1. Aerial basemap: USGS NH 2021/2022 6-inch Orthophotos (RGB). Courtesy of NH GRANIT.
2. Stormwater data collected during field work in Alton



**Alton Town
Stormwater Infrastructure
Overview
Alton, New Hampshire**

March 2024

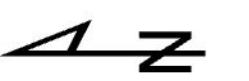
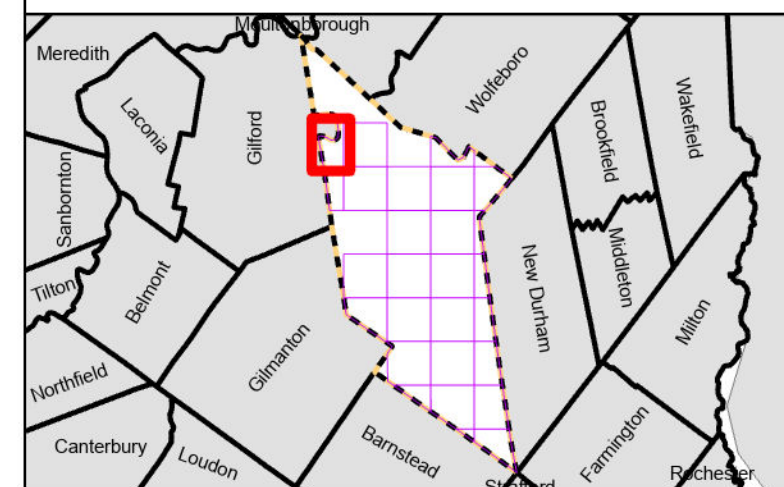


**FIGURE 2
ALTON TOWN
CULVERTS**

LEGEND

-  Culvert
-  Town Boundary

LOCUS MAP



0 500 1,000
Feet

1:5,000

NOTES

1. Aerial basemap: USGS NH 2021/2022 6-inch Orthophotos (RGB). Courtesy of NH GRANIT.
2. Stormwater data collected during field work in Alton

**Alton Town Culverts
Alton, New Hampshire**



Page 1 of 27

March 2024

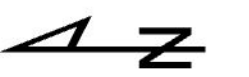
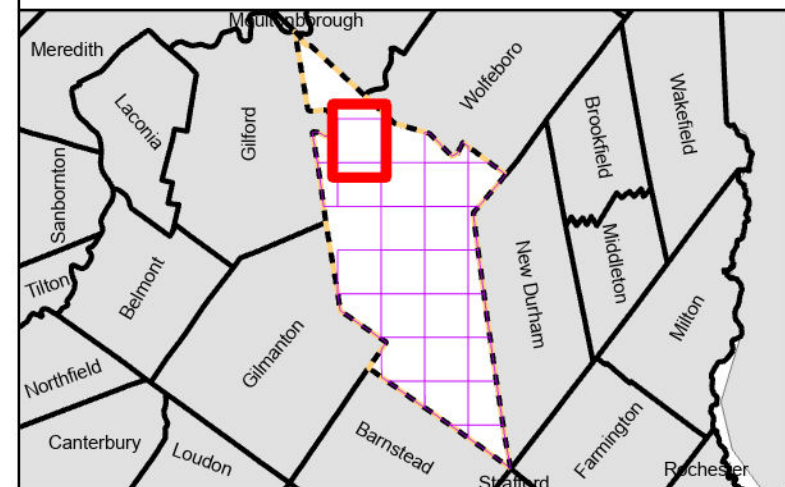


**FIGURE 2
ALTON TOWN
CULVERTS**

LEGEND

-  Culvert
-  Town Boundary

LOCUS MAP



0 500 1,000
Feet

1:7,000

NOTES

1. Aerial basemap: USGS NH 2021/2022 6-inch Orthophotos (RGB). Courtesy of NH GRANIT.
2. Stormwater data collected during field work in Alton

**Alton Town Culverts
Alton, New Hampshire**



Page 2 of 27

March 2024



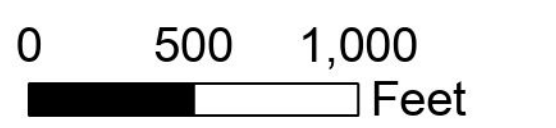
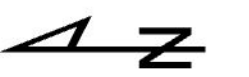
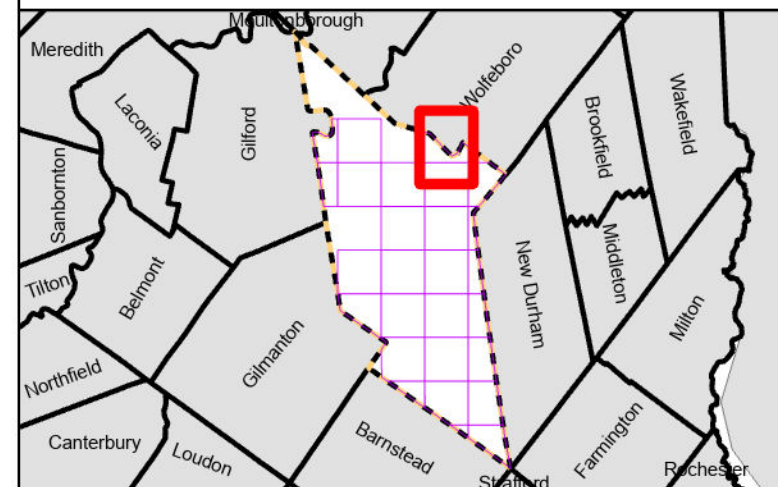
**FIGURE 2
ALTON TOWN
CULVERTS**

LEGEND

-  Culvert
-  Town Boundary



LOCUS MAP



1:7,000

NOTES

1. Aerial basemap: USGS NH 2021/2022 6-inch Orthophotos (RGB). Courtesy of NH GRANIT.
2. Stormwater data collected during field work in Alton



**Alton Town Culverts
Alton, New Hampshire**

Page 3 of 27

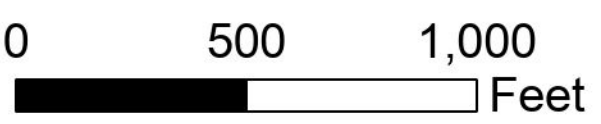
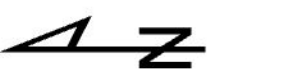
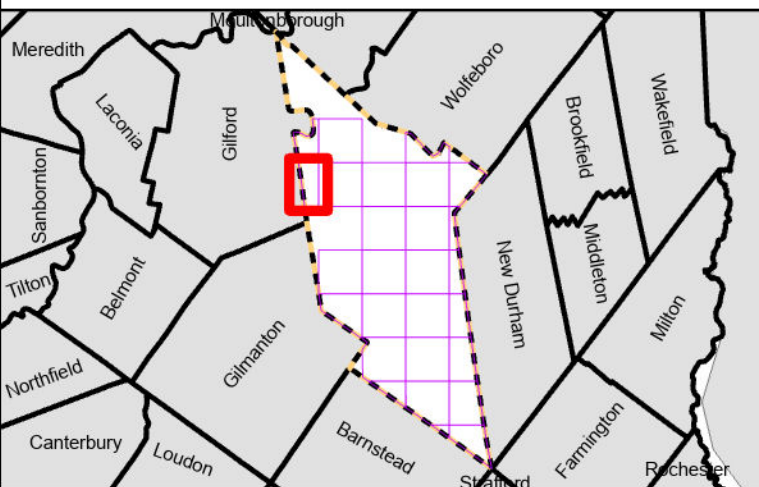
March 2024

**FIGURE 2
ALTON TOWN
CULVERTS**

LEGEND

-  Culvert
-  Town Boundary

LOCUS MAP



1:5,000

NOTES

1. Aerial basemap: USGS NH 2021/2022 6-inch Orthophotos (RGB). Courtesy of NH GRANIT.
2. Stormwater data collected during field work in Alton

**Alton Town Culverts
Alton, New Hampshire**



Page 4 of 27

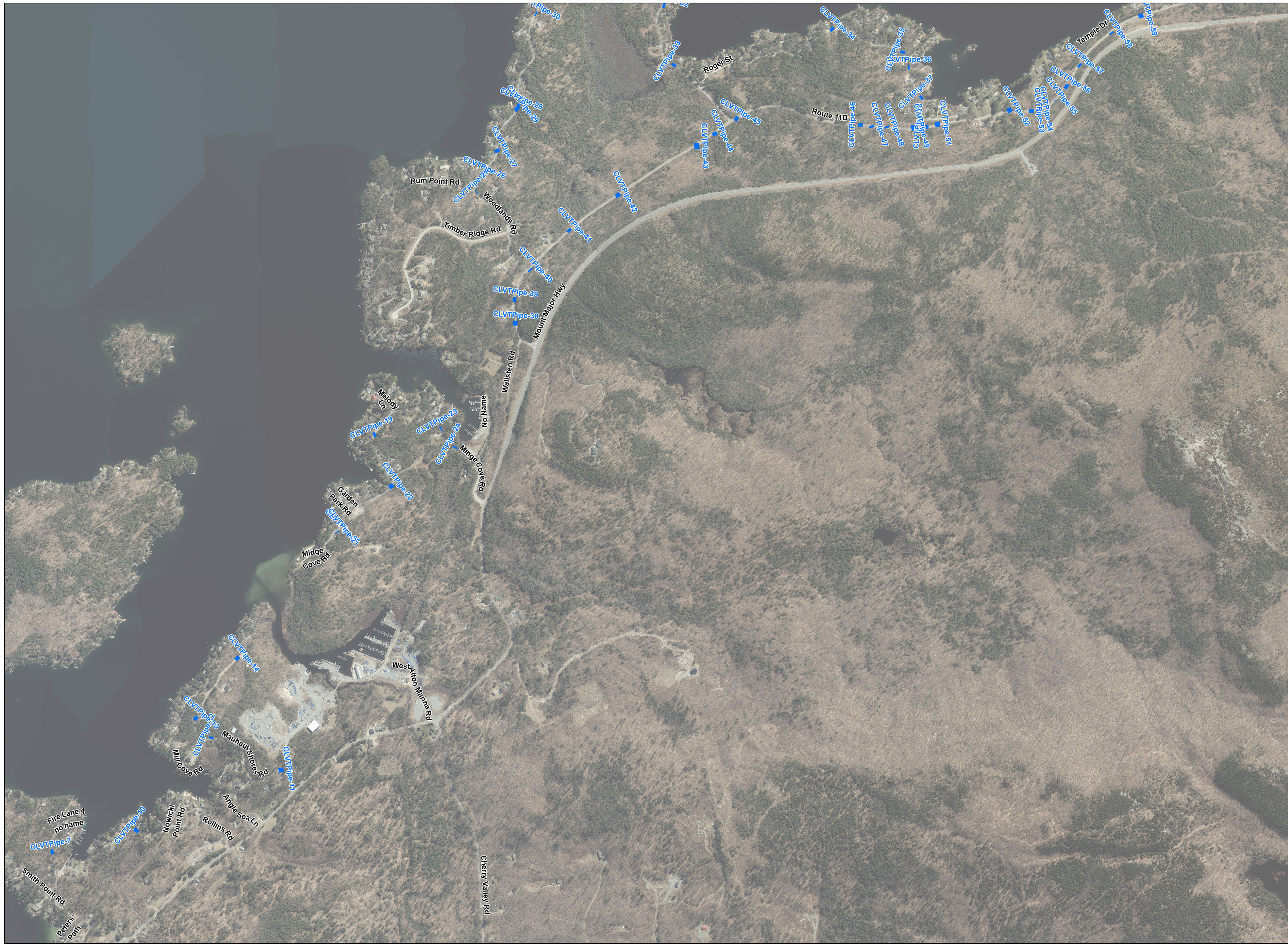
March 2024



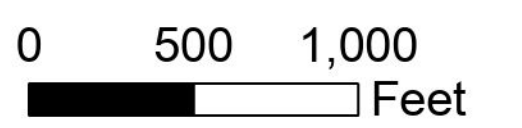
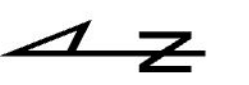
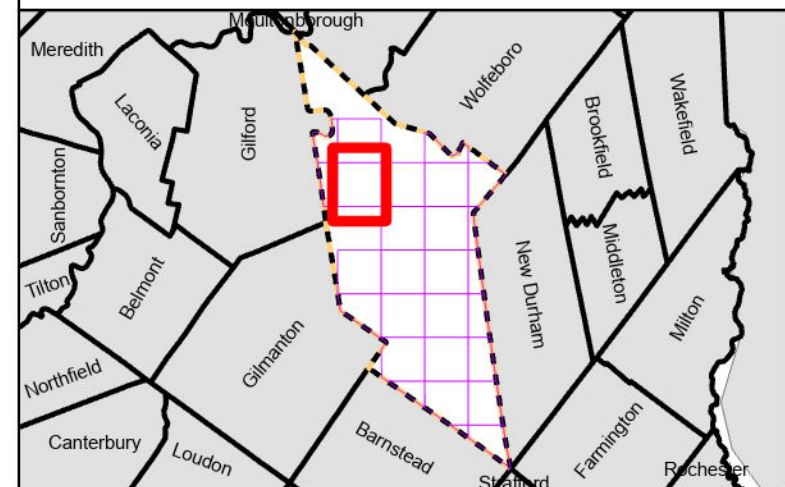
**FIGURE 2
ALTON TOWN
CULVERTS**

LEGEND

-  Culvert
-  Town Boundary



LOCUS MAP



1:7,000

NOTES

1. Aerial basemap: USGS NH 2021/2022 6-inch Orthophotos (RGB). Courtesy of NH GRANIT.
2. Stormwater data collected during field work in Alton

**Alton Town Culverts
Alton, New Hampshire**



Page 5 of 27

March 2024

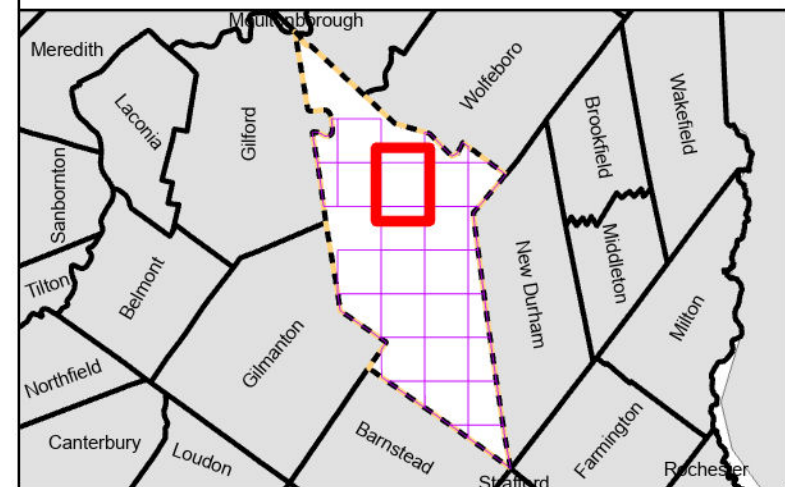


**FIGURE 2
ALTON TOWN
CULVERTS**

LEGEND

-  Culvert
-  Town Boundary

LOCUS MAP



0 500 1,000
Feet

1:7,000

NOTES

1. Aerial basemap: USGS NH 2021/2022 6-inch Orthophotos (RGB). Courtesy of NH GRANIT.
2. Stormwater data collected during field work in Alton

**Alton Town Culverts
Alton, New Hampshire**



Page 6 of 27

March 2024

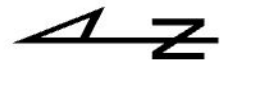
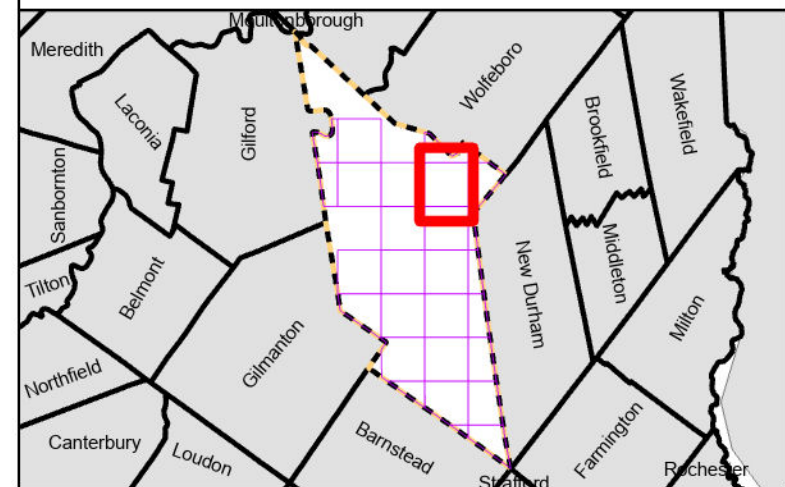


**FIGURE 2
ALTON TOWN
CULVERTS**

LEGEND

-  Culvert
-  Town Boundary

LOCUS MAP



0 500 1,000
Feet

1:7,000

NOTES

1. Aerial basemap: USGS NH 2021/2022 6-inch Orthophotos (RGB). Courtesy of NH GRANIT.
2. Stormwater data collected during field work in Alton

**Alton Town Culverts
Alton, New Hampshire**



Page 7 of 27

March 2024

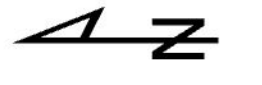
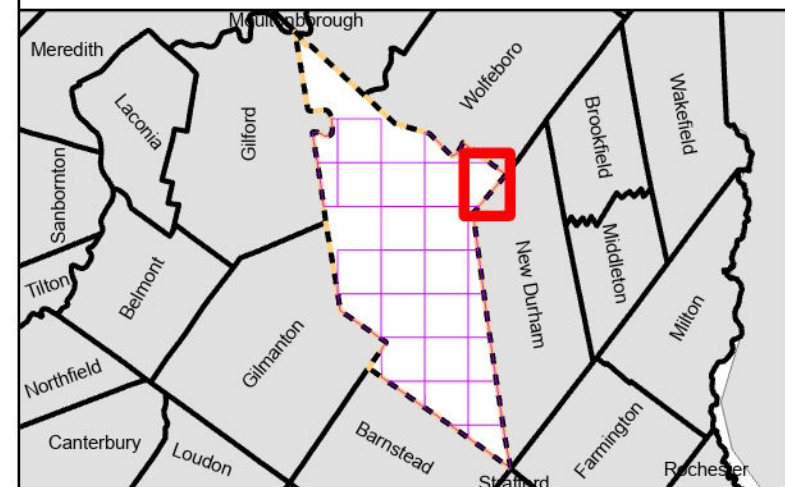


**FIGURE 2
ALTON TOWN
CULVERTS**

LEGEND

-  Culvert
-  Town Boundary

LOCUS MAP



0 500 1,000
Feet

1:6,000

NOTES

1. Aerial basemap: USGS NH 2021/2022 6-inch Orthophotos (RGB). Courtesy of NH GRANIT.
2. Stormwater data collected during field work in Alton

**Alton Town Culverts
Alton, New Hampshire**

Page 8 of 27



March 2024

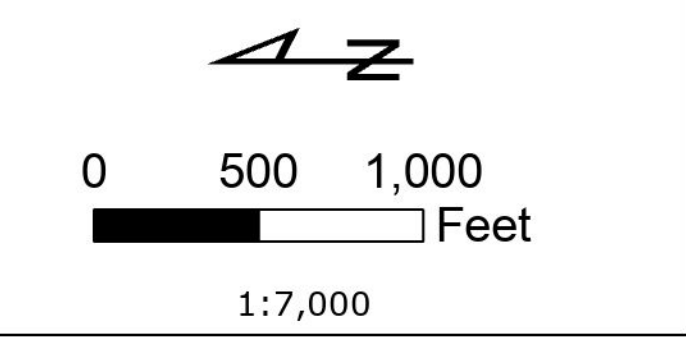
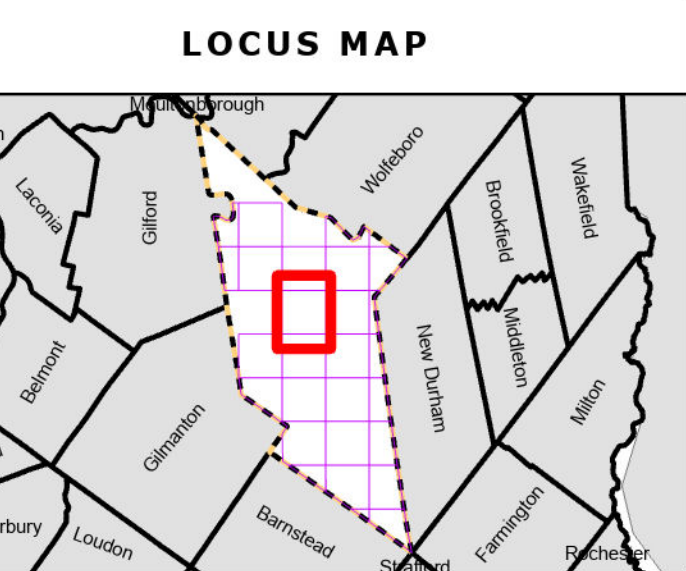




**FIGURE 2
ALTON TOWN
CULVERTS**

LEGEND

-  Culvert
-  Town Boundary



- NOTES**
1. Aerial basemap: USGS NH 2021/2022 6-inch Orthophotos (RGB). Courtesy of NH GRANIT.
 2. Stormwater data collected during field work in Alton

**Alton Town Culverts
Alton, New Hampshire**



Page 9 of 27

March 2024

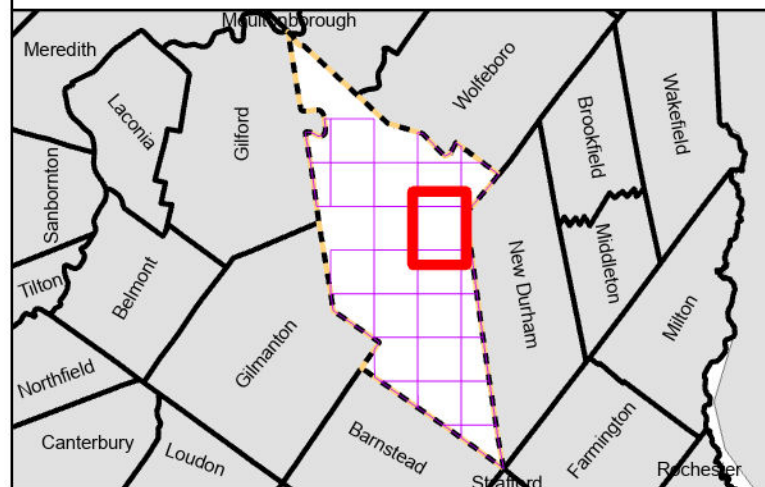


**FIGURE 2
ALTON TOWN
CULVERTS**

LEGEND

-  Culvert
-  Town Boundary

LOCUS MAP



0 500 1,000
Feet

1:7,000

NOTES

1. Aerial basemap: USGS NH 2021/2022 6-inch Orthophotos (RGB). Courtesy of NH GRANIT.
2. Stormwater data collected during field work in Alton

**Alton Town Culverts
Alton, New Hampshire**



Page 10 of 27

March 2024

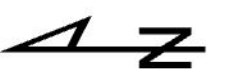
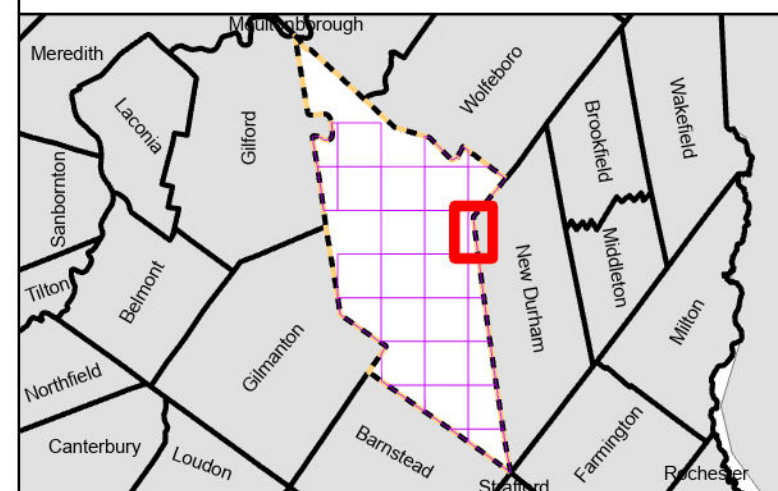


**FIGURE 2
ALTON TOWN
CULVERTS**

LEGEND

-  Culvert
-  Town Boundary

LOCUS MAP



0 500 1,000
Feet

1:5,000

NOTES

1. Aerial basemap: USGS NH 2021/2022 6-inch Orthophotos (RGB). Courtesy of NH GRANIT.
2. Stormwater data collected during field work in Alton

**Alton Town Culverts
Alton, New Hampshire**



Page 11 of 27

March 2024

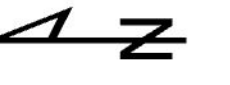
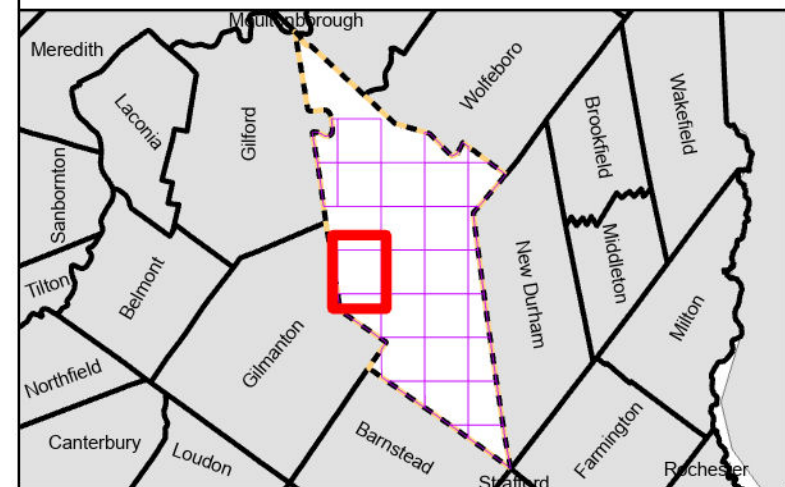


**FIGURE 2
ALTON TOWN
CULVERTS**

LEGEND

-  Culvert
-  Town Boundary

LOCUS MAP



0 500 1,000
Feet

1:7,000

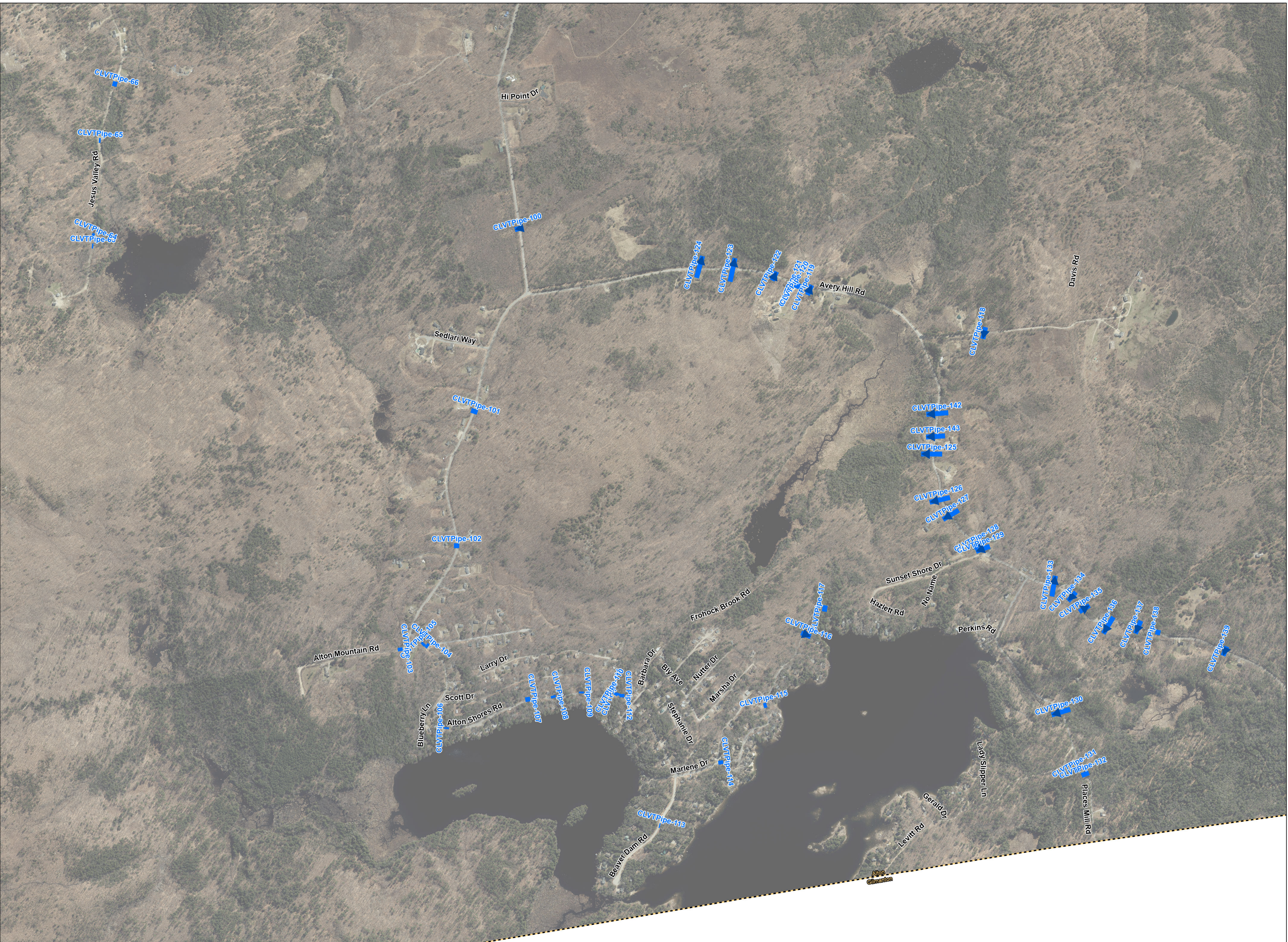
NOTES

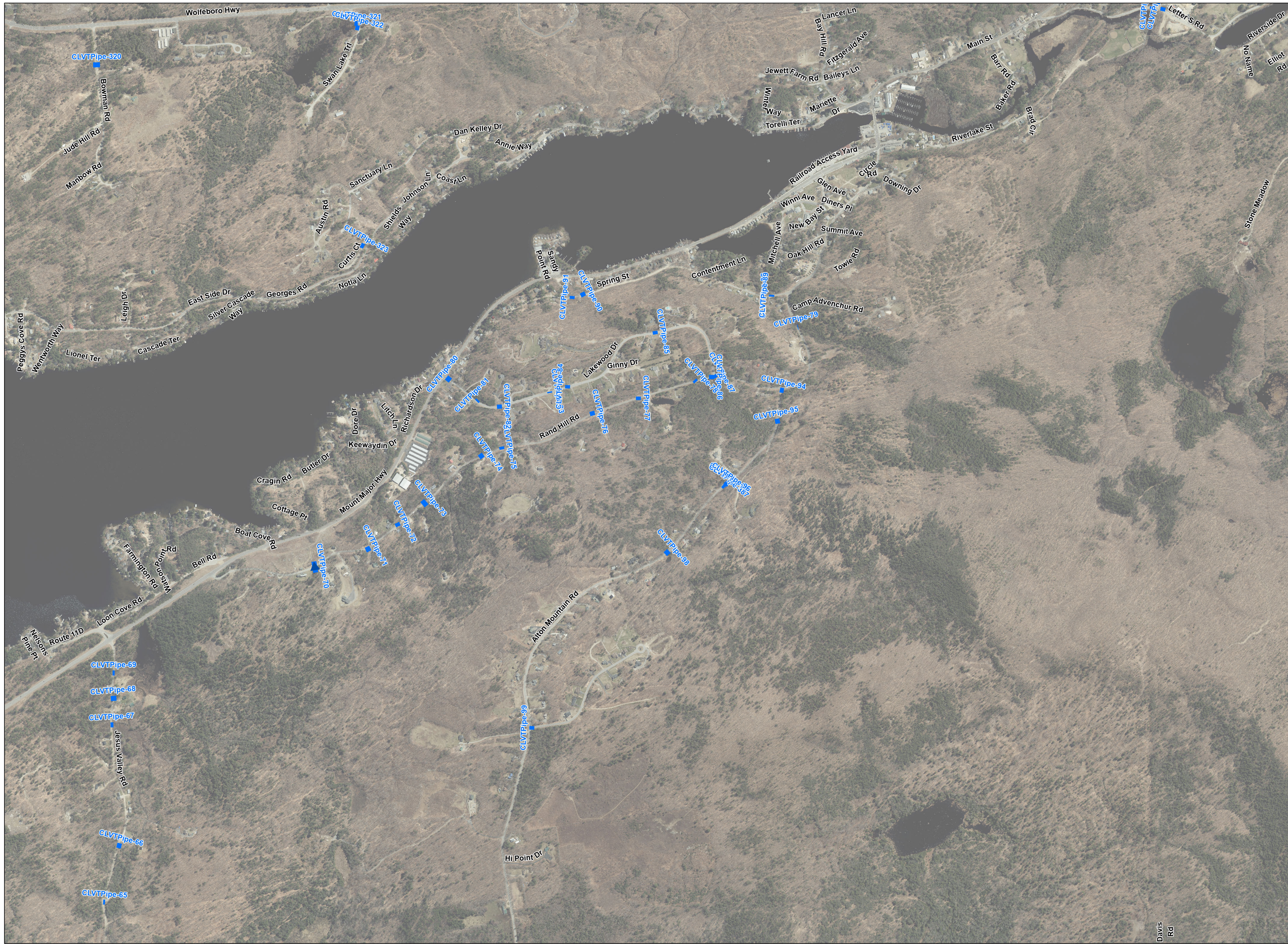
1. Aerial basemap: USGS NH 2021/2022 6-inch Orthophotos (RGB). Courtesy of NH GRANIT.
2. Stormwater data collected during field work in Alton

**Alton Town Culverts
Alton, New Hampshire**

Page 12 of 27



March 2024



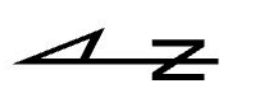
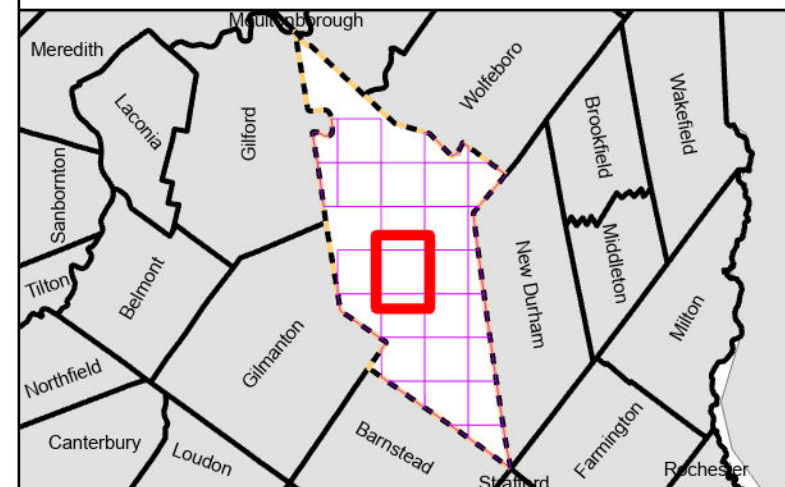


**FIGURE 2
ALTON TOWN
CULVERTS**

LEGEND

-  Culvert
-  Town Boundary

LOCUS MAP



0 500 1,000
Feet

1:7,000

NOTES

1. Aerial basemap: USGS NH 2021/2022 6-inch Orthophotos (RGB). Courtesy of NH GRANIT.
2. Stormwater data collected during field work in Alton

**Alton Town Culverts
Alton, New Hampshire**

Page 13 of 27



March 2024



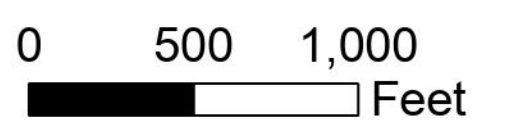
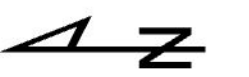
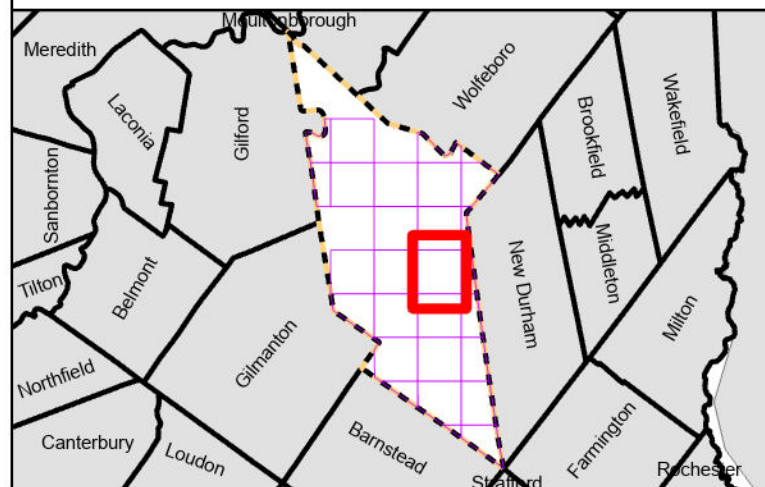


**FIGURE 2
ALTON TOWN
CULVERTS**

LEGEND

-  Culvert
-  Town Boundary

LOCUS MAP



1:7,000

NOTES

1. Aerial basemap: USGS NH 2021/2022 6-inch Orthophotos (RGB). Courtesy of NH GRANIT.
2. Stormwater data collected during field work in Alton

**Alton Town Culverts
Alton, New Hampshire**



Page 14 of 27

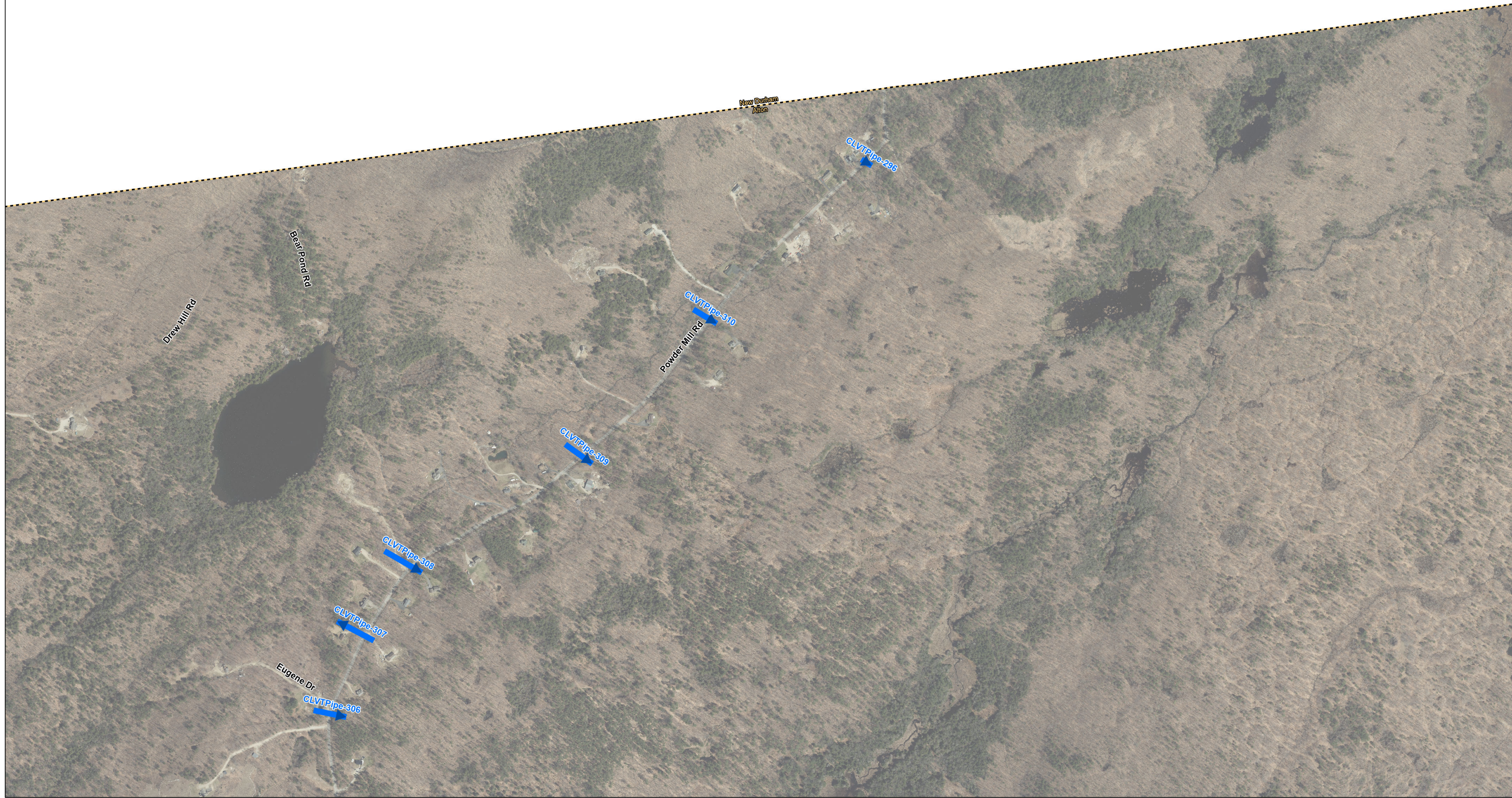
March 2024



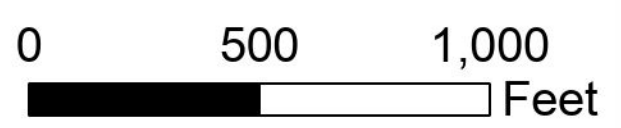
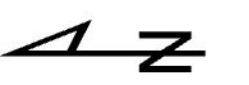
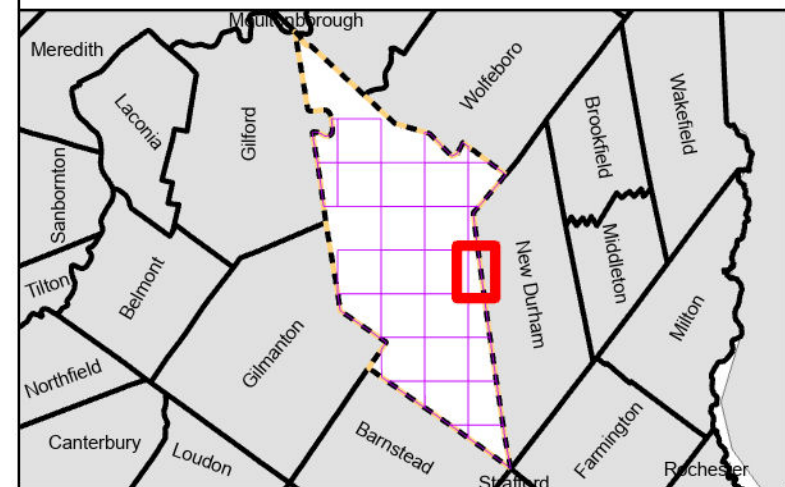
FIGURE 2 ALTON TOWN CULVERTS

LEGEND

-  Culvert
-  Town Boundary



LOCUS MAP



1:5,000

NOTES

1. Aerial basemap: USGS NH 2021/2022 6-inch Orthophotos (RGB). Courtesy of NH GRANIT.
2. Stormwater data collected during field work in Alton

**Alton Town Culverts
Alton, New Hampshire**



Page 15 of 27

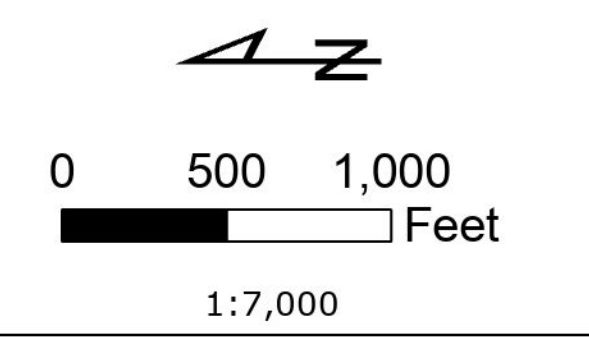
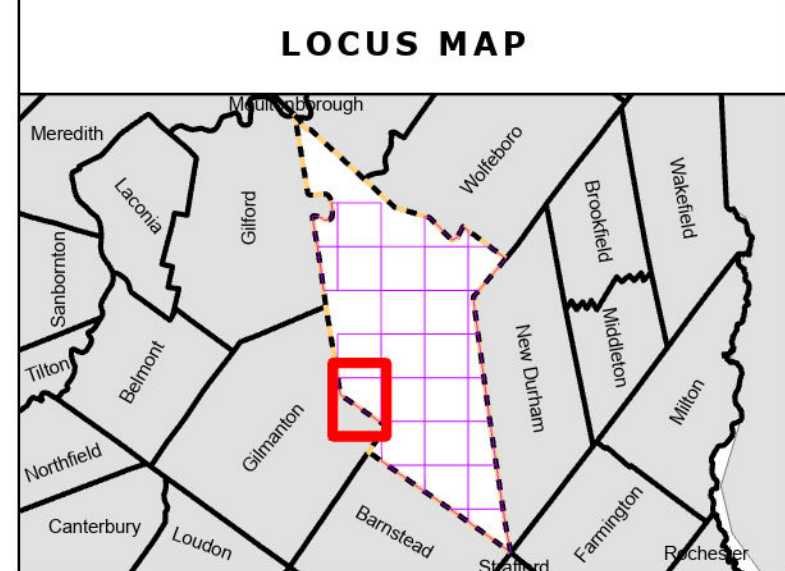
March 2024



**FIGURE 2
ALTON TOWN
CULVERTS**

LEGEND

-  Culvert
-  Town Boundary



- NOTES**
1. Aerial basemap: USGS NH 2021/2022 6-inch Orthophotos (RGB). Courtesy of NH GRANIT.
 2. Stormwater data collected during field work in Alton

**Alton Town Culverts
Alton, New Hampshire**

Page 16 of 27



March 2024



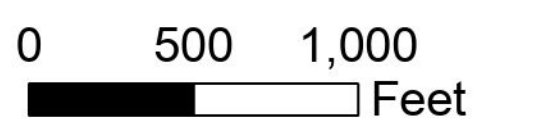
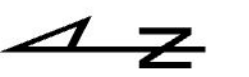
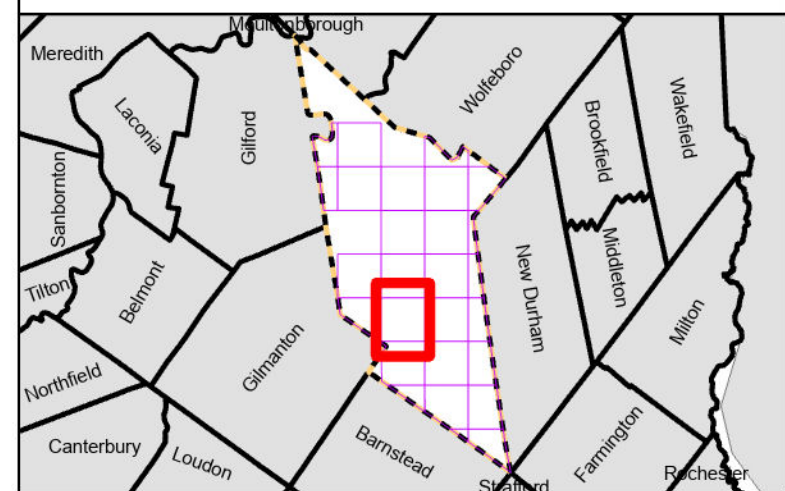


**FIGURE 2
ALTON TOWN
CULVERTS**

LEGEND

-  Culvert
-  Town Boundary

LOCUS MAP



1:7,000

NOTES

1. Aerial basemap: USGS NH 2021/2022 6-inch Orthophotos (RGB). Courtesy of NH GRANIT.
2. Stormwater data collected during field work in Alton



**Alton Town Culverts
Alton, New Hampshire**

Page 17 of 27

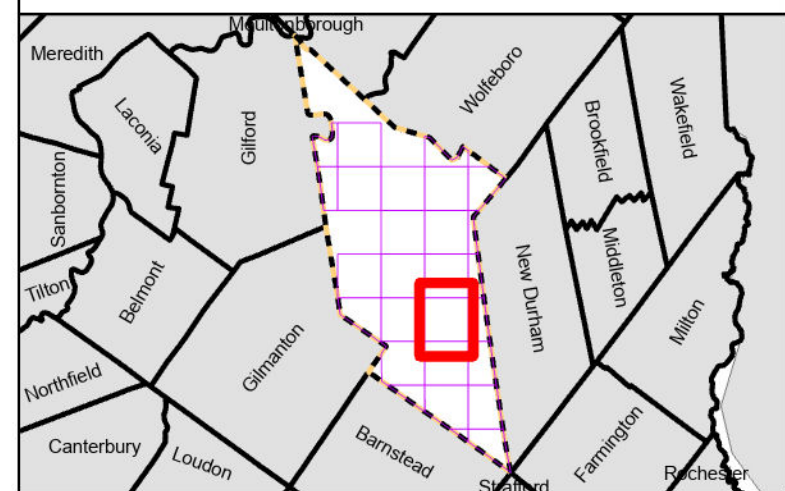
March 2024

**FIGURE 2
ALTON TOWN
CULVERTS**

LEGEND

-  Culvert
-  Town Boundary

LOCUS MAP



0 500 1,000
Feet

1:7,000

NOTES

1. Aerial basemap: USGS NH 2021/2022 6-inch Orthophotos (RGB). Courtesy of NH GRANIT.
2. Stormwater data collected during field work in Alton

**Alton Town Culverts
Alton, New Hampshire**



Page 18 of 27

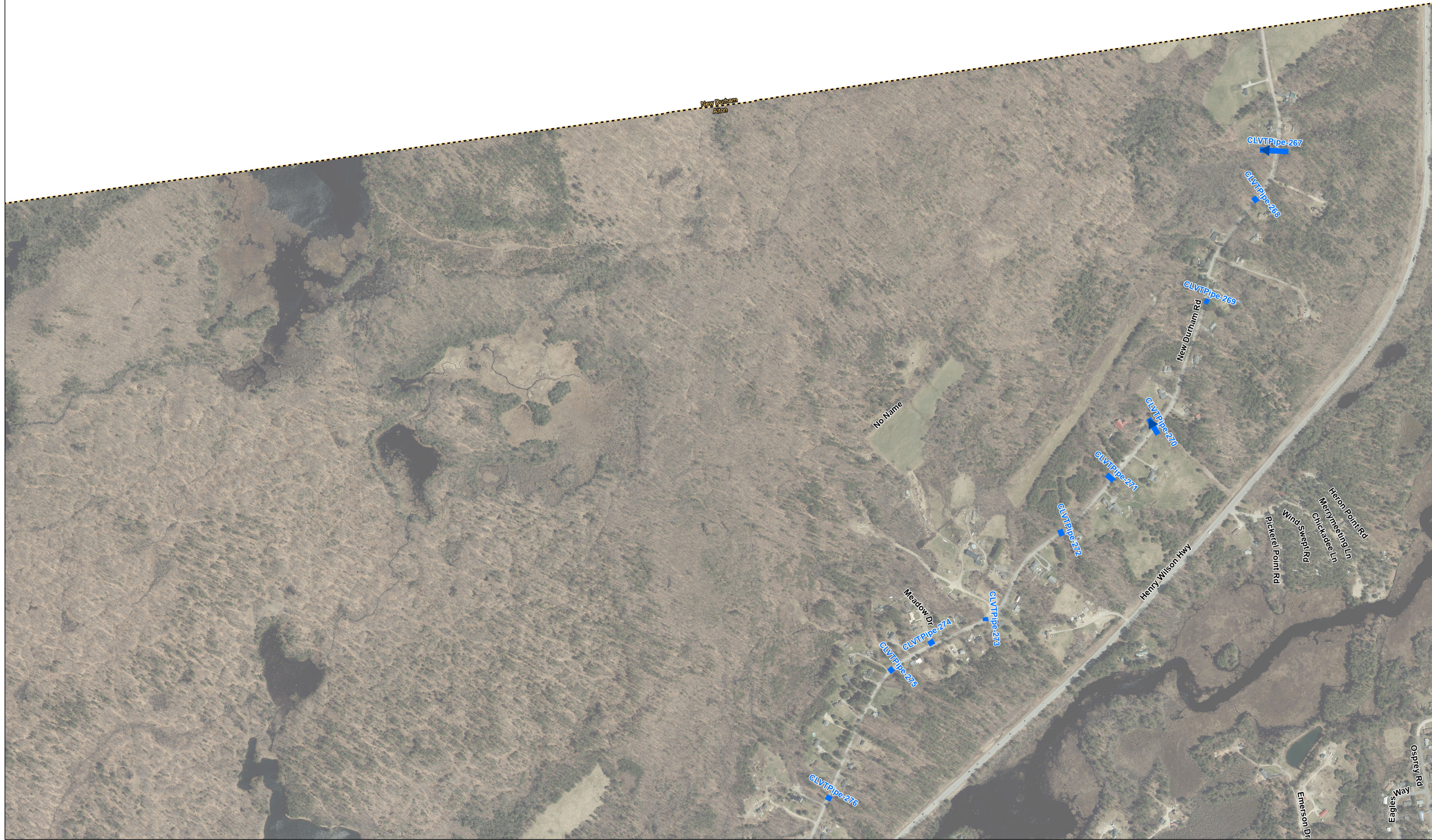
March 2024



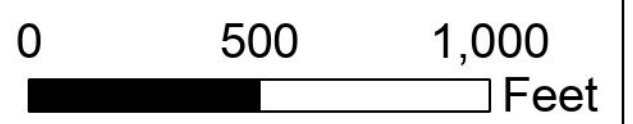
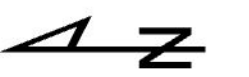
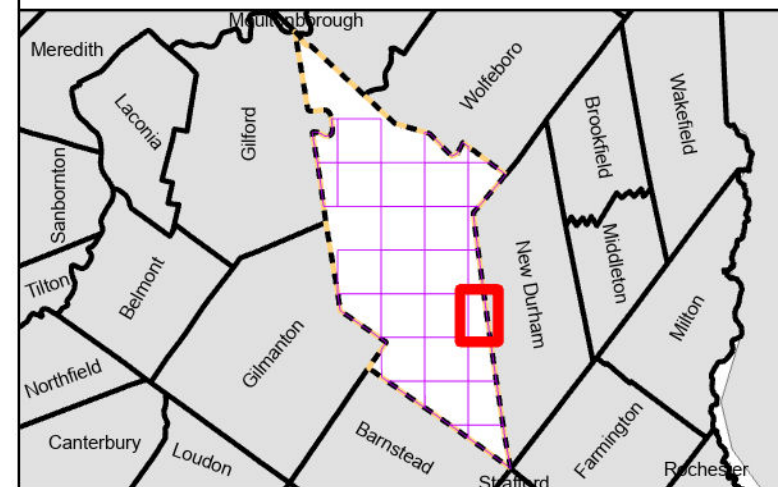
FIGURE 2 ALTON TOWN CULVERTS

LEGEND

-  Culvert
-  Town Boundary



LOCUS MAP



1:5,000

NOTES

1. Aerial basemap: USGS NH 2021/2022 6-inch Orthophotos (RGB). Courtesy of NH GRANIT.
2. Stormwater data collected during field work in Alton

**Alton Town Culverts
Alton, New Hampshire**



Page 19 of 27

March 2024



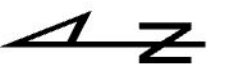
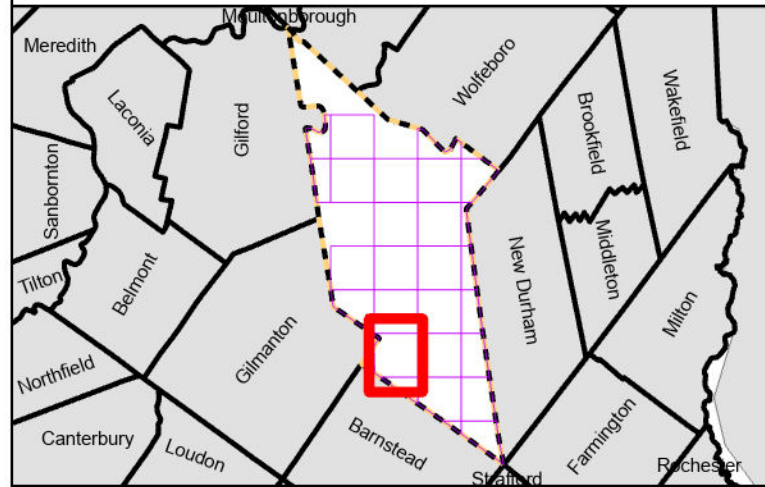
**FIGURE 2
ALTON TOWN
CULVERTS**

LEGEND

-  Culvert
-  Town Boundary



LOCUS MAP



0 500 1,000 Feet

1:7,000

NOTES

1. Aerial basemap: USGS NH 2021/2022 6-inch Orthophotos (RGB). Courtesy of NH GRANIT.
2. Stormwater data collected during field work in Alton



**Alton Town Culverts
Alton, New Hampshire**

Page 20 of 27

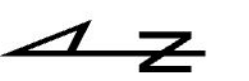
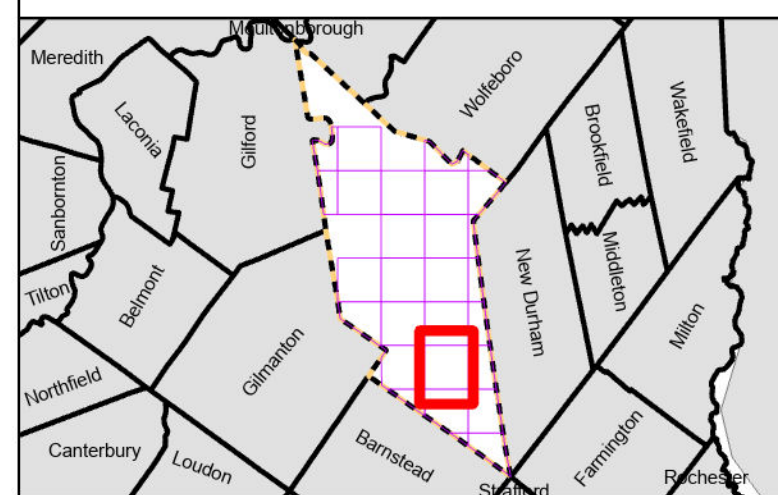
March 2024

**FIGURE 2
ALTON TOWN
CULVERTS**

LEGEND

-  Culvert
-  Town Boundary

LOCUS MAP



0 500 1,000
Feet

1:7,000

NOTES

1. Aerial basemap: USGS NH 2021/2022 6-inch Orthophotos (RGB). Courtesy of NH GRANIT.
2. Stormwater data collected during field work in Alton

**Alton Town Culverts
Alton, New Hampshire**



Page 21 of 27

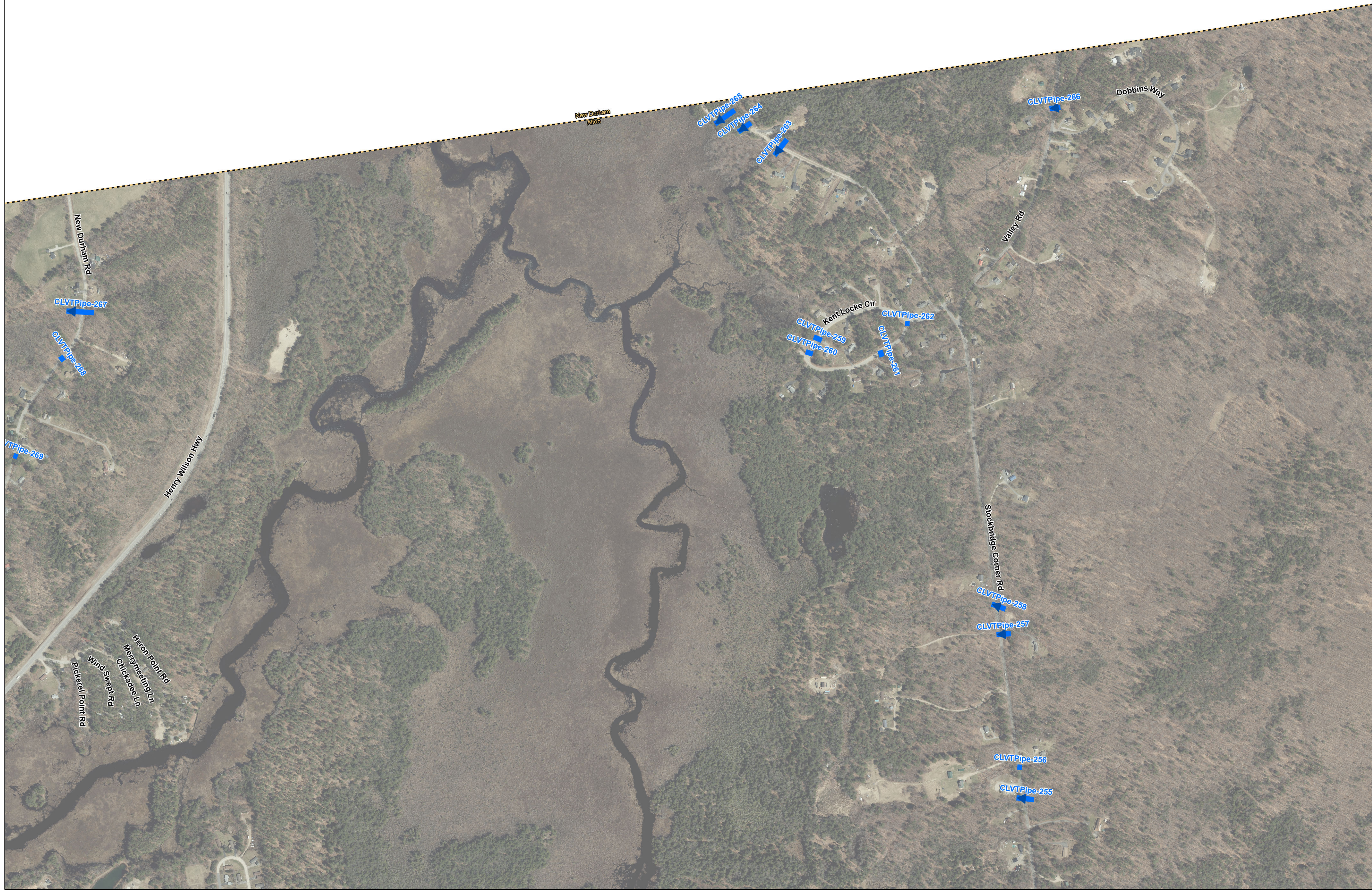
March 2024



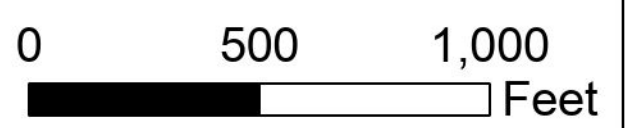
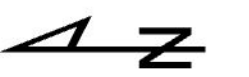
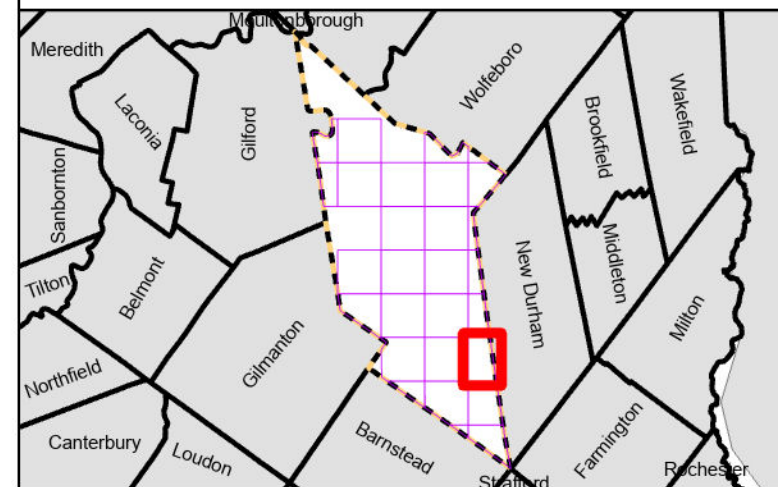
**FIGURE 2
ALTON TOWN
CULVERTS**

LEGEND

-  Culvert
-  Town Boundary



LOCUS MAP



1:5,000

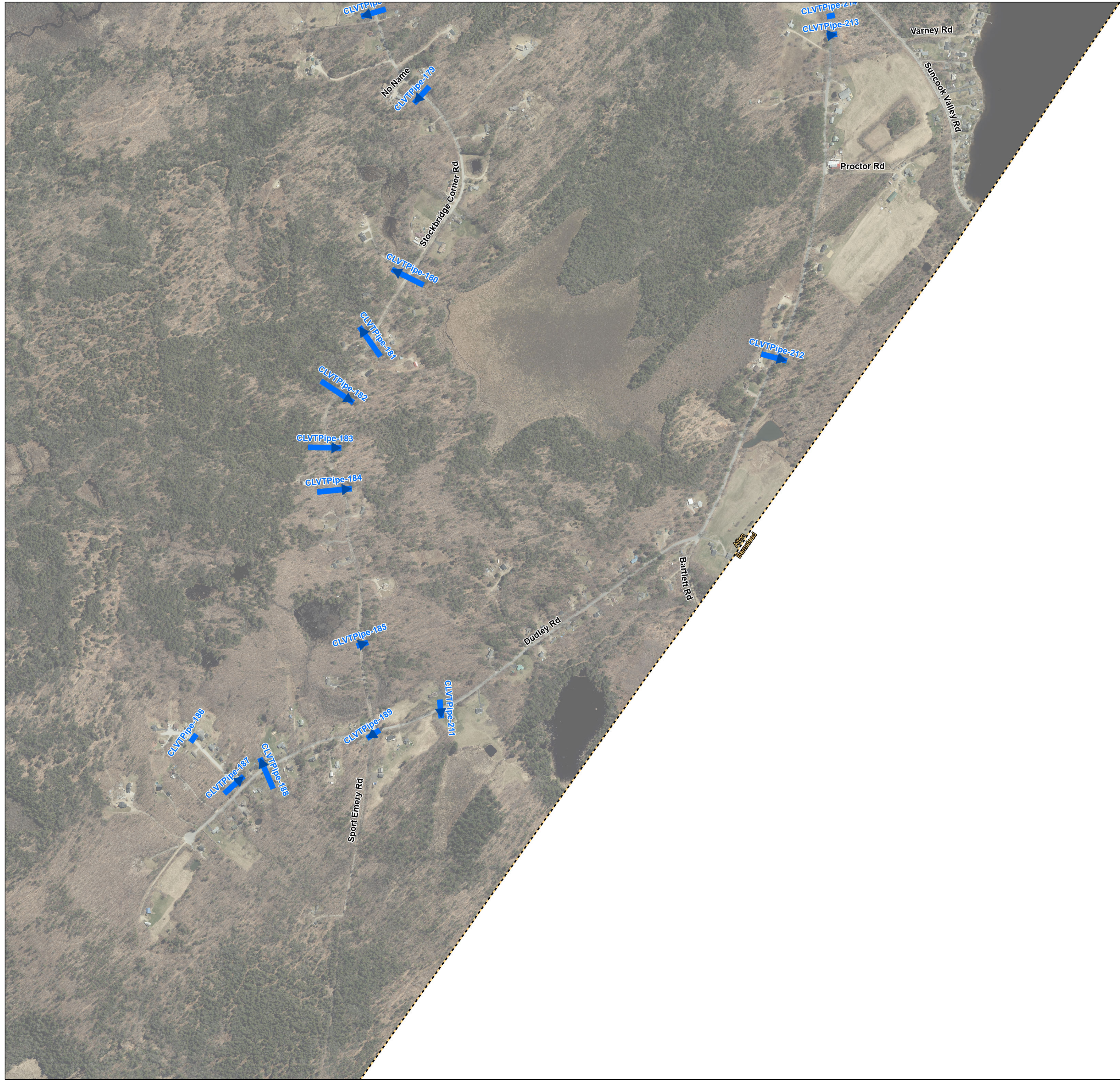
NOTES

1. Aerial basemap: USGS NH 2021/2022 6-inch Orthophotos (RGB). Courtesy of NH GRANIT.
2. Stormwater data collected during field work in Alton

**Alton Town Culverts
Alton, New Hampshire**



Page 22 of 27

March 2024

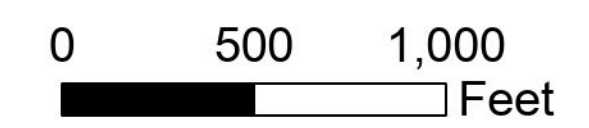
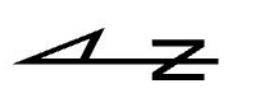
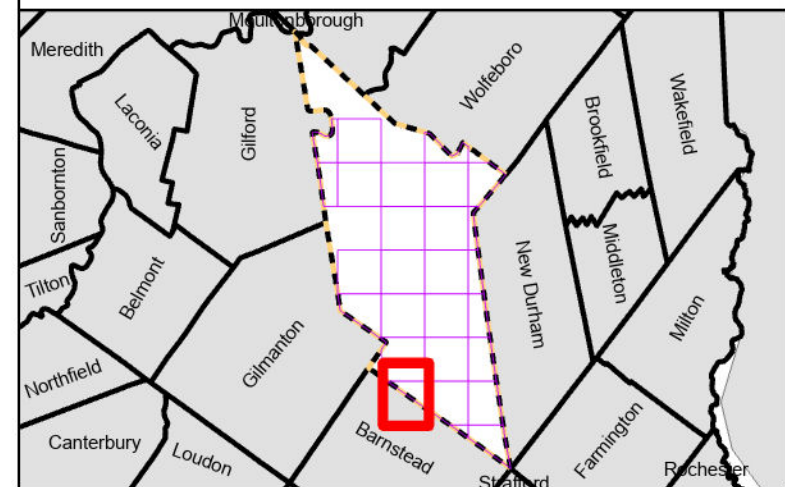


**FIGURE 2
ALTON TOWN
CULVERTS**

LEGEND

-  Culvert
-  Town Boundary

LOCUS MAP



1:6,000

NOTES

1. Aerial basemap: USGS NH 2021/2022 6-inch Orthophotos (RGB). Courtesy of NH GRANIT.
2. Stormwater data collected during field work in Alton

**Alton Town Culverts
Alton, New Hampshire**



Page 23 of 27

March 2024

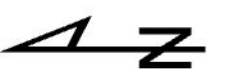
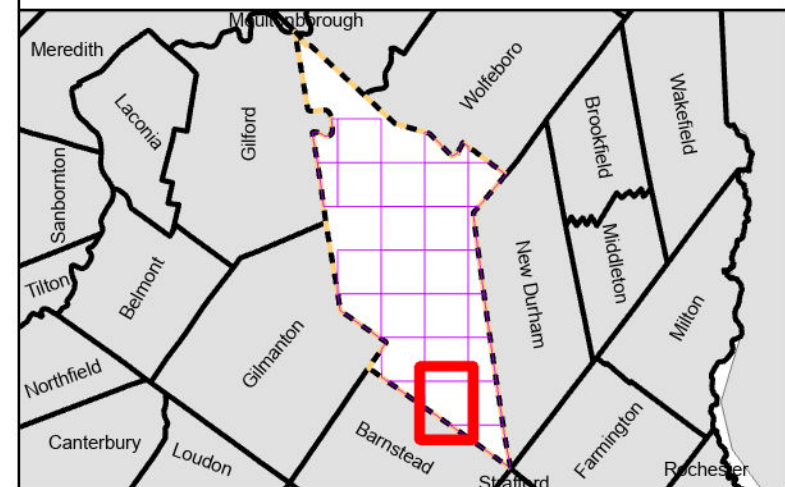


**FIGURE 2
ALTON TOWN
CULVERTS**

LEGEND

-  Culvert
-  Town Boundary

LOCUS MAP



0 500 1,000
Feet

1:7,000

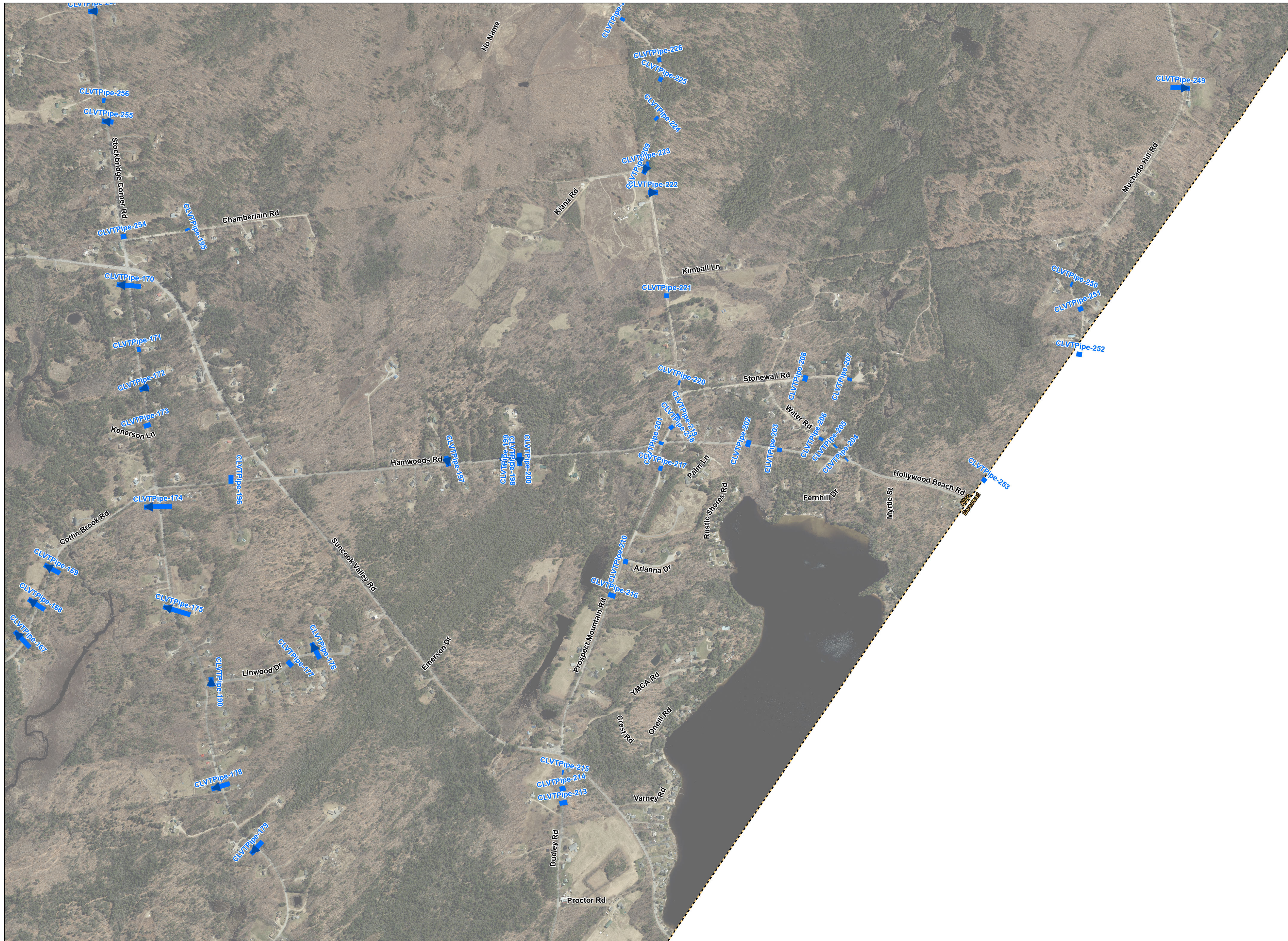
NOTES

1. Aerial basemap: USGS NH 2021/2022 6-inch Orthophotos (RGB). Courtesy of NH GRANIT.
2. Stormwater data collected during field work in Alton

**Alton Town Culverts
Alton, New Hampshire**



Page 24 of 27

March 2024



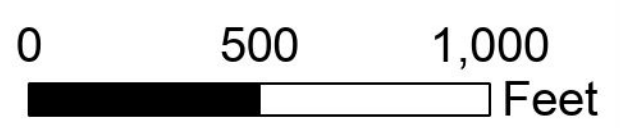
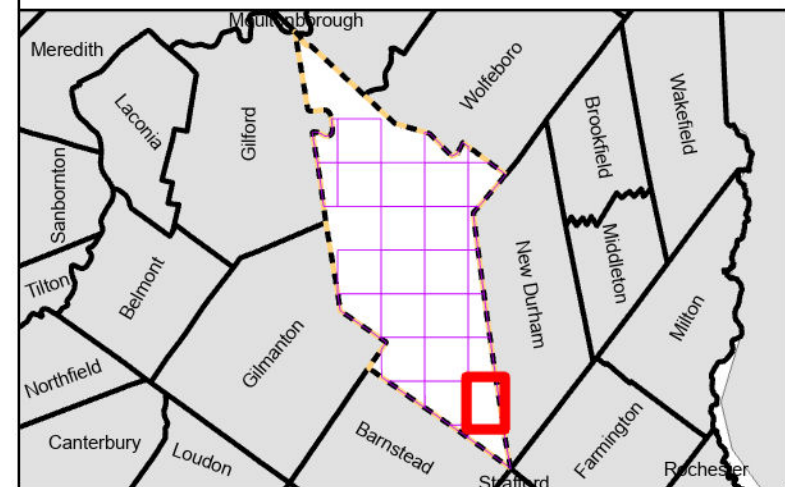
**FIGURE 2
ALTON TOWN
CULVERTS**

LEGEND

-  Culvert
-  Town Boundary



LOCUS MAP



1:5,000

NOTES

1. Aerial basemap: USGS NH 2021/2022 6-inch Orthophotos (RGB). Courtesy of NH GRANIT.
2. Stormwater data collected during field work in Alton

**Alton Town Culverts
Alton, New Hampshire**

Page 25 of 27



March 2024



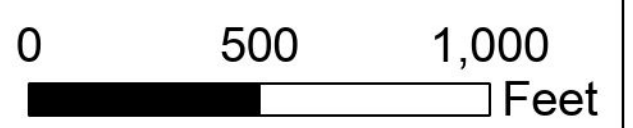
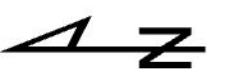
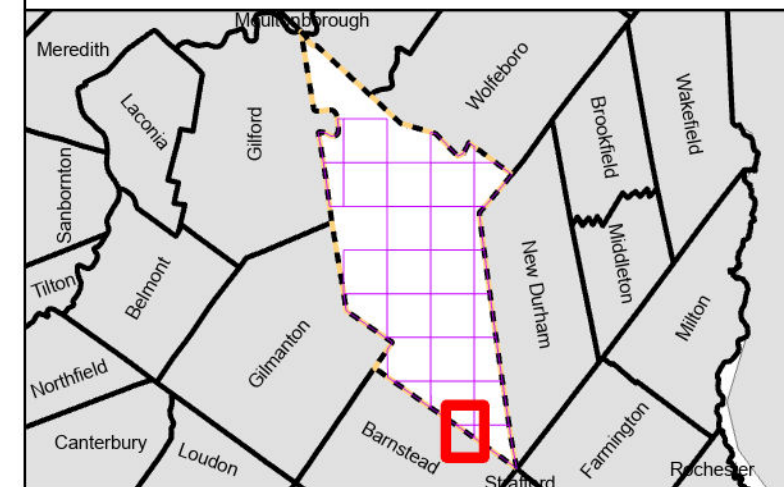


**FIGURE 2
ALTON TOWN
CULVERTS**

LEGEND

-  Culvert
-  Town Boundary

LOCUS MAP



1:5,000

NOTES

1. Aerial basemap: USGS NH 2021/2022 6-inch Orthophotos (RGB). Courtesy of NH GRANIT.
2. Stormwater data collected during field work in Alton



**Alton Town Culverts
Alton, New Hampshire**

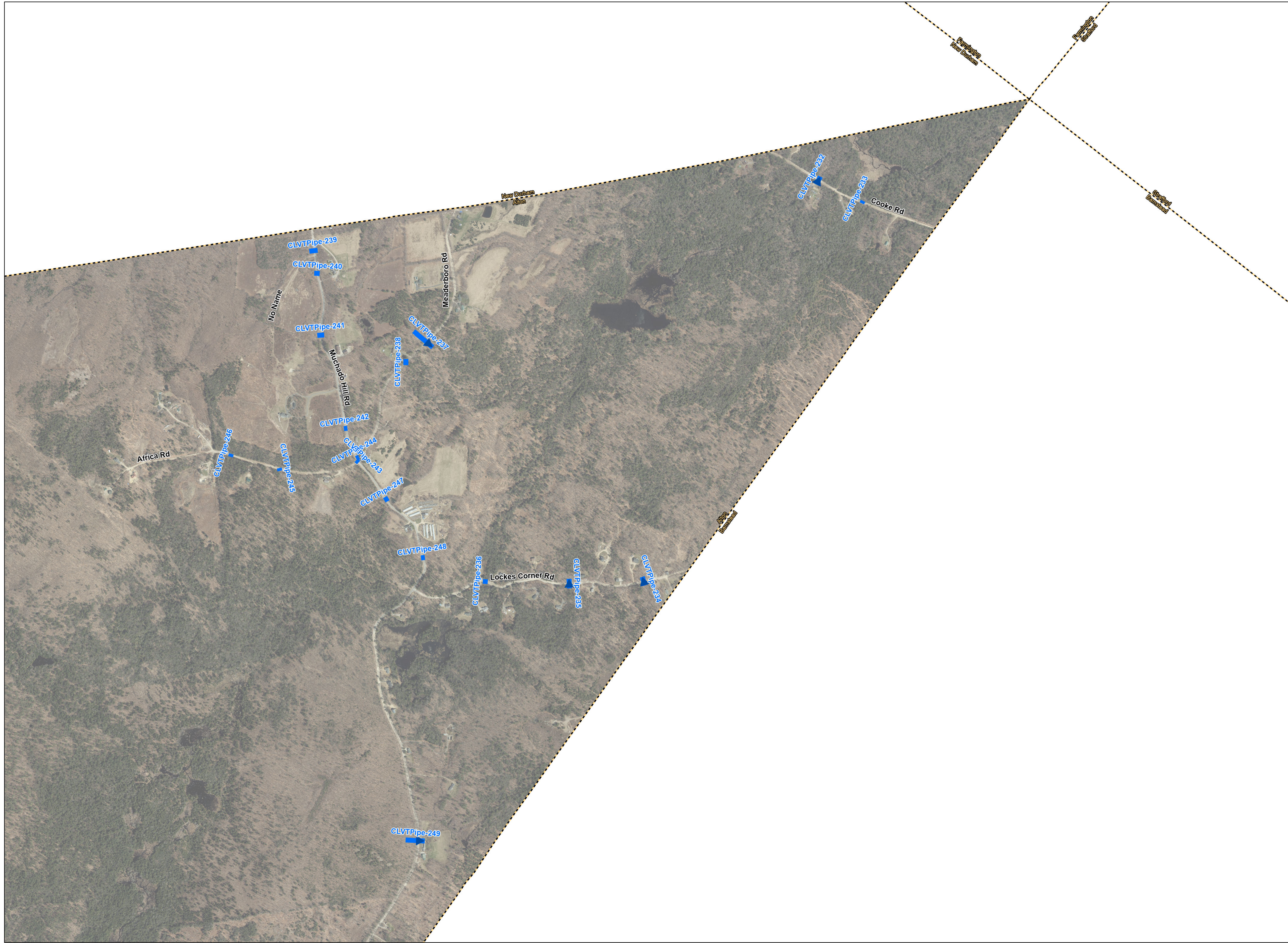
Page 26 of 27

March 2024

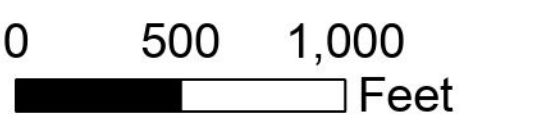
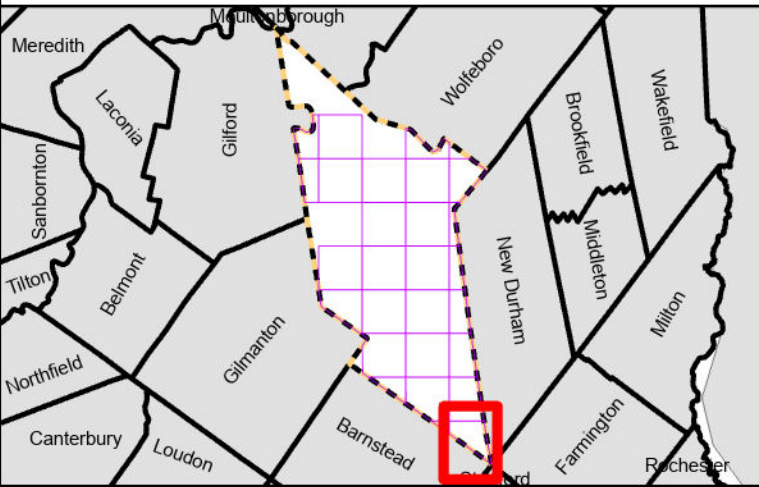
**FIGURE 2
ALTON TOWN
CULVERTS**

LEGEND

-  Culvert
-  Town Boundary



LOCUS MAP



1:7,000

NOTES

1. Aerial basemap: USGS NH 2021/2022 6-inch Orthophotos (RGB). Courtesy of NH GRANIT.
2. Stormwater data collected during field work in Alton

**Alton Town Culverts
Alton, New Hampshire**

Page 27 of 27

March 2024



APPENDIX C

DATA COLLECTION FIELD FORMS

Culvert Condition Assessment Field Form
Drainage Structure Inventory and Catch Basin Cleaning Field Form

Culvert Condition Assessment Field Form

Alton Culvert Inspection

Culvert Pipe ▾

Culvert ID

Date Inspected

Pipe Shape

Pipe Dimensions ▾

Dimension A (in)

Dimension B (in)

Dimension C (in)

Dimension D (in)

Culvert Material Type

Culvert Condition

Culvert Category Type

Connects to Other System

Yes

No

Needs Maintenance

Yes

No

Height of Fill

Rehabilitate Pipe

Yes

No

Inspector Comments

255

Culvert Pipe Photos

1 Drop image here or select image (maximum number of files allowed: 9) 

Global ID

Culvert Inlet ▾

Inlet ID

End Treatment Type

Material Type

Condition

Needs Maintenance


Yes

No

Inspector Comments

255 ↵

Inlets Pipe Photos

Drop image here or select image 

Culvert Outlet ▾

Outlet ID

End Treatment Type

Material Type

Condition

Needs Maintenance


Yes

No

Inspector Comments

255

Inlets Pipe Photos

Drop image here or select image 


Submit

Drainage Structure Inventory and Catch Basin Cleaning Field Form

Alton Town ID*

DrainStr-144

Date Inspected

 9/27/2023

Drainage Structure Type

|

^

• Catch Basin

Drop Inlet

Manhole

Flushing Basin

Material Type

|

^

• Precast Concrete

Barrel Block

Other

Condition

| ^

- Good
- Fair
- Poor
- No Rating

Needs Maintenance



| ^

- Yes
- No

Inspector Comments

MS4 Action Date

 MM/DD/YYYY 

Cleaned

No value

Yes

No

Date Cleaned

Owner

No value

Town

State

Private

APPENDIX D

STANDARD OPERATING PROCEDURE: UPDATING ASSET MAPPING AND
CONDITION DATA

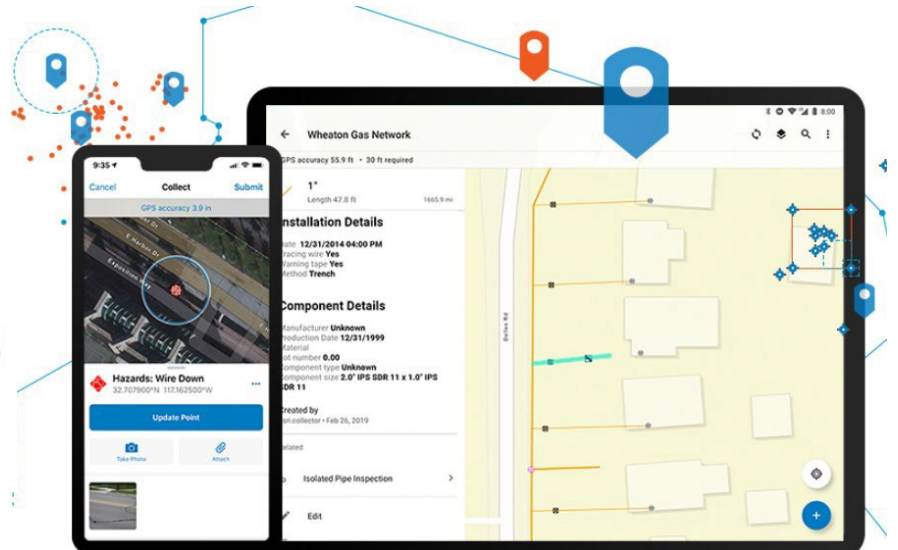
Using ESRI's Mobile Data Collection Apps

Alton Asset Management





ArcGIS Field Maps


The all-in-one app for fieldwork




Sign in using the provided credentials.

Sign in with 

ArcGIS login 


 Username





 Password

Keep me signed in

[Sign In](#)

[Forgot username?](#) or [Forgot password?](#)

Your ArcGIS organization's URL 

No account? [Create an account](#)

[Privacy](#)

Downloading Maps

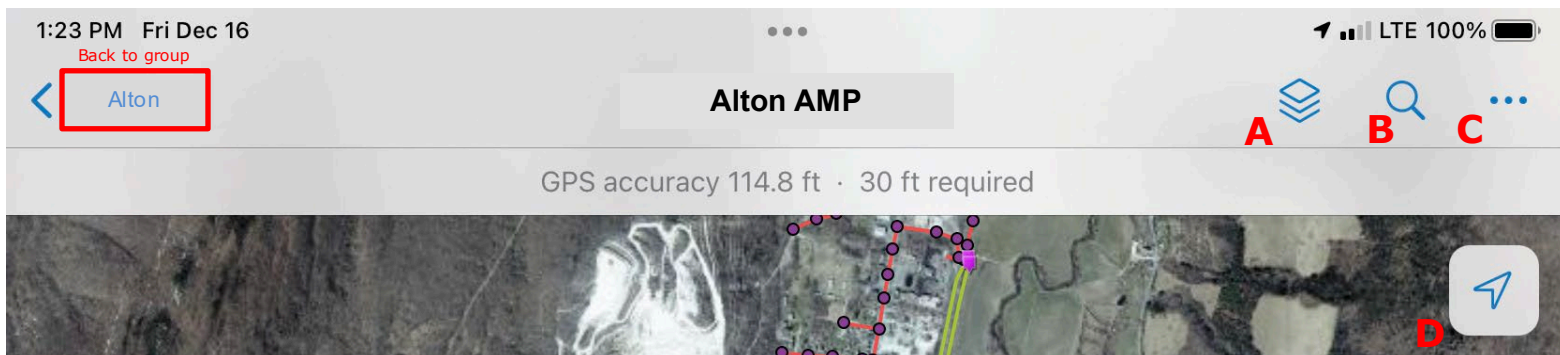
In order to collect data while offline, you must first download the maps to your device. Once the connection to wifi is re-established, the data will automatically sync to the hosted feature layer every 15 minutes.

Step 1: Download. After logging in, the first screen in the Field Maps App will show you a list of all the maps that your account has access to. On the right side of each map's entry, there is a menu icon. Pressing this icon will allow you to Add Offline Areas.

Step 2: Open the map and adjust the frame to fit the extent of all layers. Change Details to "Small Buildings" and choose *Download*.

After the map is downloaded, you may begin editing and collecting information.

Navigating the toolbars



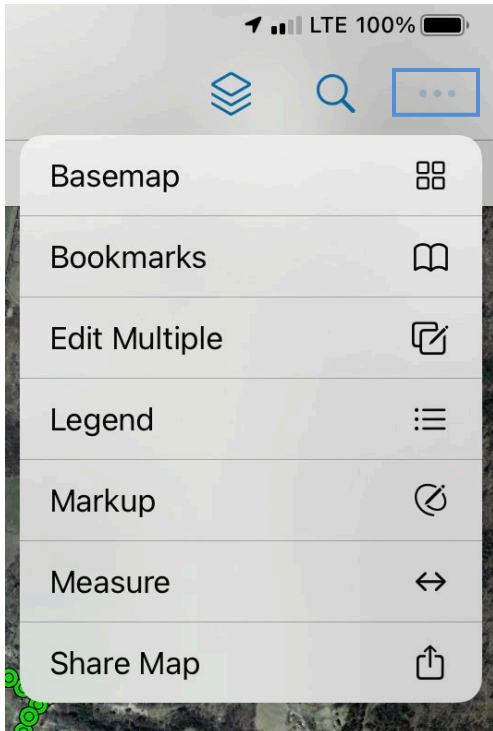
A. Layers Menu – *Select Visible Layers*

B. Search – *Search for an Address*

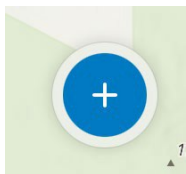
C. Menu Bar – *Additional tools (See next page)*

D. GPS – *Toggle on or off*

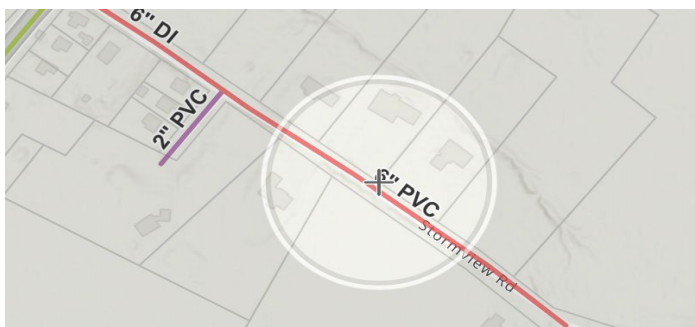
Menu Bar – contains a set of tools for interacting with the map



- Select a basemap
- Zoom to default map extent
- Edit multiple features at once
- Show map legend
- Capture sketches and notes
- Take a quick measurement
- Share or download map



Adding a new feature – Use the addition sign to add data within an editable layer.



Select the layer you want to edit, then move to asset location and drop a point. You may adjust the location of the point using the crosshairs on the map. Add any attribute information or photos below.

Add Point

Take Photo

Attach

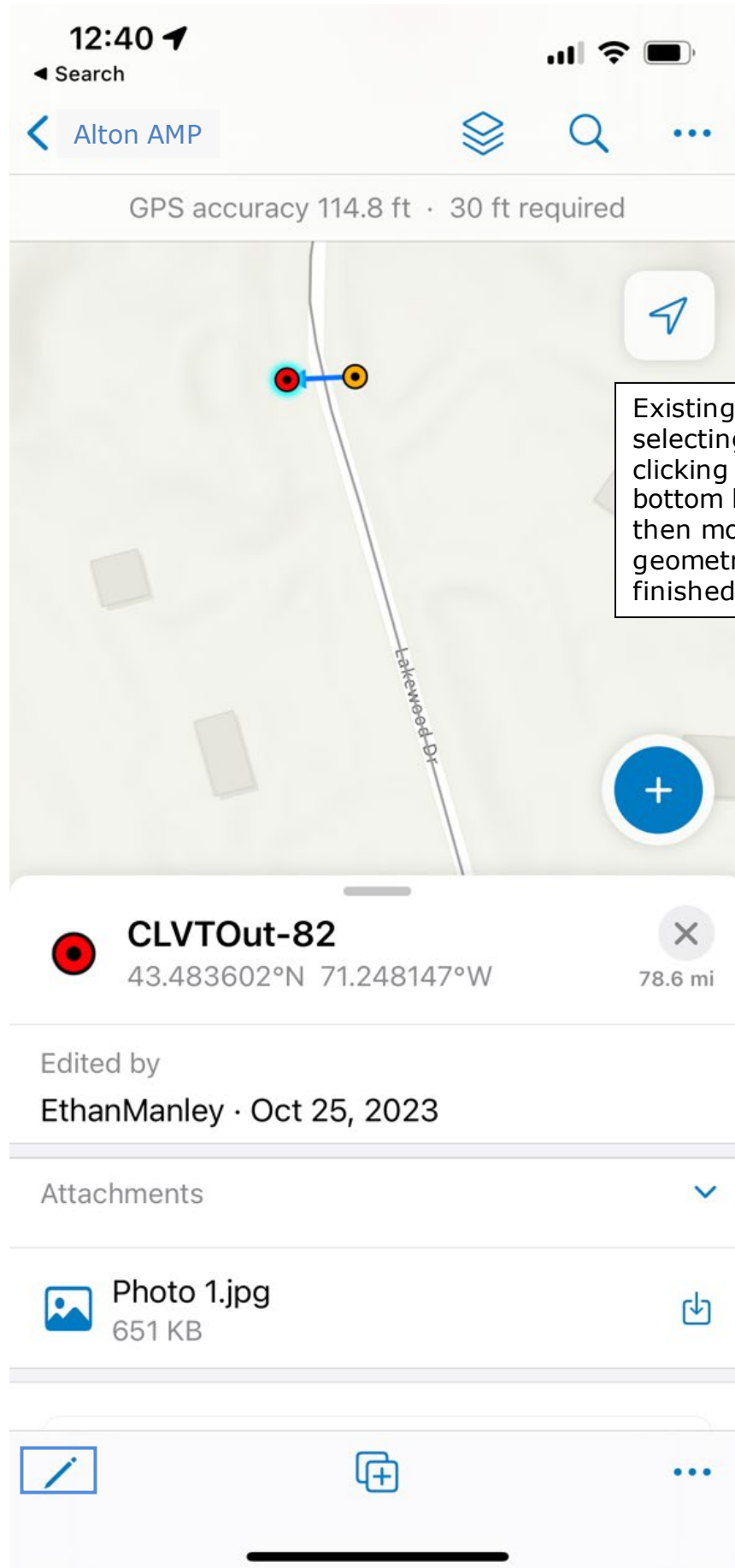
Valve_ID

AdministrativeArea

OperationalArea



Editing an existing feature – Select a feature in the map to be edited.



1:47
Search

Cancel Collect Submit

CLVTIn-178
43.410231°N 71.239609°W

Alton Town ID *
CLVTIn-178

Date Inspected *
8/24/23

End Treatment Type *
Headwall (no wingwalls)

Material Type *
Masonry

Condition *
Good

Needs Maintenance *
No

Inspector Comments

Headwall Height (ft)



1:47
Search

End Treatment Type Done

Filter

- Headwall (with wingwalls)
- Headwall (no wingwalls) ✓
- Flared End Section
- None
- Other

When editing an existing feature, select the field that you want to update. This will allow you to select from a list of options or write in your own information depending on the field type.

1:47
Search

Cancel Collect Submit

CLVTIn-178
43.410231°N 71.239609°W

Alton Town ID *
CLVTIn-178

Date Inspected *
8/24/23

End Treatment Type *
Headwall (no wingwalls)

Material Type *
Masonry

Condition *
Good

Needs Maintenance *
No

Inspector Comments

Headwall Height (ft)



1:47
Search

Collect Submit

CLVTIn-178
43.410231°N 71.239609°W

Condition *
Good

Needs Maintenance *
No

Inspector Comments
Deteriorating

Maximum 1,000 characters 13

Next

“Deteriorating” Deterioration Deteriorations

q w e r t y u i o p
a s d f g h j k l
z x c v b n m
123 space done



Examples of Attributes

2:20 Search

Cancel Collect Submit

CLVTPipe-181
Length 355.5 ft

Material Type
Plastic

Condition
Good

Category Type
Roadway

Connects to Other System
No

Needs Maintenance
No

Height of Fill
0-2'

Rehabilitated Pipe
No

Rehabilitated Date
No Value

2:23 Search

Cancel Collect Submit

DrainStr-178
43.462738°N 71.221351°W

Alton Town ID *
DrainStr-178

Date Inspected
9/27/23

Drainage Structure Type
Catch Basin

Material Type
No Value

Condition
No Value

Needs Maintenance
No Value

Inspector Comments

MS4 Action Date
No Value

2:29 Search

Cancel Collect Submit

Outfall-43
43.513869°N 71.250612°W

Date Inspected
10/4/2023, 7:47 AM

End Treatment Type
Headwall (no wingwalls)

Material Type
Masonry

Condition
Good

Needs Maintenance
No

Inspector Comments

CREATED_USER

CREATED_DATE



APPENDIX E

SADES DATA COLLECTION SPECIFICATIONS GUIDE CULVERTS AND
CLOSED DRAINAGE SYSTEMS

SADES

Statewide Asset Data Exchange System

Data Collection Specifications Guide



Culverts and Closed Drainage Systems (CCDS)

**Inlets
Outlets
Pipes
Drainage Structures**

Partnership with:

NH Department of Transportation (NHDOT)
UNH Technology Transfer Center (UNH T²)

General User Information

It is recommended that data be collected using the ESRI Collector Application for the Apple iPad.

Additional recommended equipment for conducting the assessment includes:

Tape Measure

Personal Protective Equipment

If you have questions or concerns about this iPad application or the SADES CCDS collection program, please contact the UNH Technology Transfer Center.

Contact Information:

Chris Dowd

SADES Manager

chris@nhsades.com

Office: (603) 862-5489

Inlets

Date Inspected

User Input Date

Record the date the inspection is performed.

End Treatment Type

Headwall (no wingwalls)

Headwall (with wingwalls)




Flared End Section


Other

None

Select one type of end treatment present at the inlet. See below for examples and definitions for each type:




See table on next page





Type	Definition	Example
<p>Headwall (No Wingwalls)</p>	<p>There is a headwall structure around the pipe, but no presence of wingwalls</p>	
<p>Headwall (With Wingwalls)</p>	<p>There is a headwall structure around the pipe, with wingwalls extending to the sides</p>	
<p>Flared End Section</p>	<p>Commonly referred to as a “Dust Pan”, and is attached to the pipe. The flared end section may be different material than the pipe.</p>	


Other	An end treatment that does not fit into a category above. Please note end treatment observations in “Inspector Comments” section.	
None	An end treatment does not exist at the inlet location, and the pipe or culvert is left exposed on the slope. This includes pipes that have been physically cut or mitered to match the slope.	

Material Type
Metal
Concrete
Masonry
Gabion
Plastic
Other
N/A

Select one material type of the inlet from the drop down menu. See below for examples and definitions of each:

End Treatment	Description	Example
Headwall (with or without wingwalls)	Metal- continuous metal walls, whether smooth or corrugated.	
	Concrete- preformed or cast in place concrete walls.	
	Masonry- brick or stone structure	

	<p>Gabion- wire cages filled with small stones that stack on one another to form a wall.</p>	
	<p>Other- a material not listed above.</p>	
<p>Flared End Section</p>	<p>Metal – formed sheet metal, typically attached to the pipe using metal banding.</p>	
	<p>Concrete – a precast unit, typically at the end of a concrete pipe.</p>	
	<p>Plastic – molded plastic, typically attached to plastic pipes using metal banding.</p>	
	<p>Other- a material not listed above.</p>	

N/A	If there is no end treatment present, <u>please select N/A.</u>	
------------	---	---

Inlet Condition










Good

Fair

Poor

No Rating

Record the condition of the inlet. See below for examples and definitions for each condition state.

Condition	Good	Fair	Poor
Description	Some wear, with little or no deterioration, consistent shape, minor joint misalignment, no movement, structurally sound	Some deterioration or cracking, joint separation with minor infiltration but structurally sound, localized distortion in shape	Significant deterioration or extensive cracking and/or spalling, extreme deflection in shape, joint separation with potential to create voids, or significant movement
Concrete Example			
Masonry Example			
Flared End Section Example			

Please see next page for important notes on Inlet condition.

Inlet Condition Notes:

- Condition rating is required for all features
- Comment is required for features receiving a condition rating of “Poor”.
- For features in extremely poor condition (may cause collapse of the roadway or other danger to data collection crews or maintenance crews) notify the data collection supervisor.
- “No Rating” shall be used in cases that the feature cannot be rated (cannot be found or seen).
- Features filled with concrete or otherwise abandoned should receive a comment, “ABANDONED”.

Inlet Condition with No End Treatment Type

Good	Poor
	
	
	

Needs Maintenance

Yes
No

Select "Yes" if any of the following apply:

- Debris blocking the inlet
- Vegetation impacting the function of the inlet
- Minor erosion around or under the inlet

Comment is required if "Yes" is selected.

Inspector Comments

User Input Text

Record any comments regarding the inspection of the inlet. For features receiving a condition rating of "Poor", or when selecting "Other" for any options, please provide a comment.

Inlet Notes:

- For multiple-inlet locations (such as multiple culverts running parallel from a single headwall), collect each culvert opening as a separate inlet slightly offset from each other.

Outlets

Date Inspected

User Input Date

Record the date the inspection is performed.

End Treatment Type

Headwall (no wingwalls)

Headwall (with wingwalls)




Flared End Section


Other

None

Select one type of end treatment present at the outlet. See below for examples and definitions for each type:




See table on next page





Type	Definition	Example
<p>Headwall (No Wingwalls)</p>	<p>There is a headwall structure around the pipe, but no presence of wingwalls</p>	
<p>Headwall (With Wingwalls)</p>	<p>There is a headwall structure around the pipe, with wingwalls extending to the sides</p>	
<p>Flared End Section</p>	<p>Commonly referred to as a “Dust Pan”, and is attached to the pipe. The flared end section may be different material than the pipe.</p>	


<p>Other</p>	<p>An end treatment that does not fit into a category above. Please note end treatment observations in “Inspector Comments” section.</p>	
<p>None</p>	<p>An end treatment does not exist at the outlet location, and the pipe or culvert is left exposed on the slope. This includes pipes that have been physically cut or mitered to match the slope.</p>	

Material Type
Metal
Concrete
Masonry
Gabion
Plastic
Other
N/A

Select one material type of the outlet from the drop down menu. See below for examples and definitions of each:

End Treatment	Description	Example
Headwall (with or without wingwalls)	Metal- continuous metal walls, whether smooth or corrugated.	
	Concrete- preformed or cast in place concrete walls.	
	Masonry- brick or stone structure	

	<p>Gabion- wire cages filled with small stones that stack on one another to form a wall.</p>	
	<p>Other- a material not listed above.</p>	
<p>Flared End Section</p>	<p>Metal – formed sheet metal, typically attached to the pipe using metal banding.</p>	
	<p>Concrete – a precast unit, typically at the end of a concrete pipe.</p>	
	<p>Plastic – molded plastic, typically attached to plastic pipes using metal banding.</p>	
	<p>Other- a material not listed above.</p>	

N/A	If there is no end treatment present, <u>please select N/A.</u>	
-----	---	---

Outlet Condition










Good

Fair

Poor

No Rating

Record the condition of the outlet. See below for examples and definitions for each condition state.

Condition	Good	Fair	Poor
Description	Some wear, with little or no deterioration, consistent shape, minor joint misalignment, no movement, structurally sound	Some deterioration or cracking, joint separation with minor infiltration but structurally sound, localized distortion in shape	Significant deterioration or extensive cracking and/or spalling, extreme deflection in shape, joint separation with potential to create voids, or significant movement
Concrete Example			
Masonry Example			
Flared End Section Example			

Please see next page for important notes on Outlet Condition.

Outlet Condition Notes:

- Condition rating is required for all features
- Comment is required for features receiving a condition rating of “Poor”.
- For features in extremely poor condition (may cause collapse of the roadway or other danger to data collection crews or maintenance crews) notify the data collection supervisor.
- “No Rating” shall be used in cases that the feature cannot be rated (cannot be found or seen).
- Features filled with concrete or otherwise abandoned should receive a comment, “ABANDONED”.

Outlet Condition with No End Treatment Type

Good	Poor
	
	
	

Needs Maintenance

Yes
No

- Select “Yes” if any of the following apply:
 - Debris blocking the outlet
 - Vegetation impacting the function of the outlet
 - Minor erosion around or under the outlet

Comment is required if “Yes” is selected.

Inspector Comments

User Input Text

Record any comments regarding the inspection of the outlet. For features receiving a condition rating of “Poor”, or when selecting “Other” for any options, please provide a comment.

Outlet Notes:

- For multiple-outlet locations (such as multiple culverts running parallel from a single headwall), collect each culvert opening as a separate outlet slightly offset from each other.

Pipes

Date Inspected

User Input Date

Record the date the inspection is performed.

Material Type

Plastic

Metal

Concrete

Masonry

Other

Select one material type of the pipe from the drop down menu. See below for examples of each:



Plastic



Metal












Concrete



Masonry

Pipe Condition
Good
Fair
Poor
No Rating

Record the condition of the pipe. See below for examples and definitions for each condition state.

Condition	Good	Fair	Poor
Description	Some wear, with little or no deterioration, consistent shape, minor joint misalignment, no movement, structurally sound	Some deterioration or cracking, joint separation with minor infiltration but structurally sound, localized distortion in shape	Significant deterioration or extensive cracking and/or spalling, extreme deflection in shape, joint separation with potential to create voids, or significant movement
Concrete Example			
Metal Example			
Plastic Example			

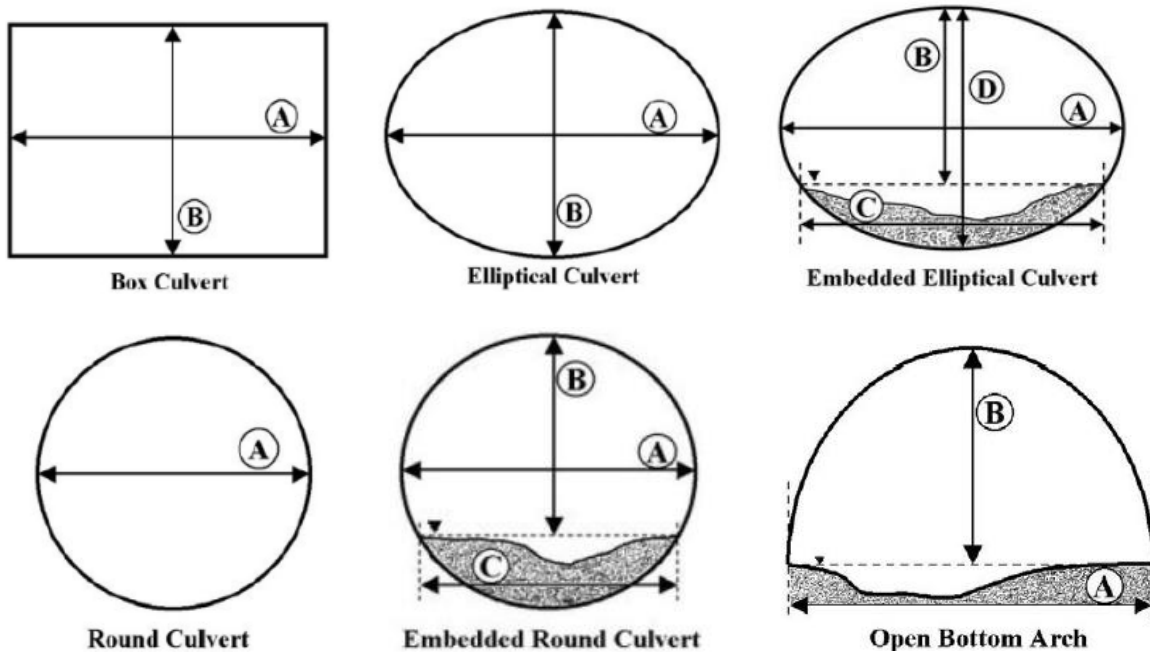
Please see next page for important notes on Pipe Condition.

Pipe Condition Notes:

- Condition rating is required for all features
- For features receiving a condition rating of “Poor”, please provide a comment
- For features in extremely poor condition (may cause collapse of the roadway or other danger to data collection crews or maintenance crews) notify the data collection supervisor.
- “No Rating” shall be used in the case that the feature cannot be rated (cannot be found or seen).
- Features filled with concrete or otherwise abandoned should receive a comment, “ABANDONED”.

Pipe Shape
Full Box
Open Bottom Box
Embedded Box
Elliptical
Embedded Elliptical
Round
Embedded Round
Open Bottom Arch
Full Arch
Embedded Arch

Record the shape of the pipe. See below for examples of each:



Note:

1. For other shapes not shown, follow guidance listed under Pipe Dimension attribute instructions.

Pipe Dimension A (inches)

User Input Number

Record the width of the culvert at its widest point (diameter for round pipes) to the nearest inch.

Pipe Dimension B (inches)

User Input Number

Record the height of the culvert (if embedded, measure from stream bed) to the nearest inch.

Pipe Dimension C (inches)

User Input Number

Record the width of the stream bed within embedded culvert to the nearest inch.

Pipe Dimension D (inches)

User Input Number

Record the full pipe height in embedded culvert to the nearest inch.

Height of Fill

0-2'

2'-5'

5'-10'

10-20'

20'+

Select one option that best describes the maximum fill height above the pipe, measured from the top of pipe to the finished surface above the pipe.

Category Type

Roadway (default)

Driveway

Underdrain

Airport

Railroad

Trail

Other

Select which type of category the pipe is associated with.

Connects to Other System

Yes

No

Select "Yes" or "No" whether or not the pipe is connected to another drainage system.




For pipe locations that connect to other drainage systems: draw a short line in the general direction of flow to represent the pipe feature, then select "Yes" for this option. Collect data in all other fields as necessary.


Rehabilitated Pipe

Yes

No

Select “Yes” or “No” whether or not there appears to be any attempted lining or extension of the pipe. See below for examples. Please provide a picture showing the rehabilitation if possible, and a comment on the type of rehabilitation. For your reference, some potential types of rehabilitation have been provided below:

Possible Rehabilitation Types	Description	Example
<p>Slip Lining</p>	<p>A smaller diameter pipe installed by sliding or “slipping” into a larger diameter pipe. The space between the two pipes is typically filled with grout, and conduit used for injecting grout may be visible at inlet/outlet ends. The two pipes can be of different materials.</p>	
<p>Spray-On Lining</p>	<p>Cementitious or polymer material is sprayed onto existing pipe walls to seal any small cracks and provide better water flow through the pipe. Outside wall of the pipe could be any material, the inside walls will look like concrete.</p>	
<p>Close-Fit Lining</p>	<p>Fiberglass or plastic lining material is forced against existing pipe walls and left to harden. The result is a lining that closely conforms to the existing pipe shape, but seals off any cracks or voids in the pipe and provides better water flow.</p>	

Invert Lining	Similar to rehabilitation types described above, however only up to the bottom 2/3 of the pipe may be rehabilitated.	
Pipe Extension	An existing pipe of one material type is lengthened using a different material type.	

Needs Maintenance

Yes

No

Select "Yes" if any of the following apply:

- Debris in pipe
- Sediment in pipe
- Beaver dam in pipe

If "Yes" is selected, please leave a comment describing observations.

If none of the above apply, select "No".

Inspector Comments

User Input Text

Record any comments regarding the inspection of the pipe. For features receiving a condition rating of "Poor", or when selecting "Other" for any options, please provide a comment.

Pipe Notes:

- For Closed Drainage Systems (underground pipes between structures) – Enter as much information as can be obtained from visual inspection from ground level. Estimated dimensions are sufficient.
- When unable to view pipe directly, choose “No Rating” for Pipe Condition field in order to indicate that the pipe was visited, and then please leave a comment as to why no condition rating was given.
- Features filled with concrete or otherwise abandoned should receive a comment, “ABANDONED”.
- Leave “Needs Maintenance” field blank if unable to view pipe directly.
- Pipes should be drawn in the direction of water flow, from the upstream (inlet) end toward the downstream (outlet) end, if possible and if the direction can be determined in the field.
- For multiple-pipe locations (such as multiple culverts running parallel), collect each pipe as a separate feature slightly offset from each other.

Drainage Structures

Date Inspected
User Input Date

Record the date the inspection is performed.

Drainage Structure Type
Catch Basin
Drop Inlet
Manhole
Flushing Basin

Select one drainage structure type from the drop down menu. See below for examples of each:



Catch Basin or Drop Inlet





Manhole

Material Type
Precast Concrete
Barrel Block
Other

Select one material type from the drop down menu. For manholes, leave this field blank.

See next page for examples and definitions of each.

Material Type	Description	Example
Precast Concrete	Structure walls are made from large concrete rings stacked on top of each other.	
Barrel Block	Structure walls are made from concrete blocks, similar to cinder blocks.	
Other	Structure walls are made from any other material, or a combination of materials.	

Drainage Structure Condition




Good

Fair

Poor

No Rating

Record the condition of the drainage structure. See below for examples and definitions for each condition state.

Condition	Good	Fair	Poor
Description	Some wear, with little or no deterioration, consistent shape, minor joint misalignment, no movement, structurally sound	Some deterioration or cracking, joint separation with minor infiltration but structurally sound, localized distortion in shape. Sinkholes developing near structures may also note a problem with the structure condition.	Significant deterioration or extensive cracking and/or spalling, extreme deflection in shape, joint separation with potential to create voids, or significant movement. Sinkholes developing near structures may also note a problem with the structure condition.
Example			

Drainage Structure Notes:

- Condition rating is required for all features.
- For features receiving a condition rating of “Poor”, please provide a comment.
- For features in extremely poor condition (may cause collapse of the roadway or other danger to data collection crews or maintenance crews) notify the data collection supervisor.
- “No Rating” shall be used in the case that the feature cannot be rated (cannot be found or seen)

- Features filled with concrete or otherwise abandoned should receive a comment, “ABANDONED”.

Needs Maintenance

Yes

No

Select “Yes” if any of the following apply:

- Debris in structure or covering grate
- Significant amount of sediment in structure
- Cracked metal grate or cover
- Grate or cover frame does not sit flush with pavement (either noticeably high or low)

If “Yes” is selected, please leave a comment describing observations.

If none apply, select “No”.

Inspector Comments

User Input Text

Record any comments regarding the inspection of the drainage structure. For features receiving a condition rating of “Poor”, or when selecting “Other” for any options, please provide a comment.

MS4 Action Date

User Input Date

Record the date of any MS4 required cleaning or inspection (sump cleaning with vacuum trucks). For maintenance use only.

Photograph Guide

Inspection Date

User Input Date

Record the date the pictures were taken.

Asset Type

Inlet

Outlet

Pipe

Drainage Structure

Select one asset type from the drop down menu that describes the subject of the photo(s).

Inspector Comments

User Input Text

Record any comments regarding the asset photo.

Photo Notes:

- Please take photos of all inspected features when possible (Only attach photos of one asset type to a single photo 'point'). Multiple photos of the same asset can be attached to the same point.
- For photos of drainage structures with grates (catch basins or drop inlets) attempt to take photos of both the grate viewed from ground level (to include curbing, guardrail, or other roadside features), as well as photos inside the structure looking through the grate.
- For locations that are overgrown, or somewhat buried in the slope, a paint stripe across the top of the feature or use of a folding ruler to point at the feature is extremely helpful.
- If pipe is safely accessible, and taking photos in pipe does not cause issues with the data collection equipment, please take pictures of the inside of pipes as well as any exposed part of the outside of the pipes.
- If possible, mark the subject of the photo (inlet, outlet, pipe, or drainage structure) with paint to make the subject easier to identify.

APPENDIX F

COULD NOT LOCATE & COULD NOT ACCESS CULVERTS

Table F-1
Culvert Structures that Could Not be Accessed

Alton Town ID	Inspector Comments
CLVTIn-17	Overgrowth prohibiting access
CLVTIn-106	Unable to access structure
CLVTIn-113	Can't access structure
CLVTIn-140	Unable to access structure
CLVTIn-141	Unable to access structure
CLVTIn-150	Unable to access structure
CLVTIn-221	Unable to access structure for photo due to overgrowth
CLVTIn-276	Unable to access structure
CLVTIn-353	Unable to access
CLVTIn-369	Unable to access
CLVTIn-382	Unable to access
CLVTIn-383	Unable to access
CLVTPipe-16	Unable to get close inspection and photo due to overgrowth around structure
CLVTPipe-17	Overgrowth prohibits access
CLVTPipe-83	outlet was not identified and inlet was blocked
CLVTPipe-106	Unable to access structure
CLVTPipe-140	Unable to access structure
CLVTPipe-178	Unable to access structure due to overgrowth
CLVTPipe-180	Unable to access pipe due to overgrowth
CLVTPipe-186	Unable to access
CLVTPipe-221	Unable to access structure due to overgrowth
CLVTPipe-353	Unable to access
CLVTPipe-369	Unable to access
CLVTOut-106	Unable to access structure
CLVTOut-140	Unable to access structure
CLVTOut-144	Unable to access structure
CLVTOut-145	unable to access structure
CLVTOut-146	Unable to access structure
CLVTOut-147	Unable to access
CLVTOut-15	Unable to access due to overgrowth
CLVTOut-16	Unable to access due to overgrowth
CLVTOut-17	Overgrowth prohibits access
CLVTOut-172	Unable to access
CLVTOut-178	No structure found due to overgrowth
CLVTOut-18	Unable to access due to overgrowth

Alton Town ID	Inspector Comments
CLVTOut-186	Can't access structure
CLVTOut-194	Marking identifies structure is present but unable to access
CLVTOut-290	Overgrowth around pipe
CLVTOut-34	End treatment type and Material Type: not visible inside structure so unable to determine
CLVTOut-353	Unable to access structure
CLVTOut-369	Unable to access
CLVTOut-55	Vegetation overgrowth prevented access to structure
CLVTOut-70	Unable to access structure
CLVTOut-8	Overgrown vegetation could not access outlet

Table F-2
Culvert Structures that Could Not be Located

Alton Town ID	Inspector Comments
CLVTIn-30	No structure found
CLVTIn-50	No structure found
CLVTIn-69	No structure seen
CLVTIn-123	Unable to locate structure
CLVTIn-124	Unable to locate
CLVTIn-127	No structure seen
CLVTIn-129	No structure identified
CLVTIn-136	No structure identified
CLVTIn-153	No structure seen
CLVTIn-178	Unable to find structure due to overgrowth
CLVTIn-212	No structure identified
CLVTIn-270	Could not locate outlet
CLVTIn-271	Unable to locate inlet
CLVTIn-335	No structure identified
CLVTIn-380	No inlet could be located
CLVTPipe-123	Unable to locate
CLVTPipe-124	Unable to locate structure
CLVTPipe-153	No structure identified
CLVTOut-123	Unable to locate structure
CLVTOut-124	Unable to locate

Alton Town ID	Inspector Comments
CLVTOut-153	No structure identified
CLVTOut-20	No outlet found
CLVTOut-21	No outlet found
CLVTOut-264	No structure found
CLVTOut-265	No structure found
CLVTOut-323	No structure identified
CLVTOut-387	No outlet could be located
CLVTOut-60	No structure present
CLVTOut-67	No structure visible
CLVTOut-83	No structure identified
CLVTOut-84	No structure identified
CLVTOut-85	No structure identified

APPENDIX G

CULVERTS NEEDING MAINTENANCE

TABLE G-1

Culvert Structures Needing Maintenance

Alton Town ID	End Treatment Type	Material Type	Condition	Inspector Comments
CLVTIn-1	Headwall (no wingwalls)	Masonry	Poor	deterioration
CLVTIn-2	Headwall (no wingwalls)	Masonry	Poor	deterioration and joint separation
CLVTIn-3	Headwall (no wingwalls)	Masonry	Poor	deterioration and joint separation
CLVTIn-4	Headwall (no wingwalls)	Masonry	Poor	deterioration and joint separation
CLVTIn-5	Headwall (no wingwalls)	Masonry	Poor	Debris and sediment blockage
CLVTIn-7	Headwall (no wingwalls)	Masonry	Fair	deterioration and joint separation
CLVTIn-11	Headwall (no wingwalls)	Masonry	Poor	some deterioration
CLVTIn-12	Headwall (no wingwalls)	Masonry	Good	joint separation
CLVTIn-14	Headwall (no wingwalls)	Masonry	Poor	Joint separation and deterioration
CLVTIn-15	Headwall (no wingwalls)	Masonry	Poor	deterioration and joint separation
CLVTIn-16	Flared End Section	Plastic	Poor	Overgrowth prohibiting close inspection there is deterioration
CLVTIn-19	Headwall (no wingwalls)	Masonry	Poor	deterioration
CLVTIn-20	Headwall (no wingwalls)	Masonry	Poor	deterioration and joint separation
CLVTIn-21	Headwall (no wingwalls)	Masonry	Poor	deterioration and joint separation
CLVTIn-22	Headwall (no wingwalls)	Masonry	Poor	deterioration and joint separation
CLVTIn-24	Headwall (no wingwalls)	Masonry	Poor	deterioration and joint separation
CLVTIn-25	Headwall (no wingwalls)	Masonry	Poor	deterioration and joint separation
CLVTIn-29	Headwall (no wingwalls)	Masonry	Poor	deterioration
CLVTIn-34	Headwall (no wingwalls)	Masonry	Poor	End treatment type: Miscellaneous stone. Needs maintenance for debris blockage
CLVTIn-41	Headwall (no wingwalls)	Concrete	Fair	some deterioration
CLVTIn-42	Headwall (no wingwalls)	Concrete	Good	Debris blockage
CLVTIn-48	Flared End Section	Plastic	Poor	deterioration
CLVTIn-60	Headwall (no wingwalls)	Concrete	Good	Debris and sediment blockage
CLVTIn-82	Headwall (with wingwalls)	Other	Poor	deterioration
CLVTIn-83	Headwall (no wingwalls)	Masonry	Poor	Blocked from debris and wooden headwall is rotting
CLVTIn-94	Headwall (no wingwalls)	Masonry	Poor	Deterioration
CLVTIn-95	Headwall (no wingwalls)	Masonry	Poor	Deterioration

Alton Town ID	End Treatment Type	Material Type	Condition	Inspector Comments
CLVTIn-99	Headwall (no wingwalls)	Masonry	Poor	Deterioration
CLVTIn-117	Headwall (no wingwalls)	Masonry	Poor	Deterioration
CLVTIn-133	Headwall (no wingwalls)	Masonry	Poor	Deterioration and joint separation
CLVTIn-139	Headwall (no wingwalls)	Masonry	Poor	Deterioration
CLVTIn-148	Headwall (no wingwalls)	Masonry	Poor	Deterioration
CLVTIn-168	Headwall (no wingwalls)	Masonry	Poor	Deterioration and joint separation
CLVTIn-175	Headwall (no wingwalls)	Masonry	Poor	Deterioration
CLVTIn-205	Headwall (no wingwalls)	Masonry	Poor	Deterioration
CLVTIn-206	Headwall (no wingwalls)	Masonry	Poor	Deterioration
CLVTIn-208	Headwall (no wingwalls)	Masonry	Poor	Deterioration
CLVTIn-209	Headwall (no wingwalls)	Masonry	Poor	Deterioration
CLVTIn-220	Headwall (no wingwalls)	Masonry	Poor	Deterioration
CLVTIn-243	Headwall (no wingwalls)	Masonry	Fair	Deterioration
CLVTIn-251	Headwall (no wingwalls)	Masonry	Poor	Deterioration
CLVTIn-252	Headwall (no wingwalls)	Masonry	Poor	Deterioration
CLVTIn-291	Headwall (no wingwalls)	Masonry	Poor	Some deterioration
CLVTIn-292	Headwall (no wingwalls)	Masonry	Poor	Deterioration
CLVTIn-294	Headwall (no wingwalls)	Masonry	Poor	Deterioration
CLVTIn-312	Headwall (no wingwalls)	Masonry	Poor	Deterioration
CLVTIn-313	Headwall (no wingwalls)	Masonry	Poor	Deterioration
CLVTIn-317	Flared End Section	Metal	Poor	Deterioration
CLVTIn-318	Headwall (no wingwalls)	Masonry	Poor	Deterioration
CLVTIn-328	Headwall (no wingwalls)	Concrete	Fair	Some deterioration
CLVTIn-331	Headwall (no wingwalls)	Masonry	Poor	Deterioration
CLVTIn-351	Headwall (no wingwalls)	Masonry	Poor	Deterioration
CLVTIn-360	Headwall (no wingwalls)	Masonry	Poor	Deterioration
CLVTIn-361	Headwall (no wingwalls)	Masonry	Poor	Deterioration
CLVTIn-368	Headwall (no wingwalls)	Masonry	Fair	Some deterioration
CLVTIn-68	Headwall (no wingwalls)	Masonry	Poor	deterioration
CLVTPipe-1	N/A for Culvert Pipes	Metal	Poor	Some corrosion

Alton Town ID	End Treatment Type	Material Type	Condition	Inspector Comments
CLVTPipe-2	N/A for Culvert Pipes	Metal	Good	debris blockage and pipe deterioration
CLVTPipe-3	N/A for Culvert Pipes	Plastic	Good	some blockage
CLVTPipe-4	N/A for Culvert Pipes	Metal	Poor	debris blockage
CLVTPipe-5	N/A for Culvert Pipes	Metal	Poor	Two culverts visible at outlet only one visible at inlet. Blockage present
CLVTPipe-7	N/A for Culvert Pipes	Plastic	Poor	debris and sediment blockage
CLVTPipe-8	N/A for Culvert Pipes	Concrete	Good	Sediment and debris blockage
CLVTPipe-14	N/A for Culvert Pipes	Metal	Poor	Corrosion on pipe and debris blockage
CLVTPipe-18	N/A for Culvert Pipes	Plastic	Poor	Debris and sediment blockage
CLVTPipe-19	N/A for Culvert Pipes	Plastic	Poor	Sediment blockage
CLVTPipe-20	N/A for Culvert Pipes	Plastic	Poor	pipe at outlet is clogged.
CLVTPipe-21	N/A for Culvert Pipes	Plastic	Poor	Some sediment blockage
CLVTPipe-24	N/A for Culvert Pipes	Plastic	Poor	Debris blockage
CLVTPipe-25	N/A for Culvert Pipes	Metal	Fair	Debris blockage and some deterioration
CLVTPipe-34	N/A for Culvert Pipes	Plastic	Fair	Debris blockage
CLVTPipe-36	N/A for Culvert Pipes	Metal	Poor	Corrosion and rust present
CLVTPipe-39	N/A for Culvert Pipes	Plastic	Poor	Debris blockage
CLVTPipe-41	N/A for Culvert Pipes	Plastic	Poor	Overgrowth present and debris blockage. Overgrowth prevented photo
CLVTPipe-47	N/A for Culvert Pipes	Plastic	Good	Minor debris blockage
CLVTPipe-48	N/A for Culvert Pipes	Plastic	Good	Debris blockage
CLVTPipe-49	N/A for Culvert Pipes	Plastic	Good	Debris blockage at inlet
CLVTPipe-50	N/A for Culvert Pipes	Plastic	Good	Debris blockage
CLVTPipe-51	N/A for Culvert Pipes	Plastic	Good	Minor blockage at inlet
CLVTPipe-59	N/A for Culvert Pipes	Plastic	Good	Debris blockage
CLVTPipe-60	N/A for Culvert Pipes	Concrete	Poor	Debris blockage
CLVTPipe-66	N/A for Culvert Pipes	Plastic	Good	Inlet has blockage
CLVTPipe-68	N/A for Culvert Pipes	Plastic	Poor	Severe debris and overgrowth
CLVTPipe-69	N/A for Culvert Pipes	Metal	Good	Inlet pipe is blocked couldn't identify
CLVTPipe-76	N/A for Culvert Pipes	Plastic	Poor	Inlet is blocked by debris
CLVTPipe-81	N/A for Culvert Pipes	Metal	Poor	Outlet is blocked with debris and pipe is corroding

Alton Town ID	End Treatment Type	Material Type	Condition	Inspector Comments
CLVTPipe-82	N/A for Culvert Pipes	Metal	Fair	Inlet is clogged with debris
CLVTPipe-92	N/A for Culvert Pipes	Concrete	Poor	debris blockage
CLVTPipe-99	N/A for Culvert Pipes	Metal	Poor	Pipe is deteriorating and split
CLVTPipe-101	N/A for Culvert Pipes	Concrete	Poor	Deterioration and debris blockage
CLVTPipe-103	N/A for Culvert Pipes	Plastic	Fair	Some deterioration and debris
CLVTPipe-107	N/A for Culvert Pipes	Metal	Poor	Debris blockage and pipe deterioration
CLVTPipe-108	N/A for Culvert Pipes	Metal	Poor	Debris blockage and derterioration
CLVTPipe-113	N/A for Culvert Pipes	Metal	Poor	Debris blockage and deterioration
CLVTPipe-117	N/A for Culvert Pipes	Metal	Fair	Some deterioration and debris at inlet
CLVTPipe-137	N/A for Culvert Pipes	Metal	Poor	Pipe is cracked and corroded
CLVTPipe-138	N/A for Culvert Pipes	Plastic	Poor	Debris blockage and deterioration
CLVTPipe-145	N/A for Culvert Pipes	Plastic	Poor	Outlet is corroded
CLVTPipe-171	N/A for Culvert Pipes	Concrete	Good	Vegetation blockage
CLVTPipe-184	N/A for Culvert Pipes	Metal	Fair	Some deterioration and inlet has debris blockage
CLVTPipe-185	N/A for Culvert Pipes	Plastic	Poor	Distorted and cracked
CLVTPipe-200	N/A for Culvert Pipes	Metal	Poor	Severe sediment blockage at inlet
CLVTPipe-205	N/A for Culvert Pipes	Metal	Poor	Inlet is deteriorating and partially clogged
CLVTPipe-212	N/A for Culvert Pipes	Plastic	Fair	Sediment buildup
CLVTPipe-214	N/A for Culvert Pipes	Concrete	Poor	Inlet is fully clogged
CLVTPipe-220	N/A for Culvert Pipes	Plastic	Poor	Severe pipe deterioration
CLVTPipe-223	N/A for Culvert Pipes	Plastic	Fair	Inlet is blocked with debris
CLVTPipe-226	N/A for Culvert Pipes	Metal	Poor	Pipe is deteriorating
CLVTPipe-235	N/A for Culvert Pipes	Plastic	Fair	Some debris blockage
CLVTPipe-243	N/A for Culvert Pipes	Plastic	Poor	Sediment blockage
CLVTPipe-251	N/A for Culvert Pipes	Plastic	Poor	Outlet is fully clogged with sediment
CLVTPipe-254	N/A for Culvert Pipes	Concrete	Good	Some debris blockage
CLVTPipe-260	N/A for Culvert Pipes	Plastic	Good	Debris
CLVTPipe-269	N/A for Culvert Pipes	Plastic	Poor	Outlet is fully clogged
CLVTPipe-274	N/A for Culvert Pipes	Plastic	Poor	Sediment buildup
CLVTPipe-312	N/A for Culvert Pipes	Plastic	Poor	Debris blockage

Alton Town ID	End Treatment Type	Material Type	Condition	Inspector Comments
CLVTPipe-318	N/A for Culvert Pipes	Concrete	Fair	Some sediment build up
CLVTPipe-319	N/A for Culvert Pipes	Plastic	Poor	Pipe is cracked
CLVTPipe-321	N/A for Culvert Pipes	Metal	Poor	Bottom of pipe is corroded
CLVTPipe-322	N/A for Culvert Pipes	Metal	Poor	Bottom of pipe is corroded
CLVTPipe-328	N/A for Culvert Pipes	Metal	Poor	Bottom is corroded
CLVTPipe-360	N/A for Culvert Pipes	Plastic	Poor	Clogged
CLVTPipe-361	N/A for Culvert Pipes	Plastic	Poor	Clogged
CLVTOut-1	Headwall (no wingwalls)	Masonry	Poor	deterioration and joint separation
CLVTOut-109	Headwall (no wingwalls)	Masonry	Poor	Deterioration and joint separation
CLVTOut-11	Headwall (no wingwalls)	Masonry	Poor	deterioration and joint separation
CLVTOut-117	Headwall (no wingwalls)	Masonry	Poor	Deterioration
CLVTOut-12	Headwall (no wingwalls)	Masonry	Poor	joint separation
CLVTOut-13	Headwall (no wingwalls)	Masonry	Poor	joint separation
CLVTOut-14	Headwall (no wingwalls)	Masonry	Poor	joint separation and deterioration
CLVTOut-149	Headwall (no wingwalls)	Masonry	Poor	Deterioration
CLVTOut-167	Headwall (no wingwalls)	Masonry	Poor	Deterioration
CLVTOut-168	Headwall (no wingwalls)	Masonry	Poor	Deterioration and joint separation
CLVTOut-169	Headwall (no wingwalls)	Masonry	Poor	Deterioration and joint separation
CLVTOut-175	Headwall (with wingwalls)	Masonry	Poor	Deterioration
CLVTOut-184	Headwall (no wingwalls)	Masonry	Poor	Deterioration
CLVTOut-19	Headwall (no wingwalls)	Masonry	Poor	deterioration and joint separation
CLVTOut-198	Headwall (no wingwalls)	Masonry	Poor	Deterioration
CLVTOut-199	Headwall (no wingwalls)	Masonry	Poor	Deterioration
CLVTOut-205	Headwall (no wingwalls)	Masonry	Poor	Deterioration
CLVTOut-206	Headwall (no wingwalls)	Masonry	Poor	Deterioration
CLVTOut-207	Headwall (no wingwalls)	Masonry	Poor	Deterioration
CLVTOut-213	Headwall (no wingwalls)	Masonry	Poor	Deterioration present
CLVTOut-226	Headwall (no wingwalls)	Masonry	Poor	Deterioration
CLVTOut-235	Headwall (no wingwalls)	Masonry	Poor	Deterioration
CLVTOut-24	Headwall (no wingwalls)	Masonry	Poor	deterioration and joint separation

Alton Town ID	End Treatment Type	Material Type	Condition	Inspector Comments
CLVTOut-242	Headwall (no wingwalls)	Masonry	Poor	Deterioration
CLVTOut-247	Headwall (no wingwalls)	Masonry	Poor	Deterioration
CLVTOut-248	Headwall (no wingwalls)	Masonry	Poor	Deterioration
CLVTOut-249	Headwall (no wingwalls)	Masonry	Poor	Deterioration
CLVTOut-25	None	N/A	Fair	Some deterioration
CLVTOut-252	Headwall (no wingwalls)	Masonry	Poor	Deterioration
CLVTOut-263	Headwall (no wingwalls)	Masonry	Poor	Deterioration
CLVTOut-299	Headwall (no wingwalls)	Masonry	Poor	Deterioration
CLVTOut-312	Headwall (no wingwalls)	Masonry	Poor	Deterioration
CLVTOut-313	Headwall (no wingwalls)	Masonry	Poor	Deterioration
CLVTOut-316	Flared End Section	Metal	Poor	Metal broke off the pipe
CLVTOut-328	Headwall (no wingwalls)	Masonry	Poor	Deterioration
CLVTOut-351	Headwall (no wingwalls)	Masonry	Poor	Deterioration
CLVTOut-385	Headwall (no wingwalls)	Masonry	Poor	Deterioration
CLVTOut-39	Flared End Section	Plastic	Fair	some distortion in shape
CLVTOut-4	Headwall (with wingwalls)	Masonry	Poor	Sediment and debris blockage
CLVTOut-41	None	N/A	Poor	Debris blockage and overgrowth prevented photo
CLVTOut-5	Headwall (no wingwalls)	Masonry	Poor	joint seperation
CLVTOut-59	Flared End Section	Plastic	Poor	some shape distortion
CLVTOut-7	Headwall (no wingwalls)	Masonry	Poor	deterioration and joint seperation
CLVTOut-81	Headwall (no wingwalls)	Masonry	Poor	some deterioration
CLVTOut-92	Headwall (no wingwalls)	Masonry	Poor	deterioration
CLVTOut-99	Headwall (no wingwalls)	Masonry	Poor	Deterioration and joint separation

APPENDIX H

STANDARD OPERATION PROCEDURE: CULVERT MAINTENANCE

STANDARD OPERATING PROCEDURE | *Culvert Maintenance*



Culverts carry rivers, brooks, and streams under roadways throughout town. A culvert maintenance protocol was developed to conduct repairs as needed based on field assessment results. The protocol uses Tighe & Bond's experience with culvert assessments and the following resources:

- *Culvert Condition Assessment Manual and Culvert Assessment Form*, developed by UMass Transportation Center, the Nature Conservancy, North Atlantic Aquatic Connectivity Collaborative (NAACC), and the Center for Agriculture, Food, and the Environment, 2019
- *NAACC Stream Crossing Instruction Manual for Aquatic Passability Assessments in Non-tidal Stream and Rivers and Aquatic Connectivity Stream Crossing Survey Data Form*, developed by the North Atlantic Aquatic Connectivity Collaborative, UMass Amherst, November 2019

Suggested Standard Operating Procedures

Implement the following practices to reduce potential modes of culvert failure to the maximum extent practicable.

- Complete culvert maintenance and repairs as needed based on the field assessment results.
- The Highway Department should maintain an inventory of maintenance activities.
- Inform employees that culverts are a part of the stormwater drainage system.
- Report any illicit (illegal) discharges to the Highway Department. Report oil spills immediately to the Fire Department and Highway Department.

Routine Inspection and Maintenance

Routinely inspect Town culverts and address issues as needed to maintain culvert functionality and proper streamflow. As stated by the US DOT Culvert Repair Practices Manual, regular maintenance of culverts is important to assessing the condition of the culvert "as the life of the culvert progresses and land use in the vicinity of the culvert changes." NAACC's Culvert Condition Assessment Manual and Culvert Assessment Form includes the following problems that require action. US DOT's Culvert Repair Practices Manual provides details on routine maintenance for a variety of items, as described below.

Debris/Vegetation Removal:

- NAACC Action:
 - Debris/Vegetation Blockage at least 1/3 of the rise
- US DOT Maintenance:
 - Remove debris collecting at the inlet or within the culvert by tying a rope to a long stick or pole. Push the stick and rope through the culvert to the other end, tie it to a piece of wood or metal bucket. Have crew on other end pull the rope and bucket through.
 - Vegetation impeding stream flow should be pruned, trimmed or removed.
 - Consider the need for debris-control structures in cases of frequent, large amounts of blockage.

STANDARD OPERATING PROCEDURE | *Culvert Maintenance*



Flushing/Sediment Removal:

- NAACC Action:
 - Sediment Blockage of at least 1/2 of the opening
- US DOT Maintenance:
 - Sediment deposits reduce size and capacity of the culvert, and should be removed via hand cleaning, mechanized cleaning, or high pressure water stream.

Streambed Maintenance:

- NAACC Action:
 - Buoyancy or Crushing-Related Inlet Failure
 - Local Outlet Scour
 - Channel Degradation/Headcut
 - Embankment Piping
 - Embankment Slope Instability
 - No Access/Ends Totally Buried/Submerged
 - Poor Channel Alignment
- US DOT Maintenance:
 - Use vegetation or geotextiles to stabilize and protect streambanks from erosion.
 - Scour hole repair – May be filled, at least temporarily, with crushed stone, rubble, or riprap. The installation should be inspected to assess its performance after a number of storm events.
 - Channel – Inspect for scour undermining of the culvert or eroding of the embankment. If a lining system (riprap) appears insufficient, other methods of channel lining should be considered.
 - Alignment horizontal – Indications of erosion and changes in the horizontal direction of the stream channel should be noted, as changes cause increased erosion along the outside and inside of the curve as well as damage to the culvert.
 - Alignment vertical – Vertical alignment issues (culvert barrel is higher or lower than the streambed) can cause scour and sediment problems.

Depending on the severity, these items may need to be flagged for more in-depth repair or replacement. Other Items that should be flagged include:

- Previous and/or Frequent Overtopping
- Aggressive Abrasion/Corrosion/Chemical
- Exposed Footing (Open-Bottom Culvert Only)

Reporting

- Report any repair or maintenance problems to the Highway Department. Repair problems may include culvert replacement.
- Keep a log of culverts inspected or maintained.



References

NAACC. *Culvert Condition Assessment Manual and Culvert Assessment Form*.

URL: https://streamcontinuity.org/sites/streamcontinuity.org/files/pdf-doc-ppt/CulvertManual_2019_082919.pdf

NAACC. *Stream Crossing Instruction Manual for Aquatic Passability Assessments in Non-tidal Stream and Rivers*. URL:

https://streamcontinuity.org/sites/streamcontinuity.org/files/pdf-doc-ppt/NAACC_Non-tidal%20Aquatic%20Assessment%20Instructions%206-2-19.pdf

US DOT, Federal Highway Administration. *Culvert Repair Practices Manual Volume 1*. URL:

https://www.fhwa.dot.gov/engineering/hydraulics/library_arc.cfm?pub_number=36&id=94

US DOT, Federal Highway Administration. *Culvert Repair Practices Manual Volume 2*. URL: <https://rosap.ntl.bts.gov/view/dot/58544>

APPENDIX I

PROBABILITY OF FAILURE AND CONSEQUENCE OF FAILURE RANKINGS

PoF and CoF Factors and Ranks
PoF and CoF Weights and Max Scores
Culvert Inlet PoF Rankings
Culvert Pipe PoF Rankings
Culvert Outlet PoF Rankings
Culvert Inlet CoF Rankings
Culvert Pipe CoF Rankings
Culvert Outlet CoF Rankings

PoF Factors & Ranks

CULVERT INLETS		
Category/Item	PoF Ranking System	
Material Type	N/A	3
	Concrete	1
	Masonry	2
	Plastic	3
	Metal	4
	Other	5
Condition	No Rating	3
	Good	1
	Fair	3
	Poor	5

CULVERT PIPES		
Category/Item	PoF Ranking System	
Material Type	N/A	3
	Concrete	1
	Other	2
	Plastic	3
	Metal	5
	No Rating	3
Condition	Good	1
	Fair	3
	Poor	5
	0-2'	5
Height of Fill	2'-5'	0
	5'-10'	0
	10-20'	3
	20'+	5

CULVERT OUTLETS		
Category/Item	PoF Ranking System	
Material Type	N/A	3
	Concrete	1
	Masonry	2
	Plastic	3
	Metal	5
Condition	No Rating	3
	Good	1
	Fair	3
	Poor	5

CoF Factors & Ranks

CULVERT INLETS		
Category/Item	CoF Ranking System	
Floodplain 100 Yr ¹	Yes	5
	No	0
Detour Length	< 1 mile	1
	1 to 2 miles	2
	2 to 3 miles	3
	3 to 4 miles	4
	> 4 miles	5
	Dead End	0
Dead End (# houses at dead end)	Not a Road	0
	Not Dead End	0
	< 5	1
	5-9	2
	10-14	3
Roadway Class	15-19	4
	≥ 20	5
	Local	5
	Not Maintained	2
Roadway Class	Not a Road	1
	Private	0

¹ Digitized FEMA floodplain data was unavailable at the time of the risk-based prioritization, so the 100-year floodplain layer was digitized through a georeferenced paper copy of the FEMA Zone A floodplain data layer.

CULVERT PIPES		
Category/Item	CoF Ranking System	
Size (Dimension)	≤ 1'	1
	1' < size ≤ 2'	2
	2' < size ≤ 4'	3
	4' < size < 6'	4
	> =6'	5
Floodplain 100 Yr ¹	Yes	5
	No	0
Detour Length	< 1 mile	1
	1 to 2 miles	2
	2 to 3 miles	3
	3 to 4 miles	4
	> 4 miles	5
	Dead End	0
Dead End (# houses at dead end)	Not a Road	0
	Not Dead End	0
	< 5	1
	5-9	2
	10-14	3
Roadway Class	15-19	4
	≥ 20	5
	Local	5
	Not Maintained	2
Roadway Class	Not a Road	1
	Private	0

¹ Digitized FEMA floodplain data was unavailable at the time of the risk-based prioritization, so the 100-year floodplain layer was digitized through a georeferenced paper copy of the FEMA Zone A floodplain data layer.

CULVERT OUTLETS		
Category/Item	CoF Rating System	
Floodplain 100 Yr ¹	Yes	5
	No	0
Detour Length	< 1 mile	1
	1 to 2 miles	2
	2 to 3 miles	3
	3 to 4 miles	4
	> 4 miles	5
	Dead End	0
Dead End (# houses at dead end)	Not a Road	0
	Not Dead End	0
	< 5	1
	5-9	2
	10-14	3
Roadway Class	15-19	4
	≥ 20	5
	Local	5
	Not Maintained	2
Roadway Class	Not a Road	1
	Private	0

¹ Digitized FEMA floodplain data was unavailable at the time of the risk-based prioritization, so the 100-year floodplain layer was digitized through a georeferenced paper copy of the FEMA Zone A floodplain data layer.

PoF Weights and Max Scores

Category/ Item	Weight (Multiplier)	Max Rank	Max Score
Material Type	1	5	5
Condition	2	5	10
Height of Fill	0.5	5	2.5

Max Possible Score for Culvert Inlets & Outlets: 15

Max Possible Score for Culvert Pipes: 17.5

CoF Weights and Max Scores

Category/ Item	Weight (Multiplier)	Max Rank	Max Score
Size	1.5	5	7.5
Floodplain 100-Yr	0.5	5	2.5
Detour/Dead End	0.75	5	3.75
Roadway Class	0.25	5	1.25

Max Possible Score for Culvert Inlets & Outlets: 7.5

Max Possible Score for Culvert Pipes: 15

Table I-1
Probability of Failure Rankings - Culvert Inlets

Updated Alton Town ID	Overall Culvert ID	Date Inspected	Material Type	Rank	Weight	Condition	Rank	Weight	Total PoF Score	Maximum Possible Score	Normalized Total PoF Score
CLVTin-1	CLVT-1	2023-08-16 13:12:00	Masonry	2	1	Poor	5	2	12	15	0.80
CLVTin-10	CLVT-10	2023-08-16 15:53:36	Masonry	2	1	Good	1	2	4	15	0.27
CLVTin-100	CLVT-100	2023-08-23 13:54:46	Concrete	1	1	Good	1	2	3	15	0.20
CLVTin-101	CLVT-101	2023-08-23 14:34:26	Concrete	1	1	Good	1	2	3	15	0.20
CLVTin-102	CLVT-102	2023-08-23 14:56:55	Concrete	1	1	Fair	3	2	7	15	0.47
CLVTin-103	CLVT-103	2023-08-23 15:07:33	Masonry	2	1	Good	1	2	4	15	0.27
CLVTin-104	CLVT-104	2023-08-23 15:48:48	Masonry	2	1	Fair	3	2	8	15	0.53
CLVTin-105	CLVT-105	2023-08-23 15:50:50	Masonry	2	1	Fair	3	2	8	15	0.53
CLVTin-106	CLVT-106	2023-08-23 14:08:51	N/A	3	1	No Rating	3	2	9	15	0.60
CLVTin-107	CLVT-107	2023-08-23 16:02:45	Masonry	2	1	Good	1	2	4	15	0.27
CLVTin-108	CLVT-108	2023-08-23 16:10:09	Masonry	2	1	Good	1	2	4	15	0.27
CLVTin-109	CLVT-109	2023-08-23 16:17:25	Masonry	2	1	Good	1	2	4	15	0.27
CLVTin-11	CLVT-11	2023-08-16 16:06:26	Masonry	2	1	Poor	5	2	12	15	0.80
CLVTin-110	CLVT-110	2023-08-23 16:53:47	Masonry	2	1	Good	1	2	4	15	0.27
CLVTin-111	CLVT-111	2023-08-23 16:55:02	Masonry	2	1	Good	1	2	4	15	0.27
CLVTin-112	CLVT-112	2023-08-23 16:56:31	Masonry	2	1	Good	1	2	4	15	0.27
CLVTin-113	CLVT-113	2023-08-23 14:15:19	N/A	3	1	No Rating	3	2	9	15	0.60
CLVTin-114	CLVT-114	2023-08-23 17:28:20	Masonry	2	1	Good	1	2	4	15	0.27
CLVTin-115	CLVT-115	2023-08-23 17:41:35	Masonry	2	1	Fair	3	2	8	15	0.53
CLVTin-116	CLVT-116	2023-08-23 17:47:26	Masonry	2	1	Good	1	2	4	15	0.27
CLVTin-117	CLVT-117	2023-08-23 17:53:31	Masonry	2	1	Poor	5	2	12	15	0.80
CLVTin-118	CLVT-118	2023-08-23 18:13:11	Masonry	2	1	Fair	3	2	8	15	0.53
CLVTin-119	CLVT-119	2023-08-23 18:21:46	Masonry	2	1	Fair	3	2	8	15	0.53
CLVTin-12	CLVT-12	2023-08-16 16:14:57	Masonry	2	1	Good	1	2	4	15	0.27
CLVTin-120	CLVT-120	2023-08-23 18:50:29	Concrete	1	1	Good	1	2	3	15	0.20
CLVTin-121	CLVT-121	2023-08-23 14:22:47	Concrete	1	1	Good	1	2	3	15	0.20
CLVTin-122	CLVT-122	2023-08-23 18:56:51	Masonry	2	1	Good	1	2	4	15	0.27
CLVTin-123	CLVT-123	2023-08-23 14:20:10	N/A	3	1	No Rating	3	2	9	15	0.60
CLVTin-124	CLVT-124	2023-08-23 14:19:01	N/A	3	1	No Rating	3	2	9	15	0.60
CLVTin-125	CLVT-125	2023-08-24 12:24:32	Masonry	2	1	Good	1	2	4	15	0.27
CLVTin-126	CLVT-126	2023-08-24 12:30:06	Masonry	2	1	Fair	3	2	8	15	0.53
CLVTin-127	CLVT-127	2023-08-17 20:00:52	N/A	3	1	No Rating	3	2	9	15	0.60
CLVTin-128	CLVT-128	2023-08-24 12:41:23	Masonry	2	1	Good	1	2	4	15	0.27
CLVTin-129	CLVT-129	2023-08-17 20:01:31	N/A	3	1	No Rating	3	2	9	15	0.60
CLVTin-13	CLVT-13	2023-08-16 16:19:11	Masonry	2	1	Good	1	2	4	15	0.27
CLVTin-130	CLVT-130	2023-08-24 12:59:59	Masonry	2	1	Good	1	2	4	15	0.27
CLVTin-131	CLVT-131	2023-08-24 13:07:28	Masonry	2	1	Good	1	2	4	15	0.27
CLVTin-132	CLVT-132	2023-08-24 13:12:24	Masonry	2	1	Fair	3	2	8	15	0.53
CLVTin-133	CLVT-133	2023-08-24 13:21:58	Masonry	2	1	Poor	5	2	12	15	0.80
CLVTin-134	CLVT-134	2023-08-24 13:25:57	Masonry	2	1	Fair	3	2	8	15	0.53
CLVTin-135	CLVT-135	2023-08-24 13:31:52	Concrete	1	1	Good	1	2	3	15	0.20
CLVTin-136	CLVT-136	2023-08-23 14:32:39	N/A	3	1	No Rating	3	2	9	15	0.60
CLVTin-137	CLVT-137	2023-08-24 13:40:53	Masonry	2	1	Good	1	2	4	15	0.27
CLVTin-138	CLVT-138	2023-08-24 13:45:20	Masonry	2	1	Fair	3	2	8	15	0.53
CLVTin-139	CLVT-139	2023-08-24 13:50:46	Masonry	2	1	Poor	5	2	12	15	0.80
CLVTin-14	CLVT-14	2023-08-16 16:25:24	Masonry	2	1	Poor	5	2	12	15	0.80
CLVTin-140	CLVT-140	2023-08-23 14:35:16	N/A	3	1	No Rating	3	2	9	15	0.60
CLVTin-141	CLVT-141	2023-08-23 14:36:11	N/A	3	1	No Rating	3	2	9	15	0.60
CLVTin-142	CLVT-142	2023-08-24 14:00:24	Masonry	2	1	Good	1	2	4	15	0.27
CLVTin-143	CLVT-143	2023-08-24 14:02:57	Concrete	1	1	Good	1	2	3	15	0.20
CLVTin-144	CLVT-144	2023-08-24 14:08:28	Concrete	1	1	Good	1	2	3	15	0.20
CLVTin-145	CLVT-145	2023-08-24 14:17:30	Concrete	1	1	Good	1	2	3	15	0.20
CLVTin-146	CLVT-146	2023-08-24 14:23:56	Concrete	1	1	Good	1	2	3	15	0.20
CLVTin-147	CLVT-147	2023-08-24 14:27:13	Concrete	1	1	Good	1	2	3	15	0.20
CLVTin-148	CLVT-148	2023-08-24 14:34:05	Masonry	2	1	Poor	5	2	12	15	0.80
CLVTin-149	CLVT-149	2023-08-24 14:48:08	Concrete	1	1	Good	1	2	3	15	0.20
CLVTin-15	CLVT-15	2023-08-16 16:50:55	Masonry	2	1	Poor	5	2	12	15	0.80
CLVTin-150	CLVT-150	2023-08-17 20:01:55	N/A	3	1	No Rating	3	2	9	15	0.60
CLVTin-151	CLVT-151	2023-08-24 15:03:00	N/A	3	1	Good	1	2	5	15	0.33
CLVTin-152	CLVT-152	2023-08-24 15:01:42	N/A	3	1	Good	1	2	5	15	0.33
CLVTin-153	CLVT-153	2023-08-24 15:16:15	N/A	3	1	No Rating	3	2	9	15	0.60
CLVTin-154	CLVT-154	2023-08-24 15:55:36	Masonry	2	1	Fair	3	2	8	15	0.53
CLVTin-155	CLVT-155	2023-08-24 16:07:08	Masonry	2	1	Good	1	2	4	15	0.27
CLVTin-156	CLVT-156	2023-08-24 16:07:52	Masonry	2	1	Good	1	2	4	15	0.27
CLVTin-157	CLVT-157	2023-08-24 16:08:25	N/A	3	1	Good	1	2	5	15	0.33
CLVTin-158	CLVT-158	2023-08-24 16:19:52	N/A	3	1	Good	1	2	5	15	0.33
CLVTin-159	CLVT-159	2023-08-24 16:21:25	N/A	3	1	Good	1	2	5	15	0.33
CLVTin-16	CLVT-16	2023-08-16 16:56:08	Plastic	3	1	Poor	5	2	13	15	0.87
CLVTin-160	CLVT-160	2023-08-24 16:22:39	N/A	3	1	Good	1	2	5	15	0.33
CLVTin-161	CLVT-161	2023-08-24 16:24:06	N/A	3	1	Good	1	2	5	15	0.33
CLVTin-162	CLVT-162	2023-08-24 16:25:47	N/A	3	1	Good	1	2	5	15	0.33
CLVTin-163	CLVT-163	2023-08-24 16:27:23	N/A	3	1	Good	1	2	5	15	0.33
CLVTin-164	CLVT-164	2023-08-24 16:28:53	N/A	3	1	Good	1	2	5	15	0.33
CLVTin-165	CLVT-165	2023-08-24 16:34:04	Masonry	2	1	Good	1	2	4	15	0.27
CLVTin-166	CLVT-166	2023-08-24 16:38:45	N/A	3	1	Good	1	2	5	15	0.33
CLVTin-167	CLVT-167	2023-08-24 16:44:43	N/A	3	1	Good	1	2	5	15	0.33
CLVTin-168	CLVT-168	2023-08-24 16:50:48	Masonry	2	1	Poor	5	2	12	15	0.80
CLVTin-169	CLVT-169	2023-08-24 16:53:59	Masonry	2	1	Good	1	2	4	15	0.27
CLVTin-17	CLVT-17	2023-08-16 15:20:15	N/A	3	1	No Rating	3	2	9	15	0.60
CLVTin-170	CLVT-170	2023-08-24 16:59:09	Masonry	2	1	Good	1	2	4	15	0.27
CLVTin-171	CLVT-171	2023-08-24 17:06:02	Masonry	2	1	Fair	3	2	8	15	0.53
CLVTin-172	CLVT-172	2023-08-24 17:10:46	Masonry	2	1	Good	1	2	4	15	0.27
CLVTin-173	CLVT-173	2023-08-24 17:16:34	Masonry	2	1	Good	1	2	4	15	0.27
CLVTin-174	CLVT-174	2023-08-24 17:21:54	Masonry	2	1	Fair	3	2	8	15	0.53
CLVTin-175	CLVT-175	2023-08-24 17:28:22	Masonry	2	1	Poor	5	2	12	15	0.80
CLVTin-176	CLVT-176	2023-08-24 17:34:44	Masonry	2	1	Good	1	2	4	15	0.27
CLVTin-177	CLVT-177	2023-08-24 17:39:30	Masonry	2	1	Fair	3	2	8	15	0.53
CLVTin-178	CLVT-178	2023-08-24 17:46:45	N/A	3	1	No Rating	3	2	9	15	0.60
CLVTin-179	CLVT-179	2023-08-24 17:52:01	Masonry	2	1	Fair	3	2	8	15	0.53
CLVTin-18	CLVT-18	2023-08-16 17:06:14	Masonry	2	1	Fair	3	2	8	15	0.53
CLVTin-180	CLVT-180	2023-08-24 17:58:31	Masonry	2	1	Good	1	2	4	15	0.27
CLVTin-181	CLVT-181	2023-08-24 18:04:10	Masonry	2	1	Good	1	2	4	15	0.27
CLVTin-182	CLVT-182	2023-08-24 18:08:25	N/A	3	1	Good	1	2	5	15	0.33
CLVTin-183	CLVT-183	2023-08-24 18:11:50	Masonry	2	1	Good	1	2	4	15	0.27
CLVTin-184	CLVT-184	2023-08-24 18:17:10	Masonry	2	1	Good	1	2	4	15	0.27
CLVTin-185	CLVT-185	2023-08-24 18:23:56	N/A	3	1	Good	1	2	5	15	0.33
CLVTin-186	CLVT-186	2023-08-24 18:33:16	Concrete	1	1	Good	1	2	3	15	0.20
CLVTin-187	CLVT-187	2023-08-24 18:39:20	Concrete	1	1	Good	1	2	3	15	0.20
CLVTin-188	CLVT-188	2023-08-24 18:43:44	Masonry	2	1	Good	1	2	4	15	0.27
CLVTin-189	CLVT-189	2023-08-24 18:54:19	Masonry	2	1	Good	1	2	4	15	0.27
CLVTin-19	CLVT-19	2023-08-16 17:26:55	Masonry	2	1	Poor	5	2	12	15	0.80
CLVTin-190	CLVT-190	2023-08-24 19:03:55	Masonry	2	1	Good	1	2	4	15	0.27
CLVTin-191	CLVT-191	2023-09-06 11:15:06	Masonry	2	1	Good	1	2	4	15	0.27
CLVTin-192	CLVT-192	2023-09-06 11:18:29	Masonry	2	1	Good	1	2	4	15	0.27
CLVTin-193	CLVT-193	2023-09-06 11:29:20	Plastic	3	1	Good	1	2	5	15	0.33
CLVTin-194	CLVT-194	2023-09-06 11:37:36	N/A	3	1	Good	1	2	5	15	0.33

Updated Alton Town ID	Overall Culvert ID	Date Inspected	Material Type	Rank	Weight	Condition	Rank	Weight	Total PoF Score	Maximum Possible Score	Normalized Total PoF Score
CLVTIn-195	CLVT-195	2023-09-06 11:51:48	Masonry	2	1	Fair	3	2	8	15	0.53
CLVTIn-196	CLVT-196	2023-09-06 12:05:14	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-197	CLVT-197	2023-09-06 12:13:51	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-198	CLVT-198	2023-09-06 12:21:14	Masonry	2	1	Fair	3	2	8	15	0.53
CLVTIn-199	CLVT-199	2023-09-06 12:22:04	Masonry	2	1	Fair	3	2	8	15	0.53
CLVTIn-2	CLVT-2	2023-08-16 14:05:23	Masonry	2	1	Poor	5	2	12	15	0.80
CLVTIn-20	CLVT-20	2023-08-16 17:36:02	Masonry	2	1	Poor	5	2	12	15	0.80
CLVTIn-200	CLVT-200	2023-09-06 12:23:04	Masonry	2	1	Fair	3	2	8	15	0.53
CLVTIn-201	CLVT-201	2023-09-06 12:33:38	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-202	CLVT-202	2023-09-06 12:51:46	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-203	CLVT-203	2023-09-06 12:57:55	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-204	CLVT-204	2023-09-06 13:05:01	Masonry	2	1	Fair	3	2	8	15	0.53
CLVTIn-205	CLVT-205	2023-09-06 13:10:56	Masonry	2	1	Poor	5	2	12	15	0.80
CLVTIn-206	CLVT-206	2023-09-06 13:16:09	Masonry	2	1	Poor	5	2	12	15	0.80
CLVTIn-207	CLVT-207	2023-09-06 13:24:59	Masonry	2	1	Fair	3	2	8	15	0.53
CLVTIn-208	CLVT-208	2023-09-06 13:33:47	Masonry	2	1	Poor	5	2	12	15	0.80
CLVTIn-209	CLVT-209	2023-09-06 13:47:07	Masonry	2	1	Poor	5	2	12	15	0.80
CLVTIn-21	CLVT-21	2023-08-16 17:36:59	Masonry	2	1	Poor	5	2	12	15	0.80
CLVTIn-210	CLVT-210	2023-09-06 13:55:59	Masonry	2	1	Fair	3	2	8	15	0.53
CLVTIn-211	CLVT-211	2023-09-06 14:13:43	N/A	3	1	Good	1	2	5	15	0.33
CLVTIn-212	CLVT-212	2023-09-13 11:22:48	N/A	3	1	No Rating	3	2	9	15	0.60
CLVTIn-213	CLVT-213	2023-09-13 11:30:24	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-214	CLVT-214	2023-09-13 11:35:36	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-215	CLVT-215	2023-09-13 11:39:30	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-216	CLVT-216	2023-09-13 11:46:53	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-217	CLVT-217	2023-09-13 11:52:53	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-218	CLVT-218	2023-09-13 12:24:26	Masonry	2	1	Fair	3	2	8	15	0.53
CLVTIn-219	CLVT-219	2023-09-13 12:29:26	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-22	CLVT-22	2023-08-16 17:47:56	Masonry	2	1	Poor	5	2	12	15	0.80
CLVTIn-220	CLVT-220	2023-09-13 12:33:29	Masonry	2	1	Poor	5	2	12	15	0.80
CLVTIn-221	CLVT-221	2023-09-13 12:43:50	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-222	CLVT-222	2023-09-13 12:50:20	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-223	CLVT-223	2023-09-13 12:54:42	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-224	CLVT-224	2023-09-13 12:58:54	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-225	CLVT-225	2023-09-13 13:04:55	Masonry	2	1	Fair	3	2	8	15	0.53
CLVTIn-226	CLVT-226	2023-09-13 13:08:34	Masonry	2	1	Fair	3	2	8	15	0.53
CLVTIn-227	CLVT-227	2023-09-13 13:13:57	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-228	CLVT-228	2023-09-13 13:18:47	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-229	CLVT-229	2023-09-13 13:27:50	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-23	CLVT-23	2023-08-16 17:55:08	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-230	CLVT-230	2023-09-13 13:27:18	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-231	CLVT-231	2023-09-13 13:32:53	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-232	CLVT-232	2023-09-13 13:45:37	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-233	CLVT-233	2023-09-13 13:49:18	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-234	CLVT-234	2023-09-13 14:02:30	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-235	CLVT-235	2023-09-13 14:07:20	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-236	CLVT-236	2023-09-13 14:12:46	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-237	CLVT-237	2023-09-20 11:34:58	N/A	3	1	Good	1	2	5	15	0.33
CLVTIn-238	CLVT-238	2023-09-20 11:37:56	Masonry	2	1	Fair	3	2	8	15	0.53
CLVTIn-239	CLVT-239	2023-09-20 11:47:10	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-24	CLVT-24	2023-08-16 17:59:36	Masonry	2	1	Poor	5	2	12	15	0.80
CLVTIn-240	CLVT-240	2023-09-20 11:50:57	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-241	CLVT-241	2023-09-20 11:54:12	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-242	CLVT-242	2023-09-20 11:59:32	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-243	CLVT-243	2023-09-20 12:05:33	Masonry	2	1	Fair	3	2	8	15	0.53
CLVTIn-244	CLVT-244	2023-09-20 12:04:39	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-245	CLVT-245	2023-09-20 12:12:35	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-246	CLVT-246	2023-09-20 12:16:30	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-247	CLVT-247	2023-09-20 12:23:45	Masonry	2	1	Fair	3	2	8	15	0.53
CLVTIn-248	CLVT-248	2023-09-20 12:27:40	N/A	3	1	Fair	3	2	9	15	0.60
CLVTIn-249	CLVT-249	2023-09-20 12:38:18	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-25	CLVT-25	2023-08-16 18:27:46	Masonry	2	1	Poor	5	2	12	15	0.80
CLVTIn-250	CLVT-250	2023-09-20 12:44:30	Plastic	3	1	Good	1	2	5	15	0.33
CLVTIn-251	CLVT-251	2023-09-20 12:49:22	Masonry	2	1	Poor	5	2	12	15	0.80
CLVTIn-252	CLVT-252	2023-09-20 12:54:42	Masonry	2	1	Poor	5	2	12	15	0.80
CLVTIn-253	CLVT-253	2023-09-20 13:00:05	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-254	CLVT-254	2023-09-20 13:07:37	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-255	CLVT-255	2023-09-20 13:17:02	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-256	CLVT-256	2023-09-20 13:20:16	Masonry	2	1	Fair	3	2	8	15	0.53
CLVTIn-257	CLVT-257	2023-09-20 13:26:33	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-258	CLVT-258	2023-09-20 13:30:48	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-259	CLVT-259	2023-09-20 13:38:56	Concrete	1	1	Good	1	2	3	15	0.20
CLVTIn-26	CLVT-26	2023-08-16 18:33:56	Masonry	2	1	Fair	3	2	8	15	0.53
CLVTIn-260	CLVT-260	2023-09-20 13:41:21	Concrete	1	1	Good	1	2	3	15	0.20
CLVTIn-261	CLVT-261	2023-09-20 13:45:39	Concrete	1	1	Good	1	2	3	15	0.20
CLVTIn-262	CLVT-262	2023-09-20 13:50:04	Concrete	1	1	Good	1	2	3	15	0.20
CLVTIn-263	CLVT-263	2023-09-20 13:56:26	Concrete	1	1	Good	1	2	3	15	0.20
CLVTIn-264	CLVT-264	2023-09-20 13:57:12	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-265	CLVT-265	2023-09-20 13:58:03	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-266	CLVT-266	2023-09-20 14:08:55	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-267	CLVT-267	2023-09-27 12:01:07	Plastic	3	1	Good	1	2	5	15	0.33
CLVTIn-268	CLVT-268	2023-09-27 12:04:59	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-269	CLVT-269	2023-09-27 12:09:12	Plastic	3	1	Fair	3	2	9	15	0.60
CLVTIn-27	CLVT-27	2023-08-16 18:37:11	Masonry	2	1	Poor	5	2	12	15	0.80
CLVTIn-270	CLVT-270	2023-09-27 12:15:32	N/A	3	1	No Rating	3	2	9	15	0.60
CLVTIn-271	CLVT-271	2023-09-27 12:21:06	N/A	3	1	No Rating	3	2	9	15	0.60

Updated Alton Town ID	Overall Culvert ID	Date Inspected	Material Type	Rank	Weight	Condition	Rank	Weight	Total PoF Score	Maximum Possible Score	Normalized Total PoF Score
CLVTIn-272	CLVT-272	2023-09-27 12:26:19	Concrete	1	1	Good	1	2	3	15	0.20
CLVTIn-273	CLVT-273	2023-09-27 12:30:10	Concrete	1	1	Good	1	2	3	15	0.20
CLVTIn-274	CLVT-274	2023-09-27 12:40:09	Masonry	2	1	Fair	3	2	8	15	0.53
CLVTIn-275	CLVT-275	2023-09-27 12:43:18	Plastic	3	1	Good	1	2	5	15	0.33
CLVTIn-276	CLVT-276	2023-09-27 12:50:54	N/A	3	1	No Rating	3	2	9	15	0.60
CLVTIn-277	CLVT-277	2023-09-27 12:54:21	Plastic	3	1	Good	1	2	5	15	0.33
CLVTIn-278	CLVT-278	2023-09-27 12:58:24	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-279	CLVT-279	2023-09-27 13:10:54	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-280	CLVT-280	2023-08-16 18:41:35	Masonry	2	1	Poor	5	2	12	15	0.80
CLVTIn-281	CLVT-281	2023-09-27 13:15:35	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-282	CLVT-282	2023-09-27 13:26:47	Masonry	2	1	Fair	3	2	8	15	0.53
CLVTIn-283	CLVT-283	2023-09-27 13:27:39	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-284	CLVT-284	2023-09-27 13:50:16	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-285	CLVT-285	2023-09-27 14:01:17	Concrete	1	1	Good	1	2	3	15	0.20
CLVTIn-286	CLVT-286	2023-09-27 14:09:08	Masonry	2	1	Fair	3	2	8	15	0.53
CLVTIn-287	CLVT-287	2023-09-27 14:16:44	Metal	4	1	Fair	3	2	10	15	0.67
CLVTIn-288	CLVT-288	2023-09-27 14:21:43	Metal	4	1	Fair	3	2	10	15	0.67
CLVTIn-289	CLVT-289	2023-09-27 14:34:37	Masonry	2	1	Fair	3	2	8	15	0.53
CLVTIn-290	CLVT-290	2023-09-27 14:40:20	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-291	CLVT-291	2023-08-16 18:45:53	Masonry	2	1	Poor	5	2	12	15	0.80
CLVTIn-292	CLVT-292	2023-09-27 14:45:20	N/A	3	1	No Rating	3	2	9	15	0.60
CLVTIn-293	CLVT-293	2023-09-27 14:49:55	Masonry	2	1	Poor	5	2	12	15	0.80
CLVTIn-294	CLVT-294	2023-09-27 14:53:30	Masonry	2	1	Poor	5	2	12	15	0.80
CLVTIn-295	CLVT-295	2023-09-27 14:58:43	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-296	CLVT-296	2023-09-27 15:03:51	Masonry	2	1	Poor	5	2	12	15	0.80
CLVTIn-297	CLVT-297	2023-09-27 15:08:34	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-298	CLVT-298	2023-09-27 15:20:19	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-299	CLVT-299	2023-09-27 16:08:47	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-300	CLVT-300	2023-09-27 16:15:27	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-301	CLVT-301	2023-09-27 16:26:58	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-302	CLVT-302	2023-08-16 13:43:06	Masonry	2	1	Poor	5	2	12	15	0.80
CLVTIn-303	CLVT-303	2023-08-17 13:41:22	N/A	3	1	No Rating	3	2	9	15	0.60
CLVTIn-304	CLVT-304	2023-09-27 16:30:14	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-305	CLVT-305	2023-09-27 16:33:03	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-306	CLVT-306	2023-09-27 16:39:08	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-307	CLVT-307	2023-09-27 16:44:11	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-308	CLVT-308	2023-09-27 16:47:24	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-309	CLVT-309	2023-09-27 16:52:15	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-310	CLVT-310	2023-09-27 16:53:59	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-311	CLVT-311	2023-09-27 16:57:17	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-312	CLVT-312	2023-09-27 17:00:17	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-313	CLVT-313	2023-09-27 17:03:17	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-314	CLVT-314	2023-08-16 18:59:15	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-315	CLVT-315	2023-09-27 17:06:16	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-316	CLVT-316	2023-09-27 17:20:27	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-317	CLVT-317	2023-09-27 17:18:55	Masonry	2	1	Poor	5	2	12	15	0.80
CLVTIn-318	CLVT-318	2023-09-27 17:27:53	Masonry	2	1	Poor	5	2	12	15	0.80
CLVTIn-319	CLVT-319	2023-09-27 17:35:33	N/A	3	1	No Rating	3	2	9	15	0.60
CLVTIn-320	CLVT-320	2023-09-27 17:38:48	Metal	4	1	Fair	3	2	10	15	0.67
CLVTIn-321	CLVT-321	2023-09-27 17:44:45	Metal	4	1	Fair	3	2	10	15	0.67
CLVTIn-322	CLVT-322	2023-09-27 17:48:28	Metal	4	1	Poor	5	2	12	15	0.93
CLVTIn-323	CLVT-323	2023-09-27 17:53:47	Masonry	2	1	Poor	5	2	14	15	0.80
CLVTIn-324	CLVT-324	2023-09-27 17:59:04	Masonry	2	1	Fair	3	2	8	15	0.53
CLVTIn-325	CLVT-325	2023-08-16 19:03:06	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-326	CLVT-326	2023-09-27 18:04:44	N/A	3	1	No Rating	3	2	9	15	0.60
CLVTIn-327	CLVT-327	2023-09-27 18:18:22	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-328	CLVT-328	2023-09-27 18:17:39	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-329	CLVT-329	2023-09-27 18:53:00	N/A	3	1	No Rating	3	2	9	15	0.60
CLVTIn-330	CLVT-330	2023-10-04 11:18:53	N/A	3	1	No Rating	3	2	9	15	0.60
CLVTIn-331	CLVT-331	2023-10-04 11:21:58	N/A	3	1	No Rating	3	2	9	15	0.60
CLVTIn-332	CLVT-332	2023-10-04 11:25:25	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-333	CLVT-333	2023-10-04 11:31:37	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-334	CLVT-334	2023-10-04 12:38:41	Concrete	1	1	Fair	3	2	7	15	0.47
CLVTIn-335	CLVT-335	2023-10-04 12:43:16	Masonry	2	1	Fair	3	2	8	15	0.53
CLVTIn-336	CLVT-336	2023-08-16 15:25:46	Concrete	1	1	Good	1	2	3	15	0.20
CLVTIn-337	CLVT-337	2023-10-04 12:50:31	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-338	CLVT-338	2023-10-04 12:54:08	Masonry	2	1	Poor	5	2	12	15	0.80
CLVTIn-339	CLVT-339	2023-10-04 12:58:54	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-340	CLVT-340	2023-10-04 13:29:03	Concrete	1	1	Good	1	2	3	15	0.20
CLVTIn-341	CLVT-341	2023-10-04 13:29:46	Concrete	1	1	Good	1	2	3	15	0.20
CLVTIn-342	CLVT-342	2023-10-04 13:38:14	N/A	3	1	No Rating	3	2	9	15	0.60
CLVTIn-343	CLVT-343	2023-10-04 13:46:49	Concrete	1	1	Good	1	2	3	15	0.20
CLVTIn-344	CLVT-344	2023-10-04 13:53:59	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-345	CLVT-345	2023-10-04 13:57:12	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-346	CLVT-346	2023-10-04 14:01:38	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-347	CLVT-347	2023-08-16 19:16:39	Masonry	2	1	Poor	5	2	12	15	0.80
CLVTIn-348	CLVT-348	2023-10-04 14:04:36	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-349	CLVT-349	2023-10-11 11:25:19	N/A	3	1	No Rating	3	2	9	15	0.60
CLVTIn-350	CLVT-350	2023-10-11 11:28:10	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-351	CLVT-351	2023-10-11 11:31:08	N/A	3	1	No Rating	3	2	9	15	0.60
CLVTIn-352	CLVT-352	2023-10-11 11:33:47	N/A	3	1	No Rating	3	2	9	15	0.60
CLVTIn-353	CLVT-353	2023-10-11 11:38:11	N/A	3	1	No Rating	3	2	9	15	0.60
CLVTIn-354	CLVT-354	2023-10-11 11:45:54	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-355	CLVT-355	2023-10-11 11:55:58	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-356	CLVT-356	2023-10-11 11:59:01	Masonry	2	1	Fair	3	2	8	15	0.53
CLVTIn-357	CLVT-357	2023-10-11 12:02:06	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-358	CLVT-358	2023-08-16 19:22:56	Masonry	2	1	Fair	3	2	8	15	0.53
CLVTIn-359	CLVT-359	2023-10-11 12:03:57	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-360	CLVT-360	2023-10-11 12:06:07	Masonry	2	1	Poor	5	2	12	15	0.80
CLVTIn-361	CLVT-361	2023-10-11 12:09:54	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-362	CLVT-362	2023-10-11 12:17:06	N/A	3	1	No Rating	3	2	9	15	0.60
CLVTIn-363	CLVT-363	2023-10-11 12:20:12	Masonry	2	1	Poor	5	2	12	15	0.80
CLVTIn-364	CLVT-364	2023-10-11 12:23:58	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-365	CLVT-365	2023-10-11 12:28:32	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-366	CLVT-366	2023-10-11 12:33:08	Concrete	1	1	Good	1	2	3	15	0.20
CLVTIn-367	CLVT-367	2023-10-11 12:36:42	Plastic	3	1	Good	1	2	5	15	0.33

Updated Alton Town ID	Overall Culvert ID	Date Inspected	Material Type	Rank	Weight	Condition	Rank	Weight	Total PoF Score	Maximum Possible Score	Normalized Total PoF Score
CLVTIn-359	CLVT-359	2023-10-11 12:40:59	Masonry	2	1	Fair	3	2	8	15	0.53
CLVTIn-36	CLVT-36	2023-08-16 19:26:45	N/A	3	1	No Rating	3	2	9	15	0.60
CLVTIn-360	CLVT-360	2023-10-11 12:44:29	Masonry	2	1	Poor	5	2	12	15	0.80
CLVTIn-361	CLVT-361	2023-10-11 12:48:29	Masonry	2	1	Poor	5	2	12	15	0.80
CLVTIn-362	CLVT-362	2023-10-11 12:52:14	Concrete	1	1	Good	1	2	3	15	0.20
CLVTIn-363	CLVT-363	2023-10-11 12:52:55	Concrete	1	1	Good	1	2	3	15	0.20
CLVTIn-364	CLVT-364	2023-10-11 13:01:30	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-365	CLVT-365	2023-10-11 13:16:49	Concrete	1	1	Good	1	2	3	15	0.20
CLVTIn-366	CLVT-366	2023-10-11 13:19:17	Concrete	1	1	Good	1	2	3	15	0.20
CLVTIn-367	CLVT-367	2023-10-11 13:23:49	Concrete	1	1	Good	1	2	3	15	0.20
CLVTIn-368	CLVT-368	2023-10-11 13:29:27	Masonry	2	1	Fair	3	2	8	15	0.53
CLVTIn-369	CLVT-369	2023-10-11 13:36:12	N/A	3	1	No Rating	3	2	9	15	0.60
CLVTIn-37	CLVT-37	2023-08-16 19:30:47	Masonry	2	1	Fair	3	2	8	15	0.53
CLVTIn-370	CLVT-370	2023-10-11 13:48:07	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-371	CLVT-371	2023-10-11 13:51:30	Masonry	2	1	Fair	3	2	8	15	0.53
CLVTIn-372	CLVT-372	2023-10-11 13:54:14	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-373	CLVT-373	2023-10-11 13:57:19	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-374	CLVT-374	2023-10-11 14:00:43	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-375	CLVT-375	2023-10-11 14:03:57	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-376	CLVT-376	2023-10-11 14:10:08	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-377	CLVT-377	2023-10-11 14:15:11	Concrete	1	1	Good	1	2	3	15	0.20
CLVTIn-378	CLVT-378	2023-10-18 11:23:10	Concrete	1	1	Good	1	2	3	15	0.20
CLVTIn-379	CLVT-379	2023-10-18 11:34:07	Concrete	1	1	Good	1	2	3	15	0.20
CLVTIn-38	CLVT-38	2023-08-17 12:43:18	Plastic	3	1	Good	1	2	5	15	0.33
CLVTIn-380	CLVT-380	2023-10-18 11:34:07	N/A	3	1	No Rating	3	2	9	15	0.60
CLVTIn-381	CLVT-381	2023-10-18 11:41:53	Masonry	2	1	Fair	3	2	8	15	0.53
CLVTIn-382	CLVT-382	2023-10-18 11:57:41	N/A	3	1	No Rating	3	2	9	15	0.60
CLVTIn-383	CLVT-383	2023-10-18 11:58:11	N/A	3	1	No Rating	3	2	9	15	0.60
CLVTIn-384	CLVT-384	2023-10-18 12:15:16	Concrete	1	1	Good	1	2	3	15	0.20
CLVTIn-385	CLVT-385	2023-10-18 12:22:49	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-386	CLVT-386	2023-10-18 12:28:47	Masonry	2	1	Fair	3	2	8	15	0.53
CLVTIn-387	CLVT-387	2023-08-23 12:30:16	Concrete	1	1	Good	1	2	3	15	0.20
CLVTIn-388	CLVT-388	2023-09-27 13:19:24	Plastic	3	1	Fair	3	2	9	15	0.60
CLVTIn-39	CLVT-39	2023-08-17 13:23:35	Concrete	1	1	Good	1	2	3	15	0.20
CLVTIn-4	CLVT-4	2023-08-16 14:13:33	Masonry	2	1	Poor	5	2	12	15	0.80
CLVTIn-40	CLVT-40	2023-08-17 12:54:10	Concrete	1	1	Good	1	2	3	15	0.20
CLVTIn-41	CLVT-41	2023-08-17 13:01:27	Concrete	1	1	Fair	3	2	7	15	0.47
CLVTIn-42	CLVT-42	2023-08-17 13:07:10	Concrete	1	1	Good	1	2	3	15	0.20
CLVTIn-43	CLVT-43	2023-08-17 13:13:04	Plastic	3	1	Good	1	2	5	15	0.33
CLVTIn-44	CLVT-44	2023-08-17 13:17:28	Concrete	1	1	Fair	3	2	7	15	0.47
CLVTIn-45	CLVT-45	2023-08-17 13:22:42	Plastic	3	1	Good	1	2	5	15	0.33
CLVTIn-46	CLVT-46	2023-08-17 13:29:31	Plastic	3	1	Good	1	2	5	15	0.33
CLVTIn-47	CLVT-47	2023-08-17 13:32:51	Plastic	3	1	Good	1	2	5	15	0.33
CLVTIn-48	CLVT-48	2023-08-17 13:37:31	Plastic	3	1	Poor	5	2	13	15	0.87
CLVTIn-49	CLVT-49	2023-08-17 13:41:43	Concrete	1	1	Fair	3	2	7	15	0.47
CLVTIn-5	CLVT-5	2023-08-16 14:26:22	Masonry	2	1	Poor	5	2	12	15	0.80
CLVTIn-50	CLVT-50	2023-08-17 13:32:11	N/A	3	1	No Rating	3	2	9	15	0.60
CLVTIn-51	CLVT-51	2023-08-17 13:51:17	Masonry	2	1	Poor	5	2	12	15	0.80
CLVTIn-52	CLVT-52	2023-08-17 13:57:46	Concrete	1	1	Fair	3	2	7	15	0.47
CLVTIn-53	CLVT-53	2023-08-17 14:04:35	Plastic	3	1	Fair	3	2	9	15	0.60
CLVTIn-54	CLVT-54	2023-08-17 14:09:36	Concrete	1	1	Fair	3	2	7	15	0.47
CLVTIn-55	CLVT-55	2023-08-17 14:14:22	Plastic	3	1	Good	1	2	5	15	0.33
CLVTIn-56	CLVT-56	2023-08-17 14:17:57	Concrete	1	1	Fair	3	2	7	15	0.47
CLVTIn-57	CLVT-57	2023-08-17 14:22:34	Plastic	3	1	Good	1	2	5	15	0.33
CLVTIn-58	CLVT-58	2023-08-17 14:27:40	Concrete	1	1	Fair	3	2	7	15	0.47
CLVTIn-59	CLVT-59	2023-08-17 14:32:43	Concrete	1	1	Good	1	2	3	15	0.20
CLVTIn-60	CLVT-60	2023-08-17 14:37:35	Concrete	1	1	Good	1	2	3	15	0.20
CLVTIn-61	CLVT-61	2023-08-17 14:43:55	Concrete	1	1	Fair	3	2	7	15	0.47
CLVTIn-62	CLVT-62	2023-08-17 14:55:03	Concrete	1	1	Good	1	2	3	15	0.20
CLVTIn-63	CLVT-63	2023-08-17 15:47:56	N/A	3	1	Good	1	2	5	15	0.33
CLVTIn-64	CLVT-64	2023-08-17 15:52:09	N/A	3	1	Good	1	2	5	15	0.33
CLVTIn-65	CLVT-65	2023-08-17 16:44:03	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-66	CLVT-66	2023-08-17 16:03:41	Masonry	2	1	Fair	3	2	8	15	0.53
CLVTIn-67	CLVT-67	2023-08-17 16:12:29	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-68	CLVT-68	2023-08-17 16:17:45	Masonry	2	1	Poor	5	2	12	15	0.80
CLVTIn-69	CLVT-69	2023-08-17 16:25:19	N/A	3	1	No Rating	3	2	9	15	0.60
CLVTIn-7	CLVT-7	2023-08-16 15:18:39	Masonry	2	1	Fair	3	2	8	15	0.53
CLVTIn-70	CLVT-70	2023-08-17 16:52:18	Concrete	1	1	Good	1	2	3	15	0.20
CLVTIn-71	CLVT-71	2023-08-17 16:33:32	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-72	CLVT-72	2023-08-17 17:11:06	Concrete	1	1	Good	1	2	3	15	0.20
CLVTIn-73	CLVT-73	2023-08-17 16:42:08	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-74	CLVT-74	2023-08-17 16:48:20	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-75	CLVT-75	2023-08-17 16:51:59	Masonry	2	1	Fair	3	2	8	15	0.53
CLVTIn-76	CLVT-76	2023-08-17 16:58:26	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-77	CLVT-77	2023-08-17 17:02:09	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-78	CLVT-78	2023-08-17 17:09:57	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-79	CLVT-79	2023-08-17 17:16:13	Concrete	1	1	Good	1	2	3	15	0.20
CLVTIn-80	CLVT-80	2023-08-17 17:27:59	Other	5	1	Fair	3	2	11	15	0.73
CLVTIn-81	CLVT-81	2023-08-17 17:35:10	Metal	4	1	Good	1	2	6	15	0.40
CLVTIn-82	CLVT-82	2023-08-17 17:38:23	Other	5	1	Poor	5	2	15	15	1.00
CLVTIn-83	CLVT-83	2023-08-17 17:44:40	Masonry	2	1	Poor	5	2	12	15	0.80
CLVTIn-84	CLVT-84	2023-08-17 17:49:14	Metal	4	1	Good	1	2	6	15	0.40
CLVTIn-85	CLVT-85	2023-08-17 17:57:06	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-86	CLVT-86	2023-08-17 18:01:38	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-87	CLVT-87	2023-08-17 18:14:08	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-88	CLVT-88	2023-08-17 18:17:23	Concrete	1	1	Good	1	2	3	15	0.20
CLVTIn-89	CLVT-89	2023-08-17 18:16:43	Concrete	1	1	Good	1	2	3	15	0.20
CLVTIn-9	CLVT-9	2023-08-16 15:42:38	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-90	CLVT-90	2023-08-17 18:27:26	Masonry	2	1	Fair	3	2	8	15	0.53
CLVTIn-91	CLVT-91	2023-08-17 18:37:47	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-92	CLVT-92	2023-08-17 18:54:23	Masonry	2	1	Fair	3	2	8	15	0.53
CLVTIn-93	CLVT-93	2023-08-17 18:59:01	Masonry	2	1	Good	1	2	4	15	0.27
CLVTIn-94	CLVT-94	2023-08-23 12:14:22	Masonry	2	1	Poor	5	2	12	15	0.80
CLVTIn-95	CLVT-95	2023-08-23 12:19:37	Masonry	2	1	Poor	5	2	12	15	0.80
CLVTIn-96	CLVT-96	2023-08-23 12:32:53	Concrete	1	1	Fair	3	2	7	15	0.47
CLVTIn-97	CLVT-97	2023-08-23 12:30:48	Concrete	1	1	Good	1	2	3	15	0.20
CLVTIn-98	CLVT-98	2023-08-23 13:52:21	Concrete	1	1	Good	1	2	3	15	0.20
CLVTIn-99	CLVT-99	2023-08-23 13:13:27	Masonry	2	1	Poor	5	2	12	15	0.80

Table I-2 Probability of Failure Rankings - Culvert Pipes

Updated Altton Town ID	Overall Culvert ID	Date Inspected	Material Type	Rank	Weight	Condition	Rank	Weight	Height of Fill	Rank	Weight	Total PoF Score	Maximum Possible Score	Normalized Total PoF Score
CLVTPipe-1	CLVT-1	2023-08-16 15:29:05	Metal	5	1	Poor	5	2	0-2'	5	0.5	17.5	17.5	1.00
CLVTPipe-10	CLVT-10	2023-08-16 15:55:51	Plastic	3	1	Good	1	2	2-5'	0	0.5	5	17.5	0.29
CLVTPipe-100	CLVT-100	2023-08-23 13:57:58	Concrete	1	1	Good	1	2	2-5'	0	0.5	3	17.5	0.17
CLVTPipe-101	CLVT-101	2023-08-23 14:35:49	Concrete	1	1	Poor	5	2	2-5'	0	0.5	11	17.5	0.63
CLVTPipe-102	CLVT-102	2023-08-23 14:58:54	Concrete	1	1	Good	1	2	2-5'	0	0.5	3	17.5	0.17
CLVTPipe-103	CLVT-103	2023-08-23 15:08:29	Plastic	3	1	Fair	3	2	0-2'	5	0.5	11.5	17.5	0.66
CLVTPipe-104	CLVT-104	2023-08-23 15:49:44	Plastic	3	1	Good	1	2	2-5'	0	0.5	5	17.5	0.29
CLVTPipe-105	CLVT-105	2023-08-23 15:53:01	Plastic	3	1	Good	1	2	2-5'	0	0.5	5	17.5	0.29
CLVTPipe-106	CLVT-106	2023-08-23 14:09:08	N/A	3	1	No Rating	3	2	0-2'	5	0.5	11.5	17.5	0.66
CLVTPipe-107	CLVT-107	2023-08-23 16:03:21	Metal	5	1	Poor	5	2	0-2'	5	0.5	17.5	17.5	1.00
CLVTPipe-108	CLVT-108	2023-08-23 16:10:45	Metal	5	1	Poor	5	2	2-5'	0	0.5	15	17.5	0.86
CLVTPipe-109	CLVT-109	2023-08-23 16:18:00	Metal	5	1	Poor	5	2	2-5'	0	0.5	15	17.5	0.86
CLVTPipe-11	CLVT-11	2023-08-16 16:08:58	Plastic	3	1	Good	1	2	2-5'	0	0.5	5	17.5	0.29
CLVTPipe-110	CLVT-110	2023-08-23 17:10:29	Plastic	3	1	Good	1	2	2-5'	0	0.5	5	17.5	0.29
CLVTPipe-111	CLVT-111	2023-08-23 17:13:20	Plastic	3	1	Good	1	2	2-5'	0	0.5	5	17.5	0.29
CLVTPipe-112	CLVT-112	2023-08-23 17:13:20	Plastic	3	1	Good	1	2	2-5'	0	0.5	5	17.5	0.29
CLVTPipe-113	CLVT-113	2023-08-23 17:19:03	Metal	5	1	Poor	5	2	2-5'	0	0.5	15	17.5	0.86
CLVTPipe-114	CLVT-114	2023-08-23 17:34:35	Plastic	3	1	Good	1	2	2-5'	0	0.5	5	17.5	0.29
CLVTPipe-115	CLVT-115	2023-08-23 17:42:37	Plastic	3	1	Good	1	2	2-5'	0	0.5	5	17.5	0.29
CLVTPipe-116	CLVT-116	2023-08-23 17:49:07	Plastic	3	1	Fair	3	2	2-5'	0	0.5	9	17.5	0.51
CLVTPipe-117	CLVT-117	2023-08-23 17:54:12	Metal	5	1	Fair	3	2	0-2'	5	0.5	13.5	17.5	0.77
CLVTPipe-118	CLVT-118	2023-08-23 18:20:18	Plastic	3	1	Fair	3	2	2-5'	0	0.5	9	17.5	0.51
CLVTPipe-119	CLVT-119	2023-08-23 18:23:59	Plastic	3	1	Good	1	2	2-5'	0	0.5	5	17.5	0.29
CLVTPipe-12	CLVT-12	2023-08-16 13:12:47	Plastic	3	1	Good	1	2	0-2'	5	0.5	7.5	17.5	0.43
CLVTPipe-120	CLVT-120	2023-08-23 18:54:11	Concrete	1	1	Good	1	2	2-5'	0	0.5	3	17.5	0.17
CLVTPipe-121	CLVT-121	2023-08-23 18:55:25	Concrete	1	1	Good	1	2	2-5'	0	0.5	3	17.5	0.17
CLVTPipe-122	CLVT-122	2023-08-23 18:59:03	Plastic	3	1	Good	1	2	2-5'	0	0.5	5	17.5	0.29
CLVTPipe-123	CLVT-123	2023-08-23 14:20:22	N/A	3	1	No Rating	3	2	0-2'	5	0.5	11.5	17.5	0.66
CLVTPipe-124	CLVT-124	2023-08-23 14:19:14	N/A	3	1	No Rating	3	2	0-2'	5	0.5	11.5	17.5	0.66
CLVTPipe-125	CLVT-125	2023-08-24 12:27:14	Plastic	3	1	Good	1	2	2-5'	0	0.5	5	17.5	0.29
CLVTPipe-126	CLVT-126	2023-08-24 14:33:31	Plastic	3	1	Fair	3	2	2-5'	0	0.5	9	17.5	0.51
CLVTPipe-127	CLVT-127	2023-08-24 12:30:07	Plastic	3	1	Good	1	2	2-5'	0	0.5	5	17.5	0.29
CLVTPipe-128	CLVT-128	2023-08-24 12:43:36	Plastic	3	1	Good	1	2	5-10'	0	0.5	5	17.5	0.29
CLVTPipe-129	CLVT-129	2023-08-24 12:46:08	Plastic	3	1	Fair	3	2	2-5'	0	0.5	9	17.5	0.51
CLVTPipe-13	CLVT-13	2023-08-16 16:21:23	Plastic	3	1	Good	1	2	0-2'	5	0.5	7.5	17.5	0.43
CLVTPipe-130	CLVT-130	2023-08-24 13:00:39	Plastic	3	1	Good	1	2	2-5'	0	0.5	5	17.5	0.29
CLVTPipe-131	CLVT-131	2023-08-24 13:08:17	Plastic	3	1	Fair	3	2	0-2'	5	0.5	11.5	17.5	0.66
CLVTPipe-132	CLVT-132	2023-08-24 13:13:28	Plastic	3	1	Fair	3	2	2-5'	0	0.5	9	17.5	0.51
CLVTPipe-133	CLVT-133	2023-08-24 13:23:47	Plastic	3	1	Fair	3	2	0-2'	5	0.5	11.5	17.5	0.66
CLVTPipe-134	CLVT-134	2023-08-24 13:29:23	Plastic	3	1	Fair	3	2	2-5'	0	0.5	9	17.5	0.51
CLVTPipe-135	CLVT-135	2023-08-24 13:33:13	Plastic	3	1	Good	1	2	2-5'	0	0.5	5	17.5	0.29
CLVTPipe-136	CLVT-136	2023-08-24 13:37:16	Plastic	3	1	Fair	3	2	2-5'	0	0.5	9	17.5	0.51
CLVTPipe-137	CLVT-137	2023-08-24 13:41:31	Metal	5	1	Poor	5	2	2-5'	0	0.5	15	17.5	0.86
CLVTPipe-138	CLVT-138	2023-08-24 13:46:02	Plastic	3	1	Poor	5	2	2-5'	0	0.5	13	17.5	0.74
CLVTPipe-139	CLVT-139	2023-08-24 13:51:32	Plastic	3	1	Fair	3	2	2-5'	0	0.5	9	17.5	0.51
CLVTPipe-14	CLVT-14	2023-08-16 16:27:56	Metal	5	1	Poor	5	2	2-5'	0	0.5	15	17.5	0.86
CLVTPipe-140	CLVT-140	2023-09-23 14:35:29	N/A	3	1	No Rating	3	2	0-2'	5	0.5	11.5	17.5	0.66
CLVTPipe-141	CLVT-141	2023-08-24 13:59:21	Plastic	3	1	Good	1	2	2-5'	0	0.5	5	17.5	0.29
CLVTPipe-142	CLVT-142	2023-08-24 14:01:48	Plastic	3	1	Good	1	2	2-5'	0	0.5	5	17.5	0.29
CLVTPipe-143	CLVT-143	2023-08-24 14:05:36	Plastic	3	1	Fair	3	2	2-5'	0	0.5	9	17.5	0.51
CLVTPipe-144	CLVT-144	2023-08-24 14:48:46	Other	2	1	Good	1	2	5-10'	0	0.5	4	17.5	0.23
CLVTPipe-145	CLVT-145	2023-08-24 14:18:07	Plastic	3	1	Poor	5	2	2-5'	0	0.5	13	17.5	0.74
CLVTPipe-146	CLVT-146	2023-08-24 14:25:44	Plastic	3	1	Good	1	2	2-5'	0	0.5	5	17.5	0.29
CLVTPipe-147	CLVT-147	2023-08-24 14:28:50	Plastic	3	1	Good	1	2	0-2'	5	0.5	7.5	17.5	0.43
CLVTPipe-148	CLVT-148	2023-08-24 14:34:59	Plastic	3	1	Good	1	2	0-2'	5	0.5	7.5	17.5	0.43
CLVTPipe-149	CLVT-149	2023-08-24 14:49:54	Plastic	3	1	Good	1	2	0-2'	5	0.5	7.5	17.5	0.43
CLVTPipe-15	CLVT-15	2023-08-16 16:52:26	Plastic	3	1	Good	1	2	2-5'	0	0.5	5	17.5	0.29
CLVTPipe-150	CLVT-150	2023-08-24 14:56:36	Plastic	3	1	Good	1	2	0-2'	5	0.5	7.5	17.5	0.43
CLVTPipe-151	CLVT-151	2023-08-24 15:07:57	Plastic	3	1	Good	1	2	0-2'	5	0.5	7.5	17.5	0.43
CLVTPipe-152	CLVT-152	2023-08-24 15:09:57	Plastic	3	1	Good	1	2	2-5'	0	0.5	7.5	17.5	0.43
CLVTPipe-153	CLVT-153	2023-08-24 15:17:17	N/A	3	1	No Rating	3	2	0-2'	5	0.5	11.5	17.5	0.66
CLVTPipe-154	CLVT-154	2023-08-24 15:57:22	Plastic	3	1	Good	1	2	2-5'	0	0.5	5	17.5	0.29
CLVTPipe-155	CLVT-155	2023-08-24 16:09:14	Plastic	3	1	Good	1	2	2-5'	0	0.5	5	17.5	0.29
CLVTPipe-156	CLVT-156	2023-08-24 16:10:13	Concrete	1	1	Good	1	2	2-5'	0	0.5	3	17.5	0.17
CLVTPipe-157	CLVT-157	2023-08-24 16:12:01	Plastic	3	1	Good	1	2	2-5'	0	0.5	5	17.5	0.29
CLVTPipe-158	CLVT-158	2023-08-24 16:20:28	Concrete	1	1	Good	1	2	0-2'	5	0.5	5.5	17.5	0.31
CLVTPipe-159	CLVT-159	2023-08-24 16:22:02	Concrete	1	1	Good	1	2	0-2'	5	0.5	5.5	17.5	0.31
CLVTPipe-16	CLVT-16	2023-08-16 16:58:24	Plastic	3	1	Good	1	2	0-2'	5	0.5	7.5	17.5	0.43
CLVTPipe-160	CLVT-160	2023-08-24 16:23:12	Concrete	1	1	Good	1	2	0-2'	5	0.5	5.5	17.5	0.31
CLVTPipe-161	CLVT-161	2023-08-24 16:24:44	Concrete	1	1	Good	1	2	0-2'	5	0.5	5.5	17.5	0.31
CLVTPipe-162	CLVT-162	2023-08-24 16:26:28	Concrete	1	1	Good	1	2	0-2'	5	0.5	5.5	17.5	0.31
CLVTPipe-163	CLVT-163	2023-08-24 16:28:00	Concrete	1	1	Good	1	2	0-2'	5	0.5	5.5	17.5	0.31
CLVTPipe-164	CLVT-164	2023-08-24 16:29:33	Concrete	1	1	Good	1	2	0-2'	5	0.5	5.5	17.5	0.31
CLVTPipe-165	CLVT-165	2023-08-24 16:34:56	Plastic	3	1	Fair	3	2	0-2'	5	0.5	11.5	17.5	0.66
CLVTPipe-166	CLVT-166	2023-08-24 16:39:39	Plastic	3	1	Good	1	2	2-5'	0	0.5	5	17.5	0.29
CLVTPipe-167	CLVT-167	2023-08-24 16:45:28	Plastic	3	1	Fair	3	2	2-5'	0	0.5	9	17.5	0.51
CLVTPipe-168	CLVT-168	2023-08-24 16:51:25	Plastic	3	1	Good	1	2	2-5'	0	0.5	5	17.5	0.29
CLVTPipe-169	CLVT-169	2023-08-24 16:54:55	Plastic	3	1	Good	1	2	2-5'	0	0.5	5	17.5	0.29
CLVTPipe-17	CLVT-17	2023-09-11 15:11:00	N/A	3	1	No Rating	3	2	2-5'	0	0.5	9	17.5	0.51
CLVTPipe-170	CLVT-170	2023-08-24												

Updated Alton Town ID	Overall Culvert ID	Date Inspected	Material Type	Rank	Weight	Condition	Rank	Weight	Height of Fill	Rank	Weight	Total PoF Score	Maximum Possible Score	Normalized Total PoF Score
CLVTPipe-216	CLVT-216	2023-09-13 11:48:01	Plastic	3	1	Fair	3	2	5'-10"	0	0.5	9	17.5	0.51
CLVTPipe-217	CLVT-217	2023-09-13 11:54:12	Plastic	3	1	Fair	3	2	2'-5"	0	0.5	9	17.5	0.51
CLVTPipe-218	CLVT-218	2023-09-13 12:26:07	Plastic	3	1	Fair	3	2	2'-5"	0	0.5	9	17.5	0.51
CLVTPipe-219	CLVT-219	2023-09-13 12:30:25	Plastic	3	1	Good	1	2	2'-5"	0	0.5	5	17.5	0.29
CLVTPipe-220	CLVT-220	2023-09-13 12:39:36	Plastic	3	1	Good	1	2	5'-10"	0	0.5	5	17.5	0.29
CLVTPipe-221	CLVT-221	2023-09-13 12:44:47	N/A	3	1	No Rating	3	2	0'-2"	5	0.5	11.5	17.5	0.66
CLVTPipe-222	CLVT-222	2023-09-13 12:51:41	Plastic	3	1	Good	1	2	2'-5"	0	0.5	5	17.5	0.29
CLVTPipe-223	CLVT-223	2023-09-13 12:55:20	Plastic	3	1	Fair	3	2	2'-5"	0	0.5	9	17.5	0.51
CLVTPipe-224	CLVT-224	2023-09-13 12:59:29	Plastic	3	1	Fair	3	2	0'-2"	5	0.5	11.5	17.5	0.66
CLVTPipe-225	CLVT-225	2023-09-13 13:03:32	Metal	5	1	Fair	3	2	0'-2"	5	0.5	13.5	17.5	0.77
CLVTPipe-226	CLVT-226	2023-09-13 13:09:08	Metal	5	1	Poor	5	2	0'-2"	5	0.5	17.5	17.5	1.00
CLVTPipe-227	CLVT-227	2023-09-13 13:15:32	Metal	5	1	Fair	3	2	2'-5"	0	0.5	11	17.5	0.63
CLVTPipe-228	CLVT-228	2023-09-13 13:20:05	Plastic	3	1	Good	1	2	2'-5"	0	0.5	5	17.5	0.29
CLVTPipe-229	CLVT-229	2023-09-13 13:28:17	Plastic	3	1	Good	1	2	2'-5"	0	0.5	5	17.5	0.29
CLVTPipe-230	CLVT-230	2023-09-13 13:29:38	Plastic	3	1	Good	1	2	2'-5"	0	0.5	5	17.5	0.29
CLVTPipe-231	CLVT-231	2023-09-13 13:34:31	Plastic	3	1	Good	1	2	2'-5"	0	0.5	5	17.5	0.29
CLVTPipe-232	CLVT-232	2023-09-13 13:47:13	Plastic	3	1	Fair	3	2	2'-5"	0	0.5	9	17.5	0.51
CLVTPipe-233	CLVT-233	2023-09-13 13:52:19	Plastic	3	1	Good	1	2	2'-5"	0	0.5	5	17.5	0.29
CLVTPipe-234	CLVT-234	2023-09-13 14:04:32	Plastic	3	1	Fair	3	2	2'-5"	0	0.5	9	17.5	0.51
CLVTPipe-235	CLVT-235	2023-09-13 14:09:11	Plastic	3	1	Fair	3	2	0'-2"	5	0.5	11.5	17.5	0.66
CLVTPipe-236	CLVT-236	2023-09-13 14:14:04	Plastic	3	1	Fair	3	2	2'-5"	0	0.5	5	17.5	0.29
CLVTPipe-237	CLVT-237	2023-09-20 11:36:34	Plastic	3	1	Good	1	2	2'-5"	0	0.5	5	17.5	0.29
CLVTPipe-238	CLVT-238	2023-09-20 11:39:50	Plastic	3	1	Good	1	2	2'-5"	0	0.5	5	17.5	0.29
CLVTPipe-239	CLVT-239	2023-09-20 11:48:37	Plastic	3	1	Good	1	2	2'-5"	0	0.5	5	17.5	0.29
CLVTPipe-240	CLVT-240	2023-09-20 11:52:09	Plastic	3	1	Good	1	2	2'-5"	0	0.5	13	17.5	0.74
CLVTPipe-241	CLVT-241	2023-09-20 11:55:55	Plastic	3	1	Good	1	2	2'-5"	0	0.5	5	17.5	0.29
CLVTPipe-242	CLVT-242	2023-09-20 12:01:55	Metal	5	1	Good	1	2	2'-5"	0	0.5	7	17.5	0.40
CLVTPipe-243	CLVT-243	2023-09-20 12:06:25	Plastic	3	1	Poor	5	2	2'-5"	0	0.5	13	17.5	0.74
CLVTPipe-244	CLVT-244	2023-09-20 12:09:14	Plastic	3	1	Good	1	2	2'-5"	0	0.5	5	17.5	0.29
CLVTPipe-245	CLVT-245	2023-09-20 12:12:11	Metal	5	1	Good	1	2	2'-5"	0	0.5	7	17.5	0.40
CLVTPipe-246	CLVT-246	2023-09-20 12:17:49	Plastic	3	1	Good	1	2	0'-2"	5	0.5	7.5	17.5	0.43
CLVTPipe-247	CLVT-247	2023-09-20 12:24:42	Metal	5	1	Good	1	2	0'-2"	5	0.5	9.5	17.5	0.54
CLVTPipe-248	CLVT-248	2023-09-20 12:29:53	Metal	5	1	Fair	3	2	2'-5"	0	0.5	11	17.5	0.63
CLVTPipe-249	CLVT-249	2023-09-20 12:40:16	Plastic	3	1	Good	1	2	0'-2"	5	0.5	7.5	17.5	0.43
CLVTPipe-250	CLVT-250	2023-08-16 18:30:32	Metal	5	1	Fair	3	2	0'-2"	5	0.5	13.5	17.5	0.77
CLVTPipe-251	CLVT-251	2023-09-20 12:46:10	Plastic	3	1	Good	1	2	0'-2"	5	0.5	7.5	17.5	0.43
CLVTPipe-252	CLVT-252	2023-09-20 12:50:11	Plastic	3	1	Poor	5	2	0'-2"	5	0.5	15.5	17.5	0.89
CLVTPipe-253	CLVT-253	2023-09-20 12:56:21	Concrete	1	1	Good	1	2	2'-5"	0	0.5	3	17.5	0.17
CLVTPipe-254	CLVT-254	2023-09-20 13:00:49	Concrete	3	1	Good	1	2	0'-2"	5	0.5	7.5	17.5	0.43
CLVTPipe-255	CLVT-255	2023-09-20 13:09:40	Concrete	1	1	Good	1	2	0'-2"	5	0.5	5.5	17.5	0.31
CLVTPipe-256	CLVT-256	2023-09-20 13:18:26	Plastic	3	1	Good	1	2	2'-5"	0	0.5	9	17.5	0.29
CLVTPipe-257	CLVT-257	2023-09-20 13:23:18	Metal	5	1	Good	1	2	5'-10"	0	0.5	7	17.5	0.40
CLVTPipe-258	CLVT-258	2023-09-20 13:28:39	Concrete	1	1	Good	1	2	2'-5"	0	0.5	3	17.5	0.17
CLVTPipe-259	CLVT-259	2023-09-20 13:32:23	Plastic	3	1	Good	1	2	2'-5"	0	0.5	5	17.5	0.29
CLVTPipe-260	CLVT-260	2023-09-20 13:39:33	Plastic	3	1	Good	1	2	2'-5"	0	0.5	5	17.5	0.29
CLVTPipe-261	CLVT-261	2023-08-16 18:34:36	Plastic	3	1	Good	1	2	2'-5"	0	0.5	5	17.5	0.29
CLVTPipe-262	CLVT-262	2023-09-20 13:43:04	Plastic	3	1	Good	1	2	2'-5"	0	0.5	5	17.5	0.29
CLVTPipe-263	CLVT-263	2023-09-20 13:47:51	Concrete	1	1	Good	1	2	2'-5"	0	0.5	3	17.5	0.17
CLVTPipe-264	CLVT-264	2023-09-20 13:51:46	Plastic	3	1	Good	1	2	2'-5"	0	0.5	5	17.5	0.29
CLVTPipe-265	CLVT-265	2023-09-20 13:59:41	Concrete	1	1	Good	1	2	0'-2"	5	0.5	5.5	17.5	0.31
CLVTPipe-266	CLVT-266	2023-09-20 14:03:07	Metal	5	1	Good	1	2	0'-2"	5	0.5	9.5	17.5	0.54
CLVTPipe-267	CLVT-267	2023-09-20 14:04:24	Metal	5	1	Good	1	2	2'-5"	0	0.5	7	17.5	0.40
CLVTPipe-268	CLVT-268	2023-09-20 14:10:27	Metal	5	1	Good	1	2	2'-5"	0	0.5	7	17.5	0.40
CLVTPipe-269	CLVT-269	2023-09-27 12:02:06	Plastic	3	1	Good	1	2	2'-5"	0	0.5	5	17.5	0.29
CLVTPipe-270	CLVT-270	2023-09-27 12:05:58	Plastic	3	1	Good	1	2	0'-2"	5	0.5	7.5	17.5	0.43
CLVTPipe-271	CLVT-271	2023-09-27 12:09:52	Plastic	3	1	Poor	5	2	0'-2"	5	0.5	15.5	17.5	0.89
CLVTPipe-272	CLVT-272	2023-08-16 18:38:59	Plastic	3	1	Good	1	2	0'-2"	5	0.5	7.5	17.5	0.43
CLVTPipe-273	CLVT-273	2023-09-27 12:21:21	Plastic	3	1	Good	1	2	0'-2"	5	0.5	7.5	17.5	0.43
CLVTPipe-274	CLVT-274	2023-09-27 12:21:58	Plastic	3	1	Good	1	2	2'-5"	0	0.5	5	17.5	0.29
CLVTPipe-275	CLVT-275	2023-09-27 12:26:56	Plastic	3	1	Good	1	2	5'-10"	0	0.5	5	17.5	0.29
CLVTPipe-276	CLVT-276	2023-09-27 12:34:11	Plastic	3	1	Good	1	2	5'-10"	0	0.5	5	17.5	0.29
CLVTPipe-277	CLVT-277	2023-09-27 12:40:53	Plastic	3	1	Poor	5	2	0'-2"	5	0.5	15.5	17.5	0.89
CLVTPipe-278	CLVT-278	2023-09-27 12:45:38	Plastic	3	1	Good	1	2	0'-2"	5	0.5	3	17.5	0.17
CLVTPipe-279	CLVT-279	2023-09-27 12:51:47	Plastic	3	1	Good	1	2	5'-10"	0	0.5	5	17.5	0.29
CLVTPipe-280	CLVT-280	2023-09-27 12:56:11	Plastic	3	1	Good	1	2	2'-5"	0	0.5	5	17.5	0.29
CLVTPipe-281	CLVT-281	2023-09-27 13:00:08	Plastic	3	1	Good	1	2	2'-5"	0	0.5	5	17.5	0.29
CLVTPipe-282	CLVT-282	2023-09-27 13:08:08	Plastic	3	1	Good	1	2	2'-5"	0	0.5	5	17.5	0.29
CLVTPipe-283	CLVT-283	2023-09-27 13:12:22	Plastic	3	1	Good	1	2	2'-5"	0	0.5	5	17.5	0.29
CLVTPipe-284	CLVT-284	2023-09-27 13:18:46	Plastic	3	1	Good	1	2	2'-5"	0	0.5	5	17.5	0.29
CLVTPipe-285	CLVT-285	2023-09-27 13:20:03	Plastic	3	1	Good	1	2	2'-5"	0	0.5	5	17.5	0.29
CLVTPipe-286	CLVT-286	2023-09-27 13:25:06	Plastic	3	1	Fair	3	2	0'-2"	5	0.5	11.5	17.5	0.66
CLVTPipe-287	CLVT-287	2023-09-27 13:30:03	Plastic	3	1	Fair	3	2	0'-2"	5	0.5	11.5	17.5	0.66
CLVTPipe-288	CLVT-288	2023-09-27 13:35:06	Plastic	3	1	Good	1	2	0'-2"	5	0.5	7.5	17.5	0.43
CLVTPipe-289	CLVT-289	2023-09-27 13:40:03	Concrete	1	1	Good	1	2	2'-5"	0	0.5	3	17.5	0.17
CLVTPipe-290	CLVT-290	2023-09-27 14:03:16	Concrete	1	1	Good	1	2	2'-5"	0	0.5	5.5	17.5	0.31
CLVTPipe-291	CLVT-291	2023-09-27 14:10:32	Concrete	1	1	Good	1	2	2'-5"	0	0.5	3	17.5	0.17
CLVTPipe-292	CLVT-292	2023-09-27 14:23:44	Concrete	1	1	Good	1	2	2'-5"	0	0.5	3	17.5	0.17
CLVTPipe-293	CLVT-293	2023-09-27 14:35:16	Plastic	3	1	Good	1	2	0'-2"	5	0.5	7.5	17.5	0.43
CLVTPipe-294	CLVT-294	2023-09-27 14:41:31	Plastic	3	1	Good	1	2	2'-5"	0	0.5	5	17.5	0.29
CLVTPipe-295	CLVT-295	2023-08-16 18:46:48	Plastic	3	1	Good	1	2	2'-5"	0	0.5	9	17.5	0.51
CLVTPipe-296	CLVT-296	2023-09-27 14:50:08	Metal	5	1	Fair	3	2	2'-5"	0	0.5	7	17.5	0.40
CLVTPipe-297	CLVT-297	2023-09-27 14:54:58	Plastic	3	1	Fair	3	2	2'-5"	0	0.5	9	17.5	0.51
CLVTPipe-298	CLVT-298	2023-09-27 15:05:27	Plastic	3	1	Fair	3	2	0'-2"	5	0.5	11.5	17.5	0.66
CLVTPipe-299	CLVT-299	2023-09-27 15:01:43	Concrete	1	1	Good	1	2	2'-5"	0	0.5	3	17.5	0.17
CLVTPipe-300	CLVT-300	2023-09-27 15:05:54	Concrete	1	1	Good	1	2	0'-2"	5	0.5	5.5	17.5	0.31
CLVTPipe-301	CLVT-301	2023-09-27 15:12:22	Concrete	1	1	Good	1	2	2'-5"	0	0.5	3	17.5	0.17
CLVTPipe-302	CLVT-302	2023-09-27 15:18:46	Concrete	1	1	Good	1	2	2'-5"	0	0.5	3	17.5	0.17
CLVTPipe-303	CLVT-303	2023-09-27 15:25:06	Concrete	1	1	Good	1	2	2'-5"	0	0.5	3	17.5	0.17
CLVTPipe-304	CLVT-304	2023-09-27 15:32:23	Concrete	1	1	Good	1	2	2'-5"	0	0.5	3	17.5	0.17
CLVTPipe-305	CLVT-305	2023-09-27 15:39:33	Concrete											

Updated Alton Town ID	Overall Culvert ID	Date Inspected	Material Type	Rank	Weight	Condition	Rank	Weight	Height of Fill	Rank	Weight	Total PoF Score	Maximum Possible Score	Normalized Total PoF Score
CLVT-333	CLVT-333	2023-10-04 13:32:13	Plastic	3	1	Good	1	2	2'5"	0	0.5	5	17.5	0.29
CLVT-334	CLVT-334	2023-10-04 13:33:02	Plastic	3	1	Good	1	2	2'5"	0	0.5	5	17.5	0.29
CLVT-335	CLVT-335	2023-10-04 13:38:47	Plastic	3	1	Good	1	2	2'5"	0	0.5	5	17.5	0.29
CLVT-336	CLVT-336	2023-10-04 13:48:28	Concrete	1	1	Good	1	2	10'20"	3	0.5	4.5	17.5	0.26
CLVT-337	CLVT-337	2023-10-04 13:55:12	Plastic	3	1	Good	1	2	0'2"	5	0.5	7.5	17.5	0.43
CLVT-338	CLVT-338	2023-10-04 13:57:48	Plastic	3	1	Good	1	2	2'5"	0	0.5	5	17.5	0.29
CLVT-339	CLVT-339	2023-10-04 14:03:07	Plastic	3	1	Good	1	2	2'5"	0	0.5	5	17.5	0.29
CLVT-340	CLVT-340	2023-10-04 14:06:05	Plastic	3	1	Fair	3	2	0'2"	5	0.5	11.5	17.5	0.66
CLVT-341	CLVT-341	2023-10-11 11:26:53	Plastic	3	1	Good	1	2	2'5"	0	0.5	5	17.5	0.29
CLVT-342	CLVT-342	2023-10-11 11:29:50	Plastic	3	1	Good	1	2	0'2"	5	0.5	7.5	17.5	0.43
CLVT-343	CLVT-343	2023-10-11 11:32:27	Plastic	3	1	Good	1	2	0'2"	5	0.5	7.5	17.5	0.43
CLVT-344	CLVT-344	2023-10-11 11:35:09	Plastic	3	1	Good	1	2	0'2"	5	0.5	7.5	17.5	0.43
CLVT-345	CLVT-345	2023-10-11 11:40:28	Plastic	3	1	Good	1	2	0'2"	5	0.5	7.5	17.5	0.43
CLVT-346	CLVT-346	2023-10-11 11:54:31	Metal	5	1	Good	1	2	0'2"	5	0.5	9.5	17.5	0.54
CLVT-347	CLVT-347	2023-10-11 11:57:18	Metal	5	1	Fair	3	2	0'2"	5	0.5	13.5	17.5	0.77
CLVT-348	CLVT-348	2023-10-11 12:00:32	Metal	5	1	Fair	3	2	0'2"	5	0.5	13.5	17.5	0.77
CLVT-349	CLVT-349	2023-10-11 12:02:57	Plastic	3	1	Good	1	2	0'2"	5	0.5	7.5	17.5	0.43
CLVT-350	CLVT-350	2023-10-11 12:04:58	Plastic	3	1	Good	1	2	0'2"	5	0.5	7.5	17.5	0.43
CLVT-351	CLVT-351	2023-10-11 12:07:30	Concrete	1	1	Good	1	2	0'2"	5	0.5	5.5	17.5	0.31
CLVT-352	CLVT-352	2023-10-11 12:11:24	Plastic	3	1	Good	1	2	2'5"	0	0.5	5	17.5	0.29
CLVT-353	CLVT-353	2023-10-11 12:18:16	N/A	3	1	No Rating	3	2	0'2"	5	0.5	11.5	17.5	0.66
CLVT-354	CLVT-354	2023-10-11 12:21:42	Plastic	3	1	Good	1	2	2'5"	0	0.5	5	17.5	0.29
CLVT-355	CLVT-355	2023-10-11 12:25:50	Plastic	3	1	Good	1	2	0'2"	5	0.5	7.5	17.5	0.43
CLVT-356	CLVT-356	2023-10-11 12:31:19	Plastic	3	1	Good	1	2	2'5"	0	0.5	5	17.5	0.29
CLVT-357	CLVT-357	2023-10-11 12:35:25	Plastic	3	1	Good	1	2	2'5"	0	0.5	5	17.5	0.29
CLVT-358	CLVT-358	2023-10-11 12:38:49	Plastic	3	1	Good	1	2	2'5"	0	0.5	5	17.5	0.29
CLVT-359	CLVT-359	2023-10-11 12:42:43	Plastic	3	1	Good	1	2	0'2"	5	0.5	7.5	17.5	0.43
CLVT-360	CLVT-360	2023-10-11 12:46:17	Metal	5	1	Poor	5	2	2'5"	0	0.5	15	17.5	0.86
CLVT-361	CLVT-361	2023-10-11 12:49:59	Plastic	3	1	Poor	5	2	2'5"	0	0.5	13	17.5	0.74
CLVT-362	CLVT-362	2023-10-11 12:54:25	Plastic	3	1	Good	1	2	2'5"	0	0.5	5	17.5	0.29
CLVT-363	CLVT-363	2023-10-11 12:55:37	Metal	5	1	Good	1	2	2'5"	0	0.5	7	17.5	0.40
CLVT-364	CLVT-364	2023-10-11 13:03:05	Metal	5	1	Good	1	2	2'5"	0	0.5	7	17.5	0.40
CLVT-365	CLVT-365	2023-10-11 13:18:04	Plastic	3	1	Good	1	2	0'2"	5	0.5	7.5	17.5	0.43
CLVT-366	CLVT-366	2023-10-11 13:20:41	Plastic	3	1	Good	1	2	2'5"	0	0.5	5	17.5	0.29
CLVT-367	CLVT-367	2023-10-11 13:25:25	Plastic	3	1	Good	1	2	2'5"	0	0.5	5	17.5	0.29
CLVT-368	CLVT-368	2023-10-11 13:30:50	Metal	5	1	Fair	3	2	0'2"	5	0.5	13.5	17.5	0.77
CLVT-369	CLVT-369	2023-10-11 13:37:17	N/A	3	1	No Rating	3	2	0'2"	5	0.5	11.5	17.5	0.66
CLVT-370	CLVT-370	2023-08-16 15:45:31	Plastic	3	1	Fair	3	2	2'5"	0	0.5	9	17.5	0.51
CLVT-371	CLVT-371	2023-10-11 13:49:11	Plastic	3	1	Good	1	2	2'5"	0	0.5	5	17.5	0.29
CLVT-372	CLVT-372	2023-10-11 13:52:47	Plastic	3	1	Good	1	2	0'2"	5	0.5	7.5	17.5	0.43
CLVT-373	CLVT-373	2023-10-11 13:55:29	Plastic	3	1	Good	1	2	2'5"	0	0.5	5	17.5	0.29
CLVT-374	CLVT-374	2023-10-11 13:58:42	Plastic	3	1	Good	1	2	2'5"	0	0.5	5	17.5	0.29
CLVT-375	CLVT-375	2023-10-11 14:02:04	Plastic	3	1	Fair	3	2	2'5"	0	0.5	9	17.5	0.51
CLVT-376	CLVT-376	2023-10-11 14:05:37	Plastic	3	1	Good	1	2	2'5"	0	0.5	5	17.5	0.29
CLVT-377	CLVT-377	2023-10-11 14:11:30	Plastic	3	1	Good	1	2	2'5"	0	0.5	5	17.5	0.29
CLVT-378	CLVT-378	2023-10-11 14:17:13	Metal	5	1	Fair	3	2	2'5"	0	0.5	11	17.5	0.63
CLVT-379	CLVT-379	2023-10-11 14:24:41	Concrete	1	1	Fair	3	2	2'5"	0	0.5	7	17.5	0.40
CLVT-380	CLVT-380	2023-10-11 14:36:39	Plastic	3	1	Good	1	2	2'5"	0	0.5	5	17.5	0.29
CLVT-381	CLVT-381	2023-08-17 12:46:14	Plastic	3	1	Good	1	2	2'5"	0	0.5	5	17.5	0.29
CLVT-382	CLVT-382	2023-10-18 11:37:30	Plastic	3	1	Good	1	2	2'5"	0	0.5	5	17.5	0.29
CLVT-383	CLVT-383	2023-10-18 11:43:15	Metal	5	1	Good	1	2	2'5"	0	0.5	7	17.5	0.40
CLVT-384	CLVT-384	2023-10-18 11:58:46	Concrete	1	1	Good	1	2	10'20"	3	0.5	4.5	17.5	0.26
CLVT-385	CLVT-385	2023-10-18 11:59:35	Concrete	1	1	Good	1	2	10'20"	3	0.5	4.5	17.5	0.26
CLVT-386	CLVT-386	2023-10-18 12:23:16	Plastic	3	1	Good	1	2	2'5"	0	0.5	5	17.5	0.29
CLVT-387	CLVT-387	2023-10-18 12:30:26	Plastic	3	1	Good	1	2	0'2"	5	0.5	7.5	17.5	0.43
CLVT-388	CLVT-388	2023-09-27 13:20:18	Concrete	1	1	Good	1	2	2'5"	0	0.5	3	17.5	0.17
CLVT-389	CLVT-389	2023-08-17 12:51:38	Plastic	3	1	Poor	5	2	2'5"	0	0.5	13	17.5	0.74
CLVT-4	CLVT-4	2023-08-16 14:17:37	Metal	5	1	Poor	5	2	2'5"	0	0.5	15	17.5	0.86
CLVT-40	CLVT-40	2023-08-17 12:57:01	Plastic	3	1	Good	1	2	2'5"	0	0.5	5	17.5	0.29
CLVT-41	CLVT-41	2023-08-17 13:03:29	Plastic	3	1	Poor	5	2	2'5"	0	0.5	13	17.5	0.74
CLVT-42	CLVT-42	2023-08-17 13:09:21	Plastic	3	1	Good	1	2	0'2"	5	0.5	7.5	17.5	0.43
CLVT-43	CLVT-43	2023-08-17 13:15:21	Plastic	3	1	Good	1	2	2'5"	0	0.5	5	17.5	0.29
CLVT-44	CLVT-44	2023-08-17 13:20:40	Plastic	3	1	Good	1	2	2'5"	0	0.5	5	17.5	0.29
CLVT-45	CLVT-45	2023-08-17 13:24:32	Plastic	3	1	Good	1	2	0'2"	5	0.5	7.5	17.5	0.43
CLVT-46	CLVT-46	2023-08-17 13:30:44	Plastic	3	1	Good	1	2	2'5"	0	0.5	5	17.5	0.29
CLVT-47	CLVT-47	2023-08-17 13:34:43	Plastic	3	1	Good	1	2	2'5"	0	0.5	5	17.5	0.29
CLVT-48	CLVT-48	2023-08-17 13:39:11	Plastic	3	1	Good	1	2	2'5"	0	0.5	5	17.5	0.29
CLVT-49	CLVT-49	2023-08-17 13:44:22	Plastic	3	1	Good	1	2	2'5"	0	0.5	5	17.5	0.29
CLVT-5	CLVT-5	2023-08-16 14:32:44	Metal	5	1	Poor	5	2	20'+	5	0.5	17.5	17.5	1.00
CLVT-50	CLVT-50	2023-08-17 13:48:55	Plastic	3	1	Good	1	2	2'5"	0	0.5	5	17.5	0.29
CLVT-51	CLVT-51	2023-08-17 13:53:07	Plastic	3	1	Good	1	2	2'5"	0	0.5	5	17.5	0.29
CLVT-52	CLVT-52	2023-08-17 13:58:21	Concrete	1	1	Good	1	2	10'20"	3	0.5	4.5	17.5	0.26
CLVT-53	CLVT-53	2023-08-17 14:07:44	Plastic	3	1	Good	1	2	2'5"	0	0.5	5	17.5	0.29
CLVT-54	CLVT-54	2023-08-17 14:11:55	Plastic	3	1	Good	1	2	2'5"	0	0.5	5	17.5	0.29
CLVT-55	CLVT-55	2023-08-17 14:15:54	Plastic	3	1	Good	1	2	2'5"	0	0.5	5	17.5	0.29
CLVT-56	CLVT-56	2023-08-17 14:19:53	Plastic	3	1	Good	1	2	2'5"	0	0.5	5	17.5	0.29
CLVT-57	CLVT-57	2023-08-17 14:24:27	Plastic	3	1	Good	1	2	2'5"	0	0.5	5	17.5	0.29
CLVT-58	CLVT-58	2023-08-17 14:29:53	Plastic	3	1	Good	1	2	2'5"	0	0.5	5	17.5	0.29
CLVT-59	CLVT-59	2023-08-17 14:34:29	Plastic	3	1	Good	1	2	2'5"	0	0.5	5	17.5	0.29
CLVT-60	CLVT-60	2023-08-17 14:40:45	Concrete	1	1	Poor	5	2	0'2"	5	0.5	13.5	17.5	0.77
CLVT-61	CLVT-61	2023-08-17 14:47:37	Concrete	1	1	Good	1	2	5'10"	0	0.5	3	17.5	0.17
CLVT-62	CLVT-62	2023-08-17 14:58:12	Plastic	3	1	Fair	3	2	5'10"	0	0.5	9	17.5	0.51
CLVT-63	CLVT-63	2023-08-17 15:49:38	Metal	5	1	Good	1	2	0'2"	5	0.5	9.5	17.5	0.54
CLVT-64	CLVT-64	2023-08-17 15:54:19	Plastic	3	1	Good	1	2	0'2"	5	0.5	7.5	17.5	0.43
CLVT-65	CLVT-65	2023-08-17 16:01:06	Plastic	3	1	Good	1	2	0'2"	5	0.5	7.5	17.5	0.43
CLVT-66	CLVT-66	2023-08-17 16:06:27	Plastic	3	1	Good	1	2	0'2"	5	0.5	7.5	17.5	0.43
CLVT-67	CLVT-67	2023-08-17 16:14:08	Plastic	3	1	Good	1	2	0'2"	5	0.5	7.5	17.5	0.43
CLVT-68	CLVT-68	2023-08-17 16:19:09	Plastic	3	1	Poor	5	2	0'2"	5	0.5	15.5	17.5	0.89
CLVT-69	CLVT-69	2023-08-17 16:23:51	Metal	5	1	Good	1	2	0'2"	5	0.5	9.5	17.5	0.54
CLVT-7	CLVT-7	2023-08-16 15:23:45	Plastic	3	1	Poor	5	2	0'2"	5	0.5	15.5	17.5	0.89
CLVT-70	CLVT-70	2023-08-17 16:30:25	Metal	5	1	Good	1	2	5'10"	0	0.5	7	17.5	0.40
CLVT-71														

**Table I-3
Probability of Failure Rankings - Culvert Outlets**

Updated Alton Town ID	Overall Culvert ID	Date Inspected	Material Type	Rank	Weight	Condition	Rank	Weight	Total PoF Score	Maximum Possible Score	Normalized Total PoF Score
CLVOut-1	CLVT-1	2023-08-17 1:22:40	Masonry	2	1	Poor	5	2	12	15	0.80
CLVOut-10	CLVT-10	2023-08-16 15:54:48	Masonry	2	1	Good	1	2	4	15	0.27
CLVOut-100	CLVT-100	2023-08-23 13:52:45	Concrete	1	1	Good	1	2	3	15	0.20
CLVOut-101	CLVT-101	2023-08-23 14:33:11	Concrete	1	1	Good	1	2	3	15	0.20
CLVOut-102	CLVT-102	2023-08-23 14:55:29	Concrete	1	1	Good	1	2	3	15	0.20
CLVOut-103	CLVT-103	2023-08-23 15:04:46	Masonry	2	1	Fair	3	2	8	15	0.53
CLVOut-104	CLVT-104	2023-08-23 15:47:11	Masonry	2	1	Fair	3	2	8	15	0.53
CLVOut-105	CLVT-105	2023-08-23 15:52:05	Masonry	2	1	Good	1	2	4	15	0.27
CLVOut-106	CLVT-106	2023-08-23 14:09:43	N/A	3	1	No Rating	3	2	9	15	0.60
CLVOut-107	CLVT-107	2023-08-23 16:01:24	N/A	3	1	No Rating	3	2	9	15	0.60
CLVOut-108	CLVT-108	2023-08-23 16:09:03	N/A	3	1	No Rating	3	2	9	15	0.60
CLVOut-109	CLVT-109	2023-08-23 16:14:56	Masonry	2	1	Poor	5	2	12	15	0.80
CLVOut-11	CLVT-11	2023-08-16 16:07:50	Masonry	2	1	Poor	5	2	12	15	0.80
CLVOut-110	CLVT-110	2023-08-23 16:58:52	Masonry	2	1	Good	1	2	4	15	0.27
CLVOut-111	CLVT-111	2023-08-23 17:07:55	Masonry	2	1	Good	1	2	4	15	0.27
CLVOut-112	CLVT-112	2023-08-23 17:08:58	Masonry	2	1	Good	1	2	4	15	0.27
CLVOut-113	CLVT-113	2023-08-23 17:16:00	Masonry	2	1	Fair	3	2	8	15	0.53
CLVOut-114	CLVT-114	2023-08-23 17:30:00	Masonry	2	1	Good	1	2	4	15	0.27
CLVOut-115	CLVT-115	2023-08-23 17:40:42	Masonry	2	1	Good	1	2	4	15	0.27
CLVOut-116	CLVT-116	2023-08-23 17:48:39	Masonry	2	1	Good	1	2	4	15	0.27
CLVOut-117	CLVT-117	2023-08-23 17:51:59	Masonry	2	1	Poor	5	2	12	15	0.80
CLVOut-118	CLVT-118	2023-08-23 18:16:59	Masonry	2	1	Fair	3	2	8	15	0.53
CLVOut-119	CLVT-119	2023-08-23 18:23:21	Masonry	2	1	Good	1	2	4	15	0.27
CLVOut-12	CLVT-12	2023-08-16 16:16:04	Masonry	2	1	Poor	5	2	12	15	0.80
CLVOut-120	CLVT-120	2023-08-23 18:26:44	Concrete	1	1	Good	1	2	3	15	0.20
CLVOut-121	CLVT-121	2023-08-23 18:31:01	Concrete	1	1	Good	1	2	3	15	0.20
CLVOut-122	CLVT-122	2023-08-23 18:58:04	Masonry	2	1	Good	1	2	4	15	0.27
CLVOut-123	CLVT-123	2023-08-24 12:06:58	N/A	3	1	No Rating	3	2	9	15	0.60
CLVOut-124	CLVT-124	2023-08-23 14:19:51	N/A	3	1	No Rating	3	2	9	15	0.60
CLVOut-125	CLVT-125	2023-08-24 12:26:07	Masonry	2	1	Fair	3	2	8	15	0.53
CLVOut-126	CLVT-126	2023-08-24 12:32:38	Masonry	2	1	Good	1	2	4	15	0.27
CLVOut-127	CLVT-127	2023-08-24 12:38:26	Masonry	2	1	Poor	5	2	12	15	0.80
CLVOut-128	CLVT-128	2023-08-24 12:42:29	Masonry	2	1	Good	1	2	4	15	0.27
CLVOut-129	CLVT-129	2023-08-24 12:44:38	Masonry	2	1	Good	1	2	4	15	0.27
CLVOut-13	CLVT-13		Masonry	2	1	Poor	5	2	12	15	0.80
CLVOut-130	CLVT-130	2023-08-24 12:58:48	Masonry	2	1	Good	1	2	4	15	0.27
CLVOut-131	CLVT-131	2023-08-24 13:05:41	Masonry	2	1	Good	1	2	4	15	0.27
CLVOut-132	CLVT-132	2023-08-24 13:11:11	Masonry	2	1	Fair	3	2	8	15	0.53
CLVOut-133	CLVT-133	2023-08-24 13:20:54	Masonry	2	1	Fair	3	2	8	15	0.53
CLVOut-134	CLVT-134	2023-08-24 13:28:10	Masonry	2	1	Good	1	2	4	15	0.27
CLVOut-135	CLVT-135	2023-08-24 13:32:35	Concrete	1	1	Good	1	2	3	15	0.20
CLVOut-136	CLVT-136	2023-08-24 13:35:36	Masonry	2	1	Fair	3	2	8	15	0.53
CLVOut-137	CLVT-137	2023-08-24 13:39:54	Masonry	2	1	Good	1	2	4	15	0.27
CLVOut-138	CLVT-138	2023-08-24 13:44:03	Masonry	2	1	Fair	3	2	8	15	0.53
CLVOut-139	CLVT-139	2023-08-24 13:49:10	Masonry	2	1	Fair	3	2	8	15	0.53
CLVOut-14	CLVT-14	2023-08-16 16:26:45	Masonry	2	1	Poor	5	2	12	15	0.80
CLVOut-140	CLVT-140	2023-08-23 14:35:55	N/A	3	1	No Rating	3	2	9	15	0.60
CLVOut-141	CLVT-141	2023-08-24 13:58:06	Masonry	2	1	Fair	3	2	8	15	0.53
CLVOut-142	CLVT-142	2023-08-24 14:00:47	Masonry	2	1	Good	1	2	4	15	0.27
CLVOut-143	CLVT-143	2023-08-24 14:04:18	Concrete	1	1	Good	1	2	3	15	0.20
CLVOut-144	CLVT-144	2023-08-24 14:48:56	N/A	3	1	No Rating	3	2	9	15	0.60
CLVOut-145	CLVT-145	2023-08-24 14:15:58	N/A	3	1	No Rating	3	2	9	15	0.60
CLVOut-146	CLVT-146	2023-08-23 14:47:20	N/A	3	1	No Rating	3	2	9	15	0.60
CLVOut-147	CLVT-147	2023-08-24 14:27:53	N/A	3	1	No Rating	3	2	9	15	0.60
CLVOut-148	CLVT-148	2023-08-24 14:33:15	N/A	3	1	Good	1	2	5	15	0.33
CLVOut-149	CLVT-149	2023-08-24 14:49:04	Masonry	2	1	Poor	5	2	12	15	0.80
CLVOut-15	CLVT-15	2023-08-16 15:22:46	N/A	3	1	No Rating	3	2	9	15	0.60
CLVOut-150	CLVT-150	2023-08-24 14:55:03	N/A	3	1	Good	1	2	5	15	0.33
CLVOut-151	CLVT-151	2023-08-24 15:00:12	N/A	3	1	Good	1	2	5	15	0.33
CLVOut-152	CLVT-152	2023-08-24 14:59:12	N/A	3	1	Good	1	2	5	15	0.33
CLVOut-153	CLVT-153	2023-08-24 15:16:44	N/A	3	1	No Rating	3	2	9	15	0.60
CLVOut-154	CLVT-154	2023-08-24 15:56:24	Masonry	2	1	Fair	3	2	8	15	0.53
CLVOut-155	CLVT-155	2023-08-24 16:04:14	Masonry	2	1	Good	1	2	4	15	0.27
CLVOut-156	CLVT-156	2023-08-24 16:04:58	Masonry	2	1	Good	1	2	4	15	0.27
CLVOut-157	CLVT-157	2023-08-24 16:05:31	Masonry	2	1	Good	1	2	4	15	0.27
CLVOut-158	CLVT-158	2023-08-24 16:19:03	N/A	3	1	Good	1	2	5	15	0.33
CLVOut-159	CLVT-159	2023-08-24 16:18:36	N/A	3	1	Good	1	2	5	15	0.33
CLVOut-16	CLVT-16	2023-08-16 16:57:37	N/A	3	1	No Rating	3	2	9	15	0.60
CLVOut-160	CLVT-160	2023-08-24 16:18:03	N/A	3	1	Good	1	2	5	15	0.33
CLVOut-161	CLVT-161	2023-08-24 16:17:32	N/A	3	1	Good	1	2	5	15	0.33
CLVOut-162	CLVT-162	2023-08-24 16:17:00	N/A	3	1	Good	1	2	5	15	0.33
CLVOut-163	CLVT-163	2023-08-24 16:16:30	N/A	3	1	Good	1	2	5	15	0.33
CLVOut-164	CLVT-164	2023-08-24 16:15:58	N/A	3	1	Good	1	2	5	15	0.33
CLVOut-165	CLVT-165	2023-08-24 16:33:09	Masonry	2	1	Fair	3	2	8	15	0.53
CLVOut-166	CLVT-166	2023-08-24 16:37:57	Masonry	2	1	Fair	3	2	8	15	0.53
CLVOut-167	CLVT-167	2023-08-24 16:42:55	Masonry	2	1	Poor	5	2	12	15	0.80
CLVOut-168	CLVT-168	2023-08-24 16:49:31	Masonry	2	1	Poor	5	2	12	15	0.80
CLVOut-169	CLVT-169	2023-08-24 16:53:13	Masonry	2	1	Poor	5	2	12	15	0.80
CLVOut-17	CLVT-17	2023-08-16 15:19:39	N/A	3	1	No Rating	3	2	9	15	0.60
CLVOut-170	CLVT-170	2023-08-24 17:00:18	Masonry	2	1	Good	1	2	4	15	0.27
CLVOut-171	CLVT-171	2023-08-24 17:04:46	Masonry	2	1	Fair	3	2	8	15	0.53
CLVOut-172	CLVT-172	2023-08-24 15:06:30	N/A	3	1	No Rating	3	2	9	15	0.60
CLVOut-173	CLVT-173	2023-08-24 17:15:20	Masonry	2	1	Fair	3	2	8	15	0.53
CLVOut-174	CLVT-174	2023-08-24 17:20:38	Masonry	2	1	Good	1	2	4	15	0.27
CLVOut-175	CLVT-175	2023-08-24 17:27:10	Masonry	2	1	Poor	5	2	12	15	0.80
CLVOut-176	CLVT-176	2023-08-24 17:35:51	Masonry	2	1	Fair	3	2	8	15	0.53
CLVOut-177	CLVT-177	2023-08-24 17:38:45	Masonry	2	1	Good	1	2	4	15	0.27
CLVOut-178	CLVT-178	2023-08-24 17:46:18	N/A	3	1	No Rating	3	2	9	15	0.60
CLVOut-179	CLVT-179	2023-08-24 17:50:29	Masonry	2	1	Fair	3	2	8	15	0.53
CLVOut-18	CLVT-18	2023-08-16 15:18:10	N/A	3	1	No Rating	3	2	9	15	0.60
CLVOut-180	CLVT-180	2023-08-24 17:57:41	Concrete	1	1	Good	1	2	3	15	0.20
CLVOut-181	CLVT-181	2023-08-24 18:01:42	Masonry	2	1	No Rating	3	2	8	15	0.53
CLVOut-182	CLVT-182	2023-08-24 18:07:37	N/A	3	1	Good	1	2	5	15	0.33
CLVOut-183	CLVT-183	2023-08-24 18:14:00	N/A	3	1	Good	1	2	5	15	0.33
CLVOut-184	CLVT-184	2023-08-24 18:17:55	Masonry	2	1	Poor	5	2	12	15	0.80
CLVOut-185	CLVT-185	2023-08-24 18:22:58	N/A	3	1	Good	1	2	5	15	0.33
CLVOut-186	CLVT-186	2023-08-24 13:48:08	N/A	3	1	No Rating	3	2	9	15	0.60
CLVOut-187	CLVT-187	2023-08-24 18:40:11	Concrete	1	1	Good	1	2	3	15	0.20
CLVOut-188	CLVT-188	2023-08-24 18:42:56	Masonry	2	1	Good	1	2	4	15	0.27
CLVOut-189	CLVT-189	2023-08-24 18:56:09	Masonry	2	1	Good	1	2	4	15	0.27
CLVOut-19	CLVT-19	2023-08-16 17:28:13	Masonry	2	1	Poor	5	2	12	15	0.80
CLVOut-190	CLVT-190	2023-08-24 19:04:51	Masonry	2	1	Good	1	2	4	15	0.27
CLVOut-191	CLVT-191	2023-09-06 11:13:25	Masonry	2	1	Good	1	2	4	15	0.27
CLVOut-192	CLVT-192	2023-09-06 11:19:09	Masonry	2	1	Good	1	2	4	15	0.27
CLVOut-193	CLVT-193	2023-09-06 11:30:30	Plastic	3	1	Good	1	2	5	15	0.33
CLVOut-194	CLVT-194	2023-09-06 11:39:05	N/A	3	1	No Rating	3	2	9	15	0.60

Updated Alton Town ID	Overall Culvert ID	Date Inspected	Material Type	Rank	Weight	Condition	Rank	Weight	Total PoF Score	Maximum Possible Score	Normalized Total PoF Score
CLVTOut-195	CLVT-195	2023-09-06 11:52:51	Masonry	2	1	Good	1	2	4	15	0.27
CLVTOut-196	CLVT-196	2023-09-06 12:06:10	Masonry	2	1	Good	1	2	4	15	0.27
CLVTOut-197	CLVT-197	2023-09-06 12:12:56	Masonry	2	1	Good	1	2	4	15	0.27
CLVTOut-198	CLVT-198	2023-09-06 12:19:11	Masonry	2	1	Poor	5	2	12	15	0.80
CLVTOut-199	CLVT-199	2023-09-06 12:17:59	Masonry	2	1	Poor	5	2	12	15	0.80
CLVTOut-2	CLVT-2	2023-08-19 16:19:01	Masonry	2	1	Good	1	2	4	15	0.27
CLVTOut-20	CLVT-20	2023-08-16 13:18:55	N/A	3	1	No Rating	3	2	9	15	0.60
CLVTOut-200	CLVT-200	2023-09-06 12:26:37	Masonry	2	1	No Rating	3	2	12	15	0.80
CLVTOut-201	CLVT-201	2023-09-06 12:34:57	Plastic	3	1	Good	1	2	5	15	0.33
CLVTOut-202	CLVT-202	2023-09-06 12:49:10	Masonry	2	1	Good	1	2	4	15	0.27
CLVTOut-203	CLVT-203	2023-09-06 12:56:10	Masonry	2	1	Fair	3	2	8	15	0.53
CLVTOut-204	CLVT-204	2023-09-06 13:06:14	Masonry	2	1	Good	1	2	4	15	0.27
CLVTOut-205	CLVT-205	2023-09-06 13:12:11	Masonry	2	1	Poor	5	2	12	15	0.80
CLVTOut-206	CLVT-206	2023-09-06 13:17:30	Masonry	2	1	Poor	5	2	12	15	0.80
CLVTOut-207	CLVT-207	2023-09-06 13:26:09	Masonry	2	1	Poor	5	2	12	15	0.80
CLVTOut-208	CLVT-208	2023-09-06 13:32:51	N/A	3	1	Good	1	2	5	15	0.33
CLVTOut-209	CLVT-209	2023-09-06 13:46:05	Masonry	2	1	Good	1	2	4	15	0.27
CLVTOut-21	CLVT-21	2023-08-16 13:18:13	N/A	3	1	No Rating	3	2	9	15	0.60
CLVTOut-210	CLVT-210	2023-09-06 13:57:07	Masonry	2	1	Fair	3	2	8	15	0.53
CLVTOut-211	CLVT-211	2023-09-06 14:12:40	Masonry	2	1	Good	1	2	4	15	0.27
CLVTOut-212	CLVT-212	2023-09-13 11:21:40	Masonry	2	1	Good	1	2	4	15	0.27
CLVTOut-213	CLVT-213	2023-09-13 11:29:32	Masonry	2	1	Poor	5	2	12	15	0.80
CLVTOut-214	CLVT-214	2023-09-13 11:34:00	N/A	3	1	Good	1	2	5	15	0.33
CLVTOut-215	CLVT-215	2023-09-13 11:38:50	N/A	3	1	Good	1	2	5	15	0.33
CLVTOut-216	CLVT-216	2023-09-13 11:45:31	Masonry	2	1	Good	1	2	4	15	0.27
CLVTOut-217	CLVT-217	2023-09-13 11:52:21	Masonry	2	1	Good	1	2	4	15	0.27
CLVTOut-218	CLVT-218	2023-09-13 12:22:42	Masonry	2	1	Good	1	2	4	15	0.27
CLVTOut-219	CLVT-219	2023-09-13 12:28:44	Masonry	2	1	Fair	3	2	8	15	0.53
CLVTOut-22	CLVT-22	2023-08-16 17:49:04	Masonry	2	1	Good	1	2	4	15	0.27
CLVTOut-220	CLVT-220	2023-09-13 12:35:00	N/A	3	1	No Rating	3	2	9	15	0.60
CLVTOut-221	CLVT-221	2023-09-13 12:42:52	Masonry	2	1	Good	1	2	4	15	0.27
CLVTOut-222	CLVT-222	2023-09-13 12:48:59	Masonry	2	1	Good	1	2	4	15	0.27
CLVTOut-223	CLVT-223	2023-09-13 12:53:54	Masonry	2	1	Good	1	2	4	15	0.27
CLVTOut-224	CLVT-224	2023-09-13 12:57:42	Masonry	2	1	Good	1	2	4	15	0.27
CLVTOut-225	CLVT-225	2023-09-13 13:04:06	Masonry	2	1	Good	1	2	4	15	0.27
CLVTOut-226	CLVT-226	2023-09-13 13:07:29	Masonry	2	1	Poor	5	2	12	15	0.80
CLVTOut-227	CLVT-227	2023-09-13 13:14:54	Masonry	2	1	Good	1	2	4	15	0.27
CLVTOut-228	CLVT-228	2023-09-13 13:18:15	Masonry	2	1	Good	1	2	4	15	0.27
CLVTOut-229	CLVT-229	2023-09-13 13:24:52	Masonry	2	1	Good	1	2	4	15	0.27
CLVTOut-23	CLVT-23	2023-08-16 17:56:07	Masonry	2	1	Good	1	2	4	15	0.27
CLVTOut-230	CLVT-230	2023-09-13 13:24:20	Masonry	2	1	Good	1	2	4	15	0.27
CLVTOut-231	CLVT-231	2023-09-13 13:33:32	Masonry	2	1	Good	1	2	4	15	0.27
CLVTOut-232	CLVT-232	2023-09-13 13:46:18	Masonry	2	1	Good	1	2	4	15	0.27
CLVTOut-233	CLVT-233	2023-09-13 13:51:13	Masonry	2	1	Fair	3	2	8	15	0.53
CLVTOut-234	CLVT-234	2023-09-13 14:03:57	Masonry	2	1	Good	1	2	4	15	0.27
CLVTOut-235	CLVT-235	2023-09-13 14:08:19	Masonry	2	1	Poor	5	2	12	15	0.80
CLVTOut-236	CLVT-236	2023-09-13 14:11:44	Masonry	2	1	Good	1	2	4	15	0.27
CLVTOut-237	CLVT-237	2023-09-20 11:35:43	Masonry	2	1	Good	1	2	4	15	0.27
CLVTOut-238	CLVT-238	2023-09-20 11:38:53	Masonry	2	1	Good	1	2	4	15	0.27
CLVTOut-239	CLVT-239	2023-09-20 11:46:23	N/A	3	1	No Rating	3	2	9	15	0.60
CLVTOut-24	CLVT-24	2023-08-16 18:01:15	Masonry	2	1	Poor	5	2	12	15	0.80
CLVTOut-240	CLVT-240	2023-09-20 11:50:14	Masonry	2	1	Good	1	2	4	15	0.27
CLVTOut-241	CLVT-241	2023-09-20 11:55:02	Masonry	2	1	Fair	3	2	8	15	0.53
CLVTOut-242	CLVT-242	2023-09-20 12:00:14	Masonry	2	1	Poor	5	2	12	15	0.80
CLVTOut-243	CLVT-243	2023-09-20 12:03:36	N/A	3	1	No Rating	3	2	9	15	0.60
CLVTOut-244	CLVT-244	2023-09-20 12:08:06	Masonry	2	1	Poor	5	2	12	15	0.80
CLVTOut-245	CLVT-245	2023-09-20 12:13:25	N/A	3	1	No Rating	3	2	9	15	0.60
CLVTOut-246	CLVT-246	2023-09-20 12:17:04	Masonry	2	1	Good	1	2	4	15	0.27
CLVTOut-247	CLVT-247	2023-09-20 12:22:35	Masonry	2	1	Poor	5	2	12	15	0.80
CLVTOut-248	CLVT-248	2023-09-20 12:28:59	Masonry	2	1	Poor	5	2	12	15	0.80
CLVTOut-249	CLVT-249	2023-09-20 12:39:20	Masonry	2	1	Poor	5	2	12	15	0.80
CLVTOut-25	CLVT-25	2023-08-16 18:29:23	N/A	3	1	Fair	3	2	9	15	0.60
CLVTOut-250	CLVT-250	2023-09-20 12:45:23	Masonry	2	1	Good	1	2	4	15	0.27
CLVTOut-251	CLVT-251	2023-09-20 12:48:20	Masonry	2	1	Good	1	2	4	15	0.27
CLVTOut-252	CLVT-252	2023-09-20 12:53:50	Masonry	2	1	Poor	5	2	12	15	0.80
CLVTOut-253	CLVT-253	2023-09-20 12:59:24	Masonry	2	1	Good	1	2	4	15	0.27
CLVTOut-254	CLVT-254	2023-09-20 13:08:29	Masonry	2	1	Fair	3	2	8	15	0.53
CLVTOut-255	CLVT-255	2023-09-20 13:17:47	Masonry	2	1	Good	1	2	4	15	0.27
CLVTOut-256	CLVT-256	2023-09-20 13:21:37	Masonry	2	1	Fair	3	2	8	15	0.53
CLVTOut-257	CLVT-257	2023-09-20 13:27:49	Masonry	2	1	Good	1	2	4	15	0.27
CLVTOut-258	CLVT-258	2023-09-20 13:31:40	Masonry	2	1	Good	1	2	4	15	0.27
CLVTOut-259	CLVT-259	2023-09-20 13:38:04	Plastic	3	1	Good	1	2	5	15	0.33
CLVTOut-26	CLVT-26	2023-08-16 18:33:55	Masonry	2	1	Good	1	2	4	15	0.27
CLVTOut-260	CLVT-260	2023-09-20 13:42:22	Plastic	3	1	Good	1	2	5	15	0.33
CLVTOut-261	CLVT-261	2023-09-20 13:46:56	Concrete	1	1	Good	1	2	3	15	0.20
CLVTOut-262	CLVT-262	2023-09-20 13:50:54	Plastic	3	1	Good	1	2	5	15	0.33
CLVTOut-263	CLVT-263	2023-09-20 13:58:55	Masonry	2	1	Poor	5	2	12	15	0.80
CLVTOut-264	CLVT-264	2023-09-20 14:01:45	N/A	3	1	No Rating	3	2	9	15	0.60
CLVTOut-265	CLVT-265	2023-09-20 14:02:20	N/A	3	1	No Rating	3	2	9	15	0.60
CLVTOut-266	CLVT-266	2023-09-20 14:09:44	Masonry	2	1	Good	1	2	4	15	0.27
CLVTOut-267	CLVT-267	2023-09-27 12:00:21	Plastic	3	1	Good	1	2	5	15	0.33
CLVTOut-268	CLVT-268	2023-09-27 12:03:57	Masonry	2	1	Good	1	2	4	15	0.27
CLVTOut-269	CLVT-269	2023-09-27 12:08:18	Plastic	3	1	Fair	3	2	9	15	0.60
CLVTOut-27	CLVT-27	2023-08-16 18:38:00	Masonry	2	1	Poor	5	2	12	15	0.80
CLVTOut-270	CLVT-270	2023-09-27 12:14:42	N/A	3	1	No Rating	3	2	9	15	0.60
CLVTOut-271	CLVT-271	2023-09-27 12:20:34	Plastic	3	1	Good	1	2	5	15	0.33
CLVTOut-272	CLVT-272	2023-09-27 12:24:27	Plastic	3	1	Good	1	2	5	15	0.33
CLVTOut-273	CLVT-273	2023-09-27 12:33:06	Concrete	1	1	Good	1	2	3	15	0.20
CLVTOut-274	CLVT-274	2023-09-27 12:38:56	N/A	3	1	No Rating	3	2	9	15	0.60
CLVTOut-275	CLVT-275	2023-09-27 12:44:31	Plastic	3	1	Good	1	2	5	15	0.33
CLVTOut-276	CLVT-276	2023-09-27 12:48:52	Plastic	3	1	Good	1	2	5	15	0.33
CLVTOut-277	CLVT-277	2023-09-27 12:55:27	Plastic	3	1	Good	1	2	5	15	0.33
CLVTOut-278	CLVT-278	2023-09-27 12:59:27	N/A	3	1	No Rating	3	2	9	15	0.60
CLVTOut-279	CLVT-279	2023-09-27 13:11:34	Masonry	2	1	Good	1	2	4	15	0.27
CLVTOut-28	CLVT-28	2023-08-16 18:42:31	Masonry	2	1	Good	1	2	4	15	0.27
CLVTOut-280	CLVT-280	2023-09-27 13:14:47	Masonry	2	1	Good	1	2	4	15	0.27
CLVTOut-281	CLVT-281	2023-09-27 13:25:35	Masonry	2	1	Good	1	2	4	15	0.27
CLVTOut-282	CLVT-282	2023-09-27 13:24:28	Masonry	2	1	Good	1	2	4	15	0.27
CLVTOut-283	CLVT-283	2023-09-27 13:51:25	Masonry	2	1	Good	1	2	4	15	0.27
CLVTOut-284	CLVT-284	2023-09-27 14:02:36	Concrete	1	1	Good	1	2	3	15	0.20
CLVTOut-285	CLVT-285	2023-09-27 14:10:02	N/A	3	1	No Rating	3	2	9	15	0.60
CLVTOut-286	CLVT-286	2023-09-27 14:18:06	Metal	5	1	Fair	3	2	11	15	0.73
CLVTOut-287	CLVT-287	2023-09-27 14:22:46	Metal	5	1	Good	1	2	7	15	0.47
CLVTOut-288	CLVT-288	2023-09-27 14:33:41	Plastic	3	1	Good	1	2	5	15	0.33
CLVTOut-289	CLVT-289	2023-09-27 14:39:25	Masonry	2	1	Good	1	2	4	15	0.27
CLVTOut-29	CLVT-29	2023-08-16 18:44:45	Masonry	2	1	Good	1	2	4	15	0.27

Updated Alton Town ID	Overall Culvert ID	Date Inspected	Material Type	Rank	Weight	Condition	Rank	Weight	Total PoF Score	Maximum Possible Score	Normalized Total PoF Score
CLVTOut-290	CLVT-290	2023-09-27 14:46:17	N/A	3	1	No Rating	3	2	9	15	0.60
CLVTOut-291	CLVT-291	2023-09-27 14:49:03	Masonry	2	1	Fair	3	2	8	15	0.53
CLVTOut-292	CLVT-292	2023-09-27 14:54:40	Masonry	2	1	Good	1	2	4	15	0.27
CLVTOut-293	CLVT-293	2023-09-27 15:00:41	Masonry	2	1	Good	1	2	4	15	0.27
CLVTOut-294	CLVT-294	2023-09-27 15:04:51	Masonry	2	1	Fair	3	2	8	15	0.53
CLVTOut-295	CLVT-295	2023-09-27 15:10:10	N/A	3	1	Good	1	2	5	15	0.33
CLVTOut-296	CLVT-296	2023-09-27 15:22:05	Masonry	2	1	Good	1	2	4	15	0.27
CLVTOut-297	CLVT-297	2023-09-27 16:10:55	Masonry	2	1	Good	1	2	4	15	0.27
CLVTOut-298	CLVT-298	2023-09-27 16:17:43	Masonry	2	1	Good	1	2	4	15	0.27
CLVTOut-299	CLVT-299	2023-09-27 16:27:42	Masonry	2	1	Poor	5	2	12	15	0.80
CLVTOut-3	CLVT-3	2023-08-16 13:49:01	Masonry	2	1	Poor	5	2	12	15	0.80
CLVTOut-30	CLVT-30	2023-08-16 18:51:26	Masonry	2	1	Fair	3	2	8	15	0.53
CLVTOut-300	CLVT-300	2023-09-27 16:30:44	Masonry	2	1	Good	1	2	4	15	0.27
CLVTOut-301	CLVT-301	2023-09-27 16:34:36	Masonry	2	1	Good	1	2	4	15	0.27
CLVTOut-302	CLVT-302	2023-09-27 16:41:00	Masonry	2	1	Good	1	2	4	15	0.27
CLVTOut-303	CLVT-303	2023-09-27 16:45:17	Masonry	2	1	Good	1	2	4	15	0.27
CLVTOut-304	CLVT-304	2023-09-27 16:49:20	Masonry	2	1	Good	1	2	4	15	0.27
CLVTOut-305	CLVT-305	2023-09-27 16:51:34	Plastic	3	1	Good	1	2	5	15	0.33
CLVTOut-306	CLVT-306	2023-09-27 16:54:48	Masonry	2	1	Good	1	2	4	15	0.27
CLVTOut-307	CLVT-307	2023-09-27 16:56:51	Masonry	2	1	Good	1	2	4	15	0.27
CLVTOut-308	CLVT-308	2023-09-27 17:00:46	Masonry	2	1	Good	1	2	4	15	0.27
CLVTOut-309	CLVT-309	2023-09-27 17:03:53	Masonry	2	1	Good	1	2	4	15	0.27
CLVTOut-31	CLVT-31	2023-08-16 19:00:10	Masonry	2	1	Good	1	2	4	15	0.27
CLVTOut-310	CLVT-310	2023-09-27 17:06:52	Concrete	1	1	Good	1	2	3	15	0.20
CLVTOut-311	CLVT-311	2023-09-27 17:21:37	Metal	5	1	Fair	3	2	11	15	0.73
CLVTOut-312	CLVT-312	2023-09-27 17:14:48	Masonry	2	1	Poor	5	2	12	15	0.80
CLVTOut-313	CLVT-313	2023-09-27 17:28:48	Masonry	2	1	Poor	5	2	12	15	0.80
CLVTOut-314	CLVT-314	2023-09-27 17:36:24	Masonry	2	1	Good	1	2	4	15	0.27
CLVTOut-315	CLVT-315	2023-09-27 17:39:31	Metal	5	1	Good	1	2	7	15	0.47
CLVTOut-316	CLVT-316	2023-09-27 17:45:46	Metal	5	1	Poor	5	2	15	15	1.00
CLVTOut-317	CLVT-317	2023-09-27 17:49:20	Metal	5	1	Good	1	2	7	15	0.47
CLVTOut-318	CLVT-318	2023-09-27 17:53:00	Masonry	2	1	Fair	3	2	8	15	0.53
CLVTOut-319	CLVT-319	2023-09-27 17:59:58	Masonry	2	1	Good	1	2	4	15	0.27
CLVTOut-32	CLVT-32	2023-08-16 19:03:54	Masonry	2	1	Good	1	2	4	15	0.27
CLVTOut-320	CLVT-320	2023-09-27 18:03:58	N/A	3	1	No Rating	3	2	9	15	0.60
CLVTOut-321	CLVT-321	2023-09-27 18:15:35	Masonry	2	1	Good	1	2	4	15	0.27
CLVTOut-322	CLVT-322	2023-09-27 18:16:13	Masonry	2	1	Good	1	2	4	15	0.27
CLVTOut-323	CLVT-323	2023-09-27 18:54:12	N/A	3	1	No Rating	3	2	9	15	0.60
CLVTOut-324	CLVT-324	2023-10-04 11:19:38	N/A	3	1	Good	1	2	5	15	0.33
CLVTOut-325	CLVT-325	2023-10-04 11:22:58	N/A	3	1	No Rating	3	2	9	15	0.60
CLVTOut-326	CLVT-326	2023-10-04 11:26:11	Masonry	2	1	Fair	3	2	8	15	0.53
CLVTOut-327	CLVT-327	2023-10-04 11:30:22	Masonry	2	1	Good	1	2	4	15	0.27
CLVTOut-328	CLVT-328	2023-10-04 12:36:43	Masonry	2	1	Poor	5	2	12	15	0.80
CLVTOut-329	CLVT-329	2023-10-04 12:44:28	Masonry	2	1	Good	1	2	4	15	0.27
CLVTOut-33	CLVT-33	2023-08-16 19:08:57	Concrete	1	1	Good	1	2	3	15	0.20
CLVTOut-330	CLVT-330	2023-10-04 12:51:35	Masonry	2	1	Good	1	2	4	15	0.27
CLVTOut-331	CLVT-331	2023-10-04 12:55:08	Concrete	1	1	Good	1	2	3	15	0.20
CLVTOut-332	CLVT-332	2023-10-04 13:00:07	Masonry	2	1	Good	1	2	4	15	0.27
CLVTOut-333	CLVT-333	2023-10-04 13:31:30	Concrete	1	1	Good	1	2	3	15	0.20
CLVTOut-334	CLVT-334	2023-10-04 13:30:52	Concrete	1	1	Good	1	2	3	15	0.20
CLVTOut-335	CLVT-335	2023-10-04 13:37:33	N/A	3	1	No Rating	3	2	9	15	0.60
CLVTOut-336	CLVT-336	2023-10-04 13:47:48	Concrete	1	1	Good	1	2	3	15	0.20
CLVTOut-337	CLVT-337	2023-10-04 13:54:41	Masonry	2	1	Good	1	2	4	15	0.27
CLVTOut-338	CLVT-338	2023-10-04 13:56:37	Masonry	2	1	Good	1	2	4	15	0.27
CLVTOut-339	CLVT-339	2023-10-04 14:02:28	Masonry	2	1	Good	1	2	4	15	0.27
CLVTOut-34	CLVT-34	2023-08-16 19:17:48	N/A	3	1	Good	1	2	5	15	0.33
CLVTOut-340	CLVT-340	2023-10-04 14:05:20	Masonry	2	1	Fair	3	2	8	15	0.53
CLVTOut-341	CLVT-341	2023-10-11 11:26:01	N/A	3	1	No Rating	3	2	9	15	0.60
CLVTOut-342	CLVT-342	2023-10-11 11:29:00	Masonry	2	1	Fair	3	2	8	15	0.53
CLVTOut-343	CLVT-343	2023-10-11 11:31:45	Masonry	2	1	Good	1	2	4	15	0.27
CLVTOut-344	CLVT-344	2023-10-11 11:34:19	N/A	3	1	No Rating	3	2	9	15	0.60
CLVTOut-345	CLVT-345	2023-10-11 11:39:04	N/A	3	1	No Rating	3	2	9	15	0.60
CLVTOut-346	CLVT-346	2023-10-11 11:49:34	N/A	3	1	No Rating	3	2	9	15	0.60
CLVTOut-347	CLVT-347	2023-10-11 11:56:35	Masonry	2	1	Fair	3	2	8	15	0.53
CLVTOut-348	CLVT-348	2023-10-11 11:59:49	Masonry	2	1	No Rating	3	2	8	15	0.53
CLVTOut-349	CLVT-349	2023-10-11 12:02:33	Masonry	2	1	Good	1	2	4	15	0.27
CLVTOut-35	CLVT-35	2023-08-16 19:23:35	Masonry	2	1	Good	1	2	4	15	0.27
CLVTOut-350	CLVT-350	2023-10-11 12:04:22	Masonry	2	1	Good	1	2	4	15	0.27
CLVTOut-351	CLVT-351	2023-10-11 12:06:56	Masonry	2	1	Poor	5	2	12	15	0.80
CLVTOut-352	CLVT-352	2023-10-11 12:10:41	Masonry	2	1	Good	1	2	4	15	0.27
CLVTOut-353	CLVT-353	2023-10-11 12:17:40	N/A	3	1	No Rating	3	2	9	15	0.60
CLVTOut-354	CLVT-354	2023-10-11 12:21:00	Masonry	2	1	Good	1	2	4	15	0.27
CLVTOut-355	CLVT-355	2023-10-11 12:24:48	N/A	3	1	No Rating	3	2	9	15	0.60
CLVTOut-356	CLVT-356	2023-10-11 12:29:31	Masonry	2	1	Fair	3	2	8	15	0.53
CLVTOut-357	CLVT-357	2023-10-11 12:33:53	Plastic	3	1	Good	1	2	5	15	0.33
CLVTOut-358	CLVT-358	2023-10-11 12:37:27	Plastic	3	1	Fair	3	2	9	15	0.60
CLVTOut-359	CLVT-359	2023-10-11 12:41:59	N/A	3	1	No Rating	3	2	9	15	0.60
CLVTOut-36	CLVT-36	2023-08-16 19:27:36	N/A	3	1	No Rating	3	2	9	15	0.60
CLVTOut-360	CLVT-360	2023-10-11 12:45:31	Concrete	1	1	Good	1	2	3	15	0.20
CLVTOut-361	CLVT-361	2023-10-11 12:49:14	Concrete	1	1	Good	1	2	3	15	0.20
CLVTOut-362	CLVT-362	2023-10-11 12:53:48	Plastic	3	1	Good	1	2	5	15	0.33
CLVTOut-363	CLVT-363	2023-10-11 12:55:05	N/A	3	1	No Rating	3	2	9	15	0.60
CLVTOut-364	CLVT-364	2023-10-11 13:02:37	Masonry	2	1	Good	1	2	4	15	0.27
CLVTOut-365	CLVT-365	2023-10-11 13:17:31	Plastic	3	1	Good	1	2	5	15	0.33
CLVTOut-366	CLVT-366	2023-10-11 13:20:09	Plastic	3	1	Good	1	2	5	15	0.33
CLVTOut-367	CLVT-367	2023-10-11 13:24:50	Masonry	2	1	Good	1	2	4	15	0.27
CLVTOut-368	CLVT-368	2023-10-11 13:30:17	Masonry	2	1	Good	1	2	4	15	0.27
CLVTOut-369	CLVT-369	2023-10-11 13:36:44	N/A	3	1	No Rating	3	2	9	15	0.60
CLVTOut-37	CLVT-37	2023-08-16 15:45:51	Masonry	2	1	Fair	3	2	8	15	0.53
CLVTOut-370	CLVT-370	2023-10-11 13:48:36	Masonry	2	1	Good	1	2	4	15	0.27
CLVTOut-371	CLVT-371	2023-10-11 13:52:11	Masonry	2	1	Good	1	2	4	15	0.27
CLVTOut-372	CLVT-372	2023-10-11 13:54:51	Masonry	2	1	Good	1	2	4	15	0.27
CLVTOut-373	CLVT-373	2023-10-11 13:57:59	Masonry	2	1	Fair	3	2	8	15	0.53
CLVTOut-374	CLVT-374	2023-10-11 14:01:35	Masonry	2	1	Good	1	2	4	15	0.27
CLVTOut-375	CLVT-375	2023-10-11 14:04:51	N/A	3	1	No Rating	3	2	9	15	0.60
CLVTOut-376	CLVT-376	2023-10-11 14:10:53	Masonry	2	1	Good	1	2	4	15	0.27
CLVTOut-377	CLVT-377	2023-10-11 14:15:56	Concrete	1	1	Good	1	2	3	15	0.20
CLVTOut-378	CLVT-378	2023-10-18 11:24:03	Concrete	1	1	Good	1	2	3	15	0.20
CLVTOut-379	CLVT-379	2023-10-18 11:35:13	Masonry	2	1	Good	1	2	4	15	0.27
CLVTOut-38	CLVT-38	2023-08-17 12:44:51	Plastic	3	1	Good	1	2	5	15	0.33
CLVTOut-380	CLVT-380	2023-10-18 11:35:42	Masonry	2	1	Good	1	2	4	15	0.27
CLVTOut-381	CLVT-381	2023-10-18 11:42:40	N/A	3	1	No Rating	3	2	9	15	0.60
CLVTOut-382	CLVT-382	2023-10-18 11:56:19	Masonry	2	1	Good	1	2	4	15	0.27
CLVTOut-383	CLVT-383	2023-10-18 11:57:09	Masonry	2	1	Good	1	2	4	15	0.27
CLVTOut-384	CLVT-384	2023-10-18 12:16:59	Concrete	1	1	Good	1	2	3	15	0.20
CLVTOut-385	CLVT-385	2023-10-18 12:21:29	Masonry	2	1	Poor	5	2	12	15	0.80

Updated Alton Town ID	Overall Culvert ID	Date Inspected	Material Type	Rank	Weight	Condition	Rank	Weight	Total PoF Score	Maximum Possible Score	Normalized Total PoF Score
CLVTOut-386	CLVT-386	2023-10-18 12:29:43	Masonry	2	1	Fair	3	2	8	15	0.53
CLVTOut-387	CLVT-387	2023-08-23 8:30:00	N/A	3	1	No Rating	3	2	9	15	0.60
CLVTOut-388	CLVT-388	2023-09-27 13:21:59	Concrete	1	1	Good	1	2	3	15	0.20
CLVTOut-39	CLVT-39	2023-08-17 12:50:06	Plastic	3	1	Fair	3	2	9	15	0.60
CLVTOut-4	CLVT-4	2023-08-16 14:16:27	Masonry	2	1	Poor	5	2	12	15	0.80
CLVTOut-40	CLVT-40	2023-08-17 12:56:08	Plastic	3	1	Good	1	2	5	15	0.33
CLVTOut-41	CLVT-41	2023-08-17 13:25:11	N/A	3	1	Poor	5	2	13	15	0.87
CLVTOut-42	CLVT-42	2023-08-17 13:08:12	Plastic	3	1	Good	1	2	5	15	0.33
CLVTOut-43	CLVT-43	2023-08-17 13:14:12	Plastic	3	1	Good	1	2	5	15	0.33
CLVTOut-44	CLVT-44	2023-08-17 13:19:20	Plastic	3	1	Fair	3	2	9	15	0.60
CLVTOut-45	CLVT-45	2023-08-17 13:23:25	Plastic	3	1	Good	1	2	5	15	0.33
CLVTOut-46	CLVT-46	2023-08-17 13:30:05	Plastic	3	1	Fair	3	2	9	15	0.60
CLVTOut-47	CLVT-47	2023-08-17 13:34:06	Plastic	3	1	Good	1	2	5	15	0.33
CLVTOut-48	CLVT-48	2023-08-17 13:38:14	Plastic	3	1	Good	1	2	5	15	0.33
CLVTOut-49	CLVT-49	2023-08-17 13:43:31	Plastic	3	1	Good	1	2	5	15	0.33
CLVTOut-5	CLVT-5	2023-08-16 12:25:48	Masonry	2	1	Poor	5	2	12	15	0.80
CLVTOut-50	CLVT-50	2023-08-17 13:48:00	Plastic	3	1	Fair	3	2	9	15	0.60
CLVTOut-51	CLVT-51	2023-08-17 13:52:26	Plastic	3	1	Fair	3	2	9	15	0.60
CLVTOut-52	CLVT-52	2023-08-17 13:59:32	Concrete	1	1	Fair	3	2	7	15	0.47
CLVTOut-53	CLVT-53	2023-08-17 14:06:35	Plastic	3	1	Good	1	2	5	15	0.33
CLVTOut-54	CLVT-54	2023-08-17 14:10:52	Plastic	3	1	Good	1	2	5	15	0.33
CLVTOut-55	CLVT-55	2023-08-17 15:51:11	N/A	3	1	No Rating	3	2	9	15	0.60
CLVTOut-56	CLVT-56	2023-08-17 14:18:57	Plastic	3	1	Good	1	2	5	15	0.33
CLVTOut-57	CLVT-57	2023-08-17 14:23:46	Plastic	3	1	Good	1	2	5	15	0.33
CLVTOut-58	CLVT-58	2023-08-17 14:29:09	Plastic	3	1	Good	1	2	5	15	0.33
CLVTOut-59	CLVT-59	2023-08-17 13:35:35	Plastic	3	1	Poor	5	2	13	15	0.87
CLVTOut-60	CLVT-60	2023-08-17 13:35:53	N/A	3	1	No Rating	3	2	9	15	0.60
CLVTOut-61	CLVT-61	2023-08-17 14:45:01	Masonry	2	1	Good	1	2	4	15	0.27
CLVTOut-62	CLVT-62	2023-08-17 14:57:27	Concrete	1	1	Fair	3	2	7	15	0.47
CLVTOut-63	CLVT-63	2023-08-17 15:47:11	Masonry	2	1	Good	1	2	4	15	0.27
CLVTOut-64	CLVT-64	2023-08-17 15:53:34	N/A	3	1	Good	1	2	5	15	0.33
CLVTOut-65	CLVT-65	2023-08-17 16:00:22	N/A	3	1	No Rating	3	2	9	15	0.60
CLVTOut-66	CLVT-66	2023-08-17 16:04:46	Masonry	2	1	Fair	3	2	8	15	0.53
CLVTOut-67	CLVT-67	2023-08-17 16:29:34	N/A	3	1	No Rating	3	2	9	15	0.60
CLVTOut-68	CLVT-68	2023-08-17 16:26:47	N/A	3	1	No Rating	3	2	9	15	0.60
CLVTOut-69	CLVT-69	2023-08-17 16:21:21	N/A	3	1	Good	1	2	5	15	0.33
CLVTOut-7	CLVT-7	2023-08-16 15:20:34	Masonry	2	1	Poor	5	2	12	15	0.80
CLVTOut-70	CLVT-70	2023-08-17 16:29:44	N/A	3	1	No Rating	3	2	9	15	0.60
CLVTOut-71	CLVT-71	2023-08-17 16:35:06	Plastic	3	1	Good	1	2	5	15	0.33
CLVTOut-72	CLVT-72	2023-08-17 16:38:34	Masonry	2	1	Good	1	2	4	15	0.27
CLVTOut-73	CLVT-73	2023-08-17 16:44:20	Masonry	2	1	Good	1	2	4	15	0.27
CLVTOut-74	CLVT-74	2023-08-17 16:49:17	Masonry	2	1	Good	1	2	4	15	0.27
CLVTOut-75	CLVT-75	2023-08-17 16:52:46	Plastic	3	1	Good	1	2	5	15	0.33
CLVTOut-76	CLVT-76	2023-08-17 16:57:14	Plastic	3	1	Good	1	2	5	15	0.33
CLVTOut-77	CLVT-77	2023-08-17 17:03:08	Masonry	2	1	Good	1	2	4	15	0.27
CLVTOut-78	CLVT-78	2023-08-17 17:07:57	Plastic	3	1	Good	1	2	5	15	0.33
CLVTOut-79	CLVT-79	2023-08-17 17:19:17	Concrete	1	1	Good	1	2	3	15	0.20
CLVTOut-80	CLVT-80	2023-08-17 17:27:04	Masonry	2	1	Poor	5	2	12	15	0.80
CLVTOut-81	CLVT-81	2023-08-17 17:33:37	Masonry	2	1	Poor	5	2	12	15	0.80
CLVTOut-82	CLVT-82	2023-08-17 17:39:39	Metal	5	1	Fair	3	2	11	15	0.73
CLVTOut-83	CLVT-83	2023-08-17 17:32:35	N/A	3	1	No Rating	3	2	9	15	0.60
CLVTOut-84	CLVT-84	2023-08-17 17:31:45	N/A	3	1	No Rating	3	2	9	15	0.60
CLVTOut-85	CLVT-85	2023-08-17 17:57:42	N/A	3	1	No Rating	3	2	9	15	0.60
CLVTOut-86	CLVT-86	2023-08-17 18:03:14	Masonry	2	1	Good	1	2	4	15	0.27
CLVTOut-87	CLVT-87	2023-08-17 17:19:14	Masonry	2	1	Good	1	2	4	15	0.27
CLVTOut-88	CLVT-88	2023-08-17 18:18:28	Concrete	1	1	Good	1	2	3	15	0.20
CLVTOut-89	CLVT-89	2023-08-17 18:19:03	Concrete	1	1	Good	1	2	3	15	0.20
CLVTOut-9	CLVT-9	2023-08-16 15:43:47	Masonry	2	1	Good	1	2	4	15	0.27
CLVTOut-90	CLVT-90	2023-08-17 18:28:11	Masonry	2	1	Fair	3	2	8	15	0.53
CLVTOut-91	CLVT-91	2023-08-17 18:36:49	Masonry	2	1	Fair	3	2	8	15	0.53
CLVTOut-92	CLVT-92	2023-08-17 18:55:29	Masonry	2	1	Poor	5	2	12	15	0.80
CLVTOut-93	CLVT-93	2023-08-17 14:41:38	Masonry	2	1	Good	1	2	4	15	0.27
CLVTOut-94	CLVT-94	2023-08-23 12:13:13	Masonry	2	1	Poor	5	2	12	15	0.80
CLVTOut-95	CLVT-95	2023-08-23 12:21:28	Concrete	1	1	Good	1	2	3	15	0.20
CLVTOut-96	CLVT-96	2023-08-23 12:29:14	Concrete	1	1	Good	1	2	3	15	0.20
CLVTOut-97	CLVT-97	2023-08-23 12:28:17	Concrete	1	1	Good	1	2	3	15	0.20
CLVTOut-98	CLVT-98	2023-08-23 12:47:37	Concrete	1	1	Good	1	2	3	15	0.20
CLVTOut-99	CLVT-99	2023-08-23 13:12:22	Masonry	2	1	Poor	5	2	12	15	0.80

Table I-4 Consequence of Failure Rankings - Culvert Inlets

Updated Alton	Town ID	Overall Culvert ID	Date Inspected	Floodplain 100yr	Rank	Weight	Detour Length (mi)	Length Rank	Dead End (Y/N)	No. Houses on Dead End	Rank	Detour Length/Dead End Rank	Weight	Roadway Class	Rank	Weight	Total CoF	Maximum Possible CoF Score	Normalized Total CoF Score
CLVTn-1	CLVT-1	2023-08-16 13:12:00	No	0	0.5	Dead End	0	Yes	3	1	1	0.75	Local	5	0.25	2	7.5	0.27	0.27
CLVTn-10	CLVT-10	2023-08-16 15:53:36	No	0	0.5	Dead End	0	Yes	10	3	3	0.75	Local	5	0.25	3.5	7.5	0.47	0.47
CLVTn-100	CLVT-100	2023-09-23 13:54:46	No	0	0.5	12.40326666	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67	0.67
CLVTn-101	CLVT-101	2023-08-23 14:34:26	No	0	0.5	4.097221184	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67	0.67
CLVTn-102	CLVT-102	2023-08-23 14:56:55	No	0	0.5	4.097221104	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67	0.67
CLVTn-103	CLVT-103	2023-08-23 15:07:33	No	0	0.5	Dead End	0	Yes	8	2	2	0.75	Local	5	0.25	2.75	7.5	0.37	0.37
CLVTn-104	CLVT-104	2023-08-23 15:40:48	No	0	0.5	2.822218055	3	No	Not Dead End	0	3	0.75	Local	5	0.25	3.5	7.5	0.47	0.47
CLVTn-105	CLVT-105	2023-08-23 15:50:50	No	0	0.5	4.097221055	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67	0.67
CLVTn-106	CLVT-106	2023-08-23 14:08:51	No	0	0.5	0.989581138	1	No	Not Dead End	0	1	0.75	Local	5	0.25	2	7.5	0.27	0.27
CLVTn-107	CLVT-107	2023-08-23 16:02:45	No	0	0.5	0.98958104	1	No	Not Dead End	0	1	0.75	Local	5	0.25	2	7.5	0.27	0.27
CLVTn-108	CLVT-108	2023-08-23 16:10:09	No	0	0.5	0.989581031	1	No	Not Dead End	0	1	0.75	Local	5	0.25	2	7.5	0.27	0.27
CLVTn-109	CLVT-109	2023-08-23 16:17:25	No	0	0.5	0.989580933	1	No	Not Dead End	0	1	0.75	Local	5	0.25	2	7.5	0.27	0.27
CLVTn-11	CLVT-11	2023-08-16 16:06:26	No	0	0.5	Dead End	0	Yes	43	5	5	0.75	Local	5	0.25	5	7.5	0.67	0.67
CLVTn-110	CLVT-110	2023-08-23 16:53:47	No	0	0.5	0.989581095	1	No	Not Dead End	0	1	0.75	Local	5	0.25	2	7.5	0.27	0.27
CLVTn-111	CLVT-111	2023-08-23 16:55:02	No	0	0.5	2.822217711	3	No	Not Dead End	0	3	0.75	Local	5	0.25	3.5	7.5	0.47	0.47
CLVTn-112	CLVT-112	2023-08-23 16:56:31	No	0	0.5	2.822217814	3	No	Not Dead End	0	3	0.75	Local	5	0.25	3.5	7.5	0.47	0.47
CLVTn-113	CLVT-113	2023-08-23 14:35:19	No	0	0.5	Dead End	0	Yes	13	3	3	0.75	Local	5	0.25	3.5	7.5	0.47	0.47
CLVTn-114	CLVT-114	2023-08-23 17:28:20	No	0	0.5	0.44230459	1	No	Not Dead End	0	1	0.75	Local	5	0.25	2	7.5	0.27	0.27
CLVTn-115	CLVT-115	2023-08-23 17:41:35	No	0	0.5	2.822217839	3	No	Not Dead End	0	3	0.75	Local	5	0.25	3.5	7.5	0.47	0.47
CLVTn-116	CLVT-116	2023-08-23 17:47:26	No	0	0.5	2.822218018	3	No	Not Dead End	0	3	0.75	Local	5	0.25	3.5	7.5	0.47	0.47
CLVTn-117	CLVT-117	2023-08-23 14:23:41	No	0	0.5	2.822217955	3	No	Not Dead End	0	3	0.75	Local	5	0.25	3.5	7.5	0.47	0.47
CLVTn-118	CLVT-118	2023-08-23 18:13:11	No	0	0.5	1.869054295	2	No	Not Dead End	0	2	0.75	Local	5	0.25	2.75	7.5	0.37	0.37
CLVTn-119	CLVT-119	2023-08-23 18:21:46	No	0	0.5	4.097221179	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67	0.67
CLVTn-12	CLVT-12	2023-08-16 16:14:57	No	0	0.5	Dead End	0	Yes	39	5	5	0.75	Local	5	0.25	5	7.5	0.67	0.67
CLVTn-120	CLVT-120	2023-08-23 18:50:29	No	0	0.5	4.097221114	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67	0.67
CLVTn-121	CLVT-121	2023-08-23 14:32:47	No	0	0.5	4.097221114	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67	0.67
CLVTn-122	CLVT-122	2023-08-23 18:56:51	No	0	0.5	4.097221189	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67	0.67
CLVTn-123	CLVT-123	2023-08-23 14:20:10	No	0	0.5	4.097221119	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67	0.67
CLVTn-124	CLVT-124	2023-08-23 14:19:01	No	0	0.5	4.097220951	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67	0.67
CLVTn-125	CLVT-125	2023-08-24 12:24:32	No	0	0.5	1.86905424	2	No	Not Dead End	0	2	0.75	Local	5	0.25	2.75	7.5	0.37	0.37
CLVTn-126	CLVT-126	2023-08-24 12:30:06	No	0	0.5	1.869054545	2	No	Not Dead End	0	2	0.75	Local	5	0.25	2.75	7.5	0.37	0.37
CLVTn-127	CLVT-127	2023-08-17 20:00:52	No	0	0.5	1.869054604	2	No	Not Dead End	0	2	0.75	Local	5	0.25	2.75	7.5	0.37	0.37
CLVTn-128	CLVT-128	2023-08-24 12:41:23	No	0	0.5	1.869054425	2	No	Not Dead End	0	2	0.75	Local	5	0.25	2.75	7.5	0.37	0.37
CLVTn-129	CLVT-129	2023-08-17 20:01:31	No	0	0.5	1.869054425	2	No	Not Dead End	0	2	0.75	Local	5	0.25	2.75	7.5	0.37	0.37
CLVTn-13	CLVT-13	2023-08-16 14:01:11	No	0	0.5	0.399038448	1	No	Not Dead End	0	1	0.75	Local	5	0.25	2	7.5	0.27	0.27
CLVTn-130	CLVT-130	2023-08-24 12:59:59	No	0	0.5	5.267539449	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67	0.67
CLVTn-131	CLVT-131	2023-08-24 13:07:28	No	0	0.5	5.267539027	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67	0.67
CLVTn-132	CLVT-132	2023-08-24 13:12:24	No	0	0.5	5.267539446	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67	0.67
CLVTn-133	CLVT-133	2023-08-24 13:21:58	No	0	0.5	1.86905428	2	No	Not Dead End	0	2	0.75	Local	5	0.25	2.75	7.5	0.37	0.37
CLVTn-134	CLVT-134	2023-08-24 13:25:57	No	0	0.5	5.267539378	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67	0.67
CLVTn-135	CLVT-135	2023-08-24 13:31:52	No	0	0.5	5.267539358	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67	0.67
CLVTn-136	CLVT-136	2023-08-23 14:32:39	No	0	0.5	5.267539147	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67	0.67
CLVTn-137	CLVT-137	2023-08-24 13:40:53	No	0	0.5	5.267539287	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67	0.67
CLVTn-138	CLVT-138	2023-08-24 13:45:20	No	0	0.5	5.267539399	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67	0.67
CLVTn-139	CLVT-139	2023-08-24 13:50:46	No	0	0.5	5.267539233	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67	0.67
CLVTn-14	CLVT-14	2023-08-16 16:25:24	No	0	0.5	Dead End	0	Yes	9	2	2	0.75	Local	5	0.25	2.75	7.5	0.37	0.37
CLVTn-140	CLVT-140	2023-08-23 14:35:16	No	0	0.5	5.267539305	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67	0.67
CLVTn-141	CLVT-141	2023-08-24 13:28:41	No	0	0.5	5.267539303	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67	0.67
CLVTn-142	CLVT-142	2023-08-24 14:00:24	No	0	0.5	1.869054163	2	No	Not Dead End	0	2	0.75	Local	5	0.25	2.75	7.5	0.37	0.37
CLVTn-143	CLVT-143	2023-08-24 14:02:57	No	0	0.5	1.869054295	2	No	Not Dead End	0	2	0.75	Local	5	0.25	2.75	7.5	0.37	0.37
CLVTn-144	CLVT-144	2023-08-24 14:08:28	No	0	0.5	4.320907163	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67	0.67
CLVTn-145	CLVT-145	2023-08-24 14:17:30	No	0	0.5	4.320907297	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67	0.67
CLVTn-146	CLVT-146	2023-08-24 14:22:56	No	0	0.5	4.320907313	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67	0.67
CLVTn-147	CLVT-147	2023-08-24 14:27:13	No	0	0.5	4.320907287	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67	0.67
CLVTn-148	CLVT-148	2023-08-24 14:34:05	No	0	0.5	1.766973335	2	No	Not Dead End	0	2	0.75	Local	5	0.25	2.75	7.5	0.37	0.37
CLVTn-149	CLVT-149	2023-08-24 14:48:08	No	0	0.5	1.766973282	2	No	Not Dead End	0	2	0.75	Local	5	0.25	2.75	7.5	0.37	0.37
CLVTn-15	CLVT-15	2023-08-16 16:50:55	No	0	0.5	2.789915299	3	No	Not Dead End	0	3	0.75	Local	5	0.25	3.5	7.5	0.47	0.47
CLVTn-150	CLVT-150	2023-08-17 20:01:55	No	0	0.5	Dead End	0	Yes	18	4	4	0.75	Local	5	0.25	4.25	7.5	0.57	0.57
CLVTn-151	CLVT-151	2023-08-24 15:03:00	No	0	0.5	Dead End	0	Yes	16	4	4	0.75	Local	5	0.25	4.25	7.5	0.57	0.57
CLVTn-152	CLVT-152	2023-08-24 15:01:42	No	0	0.5	Dead End	0	Yes	16	4	4	0.75	Local	5	0.25	4.25	7.5	0.57	0.57
CLVTn-153	CLVT-153																		

Updated Alton		Town ID		Overall Culvert ID	Date Inspected	Floodplain 100Yr	Rank	Weight	Detour Length (m)	Length Rank	Dead End (Y/N)	No. Houses on Dead End	Rank	Detour Length/Dead End Rank	Weight	Roadway Class	Rank	Weight	Total CoF	Maximum Possible CoF Score	Normalized Total CoF Score
CLVtm-220	CLVT-220	2023-09-13	12:33:29	No	0	0.5	3.679860345	4	No	Not Dead End	0	4	0.75	Local	5	0.25	4.25	7.5	0.57		
CLVtm-221	CLVT-221	2023-09-13	12:43:50	No	0	0.5	3.679860238	4	No	Not Dead End	0	4	0.75	Local	5	0.25	4.25	7.5	0.57		
CLVtm-222	CLVT-222	2023-09-13	12:50:20	No	0	0.5	3.679860309	4	No	Not Dead End	0	4	0.75	Local	5	0.25	4.25	7.5	0.57		
CLVtm-223	CLVT-223	2023-09-13	12:54:42	No	0	0.5	5.884802945	5	No	Not Dead End	0	5	0.75	Local	5	0.25	4.25	7.5	0.67		
CLVtm-224	CLVT-224	2023-09-13	12:58:54	No	0	0.5	5.884802739	5	No	Not Dead End	0	5	0.75	Local	5	0.25	4.25	7.5	0.67		
CLVtm-225	CLVT-225	2023-09-13	13:04:55	No	0	0.5	5.884802922	5	No	Not Dead End	0	5	0.75	Local	5	0.25	4.25	7.5	0.67		
CLVtm-226	CLVT-226	2023-09-13	13:08:34	No	0	0.5	5.884802739	5	No	Not Dead End	0	5	0.75	Local	5	0.25	4.25	7.5	0.67		
CLVtm-227	CLVT-227	2023-09-13	13:13:57	No	0	0.5	5.884802774	5	No	Not Dead End	0	5	0.75	Local	5	0.25	4.25	7.5	0.67		
CLVtm-228	CLVT-228	2023-09-13	13:18:47	No	0	0.5	1.725312001	2	No	Not Dead End	0	2	0.75	Local	5	0.25	2.75	7.5	0.37		
CLVtm-229	CLVT-229	2023-09-13	13:27:50	No	0	0.5	1.725312291	2	No	Not Dead End	0	2	0.75	Local	5	0.25	2.75	7.5	0.37		
CLVtm-230	CLVT-230	2023-09-13	13:32:53	No	0	0.5	1.725312103	2	No	Not Dead End	0	2	0.75	Local	5	0.25	2.75	7.5	0.37		
CLVtm-231	CLVT-231	2023-09-13	13:35:53	No	0	0.5	5.491290202	5	No	Not Dead End	0	5	0.75	Local	5	0.25	4.25	7.5	0.67		
CLVtm-232	CLVT-232	2023-09-13	13:45:37	No	0	0.5	5.180567626	5	No	Not Dead End	0	5	0.75	Local	5	0.25	4.25	7.5	0.67		
CLVtm-233	CLVT-233	2023-09-13	13:49:18	No	0	0.5	5.180567597	5	No	Not Dead End	0	5	0.75	Local	5	0.25	4.25	7.5	0.67		
CLVtm-234	CLVT-234	2023-09-13	14:02:30	No	0	0.5	5.180567396	5	No	Not Dead End	0	5	0.75	Local	5	0.25	4.25	7.5	0.67		
CLVtm-235	CLVT-235	2023-09-13	14:07:20	No	0	0.5	5.180567523	5	No	Not Dead End	0	5	0.75	Local	5	0.25	4.25	7.5	0.67		
CLVtm-236	CLVT-236	2023-09-13	14:12:46	No	0	0.5	5.180567582	5	No	Not Dead End	0	5	0.75	Local	5	0.25	4.25	7.5	0.67		
CLVtm-237	CLVT-237	2023-09-20	11:34:58	No	0	0.5	3.20634057	4	No	Not Dead End	0	4	0.75	Local	5	0.25	4.25	7.5	0.57		
CLVtm-238	CLVT-238	2023-09-20	11:37:56	No	0	0.5	3.206340496	4	No	Not Dead End	0	4	0.75	Local	5	0.25	4.25	7.5	0.57		
CLVtm-239	CLVT-239	2023-09-20	11:47:10	No	0	0.5	3.206340546	4	No	Not Dead End	0	4	0.75	Local	5	0.25	4.25	7.5	0.57		
CLVtm-240	CLVT-240	2023-09-20	11:50:57	No	0	0.5	3.206340574	4	No	Not Dead End	0	4	0.75	Local	5	0.25	4.25	7.5	0.57		
CLVtm-241	CLVT-241	2023-09-20	11:54:12	No	0	0.5	3.206340362	4	No	Not Dead End	0	4	0.75	Local	5	0.25	4.25	7.5	0.57		
CLVtm-242	CLVT-242	2023-09-20	11:59:32	No	0	0.5	3.206340406	4	No	Not Dead End	0	4	0.75	Local	5	0.25	4.25	7.5	0.57		
CLVtm-243	CLVT-243	2023-09-20	12:05:38	No	0	0.5	5.491290206	5	No	Not Dead End	0	5	0.75	Local	5	0.25	4.25	7.5	0.67		
CLVtm-244	CLVT-244	2023-09-20	12:04:39	No	0	0.5	3.206340617	4	No	Not Dead End	0	4	0.75	Local	5	0.25	4.25	7.5	0.57		
CLVtm-245	CLVT-245	2023-09-20	12:12:35	No	0	0.5	5.491290209	5	No	Not Dead End	0	5	0.75	Local	2	0.25	4.25	7.5	0.57		
CLVtm-246	CLVT-246	2023-09-20	12:16:30	No	0	0.5	5.491290166	5	No	Not Dead End	0	5	0.75	Local	2	0.25	4.25	7.5	0.57		
CLVtm-247	CLVT-247	2023-09-20	12:23:45	No	0	0.5	5.180567534	5	No	Not Dead End	0	5	0.75	Local	5	0.25	4.25	7.5	0.67		
CLVtm-248	CLVT-248	2023-09-20	12:27:40	No	0	0.5	5.180567537	5	No	Not Dead End	0	5	0.75	Local	5	0.25	4.25	7.5	0.67		
CLVtm-249	CLVT-249	2023-09-20	12:38:18	No	0	0.5	5.676200081	5	No	Not Dead End	0	5	0.75	Local	5	0.25	4.25	7.5	0.67		
CLVtm-250	CLVT-250	2023-09-20	12:44:30	No	0	0.5	0.831534337	1	No	Not Dead End	0	1	0.75	Local	5	0.25	2	7.5	0.27		
CLVtm-251	CLVT-251	2023-09-20	12:49:22	No	0	0.5	5.676200179	5	No	Not Dead End	0	5	0.75	Local	5	0.25	4.25	7.5	0.67		
CLVtm-252	CLVT-252	2023-09-20	12:54:42	No	0	0.5	5.676200179	5	No	Not Dead End	0	5	0.75	Local	5	0.25	4.25	7.5	0.67		
CLVtm-253	CLVT-253	2023-09-20	13:00:05	No	0	0.5	1.009851326	2	No	Not Dead End	0	2	0.75	Local	5	0.25	2.75	7.5	0.37		
CLVtm-254	CLVT-254	2023-09-20	13:07:37	No	0	0.5	6.460792502	5	No	Not Dead End	0	5	0.75	Local	5	0.25	4.25	7.5	0.67		
CLVtm-255	CLVT-255	2023-09-20	13:17:02	No	0	0.5	6.460792463	5	No	Not Dead End	0	5	0.75	Local	5	0.25	4.25	7.5	0.67		
CLVtm-256	CLVT-256	2023-09-20	13:20:16	No	0	0.5	6.460792463	5	No	Not Dead End	0	5	0.75	Local	5	0.25	4.25	7.5	0.67		
CLVtm-257	CLVT-257	2023-09-20	13:26:33	No	0	0.5	6.460792283	5	No	Not Dead End	0	5	0.75	Local	5	0.25	4.25	7.5	0.67		
CLVtm-258	CLVT-258	2023-09-20	13:30:48	No	0	0.5	6.460792591	5	No	Not Dead End	0	5	0.75	Local	5	0.25	4.25	7.5	0.67		
CLVtm-259	CLVT-259	2023-09-20	13:38:56	No	0	0.5	Dead End	0	Yes	3	1	1	0.75	Local	5	0.25	2	7.5	0.27		
CLVtm-260	CLVT-260	2023-09-20	13:41:21	No	0	0.5	2.320149325	3	No	Not Dead End	0	3	0.75	Local	5	0.25	3.75	7.5	0.47		
CLVtm-261	CLVT-261	2023-09-20	13:45:39	No	0	0.5	Dead End	0	Yes	8	2	2	0.75	Local	5	0.25	2.75	7.5	0.37		
CLVtm-262	CLVT-262	2023-09-20	13:50:04	No	0	0.5	Dead End	0	Yes	18	4	4	0.75	Local	5	0.25	4.25	7.5	0.57		
CLVtm-263	CLVT-263	2023-09-20	13:56:26	No	0	0.5	2.919096661	3	No	Not Dead End	0	3	0.75	Local	5	0.25	3.75	7.5	0.47		
CLVtm-264	CLVT-264	2023-09-20	14:01:13	No	0	0.5	2.919096756	3	No	Not Dead End	0	3	0.75	Local	5	0.25	3.75	7.5	0.47		
CLVtm-265	CLVT-265	2023-09-20	14:08:53	No	0	0.5	2.919096549	3	No	Not Dead End	0	3	0.75	Local	5	0.25	3.75	7.5	0.47		
CLVtm-266	CLVT-266	2023-09-20	14:08:55	No	0	0.5	2.919096749	3	No	Not Dead End	0	3	0.75	Local	5	0.25	3.75	7.5	0.47		
CLVtm-267	CLVT-267	2023-09-27	12:01:07	No	0	0.5	5.967758016	5	No	Not Dead End	0	5	0.75	Local	5	0.25	4.25	7.5	0.67		
CLVtm-268	CLVT-268	2023-09-27	12:04:59	No	0	0.5	5.967758247	5	No	Not Dead End	0	5	0.75	Local	5	0.25	4.25	7.5	0.67		
CLVtm-269	CLVT-269	2023-09-27	12:09:12	No	0	0.5	5.967758178	5	No	Not Dead End	0	5	0.75	Local	5	0.25	4.25	7.5	0.67		
CLVtm-270	CLVT-270	2023-09-27	12:15:32	No	0	0.5	2.320149245	3	No	Not Dead End	0	3	0.75	Local	5	0.25	3.75	7.5	0.47		
CLVtm-271	CLVT-271	2023-09-27	12:21:06	No	0	0.5	5.967758229	5	No	Not Dead End	0	5	0.75	Local	5	0.25	4.25	7.5	0.67		
CLVtm-272	CLVT-272	2023-09-27	12:26:19	No	0	0.5	5.967758225	5	No	Not Dead End	0	5	0.75	Local	5	0.25	4.25	7.5	0.67		
CLVtm-273	CLVT-273	2023-09-27	12:30:10	No	0	0.5	5.967758251	5	No	Not Dead End	0	5	0.75	Local	5	0.25	4.25	7.5	0.67		
CLVtm-274	CLVT-274	2023-09-27	12:40:09	No	0	0.5	Dead End	0	Yes	7	2	2	0.75	Private	0	0.25	1.5	7.5	0.20		
CLVtm-275	CLVT-275	2023-09-27	12:43:18	No	0	0.5	5.967757982	5	No	Not Dead End	0	5	0.75	Local	5	0.25	4.25	7.5	0.67		
CLVtm-276	CLVT-276	2023-09-27	12:50:54	No	0	0.5	5.967758224	5	No	Not Dead End	0	5	0.75	Local	5	0.25	4.25	7.5	0.67		
CLVtm-277	CLVT-277	2023-09-27	12:54:21	No	0	0.5	5.967758178	5	No	Not Dead End	0	5	0.75	Local	5	0.25	4.25	7.5	0.67		
CLVtm-278	CLVT-278	2023-09-27	12:58:24	No	0	0.5	5.967758228	5	No	Not Dead End	0	5	0.75	Local	5	0.25	4.25	7.5	0.67		
CLVtm-279	CLVT-279	2023-09-27	13:05:54	No	0	0.5	Dead End	0	Yes	13	3	3	0.75	Local	5	0.25	3.5	7.5	0.47		
CLVtm-280	CLVT-280	2023-09-27	13:10:36	No	0	0.5	2.320149352	3	No	Not Dead End	0	3	0.75	Local	5	0.25	3.75	7.5	0.47		
CLVtm-281	CLVT-281	2023-09-27	13:15:36	No	0	0.5	Dead End	0	Yes	19	4	4	0.75	Local	5	0.25	4.25	7.5	0.57		
CLVtm-282	CLVT-282	2023-09-27	13:26:47	No	0	0.5	Dead End	0	Yes	24	5	5	0.75	Local	5	0.25	5	7.5	0.67		
CLVtm-283	CLVT-283	2023-09-27	13:27:39	No	0	0.5	Dead End	0	Yes	24	5	5	0.75	Local	5	0.25	5	7.5	0.67		
CLVtm-284	CLVT-284	2023-09-27	13:30:16	No	0	0.5	Dead End	0	Yes	24	5	5	0.75	Local	5	0.25	5	7.5	0.67		
CLVtm-285	CLVT-285	2023-09-27	14:01:17	No	0	0.5	1.994165999	2	No	Not Dead End	0	2	0.75	Local	5	0.25	2.75	7.5	0.37		
CLVtm-286	CLVT-286	2023-09-27	14:09:08	No	0																

Updated Alton										Total CoF	Maximum Possible CoF Score	Normalized Total CoF Score						
Town ID	Overall Culvert ID	Date Inspected	Floodplain 100Yr	Rank	Weight	Detour Length (mi)	Length Rank	Dead End (Y/N)	No. Houses on Dead End				Rank	Detour Length/Dead End Rank	Weight	Roadway Class	Rank	Weight
CLVTH-342	CLVT-342	2023-10-11 11:28:10	No	0	0.5	4.930945831	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67
CLVTH-343	CLVT-343	2023-10-11 11:31:08	No	0	0.5	4.930948377	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67
CLVTH-344	CLVT-344	2023-10-11 11:33:47	No	0	0.5	4.930948375	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67
CLVTH-345	CLVT-345	2023-10-11 11:38:41	No	0	0.5	4.930948246	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67
CLVTH-346	CLVT-346	2023-10-11 11:45:54	No	0	0.5	4.930948356	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67
CLVTH-347	CLVT-347	2023-10-11 11:55:58	No	0	0.5	4.93094836	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67
CLVTH-348	CLVT-348	2023-10-11 11:59:01	No	0	0.5	4.93094829	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67
CLVTH-349	CLVT-349	2023-10-11 12:02:06	No	0	0.5	4.930948276	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67
CLVTH-35	CLVT-35	2023-08-16 19:22:56	No	0	0.5	1.5261638	2	No	Not Dead End	0	2	0.75	Local	5	0.25	2.75	7.5	0.37
CLVTH-350	CLVT-350	2023-10-11 12:03:57	No	0	0.5	4.930948155	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67
CLVTH-351	CLVT-351	2023-10-11 12:06:07	No	0	0.5	4.930948377	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67
CLVTH-352	CLVT-352	2023-10-11 12:09:54	No	0	0.5	4.930948373	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67
CLVTH-353	CLVT-353	2023-10-11 12:17:06	No	0	0.5	4.930948377	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67
CLVTH-354	CLVT-354	2023-10-11 12:20:12	No	0	0.5	4.930948206	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67
CLVTH-355	CLVT-355	2023-10-11 12:23:58	No	0	0.5	4.930948213	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67
CLVTH-356	CLVT-356	2023-10-11 12:28:32	No	0	0.5	6.947156279	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67
CLVTH-357	CLVT-357	2023-10-11 12:33:08	No	0	0.5	Dead End	0	Yes	6	2	2	0.75	Local	5	0.25	2.75	7.5	0.37
CLVTH-358	CLVT-358	2023-10-11 12:36:42	No	0	0.5	3.602012494	4	No	Not Dead End	0	4	0.75	Local	5	0.25	4.25	7.5	0.57
CLVTH-359	CLVT-359	2023-10-11 12:40:59	No	0	0.5	3.602012461	4	No	Not Dead End	0	4	0.75	Local	5	0.25	4.25	7.5	0.57
CLVTH-36	CLVT-36	2023-08-16 19:26:45	No	0	0.5	1.526163911	2	No	Not Dead End	0	2	0.75	Local	5	0.25	2.75	7.5	0.37
CLVTH-360	CLVT-360	2023-10-11 12:44:29	No	0	0.5	3.602012422	4	No	Not Dead End	0	4	0.75	Local	5	0.25	4.25	7.5	0.57
CLVTH-361	CLVT-361	2023-08-16 19:30:47	No	0	0.5	3.602012452	4	No	Not Dead End	0	4	0.75	Local	5	0.25	4.25	7.5	0.57
CLVTH-362	CLVT-362	2023-10-11 12:52:14	No	0	0.5	3.602012511	4	No	Not Dead End	0	4	0.75	Local	5	0.25	4.25	7.5	0.57
CLVTH-363	CLVT-363	2023-10-11 12:52:55	No	0	0.5	3.602012477	4	No	Not Dead End	0	4	0.75	Local	5	0.25	4.25	7.5	0.57
CLVTH-364	CLVT-364	2023-10-11 13:01:30	No	0	0.5	2.910180175	3	No	Not Dead End	0	3	0.75	Local	5	0.25	3.5	7.5	0.47
CLVTH-365	CLVT-365	2023-10-11 13:16:49	No	0	0.5	2.910180163	3	No	Not Dead End	0	3	0.75	Local	5	0.25	3.5	7.5	0.47
CLVTH-366	CLVT-366	2023-10-11 13:19:17	No	0	0.5	3.602012526	4	No	Not Dead End	0	4	0.75	Local	5	0.25	4.25	7.5	0.57
CLVTH-367	CLVT-367	2023-10-11 13:23:49	No	0	0.5	2.910180138	3	No	Not Dead End	0	3	0.75	Local	5	0.25	3.5	7.5	0.47
CLVTH-368	CLVT-368	2023-10-11 13:29:27	No	0	0.5	0.702114081	1	No	Not Dead End	0	1	0.75	Local	5	0.25	2	7.5	0.27
CLVTH-369	CLVT-369	2023-10-11 13:36:12	No	0	0.5	1.229527347	2	No	Not Dead End	0	2	0.75	Local	5	0.25	2.75	7.5	0.37
CLVTH-37	CLVT-37	2023-08-16 19:30:47	No	0	0.5	1.526163926	2	No	Not Dead End	0	2	0.75	Local	5	0.25	2.75	7.5	0.37
CLVTH-370	CLVT-370	2023-10-11 13:48:07	No	0	0.5	6.947156273	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67
CLVTH-371	CLVT-371	2023-10-11 13:51:30	No	0	0.5	2.910180135	3	No	Not Dead End	0	3	0.75	Local	5	0.25	3.5	7.5	0.47
CLVTH-372	CLVT-372	2023-10-11 13:54:14	No	0	0.5	2.910180208	3	No	Not Dead End	0	3	0.75	Local	5	0.25	3.5	7.5	0.47
CLVTH-373	CLVT-373	2023-10-11 13:57:19	No	0	0.5	2.910179995	3	No	Not Dead End	0	3	0.75	Local	5	0.25	3.5	7.5	0.47
CLVTH-374	CLVT-374	2023-10-11 14:00:43	No	0	0.5	2.910180304	3	No	Not Dead End	0	3	0.75	Local	5	0.25	3.5	7.5	0.47
CLVTH-375	CLVT-375	2023-10-11 14:03:57	No	0	0.5	2.910180278	3	No	Not Dead End	0	3	0.75	Local	5	0.25	3.5	7.5	0.47
CLVTH-376	CLVT-376	2023-10-11 14:10:08	No	0	0.5	2.9101803	3	No	Not Dead End	0	3	0.75	Local	5	0.25	3.5	7.5	0.47
CLVTH-377	CLVT-377	2023-10-11 14:15:11	No	0	0.5	0.702114229	1	No	Not Dead End	0	1	0.75	Local	5	0.25	2	7.5	0.27
CLVTH-378	CLVT-378	2023-10-11 14:23:10	No	0	0.5	3.926981223	4	No	Not Dead End	0	4	0.75	Local	5	0.25	4.25	7.5	0.57
CLVTH-379	CLVT-379	2023-10-18 11:34:07	No	0	0.5	3.926981248	4	No	Not Dead End	0	4	0.75	Local	5	0.25	4.25	7.5	0.57
CLVTH-38	CLVT-38	2023-08-17 12:43:18	No	0	0.5	6.401528874	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67
CLVTH-380	CLVT-380	2023-10-18 11:34:07	No	0	0.5	3.926981248	4	No	Not Dead End	0	4	0.75	Local	5	0.25	4.25	7.5	0.57
CLVTH-381	CLVT-381	2023-10-18 11:51:58	No	0	0.5	3.926981271	4	No	Not Dead End	0	4	0.75	Local	5	0.25	4.25	7.5	0.57
CLVTH-382	CLVT-382	2023-10-18 11:57:41	No	0	0.5	Dead End	0	Yes	14	3	3	0.75	Local	5	0.25	3.5	7.5	0.47
CLVTH-383	CLVT-383	2023-10-18 11:58:11	No	0	0.5	Dead End	0	Yes	14	3	3	0.75	Local	5	0.25	3.5	7.5	0.47
CLVTH-384	CLVT-384	2023-10-18 12:15:16	No	0	0.5	1.248999801	2	No	Not Dead End	0	2	0.75	Local	5	0.25	2.75	7.5	0.37
CLVTH-385	CLVT-385	2023-10-18 12:22:49	No	0	0.5	1.248999816	2	No	Not Dead End	0	2	0.75	Local	5	0.25	2.75	7.5	0.37
CLVTH-386	CLVT-386	2023-10-18 12:28:47	No	0	0.5	0.7215244	1	No	Not Dead End	0	1	0.75	Local	5	0.25	2	7.5	0.27
CLVTH-387	CLVT-387	2023-08-23 12:30:16	No	0	0.5	12.4032667	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67
CLVTH-388	CLVT-388	2023-09-27 13:19:24	No	0	0.5	Dead End	0	Yes	23	5	5	0.75	Local	5	0.25	5	7.5	0.67
CLVTH-39	CLVT-39	2023-08-17 13:23:35	No	0	0.5	6.40152903	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67
CLVTH-4	CLVT-4	2023-08-16 14:13:28	No	0	0.5	Dead End	0	Yes	4	1	1	0.75	Local	5	0.25	2	7.5	0.27
CLVTH-40	CLVT-40	2023-08-17 12:54:10	No	0	0.5	2.320149326	3	No	Not Dead End	0	3	0.75	Local	5	0.25	3.5	7.5	0.47
CLVTH-41	CLVT-41	2023-08-17 13:01:27	No	0	0.5	2.320149379	3	No	Not Dead End	0	3	0.75	Local	5	0.25	3.5	7.5	0.47
CLVTH-42	CLVT-42	2023-08-17 13:07:10	No	0	0.5	2.32014938	3	No	Not Dead End	0	3	0.75	Local	5	0.25	3.5	7.5	0.47
CLVTH-43	CLVT-43	2023-08-17 13:13:04	No	0	0.5	2.320149071	3	No	Not Dead End	0	3	0.75	Local	5	0.25	3.5	7.5	0.47
CLVTH-44	CLVT-44	2023-08-17 13:17:28	No	0	0.5	2.320149378	3	No	Not Dead End	0	3	0.75	Local	5	0.25	3.5	7.5	0.47
CLVTH-45	CLVT-45	2023-08-17 13:22:42	No	0	0.5	1.526163909	2	No	Not Dead End	0	2	0.75	Local	5	0.25	2.75	7.5	0.37
CLVTH-46	CLVT-46	2023-08-17 13:29:31	No	0	0.5	1.526163945	2	No	Not Dead End	0	2	0.75	Local	5	0.25	2.75	7.5	0.37
CLVTH-47	CLVT-47	2023-08-17 13:32:51	No	0	0.5	1.526163943	2	No	Not Dead End	0	2	0.75	Local	5	0.25	2.75	7.5	0.37
CLVTH-48	CLVT-48	2023-08-17 13:37:31	No	0	0.5	1.526163933	2	No	Not Dead End	0	2	0.75	Local	5	0.25	2.75	7.5	0.37
CLVTH-49	CLVT-49	2023-08-17 13:41:43	No	0	0.5	1.526163926	2	No	Not Dead End	0	2	0.75	Local	5	0.25	2.75	7.5	0.37
CLVTH-5	CLVT-5	2023-08-16 14:26:22	No	0	0.5	Dead End	0	Yes	14	3	3	0.75	Local	5	0.25	3.5	7.5	0.47
CLVTH-50	CLVT-50	2023-08-17 13:32:11	No	0	0.5	1.52616392	2	No	Not Dead End	0	2	0.75	Local	5	0.25	2.75	7.5	0.37
CLVTH-51	CLVT-51	2023-08-17 13:51:17	No	0	0.5	1.526163931	2	No	Not Dead End	0	2	0.75	Local	5	0.25	2.75	7.5	0.37
CLVTH-52	CLVT-52	2023-08-17 13:57:46	No	0	0.5	6.401528926	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67
CLVTH-53	CLVT-53	2023-08-17 14:04:35	No	0	0.5	6.401529038	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67
CLVTH-54	CLVT-54	2023-08-17 14:09:36	No	0	0.5	6.401528857	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67
CLVTH-55	CLVT-55	2023-08-17 14:14:22	No	0	0.5	6.40152909	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67
CLVTH-56	CLVT-56	2023-08-17 14:17:57	No	0	0.5	6.401529247	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67

Table I-5 Consequence of Failure Rankings - Culvert Pipes

Updated	Overall	Date Impacted	Pipe Shape	Dimension A (ft)	Dimension B (ft)	Dimension C (ft)	Dimension D (ft)	Max Dimension (ft)	Pipe Size (ft)	Rank	Weight	Floodplain 100yr	Rank	Weight	Detour Length (mi)	Detour Length Rank	Dead End (Y/N)	No. Houses on Dead End	Dead End Length Rank	RROR Length (ft)	RROR Length Rank	Weight	Roadway Class	Rank	Weight	Total CoP	Maximum Possible Score	Normalized Total CoP Score
CVLP101	CVLP101	2023-08-15 15:29:05	Round	24	2.00	2.00	2.00	2.00	2.00	1.5	0.00	No	0	0.0	0	0.0	0	0	0	0	0	0.75	Local	5	2.25	6.5	15	0.43
CVLP102	CVLP102	2023-08-23 13:57:58	Round	18	1.50	1.50	1.50	1.50	1.50	1.5	0.00	No	0	0.0	0	0.0	0	0	0	0	0	0.75	Local	5	2.25	8	15	0.33
CVLP103	CVLP103	2023-08-23 14:58:54	Round	18	1.50	1.50	1.50	1.50	1.50	1.5	0.00	No	0	0.0	0	0.0	0	0	0	0	0	0.75	Local	5	2.25	8	15	0.33
CVLP104	CVLP104	2023-08-23 15:08:29	Embedded Round	15	1.25	1.25	1.25	1.25	1.25	1.5	0.00	No	0	0.0	0	0.0	0	0	0	0	0	0.75	Local	5	2.25	5.75	15	0.38
CVLP105	CVLP105	2023-08-23 15:53:01	Embedded Round	17	1.50	1.50	1.50	1.50	1.50	1.5	0.00	No	0	0.0	0	0.0	0	0	0	0	0	0.75	Local	5	2.25	8	15	0.33
CVLP106	CVLP106	2023-08-23 14:09:08	Embedded Round	12	1.00	1.00	1.00	1.00	1.00	1.5	0.00	No	0	0.0	0	0.0	0	0	0	0	0	0.75	Local	5	2.25	3.5	15	0.23
CVLP107	CVLP107	2023-08-23 16:02:21	Embedded Round	12	1.00	1.00	1.00	1.00	1.00	1.5	0.00	No	0	0.0	0	0.0	0	0	0	0	0	0.75	Local	5	2.25	3.5	15	0.23
CVLP108	CVLP108	2023-08-23 16:10:45	Round	16	1.33	1.33	1.33	1.33	1.33	1.5	0.00	No	0	0.0	0	0.0	0	0	0	0	0	0.75	Local	5	2.25	5	15	0.33
CVLP109	CVLP109	2023-08-23 16:18:00	Round	16	1.33	1.33	1.33	1.33	1.33	1.5	0.00	No	0	0.0	0	0.0	0	0	0	0	0	0.75	Local	5	2.25	5	15	0.33
CVLP110	CVLP110	2023-08-23 16:25:58	Round	12	1.00	1.00	1.00	1.00	1.00	1.5	0.00	No	0	0.0	0	0.0	0	0	0	0	0	0.75	Local	5	2.25	5	15	0.33
CVLP111	CVLP111	2023-08-23 17:12:17	Embedded Round	24	2.00	2.00	2.00	2.00	2.00	1.5	0.00	No	0	0.0	0	0.0	0	0	0	0	0	0.75	Local	5	2.25	6.5	15	0.43
CVLP112	CVLP112	2023-08-23 17:32:22	Embedded Round	24	2.00	2.00	2.00	2.00	2.00	1.5	0.00	No	0	0.0	0	0.0	0	0	0	0	0	0.75	Local	5	2.25	6.5	15	0.43
CVLP113	CVLP113	2023-08-23 17:19:09	Round	12	1.00	1.00	1.00	1.00	1.00	1.5	0.00	No	0	0.0	0	0.0	0	0	0	0	0	0.75	Local	5	2.25	5	15	0.33
CVLP114	CVLP114	2023-08-23 17:34:35	Round	14	1.17	1.17	1.17	1.17	1.17	1.5	0.00	No	0	0.0	0	0.0	0	0	0	0	0	0.75	Local	5	2.25	5	15	0.33
CVLP115	CVLP115	2023-08-23 17:42:32	Round	18	1.50	1.50	1.50	1.50	1.50	1.5	0.00	No	0	0.0	0	0.0	0	0	0	0	0	0.75	Local	5	2.25	6.5	15	0.43
CVLP116	CVLP116	2023-08-23 17:49:07	Round	16	1.33	1.33	1.33	1.33	1.33	1.5	0.00	No	0	0.0	0	0.0	0	0	0	0	0	0.75	Local	5	2.25	6.5	15	0.43
CVLP117	CVLP117	2023-08-23 17:54:12	Round	15	1.25	1.25	1.25	1.25	1.25	1.5	0.00	No	0	0.0	0	0.0	0	0	0	0	0	0.75	Local	5	2.25	6.5	15	0.43
CVLP118	CVLP118	2023-08-23 18:02:56	Embedded Round	12	1.00	1.00	1.00	1.00	1.00	1.5	0.00	No	0	0.0	0	0.0	0	0	0	0	0	0.75	Local	5	2.25	6.5	15	0.43
CVLP119	CVLP119	2023-08-23 18:21:59	Round	14	1.17	1.17	1.17	1.17	1.17	1.5	0.00	No	0	0.0	0	0.0	0	0	0	0	0	0.75	Local	5	2.25	8	15	0.33
CVLP120	CVLP120	2023-08-16 13:12:47	Round	14	1.17	1.17	1.17	1.17	1.17	1.5	0.00	No	0	0.0	0	0.0	0	0	0	0	0	0.75	Local	5	2.25	8	15	0.33
CVLP121	CVLP121	2023-08-23 18:55:25	Embedded Round	36	3.00	3.00	3.00	3.00	3.00	1.5	0.00	No	0	0.0	0	0.0	0	0	0	0	0	0.75	Local	5	2.25	9.5	15	0.63
CVLP122	CVLP122	2023-08-23 18:59:03	Round	17	1.42	1.42	1.42	1.42	1.42	1.5	0.00	No	0	0.0	0	0.0	0	0	0	0	0	0.75	Local	5	2.25	8	15	0.33
CVLP123	CVLP123	2023-08-23 14:02:22	Round	14	1.17	1.17	1.17	1.17	1.17	1.5	0.00	No	0	0.0	0	0.0	0	0	0	0	0	0.75	Local	5	2.25	6.5	15	0.43
CVLP124	CVLP124	2023-08-23 14:31:14	Round	15	1.25	1.25	1.25	1.25	1.25	1.5	0.00	No	0	0.0	0	0.0	0	0	0	0	0	0.75	Local	5	2.25	6.5	15	0.43
CVLP125	CVLP125	2023-08-24 12:27:14	Round	15	1.25	1.25	1.25	1.25	1.25	1.5	0.00	No	0	0.0	0	0.0	0	0	0	0	0	0.75	Local	5	2.25	5.75	15	0.38
CVLP126	CVLP126	2023-08-24 12:33:33	Round	14	1.17	1.17	1.17	1.17	1.17	1.5	0.00	No	0	0.0	0	0.0	0	0	0	0	0	0.75	Local	5	2.25	6.5	15	0.43
CVLP127	CVLP127	2023-08-24 12:39:07	Round	14	1.17	1.17	1.17	1.17	1.17	1.5	0.00	No	0	0.0	0	0.0	0	0	0	0	0	0.75	Local	5	2.25	5.75	15	0.38
CVLP128	CVLP128	2023-08-24 12:42:36	Round	15	1.25	1.25	1.25	1.25	1.25	1.5	0.00	No	0	0.0	0	0.0	0	0	0	0	0	0.75	Local	5	2.25	5.75	15	0.38
CVLP129	CVLP129	2023-08-24 12:48:08	Round	14	1.17	1.17	1.17	1.17	1.17	1.5	0.00	No	0	0.0	0	0.0	0	0	0	0	0	0.75	Local	5	2.25	6.5	15	0.43
CVLP130	CVLP130	2023-08-16 16:21:23	Embedded Round	12	1.00	1.00	1.00	1.00	1.00	1.5	0.00	No	0	0.0	0	0.0	0	0	0	0	0	0.75	Local	5	2.25	3.5	15	0.23
CVLP131	CVLP131	2023-08-24 13:08:17	Round	12	1.00	1.00	1.00	1.00	1.00	1.5	0.00	No	0	0.0	0	0.0	0	0	0	0	0	0.75	Local	5	2.25	6.5	15	0.43
CVLP132	CVLP132	2023-08-24 13:13:28	Embedded Round	15	1.25	1.25	1.25	1.25	1.25	1.5	0.00	No	0	0.0	0	0.0	0	0	0	0	0	0.75	Local	5	2.25	8	15	0.33
CVLP133	CVLP133	2023-08-24 13:23:47	Round	15	1.25	1.25	1.25	1.25	1.25	1.5	0.00	No	0	0.0	0	0.0	0	0	0	0	0	0.75	Local	5	2.25	5.75	15	0.38
CVLP134	CVLP134	2023-08-24 13:28:23	Round	15	1.25	1.25	1.25	1.25	1.25	1.5	0.00	No	0	0.0	0	0.0	0	0	0	0	0	0.75	Local	5	2.25	6.5	15	0.43
CVLP135	CVLP135	2023-08-24 13:31:13	Round	24	2.00	2.00	2.00	2.00	2.00	1.5	0.00	No	0	0.0	0	0.0	0	0	0	0	0	0.75	Local	5	2.25	8	15	0.33
CVLP136	CVLP136	2023-08-24 13:37:16	Round	14	1.17	1.17	1.17	1.17	1.17	1.5	0.00	No	0	0.0	0	0.0	0	0	0	0	0	0.75	Local	5	2.25	8	15	0.33
CVLP137	CVLP137	2023-08-24 13:41:31	Round	36	3.00	3.00	3.00	3.00	3.00	1.5	0.00	No	0	0.0	0	0.0	0	0	0	0	0	0.75	Local	5	2.25	9.5	15	0.63
CVLP138	CVLP138	2023-08-24 13:46:02	Round	15	1.25	1.25	1.25	1.25	1.25	1.5	0.00	No	0	0.0	0	0.0	0	0	0	0	0	0.75	Local	5	2.25	8	15	0.33
CVLP139	CVLP139	2023-08-24 13:51:21	Round	15	1.25	1.25	1.25	1.25	1.25	1.5	0.00	No	0	0.0	0	0.0	0	0	0	0	0	0.75	Local	5	2.25	6.5	15	0.43
CVLP140	CVLP140	2023-08-24 13:55:29	Round	14	1.17	1.17	1.17	1.17	1.17	1.5	0.00	No	0	0.0	0	0.0	0	0	0	0	0	0.75	Local	5	2.25	6.5	15	0.43
CVLP141	CVLP141	2023-08-24 14:02:56	Embedded Round	12	1.00	1.00	1.00	1.00	1.00	1.5	0.00	No	0	0.0	0	0.0	0	0	0	0	0	0.75	Local	5	2.25	6.5	15	0.43
CVLP142	CVLP142	2023-08-24 14:03:48	Round	12	1.00	1.00	1.00	1.00	1.00	1.5	0.00	No	0	0.0	0	0.0	0	0	0	0	0	0.75	Local	5	2.25	4.25	15	0.28
CVLP143	CVLP143	2023-08-24 14:05:36	Round	24	2.00	2.00	2.00	2.00	2.00	1.5	0.00	No	0	0.0	0	0.0	0	0	0	0	0	0.75	Local	5	2.25	4.25	15	0.28
CVLP144	CVLP144	2023-08-24 14:08:00	Round	24	2.00	2.00	2.00	2.00	2.00	1.5	0.00	No	0	0.0	0	0.0	0	0	0	0	0	0.75	Local	5	2.25	5.75	15	0.38
CVLP145	CVLP145	2023-08-24 14:18:07	Round	20																								

Updated Aton	Overall	Date Inspected	Pipe Shape	Dimension	Dimension	Dimension	Dimension	Max Dimension	Pipe Size	Rank	Weight	Floodplain	100Yr	Rank	Weight	Detour	Detour	Dead End	No. Houses on	Dead End	DROR	Weight	Roadway	Rank	Weight	Total Cof	Maximum	Normalized Total
Town ID	Curv ID			A (in)	B (in)	C (in)	D (in)	(in)	Max Dimension (ft)							Length Rank	Length Rank	(Y/N)	Dead End	Rank	Length/Dead End		Class		Score	Possible Score	Cof Score	
CLV Pipe 252	CLV 252	2023-09-20 11:56:21	Round	15	1.25	2	1.5	1.5	1.25	2	1.5	No	0	0.5	5.676290759	5	No	Not Dead End	0	5	0.75	Local	5	0.25	8	15	0.53	
CLV Pipe 253	CLV 253	2023-09-20 13:09:49	Round	15	1.25	2	1.5	1.5	1.25	2	1.5	No	0	0.5	5.608826192	5	No	Not Dead End	0	5	0.75	Local	5	0.25	8	15	0.53	
CLV Pipe 254	CLV 254	2023-09-20 13:09:49	Embedded Round	15	1.25	2	1.5	1.5	1.25	2	1.5	No	0	0.5	6.460792502	5	No	Not Dead End	0	5	0.75	Local	5	0.25	8	15	0.53	
CLV Pipe 255	CLV 255	2023-09-20 13:18:26	Round	15	1.25	2	1.5	1.5	1.25	2	1.5	No	0	0.5	6.460792463	5	No	Not Dead End	0	5	0.75	Local	5	0.25	8	15	0.53	
CLV Pipe 256	CLV 256	2023-09-20 13:18:26	Round	48	4.00	3	4.00	4.00	4.00	3	4.00	No	0	0.5	6.460792463	5	No	Not Dead End	0	5	0.75	Local	5	0.25	8	15	0.53	
CLV Pipe 257	CLV 257	2023-09-20 13:28:39	Round	22	1.83	2	1.5	1.5	1.83	2	1.5	No	0	0.5	6.460792283	5	No	Not Dead End	0	5	0.75	Local	5	0.25	8	15	0.53	
CLV Pipe 258	CLV 258	2023-09-20 13:32:23	Round	18	1.50	2	1.5	1.5	1.50	2	1.5	No	0	0.5	6.460792591	5	No	Not Dead End	0	5	0.75	Local	5	0.25	8	15	0.53	
CLV Pipe 259	CLV 259	2023-09-20 13:39:33	Round	15	1.25	2	1.5	1.5	1.25	2	1.5	No	0	0.5	6.460792591	5	No	Not Dead End	0	5	0.75	Local	5	0.25	8	15	0.53	
CLV Pipe 260	CLV 260	2023-09-20 13:43:04	Round	15	1.25	2	1.5	1.5	1.25	2	1.5	No	0	0.5	2.320149225	5	No	Not Dead End	0	3	0.75	Local	5	0.25	6.5	15	0.43	
CLV Pipe 261	CLV 261	2023-09-20 13:47:51	Full Row	60	6.00	6.00	6.00	6.00	6.00	6.00	6.00	Yes	2	1	2.100249322	4	Yes	2	1	0.75	Local	5	0.25	5	15	0.38		
CLV Pipe 262	CLV 262	2023-09-20 13:51:46	Round	15	1.25	2	1.5	1.5	1.25	2	1.5	No	0	0.5	2.320149225	5	No	Not Dead End	0	3	0.75	Local	5	0.25	6.5	15	0.43	
CLV Pipe 263	CLV 263	2023-09-20 13:59:41	Round	36	3.00	3	3.00	3.00	3.00	3	3.00	No	0	0.5	2.319396661	3	No	Not Dead End	0	4	0.75	Local	5	0.25	7.25	15	0.48	
CLV Pipe 264	CLV 264	2023-09-20 14:01:37	Round	15	1.25	2	1.5	1.5	1.25	2	1.5	No	0	0.5	2.319396661	3	No	Not Dead End	0	4	0.75	Local	5	0.25	6.5	15	0.43	
CLV Pipe 265	CLV 265	2023-09-20 14:04:24	Round	15	1.25	2	1.5	1.5	1.25	2	1.5	No	0	0.5	2.319396661	3	No	Not Dead End	0	4	0.75	Local	5	0.25	6.5	15	0.43	
CLV Pipe 266	CLV 266	2023-09-20 14:07:27	Round	30	3.00	3	3.00	3.00	3.00	3	3.00	No	0	0.5	2.319396661	3	No	Not Dead End	0	4	0.75	Local	5	0.25	6.5	15	0.43	
CLV Pipe 267	CLV 267	2023-09-20 14:12:06	Round	15	1.25	2	1.5	1.5	1.25	2	1.5	No	0	0.5	5.967758247	5	No	Not Dead End	0	5	0.75	Local	5	0.25	8	15	0.53	
CLV Pipe 268	CLV 268	2023-09-27 12:05:58	Round	12	1.00	1	1.5	1.5	1.00	1	1.5	No	0	0.5	5.967758247	5	No	Not Dead End	0	5	0.75	Local	5	0.25	6.5	15	0.43	
CLV Pipe 269	CLV 269	2023-09-27 12:08:54	Round	12	1.00	1	1.5	1.5	1.00	1	1.5	No	0	0.5	5.967758247	5	No	Not Dead End	0	5	0.75	Local	5	0.25	6.5	15	0.43	
CLV Pipe 270	CLV 270	2023-09-27 12:12:58	Round	15	1.25	2	1.5	1.5	1.25	2	1.5	No	0	0.5	5.967758247	5	No	Not Dead End	0	5	0.75	Local	5	0.25	8	15	0.53	
CLV Pipe 271	CLV 271	2023-09-27 12:22:58	Round	15	1.25	2	1.5	1.5	1.25	2	1.5	No	0	0.5	5.967758247	5	No	Not Dead End	0	5	0.75	Local	5	0.25	8	15	0.53	
CLV Pipe 272	CLV 272	2023-09-27 12:26:56	Round	18	1.50	2	1.5	1.5	1.50	2	1.5	No	0	0.5	5.967758229	5	No	Not Dead End	0	5	0.75	Local	5	0.25	8	15	0.53	
CLV Pipe 273	CLV 273	2023-09-27 12:34:11	Round	12	1.00	1	1.5	1.5	1.00	1	1.5	No	0	0.5	5.967758211	5	No	Not Dead End	0	5	0.75	Local	5	0.25	6.5	15	0.43	
CLV Pipe 274	CLV 274	2023-09-27 12:40:33	Embedded Round	12	1.00	1	1.5	1.5	1.00	1	1.5	No	0	0.5	5.967758211	5	No	Not Dead End	0	5	0.75	Local	5	0.25	6.5	15	0.43	
CLV Pipe 275	CLV 275	2023-09-27 12:45:38	Round	15	1.25	2	1.5	1.5	1.25	2	1.5	No	0	0.5	5.967757982	5	No	Not Dead End	0	5	0.75	Local	5	0.25	8	15	0.53	
CLV Pipe 276	CLV 276	2023-09-27 12:51:47	Round	36	3.00	3	3.00	3.00	3.00	3	3.00	No	0	0.5	5.967758224	5	No	Not Dead End	0	5	0.75	Local	5	0.25	9.5	15	0.63	
CLV Pipe 277	CLV 277	2023-09-27 13:01:11	Round	36	3.00	3	3.00	3.00	3.00	3	3.00	No	0	0.5	5.967758224	5	No	Not Dead End	0	5	0.75	Local	5	0.25	9.5	15	0.63	
CLV Pipe 278	CLV 278	2023-09-27 13:03:08	Round	15	1.25	2	1.5	1.5	1.25	2	1.5	No	0	0.5	5.967758224	5	No	Not Dead End	0	5	0.75	Local	5	0.25	8	15	0.53	
CLV Pipe 279	CLV 279	2023-09-27 13:12:22	Round	12	1.00	1	1.5	1.5	1.00	1	1.5	No	0	0.5	Dead End	0	Yes	13	3	0.75	Local	5	0.25	5	15	0.33		
CLV Pipe 280	CLV 280	2023-09-27 13:16:46	Round	12	1.00	1	1.5	1.5	1.00	1	1.5	No	0	0.5	2.203249322	3	No	Not Dead End	0	3	0.75	Local	5	0.25	5	15	0.33	
CLV Pipe 281	CLV 281	2023-09-27 13:20:03	Round	16	1.33	2	1.5	1.5	1.33	2	1.5	No	0	0.5	Dead End	0	Yes	19	4	0.75	Local	5	0.25	7.25	15	0.48		
CLV Pipe 282	CLV 282	2023-09-27 13:26:39	Round	15	1.25	2	1.5	1.5	1.25	2	1.5	No	0	0.5	Dead End	0	Yes	24	5	0.75	Local	5	0.25	8	15	0.53		
CLV Pipe 283	CLV 283	2023-09-27 13:32:06	Round	15	1.25	2	1.5	1.5	1.25	2	1.5	No	0	0.5	Dead End	0	Yes	24	5	0.75	Local	5	0.25	8	15	0.53		
CLV Pipe 284	CLV 284	2023-09-27 14:04:03	Round	12	1.00	1	1.5	1.5	1.00	1	1.5	No	0	0.5	1.994165999	2	No	Not Dead End	0	2	0.75	Local	5	0.25	4.25	15	0.28	
CLV Pipe 285	CLV 285	2023-09-27 14:07:54	Round	15	1.25	2	1.5	1.5	1.25	2	1.5	No	0	0.5	1.994165999	2	No	Not Dead End	0	2	0.75	Local	5	0.25	6.5	15	0.43	
CLV Pipe 286	CLV 286	2023-09-27 14:19:32	Round	15	1.25	2	1.5	1.5	1.25	2	1.5	No	0	0.5	2.170004911	3	No	Not Dead End	0	3	0.75	Local	5	0.25	6.5	15	0.43	
CLV Pipe 287	CLV 287	2023-09-27 14:23:44	Round	15	1.25	2	1.5	1.5	1.25	2	1.5	No	0	0.5	2.170004911	3	No	Not Dead End	0	3	0.75	Local	5	0.25	6.5	15	0.43	
CLV Pipe 288	CLV 288	2023-09-27 14:35:16	Round	60	6.00	6.00	6.00	6.00	6.00	6.00	6.00	No	0	0.5	2.170004911	3	No	Not Dead End	0	3	0.75	Local	5	0.25	7.25	15	0.48	
CLV Pipe 289	CLV 289	2023-09-27 14:41:31	Round	36	3.00	3	3.00	3.00	3.00	3	3.00	No	0	0.5	2.170004911	3	No	Not Dead End	0	3	0.75	Local	5	0.25	8	15	0.53	
CLV Pipe 290	CLV 290	2023-09-27 14:48:48	Round	12	1.00	1	1.5	1.5	1.00	1	1.5	No	0	0.5	2.203249344	3	No	Not Dead End	0	3	0.75	Local	5	0.25	5	15	0.33	
CLV Pipe 291	CLV 291	2023-09-27 14:50:48	Round	12	1.00	1	1.5	1.5	1.00	1	1.5	No	0	0.5	2.203249344	3	No	Not Dead End	0	3	0.75	Local	5	0.25	5	15	0.33	
CLV Pipe 292	CLV 292	2023-09-27 14:55:27	Round	12	1.00	1	1.5	1.5	1.00	1	1.5	No	0	0.5	2.170004911	3	No	Not Dead End	0	3	0.75	Local	5	0.25	5	15	0.33	
CLV Pipe 293	CLV 293	2023-09-27 15:00:43	Round	18	1.50	2	1.5	1.5	1.50	2	1.5	No	0	0.5	3.142655394	4	No	Not Dead End	0	4	0.75	Local	5	0.25	7.25	15	0.48	
CLV Pipe 294	CLV 294	2023-09-27 15:05:54	Round	15	1.25	2	1.5	1.5	1.25	2	1.5	No	0	0.5	3.142655394	4	No	Not Dead End	0	4	0.75	Local	5	0.25	7.25	15	0.48	
CLV Pipe 295	CLV 295	2023-09-27 15:12:22	Round	48	4.00	3	4.00	4.00	4.00	3	4.00	No	0	0.5	3.142655394	4	No	Not Dead End	0	4	0.75	Local	5	0.25	8.75	15	0.58	
CLV Pipe 296	CLV 296	2023-09-27 15:16:42	Round	24	2.00	2	2.00	2.00	2.00	2	2.00	No																

Updated Alton Town ID	Overall Culvert ID	Date Inspected	Pipe Shape	Dimension A (in)	Dimension B (in)	Dimension n C (in)	Dimension D (in)	Max Dimension (in)	Pipe Size Max Dimension (ft)	Rank	Weight	Floodplain 100Yr	Rank	Weight	Detour Length (ft)	Detour Length Rank	Dead End (Y/N)	No. Houses on Dead End	Dead End Rank	Detour Length/Dead End	Weight	Roadway Class	Rank	Weight	Total CoF Score	Maximum Possible Score	Normalized Total CoF Score
CLVT-55	CLVT-55	2023-08-17 14:15:54	Round	14				14	1.17	2	1.5	No	0	0.5	6.40152929	5	No	Not Dead End	0	5	0.75	Local	5	0.25	8	15	0.53
CLVT-56	CLVT-56	2023-08-17 14:15:53	Round	15				15	1.25	2	1.5	No	0	0.5	6.40152929	5	No	Not Dead End	0	5	0.75	Local	5	0.25	8	15	0.53
CLVT-57	CLVT-57	2023-08-17 14:24:27	Round	15				15	1.25	2	1.5	No	0	0.5	6.40152898	5	No	Not Dead End	0	5	0.75	Local	5	0.25	8	15	0.53
CLVT-58	CLVT-58	2023-08-17 14:29:53	Round	15				15	1.25	2	1.5	No	0	0.5	6.40152888	5	No	Not Dead End	0	5	0.75	Local	5	0.25	8	15	0.53
CLVT-59	CLVT-59	2023-08-17 14:26:29	Round	15				15	1.25	2	1.5	No	0	0.5	6.40152904	5	No	Not Dead End	0	5	0.75	Local	5	0.25	8	15	0.53
CLVT-60	CLVT-60	2023-08-17 14:40:45	Round	20				20	1.67	2	1.5	No	0	0.5	6.40152882	5	No	Not Dead End	0	5	0.75	Local	5	0.25	8	15	0.53
CLVT-61	CLVT-61	2023-08-17 14:47:37	Round	24				24	2.00	2	1.5	No	0	0.5	6.40152912	5	No	Not Dead End	0	5	0.75	Local	5	0.25	8	15	0.53
CLVT-62	CLVT-62	2023-08-17 14:58:12	Round	20				20	1.67	2	1.5	No	0	0.5	6.40152882	5	No	Not Dead End	0	5	0.75	Local	5	0.25	8	15	0.53
CLVT-63	CLVT-63	2023-08-17 15:49:38	Round	17				17	1.42	2	1.5	No	0	0.5	Dead End	0	Yes	3	1	1	0.75	Local	5	0.25	5	15	0.33
CLVT-64	CLVT-64	2023-08-17 15:54:19	Round	16				16	1.33	2	1.5	No	0	0.5	Dead End	0	Yes	3	1	1	0.75	Local	5	0.25	5	15	0.33
CLVT-65	CLVT-65	2023-08-17 16:03:06	Round	12				12	1.00	1	1.5	No	0	0.5	Dead End	0	Yes	7	2	2	0.75	Local	5	0.25	4.25	15	0.28
CLVT-66	CLVT-66	2023-08-17 16:06:27	Embedded Round	12	12	12	7	12	1.00	1	1.5	No	0	0.5	Dead End	0	Yes	10	3	3	0.75	Local	5	0.25	5	15	0.33
CLVT-67	CLVT-67	2023-08-17 16:14:08	Round	14				14	1.17	2	1.5	No	0	0.5	Dead End	0	Yes	15	4	4	0.75	Local	5	0.25	7.25	15	0.48
CLVT-68	CLVT-68	2023-08-17 16:19:09	Round	5				5	0.42	1	1.5	No	0	0.5	Dead End	0	Yes	17	4	4	0.75	Local	5	0.25	5.75	15	0.38
CLVT-69	CLVT-69	2023-08-17 16:23:51	Round	15				15	1.25	2	1.5	No	0	0.5	Dead End	0	Yes	19	4	4	0.75	Local	5	0.25	7.25	15	0.48
CLVT-70	CLVT-70	2023-08-17 16:23:51	Embedded Round	10	9	10		10	0.83	1	1.5	No	0	0.5	0.83898636	1	No	Not Dead End	0	1	0.75	Local	5	0.25	9.5	15	0.72
CLVT-71	CLVT-71	2023-08-17 16:36:05	Round	24				24	2.00	2	1.5	No	0	0.5	3.02365077	4	No	Not Dead End	0	4	0.75	Local	5	0.25	7.25	15	0.48
CLVT-72	CLVT-72	2023-08-17 16:36:05	Round	15				15	1.25	2	1.5	No	0	0.5	3.02365296	4	No	Not Dead End	0	4	0.75	Local	5	0.25	7.25	15	0.48
CLVT-73	CLVT-73	2023-08-17 16:45:04	Round	12				12	1.00	1	1.5	No	0	0.5	3.02365125	4	No	Not Dead End	0	4	0.75	Local	5	0.25	5.75	15	0.38
CLVT-74	CLVT-74	2023-08-17 16:50:03	Embedded Round	15	15	15	15	15	1.25	2	1.5	No	0	0.5	3.02365137	4	No	Not Dead End	0	4	0.75	Local	5	0.25	7.25	15	0.48
CLVT-75	CLVT-75	2023-08-17 16:51:12	Embedded Round	15	15	15	15	15	1.25	2	1.5	No	0	0.5	3.02365144	4	No	Not Dead End	0	4	0.75	Local	5	0.25	7.25	15	0.48
CLVT-76	CLVT-76	2023-08-17 16:59:16	Round	15				15	1.25	2	1.5	No	0	0.5	3.02365128	4	No	Not Dead End	0	4	0.75	Local	5	0.25	7.25	15	0.48
CLVT-77	CLVT-77	2023-08-17 17:04:16	Round	15				15	1.25	2	1.5	No	0	0.5	3.02365145	4	No	Not Dead End	0	4	0.75	Local	5	0.25	7.25	15	0.48
CLVT-78	CLVT-78	2023-08-17 17:16:33	Round	15				15	1.25	2	1.5	No	0	0.5	3.02365137	4	No	Not Dead End	0	4	0.75	Local	5	0.25	7.25	15	0.48
CLVT-79	CLVT-79	2023-08-17 17:21:16	Embedded Round	30	30	30	30	30	2.50	3	1.5	No	0	0.5	2.32677526	3	No	Not Dead End	0	3	0.75	Local	5	0.25	8	15	0.53
CLVT-80	CLVT-80	2023-08-17 17:29:29	Round	18				18	1.50	2	1.5	No	0	0.5	2.32677552	3	No	Not Dead End	0	3	0.75	Local	5	0.25	6.5	15	0.43
CLVT-81	CLVT-81	2023-08-17 17:35:49	Round	12				12	1.00	1	1.5	No	0	0.5	2.32677563	3	No	Not Dead End	0	3	0.75	Local	5	0.25	5	15	0.33
CLVT-82	CLVT-82	2023-08-17 17:40:22	Round	15				15	1.25	2	1.5	No	0	0.5	2.32677553	3	No	Not Dead End	0	3	0.75	Local	5	0.25	6.5	15	0.43
CLVT-83	CLVT-83	2023-08-17 17:56:19	Round	0				0	0.00	1	1.5	No	0	0.5	2.32677562	3	No	Not Dead End	0	3	0.75	Local	5	0.25	5	15	0.33
CLVT-84	CLVT-84	2023-08-17 17:57:17	Round	15				15	1.25	2	1.5	No	0	0.5	2.32677552	3	No	Not Dead End	0	3	0.75	Local	5	0.25	6.5	15	0.43
CLVT-85	CLVT-85	2023-08-17 17:58:34	Round	14				14	1.17	2	1.5	No	0	0.5	2.32677569	3	No	Not Dead End	0	3	0.75	Local	5	0.25	6.5	15	0.43
CLVT-86	CLVT-86	2023-08-17 18:03:49	Round	16				16	1.33	2	1.5	No	0	0.5	3.02365142	4	No	Not Dead End	0	4	0.75	Local	5	0.25	7.25	15	0.48
CLVT-87	CLVT-87	2023-08-17 18:15:07	Round	17				17	1.42	2	1.5	No	0	0.5	2.32677576	3	No	Not Dead End	0	3	0.75	Local	5	0.25	6.5	15	0.43
CLVT-88	CLVT-88	2023-08-17 18:19:43	Round	22				22	1.83	2	1.5	No	0	0.5	1.46070164	2	No	Not Dead End	0	2	0.75	Local	5	0.25	5.75	15	0.38
CLVT-89	CLVT-89	2023-08-17 18:20:50	Round	22				22	1.83	2	1.5	No	0	0.5	1.46070163	2	No	Not Dead End	0	2	0.75	Local	5	0.25	5.75	15	0.38
CLVT-90	CLVT-90	2023-08-16 15:45:03	Round	14				14	1.17	2	1.5	No	0	0.5	Not a Road	0	No	Not Dead End	0	0	0.75	Local	1	0.25	2.25	15	0.22
CLVT-91	CLVT-91	2023-08-17 17:25:28	Round	12				12	1.00	1	1.5	No	0	0.5	1.46070163	2	No	Not Dead End	0	2	0.75	Local	5	0.25	4.25	15	0.28
CLVT-92	CLVT-92	2023-08-17 18:56:41	Embedded Round	14	10	14		14	1.17	2	1.5	Yes	5	0.5	1.76138724	2	No	Not Dead End	0	2	0.75	Local	5	0.25	8.25	15	0.55
CLVT-93	CLVT-93	2023-08-17 19:02:41	Round	14				14	1.17	2	1.5	Yes	5	0.5	1.76138745	2	No	Not Dead End	0	2	0.75	Local	5	0.25	8.25	15	0.55
CLVT-94	CLVT-94	2023-08-23 12:13:41	Round	15				15	1.25	2	1.5	No	0	0.5	12.40236687	5	No	Not Dead End	0	5	0.75	Local	5	0.25	8	15	0.53
CLVT-95	CLVT-95	2023-08-23 12:22:18	Round	14				14	1.17	2	1.5	No	0	0.5	12.40236681	5	No	Not Dead End	0	5	0.75	Local	5	0.25	8	15	0.53
CLVT-96	CLVT-96	2023-08-23 12:34:23	Embedded Round	20	20	20	20	20	1.67	2	1.5	No	0	0.5	12.40236677	5	No	Not Dead End	0	5	0.75	Local	5	0.25	8	15	0.53
CLVT-97	CLVT-97	2023-08-23 12:35:26	Round	30				30	2.50	3	1.5	No	0	0.5	12.40236677	5	No	Not Dead End	0	5	0.75	Local	5	0.25	9.5	15	0.63
CLVT-98	CLVT-98	2023-08-23 12:50:06	Round	30				30	2.50	3	1.5	No	0	0.5	12.40236683	5	No	Not Dead End	0	5	0.75	Local	5	0.25	9.5	15	0.63
CLVT-99	CLVT-99	2023-08-23 13:14:35	Embedded Round	18	16	18		18	1.50	2	1.5	No	0	0.5	12.40236662	5	No	Not Dead End	0	5	0.75	Local	5	0.25	8	15	0.53

Table I-6
Consequence of Failure Rankings - Culvert Outlets

Updated Alton Town ID	Overall Culvert ID	Date Inspected	Floodplain 100Yr	Rank	Weight	Detour Length (mi)	Detour Length Rank	Dead End (Y/N)	No. Houses on Dead End	Dead End Rank	Length/Detour Rank	Weight	Roadway Class	Rank	Weight	Total CoF Score	Maximum Possible Score	Normalized Total CoF Score
CLVT001	CLVT-1	2023-08-17 12:20:40	Yes	5	0.5	Dead End	0	Yes	13	3	3	0.75	Local	5	0.25	4.5	7.5	0.60
CLVT010	CLVT-10	2023-08-16 15:54:48	No	0	0.5	Dead End	0	Yes	10	3	1	0.75	Local	5	0.25	3.5	7.5	0.47
CLVT0100	CLVT-100	2023-08-23 13:52:45	No	0	0.5	12.40236666	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67
CLVT0101	CLVT-101	2023-08-23 14:33:11	No	0	0.5	4.09721184	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67
CLVT0102	CLVT-102	2023-08-23 14:55:29	No	0	0.5	4.09721184	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67
CLVT0103	CLVT-103	2023-08-23 15:04:46	No	0	0.5	Dead End	0	Yes	8	2	2	0.75	Local	5	0.25	2.75	7.5	0.37
CLVT0104	CLVT-104	2023-08-23 15:47:11	No	0	0.5	2.822218005	3	No	Not Dead End	0	3	0.75	Local	5	0.25	3.5	7.5	0.47
CLVT0105	CLVT-105	2023-08-23 15:52:05	No	0	0.5	4.097212055	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67
CLVT0106	CLVT-106	2023-08-23 14:09:43	No	0	0.5	0.989581138	1	No	Not Dead End	0	1	0.75	Local	5	0.25	2	7.5	0.27
CLVT0107	CLVT-107	2023-08-23 16:01:24	No	0	0.5	0.98958104	1	No	Not Dead End	0	1	0.75	Local	5	0.25	2	7.5	0.27
CLVT0108	CLVT-108	2023-08-23 16:09:03	No	0	0.5	0.989581031	1	No	Not Dead End	0	1	0.75	Local	5	0.25	2	7.5	0.27
CLVT0109	CLVT-109	2023-08-23 16:14:56	No	0	0.5	0.989580933	1	No	Not Dead End	0	1	0.75	Local	5	0.25	2	7.5	0.27
CLVT0110	CLVT-110	2023-08-23 16:58:52	No	0	0.5	0.989581095	1	No	Not Dead End	0	1	0.75	Local	5	0.25	2	7.5	0.27
CLVT0111	CLVT-111	2023-08-23 17:07:55	No	0	0.5	2.822217711	3	No	Not Dead End	0	3	0.75	Local	5	0.25	3.5	7.5	0.47
CLVT0112	CLVT-112	2023-08-23 17:08:58	No	0	0.5	2.822217814	3	No	Not Dead End	0	3	0.75	Local	5	0.25	3.5	7.5	0.47
CLVT0113	CLVT-113	2023-08-23 17:16:00	No	0	0.5	0	13	Yes	13	3	3	0.75	Local	5	0.25	3.5	7.5	0.47
CLVT0114	CLVT-114	2023-08-23 17:30:00	No	0	0.5	0.44230459	1	No	Not Dead End	0	1	0.75	Local	5	0.25	2	7.5	0.27
CLVT0115	CLVT-115	2023-08-23 17:40:42	No	0	0.5	2.822217839	3	No	Not Dead End	0	3	0.75	Local	5	0.25	3.5	7.5	0.47
CLVT0116	CLVT-116	2023-08-23 17:48:39	No	0	0.5	2.822218018	3	No	Not Dead End	0	3	0.75	Local	5	0.25	3.5	7.5	0.47
CLVT0117	CLVT-117	2023-08-23 17:51:59	No	0	0.5	2.822217965	3	No	Not Dead End	0	3	0.75	Local	5	0.25	3.5	7.5	0.47
CLVT0118	CLVT-118	2023-08-23 18:14:59	No	0	0.5	1.869054295	2	No	Not Dead End	0	2	0.75	Local	5	0.25	2.75	7.5	0.37
CLVT0119	CLVT-119	2023-08-23 18:23:21	No	0	0.5	4.097221179	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67
CLVT0120	CLVT-120	2023-08-16 16:16:04	No	0	0.5	Dead End	0	Yes	39	5	5	0.75	Local	5	0.25	5	7.5	0.67
CLVT0121	CLVT-121	2023-08-23 18:26:44	No	0	0.5	4.097212114	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67
CLVT0122	CLVT-122	2023-08-23 18:31:01	No	0	0.5	4.097212114	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67
CLVT0123	CLVT-123	2023-08-23 18:58:04	No	0	0.5	4.097221189	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67
CLVT0124	CLVT-124	2023-08-24 12:06:58	No	0	0.5	4.09722119	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67
CLVT0125	CLVT-125	2023-08-23 14:19:51	No	0	0.5	4.09720951	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67
CLVT0126	CLVT-126	2023-08-24 12:32:38	No	0	0.5	1.869054545	2	No	Not Dead End	0	2	0.75	Local	5	0.25	2.75	7.5	0.37
CLVT0127	CLVT-127	2023-08-24 12:38:26	No	0	0.5	1.869054604	2	No	Not Dead End	0	2	0.75	Local	5	0.25	2.75	7.5	0.37
CLVT0128	CLVT-128	2023-08-24 14:22:29	No	0	0.5	1.869054425	2	No	Not Dead End	0	2	0.75	Local	5	0.25	2.75	7.5	0.37
CLVT0129	CLVT-129	2023-08-24 14:44:38	No	0	0.5	1.869054413	2	No	Not Dead End	0	2	0.75	Local	5	0.25	2.75	7.5	0.37
CLVT0130	CLVT-130	2023-08-24 12:58:48	No	0	0.5	5.267539449	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67
CLVT0131	CLVT-131	2023-08-24 13:05:41	No	0	0.5	5.267539307	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67
CLVT0132	CLVT-132	2023-08-24 13:11:11	No	0	0.5	5.267539347	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67
CLVT0133	CLVT-133	2023-08-24 13:20:54	No	0	0.5	1.86905438	2	No	Not Dead End	0	2	0.75	Local	5	0.25	2.75	7.5	0.37
CLVT0134	CLVT-134	2023-08-24 13:28:10	No	0	0.5	5.267539378	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67
CLVT0135	CLVT-135	2023-08-24 13:32:35	No	0	0.5	5.267539358	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67
CLVT0136	CLVT-136	2023-08-24 13:35:26	No	0	0.5	5.267539347	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67
CLVT0137	CLVT-137	2023-08-24 13:39:54	No	0	0.5	5.267539387	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67
CLVT0138	CLVT-138	2023-08-24 13:44:03	No	0	0.5	5.267539399	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67
CLVT0139	CLVT-139	2023-08-24 13:49:10	No	0	0.5	5.267539323	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67
CLVT0140	CLVT-140	2023-08-24 13:52:45	No	0	0.5	5.267539305	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67
CLVT0141	CLVT-141	2023-08-24 13:58:06	No	0	0.5	5.267539323	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67
CLVT0142	CLVT-142	2023-08-24 14:00:47	No	0	0.5	1.869054163	2	No	Not Dead End	0	2	0.75	Local	5	0.25	2.75	7.5	0.37
CLVT0143	CLVT-143	2023-08-24 14:04:18	No	0	0.5	1.869054295	2	No	Not Dead End	0	2	0.75	Local	5	0.25	2.75	7.5	0.37
CLVT0144	CLVT-144	2023-08-24 14:08:56	No	0	0.5	4.320970711	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67
CLVT0145	CLVT-145	2023-08-24 14:15:58	No	0	0.5	4.320970729	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67
CLVT0146	CLVT-146	2023-08-23 14:47:20	No	0	0.5	4.320970711	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67
CLVT0147	CLVT-147	2023-08-24 14:27:53	No	0	0.5	4.320970727	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67
CLVT0148	CLVT-148	2023-08-24 14:42:15	No	0	0.5	1.766973235	2	No	Not Dead End	0	2	0.75	Local	5	0.25	2.75	7.5	0.37
CLVT0149	CLVT-149	2023-08-24 14:49:04	No	0	0.5	1.766973282	2	No	Not Dead End	0	2	0.75	Local	5	0.25	2.75	7.5	0.37
CLVT0150	CLVT-150	2023-08-16 15:22:46	No	0	0.5	2.789512999	3	No	Not Dead End	0	3	0.75	Local	5	0.25	3.5	7.5	0.47
CLVT0151	CLVT-151	2023-08-24 14:55:03	No	0	0.5	Dead End	0	Yes	18	4	4	0.75	Local	5	0.25	4.25	7.5	0.57
CLVT0152	CLVT-152	2023-08-24 14:59:12	No	0	0.5	Dead End	0	Yes	16	4	4	0.75	Local	5	0.25	4.25	7.5	0.57
CLVT0153	CLVT-153	2023-08-24 15:16:44	No	0	0.5	Dead End	0	Yes	20	5	5	0.75	Local	5	0.25	5	7.5	0.67
CLVT0154	CLVT-154	2023-08-24 15:56:24	No	0	0.5	8.497506386	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67
CLVT0155	CLVT-155	2023-08-24 16:04:14	No	0	0.5	8.497506346	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67
CLVT0156	CLVT-156	2023-08-24 16:04:58	No	0	0.5	8.497506366	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67
CLVT0157	CLVT-157	2023-08-24 16:05:31	No	0	0.5	8.497506366	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67
CLVT0158	CLVT-158	2023-08-24 16:19:03	No	0	0.5	8.497506325	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67
CLVT0159	CLVT-159	2023-08-24 16:19:36	No	0	0.5	8.497506325	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67
CLVT0160	CLVT-160	2023-08-16 16:57:37	No	0	0.5	2.789515197	3	No	Not Dead End	0	3	0.75	Local	5	0.25	3.5	7.5	0.47
CLVT0161	CLVT-161	2023-08-24 16:18:03	No	0	0.5	8.497506325	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67
CLVT0162	CLVT-162	2023-08-24 16:17:32	No	0	0.5	8.497506325	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67
CLVT0163	CLVT-163	2023-08-24 16:16:30	No	0	0.5	8.497506325	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67
CLVT0164	CLVT-164	2023-08-24 16:15:58	No	0	0.5	8.497506325	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67
CLVT0165	CLVT-165	2023-08-24 16:13:09	No	0	0.5	8.497506423	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67
CLVT0166	CLVT-166	2023-08-24 16:37:57	No	0	0.5	8.497506404	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67
CLVT0167	CLVT-167	2023-08-24 16:44:55	No	0	0.5	8.497506317	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67
CLVT0168	CLVT-168	2023-08-24 16:49:31	No	0	0.5	8.497506327	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67
CLVT0169	CLVT-169	2023-08-24 16:53:13																

Updated Alton Town ID	Overall Culvert ID	Date Inspected	Floodplain 100Yr	Rank	Weight	Detour Length (mi)	Detour Length Rank	Dead End (Y/N)	No. Houses on Dead End	Dead End Rank	Detour			Roadway Class	Rank	Weight	Total CoF Score	Maximum Possible Score	Normalized Total CoF Score
											Length/Dead End	Rank	Weight						
CLVTOu-223	CLVT-223	2023-09-13 12:53:54	No	0	0.5	5.8848023045	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67	
CLVTOu-224	CLVT-224	2023-09-13 12:57:42	No	0	0.5	5.8848023739	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67	
CLVTOu-225	CLVT-225	2023-09-13 13:04:06	No	0	0.5	5.8848029222	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67	
CLVTOu-226	CLVT-226	2023-09-13 13:07:29	No	0	0.5	5.884802739	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67	
CLVTOu-227	CLVT-227	2023-09-13 13:14:54	No	0	0.5	5.8848027134	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67	
CLVTOu-228	CLVT-228	2023-09-13 13:18:15	No	0	0.5	1.725312001	2	No	Not Dead End	0	2	0.75	Local	5	0.25	2.75	7.5	0.37	
CLVTOu-229	CLVT-229	2023-09-13 13:24:52	No	0	0.5	1.725312291	2	No	Not Dead End	0	2	0.75	Local	5	0.25	2.75	7.5	0.37	
CLVTOu-23	CLVT-23	2023-08-16 17:56:07	No	0	0.5	Dead End	0	Yes	62	5	5	0.75	Local	5	0.25	5	7.5	0.67	
CLVTOu-230	CLVT-230	2023-09-13 13:24:20	No	0	0.5	1.725312103	2	No	Not Dead End	0	2	0.75	Local	5	0.25	2.75	7.5	0.37	
CLVTOu-231	CLVT-231	2023-09-13 13:28:52	No	0	0.5	5.491290202	5	No	Not Dead End	0	4	0.75	Local	5	0.25	5	7.5	0.67	
CLVTOu-232	CLVT-232	2023-09-13 13:46:18	No	0	0.5	5.180567626	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67	
CLVTOu-233	CLVT-233	2023-09-13 13:51:13	No	0	0.5	5.180567597	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67	
CLVTOu-234	CLVT-234	2023-09-13 14:03:57	No	0	0.5	5.180567396	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67	
CLVTOu-235	CLVT-235	2023-09-13 14:08:27	No	0	0.5	5.180567623	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67	
CLVTOu-236	CLVT-236	2023-09-13 14:11:44	No	0	0.5	5.180567582	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67	
CLVTOu-237	CLVT-237	2023-09-20 11:35:43	No	0	0.5	3.20634057	4	No	Not Dead End	0	4	0.75	Local	5	0.25	4.25	7.5	0.57	
CLVTOu-238	CLVT-238	2023-09-20 11:38:53	No	0	0.5	3.206340496	4	No	Not Dead End	0	4	0.75	Local	5	0.25	4.25	7.5	0.57	
CLVTOu-239	CLVT-239	2023-09-20 11:46:23	No	0	0.5	3.206340566	4	No	Not Dead End	0	4	0.75	Local	5	0.25	4.25	7.5	0.57	
CLVTOu-24	CLVT-24	2023-08-16 18:01:15	No	0	0.5	Dead End	0	Yes	63	5	5	0.75	Local	5	0.25	5	7.5	0.67	
CLVTOu-240	CLVT-240	2023-09-20 11:50:14	No	0	0.5	3.206340574	4	No	Not Dead End	0	4	0.75	Local	5	0.25	4.25	7.5	0.57	
CLVTOu-241	CLVT-241	2023-09-20 11:55:02	No	0	0.5	3.206340362	4	No	Not Dead End	0	4	0.75	Local	5	0.25	4.25	7.5	0.57	
CLVTOu-242	CLVT-242	2023-09-20 12:00:14	No	0	0.5	3.206340606	4	No	Not Dead End	0	4	0.75	Local	5	0.25	4.25	7.5	0.57	
CLVTOu-243	CLVT-243	2023-09-20 12:03:36	No	0	0.5	5.491290608	5	No	Not Dead End	0	5	0.75	Not Maintained	2	0.25	4.25	7.5	0.57	
CLVTOu-244	CLVT-244	2023-09-20 12:08:06	No	0	0.5	3.206340617	4	No	Not Dead End	0	4	0.75	Local	5	0.25	4.25	7.5	0.57	
CLVTOu-245	CLVT-245	2023-09-20 12:13:25	No	0	0.5	5.491290209	5	No	Not Dead End	0	5	0.75	Not Maintained	2	0.25	4.25	7.5	0.57	
CLVTOu-246	CLVT-246	2023-09-20 12:17:04	No	0	0.5	5.491290147	5	No	Not Dead End	0	5	0.75	Not Maintained	2	0.25	4.25	7.5	0.57	
CLVTOu-247	CLVT-247	2023-09-20 12:22:35	No	0	0.5	5.180567534	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67	
CLVTOu-248	CLVT-248	2023-09-20 12:28:59	No	0	0.5	5.180567533	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67	
CLVTOu-249	CLVT-249	2023-09-20 12:39:20	No	0	0.5	5.676209081	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67	
CLVTOu-25	CLVT-25	2023-08-16 18:23:23	No	0	0.5	0.831534137	1	No	Not Dead End	0	1	0.75	Local	5	0.25	0.75	7.5	0.27	
CLVTOu-250	CLVT-250	2023-09-20 12:45:23	No	0	0.5	5.676209179	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67	
CLVTOu-251	CLVT-251	2023-09-20 12:48:20	No	0	0.5	5.676209097	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67	
CLVTOu-252	CLVT-252	2023-09-20 12:53:50	No	0	0.5	5.676209179	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67	
CLVTOu-253	CLVT-253	2023-09-20 12:59:24	No	0	0.5	1.009851326	2	No	Not Dead End	0	2	0.75	Local	5	0.25	2.75	7.5	0.37	
CLVTOu-254	CLVT-254	2023-09-20 13:00:29	No	0	0.5	6.460792602	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67	
CLVTOu-255	CLVT-255	2023-09-20 13:17:47	No	0	0.5	6.460792463	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67	
CLVTOu-256	CLVT-256	2023-09-20 13:21:37	No	0	0.5	6.460792283	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67	
CLVTOu-257	CLVT-257	2023-09-20 13:27:49	No	0	0.5	6.460792283	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67	
CLVTOu-258	CLVT-258	2023-09-20 13:30:40	No	0	0.5	6.460792591	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67	
CLVTOu-259	CLVT-259	2023-08-16 18:38:04	Yes	5	0.5	Dead End	0	Yes	3	1	1	0.75	Local	5	0.25	4.5	7.5	0.60	
CLVTOu-26	CLVT-26	2023-08-16 18:33:55	No	0	0.5	2.320149325	3	No	Not Dead End	0	3	0.75	Local	5	0.25	3.5	7.5	0.47	
CLVTOu-260	CLVT-260	2023-09-20 13:42:22	Yes	5	0.5	Dead End	0	Yes	2	1	1	0.75	Local	5	0.25	4.5	7.5	0.60	
CLVTOu-261	CLVT-261	2023-09-20 13:45:56	No	0	0.5	Dead End	0	Yes	8	2	2	0.75	Local	5	0.25	2.75	7.5	0.37	
CLVTOu-262	CLVT-262	2023-09-20 13:50:54	No	0	0.5	Dead End	0	Yes	18	4	4	0.75	Local	5	0.25	4.25	7.5	0.57	
CLVTOu-263	CLVT-263	2023-09-20 13:58:55	No	0	0.5	2.919096661	3	No	Not Dead End	0	3	0.75	Local	5	0.25	3.5	7.5	0.47	
CLVTOu-264	CLVT-264	2023-09-20 14:01:45	No	0	0.5	2.919096756	3	No	Not Dead End	0	3	0.75	Local	5	0.25	3.5	7.5	0.47	
CLVTOu-265	CLVT-265	2023-09-20 14:03:20	No	0	0.5	2.919096749	3	No	Not Dead End	0	3	0.75	Local	5	0.25	3.5	7.5	0.47	
CLVTOu-266	CLVT-266	2023-09-20 14:09:44	No	0	0.5	2.919096749	3	No	Not Dead End	0	3	0.75	Local	5	0.25	3.5	7.5	0.47	
CLVTOu-267	CLVT-267	2023-09-27 12:00:21	No	0	0.5	5.967758016	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67	
CLVTOu-268	CLVT-268	2023-09-27 12:03:57	No	0	0.5	5.967758247	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67	
CLVTOu-269	CLVT-269	2023-09-27 12:07:18	No	0	0.5	5.967758238	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67	
CLVTOu-27	CLVT-27	2023-08-16 18:38:00	No	0	0.5	2.320149325	3	No	Not Dead End	0	3	0.75	Local	5	0.25	3.5	7.5	0.47	
CLVTOu-270	CLVT-270	2023-09-27 12:14:42	No	0	0.5	5.967758229	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67	
CLVTOu-271	CLVT-271	2023-09-27 12:20:34	No	0	0.5	5.9677582	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67	
CLVTOu-272	CLVT-272	2023-09-27 12:22:27	No	0	0.5	5.967758238	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67	
CLVTOu-273	CLVT-273	2023-09-27 12:23:06	No	0	0.5	5.967758251	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67	
CLVTOu-274	CLVT-274	2023-09-27 12:38:56	No	0	0.5	Dead End	0	Yes	7	2	2	0.75	Private	0	0.25	1.5	7.5	0.20	
CLVTOu-275	CLVT-275	2023-09-27 12:44:31	No	0	0.5	5.96775982	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67	
CLVTOu-276	CLVT-276	2023-09-27 12:48:52	No	0	0.5	5.967758224	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67	
CLVTOu-277	CLVT-277	2023-09-27 12:50:27	No	0	0.5	5.967758178	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67	
CLVTOu-278	CLVT-278	2023-09-27 12:55:27	No	0	0.5	5.967758228	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67	
CLVTOu-279	CLVT-279	2023-09-27 13:11:34	No	0	0.5	Dead End	0	Yes	13	3	3	0.75	Local	5	0.25	3.5	7.5	0.47	
CLVTOu-28	CLVT-28	2023-08-16 18:42:31	No	0	0.5	2.320149352	3	No	Not Dead End	0	3	0.75	Local	5	0.25	3.5	7.5	0.47	
CLVTOu-280	CLVT-280	2023-09-27 13:19:47	No	0	0.5	Dead End	0	Yes	19	4	4	0.75	Local	5	0.25	4.25	7.5	0.57	
CLVTOu-281	CLVT-281	2023-09-27 13:25:35	No	0	0.5	Dead End	0	Yes	24	5	5	0.75	Local	5	0.25	5	7.5	0.67	
CLVTOu-282	CLVT-282	2023-09-27 13:28:28	No	0	0.5	Dead End	0	Yes	24	5	5	0.75	Local	5	0.25	5	7.5	0.67	
CLVTOu-283	CLVT-283	2023-09-27 13:51:25	No	0	0.5	Dead End	0	Yes	24	5	5	0.75	Local	5	0.25	5	7.5	0.67	
CLVTOu-284	CLVT-284	2023-09-27 14:02:56	No	0	0.5	1.994105529	2	No	Not Dead End	0	2	0.75	Local	5	0.25	2.75	7.5	0.37	
CLVTOu-285	CLVT-285	2023-09-27 14:10:02	No	0	0.5	1.994106609	2	No	Not Dead End	0	2	0.75	Local	5	0.25	2.75	7.5	0.37	
CLVTOu-286	CLVT-286	2023-09-27 14:18:06	No	0	0.5	2.710080491	3	No	Not Dead End	0	3	0.75	Local	5	0.25	3.5	7.5	0.47	
CLVTOu-287	CLVT-287	2023-09-27 14:22:46	No	0	0														

Updated Alton Town ID	Overall Culvert ID	Date Inspected	Floodplain 100Yr	Rank	Weight	Detour Length (mi)	Detour Length		Dead End (Y/N)	No. Houses on Dead End	Detour Length/Dead End		Roadway Class	Rank	Weight	Total CoF Score	Maximum Possible Score	Normalized Total CoF Score
							Rank	Rank			Rank	Rank						
CLVTOut-348	CLVT-348	2023-10-11 11:59:49	No	0	0.5	4.93094829	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67
CLVTOut-349	CLVT-349	2023-10-11 12:02:33	No	0	0.5	4.93094826	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67
CLVTOut-350	CLVT-350	2023-10-11 12:04:22	No	0	0.5	1.5261638	2	No	Not Dead End	0	2	0.75	Local	5	0.25	2.75	7.5	0.37
CLVTOut-351	CLVT-351	2023-10-11 12:06:56	No	0	0.5	4.93094837	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67
CLVTOut-352	CLVT-352	2023-10-11 12:10:41	No	0	0.5	4.93094833	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67
CLVTOut-353	CLVT-353	2023-10-11 12:17:40	No	0	0.5	4.93094837	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67
CLVTOut-354	CLVT-354	2023-10-11 12:21:00	No	0	0.5	4.930948206	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67
CLVTOut-355	CLVT-355	2023-10-11 12:24:48	No	0	0.5	4.930948213	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67
CLVTOut-356	CLVT-356	2023-10-11 12:28:21	No	0	0.5	6.947156279	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67
CLVTOut-357	CLVT-357	2023-10-11 12:33:53	No	0	0.5	Dead End	0	Yes	6	2	2	0.75	Local	5	0.25	2.75	7.5	0.37
CLVTOut-358	CLVT-358	2023-10-11 12:37:27	No	0	0.5	3.602012494	4	No	Not Dead End	0	4	0.75	Local	5	0.25	4.25	7.5	0.57
CLVTOut-359	CLVT-359	2023-10-11 12:41:59	No	0	0.5	3.602012461	4	No	Not Dead End	0	4	0.75	Local	5	0.25	4.25	7.5	0.57
CLVTOut-360	CLVT-360	2023-10-11 12:45:31	No	0	0.5	1.526163911	2	No	Not Dead End	0	2	0.75	Local	5	0.25	2.75	7.5	0.37
CLVTOut-361	CLVT-361	2023-10-11 12:49:14	No	0	0.5	3.602012422	4	No	Not Dead End	0	4	0.75	Local	5	0.25	4.25	7.5	0.57
CLVTOut-362	CLVT-362	2023-10-11 12:53:48	No	0	0.5	3.602012511	4	No	Not Dead End	0	4	0.75	Local	5	0.25	4.25	7.5	0.57
CLVTOut-363	CLVT-363	2023-10-11 12:55:05	No	0	0.5	3.602012477	4	No	Not Dead End	0	4	0.75	Local	5	0.25	4.25	7.5	0.57
CLVTOut-364	CLVT-364	2023-10-11 13:02:37	No	0	0.5	2.910180175	3	No	Not Dead End	0	3	0.75	Local	5	0.25	3.5	7.5	0.47
CLVTOut-365	CLVT-365	2023-10-11 13:17:31	No	0	0.5	2.910180163	3	No	Not Dead End	0	3	0.75	Local	5	0.25	3.5	7.5	0.47
CLVTOut-366	CLVT-366	2023-10-11 13:20:09	No	0	0.5	3.602012526	4	No	Not Dead End	0	4	0.75	Local	5	0.25	4.25	7.5	0.57
CLVTOut-367	CLVT-367	2023-10-11 13:24:50	No	0	0.5	2.910180138	3	No	Not Dead End	0	3	0.75	Local	5	0.25	3.5	7.5	0.47
CLVTOut-368	CLVT-368	2023-10-11 13:30:17	No	0	0.5	0.702114081	1	No	Not Dead End	0	1	0.75	Local	5	0.25	2	7.5	0.27
CLVTOut-369	CLVT-369	2023-10-11 13:36:44	No	0	0.5	1.229527347	2	No	Not Dead End	0	2	0.75	Local	5	0.25	2.75	7.5	0.37
CLVTOut-370	CLVT-370	2023-10-11 13:48:36	No	0	0.5	1.526163675	2	No	Not Dead End	0	2	0.75	Local	5	0.25	2.75	7.5	0.37
CLVTOut-371	CLVT-371	2023-10-11 13:52:11	No	0	0.5	6.947156279	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67
CLVTOut-372	CLVT-372	2023-10-11 13:54:51	No	0	0.5	2.910180208	3	No	Not Dead End	0	3	0.75	Local	5	0.25	3.5	7.5	0.47
CLVTOut-373	CLVT-373	2023-10-11 13:57:59	No	0	0.5	2.910179995	3	No	Not Dead End	0	3	0.75	Local	5	0.25	3.5	7.5	0.47
CLVTOut-374	CLVT-374	2023-10-11 14:01:35	No	0	0.5	2.910180440	3	No	Not Dead End	0	3	0.75	Local	5	0.25	3.5	7.5	0.47
CLVTOut-375	CLVT-375	2023-10-11 14:04:51	No	0	0.5	2.910180278	3	No	Not Dead End	0	3	0.75	Local	5	0.25	3.5	7.5	0.47
CLVTOut-376	CLVT-376	2023-10-11 14:10:53	No	0	0.5	2.9101803	3	No	Not Dead End	0	3	0.75	Local	5	0.25	3.5	7.5	0.47
CLVTOut-377	CLVT-377	2023-10-11 14:15:56	No	0	0.5	0.702114229	1	No	Not Dead End	0	1	0.75	Local	5	0.25	2	7.5	0.27
CLVTOut-378	CLVT-378	2023-10-11 14:24:03	No	0	0.5	3.92698123	4	No	Not Dead End	0	4	0.75	Local	5	0.25	4.25	7.5	0.57
CLVTOut-379	CLVT-379	2023-10-11 14:28:13	No	0	0.5	3.926981248	4	No	Not Dead End	0	4	0.75	Local	5	0.25	4.25	7.5	0.57
CLVTOut-380	CLVT-380	2023-10-11 14:35:42	No	0	0.5	6.401528874	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67
CLVTOut-381	CLVT-381	2023-10-11 14:42:40	No	0	0.5	3.926981271	4	No	Not Dead End	0	4	0.75	Local	5	0.25	4.25	7.5	0.57
CLVTOut-382	CLVT-382	2023-10-11 14:56:19	No	0	0.5	Dead End	0	Yes	14	3	3	0.75	Local	5	0.25	3.5	7.5	0.47
CLVTOut-383	CLVT-383	2023-10-11 15:07:09	No	0	0.5	Dead End	0	Yes	14	3	3	0.75	Local	5	0.25	3.5	7.5	0.47
CLVTOut-384	CLVT-384	2023-10-11 15:12:59	No	0	0.5	1.248999801	2	No	Not Dead End	0	2	0.75	Local	5	0.25	2.75	7.5	0.37
CLVTOut-385	CLVT-385	2023-10-11 15:21:29	No	0	0.5	1.248999816	2	No	Not Dead End	0	2	0.75	Local	5	0.25	2.75	7.5	0.37
CLVTOut-386	CLVT-386	2023-10-11 15:29:43	No	0	0.5	1.72115564	1	No	Not Dead End	0	1	0.75	Local	5	0.25	2	7.5	0.27
CLVTOut-387	CLVT-387	2023-10-11 15:28:00	No	0	0.5	12.4023667	0	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67
CLVTOut-388	CLVT-388	2023-09-27 13:21:59	No	0	0.5	Dead End	0	Yes	23	5	5	0.75	Local	5	0.25	5	7.5	0.67
CLVTOut-39	CLVT-39	2023-08-17 12:50:06	No	0	0.5	6.40152903	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67
CLVTOut-40	CLVT-40	2023-08-17 13:01:27	No	0	0.5	Dead End	0	Yes	4	1	1	0.75	Local	5	0.25	4.5	7.5	0.57
CLVTOut-41	CLVT-41	2023-08-17 13:25:11	No	0	0.5	2.320349326	3	No	Not Dead End	0	3	0.75	Local	5	0.25	3.5	7.5	0.47
CLVTOut-42	CLVT-42	2023-08-17 13:28:12	No	0	0.5	2.320349379	3	No	Not Dead End	0	3	0.75	Local	5	0.25	3.5	7.5	0.47
CLVTOut-43	CLVT-43	2023-08-17 13:31:12	No	0	0.5	2.320349378	3	No	Not Dead End	0	3	0.75	Local	5	0.25	3.5	7.5	0.47
CLVTOut-44	CLVT-44	2023-08-17 13:35:20	No	0	0.5	2.320349378	3	No	Not Dead End	0	3	0.75	Local	5	0.25	3.5	7.5	0.47
CLVTOut-45	CLVT-45	2023-08-17 13:39:25	No	0	0.5	1.526163909	2	No	Not Dead End	0	2	0.75	Local	5	0.25	2.75	7.5	0.37
CLVTOut-46	CLVT-46	2023-08-17 13:39:05	No	0	0.5	1.526163945	2	No	Not Dead End	0	2	0.75	Local	5	0.25	2.75	7.5	0.37
CLVTOut-47	CLVT-47	2023-08-17 13:43:06	No	0	0.5	1.526163906	2	No	Not Dead End	0	2	0.75	Local	5	0.25	2.75	7.5	0.37
CLVTOut-48	CLVT-48	2023-08-17 13:38:14	No	0	0.5	1.526163933	2	No	Not Dead End	0	2	0.75	Local	5	0.25	2.75	7.5	0.37
CLVTOut-49	CLVT-49	2023-08-17 13:43:31	No	0	0.5	1.526163766	2	No	Not Dead End	0	2	0.75	Local	5	0.25	2.75	7.5	0.37
CLVTOut-50	CLVT-50	2023-08-16 12:25:48	No	0	0.5	Dead End	0	Yes	14	3	3	0.75	Local	5	0.25	3.5	7.5	0.47
CLVTOut-51	CLVT-51	2023-08-17 13:48:00	No	0	0.5	1.526163992	2	No	Not Dead End	0	2	0.75	Local	5	0.25	2.75	7.5	0.37
CLVTOut-52	CLVT-52	2023-08-17 13:52:36	No	0	0.5	3.926981311	4	No	Not Dead End	0	4	0.75	Local	5	0.25	4.25	7.5	0.57
CLVTOut-53	CLVT-53	2023-08-17 14:06:35	No	0	0.5	6.401529078	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67
CLVTOut-54	CLVT-54	2023-08-17 14:10:32	No	0	0.5	6.401528857	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67
CLVTOut-55	CLVT-55	2023-08-17 14:15:11	No	0	0.5	6.401529069	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67
CLVTOut-56	CLVT-56	2023-08-17 14:18:57	No	0	0.5	6.401529247	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67
CLVTOut-57	CLVT-57	2023-08-17 14:23:46	No	0	0.5	6.401528948	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67
CLVTOut-58	CLVT-58	2023-08-17 14:29:09	No	0	0.5	6.401528868	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67
CLVTOut-59	CLVT-59	2023-08-17 14:32:35	No	0	0.5	6.401529054	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67
CLVTOut-60	CLVT-60	2023-08-17 13:35:53	No	0	0.5	6.401528821	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67
CLVTOut-61	CLVT-61	2023-08-17 14:45:01	No	0	0.5	6.401529012	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67
CLVTOut-62	CLVT-62	2023-08-17 14:57:27	No	0	0.5	6.401528825	5	No	Not Dead End	0	5	0.75	Local	5	0.25	5	7.5	0.67
CLVTOut-63	CLVT-63	2023-08-17 15:47:11	Yes	5	0.5	Dead End	0	Yes	3	1	1	0.75	Local	5	0.25	4.5	7.5	0.60
CLVTOut-64	CLVT-64	2023-08-17 15:53:34	No	0	0.5	Dead End	0	Yes	3	1	1	0.75	Local	5	0.25	2	7.5	0.27
CLVTOut-65	CLVT-65	2023-08-17 16:00:22	No	0	0.5	Dead End	0	Yes	7	2	2	0.75	Local	5	0.25	2.75	7.5	0.37
CLVTOut-66	CLVT-66	2023-08-17 16:04:46	No	0	0.5	Dead End	0	Yes	10	3	3	0.75	Local	5	0.25	3.5	7.5	0.47
CLVTOut-67	CLVT-67	2023-08-17 16:29:34	No	0	0.5	4.93094831	5	No	Not Dead End	0	4	0.75	Local	5	0.25	4.25	7.5	0.57
CLVTOut-68	CLVT-68	2023-08-17 16:26:47	No	0	0.5	Dead End	0	Yes	17	4	4	0.75	Local	5	0.25	4.25	7.5	0.57

APPENDIX J

OVERALL RISK SCORES AND RANKINGS

Table J-1 Overall Culvert Risk Scores and Rankings

Overall Culvert ID (from CLVTPipe)	Street	Date Inspected	CLVTInlet PoF	CLVTPipe PoF	CLVTOutlet PoF	Overall Culvert PoF Score	Normalized Overall Culvert PoF Score	Overall Culvert PoF Rank	CLVTInlet CoF	CLVTPipe CoF	CLVTOutlet CoF	Overall Culvert CoF Score	Normalized Overall Culvert CoF Score	Overall Culvert CoF Rank	Overall Culvert Criticality Score	Overall Culvert Criticality Rank
CLVT-1	Bachelor Dr	2023-08-16 15:29:05	0.80	1.00	0.80	2.60	0.87	High	0.27	0.43	0.60	1.30	0.43	Medium	0.38	Medium
CLVT-10	Rollins Rd	2023-08-16 15:55:51	0.27	0.29	0.27	0.82	0.27	Low	0.47	0.43	0.47	1.37	0.46	Medium	0.12	Low
CLVT-100	Alton Mountain Rd	2023-08-23 13:57:58	0.20	0.17	0.20	0.57	0.19	Low	0.67	0.53	0.67	1.87	0.62	High	0.12	Medium
CLVT-101	Alton Mountain Rd	2023-08-23 14:35:49	0.20	0.63	0.20	1.03	0.34	Low	0.67	0.53	0.67	1.87	0.62	High	0.21	Medium
CLVT-102	Alton Mountain Rd	2023-08-23 14:58:54	0.47	0.17	0.20	0.84	0.28	Low	0.67	0.53	0.67	1.87	0.62	High	0.17	Medium
CLVT-103	Alton Mountain Rd	2023-08-23 15:08:29	0.27	0.66	0.53	1.46	0.49	Medium	0.37	0.38	0.37	1.12	0.37	Low	0.18	Low
CLVT-104	Frohock Brook Rd	2023-08-23 15:49:44	0.53	0.29	0.53	1.35	0.45	Medium	0.47	0.33	0.47	1.27	0.42	Medium	0.19	Low
CLVT-105	Alton Shores Rd	2023-08-23 15:53:01	0.53	0.29	0.27	1.09	0.36	Low	0.67	0.53	0.67	1.87	0.62	High	0.23	Medium
CLVT-106	Alton Shores Rd	2023-08-23 14:09:08	0.60	0.66	0.60	1.86	0.62	High	0.27	0.23	0.27	0.77	0.26	Low	0.16	Medium
CLVT-107	Alton Shores Rd	2023-08-23 16:03:21	0.27	1.00	0.60	1.87	0.62	High	0.27	0.23	0.27	0.77	0.26	Low	0.16	Medium
CLVT-108	Alton Shores Rd	2023-08-23 16:10:45	0.27	0.86	0.60	1.72	0.57	High	0.27	0.33	0.27	0.87	0.29	Low	0.17	Medium
CLVT-109	Alton Shores Rd	2023-08-23 16:18:00	0.27	0.86	0.80	1.92	0.64	High	0.27	0.33	0.27	0.87	0.29	Low	0.19	Medium
CLVT-11	Mauhaut Shores Rd	2023-08-16 16:08:58	0.80	0.29	0.80	1.89	0.63	High	0.67	0.43	0.67	1.77	0.59	High	0.37	High
CLVT-110	Alton Shores Rd	2023-08-23 17:10:29	0.27	0.29	0.27	0.82	0.27	Low	0.27	0.33	0.27	0.87	0.29	Low	0.08	Low
CLVT-111	Alton Shores Rd	2023-08-23 17:12:17	0.27	0.29	0.27	0.82	0.27	Low	0.47	0.43	0.47	1.37	0.46	Medium	0.12	Low
CLVT-112	Alton Shores Rd	2023-08-23 17:13:20	0.27	0.29	0.27	0.82	0.27	Low	0.47	0.43	0.47	1.37	0.46	Medium	0.12	Low
CLVT-113	Beaver Dam Rd	2023-08-23 17:19:03	0.60	0.86	0.53	1.99	0.66	High	0.47	0.33	0.47	1.27	0.42	Medium	0.28	Medium
CLVT-114	Marlene Dr	2023-08-23 17:34:35	0.27	0.29	0.27	0.82	0.27	Low	0.27	0.33	0.27	0.87	0.29	Low	0.08	Low
CLVT-115	Sunset Shore Dr	2023-08-23 17:42:37	0.53	0.29	0.27	1.09	0.36	Low	0.47	0.43	0.47	1.37	0.46	Medium	0.16	Low
CLVT-116	Sunset Shore Dr	2023-08-23 17:49:07	0.27	0.51	0.27	1.05	0.35	Low	0.47	0.43	0.47	1.37	0.46	Medium	0.17	Low
CLVT-117	Sunset Shore Dr	2023-08-23 17:54:12	0.80	0.77	0.80	2.37	0.79	High	0.47	0.43	0.47	1.37	0.46	Medium	0.36	Medium
CLVT-118	Davis Rd	2023-08-23 18:20:18	0.53	0.51	0.53	1.58	0.53	High	0.37	0.28	0.37	1.02	0.34	Low	0.18	Medium
CLVT-119	Avery Hill Rd	2023-08-23 18:23:59	0.53	0.29	0.27	1.09	0.36	Low	0.67	0.53	0.67	1.87	0.62	High	0.23	Medium
CLVT-12	Mauhaut Shores Rd	2023-08-16 13:12:47	0.27	0.43	0.80	1.50	0.50	Medium	0.67	0.53	0.67	1.87	0.62	High	0.31	Medium
CLVT-120	Avery Hill Rd	2023-08-23 18:54:11	0.20	0.17	0.20	0.57	0.19	Low	0.67	0.63	0.67	1.97	0.66	High	0.12	Medium
CLVT-121	Avery Hill Rd	2023-08-23 18:55:25	0.20	0.17	0.20	0.57	0.19	Low	0.67	0.63	0.67	1.97	0.66	High	0.12	Medium
CLVT-122	Avery Hill Rd	2023-08-23 18:59:03	0.27	0.29	0.27	0.82	0.27	Low	0.67	0.53	0.67	1.87	0.62	High	0.17	Medium
CLVT-123	Avery Hill Rd	2023-08-23 14:20:22	0.60	0.66	0.60	1.86	0.62	High	0.67	0.43	0.67	1.77	0.59	High	0.36	High
CLVT-124	Avery Hill Rd	2023-08-23 14:19:14	0.60	0.66	0.60	1.86	0.62	High	0.67	0.43	0.67	1.77	0.59	High	0.36	High
CLVT-125	Avery Hill Rd	2023-08-24 12:27:14	0.27	0.29	0.53	1.09	0.36	Low	0.37	0.38	0.37	1.12	0.37	Low	0.13	Low
CLVT-126	Avery Hill Rd	2023-08-24 12:33:31	0.53	0.51	0.27	1.31	0.44	Medium	0.37	0.38	0.37	1.12	0.37	Low	0.16	Low
CLVT-127	Avery Hill Rd	2023-08-24 12:39:07	0.60	0.29	0.80	1.69	0.56	High	0.37	0.38	0.37	1.12	0.37	Low	0.21	Medium
CLVT-128	Avery Hill Rd	2023-08-24 12:43:36	0.27	0.29	0.27	0.82	0.27	Low	0.37	0.38	0.37	1.12	0.37	Low	0.10	Low
CLVT-129	Avery Hill Rd	2023-08-24 12:46:08	0.60	0.51	0.27	1.38	0.46	Medium	0.37	0.38	0.37	1.12	0.37	Low	0.17	Low
CLVT-13	Mauhaut Shores Rd	2023-08-16 16:21:23	0.27	0.43	0.80	1.50	0.50	Medium	0.27	0.23	0.27	0.77	0.26	Low	0.13	Low
CLVT-130	Places Mill Rd	2023-08-24 13:00:39	0.27	0.29	0.27	0.82	0.27	Low	0.67	0.43	0.67	1.77	0.59	High	0.16	Medium
CLVT-131	Places Mill Rd	2023-08-24 13:08:17	0.27	0.66	0.27	1.19	0.40	Low	0.67	0.63	0.67	1.97	0.66	High	0.26	Medium
CLVT-132	Places Mill Rd	2023-08-24 13:13:28	0.53	0.51	0.53	1.58	0.53	High	0.67	0.53	0.67	1.87	0.62	High	0.33	High
CLVT-133	Avery Hill Rd	2023-08-24 13:23:47	0.80	0.66	0.53	1.99	0.66	High	0.37	0.38	0.37	1.12	0.37	Low	0.25	Medium
CLVT-134	Avery Hill Rd	2023-08-24 13:29:23	0.53	0.51	0.27	1.31	0.44	Medium	0.67	0.53	0.67	1.87	0.62	High	0.27	Medium
CLVT-135	Avery Hill Rd	2023-08-24 13:33:13	0.20	0.29	0.20	0.69	0.23	Low	0.67	0.53	0.67	1.87	0.62	High	0.14	Medium
CLVT-136	Avery Hill Rd	2023-08-24 13:37:16	0.60	0.51	0.53	1.65	0.55	High	0.67	0.53	0.67	1.87	0.62	High	0.34	High
CLVT-137	Avery Hill Rd	2023-08-24 13:41:31	0.27	0.86	0.27	1.39	0.46	Medium	0.67	0.63	0.67	1.97	0.66	High	0.30	Medium
CLVT-138	Avery Hill Rd	2023-08-24 13:46:02	0.53	0.74	0.53	1.81	0.60	High	0.67	0.53	0.67	1.87	0.62	High	0.38	High
CLVT-139	Avery Hill Rd	2023-08-24 13:51:32	0.80	0.51	0.53	1.85	0.62	High	0.67	0.53	0.67	1.87	0.62	High	0.38	High
CLVT-14	Mauhaut Shores Rd	2023-08-16 16:27:56	0.80	0.86	0.80	2.46	0.82	High	0.37	0.28	0.37	1.02	0.34	Low	0.28	Medium
CLVT-140	Avery Hill Rd	2023-09-23 14:35:29	0.60	0.66	0.60	1.86	0.62	High	0.67	0.43	0.67	1.77	0.59	High	0.36	High
CLVT-141	Avery Hill Rd	2023-08-24 13:59:21	0.60	0.29	0.53	1.42	0.47	Medium	0.67	0.53	0.67	1.87	0.62	High	0.29	Medium
CLVT-142	Avery Hill Rd	2023-08-24 14:01:48	0.27	0.29	0.27	0.82	0.27	Low	0.37	0.28	0.37	1.02	0.34	Low	0.09	Low
CLVT-143	Avery Hill Rd	2023-08-24 14:05:36	0.20	0.51	0.20	0.91	0.30	Low	0.37	0.38	0.37	1.12	0.37	Low	0.11	Low
CLVT-144	Halls Hill Rd	2023-08-24 14:48:46	0.20	0.23	0.60	1.03	0.34	Low	0.67	0.53	0.67	1.87	0.62	High	0.21	Medium
CLVT-145	Halls Hill Rd	2023-08-24 14:18:07	0.20	0.74	0.60	1.54	0.51	High	0.67	0.53	0.67	1.87	0.62	High	0.32	High
CLVT-146	Halls Hill Rd	2023-08-24 14:25:44	0.20	0.29	0.60	1.09	0.36	Low	0.67	0.53	0.67	1.87	0.62	High	0.23	Medium
CLVT-147	Halls Hill Rd	2023-08-24 14:28:50	0.20	0.43	0.60	1.23	0.41	Medium	0.67	0.53	0.67	1.87	0.62	High	0.25	Medium
CLVT-148	Home Rd	2023-08-24 14:34:59	0.80	0.43	0.33	1.56	0.52	High	0.37	0.38	0.37	1.12	0.37	Low	0.19	Medium
CLVT-149	Halls Hill Rd	2023-08-24 14:49:54	0.20	0.43	0.80	1.43	0.48	Medium	0.37	0.38	0.37	1.12	0.37	Low	0.18	Low
CLVT-15	Reed Rd	2023-08-16 16:52:26	0.80	0.29	0.60	1.69	0.56	High	0.47	0.43	0.47	1.37	0.46	Medium	0.26	Medium
CLVT-150	Youngtown Rd	2023-08-24 14:56:36	0.60	0.43	0.33	1.36	0.45	Medium	0.57	0.65	0.57	1.78	0.59	High	0.27	Medium
CLVT-151	Youngtown Rd	2023-08-24 15:07:56	0.33	0.43	0.33	1.10	0.37	Low	0.57	0.48	0.57	1.62	0.54	High	0.20	Medium
CLVT-152	Youngtown Rd	2023-08-24 15:09:57	0.33	0.43	0.33	1.10	0.37	Low	0.57	0.48	0.57	1.62	0.54	High	0.20	Medium
CLVT-153	Youngtown Rd	2023-08-24 15:17:17	0.60	0.66	0.60	1.86	0.62	High	0.67	0.43	0.67	1.77	0.59	High	0.36	High
CLVT-154	Coffin Brook Rd	2023-08-24 15:57:22	0.53	0.29	0.53	1.35	0.45	Medium	0.67	0.53	0.67	1.87	0.62	High	0.28	Medium
CLVT-155	Coffin Brook Rd	2023-08-24 16:09:14	0.27	0.29	0.27	0.82	0.27	Low	0.67	0.53	0.67	1.87	0.62	High	0.17	Medium
CLVT-156	Coffin Brook Rd	2023-08-24 16:10:13	0.27	0.17	0.27	0.70	0.23	Low	0.67	0.63	0.67	1.97	0.66	High	0.15	Medium
CLVT-157	Coffin Brook Rd	2023-08-24 16:12:01	0.33	0.29	0.27	0.89	0.30	Low	0.67	0.53	0.67	1.87	0.62	High	0.18	Medium
CLVT-158	Coffin Brook Rd	2023-08-24 16:20:28	0.33	0.31	0.33	0.98	0.33	Low	0.67	0.53	0.67	1.87	0.62	High	0.20	Medium
CLVT-159	Coffin Brook Rd	2023-08-24 16:22:02	0.33	0.31	0.33	0.98	0.33	Low	0.67	0.53	0.67	1.87	0.62	High	0.20	Medium
CLVT-16	Reed Rd	2023-08-16 16:58:24	0.87	0.43	0.60	1.90	0.63	High	0.47	0.43	0.47	1.37	0.46	Medium	0.29	Medium
CLVT-160	Coffin Brook Rd	2023-08-24 16:23:12	0.33	0.31	0.33	0.98	0.33	Low	0.67	0.53	0.67	1.87	0.62	High	0.20	Medium
CLVT-161	Coffin Brook Rd	2023-08-24 16:24:44	0.33	0.31	0.33	0.98	0.33	Low	0.67	0.53	0.67	1.87	0.62	High	0.20	Medium
CLVT-162	Coffin Brook Rd	2023-08-24 16:26:28	0.33	0.31	0.33	0.98	0.33	Low	0.67	0.53	0.67	1.87	0.62	High	0.20	Medium
CLVT-163	Coffin Brook Rd	2023-08-24 16:28:00	0.33	0.31	0.33	0.98	0.33	Low	0.67	0.53	0.67	1.87	0.62	High	0.20	Medium
CLVT-164	Coffin Brook Rd	2023-08-24 16:29:33	0.33	0.31	0.33	0.98	0.33	Low	0.67	0.53	0.67	1.87	0.62	High	0.20	Medium

Overall Culvert ID (from CLVTPipe)	Street	Date Inspected	CLVTInlet PoF	CLVTPipe PoF	CLVTOutlet PoF	Overall Culvert PoF Score	Normalized Overall Culvert PoF Score	Overall Culvert PoF Rank	CLVTInlet CoF	CLVTPipe CoF	CLVTOutlet CoF	Overall Culvert CoF Score	Normalized Overall Culvert CoF Score	Overall Culvert CoF Rank	Overall Culvert Criticality Score	Overall Culvert Criticality Rank
CLVT-175	Stockbridge Corner Rd	2023-08-24 17:29:04	0.80	0.29	0.80	1.89	0.63	High	0.67	0.53	0.67	1.87	0.62	High	0.39	High
CLVT-176	Linwood Dr	2023-08-24 17:36:30	0.27	0.29	0.53	1.09	0.36	Low	0.37	0.28	0.37	1.02	0.34	Low	0.12	Low
CLVT-177	Linwood Dr	2023-08-24 17:40:05	0.53	0.29	0.27	1.09	0.36	Low	0.47	0.43	0.47	1.37	0.46	Medium	0.16	Low
CLVT-178	Stockbridge Corner Rd	2023-08-24 15:02:39	0.60	0.66	0.60	1.86	0.62	High	0.67	0.43	0.67	1.77	0.59	High	0.36	High
CLVT-179	Stockbridge Corner Rd	2023-08-24 17:53:33	0.51	0.53	0.53	1.58	0.53	High	0.67	0.53	0.67	1.87	0.62	High	0.67	High
CLVT-18	Reed Rd	2023-08-16 17:07:51	0.53	0.74	0.60	1.88	0.63	High	0.47	0.43	0.47	1.37	0.46	Medium	0.28	Medium
CLVT-180	Stockbridge Corner Rd	2023-08-24 15:01:06	0.27	0.66	0.20	1.12	0.37	Low	0.67	0.43	0.67	1.77	0.59	High	0.22	Medium
CLVT-181	Stockbridge Corner Rd	2023-08-24 18:05:04	0.27	0.43	0.53	1.23	0.41	Medium	0.67	0.43	0.67	1.77	0.59	High	0.24	Medium
CLVT-182	Stockbridge Corner Rd	2023-08-24 18:09:02	0.33	0.89	0.33	1.55	0.52	High	0.67	0.43	0.67	1.77	0.59	High	0.30	High
CLVT-183	Stockbridge Corner Rd	2023-08-24 18:15:01	0.27	0.51	0.33	1.11	0.37	Low	0.67	0.53	0.67	1.87	0.62	High	0.23	Medium
CLVT-184	Stockbridge Corner Rd	2023-08-24 18:18:33	0.27	0.77	0.80	1.84	0.61	High	0.67	0.53	0.67	1.87	0.62	High	0.38	High
CLVT-185	Stockbridge Corner Rd	2023-08-24 18:24:40	0.33	0.89	0.33	1.55	0.52	High	0.67	0.43	0.67	1.77	0.59	High	0.30	High
CLVT-186	Grandview Ln	2023-08-24 14:55:23	0.20	0.66	0.60	1.46	0.49	Medium	0.37	0.28	0.37	1.02	0.34	Low	0.16	Low
CLVT-187	Grandview Ln	2023-08-24 18:41:38	0.20	0.29	0.20	0.69	0.23	Low	0.47	0.43	0.47	1.37	0.46	Medium	0.10	Low
CLVT-188	Dudley Rd	2023-08-24 18:44:40	0.27	0.29	0.27	0.82	0.27	Low	0.67	0.53	0.67	1.87	0.62	High	0.17	Medium
CLVT-189	Dudley Rd	2023-08-24 18:57:35	0.27	0.29	0.27	0.82	0.27	Low	0.37	0.38	0.37	1.12	0.37	Low	0.10	Low
CLVT-19	Minge Cove Rd	2023-08-16 17:29:36	0.80	0.74	0.80	2.34	0.78	High	0.67	0.53	0.67	1.87	0.62	High	0.49	High
CLVT-190	Linwood Dr	2023-08-24 19:05:27	0.27	0.29	0.27	0.82	0.27	Low	0.57	0.48	0.57	1.62	0.54	High	0.15	Medium
CLVT-191	Lot Line Rd	2023-09-06 11:16:03	0.27	0.43	0.27	0.96	0.32	Low	0.27	0.33	0.27	0.87	0.29	Low	0.09	Low
CLVT-192	Lot Line Rd	2023-09-06 11:19:54	0.27	0.43	0.27	0.96	0.32	Low	0.27	0.33	0.27	0.87	0.29	Low	0.09	Low
CLVT-193	Pheasant Ln	2023-09-06 11:31:38	0.33	0.29	0.33	0.95	0.37	Low	0.37	0.38	0.37	1.12	0.37	Low	0.12	Low
CLVT-194	Maidard Dr	2023-09-06 11:40:07	0.33	0.29	0.60	1.22	0.41	Medium	0.67	0.53	0.67	1.87	0.62	High	0.25	Medium
CLVT-195	Chamberlain Rd	2023-09-06 11:53:44	0.53	0.29	0.27	1.09	0.36	Low	0.57	0.48	0.57	1.62	0.54	High	0.20	Medium
CLVT-196	Hamwoods Rd	2023-09-06 12:07:04	0.27	0.29	0.27	0.82	0.27	Low	0.37	0.38	0.37	1.12	0.37	Low	0.10	Low
CLVT-197	Hamwoods Rd	2023-09-06 12:14:37	0.27	0.51	0.27	1.05	0.35	Low	0.47	0.43	0.47	1.37	0.46	Medium	0.16	Low
CLVT-198	Hamwoods Rd	2023-09-06 12:23:53	0.53	0.63	0.80	1.96	0.65	High	0.47	0.43	0.47	1.37	0.46	Medium	0.30	Medium
CLVT-199	Hamwoods Rd	2023-09-06 12:25:06	0.53	0.63	0.80	1.96	0.65	High	0.47	0.43	0.47	1.37	0.46	Medium	0.30	Medium
CLVT-2	Bachelor Dr	2023-08-16 13:32:28	0.80	0.40	0.27	1.47	0.49	Medium	0.37	0.58	0.37	1.32	0.44	Medium	0.21	Low
CLVT-20	Minge Cove Rd	2023-08-16 13:19:07	0.80	0.89	0.60	2.29	0.76	High	0.37	0.28	0.37	1.02	0.34	Low	0.26	Medium
CLVT-200	Hamwoods Rd	2023-09-06 12:22:21	0.53	0.86	0.80	2.19	0.73	High	0.47	0.43	0.47	1.37	0.46	Medium	0.33	Medium
CLVT-201	Hamwoods Rd	2023-09-06 12:35:50	0.27	0.43	0.33	1.03	0.34	Low	0.47	0.43	0.47	1.37	0.46	Medium	0.16	Low
CLVT-202	Hollywood Beach Rd	2023-09-06 12:53:23	0.27	0.51	0.27	1.05	0.35	Low	0.37	0.38	0.37	1.12	0.37	Low	0.13	Low
CLVT-203	Hollywood Beach Rd	2023-09-06 13:01:21	0.27	0.29	0.53	1.09	0.36	Low	0.37	0.38	0.37	1.12	0.37	Low	0.13	Low
CLVT-204	Hollywood Beach Rd	2023-09-06 13:07:48	0.53	0.29	0.27	1.09	0.36	Low	0.37	0.38	0.37	1.12	0.37	Low	0.13	Low
CLVT-205	Water Rd	2023-09-06 13:13:07	0.80	0.86	0.80	2.46	0.82	High	0.37	0.38	0.37	1.12	0.37	Low	0.30	Medium
CLVT-206	Water Rd	2023-09-06 13:18:17	0.80	0.86	0.80	2.46	0.82	High	0.37	0.28	0.37	1.02	0.34	Low	0.28	Medium
CLVT-207	Stonewall Rd	2023-09-06 13:26:48	0.53	0.51	0.80	1.85	0.62	High	0.27	0.33	0.27	0.87	0.29	Low	0.18	Medium
CLVT-208	Stonewall Rd	2023-09-06 13:34:31	0.80	0.29	0.33	1.42	0.47	Medium	0.37	0.38	0.37	1.12	0.37	Low	0.18	Low
CLVT-209	Chamberlain Rd	2023-09-06 13:47:58	0.80	0.29	0.27	1.35	0.45	Medium	0.67	0.53	0.67	1.87	0.62	High	0.28	Medium
CLVT-21	Minge Cove Rd	2023-08-16 17:41:49	0.80	0.89	0.60	2.29	0.76	High	0.37	0.28	0.37	1.02	0.34	Low	0.26	Medium
CLVT-210	Arianna Dr	2023-09-06 13:58:04	0.53	0.74	0.53	1.81	0.60	High	0.37	0.38	0.37	1.12	0.37	Low	0.22	Medium
CLVT-211	Dudley Rd	2023-09-06 14:16:21	0.33	0.29	0.27	0.89	0.30	Low	0.67	0.53	0.67	1.87	0.62	High	0.18	Medium
CLVT-212	Dudley Rd	2023-09-13 11:24:08	0.60	0.51	0.27	1.38	0.46	Medium	0.67	0.53	0.67	1.87	0.62	High	0.29	Medium
CLVT-213	Dudley Rd	2023-09-13 11:31:42	0.27	0.17	0.80	1.24	0.41	Medium	0.67	0.53	0.67	1.87	0.62	High	0.26	Medium
CLVT-214	Dudley Rd	2023-09-13 11:36:16	0.27	0.63	0.33	1.23	0.41	Medium	0.67	0.53	0.67	1.87	0.62	High	0.26	Medium
CLVT-215	Dudley Rd	2023-09-13 11:40:54	0.27	0.17	0.33	0.77	0.26	Low	0.67	0.53	0.67	1.87	0.62	High	0.16	Medium
CLVT-216	Prospect Mountain Rd	2023-09-13 11:48:01	0.27	0.51	0.27	1.05	0.35	Low	0.47	0.43	0.47	1.37	0.46	Medium	0.18	Medium
CLVT-217	Prospect Mountain Rd	2023-09-13 11:54:12	0.27	0.51	0.27	1.05	0.35	Low	0.47	0.43	0.47	1.37	0.46	Medium	0.16	Low
CLVT-218	Prospect Mountain Rd	2023-09-13 12:26:07	0.53	0.51	0.27	1.31	0.44	Medium	0.37	0.28	0.37	1.02	0.34	Low	0.15	Low
CLVT-219	Prospect Mountain Rd	2023-09-13 12:30:25	0.27	0.29	0.53	1.09	0.36	Low	0.37	0.28	0.37	1.02	0.34	Low	0.12	Low
CLVT-22	Minge Cove Rd	2023-08-16 17:50:00	0.80	0.29	0.27	1.35	0.45	Medium	0.67	0.53	0.67	1.87	0.62	High	0.28	Medium
CLVT-220	Prospect Mountain Rd	2023-09-13 12:39:36	0.80	0.89	0.60	2.29	0.76	High	0.57	0.38	0.57	1.52	0.51	High	0.39	High
CLVT-221	Prospect Mountain Rd	2023-09-13 12:44:47	0.27	0.66	0.27	1.19	0.40	Low	0.57	0.38	0.57	1.52	0.51	High	0.20	Medium
CLVT-222	Prospect Mountain Rd	2023-09-13 12:51:41	0.27	0.29	0.27	0.82	0.27	Low	0.57	0.58	0.57	1.72	0.57	High	0.16	Medium
CLVT-223	Prospect Mountain Rd	2023-09-13 12:55:20	0.27	0.51	0.27	1.05	0.35	Low	0.67	0.53	0.67	1.87	0.62	High	0.22	Medium
CLVT-224	Prospect Mountain Rd	2023-09-13 12:59:29	0.27	0.66	0.27	1.19	0.40	Low	0.67	0.53	0.67	1.87	0.62	High	0.25	Medium
CLVT-225	Prospect Mountain Rd	2023-09-13 13:05:32	0.53	0.77	0.27	1.57	0.52	High	0.67	0.53	0.67	1.87	0.62	High	0.33	High
CLVT-226	Prospect Mountain Rd	2023-09-13 13:09:08	0.53	1.00	0.80	2.33	0.78	High	0.67	0.53	0.67	1.87	0.62	High	0.48	High
CLVT-227	Prospect Mountain Rd	2023-09-13 13:15:32	0.27	0.63	0.27	1.16	0.39	Low	0.67	0.53	0.67	1.87	0.62	High	0.24	Medium
CLVT-228	Prospect Mountain Rd	2023-09-13 13:20:05	0.27	0.29	0.27	0.82	0.27	Low	0.37	0.48	0.37	1.22	0.41	Medium	0.11	Low
CLVT-229	Prospect Mountain Rd	2023-09-13 13:28:17	0.27	0.29	0.27	0.82	0.27	Low	0.37	0.38	0.37	1.12	0.37	Low	0.10	Low
CLVT-23	Minge Cove Rd	2023-08-16 17:57:00	0.27	0.29	0.27	0.82	0.27	Low	0.67	0.43	0.67	1.77	0.59	High	0.16	Medium
CLVT-230	Prospect Mountain Rd	2023-09-13 13:29:38	0.27	0.29	0.27	0.82	0.27	Low	0.37	0.48	0.37	1.22	0.41	Medium	0.11	Low
CLVT-231	Prospect Mountain Rd	2023-09-13 13:34:31	0.27	0.29	0.27	0.82	0.27	Low	0.67	0.43	0.67	1.77	0.59	High	0.16	Medium
CLVT-232	Cooke Rd	2023-09-13 13:47:13	0.27	0.51	0.27	1.05	0.35	Low	0.67	0.73	0.67	2.07	0.69	High	0.24	Medium
CLVT-233	Cooke Rd	2023-09-13 13:52:19	0.27	0.29	0.53	1.09	0.36	Low	0.67	0.53	0.67	1.87	0.62	High	0.23	Medium
CLVT-234	Lockes Corner Rd	2023-09-13 14:04:32	0.27	0.51	0.27	1.05	0.35	Low	0.67	0.43	0.67	1.77	0.59	High	0.21	Medium
CLVT-235	Lockes Corner Rd	2023-09-13 14:09:11	0.27	0.66	0.80	1.72	0.57	High	0.67	0.43	0.67	1.77	0.59	High	0.34	High
CLVT-236	Lockes Corner Rd	2023-09-13 14:14:04	0.27	0.29	0.27	0.82	0.27	Low	0.67	0.43	0.67	1.77	0.59	High	0.16	Medium
CLVT-237	Meaderboro Rd	2023-09-20 11:36:34	0.33	0.29	0.27	0.89	0.30	Low	0.57	0.38	0.57	1.52	0.51	High	0.15	Medium
CLVT-238	Meaderboro Rd	2023-09-20 11:39:50	0.53	0.29	0.27	1.09	0.36	Low	0.67	0.48	0.57	1.62	0.54	High	0.20	Medium
CLVT-239	Muchado Hill Rd	2023-09-20 11:48:57	0.27	0.29	0.60	1.15	0.38	Low	0.57	0.48	0.57	1.62	0.54	High	0.21	Medium
CLVT-24	Minge Cove Rd	2023-08-16 18:02:09	0.80	0.74	0.80	2.34	0.78	High	0.67	0.43	0.67	1.77	0.59	High	0.46	High
CLVT-240	Muchado Hill Rd	2023-09-20 11:51:37	0.27	0												

Overall Culvert ID (from CLVTPipe)	Street	Date Inspected	CLVTInlet PoF	CLVTPipe PoF	CLVTOutlet PoF	Overall Culvert PoF Score	Normalized Overall Culvert PoF Score	Overall Culvert PoF Rank	CLVTInlet CoF	CLVTPipe CoF	CLVTOutlet CoF	Overall Culvert CoF Score	Normalized Overall Culvert CoF Score	Overall Culvert CoF Rank	Overall Culvert Criticality Score	Overall Culvert Criticality Rank
CLVT-25	Woodlands Rd	2023-08-16 18:30:32	0.80	0.77	0.60	2.17	0.72	High	0.27	0.33	0.27	0.87	0.29	Low	0.21	Medium
CLVT-250	Muchado Hill Rd	2023-09-20 12:46:10	0.33	0.43	0.27	1.03	0.34	Low	0.67	0.43	0.67	1.77	0.59	High	0.20	Medium
CLVT-251	Muchado Hill Rd	2023-09-20 12:50:11	0.80	0.89	0.27	1.95	0.65	High	0.67	0.53	0.67	1.87	0.62	High	0.40	High
CLVT-252	Muchado Hill Rd	2023-09-20 12:56:21	0.80	0.17	0.80	1.77	0.59	High	0.67	0.53	0.67	1.87	0.62	High	0.37	High
CLVT-253	Muchado Hill Rd	2023-09-20 13:00:49	0.43	0.37	0.27	0.96	0.37	Low	0.67	0.38	0.67	1.77	0.59	High	0.12	Low
CLVT-254	Stockbridge Corner Rd	2023-09-20 13:09:40	0.27	0.31	0.53	1.11	0.37	Low	0.67	0.53	0.67	1.87	0.62	High	0.23	Medium
CLVT-255	Stockbridge Corner Rd	2023-09-20 13:18:26	0.27	0.29	0.27	0.82	0.27	Low	0.67	0.53	0.67	1.87	0.62	High	0.17	Medium
CLVT-256	Stockbridge Corner Rd	2023-09-20 13:23:18	0.53	0.40	0.53	1.47	0.49	Medium	0.67	0.63	0.67	1.97	0.66	High	0.32	Medium
CLVT-257	Stockbridge Corner Rd	2023-09-20 13:28:39	0.27	0.17	0.27	0.70	0.23	Low	0.67	0.53	0.67	1.87	0.62	High	0.15	Medium
CLVT-258	Stockbridge Corner Rd	2023-09-20 13:32:23	0.27	0.29	0.27	0.82	0.27	Low	0.67	0.53	0.67	1.87	0.62	High	0.17	Medium
CLVT-259	Kent Locke Cir	2023-09-20 13:39:33	0.20	0.29	0.33	0.82	0.27	Low	0.27	0.33	0.60	1.20	0.40	Medium	0.11	Low
CLVT-26	Woodlands Rd	2023-08-16 18:34:36	0.53	0.29	0.27	1.09	0.36	Low	0.47	0.43	0.47	1.37	0.46	Medium	0.16	Low
CLVT-260	Kent Locke Cir	2023-09-20 13:43:04	0.20	0.29	0.33	0.82	0.27	Low	0.27	0.33	0.60	1.20	0.40	Medium	0.11	Low
CLVT-261	Kent Locke Cir	2023-09-20 13:47:51	0.20	0.17	0.20	0.57	0.19	Low	0.37	0.58	0.37	1.32	0.44	Medium	0.08	Low
CLVT-262	Kent Locke Cir	2023-09-20 13:51:46	0.20	0.29	0.33	0.82	0.27	Low	0.57	0.48	0.57	1.62	0.54	High	0.15	Medium
CLVT-263	Stockbridge Corner Rd	2023-09-20 13:59:41	0.20	0.31	0.80	1.31	0.44	Medium	0.47	0.53	0.47	1.47	0.49	Medium	0.21	Low
CLVT-264	Stockbridge Corner Rd	2023-09-20 14:03:07	0.27	0.54	0.60	1.41	0.47	Medium	0.47	0.43	0.47	1.37	0.46	Medium	0.21	Low
CLVT-265	Stockbridge Corner Rd	2023-09-20 14:04:24	0.27	0.40	0.60	1.27	0.42	Medium	0.47	0.43	0.47	1.37	0.46	Medium	0.19	Low
CLVT-266	Valley Rd	2023-09-20 14:10:27	0.27	0.40	0.27	0.93	0.31	Low	0.47	0.53	0.47	1.47	0.49	Medium	0.15	Low
CLVT-267	New Durham Rd	2023-09-27 12:02:06	0.33	0.29	0.33	0.95	0.32	Low	0.67	0.53	0.67	1.87	0.62	High	0.20	Medium
CLVT-268	New Durham Rd	2023-09-27 12:05:58	0.27	0.43	0.27	0.96	0.32	Low	0.67	0.43	0.67	1.77	0.59	High	0.19	Medium
CLVT-269	New Durham Rd	2023-09-27 12:09:52	0.60	0.89	0.60	2.09	0.70	High	0.67	0.43	0.67	1.77	0.59	High	0.41	High
CLVT-27	Woodlands Rd	2023-08-16 18:38:59	0.80	0.43	0.80	2.03	0.68	High	0.47	0.33	0.47	1.27	0.42	Medium	0.29	Medium
CLVT-270	New Durham Rd	2023-09-27 12:16:21	0.60	0.43	0.60	1.63	0.54	High	0.67	0.53	0.67	1.87	0.62	High	0.34	High
CLVT-271	New Durham Rd	2023-09-27 12:21:58	0.60	0.29	0.33	1.22	0.41	Medium	0.67	0.53	0.67	1.87	0.62	High	0.25	Medium
CLVT-272	New Durham Rd	2023-09-27 12:26:56	0.20	0.29	0.33	0.82	0.27	Low	0.67	0.53	0.67	1.87	0.62	High	0.17	Medium
CLVT-273	New Durham Rd	2023-09-27 12:34:11	0.20	0.29	0.20	0.69	0.23	Low	0.67	0.43	0.67	1.77	0.59	High	0.13	Medium
CLVT-274	Meadow Dr	2023-09-27 12:40:53	0.53	0.89	0.60	2.02	0.67	High	0.20	0.20	0.20	0.60	0.20	Low	0.13	Medium
CLVT-275	New Durham Rd	2023-09-27 12:45:38	0.33	0.29	0.33	0.95	0.32	Low	0.67	0.53	0.67	1.87	0.62	High	0.20	Medium
CLVT-276	New Durham Rd	2023-09-27 12:51:47	0.60	0.29	0.33	1.22	0.41	Medium	0.57	0.63	0.67	1.97	0.66	High	0.27	Medium
CLVT-277	New Durham Rd	2023-09-27 12:56:11	0.33	0.29	0.33	0.95	0.32	Low	0.67	0.63	0.67	1.97	0.66	High	0.21	Medium
CLVT-278	New Durham Rd	2023-09-27 13:00:08	0.27	0.29	0.60	1.15	0.38	Low	0.67	0.53	0.67	1.87	0.62	High	0.24	Medium
CLVT-279	Range Rd	2023-09-27 13:12:22	0.27	0.29	0.27	0.82	0.27	Low	0.47	0.33	0.47	1.27	0.42	Medium	0.12	Low
CLVT-28	Woodlands Rd	2023-08-16 18:43:46	0.80	0.29	0.27	1.35	0.45	Medium	0.47	0.33	0.47	1.27	0.42	Medium	0.19	Low
CLVT-280	Range Rd	2023-09-27 13:16:20	0.27	0.43	0.27	0.96	0.32	Low	0.57	0.48	0.57	1.62	0.54	High	0.17	Medium
CLVT-281	Range Rd	2023-09-27 13:29:03	0.53	0.66	0.27	1.46	0.49	Medium	0.67	0.53	0.67	1.87	0.62	High	0.30	High
CLVT-282	Range Rd	2023-09-27 13:30:03	0.27	0.66	0.27	1.19	0.40	Low	0.67	0.53	0.67	1.87	0.62	High	0.25	Medium
CLVT-283	Resnon Rd	2023-09-27 13:32:06	0.43	0.27	0.27	0.96	0.32	Low	0.67	0.53	0.67	1.87	0.62	High	0.20	Medium
CLVT-284	Old Wolfeboro Rd	2023-09-27 14:04:03	0.20	0.17	0.20	0.57	0.19	Low	0.37	0.28	0.37	1.02	0.34	Low	0.06	Low
CLVT-285	Old Wolfeboro Rd	2023-09-27 14:10:54	0.53	0.31	0.60	1.45	0.48	Medium	0.37	0.38	0.37	1.12	0.37	Low	0.18	Low
CLVT-286	Old Wolfeboro Rd	2023-09-27 14:19:32	0.67	0.17	0.73	1.57	0.52	High	0.47	0.43	0.47	1.37	0.46	Medium	0.24	Medium
CLVT-287	Old Wolfeboro Rd	2023-09-27 14:23:44	0.67	0.17	0.47	1.30	0.43	Medium	0.47	0.43	0.47	1.37	0.46	Medium	0.20	Low
CLVT-288	Lily Pond Rd	2023-09-27 14:35:16	0.53	0.43	0.33	1.30	0.43	Medium	0.47	0.43	0.47	1.37	0.46	Medium	0.20	Low
CLVT-289	Lily Pond Rd	2023-09-27 14:41:31	0.27	0.29	0.27	0.82	0.27	Low	0.47	0.53	0.47	1.47	0.49	Medium	0.13	Low
CLVT-29	Woodlands Rd	2023-08-16 18:46:48	0.80	0.51	0.27	1.58	0.53	High	0.47	0.33	0.47	1.27	0.42	Medium	0.22	Medium
CLVT-290	Lily Pond Rd	2023-09-27 14:47:08	0.60	0.43	0.60	1.60	0.53	High	0.47	0.43	0.47	1.37	0.46	Medium	0.24	Medium
CLVT-291	Lily Pond Rd	2023-09-27 14:50:48	0.80	0.51	0.53	1.85	0.47	High	0.67	0.33	0.67	1.77	0.59	High	0.26	High
CLVT-292	Lily Pond Rd	2023-09-27 14:55:27	0.80	0.66	0.27	1.72	0.47	High	0.47	0.33	0.47	1.27	0.42	Medium	0.24	Medium
CLVT-293	Old Wolfeboro Rd	2023-09-27 15:01:43	0.27	0.17	0.27	0.70	0.23	Low	0.57	0.48	0.57	1.62	0.54	High	0.13	Medium
CLVT-294	Old Wolfeboro Rd	2023-09-27 15:05:54	0.80	0.31	0.53	1.65	0.55	High	0.57	0.48	0.57	1.62	0.54	High	0.30	High
CLVT-295	Old Wolfeboro Rd	2023-09-27 15:12:22	0.27	0.17	0.33	0.77	0.26	Low	0.57	0.58	0.57	1.72	0.57	High	0.15	Medium
CLVT-296	Powder Mill Rd	2023-09-27 15:24:12	0.27	0.29	0.27	0.82	0.27	Low	0.67	0.53	0.67	1.87	0.62	High	0.17	Medium
CLVT-297	Powder Mill Rd	2023-09-27 16:14:00	0.27	0.29	0.27	0.82	0.27	Low	0.67	0.53	0.67	1.87	0.62	High	0.17	Medium
CLVT-298	Powder Mill Rd	2023-09-27 16:20:11	0.27	0.43	0.27	0.96	0.32	Low	0.67	0.53	0.67	1.87	0.62	High	0.20	Medium
CLVT-299	Powder Mill Rd	2023-09-27 16:29:05	0.27	0.29	0.80	1.35	0.45	Medium	0.57	0.53	0.67	1.87	0.62	High	0.28	Medium
CLVT-3	Bachelor Dr	2023-08-16 13:43:45	0.80	0.43	0.80	2.03	0.68	High	0.47	0.43	0.47	1.37	0.46	Medium	0.31	Medium
CLVT-30	Woodlands Rd	2023-08-16 18:52:51	0.60	0.43	0.53	1.56	0.52	High	0.47	0.33	0.47	1.27	0.42	Medium	0.22	Medium
CLVT-300	Powder Mill Rd	2023-09-27 16:31:31	0.27	0.29	0.27	0.82	0.27	Low	0.67	0.53	0.67	1.87	0.62	High	0.17	Medium
CLVT-301	Powder Mill Rd	2023-09-27 16:36:04	0.27	0.31	0.27	0.85	0.28	Low	0.67	0.53	0.67	1.87	0.62	High	0.18	Medium
CLVT-302	Powder Mill Rd	2023-09-27 16:42:02	0.27	0.54	0.27	1.08	0.36	Low	0.67	0.53	0.67	1.87	0.62	High	0.22	Medium
CLVT-303	Powder Mill Rd	2023-09-27 16:45:55	0.27	0.43	0.27	0.96	0.32	Low	0.67	0.53	0.67	1.87	0.62	High	0.20	Medium
CLVT-304	Powder Mill Rd	2023-09-27 16:50:08	0.27	0.29	0.27	0.82	0.27	Low	0.67	0.53	0.67	1.87	0.62	High	0.17	Medium
CLVT-305	Powder Mill Rd	2023-09-27 16:52:45	0.27	0.29	0.33	0.89	0.30	Low	0.67	0.38	0.67	1.87	0.62	High	0.18	Medium
CLVT-306	Powder Mill Rd	2023-09-27 16:55:39	0.27	0.43	0.27	0.96	0.32	Low	0.67	0.53	0.67	1.87	0.62	High	0.20	Medium
CLVT-307	Powder Mill Rd	2023-09-27 16:58:39	0.27	0.43	0.27	0.96	0.32	Low	0.67	0.53	0.67	1.87	0.62	High	0.20	Medium
CLVT-308	Powder Mill Rd	2023-09-27 17:01:27	0.27	0.54	0.27	1.08	0.36	Low	0.67	0.53	0.67	1.87	0.62	High	0.22	Medium
CLVT-309	Powder Mill Rd	2023-09-27 17:04:31	0.27	0.54	0.27	1.08	0.36	Low	0.67	0.53	0.67	1.87	0.62	High	0.22	Medium
CLVT-31	Woodlands Rd	2023-08-16 19:01:12	0.27	0.29	0.27	0.82	0.27	Low	0.47	0.33	0.47	1.27	0.42	Medium	0.12	Low
CLVT-310	Powder Mill Rd	2023-09-27 17:07:44	0.27	0.17	0.20	0.64	0.21	Low	1.00	0.80	0.67	2.47	0.82	High	0.17	Medium
CLVT-311	Old Wolfeboro Rd	2023-09-27 17:22:26	0.27	0.40	0.73	1.40	0.47	Medium	0.57	0.48	0.57	1.62	0.54	High	0.25	Medium
CLVT-312	Old Wolfeboro Rd	2023-09-27 17:23:40	0.80	0.74	0.80	2.34	0.78	High	0.57	0.63	0.57	1.62	0.54	High	0.42	High
CLVT-313	Old Wolfeboro Rd	2023-09-27 17:29:26	0.80	0.17	0.80	1.77	0.59	High	0.57	0.48	0.57	1.62	0.54	High	0.32	High
CLVT-314	Old Wolfeboro Rd	2023-09-27 17:37:06	0.60	0.17	0.27	1.04	0.35	Low	0.57	0.48	0.57	1.62	0.54	High	0.19	Medium
CLVT-315	Old Wolfeboro Rd	2023-09-27 17:40:06	0.67	0.17	0.											

Overall Culvert ID (from CLVTPipe)	Street	Date Inspected	CLVTInlet PoF	CLVTPipe PoF	CLVTOutlet PoF	Overall Culvert PoF Score	Normalized Overall Culvert PoF Score	Overall Culvert PoF Rank	CLVTInlet CoF	CLVTPipe CoF	CLVTOutlet CoF	Overall Culvert CoF Score	Normalized Overall Culvert CoF Score	Overall Culvert CoF Rank	Overall Culvert Criticality Score	Overall Culvert Criticality Rank
CLVT-324	Trask Side Rd	2023-10-04 11:20:18	0.60	0.54	0.33	1.48	0.49	Medium	0.57	0.48	0.57	1.62	0.54	High	0.27	Medium
CLVT-325	Trask Side Rd	2023-10-04 11:23:38	0.60	0.40	0.60	1.60	0.53	High	0.57	0.48	0.57	1.62	0.54	High	0.29	High
CLVT-326	Trask Side Rd	2023-10-04 11:27:08	0.27	0.29	0.53	1.09	0.36	Low	0.57	0.38	0.57	1.52	0.51	High	0.18	Medium
CLVT-327	Trask Side Rd	2023-10-04 11:32:13	0.27	0.40	0.27	0.93	0.31	Low	0.90	0.85	0.57	2.32	0.77	High	0.24	Medium
CLVT-328	Hurd Hill Rd	2023-10-04 12:39:33	0.47	1.00	0.80	1.49	0.76	High	0.37	0.38	0.37	1.12	0.37	Low	0.28	Medium
CLVT-329	Chestnut Cove Rd	2023-10-04 12:45:16	0.53	0.17	0.27	0.97	0.32	Low	0.57	0.65	0.57	1.78	0.59	High	0.19	Medium
CLVT-33	Woodlands Rd	2023-08-16 19:09:43	0.20	0.31	0.20	0.71	0.24	Low	0.47	0.53	0.47	1.47	0.49	Medium	0.12	Low
CLVT-330	Chestnut Cove Rd	2023-10-04 12:52:01	0.27	0.43	0.27	0.96	0.32	Low	0.57	0.38	0.57	1.52	0.51	High	0.16	Medium
CLVT-331	Chestnut Cove Rd	2023-10-04 12:55:52	0.80	0.17	0.20	1.17	0.39	Low	0.57	0.48	0.57	1.62	0.54	High	0.21	Medium
CLVT-332	Chestnut Cove Rd	2023-10-04 13:00:51	0.27	0.17	0.27	0.70	0.23	Low	0.57	0.48	0.57	1.62	0.54	High	0.13	Medium
CLVT-333	Hidden Spring Rd	2023-10-04 13:32:13	0.20	0.29	0.20	0.69	0.23	Low	0.27	0.33	0.60	1.20	0.40	Medium	0.09	Low
CLVT-334	Hidden Spring Rd	2023-10-04 13:33:02	0.20	0.29	0.20	0.69	0.23	Low	0.27	0.33	0.60	1.20	0.40	Medium	0.09	Low
CLVT-335	Gilmans Corner Rd	2023-10-04 13:38:47	0.60	0.29	0.60	1.49	0.50	Medium	0.47	0.43	0.47	1.37	0.46	Medium	0.23	Low
CLVT-336	Gilmans Corner Rd	2023-10-04 13:48:28	0.20	0.26	0.20	0.66	0.22	Low	0.80	0.80	0.47	2.07	0.69	High	0.15	Medium
CLVT-337	Quarry Rd	2023-10-04 13:55:12	0.27	0.43	0.27	0.96	0.32	Low	0.47	0.43	0.47	1.37	0.46	Medium	0.15	Low
CLVT-338	Quarry Rd	2023-10-04 13:57:48	0.27	0.29	0.27	0.82	0.27	Low	0.47	0.43	0.47	1.37	0.46	Medium	0.12	Low
CLVT-339	Quarry Rd	2023-10-04 14:03:07	0.27	0.29	0.27	0.82	0.27	Low	0.47	0.43	0.47	1.37	0.46	Medium	0.12	Low
CLVT-34	Roger St	2023-08-16 19:18:56	0.80	0.66	0.33	1.79	0.60	High	0.37	0.28	0.37	1.02	0.34	Low	0.20	Medium
CLVT-340	Quarry Rd	2023-10-04 14:06:05	0.27	0.29	0.53	1.09	0.36	Low	0.47	0.43	0.47	1.37	0.46	Medium	0.16	Low
CLVT-341	Drew Hill Rd	2023-10-11 11:26:53	0.60	0.43	0.60	1.63	0.54	High	0.67	0.53	0.67	1.87	0.62	High	0.34	High
CLVT-342	Drew Hill Rd	2023-10-11 11:29:50	0.27	0.43	0.53	1.23	0.41	Medium	0.67	0.43	0.67	1.77	0.59	High	0.24	Medium
CLVT-343	Drew Hill Rd	2023-10-11 11:32:27	0.60	0.43	0.27	1.30	0.43	Medium	0.67	0.53	0.67	1.87	0.62	High	0.27	Medium
CLVT-344	Drew Hill Rd	2023-10-11 11:35:09	0.60	0.43	0.60	1.63	0.54	High	0.67	0.53	0.67	1.87	0.62	High	0.34	High
CLVT-345	Drew Hill Rd	2023-10-11 11:40:28	0.60	0.43	0.60	1.63	0.54	High	0.67	0.53	0.67	1.87	0.62	High	0.34	High
CLVT-346	Drew Hill Rd	2023-10-11 11:54:31	0.27	0.54	0.60	1.41	0.47	Medium	0.67	0.53	0.67	1.87	0.62	High	0.29	Medium
CLVT-347	Drew Hill Rd	2023-10-11 11:57:18	0.27	0.77	0.53	1.57	0.52	High	0.67	0.53	0.67	1.87	0.62	High	0.33	High
CLVT-348	Drew Hill Rd	2023-10-11 12:00:32	0.53	0.77	0.53	1.84	0.61	High	0.67	0.53	0.67	1.87	0.62	High	0.38	High
CLVT-349	Drew Hill Rd	2023-10-11 12:02:57	0.27	0.43	0.27	0.96	0.32	Low	0.67	0.53	0.67	1.87	0.62	High	0.20	Medium
CLVT-35	Roger St	2023-08-16 19:24:41	0.53	0.43	0.27	1.23	0.41	Medium	0.37	0.28	0.37	1.02	0.34	Low	0.14	Low
CLVT-350	Drew Hill Rd	2023-10-11 12:04:58	0.27	0.43	0.27	0.96	0.32	Low	0.67	0.53	0.67	1.87	0.62	High	0.20	Medium
CLVT-351	Drew Hill Rd	2023-10-11 12:07:30	0.80	0.31	0.80	1.91	0.64	High	0.67	0.53	0.67	1.87	0.62	High	0.40	High
CLVT-352	Drew Hill Rd	2023-10-11 12:11:14	0.27	0.29	0.27	0.82	0.27	Low	0.67	0.53	0.67	1.87	0.62	High	0.17	Medium
CLVT-353	Chesley Rd	2023-10-11 12:18:16	0.60	0.66	0.60	1.86	0.62	High	0.67	0.43	0.67	1.77	0.59	High	0.36	High
CLVT-354	Chesley Rd	2023-10-11 12:21:42	0.80	0.29	0.27	1.35	0.45	Medium	0.67	0.43	0.67	1.77	0.59	High	0.27	Medium
CLVT-355	Chesley Rd	2023-10-11 12:25:50	0.27	0.43	0.60	1.30	0.43	Medium	0.67	0.43	0.67	1.77	0.59	High	0.25	Medium
CLVT-356	Drew Hill Rd	2023-10-11 12:31:19	0.27	0.29	0.53	1.09	0.36	Low	0.67	0.53	0.67	1.87	0.62	High	0.23	Medium
CLVT-357	Drew Hill Rd	2023-10-11 12:34:23	0.20	0.29	0.33	0.82	0.27	Low	0.37	0.38	0.37	1.12	0.37	Low	0.10	Low
CLVT-358	Drew Hill Rd	2023-10-11 12:38:49	0.33	0.29	0.60	1.22	0.41	Medium	0.57	0.48	0.57	1.62	0.54	High	0.22	Medium
CLVT-359	Drew Hill Rd	2023-10-11 12:42:43	0.53	0.43	0.60	1.56	0.57	High	0.57	0.48	0.57	1.62	0.54	High	0.28	High
CLVT-36	Roger St	2023-08-16 15:42:57	0.60	0.86	0.60	2.06	0.69	High	0.37	0.28	0.37	1.02	0.34	Low	0.23	Medium
CLVT-360	Drew Hill Rd	2023-10-11 12:46:17	0.80	0.74	0.20	1.74	0.58	High	0.57	0.48	0.57	1.62	0.54	High	0.31	High
CLVT-361	Drew Hill Rd	2023-10-11 12:49:59	0.80	0.74	0.20	1.74	0.58	High	0.57	0.48	0.57	1.62	0.54	High	0.31	High
CLVT-362	Drew Hill Rd	2023-10-11 12:54:25	0.20	0.29	0.33	0.82	0.27	Low	0.57	0.48	0.57	1.62	0.54	High	0.15	Medium
CLVT-363	Drew Hill Rd	2023-10-11 12:55:37	0.20	0.40	0.60	1.20	0.40	Medium	0.57	0.48	0.57	1.62	0.54	High	0.22	Medium
CLVT-364	Hayes Rd	2023-10-11 13:03:05	0.27	0.40	0.27	0.93	0.31	Low	0.47	0.43	0.47	1.37	0.46	Medium	0.14	Low
CLVT-365	Drew Hill Rd	2023-10-11 13:18:04	0.20	0.43	0.33	0.96	0.32	Low	0.47	0.43	0.47	1.37	0.46	Medium	0.15	Low
CLVT-366	Drew Hill Rd	2023-10-11 13:20:41	0.20	0.29	0.33	0.82	0.27	Low	0.57	0.48	0.57	1.62	0.54	High	0.15	Medium
CLVT-367	Drew Hill Rd	2023-10-11 13:25:25	0.20	0.29	0.27	0.75	0.25	Low	0.47	0.43	0.47	1.37	0.46	Medium	0.11	Low
CLVT-368	Stage Coach Rd	2023-10-11 13:30:50	0.53	0.77	0.27	1.57	0.52	High	0.27	0.33	0.27	0.87	0.29	Low	0.15	Medium
CLVT-369	Stage Coach Rd	2023-10-11 13:37:17	0.60	0.66	0.60	1.86	0.62	High	0.37	0.28	0.37	1.02	0.34	Low	0.21	Medium
CLVT-37	Roger St	2023-08-16 15:45:31	0.53	0.51	0.53	1.58	0.53	High	0.37	0.38	0.37	1.12	0.37	Low	0.20	Medium
CLVT-370	Rines Rd	2023-10-11 13:49:11	0.27	0.29	0.27	0.82	0.27	Low	0.67	0.53	0.67	1.87	0.62	High	0.17	Medium
CLVT-371	Rines Rd	2023-10-11 13:52:47	0.53	0.43	0.27	1.23	0.41	Medium	0.47	0.43	0.47	1.37	0.46	Medium	0.19	Low
CLVT-372	Rines Rd	2023-10-11 13:55:29	0.27	0.29	0.27	0.82	0.27	Low	0.47	0.43	0.47	1.37	0.46	Medium	0.12	Low
CLVT-373	Rines Rd	2023-10-11 13:58:42	0.27	0.29	0.53	1.09	0.36	Low	0.47	0.43	0.47	1.37	0.46	Medium	0.16	Low
CLVT-374	Rines Rd	2023-10-11 14:02:04	0.27	0.51	0.27	1.05	0.35	Low	0.47	0.43	0.47	1.37	0.46	Medium	0.16	Low
CLVT-375	Rines Rd	2023-10-11 14:05:37	0.27	0.29	0.60	1.15	0.38	Low	0.47	0.43	0.47	1.37	0.46	Medium	0.17	Low
CLVT-376	Rines Rd	2023-10-11 14:11:30	0.27	0.29	0.27	0.82	0.27	Low	0.47	0.43	0.47	1.37	0.46	Medium	0.12	Low
CLVT-377	Stage Coach Rd	2023-10-11 14:17:13	0.20	0.63	0.20	1.03	0.34	Low	0.27	0.43	0.27	0.97	0.32	Low	0.11	Low
CLVT-378	Roberts Cove Rd	2023-10-18 11:24:41	0.20	0.40	0.20	0.80	0.27	Low	0.57	0.48	0.57	1.62	0.54	High	0.14	Medium
CLVT-379	Roberts Cove Rd	2023-10-18 11:36:39	0.20	0.29	0.27	0.75	0.25	Low	0.57	0.38	0.57	1.52	0.51	High	0.13	Medium
CLVT-38	Route 11D	2023-08-17 12:46:14	0.33	0.29	0.33	0.95	0.32	Low	0.67	0.53	0.67	1.87	0.62	High	0.20	Medium
CLVT-380	Roberts Cove Rd	2023-10-18 11:37:30	0.60	0.29	0.27	1.15	0.37	Low	0.57	0.38	0.57	1.52	0.51	High	0.19	Medium
CLVT-381	Roberts Cove Rd	2023-10-18 11:43:15	0.53	0.40	0.60	1.53	0.51	High	0.57	0.58	0.57	1.72	0.57	High	0.29	High
CLVT-382	Hopewell Rd	2023-10-18 11:58:46	0.60	0.26	0.27	1.12	0.37	Low	0.47	0.53	0.47	1.47	0.49	Medium	0.18	Low
CLVT-383	Hopewell Rd	2023-10-18 11:59:35	0.60	0.26	0.27	1.12	0.37	Low	0.47	0.53	0.47	1.47	0.49	Medium	0.18	Low
CLVT-384	Tom Rd	2023-10-18 12:18:23	0.20	0.26	0.20	0.66	0.22	Low	0.37	0.48	0.37	1.22	0.41	Medium	0.09	Low
CLVT-385	Tom Rd	2023-10-18 12:23:16	0.27	0.29	0.80	1.35	0.45	Medium	0.37	0.38	0.37	1.12	0.37	Low	0.17	Low
CLVT-386	Pond Rd	2023-10-18 12:30:26	0.53	0.43	0.53	1.50	0.50	Medium	0.27	0.23	0.27	0.77	0.26	Low	0.13	Low
CLVT-387	Alton Mountain Rd	2023-09-27 13:20:18	0.20	0.17	0.60	0.97	0.32	Low	0.67	0.53	0.67	1.87	0.62	High	0.20	Medium
CLVT-388	Range Rd	2023-09-27 13:22:36	0.60	0.29	0.60	1.09	0.36	Low	0.67	0.53	0.67	1.87	0.62	High	0.23	Medium
CLVT-39	Route 11D	2023-08-17 12:51:28	0.20	0.74	0.60	1.54	0.59	High	0.67	0.38	0.67	1.87	0.62	High	0.32	High
CLVT-4	Hermit Rd	2023-08-16 14:17:37	0.80	0.86	0.80	2.46	0.82	High	0.27	0.33	0.27	0.87	0.29	Low	0.24	Medium
CLVT-40	Route 11D	2023-08-17 12:57:01	0.20	0.29	0.33	0.82										

Overall Culvert ID (from CLVTPipe)	Street	Date Inspected	CLVTInlet PoF	CLVTPipe PoF	CLVTOutlet PoF	Overall Culvert PoF Score	Normalized Overall Culvert PoF Score	Overall Culvert PoF Rank	CLVTInlet CoF	CLVTPipe CoF	CLVTOutlet CoF	Overall Culvert CoF Score	Normalized Overall Culvert CoF Score	Overall Culvert CoF Rank	Overall Culvert Criticality Score	Overall Culvert Criticality Rank
CLVT-5	Hermit Rd	2023-08-16 14:32:44	0.80	1.00	0.80	2.60	0.87	High	0.47	0.53	0.47	1.47	0.49	Medium	0.42	Medium
CLVT-50	Route 11D	2023-08-17 13:48:55	0.60	0.29	0.60	1.49	0.50	Medium	0.37	0.28	0.37	1.02	0.34	Low	0.17	Low
CLVT-51	Route 11D	2023-08-17 13:53:07	0.80	0.29	0.60	1.69	0.56	High	0.37	0.38	0.37	1.12	0.37	Low	0.21	Medium
CLVT-52	Route 11D	2023-08-17 14:00:21	0.47	0.26	0.47	1.19	0.40	Low	0.67	0.63	0.67	1.97	0.66	High	0.26	Medium
CLVT-53	Route 11D	2023-08-17 14:07:44	0.60	0.29	0.33	1.22	0.41	Medium	0.67	0.53	0.67	1.87	0.62	High	0.25	Medium
CLVT-54	Route 11D	2023-08-17 14:11:55	0.47	0.29	0.33	1.09	0.36	Low	0.67	0.53	0.67	1.87	0.62	High	0.23	Medium
CLVT-55	Route 11D	2023-08-17 14:15:54	0.33	0.29	0.60	1.22	0.41	Medium	0.67	0.53	0.67	1.87	0.62	High	0.25	Medium
CLVT-56	Route 11D	2023-08-17 14:19:53	0.47	0.29	0.33	1.09	0.36	Low	0.67	0.53	0.67	1.87	0.62	High	0.23	Medium
CLVT-57	Route 11D	2023-08-17 14:24:27	0.33	0.29	0.33	0.95	0.32	Low	0.67	0.53	0.67	1.87	0.62	High	0.20	Medium
CLVT-58	Route 11D	2023-08-17 14:29:53	0.47	0.29	0.33	1.09	0.36	Low	0.67	0.53	0.67	1.87	0.62	High	0.23	Medium
CLVT-59	Route 11D	2023-08-17 14:34:29	0.20	0.29	0.87	1.35	0.45	Medium	0.67	0.53	0.67	1.87	0.62	High	0.28	Medium
CLVT-60	Route 11D	2023-08-17 14:40:45	0.20	0.77	0.60	1.57	0.52	High	0.67	0.53	0.67	1.87	0.62	High	0.33	High
CLVT-61	Route 11D	2023-08-17 14:47:37	0.47	0.17	0.27	0.90	0.30	Low	0.67	0.53	0.67	1.87	0.62	High	0.19	Medium
CLVT-62	Route 11D	2023-08-17 14:58:12	0.20	0.51	0.47	1.18	0.39	Low	0.67	0.53	0.67	1.87	0.62	High	0.24	Medium
CLVT-63	Jesus Valley Rd	2023-08-17 15:49:38	0.33	0.54	0.27	1.14	0.38	Low	0.27	0.33	0.60	1.20	0.40	Medium	0.15	Low
CLVT-64	Jesus Valley Rd	2023-08-17 15:54:19	0.33	0.43	0.33	1.10	0.37	Low	0.27	0.33	0.27	0.87	0.29	Low	0.11	Low
CLVT-65	Jesus Valley Rd	2023-08-17 16:01:06	0.27	0.43	0.60	1.30	0.43	Medium	0.37	0.28	0.37	1.02	0.34	Low	0.15	Low
CLVT-66	Jesus Valley Rd	2023-08-17 16:06:27	0.53	0.43	0.53	1.50	0.50	Medium	0.47	0.33	0.47	1.27	0.42	Medium	0.21	Low
CLVT-67	Jesus Valley Rd	2023-08-17 16:14:08	0.27	0.43	0.60	1.30	0.43	Medium	0.57	0.48	0.57	1.62	0.54	High	0.23	Medium
CLVT-68	Jesus Valley Rd	2023-08-17 16:19:09	0.80	0.89	0.60	2.29	0.76	High	0.57	0.38	0.57	1.52	0.51	High	0.39	High
CLVT-69	Jesus Valley Rd	2023-08-17 16:23:51	0.60	0.54	0.33	1.48	0.49	Medium	0.57	0.48	0.57	1.62	0.54	High	0.27	Medium
CLVT-7	Smith Point Rd	2023-08-16 15:23:45	0.53	0.89	0.80	2.22	0.74	High	0.27	0.23	0.27	0.77	0.26	Low	0.19	Medium
CLVT-70	Rand Hill Rd	2023-08-17 16:30:25	0.20	0.40	0.60	1.20	0.40	Medium	0.57	0.48	0.57	1.62	0.54	High	0.22	Medium
CLVT-71	Rand Hill Rd	2023-08-17 16:36:05	0.27	0.29	0.33	0.89	0.30	Low	0.57	0.48	0.57	1.62	0.54	High	0.16	Medium
CLVT-72	Rand Hill Rd	2023-08-17 17:12:05	0.20	0.29	0.27	0.75	0.25	Low	0.57	0.38	0.57	1.52	0.51	High	0.13	Medium
CLVT-73	Rand Hill Rd	2023-08-17 16:45:04	0.27	0.29	0.27	0.82	0.27	Low	0.57	0.48	0.57	1.62	0.54	High	0.15	Medium
CLVT-74	Rand Hill Rd	2023-08-17 16:50:03	0.27	0.29	0.27	0.82	0.27	Low	0.57	0.48	0.57	1.62	0.54	High	0.15	Medium
CLVT-75	Rand Hill Rd	2023-08-17 16:53:12	0.53	0.29	0.33	1.15	0.38	Low	0.57	0.48	0.57	1.62	0.54	High	0.21	Medium
CLVT-76	Rand Hill Rd	2023-08-17 16:59:16	0.27	0.89	0.33	1.49	0.50	Medium	0.57	0.48	0.57	1.62	0.54	High	0.27	Medium
CLVT-77	Rand Hill Rd	2023-08-17 17:04:16	0.27	0.43	0.27	0.96	0.32	Low	0.57	0.48	0.57	1.62	0.54	High	0.17	Medium
CLVT-78	Rand Hill Rd	2023-08-17 17:16:33	0.27	0.43	0.33	1.03	0.34	Low	0.57	0.48	0.57	1.62	0.54	High	0.18	Medium
CLVT-79	Rand Hill Rd	2023-08-17 17:21:16	0.20	0.17	0.20	0.57	0.19	Low	0.47	0.53	0.47	1.47	0.49	Medium	0.09	Low
CLVT-80	Lakewood Dr	2023-08-17 17:29:29	0.73	0.63	0.80	2.16	0.72	High	0.47	0.43	0.47	1.37	0.46	Medium	0.33	Medium
CLVT-81	Lakewood Dr	2023-08-17 17:35:49	0.40	1.00	0.80	2.20	0.73	High	0.47	0.33	0.47	1.27	0.42	Medium	0.31	Medium
CLVT-82	Lakewood Dr	2023-08-17 17:40:22	1.00	0.63	0.73	2.36	0.79	High	0.47	0.43	0.47	1.37	0.46	Medium	0.36	Medium
CLVT-83	Lakewood Dr	2023-08-17 17:36:19	0.80	0.51	0.60	1.91	0.64	High	0.47	0.33	0.47	1.27	0.42	Medium	0.27	Medium
CLVT-84	Lakewood Dr	2023-08-17 17:52:17	0.40	0.63	0.60	1.63	0.54	High	0.47	0.43	0.47	1.37	0.46	Medium	0.25	Medium
CLVT-85	Lakewood Dr	2023-08-17 17:58:34	0.27	0.54	0.60	1.41	0.47	Medium	0.47	0.43	0.47	1.37	0.46	Medium	0.21	Low
CLVT-86	Rand Hill Rd	2023-08-17 18:03:49	0.27	0.54	0.27	1.08	0.36	Low	0.57	0.48	0.57	1.62	0.54	High	0.19	Medium
CLVT-87	Rand Hill Rd	2023-08-17 18:15:07	0.27	0.40	0.27	0.93	0.31	Low	0.47	0.43	0.47	1.37	0.46	Medium	0.14	Low
CLVT-88	Spring St	2023-08-17 18:19:43	0.20	0.31	0.20	0.71	0.24	Low	0.37	0.38	0.37	1.12	0.37	Low	0.09	Low
CLVT-89	Spring St	2023-08-17 18:20:50	0.20	0.31	0.20	0.71	0.24	Low	0.37	0.38	0.37	1.12	0.37	Low	0.09	Low
CLVT-9	Sleepy View Lane	2023-08-16 15:45:03	0.27	0.43	0.27	0.96	0.32	Low	0.03	0.22	0.03	0.28	0.09	Low	0.03	Low
CLVT-90	Spring St	2023-08-17 17:25:28	0.53	0.66	0.53	1.72	0.57	High	0.37	0.28	0.37	1.02	0.34	Low	0.19	Medium
CLVT-91	Spring St	2023-08-17 18:38:39	0.27	0.43	0.53	1.23	0.41	Medium	0.37	0.38	0.37	1.12	0.37	Low	0.15	Low
CLVT-92	Letter S Rd	2023-08-17 18:56:41	0.53	0.77	0.80	2.10	0.70	High	0.70	0.55	0.37	1.62	0.54	High	0.38	High
CLVT-93	Letter S Rd	2023-08-17 19:02:41	0.27	0.31	0.27	0.85	0.28	Low	0.70	0.55	0.37	1.62	0.54	High	0.15	Medium
CLVT-94	Alton Mountain Rd	2023-08-23 12:15:41	0.80	0.43	0.80	2.03	0.68	High	0.67	0.53	0.67	1.87	0.62	High	0.42	High
CLVT-95	Alton Mountain Rd	2023-08-23 12:22:18	0.80	0.17	0.20	1.17	0.39	Low	0.67	0.53	0.67	1.87	0.62	High	0.24	Medium
CLVT-96	Alton Mountain Rd	2023-08-23 12:34:23	0.47	0.40	0.20	1.07	0.36	Low	0.67	0.53	0.67	1.87	0.62	High	0.22	Medium
CLVT-97	Alton Mountain Rd	2023-08-23 12:35:26	0.20	0.17	0.20	0.57	0.19	Low	0.67	0.63	0.67	1.97	0.66	High	0.12	Medium
CLVT-98	Alton Mountain Rd	2023-08-23 12:50:06	0.20	0.40	0.20	0.80	0.27	Low	0.67	0.63	0.67	1.97	0.66	High	0.17	Medium
CLVT-99	Alton Mountain Rd	2023-08-23 13:14:35	0.80	1.00	0.80	2.60	0.87	High	0.67	0.53	0.67	1.87	0.62	High	0.54	High

APPENDIX K

OPINIONS OF PROBABLE PROJECT COSTS

**Planning Level Engineer's Opinion of Probable Construction Cost
CLVTPipe-94 (15" RCP, 41' Long) Culvert Replacement
Alton Mountain Road
Town of Alton, NH**

Reason: This culvert had a PoF score of 2.03 and CoF score of 1.87 and an overall risk score of 0.42. A joint at midspan appears to be in poor condition resulting in sediment buildup. There is a small rip in the bottom of the pipe approximately 5 feet into the culvert.

ITEM	DESCRIPTION	QTY	UNITS	UNIT PRICE	AMOUNT
201.1	Clearing and Grubbing	0.30	ACRE	\$ 40,000	\$ 12,000
202.41	Removal of Existing Pipe 0-24" Diameter	1	U	\$ 15,000	\$ 15,000
206.1	Common Structure Excavation	20	CY	\$ 50	\$ 1,000
304.2	Gravel (F)	30	CY	\$ 40	\$ 1,200
304.5	Crushed Stone (Coarse Gradation) (F)	10	CY	\$ 75	\$ 750
306.32	Asphalt for Reclaimed Stabilized Base	54	TON	\$ 250	\$ 13,500
503.1	Water Diversion Structure	1	U	\$ 10,000	\$ 10,000
583.3	Riprap, class III	10	CY	\$ 125	\$ 1,250
585.3	Stone Fill, Class C	5	CY	\$ 150	\$ 750
603.00215	15" R.C. Pipe, 2000D	41	LF	\$ 200	\$ 8,200
606.0001	Steel Beam for Guardrail, Including Hardware	130	FT	\$ 50	\$ 6,500
606.0122	W6x9 Steel Post Assemblies for Beam Guardrail Posts	22	EA	\$ 35	\$ 758
606.1452	Beam Guardrail (Terminal Unit Type ELT)	1	U	\$ 24,000	\$ 24,000
692.	Mobilization	1	U	\$ 4,000	\$ 4,000
	Minor Item Allowance	1	U	\$ 20,000	\$ 20,000
Subtotal:					\$ 118,908
		Construction Contingency	20%		\$ 24,000
		Material and Bidding Contingency	20%		\$ 24,000
		Data Collection, Design, Permitting, and Bid Phase Services	-		\$ 100,000
		Construction Phase Services	10%		\$ 12,000
Total					\$ 279,000

This is an engineer's Opinion of Probable Construction Cost (OPCC). Tighe & Bond has no control over the cost or availability of labor, equipment or materials, market conditions or the Contractor's method of pricing, and that the estimates of probable construction costs are made on the basis of the Tighe & Bond's professional judgment and experience. Tighe & Bond makes no guarantee nor warranty, expressed or implied, that the bids or the negotiated cost of the Work will not vary from this estimate of the Probable Construction Cost.

Note: Unit Prices are based upon New Hampshire Department of Transportation 2023 Weighted Bid Prices, and recent bids results for similar Tighe & Bond designed projects.

Inlet:



Outlet:



**Planning Level Engineer's Opinion of Probable Construction Cost
CLVTPipe-226 (15" RCP, 41' Long) Culvert Replacement
Prospect Mountain Road
Town of Alton, NH**

Reason: This culvert had a PoF of 2.33 and a CoF of 1.87 and an overall risk score of 0.48. The culvert pipe is deformed with root intrusion at the joints and significant invert deterioration.

ITEM	DESCRIPTION	QTY	UNITS	UNIT PRICE	AMOUNT
201.1	Clearing and Grubbing	0.30	ACRE	\$ 40,000	\$ 12,000
202.41	Removal of Existing Pipe 0-24" Diameter	1	U	\$ 15,000	\$ 15,000
206.1	Common Structure Excavation	20	CY	\$ 50	\$ 1,000
304.2	Gravel (F)	30	CY	\$ 40	\$ 1,200
304.5	Crushed Stone (Coarse Gradation) (F)	10	CY	\$ 75	\$ 750
306.32	Asphalt for Reclaimed Stabilized Base	54	TON	\$ 250	\$ 13,500
503.1	Water Diversion Structure	1	U	\$ 10,000	\$ 10,000
583.3	Riprap, Class III	10	CY	\$ 125	\$ 1,250
585.3	Stone Fill, Class C	5	CY	\$ 150	\$ 750
606.0001	Steel Beam for Beam Guardrail, Including Hardware	130	FT	\$ 50	\$ 6,500
606.0122	W6x9 Steel Post Assemblies for Beam Guardrail Posts	22	EA	\$ 35	\$ 758
603.00215	15" R.C. Pipe, 2000D	41	LF	\$ 200	\$ 8,200
606.1452	Beam Guardrail (Terminal Unit Type ELT)	1	U	\$ 24,000	\$ 24,000
692.	Mobilization	1	U	\$ 4,000	\$ 4,000
	Minor Item Allowance	1	U	\$ 20,000	\$ 20,000
Subtotal:					\$ 118,908
		Construction Contingency	20%		\$ 24,000
		Material and Bidding Contingency	20%		\$ 24,000
		Data Collection, Design, Permitting, and Bid Phase Services	-		\$ 100,000
		Construction Phase Services	10%		\$ 12,000
Total					\$ 279,000

This is an engineer's Opinion of Probable Construction Cost (OPCC). Tighe & Bond has no control over the cost or availability of labor, equipment or materials, market conditions or the Contractor's method of pricing, and that the estimates of probable construction costs are made on the basis of the Tighe & Bond's professional judgment and experience. Tighe & Bond makes no guarantee nor warranty, expressed or implied, that the bids or the negotiated cost of the Work will not vary from this estimate of the Probable Construction Cost.

Note: Unit Prices are based upon New Hampshire Department of Transportation 2023 Weighted Bid Prices, and recent bids results for similar Tighe & Bond designed projects.

Inlet:



Outlet:



**Planning Level Engineer's Opinion of Probable Construction Cost
CLVTPipe-248 (18" RCP, 39' Long) Culvert Replacement
Muchado Hill Road
Town of Alton, NH**

Reason: This culvert had a PoF score of 2.03 and a CoF score of 1.87 and an overall risk score of 0.42. This culvert had significant invert deterioration and section loss.

ITEM	DESCRIPTION	QTY	UNITS	UNIT PRICE	AMOUNT
201.1	Clearing and Grubbing	0.30	ACRE	\$ 40,000	\$ 12,000
202.41	Removal of Existing Pipe 0-24" Diameter	1	U	\$ 15,000	\$ 15,000
206.1	Common Structure Excavation	20	CY	\$ 50	\$ 1,000
304.2	Gravel (F)	30	CY	\$ 40	\$ 1,200
304.5	Crushed Stone (Coarse Gradation) (F)	10	CY	\$ 75	\$ 750
306.32	Asphalt for Reclaimed Stabilized Base	45	TON	\$ 250	\$ 11,250
503.1	Water Diversion Structure	1	U	\$ 10,000	\$ 10,000
583.3	Riprap, Class III	10	CY	\$ 125	\$ 1,250
585.3	Stone Fill, Class C	5	CY	\$ 150	\$ 750
603.00218	18" R.C. Pipe, 2000D	39	LF	\$ 200	\$ 7,800
606.0001	Steel Beam for Beam Guardrail, Including Hardware	130	FT	\$ 50	\$ 6,500
606.0122	W6x9 Steel Post Assemblies for Beam Guardrail Posts	22	EA	\$ 35	\$ 758
606.1452	Beam Guardrail (Terminal Unit Type ELT)	1	U	\$ 24,000	\$ 24,000
692.	Mobilization	1	U	\$ 4,000	\$ 4,000
	Minor Item Allowance	1	U	\$ 20,000	\$ 20,000
				Subtotal:	\$ 116,258
		Construction Contingency	20%	\$	24,000
		Material and Bidding Contingency	20%	\$	24,000
		Data Collection, Design, Permitting, and Bid Phase Services	-	\$	100,000
		Construction Phase Services	10%	\$	12,000
				Total	\$ 277,000

This is an engineer's Opinion of Probable Construction Cost (OPCC). Tighe & Bond has no control over the cost or availability of labor, equipment or materials, market conditions or the Contractor's method of pricing, and that the estimates of probable construction costs are made on the basis of the Tighe & Bond's professional judgment and experience. Tighe & Bond makes no guarantee nor warranty, expressed or implied, that the bids or the negotiated cost of the Work will not vary from this estimate of the Probable Construction Cost.

Note: Unit Prices are based upon New Hampshire Department of Transportation 2023 Weighted Bid Prices, and recent bids results for similar Tighe & Bond designed projects.

Inlet:



Outlet:



**Planning Level Engineer's Opinion of Probable Construction Cost
CLVTPipe-294 (15" RCP, 41' Long) Culvert Replacement
Old Wolfeboro Road
Town of Alton, NH**

Reason: This culvert had a PoF score of 1.65 and a CoF score of 1.62 and an overall risk score of 0.30. This culvert had some fill infiltration and a failed pipe segment.

ITEM	DESCRIPTION	QTY	UNITS	UNIT PRICE	AMOUNT
201.1	Clearing and Grubbing	0.30	ACRE	\$ 40,000	\$ 12,000
202.41	Removal of Existing Pipe 0-24" Diameter	1	U	\$ 15,000	\$ 15,000
206.1	Common Structure Excavation	20	CY	\$ 100	\$ 2,000
304.2	Gravel (F)	30	CY	\$ 40	\$ 1,200
304.5	Crushed Stone (Coarse Gradation) (F)	10	CY	\$ 75	\$ 750
306.32	Asphalt for Reclaimed Stabilized Base	45	TON	\$ 250	\$ 11,250
503.1	Water Diversion Structure	1	U	\$ 10,000	\$ 10,000
583.3	Riprap, Class III	10	CY	\$ 125	\$ 1,250
585.3	Stone Fill, Class C	5	CY	\$ 150	\$ 750
603.00215	15" R.C. Pipe, 2000D	41	LF	\$ 200	\$ 8,200
606.0001	Steel Beam for Beam Guardrail, Including Hardware	130	FT	\$ 50	\$ 6,500
606.0122	W6x9 Steel Post Assemblies for Beam Guardrail Posts	22	EA	\$ 35	\$ 758
606.1452	Beam Guardrail (Terminal Unit Type ELP)	1	U	\$ 24,000	\$ 24,000
692.	Mobilization	1	U	\$ 4,000	\$ 4,000
	Minor Item Allowance	1	U	\$ 20,000	\$ 20,000
Subtotal:					\$ 117,658
		Construction Contingency	20%		\$ 24,000
		Material and Bidding Contingency	20%		\$ 24,000
		Data Collection, Design, Permitting, and Bid Phase Services	-		\$ 100,000
		Construction Phase Services	10%		\$ 12,000
Total					\$ 278,000

This is an engineer's Opinion of Probable Construction Cost (OPCC). Tighe & Bond has no control over the cost or availability of labor, equipment or materials, market conditions or the Contractor's method of pricing, and that the estimates of probable construction costs are made on the basis of the Tighe & Bond's professional judgment and experience. Tighe & Bond makes no guarantee nor warranty, expressed or implied, that the bids or the negotiated cost of the Work will not vary from this estimate of the Probable Construction Cost.

Note: Unit Prices are based upon New Hampshire Department of Transportation 2023 Weighted Bid Prices, and recent bids results for similar Tighe & Bond designed projects.

Inlet:



Outlet:



**Planning Level Engineer's Opinion of Probable Construction Cost
CLVTPipe-321 & 322 (9.75' Box, 61' Long) Culvert Replacement
Swan Lake Trail
Town of Alton, NH**

Reason: Culvert CLVTPipe-321 had a PoF score of 1.39, a CoF score of 1.63, and an overall risk score of 0.25. Culvert CLVTPipe-322 had a PoF score of 1.39, a CoF score of 1.47, and an overall risk score of 0.23. Both of these culverts had significant invert deterioration and both headwalls were subject to deterioration.

ITEM	DESCRIPTION	QTY	UNITS	UNIT PRICE	AMOUNT
201.1	Clearing and Grubbing	0.30	ACRE	\$ 40,000	\$ 12,000
202.42	Removal of Existing Pipe Over 24" Diameter	1	U	\$ 60,000	\$ 60,000
206.1	Common Structure Excavation	340	CY	\$ 50	\$ 17,000
304.2	Gravel (F)	130	CY	\$ 40	\$ 5,200
304.5	Crushed Stone (Coarse Gradation) (F)	40	CY	\$ 75	\$ 3,000
306.32	Asphalt for Reclaimed Stabilized Base	63	TON	\$ 250	\$ 15,750
503.1	Water Diversion Structure	1	U	\$ 75,000	\$ 75,000
529.001	Precast Concrete Box Culvert	1	U	\$ 450,000	\$ 450,000
583.3	Riprap, Class III	40	CY	\$ 125	\$ 5,000
585.3	Stone Fill, Class C	30	CY	\$ 150	\$ 4,500
606.0001	Steel Beam for Beam Guardrail, Including Hardware	140	FT	\$ 50	\$ 7,000
606.0122	W6x9 Steel Post Assemblies for beam Guardrail Posts	23	EA	\$ 35	\$ 817
606.1452	Beam Guardrail (Terminal Unit Type ELT)	1	U	\$ 24,000	\$ 24,000
692.	Mobilization	1	U	\$ 25,000	\$ 25,000
619.1	Maintenance of Traffic	1	U	\$ 75,000	\$ 75,000
	Minor Item Allowance	1	U	\$ 50,000	\$ 50,000
Subtotal:					\$ 829,267
		Construction Contingency	20%		\$ 166,000
		Material and Bidding Contingency	20%		\$ 166,000
		Data Collection, Design, Permitting, and Bid Phase Services	-		\$ 130,000
		Construction Phase Services	10%		\$ 83,000
Total					\$ 1,375,000

This is an engineer's Opinion of Probable Construction Cost (OPCC). Tighe & Bond has no control over the cost or availability of labor, equipment or materials, market conditions or the Contractor's method of pricing, and that the estimates of probable construction costs are made on the basis of the Tighe & Bond's professional judgment and experience. Tighe & Bond makes no guarantee nor warranty, expressed or implied, that the bids or the negotiated cost of the Work will not vary from this estimate of the Probable Construction Cost.

Note: Unit Prices are based upon New Hampshire Department of Transportation 2023 Weighted Bid Prices, and recent bids results for similar Tighe & Bond designed projects.

Inlet:



CLVTPipe-321



CLVTPipe-322

Outlet:



CLVTPipe-321



CLVTPipe-322

APPENDIX L

STANDARD OPERATING PROCEDURE: UPDATING ASSET
PRIORITIZATION



It is recommended that the Town of Alton annually update the risk-based asset prioritization of its stormwater infrastructure to inform future stormwater capital improvement projects. This Standard Operation Procedure (SOP) provides directions on how to update the asset prioritization for the Town's culvert infrastructure.

Updating the Culvert Asset Prioritization Analysis

- 1.** Open the *Raw Asset Inventory and Asset Prioritization* Excel spreadsheet provided to the Town electronically, separate from this AMP.
- 2. To tabulate the raw condition assessment data collected:**
 - a. Export all of the most recent raw condition assessment data collected to date from ArcGIS for culvert inlets, pipes, and outlets.
 - b. Copy the columns of exported data into the appropriate columns on the *RAW_Culvert Inlet*, *RAW_Culvert Pipe*, and *RAW_Culvert Outlet* tabs for each culvert component.
 - c. Custom sort all data from A to Z by the 'Updated Alton Town ID.'
 - d. For the spreadsheet formulas to function properly, ensure that all data inputs exactly match the inputs listed in the *PoF & CoF Factors* tab.
- 3. To calculate PoF scores for the culvert components:**
 - a. Copy and paste the 'Updated Alton Town ID', 'Date Inspected', 'Material Type', and 'Condition', and 'Height of Fill' columns of data from the *RAW_Culvert Inlet*, *RAW_Culvert Pipe*, and *RAW_Culvert Outlet* tabs into the appropriate columns of the *PoF CALCS_Culvert Inlet*, *PoF CALCS_Culvert Pipe*, and *PoF CALCS_Culvert Outlet* tabs for each respective culvert component.
 - b. Ensure that the ID number in 'Overall Culvert ID' column corresponds with the ID number in the 'Updated Alton Town ID' column, and update accordingly if needed.
 - c. Note that for the *PoF CALCS_Culvert Pipe* tab, the 'Height of Fill Standardized Input' column indicates the height of fill data recorded in the field standardized to add or remove appropriate punctuation to exactly match the inputs listed in the *PoF & CoF Factors* tab so the spreadsheet formulas to function properly.
 - d. The summary statistics and graphic pie charts at the bottom of the *PoF CALCS* tabs showing the distribution of each culvert component by 'Material Type', 'Condition', and 'Height of Fill' (for culvert pipes only) should automatically update to reflect the new data.
- 4. To calculate CoF scores for the culvert components:**
 - a. Copy and paste the 'Updated Alton Town ID' and 'Date Inspected' columns of data from the *RAW_Culvert Inlet*, *RAW_Culvert Pipe*, and *RAW_Culvert Outlet* tabs into the appropriate columns of the *CoF CALCS_Culvert Inlet*, *CoF CALCS_Culvert Pipe*, and *CoF CALCS_Culvert Outlet* tabs for each respective culvert component.



- b. Ensure that the ID number in 'Overall Culvert ID' column corresponds with the ID number in the 'Updated Alton Town ID' column, and update accordingly if needed.
- c. A GIS assessment was completed during the development of the AMP to determine the following:
 - i. Whether each inventoried culvert is located in the approximate, non-digitized 100-year floodplain;
 - ii. The detour length around the culvert if the road must be closed due to failure of the culvert;
 - iii. Whether the culvert is located on a dead end, and if so, the number of houses located on the dead end that would be impacted by a culvert failure; and
 - iv. The roadway class for the road on which the culvert is located.

The results of the GIS assessment are included in the *RawCoF_Floodplain* tab for the floodplain data and the *RawCoF_All Culvert Components* tab for the remaining data.

The data column titles shown in orange on these tabs are the columns referenced in formulas on the *CoF CALCS_Culvert Inlet*, *CoF CALCS_Culvert Pipe*, and *CoF CALCS_Culvert Outlet* tabs. These formulas automatically populate the 'Floodplain 100Yr', 'Detour Length (mi)', 'Dead End (Y/N)', 'No. Houses on Dead End', and 'Roadway Class' columns in the *CoF_CALCS* tabs based on the 'Overall Culvert ID.'

If new culverts are inventoried, a similar GIS assessment must be completed for these culverts and incorporated into the *Raw Asset Inventory and Asset Prioritization* Excel spreadsheet.

- d. For the *CoF CALCS_Culvert Pipe* tab, 'Pipe Shape' and 'Pipe Size' columns are also included as these are additional CoF factors for each culvert pipe component. Copy and paste the 'Pipe Shape', 'Dimension A (in)', 'Dimension B (in)', 'Dimension C (in)', and 'Dimension D (in)' columns of data from the *RAW_Culvert Pipe* tab into the appropriate columns of the *CoF CALCS_Culvert Pipe* tab. The 'Max Dimension (in)' column of the *CoF CALCS_Culvert Pipe* tab will automatically calculate the maximum dimension recorded in the field for each culvert pipe. The 'Pipe Size' column takes the 'Max Dimension (in)' data and converts it to feet. This is the pipe size data used for the asset prioritization.

5. To calculate the overall risk scores for the culvert components:

- a. Copy and paste the 'Overall Culvert ID' column of data from one of the PoF CALCS or CoF CALCS tabs and the 'Date Inspected' column of data from one of the *RAW_Culvert Inlet*, *RAW_Culvert Pipe*, and *RAW_Culvert Outlet* tabs into the appropriate columns of the *OVERALL RISK CALCS* tab.
- b. A GIS export was completed during the development of the AMP to provide a list of the street names for which all the inventoried culverts are located. This



list is shown in the *Street Names* tab. If new culverts are inventoried, this list should be updated to include the street names for the new culverts added to the inventory. The 'Street' column in the *OVERALL RISK CALCS* tab will automatically populate the street name from this list based on the 'Overall Culvert ID.'

- c. The formulas in the *OVERALL RISK CALCS* tab will automatically populate the updated PoF and CoF scores for each culvert component and calculate overall culvert PoF and CoF scores and normalized overall culvert PoF and CoF scores. The *OVERALL RISK CALCS* tab also automatically calculates the 'Overall Culvert Criticality Score' by multiplying the PoF and CoF scores and assigns an 'Overall Culvert Criticality Rank' (high, medium, or low) based on this score.
- d. The 'Overall Culvert Criticality Score' and 'Overall Culvert Criticality Rank' for each culvert are used to determine the highest criticality culverts for prioritization in capital planning.

6. To update the Criticality Matrix Figure:

- a. The Culvert Risk Matrix Figure on the *Culvert Risk Matrix* tab should automatically update to reflect changes to the asset prioritization on the *OVERALL RISK CALCS* tab.

APPENDIX M

FIVE YEAR ACTION PLAN

Recommendation	Summary of Work	Criticality Score	Opinion of Probable Cost				
			FY25	FY26	FY27	FY28	FY29
Stormwater Capital Improvement Projects¹							
Swan Lake Trail: CLVT-321	Combined culvert replacement into single span	High	\$ 130,000	\$ 1,245,000	\$ -	\$ -	\$ -
Swan Lake Trail: CLVT-322		High					
Old Wolfeboro Rd: CLVT-294	Culvert replacement	High	\$ 100,000	\$ -	\$ 178,000	\$ -	\$ -
Alton Mountain Rd: CLVT-94	Culvert replacement	High	\$ 100,000	\$ -	\$ -	\$ 179,000	\$ -
Prospect Mountain Rd: CLVT-226	Culvert replacement	High	\$ 100,000	\$ -	\$ -	\$ -	\$ 179,000
Muchado Hill Rd: CLVT-248	Culvert replacement	High	\$ 100,000	\$ -	\$ -	\$ -	\$ 177,000
Targeted Maintenance and Repair							
Targeted culvert repairs for: CLVT-19, CLVT-24, CLVT-81, CLVT-251, CLVT-312, & CLVT-351	Various culvert repairs	Medium/High	In-house	In-house	In-house	In-house	In-house
Culvert cleaning (starting with the culverts listed in Appendix F for debris or sediment blockages) ²	Removal of debris/sediment blockages from culverts	High	In-house	In-house	In-house	In-house	In-house
Various culvert monitoring and maintenance ²	Monitoring of culverts and performing various maintenance	High	In-house	In-house	In-house	In-house	In-house
Routine catch basin, inspection, cleaning and maintenance	Inspection and removal of debris/sediment from catch basins and various maintenance	High	In-house	In-house	In-house	In-house	In-house
Routine street sweeping of Town-owned roads	Removal of debris/sediment from streets by sweeping	High	In-house	In-house	In-house	In-house	In-house
Subtotal			\$ 530,000.00	\$ 1,245,000.00	\$ 178,000.00	\$ 179,000.00	\$ 356,000.00
Further Investigation							
Routine culvert inspections	Inspect approx. 39 culverts per year on a 10-year rotating basis	Medium	In-house	In-house	In-house	In-house	In-house
Catch basin, drainage pipe, outfall, and BMP mapping and inspections	Map and inspect remaining catch basin, drainage pipe, outfall, and BMP assets	Medium	In-house	In-house	In-house	In-house	In-house
Programmatic Improvements							
Routine Inspection Program			Represented above	Represented above	Represented above	Represented above	Represented above
Staff Training			In-house	In-house	In-house	In-house	In-house
Routine GIS Data Management			In-house	In-house	In-house	In-house	In-house
GIS On Call Assistance			\$ 15,000	\$ 15,000	\$ 15,000	\$ 15,000	\$ 15,000
Annual Update of Asset Prioritization			In-house	In-house	In-house	In-house	In-house
Asset Prioritization and Recommendations On Call Assistance			\$ 7,500	\$ 7,500	\$ 7,500	\$ 7,500	\$ 7,500
Public Outreach and Education Program			In-house	In-house	In-house	In-house	In-house
Public Works Staff and Equipment Evaluation			In-house	In-house	In-house	In-house	In-house
Total			\$ 552,500	\$ 1,267,500	\$ 200,500	\$ 201,500	\$ 378,500

1. See Appendix I for OPCCs (Opinion of Probable Construction Cost) for each project. These costs are conceptual and may be reduced if Town staff were to complete additional work in-house and as the advanced design and bidding climate at the time are determined.

2. See Appendix F for a list of culverts identified as needing maintenance, including removal of debris/sediment blockages.

Color Key:

\$ = Data Collection, Design, Permitting, & Bidding Costs
 \$ = Construction Cost

APPENDIX N

SUMMARY OF NHDES FUNDING PROGRAMS
(As of 2024)

New Hampshire Department of Environmental Services Funding Programs

Grant: [NHDES Watershed Assistance Grants \(319 Grants\)](#)

Who's Eligible: Governmental subdivisions and non-profit organizations.

What Can Be Funded: Projects must implement existing watershed-based plans that meet the nine EPA Watershed Plan elements (a) through (i) criteria or implement an EPA and NHDES approved alternative plan.

Note: Grant recipients may use these grant funds to sub-contract with private entities, such as environmental consulting or engineering firms selected through an approved procurement procedure.

Terms: Grant (100%) with 40% non-federal match. Funds cannot be used to meet NH MS4 Permit requirements.

Application Timeframes: Requests for pre-proposals are made in June. Pre-applications are due in early September.

Contacts: Andrea Bejtlich
Watershed Specialist
Andrea.L.Bejtlich@des.nh.gov
(603) 271-8475

Grant: [NHDES Water Quality Planning Grants \(604\(b\) Grants\)](#)

Who's Eligible: Nonprofits, municipalities, regional planning commissions, and/or the Connecticut River Joint Commissions.

What Can Be Funded:

Funding priority is given to projects developing (a) through (i) watershed-based plans. Preference is also given to projects that address water quality concerns in high-priority impaired or high-quality waters, as identified in the Plan.

Projects must:

1. Identify the most cost effective and locally acceptable facility and nonpoint source (NPS) measures to meet and maintain water quality standards.
2. Develop an implementation plan to obtain state and local financial and regulatory commitments to implement water quality plans.
3. Determine the nature, extent, and causes of water quality problems in the state.
4. Determine those publicly owned treatment works which should be constructed, taking into account the relative degree of effluent reduction attained and the consideration of alternatives to such construction.

Examples include:

- The development of watershed-based plans (WBPs) and corridor management plans.
- Water quality monitoring.
- Stormwater retrofit designs.
- LID project planning.
- Adopting ordinances.
- Meeting MS4 permit requirements to address priority water quality planning concerns.

Terms: Grant (100%), no match required. Funds can be used to meet NH MS4 Permit requirements.

Application Timeframes: Requests for letters of intent (LOI) are made in June. LOIs are due in early September.

Contact: Andrea Bejtlich
Watershed Specialist
Andrea.L.Bejtlich@des.nh.gov
(603) 271-8475

Grant: [NHDES Clean Water State Revolving Fund- Stormwater Planning](#)

Who's Eligible: Any entity or organization that can demonstrate the ability to repay the loan. However, principal forgiveness is offered only to municipalities.

What Can Be Funded: Projects for water quality planning with a vision of implementing construction and/or operations actions that have a tangible water quality benefit.

Examples include:

- Cost and effectiveness analyses.
- Stormwater Capital Improvement Plans.
- Integrated planning.
- Long-term control plans
- Stormwater management plans.
- Improving the data-driven decision support/business-case development ability of an existing asset management program (AMP) to incorporate additional data sets into the AMP.
- Planning activities that assess vulnerability to extreme weather and climate change.
- Watershed management plans consistent with EPA Watershed Plan Elements a-i or alternative plan.
- Total Maximum Daily Load (TMDL) implementation plans.

Terms: Loan, with up to \$100,000 principal forgiveness and below-market loan rates with no closing costs or origination fees, and no prepayment penalties. Funds can be used to meet NH

MS4 Permit requirements.

Note: Municipalities must receive authority to borrow for the entire loan amount through a town warrant article or city equivalent process, even if the full principal amount is forgiven.

Application Timeframes: Pre-applications due in early June. Authorized projects require submission of the loan application by June 30 of the following year.

Contacts: Deborah Loiselle
Stormwater Coordinator
Deborah.S.Loiselle@des.nh.gov
603-271-1352

Grant: [NHDES Clean Water State Revolving Fund- Infrastructure](#)

Who's Eligible: Any entity or organization that can demonstrate the ability to repay the loan. However, principal forgiveness is offered only to municipalities.

What Can Be Funded: Infrastructure activities that provide a water quality benefit are eligible.

Examples include:

- The implementation of a plan (including watershed-based or alternative plan, NH MS4 permit requirements, Asset Management Program, Source Water Protection Plan, Nitrogen or Phosphorus Source Identification Plan, TMDL, or Capital Improvement Plan).
- Final design.
- Environmental review.
- Permitting.
- Construction with oversight (including consulting/engineering fees).

Terms: Loan with a percent of the loan in principal forgiveness. The principal forgiveness percent varies and is determined annually.

Note: Municipalities must receive **authority to borrow** for the entire loan amount through a town warrant article or city equivalent process.

Application Timeframes: Pre-applications due in early June. Authorized projects require submission of the loan application by June 30 of the following year.

Contacts: Deborah Loiselle
Stormwater Coordinator
Deborah.S.Loiselle@des.nh.gov

Grant: [ARPA/CWSRF Asset Management Grant](#)

Who's Eligible: Communities

What Can Be Funded: Consulting fees, software purchases, equipment purchases/ rentals (such as GPS units, tablets and computers), and CCTV/Pipe and Manhole Inspections (and other related contracted services).

Terms: Grant, maximum of \$30,000. Services and equipment must be obtained following CWSRF procurement guidelines.

Application Timeframes: Pre-applications due in early June.

Contacts: Deborah Loiselle
Stormwater Coordinator
Deborah.S.Loiselle@des.nh.gov
603-271-1352

Grant: [NHDES Coastal Resilience Grants](#)

Who's Eligible: Coastal municipalities, quasi-governmental organizations, non-governmental organizations, academic institutions, and state agencies.

Coastal Zone communities: Dover, Durham, Exeter, Greenland, Hampton, Hampton Falls, Madbury, New Castle, Newfields, Newington, Newmarket, North Hampton, Portsmouth, Rollinsford, Rye, Seabrook and Stratham.

What Can Be Funded: Projects that build capacity, advance planning and develop designs to increase coastal resilience in one or more of New Hampshire's Coastal Zone communities.

Note: Funds may NOT be used for: final engineering designs, permitting, or construction costs

Terms: Grant, applicants must request between \$10,000 and \$70,000. Federal grant funds may not be used for equipment purchases that exceed \$5,000. A 4:1 ratio of federal grant and match is requested.

Application Timeframes: Applications are due in late May.

Contacts: Kirsten Howard

Resilience Program Coordinator
Kirsten.B.Howard@des.nh.gov
(603) 559-0020

Grant: [Aquatic Resource Mitigation Fund Program](#)

Who's Eligible: New Hampshire municipality, county government, regional planning commission, county conservation district, watershed or river association, state agency, institution of higher education, public school district, and non-profit or for-profit organization.

What Can Be Funded: Projects that establish legal protection of a wetland, stream or vernal pool and its critical buffer and preserve upland areas associated with important wetlands and other aquatic resources.

Examples include:

- The acquisition and protection of land through fee-simple purchase
- Conservation easements held by land trusts, towns, or nonprofits.
- Deed restrictions preventing future development and land use of the property.
- Projects that will increase the functions and values of degraded or altered wetland.

Examples include:

- Removing fill.
- Restoring the natural hydrology of a wetland.
- Removing invasive species.
- Establishing native plant communities.
- Creating living shorelines.

Projects that will restore aquatic connectivity and natural river processes to improve aquatic habitat, water quality and increase flood resiliency.

Examples include:

- Dam removal
- Culvert upgrades
- In-stream habitat enhancements
- Bank stabilization
- Stormwater treatment and erosion control

Terms: 100% grant, matching funds are not required.

Application Timeframes: Pre-proposals due late May

Contacts: Emily Nichols

Aquatic Resources Mitigation Fund Program Manager
Emily.P.Nichols@des.nh.gov
(603) 271-0727

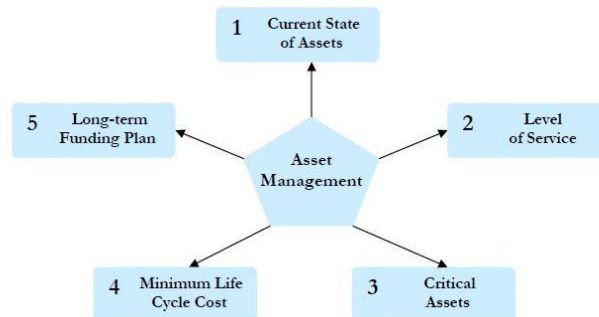
APPENDIX O

PUBLIC EDUCATION COMMUNICATION EXAMPLES

Example DPW Facebook Post
Example Educational Pamphlet
Example Notice of Ongoing Work

Example DPW Facebook Post

Alton has developed a Stormwater Asset Management Program, as part of a NHDES Grant. The program provides a planned approach to maintaining and sustaining stormwater infrastructure to meet the needs of the community while minimizing overall cost.



The stormwater system includes outfalls (where stormwater pipes discharge to wetlands, streams, wooded areas), catch basins, drain manholes, and culverts. Remember, when pet waste, leaves, or litter are thrown in catch basins, it can clog the drain pipes and lead to flooding, pollute our waterways, and harm the local wildlife. If you notice a blockage, please report it to the Department of Public Works. To learn more about the Town's stormwater management efforts and goals, visit the link below: [\[insert link to stormwater AMP webpage once created\]](#).

HOW TO HELP THE PLAN SUCCEED

Alton, as part of a NHDES Grant, has developed a Stormwater Asset Management Program. You can help implement this program by:

- 1. Respecting our waters, following “Dump No Waste” signs:**
Many catch basins and storm drains in Alton drain to Lake Winnepesaukee. Keeping waste out of our stormwater system is an important part of maintaining the lake’s water quality.
- 2. Picking up after your pets.**
Pet waste contains bacteria that is harmful if carried to waterways untreated and can cause algal blooms.
- 3. Washing your car safely.**
Car washing soaps and other cleaning products can often contain phosphates, which are harmful to treated water quality. Wash your car where the the runoff drains into the grass instead of the storm drain.
- 4. Treating your yard like an asset.**
Be conscious of water usage, don’t mow your lawn too short (< 3”), use phosphorus free fertilizer, and dispose of yard waste properly.
- 5. Recycling your own rainwater.**
Using rain barrels, you can capture rainwater to mitigate stormwater issues, then reuse the water in your lawn or garden.
- 6. Keeping us informed.** When you see a blocked pipe, call us. See “When to Call” on the back of the pamphlet.

WHEN TO CALL

Call the Town at (603) 875-2161 if you see a drain pipe that is fully or partially blocked.



Please make note of the following when calling about a blocked drain or catch basin:

- Location
- Status (partially or fully blocked)
- Cause of blockage

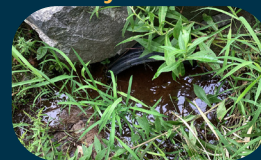
Clean Opening



Partially Blocked



Fully Blocked



Examples of unblocked, partially blocked, and fully blocked drain pipes can be seen to the right.

CONTACT US



Alton Town Hall
1 Monument Square
Alton, NH 03809
(603) 875-2161 | alton.nh.gov

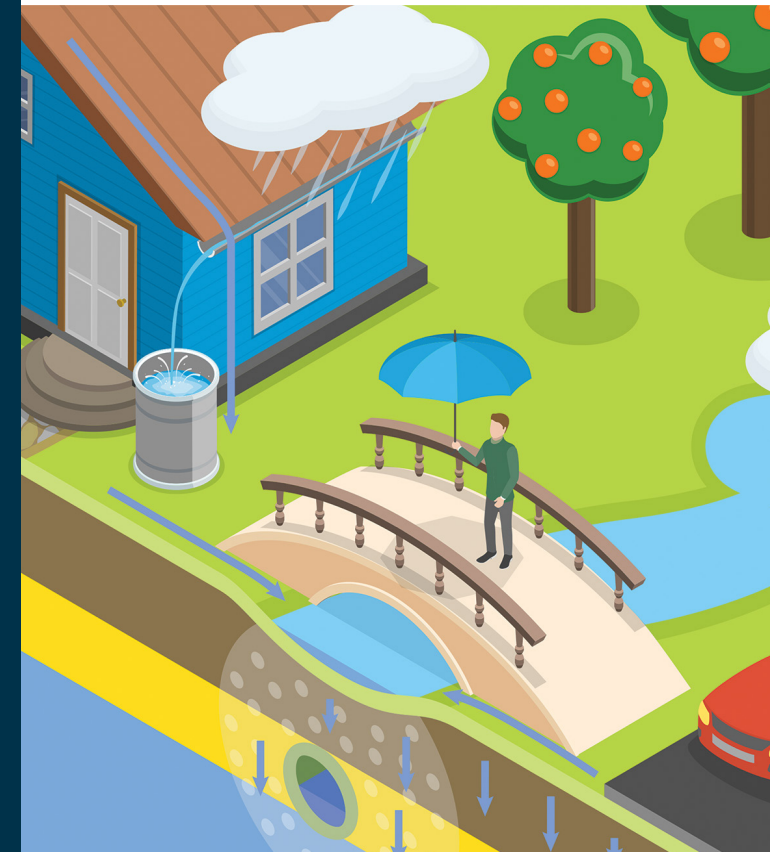
Prepared by **Tighe & Bond** for the
Town of Alton

Town of Alton,
New Hampshire



STORMWATER ASSET MANAGEMENT

Informational Brochure
for Residents



WHAT IS ASSET MANAGEMENT?

Asset management takes a strategic approach to maintaining critical infrastructure, with the goal of ultimately extending the life cycle of the system while maintaining a consistent level of service.



▶ How Asset Management Can Help

- **Service Improvements:** Improving knowledge of the stormwater system can lead to proactive decision-making to prevent costly pipe failures.
- **Cost Savings:** Creating a funding strategy for pipe replacement and repair helps to inform future financial planning. See “Potential Savings” panel to the right for more information.

When pipes fail, reactive measures can be costly and disruptive:

- Pursuing a “quick fix” solution, rather than implementing improvements that considers the whole system.
- Increased service and maintenance costs while pipes are being fixed.
- Traffic diversions and roadway closures.



POTENTIAL SAVINGS

By planning proactively and following the steps of the asset management process, towns can realize both short-term and long-term cost savings.

Savings opportunities include:

- *Less overtime pay accrued, as a result of fewer emergency repairs.*
- *Researching and implementing more cost-effective options.*
- *Preventing damage to infrastructure and waterways, reducing repair costs.*



ASSET MANAGEMENT PLANNING PROCESS



1 SET VISION STATEMENT

What are the goals of the asset management program?

2

2 DEFINE LEVEL OF SERVICE

Do current services fulfill residents' needs? How could we improve?

3

3 DEVELOP INVENTORY & MAP

What assets are in the system? Create a digital asset map.

4

4 INSPECT ASSETS

What condition are the assets in? Do they need repair or replacement?

5

5 PRIORITIZE ASSETS

Define assets that are critical to Town needs, in poor condition, or located in sensitive areas.

6

6 DETERMINE LIFE CYCLE COSTS

How much are assets expected to cost over time? When will they need replacement?

7

7 FIVE-YEAR ACTION PLAN

Develop plan & funding strategy. Which assets are a priority for improvement?

8

8 IMPLEMENT THE PLAN

Begin to repair and/or rehabilitate the most critical assets identified.

9

9 COMMUNICATE

Share regular updates on progress with the Alton community.

(Insert Town of Alton letterhead)

**PUBLIC WORKS DEPARTMENT
NOTICE OF ONGOING WORK
[Insert Date]**

Alton is assessing the municipal drainage system as part of the Town's Stormwater Asset Management Program. Personnel from the Alton Department of Public Works will be visiting stormwater structures throughout Town in **[insert timeframe]**. This work will occur during normal DPW hours (7:00 AM to 3:00 PM).

Our team will consist of one or two people wearing safety vests and carrying handheld equipment. The work will be performed primarily at outfalls (where stormwater pipes discharge to wetlands, streams, or wooded areas), catch basins, drain manholes, and culverts throughout Town.

You are not required to take any action; this notification is to keep you informed about the Town's stormwater management efforts. If you'd like to learn more about the Town's program and goals, please visit the website: [\[insert website link to Stormwater AMP page once created\]](#)

Remember, when pet waste, leaves, or litter are thrown in catch basins, it can clog the drain pipes and lead to flooding, pollute our waterways, and harm the local wildlife.

QUESTIONS AND CONCERNS

Please call:

Town of Alton Public Works Department

Tel: (603) 875-6808

80 Letter S Road

Alton, NH 03809