



Monitoring and Maintenance Plan

Former Duluth Dry Cleaner Site

Parcel R6293-402

Duluth, Gwinnett County, Georgia
30096

HSI # 10892

February 2021

Prepared for:



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Table of Contents

1.0	INTRODUCTION	1.1
2.0	ENGINEERING CONTROLS	2.1
2.1	ASPHALT CAP.....	2.1
2.2	LANDSCAPED AREA	2.1
2.3	PERMANENT MARKERS	2.1
3.0	MAINTENANCE AND INSPECTION PLANS	3.1
3.1	ASPHALT CAP.....	3.1
3.2	LANDSCAPED AREA	3.1
3.3	PERMANENT MARKERS	3.2
4.0	PLANNED USES OF THE PROPERTY	4.1
5.0	REPORTING	5.1

FIGURES

1	SITE LOCATION MAP
2	SITE DETAIL MAP
3	SOIL AND GROUNDWATER RRS CRITERIA MAP

APPENDICES

A	PERMANENT MARKER MONUMENT PHOTOGRAPH
B	FORMS



MONITORING AND MAINTENANCE PLAN

February 19, 2021

1.0 INTRODUCTION

This Monitoring and Maintenance Plan (“M&M Plan”) is prepared for the Former Duluth Dry Cleaner (“the Site”) located at the corner of Main Street and Knox Street in Duluth, Georgia (HSI Site No. 10892). The Site consists of 0.29 acres and is improved with asphalt parking (upper and lower lots), paved drive, and landscaped areas. The Site is currently owned by the City of Duluth. The tax parcel for the Site is identified as 6293 402 in the Gwinnett County Tax Assessor Records. The address for the parcel is identified as Old Peachtree Road according to the Gwinnett County Tax Assessor, and 3146 Main Street according to the Georgia Environmental Protection Division (“EPD”). The location and general layout of the Site is depicted on Figure 1 and Figure 2, respectively.

A dry cleaning business operated at the Site from 1975 to 1993. The dry cleaner closed in 1993, and the existing building was utilized for woodworking operations from 1993 to 1998. In 1998, the building was demolished and converted into a parking lot. In 2000, the City of Duluth purchased the property. The property was sold to EJT Downtown, LLC in 2007.

As a result of the historic operation of the dry cleaner at the Site, a release of the dry cleaning solvent chlorinated volatile organic compounds (“cVOCs”), namely tetrachloroethene (“PCE”) and its daughter products, have impacted soil and groundwater. The original discovery of the release occurred in 2008 during a Phase II Environmental Site Assessment (“ESA”), which reported PCE and other compounds in soil and groundwater at the Site in the vicinity of the former dry cleaning building.

A Release Notification was submitted to the Georgia EPD pursuant to the Hazardous Site Response Act (“HSRA”) on April 4, 2008. The property was listed on the Georgia Hazardous Site Inventory (“HSI”) on August 22, 2008 as HSI No. 10892 for releases of PCE in soil and PCE, trichloroethene (“TCE”), and Vinyl Chloride (“VC”) in groundwater above a reportable quantity. The City of Duluth re-acquired the property in 2014.

A Voluntary Investigation and Remediation Plan (“VIRP”) and Application for the Site was submitted to the EPD on January 15, 2016. The VIRP and Application were approved by EPD in a letter dated March 4, 2016.

A Compliance Status Report (“CSR”) for the Site was submitted to the EPD on September 6, 2019. An Addendum to the CSR was submitted on October 16, 2020. The purpose of the CSR and CSR Addendum was to document the results of the VIRP and certify compliance of the Site with a Type 5 Risk Reduction Standard (“RRS”) for both soil and groundwater. An illustration of which portions of the Site comply with specific RRS is depicted on Figure 3. The Type 5 RRS for soil at the Site is limited to the upper parking lot portion. In addition to an engineering control of an asphalt cap, an institutional control including an uniform environmental covenant (“UEC”) for the Site was detailed within the CSR and CSR Addendum. The UEC restricts the use of the Site to non-residential and includes a limits access to underlying soils and groundwater use restriction. These areas are illustrated on Figure 3.



MONITORING AND MAINTENANCE PLAN

February 19, 2021

2.0 ENGINEERING CONTROLS

2.1 ASPHALT CAP

The engineering control in the parking lot area consists of an asphalt cap over the area certified to meet Type 5 RRS (**Figure 3**). The asphalt cap will be inspected as part of maintenance and monitoring activities to ensure the integrity of the asphalt cap.

When intrusive activities are required in the Type 5 RRS area, any extracted, impacted soil should be managed in accordance with all applicable local, state and federal rules and regulations governing the management of such material. Intrusive activities must be performed by personnel with appropriate Hazardous Waste Operations and Emergency Response (“HAZWOPER”) training per the Occupational Safety and Health Administration’s (“OSHA”) Hazardous Waste Operations and Emergency Response Standard 29 CFR 1910.120, and the work must be performed in accordance with a Health and Safety Plan prepared by a qualified safety professional. Contaminated excavated soil in this area should not be placed back into the excavation but be properly characterized for disposal and transported and disposed of at an appropriate disposal facility. The excavation should be backfilled with clean surficial soil or fill material and re-capped with an impervious surface.

2.2 LANDSCAPED AREA

The engineering control in the sloped landscaped section of the Type 5 RRS area is two feet of clean surficial soil. The landscaped area will be inspected as part of the maintenance and monitoring activities to ensure the integrity of the soil cap.

When intrusive activities are required in the Type 5 RRS area, any extracted, impacted soil should be managed in accordance with all applicable local, state and federal rules and regulations governing the management of such material. Intrusive activities below 2 feet must be performed by personnel with appropriate HAZWOPER training per OSHA Hazardous Waste Operations and Emergency Response Standard 29 CFR 1910.120, and the work must be performed in accordance with a Health and Safety Plan prepared by a qualified safety professional. Contaminated excavated soil in this area should not be placed back into the excavation but be properly characterized for disposal and transported and disposed of at an appropriate disposal facility. The excavation should be backfilled with clean surficial soil or fill material and recapped with an impervious surface.

2.3 PERMANENT MARKERS

The UEC requires that permanent markers be installed on the Site to identify areas subject to the Type 5 RRS. A permanent marker(s) will be placed near the entrances to the Type 5 area in the former monitoring



MONITORING AND MAINTENANCE PLAN

February 19, 2021

well pads following the abandonment of the monitoring wells. The permanent marker will be inscribed with the following text or similar:

RESTRICTED AREA

SUBJECT TO ENVIRONMENTAL COVENANT

CALL THE PROPERTY OWNER OR THE GEORGIA ENVIRONMENTAL PROTECTION DIVISION
PRIOR TO DIGGING OR COMMENCING ANY LAND DISTURBANCE ACTIVITY

Upon the installation of the permanent markers, a photograph of the markers will be provided in **Appendix A**.



3.0 MAINTENANCE AND INSPECTION PLANS

This section of the M&M Plan describes the procedures that will be undertaken to maintain the integrity of the Engineering Controls described in Section 2.0. Use of the Site in the Type 5 area must not damage the integrity of the asphalt or interfere with other engineering controls. Maintenance and inspection of the Type 5 RRS area will be conducted annually. The results of the inspections will be recorded on the M&M Inspection Log included in **Appendix B**. If damage in the Type 5 RRS area is observed, subsequent repairs will be recorded on the M&M Maintenance Record Log, which is also included in **Appendix B**.

3.1 ASPHALT CAP

The asphalt-paved portions of the Type 5 RRS area will be inspected annually to visually evaluate the capability of the asphalt cap to:

- Prevent direct contact between human receptors and the underlying soils
- Minimize surface water infiltration
- Promote positive draining and prevent ponding of water

Major damage to the asphalt cap would include the following:

- Large cracks (> 0.5-inch wide)
- Subsidence that results in ponded water
- Broken or removed sections of asphalt that have exposed underlying soils
- Significant soil erosion around or under the asphalt cap

The results of the inspection will be recorded on the M&M Inspection Log in **Appendix B**. All maintenance of the cap must be documented in a logbook and on M&M Maintenance Record Log in **Appendix B**. If major damage is noted, repairs must be completed within sixty (60) days of discovery. All other items requiring repair must be completed within ninety (90) days of discovery. Repairs must be made in accordance with good engineering practices and must be conducted by qualified personnel.

3.2 LANDSCAPED AREA

The landscaped portions of the Type 5 RRS area will be inspected annually to visually evaluate if soils below the top two feet of ground surface have been disturbed. Vegetation or other landscape materials may be replaced or changed if soils below the top two feet of ground surface are undisturbed.

Major damage to the landscaped areas would include the following:

- Removal or damage of vegetation/landscaping beyond the upper two feet of soil
- Significant erosion of upper two feet of soil from stormwater runoff or other means of excess water (e.g. broken water line)
- Significant removal of soil beyond the upper two feet that results in exposed underlying soils



MONITORING AND MAINTENANCE PLAN

February 19, 2021

The results of the inspection will be recorded on the M&M Inspection Log in **Appendix B**. All maintenance of the landscaped areas must be documented in a logbook and on M&M Maintenance Record Log in **Appendix B**. If major damage is noted, repairs must be completed within sixty (60) days of discovery. All other items requiring repair must be completed within ninety (90) days of discovery. Repairs must be made in accordance with good engineering practices and must be conducted by qualified personnel.

3.3 PERMANENT MARKERS

Type 5 RRS area permanent markers will be inspected annually. The inspection will visually evaluate the adequacy of the markers to alert individuals of the presence of a Type 5 RRS area. The structural integrity of the markers will be maintained to avoid the markers becoming illegible. The results of the inspection will be recorded on the M&M Inspection Log in **Appendix B**. All maintenance of the permanent markers must be documented in a logbook and on M&M Maintenance Record Form in **Appendix B**. If major damage is noted, repairs must be completed within sixty (60) days of discovery. All other items requiring repair must be completed within ninety (90) days of discovery. Repairs must be made in accordance with good engineering practices and must be conducted by qualified personnel.



4.0 PLANNED USES OF THE PROPERTY

The Property Owner (“Owner”) will ensure that any use of the Property preserves the integrity and effectiveness of the asphalt cap and remain protective of human health and the environment. These requirements are imposed through the UEC filing that provides, among other things, that the Property shall only be used for non-residential purposes. The Owner will inspect/monitor the Property annually to ensure the use of the Property remains in compliance with the Environmental Covenant restrictions. The Owner shall submit a Land Use Certification Form along with a property use statement regarding compliance with the non-residential use requirements as part of the annual report to the Georgia EPD. An example of the Land Use Certification Form is included in **Appendix B**. Advance notice to the Georgia EPD must be provided for any planned future changes to the Site that would significantly change the condition of the protective surface cover or otherwise significantly impact the engineering controls.



MONITORING AND MAINTENANCE PLAN

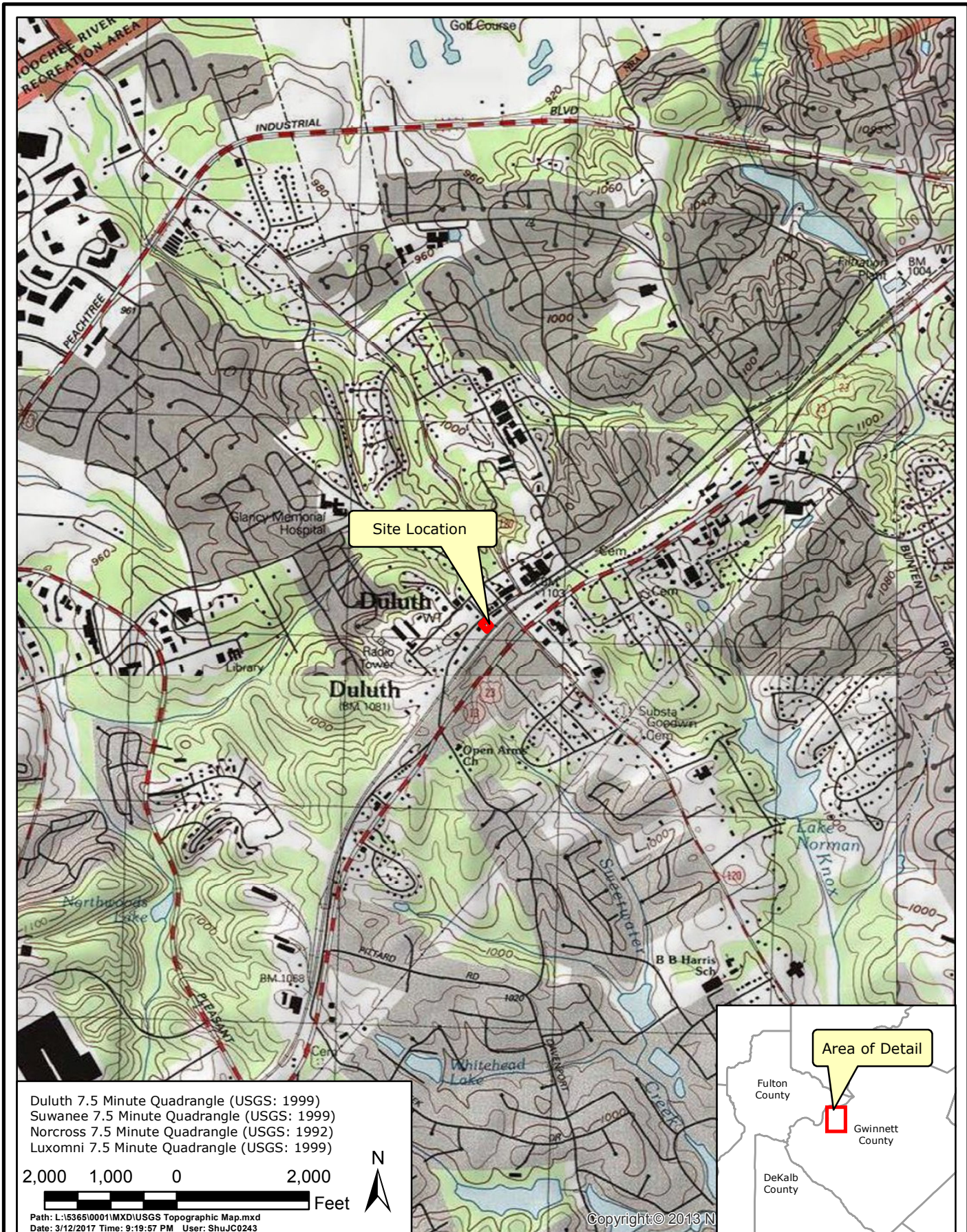
February 19, 2021

5.0 REPORTING

A Type 5 RRS area inspection and maintenance report will be submitted annually, on or before June 30th, to the Georgia EPD. The annual inspection and maintenance report will include copies of the M&M Inspection Logs and M&M Maintenance Record Logs for the reporting period. The annual report must also include a statement from the City of Duluth that the land use at the Site remains non-residential.



FIGURE 1
Site Location Map



CITY OF DULUTH - FORMER DRYCLEANER

Site Location Map








Responsive partner. Exceptional outcomes.

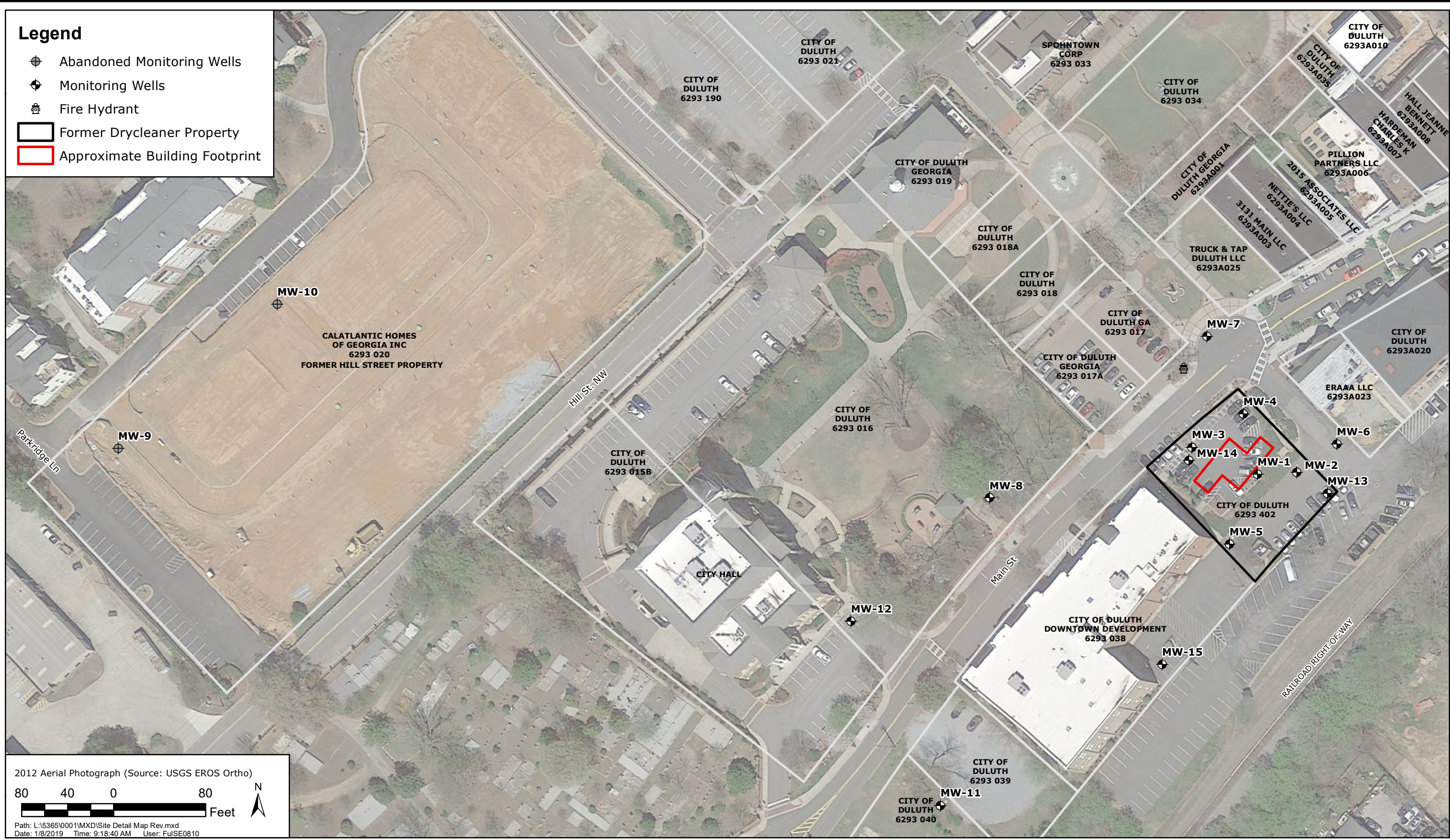
SEPT 2019

Figure 1

FIGURE 2
Site Detail Map

Legend

-  Abandoned Monitoring Wells
-  Monitoring Wells
-  Fire Hydrant
-  Former Drycleaner Property
-  Approximate Building Footprint



CITY OF DULUTH - FORMER DRYCLEANER

Site Detail Map



Responsive partner. Exceptional outcomes.






SEPT 2019

Figure 2

FIGURE 3
Soil and Groundwater RRS Criteria Map



Legend

-  GW Meets Type 5; Soil Meets Type 1 RRS
-  Soil and GW meet Type 5 RSS
-  Approximate Building Footprint
-  Former Drycleaner
-  Parcel Boundary

2012 Aerial Photograph (Source: USGS EROS Ortho)



Path: L:\536510001\MXD\Exhibit C.mxd
 Date: 9/6/2019 Time: 12:04:22 PM User: FuiSE0810

RAILROAD RIGHT-OF-WAY

APPENDIX A
Permanent Marker Photograph
(to be added upon installation)

APPENDIX B

Forms

Monitoring and Maintenance Inspection Log
Former Duluth Dry Cleaner
Main Street/Knox Street/Old Peachtree Road
Parcel 6293 402 HSI No. 10892

Component Inspected	Condition of Component/Comments	Check if Major Damage
Asphalt Cap		
Landscaped Area		
Permanent Marker(s)		
Overall Property Condition		
Photographs showing current land use, engineering controls, and permanent marker(s) (attached).		
Date of Inspection		
Name of Inspector		
Weather Conditions		

Notes:

Major Damage Criteria- Asphalt Cap
 Large cracks (> 0.5-inch wide)
 Subsidence that results in ponded water
 Broken or removed sections of asphalt that have exposed underlying soils
 Significant soil erosion around or under the asphalt cap

Major Damage Criteria- Landscaped Areas
 Removal or damage of vegetation/landscaping beyond the upper two feet of soil
 Significant erosion of the upper two feet of soil from stormwater runoff or other means of excess water
 Significant removal of soil beyond the upper two feet of soil that results in exposed underlying soils

Certification:

I certify that I am a qualified engineer or geologist who has received a baccalaureate or post-graduate degree in engineering, geology, or similar discipline, and have sufficient training and experience in designing and/or evaluating caps, as demonstrated by State registration and completion of accredited university courses, that enable me to make sound professional judgement regarding the effectiveness of engineering controls at this site. I also certify that this report meets the requirements set forth in the Monitoring and Maintenance Plan for the site. I further certify that this report was prepared by myself or a subordinate working under my direction.

 P.E./P.G. Signature and Seal

Monitoring and Maintenance Record Log
Former Duluth Dry Cleaner
Main Street/Knox Street/Old Peachtree Road
Parcel 6293 402 HSI No. 10892

Component Inspected	Repair Date		Description of Repair	Inspector	Check if Major Damage
	Start	Completed			
Asphalt Cap					
Landscaped Area					
Permanent Marker					
Overall Property Condition					
Photographs Showing Repairs	<input type="checkbox"/> Yes		No		
Date of Inspection					
Name of Inspector					
Weather Conditions					
Comments					

Notes:

Major Damage Criteria- Asphalt Cap

Large cracks (> 0.5-inch wide)
 Subsidence that results in ponded water
 Broken or removed sections of asphalt that have exposed underlying soils
Significant soil erosion around or under the asphalt cap

Major Damage Criteria- Landscaped Areas

Removal or damage of vegetation/landscaping beyond the upper two feet of soil
 Significant erosion of the upper two feet of soil from stormwater runoff or other means of excess water
Significant removal of soil beyond the upper two feet of soil that results in exposed underlying soils

Certification:

I certify that I am a qualified engineer or geologist who has received a baccalaureate or post-graduate degree in engineering, geology, or similar discipline, and have sufficient training and experience in designing and/or evaluating caps, as demonstrated by State registration and completion of accredited university courses, that enable me to make sound professional judgement regarding the effectiveness of engineering controls at this site. I also certify that this report meets the requirements set forth in the Monitoring and Maintenance Plan for the site. I further certify that this report was prepared by myself or a subordinate working under my direction.

P.E./P.G. Signature and Seal

Land Use Certification Form
Former Duluth Dry Cleaner
Main Street/Knox Street/Old Peachtree Road
Parcel 6293 402 HSI No. 10892

Type	No.	Criteria Response	Yes	No
Property Use	1	Has the property use changed, has construction work been implemented on the property, or have building permits been applied for?		
	1a	If yes to 1, was EPD notified at least 30 days in advance?		
	1b	If no to 1a, attach a written explanation.		
Exposure	2	Has subsurface site work been conducted in the areas of the property where soil and/or groundwater concentrations exceed site-specific risk reduction standards?		
	2a	If yes to 2, was EPD notified within 3 business days following the site work?		
	2b	Has groundwater extraction or use for non-remedial purposes occurred?		
	2c	If no to 2a or yes to 2b, attach a written explanation, including a description regarding whether the requirements of the Environmental Covenant were adhered to.		
Engineering Controls	3	Is the asphalt cover in the parking lot area and two foot soil cap in the landscaped area intact and of sufficient quality to prevent exposure to soil in the area of the property designated for restricted use?		
	3a	If no to 3, are corrective measures being taken? Notify EPD within 60 days of identification of damaged asphalt or disturbance of soils in the landscaped area below the two foot cap with a plan and schedule to repair. Please attach a written explanation.		
	3b	Have enclosed structures been installed on the property or existing structures modified in such a way as to change potential vapor intrusion assumptions?		
Permanent Markers	4	Are the permanent marker(s) that delineate the restricted area in place and legible?		
Property Instruments	5	Do all leases or other property instruments for the property have the applicable Environmental Covenant language inserted into them?		
	5a	If no to 5, attach a written explanation.		
Inspection	6	Date of inspection:		
	6a	Name of inspector:		
	6b	Photographs showing current land use, engineering controls, and permanent markers (attached).		

Certification:

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

NAME (please type or print)

TITLE

SIGNATURE

DATE