

MONITORING AND MAINTENANCE PLAN

Tara Shopping Center
8600 Tara Boulevard
Jonesboro, Clayton County, Georgia
Tax Parcel 13242D B001

Former Dry Cleaner Site
HSI# 10798

Prepared For:

Weener & Nathan LLP
5887 Glenridge Drive, NE, Suite 275
Atlanta, Georgia 30328
Tara Retail Holdings LLC

Ashland Inc.
5200 Blazer Parkway
Dublin, Ohio 43017

Prepared By:



May 2015

TABLE OF CONTENTS

1.0	Introduction.....	1
1.1	Property Description.....	1
1.2	Remedy Selection.....	1
1.3	Treatment and Buffer Areas	1
1.4	Site Restoration	2
2.0	Engineering Controls	3
2.1	Asphalt Cap	3
2.2	Permanent Markers.....	3
2.3	Performance Monitoring	3
3.0	Maintenance and Inspection Plans	4
3.1	Asphalt and/or Concrete Cap	4
3.2	Permanent Markers.....	4
3.3	Groundwater Monitoring Wells	5
4.0	Planned Uses of the Property	6
5.0	Reporting.....	7
5.1	Maintenance and Inspection Reports	7
5.2	Site Use, Activity, and Monitoring Property Evaluation Form.....	8

FIGURES

- Figure 1 Site Plan
Figure 2 Type 5 Soil Restricted Use Area

APPENDICES

- Appendix A Environmental Covenant
Appendix B Permanent Marker Monument
Appendix C Forms

1.0 INTRODUCTION

This Monitoring and Maintenance (M&M) plan is prepared for the Tara Shopping Center identified at 8600 Tara Boulevard, Jonesboro, Clayton County, Georgia (the Property). The Property was included on the Georgia Environmental Protection Division's (EPD) Hazardous Site Inventory (HSI) as #10798 in 2004 for suspected releases on the Property from former on-site dry cleaning operations. A Site Plan, identifying the location of former dry cleaners, is provided as **Figure 1**.

In 2013, remediation activities were completed to immobilize sources of volatile organic compounds (VOCs) in soil at concentrations above the State of Georgia Type 1 Risk Reduction Standards (RRSs) as a result of releases from former dry cleaner operations. Soil remediation was completed to meet Type 5 RRSs. Engineering controls in the form of an asphalt cap and concrete cover are designed to maintain the integrity of existing monolith (i.e., Treatment Area) as well as address peripheral soil exceeding Type 1 RRS that was not accessible during remediation work due to restrictions associated with building structure set-backs and sub-surface utilities (i.e., Buffer Area). The engineering controls associated with the Type 5 soil restricted use area are depicted on **Figure 2**.

Groundwater monitoring wells at the Property were initially installed to identify the nature and extent of groundwater impacts from dry cleaners operations. Analytical data collected from monitoring wells will be used to assess the effectiveness of the soil remediation activities by monitoring changes in concentrations overtime. This performance monitoring is considered an engineering control for the Property. Monitoring well locations are depicted on **Figure 2**.

The Property is subject to an environmental covenant included in **Appendix A**. The Property owner (Owner) shall implement this M&M Plan consistent with that environmental covenant.

1.1 Property Description

The Tara Shopping Center is comprised of two multi-tenant commercial buildings and surrounding asphalt parking areas to the west. Dry cleaning operations were conducted between 1970 and 2005 (35 years) by a tenant in the southernmost, west facing unit (8564 Tara Boulevard). The primary constituents of concern (COCs) associated with the former dry cleaning operations and releases at the Property are tetrachloroethene (PCE), trichloroethene (TCE), cis-1,2-dichloroethene (cis-1,2-DCE), and vinyl chloride. Tetrachloroethene, TCE, cis-1,2-DCE and vinyl chloride were identified in soil and groundwater above their respective Type 1 RRSs.

1.2 Remedy Selection

In-Situ Solidification/Stabilization was implemented in July 2013 to immobilize VOCs present in unsaturated and saturated soil at the Property. Solidification/Stabilization includes processes that mix inorganic cementitious reagents into affected material to transform the material into a durable, solid, low-hydraulic conductivity material that reduces the rate of contaminant migration through leaching. The resulting area of solid material is known as a monolith.

1.3 Treatment and Buffer Areas

The total volume of soil treated in place was approximately 13,215 cubic yards. The area of treatment is located immediately south of the west facing building structure (beneath the former dry cleaner and nail salon which were removed during treatment) extending, south toward the north facing outbuilding, east to the curb line, and west toward monitoring well MW-10 cluster. The Treatment Area is depicted on **Figure 2**.

Due to limitations with access, areas east and north were not fully treated; however these areas are protected under an existing asphalt and/or concrete engineering cover. Therefore, the Type 5 soil restricted use area includes a 20-foot buffer around the Treatment area. This Buffer Area is depicted on **Figure 2**.

1.4 Site Restoration

Following completion of Solidification/Stabilization activities, the Treatment Area was graded to match the pre-existing sub-grade. A six-inch gravel sub-base and a two-inch thick asphalt cover was then placed over the Treatment Area similar to the existing surrounding parking lot structure (original estimated area 17,082 square feet). To ensure the integrity of the Treatment Area, the new asphalt cover was extended beyond the limits of the Treatment Area. In total, 22,869 square feet of the Property was repaved at the completion of the remediation work.

2.0 ENGINEERING CONTROLS

2.1 Asphalt Cap

The engineering control consists of an asphalt cap in the vicinity of the Treatment Area. Areas surrounding the Treatment Area include asphalt and/or concrete surfaces consisting of existing parking lots and concrete slab foundations. The asphalt cap will be inspected as part of on-going maintenance and monitoring activities to ensure the integrity of the cap. Monitoring and maintenance activities are discussed in Section 3.0.

2.2 Permanent Markers

The Environmental Covenant mandates that the Property be fitted with marker(s) identifying the Property as a "restricted area". A granite marker will be placed in the location shown on **Figure 2**. An example of the permanent marker is provided in **Appendix B**.

2.3 Performance Monitoring

There are 21 monitoring wells on the Property (MW-1A/C, MW-3A/B, MW-7B/C, MW-8A/B/C, MW-9A/B/C, MW-10A/B/C, MW-11A/B/C, MW-12A, MW-14A, and MW-17A). Consistent with on-going groundwater investigations, supplemental groundwater monitoring will be completed down gradient of the Type 5 soil restricted use area to assess any changes in groundwater conditions in response to soil remediation. The monitoring wells included in this evaluation are presented in the table below.

Monitoring Well ID	Water Zone*
MW-3A, MW-8A, MW-9A, MW-10A, MW-11A	Upper Residuum
MW-3B, MW-8B, MW-9B, MW-10B, MW-11B	Lower Residuum
MW-8C, MW-9C, MW-10C, MW-11C	Bedrock

*Upper Residuum is generally screened between 20 to 40 feet below grade

*Lower Residuum is generally screened between 40 to 60 feet below grade

*Bedrock is generally screened between 70 to 90 feet below grade

The proposed schedule for groundwater monitoring in the vicinity of soil remediation includes a minimum of semi-annual monitoring for a period of two years. Groundwater sampling will be performed using low-flow sampling procedures in accordance with the Georgia EPD and USEPA Region 4 guidance documents. Groundwater samples will be analyzed for VOCs using USEPA Method 8260 at TestAmerica in Savannah, Georgia.

Property monitoring wells will be inspected as part of on-going maintenance and monitoring activities. Monitoring and maintenance activities are discussed in Section 3.0.

3.0 MAINTENANCE AND INSPECTION PLANS

This section of the M&M plan describes the methods, procedures, and processes that must be used to inspect and maintain the engineering controls at the Property. Use of the Property must not damage the integrity of the asphalt and/or concrete cap, or interfere with other engineering controls.

When intrusive activities are required in the Type 5 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 HAZWOPER training per OSHA's 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.

Maintenance and inspection of the Property must be performed by person(s) experienced in the maintenance and inspection of the engineering controls at the Property through both professional training and educational experience sufficient to evaluate the condition of the Property as it relates to the requirements set forth below. Minimum experience requires the inspector be a Georgia certified Professional Engineer or Professional Geologist.

Maintenance and inspection activity documentation includes the Property Inspection Log Form and Property Maintenance Record Form. Inspection logs include the date of the inspection, name of the inspector(s), component inspected, weather conditions, condition of the item inspected, notation of any damages requiring attention and indicate if the noted damage would be classified as Major Damage. Maintenance records include the dates repairs were initiated and completed, and the name of the person recording the information. Comments describing the severity of the damage (i.e., major) must also be noted on the maintenance record along with a description of the repairs. A copy of the inspection and maintenance forms are in **Appendix C**.

3.1 Asphalt and/or Concrete Cap

It is necessary to maintain the integrity and effectiveness of the asphalt and/or concrete cap to avoid cracks extending through the depth of the asphalt and/or concrete cap; and/or failure of coal tar emulsion asphalt seal such that surface water comes in contact with contaminated soil ("Major Damage"), including making repairs as necessary. The asphalt and/or concrete cap must be inspected every year. The inspection must evaluate the asphalt and/or concrete cap to ensure adequate quantity and quality of the asphalt and/or concrete cap to correct excessive settling and other events and to minimize the likelihood of run on and run off causing material surface water infiltration. Positive drainage must be maintained across the asphalt and/or concrete cap to prevent ponding. The results of the inspection must be recorded on the Property Inspection Log Form in **Appendix C**. All maintenance of the cap must be documented in a logbook and on Property Maintenance Record Form in **Appendix C**. 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 the good engineering practices and must be conducted by qualified personnel.

3.2 Permanent Markers

The structural integrity of the granite marker must be maintained to avoid crushed, broken, or defaced markers making markers unreadable; markers removed from the Property; and/or damage to asphalt or concrete, such that the marker can be removed ("Major Damage"). The granite marker must be inspected

every calendar year. The results of the inspection must be recorded on the Property Inspection Log Form in **Appendix C**. All maintenance must be documented in a logbook and on Property Maintenance Record Form in **Appendix C**. 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 Groundwater Monitoring Wells

The groundwater monitoring wells at the Property must be maintained and inspected annually. The wells must be visually inspected for signs of grout or concrete stress or failure, and the watertight locking caps must be inspected for cracked or torn rubber seals. The results of the inspection must be recorded on the Property Inspection Log Form in **Appendix C**. Damage to the locks, wells, and well labels could result from vandalism or weathering. Any damage of the groundwater-monitoring network must be repaired. If locks have rusted and do not function properly, they must be replaced. All wells must remain securely locked. The following conditions are considered Major Damage:

- Damaged well vault or vault cover
- Damaged well cap
- Damaged well casing inside well
- Erosion undermining concrete pad around well
- Damage or cracking of concrete pad around well

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. All maintenance must be documented in a logbook and on Property Maintenance Record Form in **Appendix C**.

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 cap, and remain protective of human health and the environment. These requirements are imposed through the Environmental Covenant 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. Use of the Property will remain non-residential unless a change in use is approved by the Director of EPD. The inspection will verify the following:

- Groundwater is not being used for drinking water or any other non-remedial purposes.
- The Property is being used by owners, tenants, and other occupants for non-residential purposes only.
- All lease agreements, and other agreements concerning the use of the Property, including contracts and informal agreements, must be reviewed to ensure they restrict occupants to non-residential use of the Property.

The Owner will summarize the results of the inspection in a Property use statement that will be maintained in its M&M plan records and submitted to EPD on an annual basis. The Owner will ensure that any future changes in use of the Property that impact the engineering controls will be submitted for approval to the EPD and will not commence until approved by EPD in accordance with Paragraph 2 of the Environmental Covenant (i.e., Notice). The Owner will cause the M&M Plan to be reviewed and revised as appropriate. If it is determined the M&M Plan must be revised, the Owner will submit the revised M&M Plan to EPD for review and approval at least sixty (60) days prior to the proposed change in use, but will not permit that change of use until receipt of EPD's approval.

The asphalt and/or concrete cap is designed and will be maintained to have a minimum of two (2) inches of asphalt and/or concrete cover to minimize the infiltration of surface water into the contaminated soils that remain on the Property. The Owner may permit the cap be penetrated in order to perform work necessary to implement corrective action; perform additional remediation; install, maintain, repair or replace utilities, structures and engineering controls; or for any other reason approved by EPD. All such activities will be performed in a manner to minimize the release or exposure to the regulated substances under the cap, in accordance with this M&M Plan.

5.0 REPORTING

Pursuant to the Environmental Covenant, Section 5 (Periodic Reporting), the Owner shall submit to EPD an Annual Report including, but not limited to, maintenance and inspection activities, certification of non-residential use of the Property, and documentation stating whether or not the activity and use limitations at the Property comply with the Environmental Covenant established for the Property. A copy of the Annual Report must be submitted to the following:

State of Georgia
Department of Natural Resources
Environmental Protection Division
2 Martin Luther King Jr. Drive, SE
Suite 1456 East Tower
Atlanta, GA 30334

5.1 Maintenance and Inspection Reports

The Owner must submit maintenance and inspection reports along with a cover letter to EPD annually by June 15th. The cover letter shall state the name, mailing address, telephone number, facsimile number, and e-mail of the person EPD should contact regarding the requirements associated with the Property must be provided to EPD.

The maintenance and inspection reports must include the following signed certifications:

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 that 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 fines and imprisonment for knowing violations.

Authorized Signature

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 and installing and evaluating monitoring wells, as demonstrated by State registration and completion of accredited university courses, that enable me to make sound professional judgment 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 by a subordinate working under my direction.

PE/PG Signature and Seal

5.2 Site Use, Activity, and Monitoring Property Evaluation Form

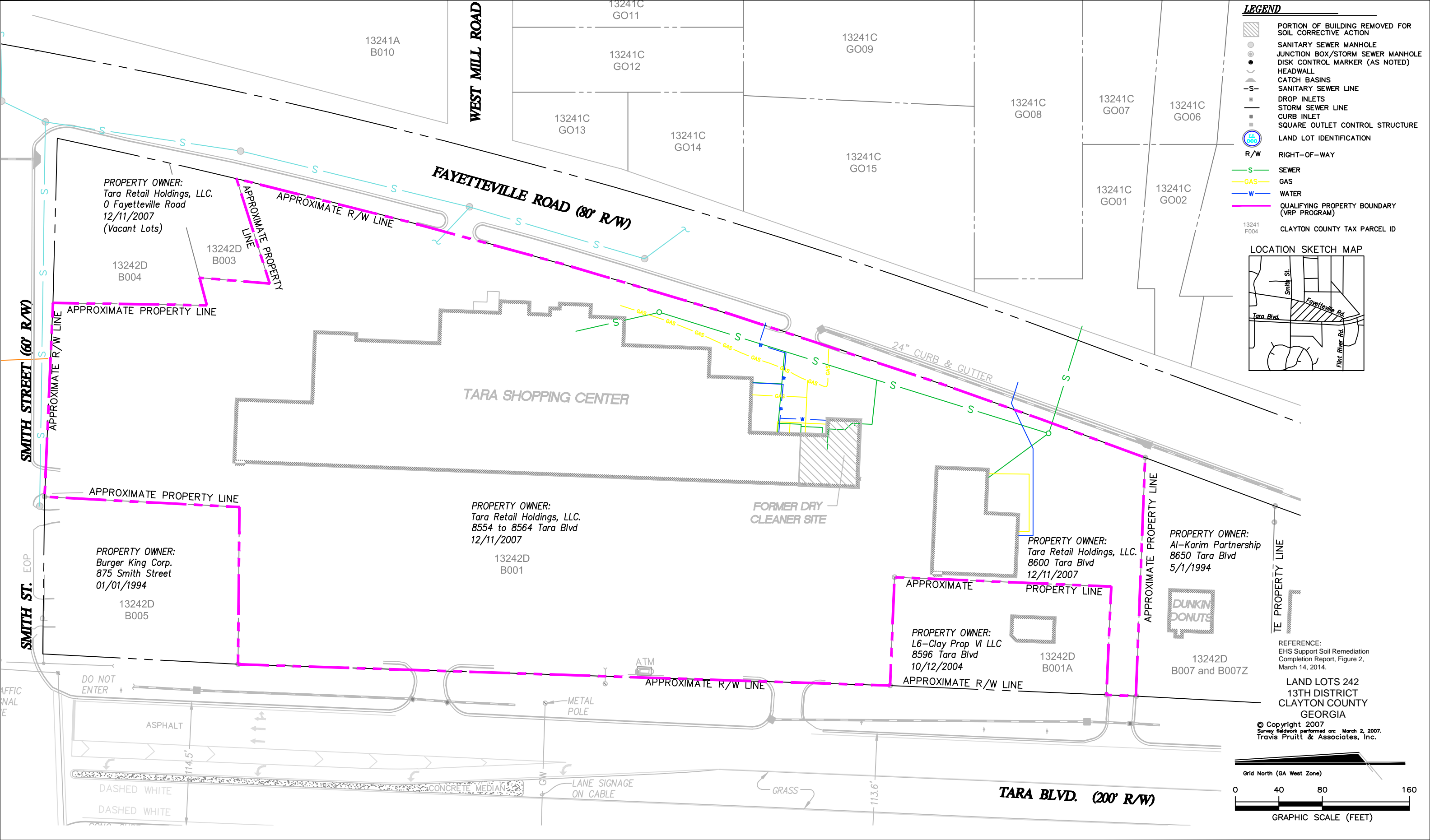
The Owner shall submit a Site Use, Activity, and Monitoring Property Evaluation Form along with a property use statement regarding compliance with the non-residential use requirements to EPD annually by June 15th together with the Annual Report. A copy of the Site Use, Activity, and Monitoring Property Evaluation Form is provided as **Appendix A**.

The property use statement must include the following signed 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 that 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 fines and imprisonment for knowing violations,

Authorized Signature

FIGURES



APPENDIX A

Environmental Covenant

APPENDIX B

Permanent Marker Monument

Monument will be inscribed with the following text:

**RESTRICTED AREA
SUBJECT TO ENVIRONMENTAL COVENANT
CALL THE PROPERTY OWNERS OR THE GEORGIA ENVIRONMENTAL
PROTECTION DIVISION PRIOR TO DIGGING OR COMMENCING
ANY LAND DISTURBANCE ACTIVITY**



APPENDIX C

FORMS

SITE USE, ACTIVITY, AND MONITORING PROPERTY EVALUATION FORM

Tara Shopping Center 8600 Tara Blvd, Jonesboro, Georgia

(Former Dry Cleaners 8564 Tara Boulevard)

Parcel: 13242D B001 HSI No. 10798

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 with 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 concrete/asphalt cover intact and of sufficient quality to prevent exposure to soil in the area of property designated for restricted use?.		
	3a	If no to 3, are corrective measures being taken? Notify EPD with 60 days of identification of damaged concrete/asphalt with a plan and schedule to repair. Please attached 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 areas in place and legible?		
Groundwater Monitoring Wells	5	Have monitoring wells been inspected and is the integrity of monitoring wells intact?		
	5a	If no to 5, are corrective measures being taken? Notify EPD with 60 days of identification of damaged wells with a plan and schedule to repair. Please attached a written explanation.		
Property Instruments	6	Do all leases or other property instruments for the Property have the applicable Environmental Covenant language inserted into them?		
	6a	If no to 5, attach a written explanation.		
Inspection	7	Date of inspection:		
	7a	Name of inspector:		
	7b	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

PROPERTY INSPECTION LOG FORM Tara Shopping Center 8600 Tara Blvd, Jonesboro, Georgia (Former Dry Cleaners 8564 Tara Boulevard) Parcel: 13242D B001 HSI No. 10798		
Component Inspected	Condition of Component	Check if Major Damage
Asphalt and/or concrete cap		
Permanent Granite Marker(s)		
Groundwater Monitoring Wells		
MW-1A/C		
MW-3A/B		
MW-7B/C		
MW-8A/B/C		
MW-9A/B/C		
MW-10A/B/C		
MW-11A/B/C		
MW-12A		
MW-14A		
MW-17A		
Overall Property Condition		
Date of inspection:		
Name of inspector:		
Weather Conditions		
Photographs showing current land use, engineering controls, and permanent markers (attached)		

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 and installing and evaluating monitoring wells, as demonstrated by State registration and completion of accredited university courses, that enable me to make sound professional judgment 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 by a subordinate working under my direction.

PE/PG Signature and Seal

PROPERTY MAINTENANCE RECORD FORM Tara Shopping Center 8600 Tara Blvd, Jonesboro, Georgia (Former Dry Cleaners 8564 Tara Boulevard) Parcel: 13242D B001 HSI No. 10798					
Component Inspected	Repair Date		Description of Repair	Inspector	Check if Major Damage
	Start	Completed			
Asphalt and/or concrete cap					
Permanent Granite Marker(s)					
Groundwater Monitoring Wells					
MW-1A/C					
MW-3A/B					
MW-7B/C					
MW-8A/B/C					
MW-9A/B/C					
MW-10A/B/C					
MW-11A/B/C					
MW-12A					
MW-14A					
MW-17A					
Overall Property Condition					
Photographs showing repairs					
Date of inspection:					
Name of inspector:					
Weather Conditions					
Comments:					

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 and installing and evaluating monitoring wells, as demonstrated by State registration and completion of accredited university courses, that enable me to make sound professional judgment 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 by a subordinate working under my direction.

PE/PG Signature and Seal