Prepared for:

IPTV-B-C14, LLC
8401 North Central Expressway, Suite 910
Dallas, TX 75225

MONITORING AND MAINTENANCE PLAN
Former TLC Cleaners
2060 Lower Roswell Road
Marietta, GA 30068

Prepared by:

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Atlanta, Georgia 30338
Tel: 404-315-9113

March 2017

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Principal

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EPS

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1 INTRODUCTION

This Monitoring and Maintenance (M&M) Plan is being submitted on behalf of IPTV-B-C14, LLC for the former TLC Cleaners ("the Site"). The former dry cleaning tenant space ("the Facility") is the western-most tenant space located in the New Market Center shopping center. The Site is located at 2060 Lower Roswell Road in Marietta, Georgia, also known as Cobb County Parcel ID 16124400330, and is 4.805 acres. A Site Plan is included as Figure 1 (all figures are included in the Attachment A).

The Site was accepted into the Georgia Voluntary Remediation Program (VRP) in July 2015 based on a tetrachloroethene (PCE) release to soil. Soils exceeding the Non-Residential Risk Reduction Standards[1] (RRSs) were excavated, while some PCE-impacted soils were left in place beneath the building due to structural considerations. The Site is in compliance with Type 4 and Type 5 RRSs[2] for soil. Type 5 RRSs include engineering and institutional controls, which include the operation of a sub-slab depressurization system, a property marker, and an Environmental Covenant.

[1] Non-Residential Risk Reduction Standards are the higher of the Type 3 and 4 Risk Reduction Standards as established in 391-3-19-.07 of the Rules and Regulations of the State of Georgia.

[2] Type 5 Risk Reduction Standards are established in 391-3-19-.07(10) of the Rules and Regulations of the State of Georgia.

2 ENGINEERING AND INSTITUTIONAL CONTROLS

2.1 Sub-Slab Depressurization System

A sub-slab depressurization system, which was designed to create a zone of negative pressure beneath portions of the Facility and the adjacent suite, was installed at the Facility to minimize the potential for PCE vapors to migrate from beneath the floor slab into the building interior. The piping layout for the system, which includes two sections of piping, is shown on Figure 2.

- Line 1 includes a 2-inch diameter, slotted PVC pipe placed beneath the floor slab within the gravel backfill of a 350 cubic foot soil excavation area (grit trap excavation) and extending to the exterior of the back (south) wall. The slotted pipe was placed approximately 1 foot beneath the floor slab and connects to solid piping just before exiting the back wall.
- Line 2 includes a 2-inch diameter, slotted PVC pipe, which was installed beneath the new floor slab within the gravel backfill of a drain line excavation and runs from the former dry cleaning machine and drum storage area to the area of the former grit trap. The piping extends beneath the floor slab, through the grit trap excavation area via solid piping, and to the exterior of the back (south) wall of the building.

Both sections of piping were extended vertically up the exterior wall, and a screen-covered tee was place on top of each to prevent animal and rain water intrusion. Inline fans were placed on the vertical sections of each line to create a negative pressure beneath the floor slab and to facilitate the exhaust of vapors to the exterior.

The floor slab is a component of the sub-slab depressurization system, as it creates an airflow barrier for the system allowing for a zone of negative pressure.

The sub-slab depressurization system is continuously monitored by a remote monitoring system, which monitors the vacuum in the two lines and the power supply. If the vacuum falls below a designated set point or the power shuts off, the remote monitoring system will notify specified personnel.

2.2 Property Marker

The Site has been fitted with a property marker, which, in this case, is a sign identifying it as being subject to an environmental covenant. Specific wording for the marker is included in Attachment B. The marker has been placed in the location shown on Figure 3 and is easily visible to persons working in and around the Facility.

2.3 Environmental Covenant

The Environmental Covenant prohibits residential use of the Site and use of groundwater from the Site for drinking water purposes. It also requires compliance with this M&M Plan.

3 INSPECTION AND MAINTENANCE

3.1 General Considerations

Use of the Site must neither hinder the effectiveness of the sub-slab depressurization system nor render the property marker illegible. In order to maintain system effectiveness, the fans must continue to operate and the piping (Line 1 and Line 2) and the floor slab must remain intact. If the fans shut down, or otherwise are unable to maintain a negative air pressure in the piping system, air pressure beneath the floor can equilibrate or increase above the indoor air pressure resulting in a higher potential for sub-slab vapors to migrate into the indoor air breathing zone. Penetration of the slab leads to two potential concerns: 1) the potential for sub-slab vapors to enter the indoor air through the penetration and 2) the potential for a loss of vacuum in the piping due to higher air flow through the penetration, potentially resulting in increased sub-slab air pressure and increased vapor intrusion into indoor air. The property marker must remain legible and easily visible.

Any future changes in use of the Site that materially impacts the engineering controls must be approved by EPD in accordance with the requirements as specified in the Environmental Covenant, and this M&M Plan must be reviewed and revised as appropriate. If it is determined that this M&M Plan must be revised, the revised plan will be submitted to EPD for review and approval.

3.2 Inspection and Repairs of Engineering Controls

3.2.1 Overview

Inspection must be conducted, and log forms must be completed annually and submitted with the Annual Report to the Georgia Environmental Protection Division (EPD). The sub-slab depressurization system, the floor slab, and the property marker must be inspected annually by persons familiar with this M&M Plan and the specific engineering controls implemented at the Site. During the inspection, an Annual Engineering Controls Inspection Log must be completed to document the integrity of these items. If any repairs are required, these must be documented on the Maintenance and Repair Log. The property use and groundwater use must be verified annually and documented on the Property and Groundwater Use Log to ensure compliance with the Environmental Covenant. Blank log forms are included in Attachment C.

The annual inspection will not address issues beyond the scope of this M&M Plan such as building code compliance, zoning issues, structural integrity of the buildings, etc.

3.2.2 Sub-Slab Depressurization System

The operation of the sub-slab depressurization system shall be maintained except as appropriate for testing purposes to determine if EPD-approved termination of system operation may be

appropriate. The system must be inspected annually. Specifically, the inspector will look for damage to the exposed piping, the fans, and the remote monitoring system, and will inspect the integrity of the floor slab in the Facility and the adjacent suite. The remote monitoring system will continuously monitor the system so as to alert monitoring personnel to any unscheduled vacuum deficiencies. Any maintenance or repairs must be completed as soon as practicable. If the system is found to be inoperable, the system must be repaired and restarted within 30 days of discovery. Repairs must be made in accordance with good engineering practices and must be conducted by qualified personnel.

At the request of the EPD, sub-slab soil gas and indoor air samples will be collected in the Fall of 2017 to verify that indoor air conditions remain below the EPA Vapor Intrusion Screening Levels (VISLs)[3]. If results are below the VISLs, no further sampling will be conducted. If results exceed the VISLs, corrective actions will be implemented, and verification sampling will be conducted.

3.2.3 Floor Slab Penetrations and Repairs

The soils beneath the Facility and the adjacent suite are below the Non-Residential RRSs and, therefore, do not pose a direct human contact risk. However, soil gas vapors exceeding the VISLs could potentially enter the indoor air in the event of a floor slab penetration.

Within the Facility and the adjacent suite, the floor slab may be penetrated in order to perform work necessary to install, maintain, or repair utilities, structures, and engineering controls as set forth herein. All such activities should be performed in a manner to prevent or minimize exposure to soil gas or indoor air concentrations exceeding the VISLs.

In the event that planned work is conducted on the property which could potentially penetrate the floor slab, the following steps should be taken.

1. The indoor air should be monitored during floor slab penetration and removal and during any soil excavation work completed.
2. If soils are excavated from beneath the floor slab, qualified personnel should determine based on the vicinity of the regulated substances, whether the soil should be disposed of off-site or used to backfill the excavation. If soils are disposed of off-site, they should be properly characterized and disposed of accordingly.
3. The floor slab penetration should be patched with concrete.

3.2.4 Property Marker

The structural integrity of the marker must be maintained to prevent it from becoming illegible and to prevent it from being removed from the Property. The marker must be inspected every calendar year. If the marker has been rendered illegible or has been removed, repairs or replacement must be completed within 60 days of discovery.

[3] The Vapor Intrusion Screening Level calculator can be found on the following EPA webpage: https://www.epa.gov/vaporintrusion and includes recommended screening levels for use in evaluating the vapor intrusion pathway.

3.3 Property Use Verification

An annual inspection must be conducted to verify the Site is only being used for non-residential purposes and that groundwater on the Site is not being used for drinking water purposes. These property use restrictions shall remain in effect unless a change in use is approved by the Director and the Environmental Covenant is amended. All lease agreements and other agreements concerning the use of the Site must be reviewed to ensure they are consistent with non-residential use.

3.4 Document Retention

Monitoring and maintenance documentation will be retained for a period of at least three years.

4 REPORTING

An Inspection and Maintenance Report must be submitted to EPD annually by August 1. The report will consist of a letter, the Annual Engineering Controls Inspection Log, the Maintenance and Repair Log, and the Property and Groundwater Use Log, which are all included in Attachment 3. The letter must contain the name, mailing address, telephone number, and email address of the person EPD should contact regarding the requirements associated with the Site. The letter must also include a Property Use Statement regarding compliance with the non-residential use, the groundwater use restriction, and the following certification:

I certify that I have personally examined and am familiar with the information in this report and all attachments and that based on my inquiry of those persons immediately responsible for completion of this report, I believe the information is true, accurate, and complete.

ATTACHMENT A
Figures

0 50 100
Feet

Legend

Former Dry Cleaners

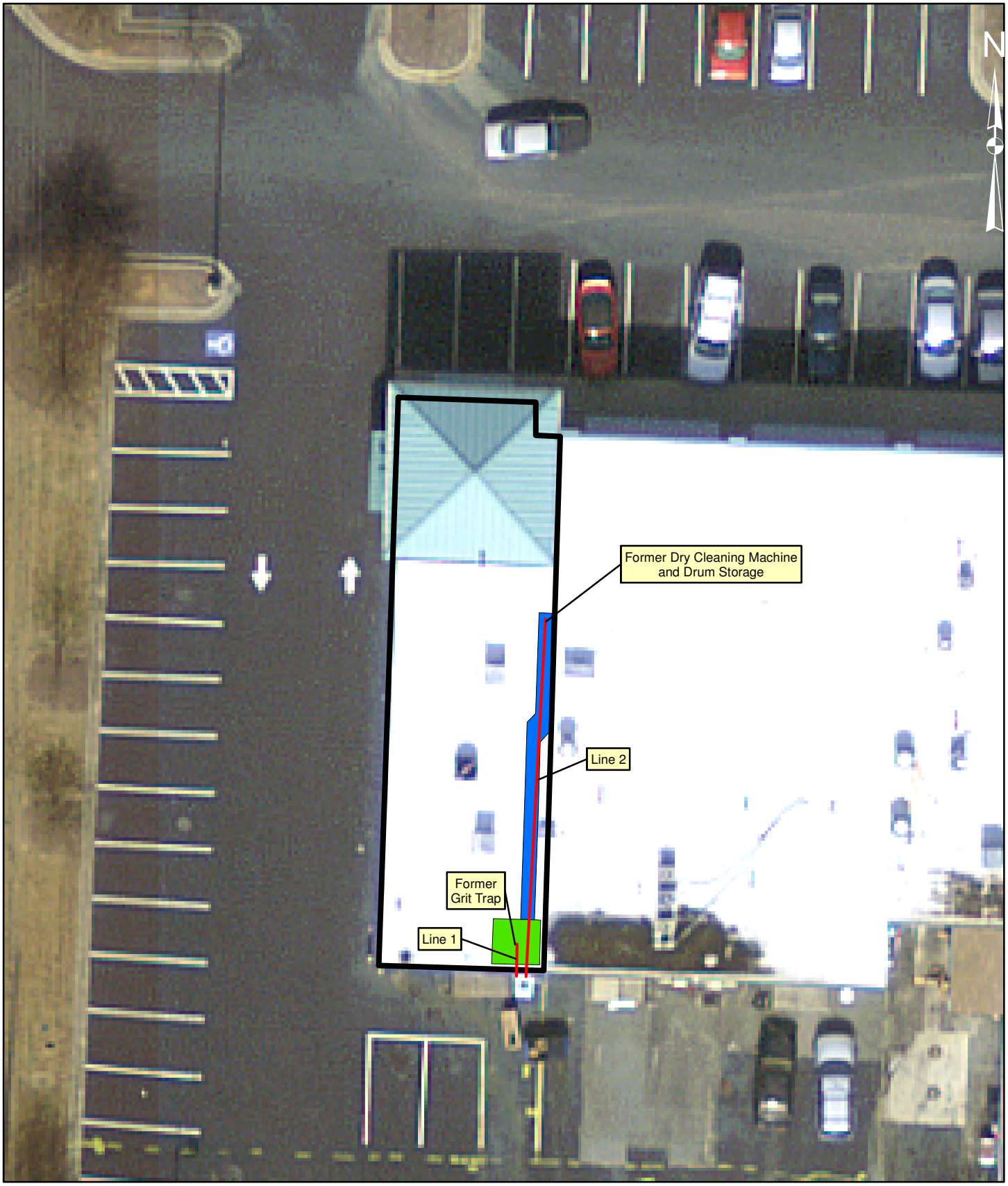
Property Boundary

Site Plan

Former TLC Cleaners
2060 Lower Roswell Rd.
Marietta, GA 30068

Environmental Planning Specialists, Inc.
G:\Taylor English\TLC Cleaners\GIS\Reports\M_M_Plan

Figure No.1



0 10 20
Feet

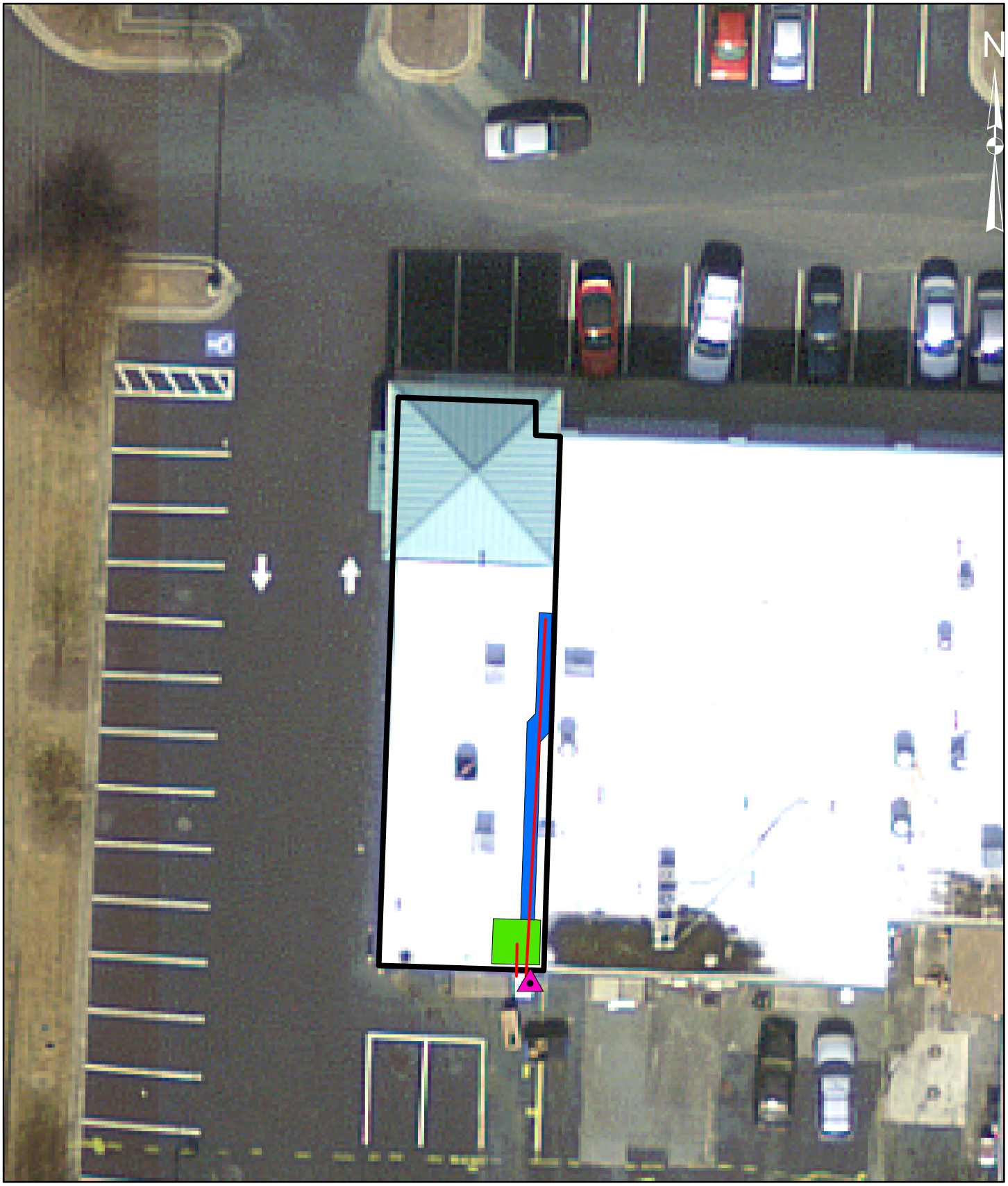
Legend

- Former TLC Cleaners
- Gravel Backfill (2 ft. deep)
- Gravel Backfill (6-8 ft. deep)
- Sub-Slab Depressurization System Lines

Sub-Slab Depressurization System Layout
Former TLC Cleaners
2060 Lower Roswell Rd.
Marietta, GA 30068

Environmental Planning Specialists, Inc.
G:\Taylor English\TLC Cleaners\GIS\Reports\M_M_Plan

Figure No.2



0 10 20
Feet

Legend

- Former TLC Cleaners
- Gravel Backfill (2 ft. deep)
- Gravel Backfill (6-8 ft. deep)
- Sub-Slab Depressurization System Lines
- Property Marker Location

Property Marker Location
Former TLC Cleaners
2060 Lower Roswell Rd.
Marietta, GA 30068

Environmental Planning Specialists, Inc.
G:\Taylor English\TLC Cleaners\GIS\Reports\M_M_Plan

Figure No.3

ATTACHMENT B
Property Marker Statement

PROPERTY

IS SUBJECT TO AN ENVIRONMENTAL COVENANT

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

ATTACHMENT C
Monitoring and Maintenance Documentation

ANNUAL ENGINEERING CONTROLS INSPECTION LOG

Former TLC Cleaners
2060 Lower Roswell Road
Marietta, Georgia

Date: _____ Inspector: _____

---- This inspection must be conducted within the first quarter and submitted to the Georgia Environmental Protection Division by August 1 of each year. ----

	Component Inspected	Condition of Component	Check if Damaged
Sub-Slab Depressurization System	System Piping		☐
	System Fans		☐
	Remote Monitoring System		☐
	Floor Slab*		☐
	Component Inspected	**Condition of Component**	**Check if Illegible**
Signage	Property Markers		☐

*The floor slab in the Facility and the adjacent suite must remain intact. If the floor slab is penetrated, it must be done so in accordance with the Monitoring and Maintenance Plan.

MAINTENANCE AND REPAIR LOG

Former TLC Cleaners
2060 Lower Roswell Road
Marietta, Georgia

Date:_____ Form Completed By_____

---- This form must be submitted to the Georgia Environmental Protection Division by August 1 of each year. ----

	Component	Repair(s) Required	Description of Repair(s)	Repair Dates	
				Initiated	Completed
Sub-Slab Depressurization System	System Piping				
	System Fans				
	Remote Monitoring System				
	Floor Slab*				
Signage	Property Markers				

*The floor slab in the Facility and the adjacent suite must remain intact. If the floor slab is penetrated, it must be done so in accordance with the Monitoring and Maintenance Plan.

ANNUAL PROPERTY AND GROUNDWATER USE LOG

Former TLC Cleaners
2060 Lower Roswell Road
Marietta, Georgia

Date: _____ Form Completed By: _____

----- This form must be completed within the first quarter and submitted to Georgia Environmental Protection Division by August 1 of each year. -----

Property Use Questions		
Is the property use, by owners, tenants, and other occupants considered non-residential?	☐ **YES**	☐ **NO**
Have all leases and other agreements concerning the use of the property, including contracts and informal agreements, been reviewed to ensure consistency with non-residential use?	☐ **YES**	☐ **NO**
Is groundwater from the subject property being used for drinking water purposes?	☐ **YES**	☐ **NO**
Note: The subject property shall only be used for non-residential purposes, and groundwater from the property shall not be used for drinking water purposes. These property use restrictions shall remain in effect unless a change is approved by the Georgia Environmental Protection Division.		