now

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May 27, 2022

Mark J. Bennett, AICP, FRA-RP
Development Services Director
City of Lake Wales
201 Central Ave W
Lake Wales, FL 33853

RE: Proposal for Phase II Environmental Site Assessment
1130 Highway 60 W
Lakes Wales, Polk County, Florida
Parcel D No. 27-30-03-000000-032080

Dear Mark:

Cardno now Stantec (herein referenced as Cardno) is pleased provide the following scope of work to provide Phase II ESA services for the above-referenced parcel (herein referenced as the subject site/property).

Background / Purpose:

Cardno recently completed a Phase I ESA for the referenced property and identified the following Recognized Environmental Condition (REC) per *ASTM E1527-21*:

- Visible features are consistent with historical use of the subject property as an auto repair and retail gas sales facility. These features included potential underground storage tank (UST) vent pipes and remnants of a hydraulic lift system within the on-site structure. The historical land use offers the potential for petroleum, solvent, and metals impacts to soil and groundwater. No data was found in agency files related to the subject site to rule out these suspected impacts.

Phase II ESAs are generally designed to identify the presence or absence of environmental impacts related to the RECs identified and do not generally require an exhaustive assessment of environmental conditions throughout the property. As such, this scope may not be sufficient to evaluate the full extent and magnitude of subsurface impacts, if present. Additional sampling/analysis may be required to determine risk associated with a real estate transaction.

Proposed Phase II ESA Scope of Work

Geophysical Survey:

Prior to soil and groundwater assessment activities, a geophysical survey will be conducted to determine if underground storage tanks are located on-site, and to assist in identifying the location of probable septic system structures. Geophysical surveying services will include an integrated approach using two geophysical techniques. These techniques are time domain electromagnetics (TDEM) and ground penetrating radar (GPR). The TDEM and GPR methods are complementary in that the TDEM method can rapidly assess site conditions and determine the presence of buried metallic debris. If buried metallic objects are encountered, GPR will be used to confirm the TDEM results.

Field Activities (Soil and Groundwater Assessment):

- Conduct a combination of hand auger and direct push technology (DPT) sampling with OVA screening of soils and limited soil sampling. This will include collection of soil cores at five (5) locations within the subject site boundaries as depicted on the attached sampling plan.
- All soil borings will be advanced to the water table, anticipated to be 5 to 6 feet below surface (ft bls) and not to exceed 10 ft bls. OVA screening will be performed at two-foot intervals at all boring locations to determine if volatile compounds are present.
- A total of 15 soil samples will be collected (three samples from each of the borings) above the water table. If visible impacts or significant OVA screenings are encountered, the sampling plan may be altered to allow additional samples at the impacted locations. Samples will be collected at depths of 0 to 0.5, 0.5 to 2, and 2 to 4 ft bls (or until the water table is encountered) for comparison to State cleanup criteria for direct exposure and groundwater leachability.
- Soil samples will be submitted for laboratory analysis as follows:
    - Ethylene Glycol via EPA Analytical Method 8015C
    - Volatile Organic Compounds via EPA Analytical Method 8260
    - Low level polycyclic aromatic hydrocarbons PAHs via EPA Analytical Method 8270
    - 4 RCRA Metals via EPA Analytical Method 6010
    - Total Recoverable Petroleum Hydrocarbons (TRPH) via FL-PRO
- Three (3) shallow temporary groundwater monitor wells will be installed 15 to 25 feet in depth within three of the soil boring locations (as depicted on the attached Sampling Plan). Locations may vary based on field soil screening/geophysical investigation results. Collected groundwater samples will be analyzed for the same parameters/constituents as the soil samples.
- One deeper interval groundwater sample will be collected from the DPT rig sampling apparatus to evaluate potential solvent impacts. The sample will be collected near the top of the confining unit (max depth 30 feet) and will be analyzed for solvents only via EPA Method 8260 full list.
- Survey of monitor well top-of-casing elevations relative to an arbitrary datum to assist in the evaluation of shallow groundwater elevation data, and to assist in determining the direction of groundwater flow within the boundaries of the subject property.

Management of Investigative Derived Waste (IDW):

The anticipated IDW includes but is not limited to: soils, drill cuttings, personal protective equipment, well purge and development water, and decontamination fluids. Due to the potential constituents of concern at the site, visual or olfactory observations of contamination or OVA screening is not sufficient to characterize the IDW for proper disposal to ensure protection of human health and the environment. Therefore, all IDW will be containerized in a new DOT-approved 55-gallon drum, segregated by matrix. Cardno anticipates one drum for solids and one drum for liquids.

The drums will be inventoried in logs and sampled for waste characterization based on analytical requirements for off-site transportation and disposal. All drums will be properly labeled and staged in a designated holding area with low access/traffic located near the area of investigation. Pending laboratory analyses, Cardno will characterize the waste and coordinate transportation to a Subtitle D Non-hazardous landfill for proper disposal. If laboratory results indicate the IDW is hazardous, Cardno will provide a separate proposal to re-label the drum(s) in accordance with 49 CFR Part 172 and coordinate shipment to a RCRA Subtitle C treatment, storage or disposal facility by an approved hazardous waste transporter.

Report Preparation:

Cardno will prepare a Phase II Environmental Site Assessment Report to summarize the results of the above assessment activities in general compliance with *ASTM Method E 1903-11 Standard for Phase II ESAs.* Data will be summarized in tables and figures and field notes and laboratory analyses will be included for reference. Recommendations will also be included for additional assessment or for remedial planning activities, if required.

Schedule of Compensation:

Geophysical Survey	$2,900
Soil and Groundwater Assessment:	
Cardno field labor and expenses and project management	$5,500
Subcontractors:	
Drilling contractor	$4,200
Lab: 15 soil and 3 groundwater @ $425 each, and one groundwater @ $180	$7,830
Waste Characterization Sample Analysis @ $120 each	$240
Non-Hazardous IDW transportation and disposal, 2 drums @ $190 ea.	$380
Report Preparation	$4,200
Total (lump sum)	$25,250

Thank you for the opportunity to submit this technical and cost proposal. Upon your acceptance, Cardno will arrange field personnel and the drilling contractor. Please let us know if you have any questions or need additional information.

Sincerely,

Miles Ballogg
Director

Accepted by:

_____

Date:_____

Attachment: Sampling Plan

Prepared by: S. Lasseter
QC by: J. Marsh

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Proposed Sampling Locations Map