Construction Soil Management Plan
Lake Chelan Community Hospital

Lake Chelan Community Hospital
503 East Highland Avenue
Chelan, Washington 98816

for
Lake Chelan Community Hospital

September 5, 2019

GeoEngineers
Earth Science + Technology

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GeoEngineers

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Spokane, Washington 99202
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File No. 18155-001-03

September 5, 2019

Prepared for:

Lake Chelan Community Hospital
503 East Highland Avenue
Chelan, Washington 98816

Attention: Dick Bratton c/o Lake Chelan Community Hospital, Mike Ellis CFO

Prepared by:

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Table of Contents

1.0 INTRODUCTION

This document presents the Soil Management Plan (SMP) for the construction of the Lake Chelan Community Hospital (LCCH) located on Apple Blossom Drive in Chelan, Washington ("Site"). The SMP will be used by LCCH and their contractors as guidance for handling and managing known and assumed contaminated soil at the Site and to provide an approach for responding to new environmental conditions that might be encountered during construction activities.

The Site is located at Apple Blossom Drive, Lots 20 through 26 and the adjacent Open Space Tract in Chelan, Washington. The property is currently undeveloped but was previously an apple orchard. The property location is generally shown relative to surrounding features in the Vicinity Map, Figure 1. The site layout is shown in the Site Plan, Figure 2.

We understand that LCCH has purchased the site and plans to construct a medical center (hospital and medical office buildings) in the eastern portion of the property, Lots 20 through 26. A progress Grading and Drainage Plan for the proposed development is presented in Appendix A. Development includes a single-story hospital building, surrounding parking, a helicopter landing pad, and landscaping. Some portions of the Site will not be developed at this time.

2.0 BACKGROUND AND PURPOSE

2.1. Previous Environmental Studies and Site Regulatory Status

GeoEngineers conducted Phase I and II Environmental Site Assessments (ESAs) at the Site in 2009 (GeoEngineers, 2009a and 2009b). The Phase I ESA identified historical agricultural use at the site as a recognized environmental condition because of the likely use of lead arsenate and other pesticides. During the follow-up Phase II ESA, 13 shallow soil samples were collected and analyzed for total lead, arsenic and organochlorine pesticides. Seven samples were additionally analyzed for organophosphate pesticides. The 2009 chemical analytical results are summarized by the following and are presented in Appendix B:

- Total arsenic exceeded the Washington State Model Toxics Control Act (MTCA) Method A cleanup level in 11 samples;
- Total lead exceeded the MTCA Method A cleanup level in seven samples;
- 4,4'-DDE (an organochlorine pesticide) exceeded the MTCA Method B cleanup level in one sample; and
- Organophosphate pesticides were not detected at concentrations greater than the laboratory reporting limit.

Based on the limited analytical data obtained during the 2009 Phase II ESA, the vertical limits of contaminated soil Site are not defined. The majority of the Phase II samples were collected at depths between 0 and 1 foot below ground surface (bgs) with the deepest sample collected at about 3 feet bgs. Confirmation samples would be needed at depths beneath the 2009 sample depths to confirm the vertical extent of contaminated soil at the Site. Groundwater at the Site has not been assessed.

We are not aware of whether a MTCA release at the Site has been reported to Ecology per WAC 173-340-300.

2.2. SMP Purpose and Use

LCCH proposes to address Site contamination by capping contaminated soil beneath pavement, landscaping, and structures and establishing an environmental covenant for the property, similar to the remedial actions conducted at the nearby Walmart store and other nearby sites on Apple Blossom Drive. Supplemental investigation after the 2009 Phase II ESA has not been conducted to our knowledge and a cleanup plan for the Site has not been developed.

Based on the 2009 soil sample chemical analytical results, we have prepared this SMP to be implemented during construction. The SMP provides guidance for worker protection, contaminated soil handling, on-site contaminated soil reuse, and potential offsite soil disposal. This SMP is not intended to meet the requirements of a MTCA cleanup action plan but rather describes best management practices (BMPs) for managing the contaminated soil based on the proposed development and identified remedies.

Given the limited number and distribution of environmental soil samples and chemical analytical testing collected at the Site to date, this SMP assumes that Site soil will be considered contaminated unless additional sampling is conducted to profile the soil as non-contaminated. For the purposes of this document, contaminated soil is defined as soil that contains contaminants (lead, arsenic, pesticides and any other contaminants encountered during construction) at concentrations greater than the MTCA cleanup levels. It is possible additional contaminants of concern (COCs) might be identified through supplemental investigation or additional sampling. Further waste testing may be required to characterize excavated soil relative to considerations in the state Dangerous Waste regulations, WAC 173-303. This SMP does not present a Work Plan for supplemental investigation or characterization for possible Dangerous Waste.

Ecology's requirements for environmental covenants are presented in Appendix C. Ecology's requirements for Site assessment cleanup for independent cleanups under the Voluntary Cleanup Program (VCP) are explained on Ecology's VCP website.

2.3. Neighboring Properties

2.3.1. Chelan Walmart (Formerly Isenhart Orchards Property)

The Chelan Walmart property (formerly known as the Isenhart Orchard Property) is located northeast of the intersection of State Route 97A and Isenhart Road in Chelan, Washington. The Walmart site is approximately 18 acres in size and is surrounded by vacant land, with the exception of a recreational vehicle storage facility located to the east. State Route 97A is located to the south of the Walmart site, and Isenhart Road is located to the west.

As part of pre-purchase due diligence by Walmart, Kleinfelder conducted Phase I and Phase II ESAs at the site (Kleinfelder 2005). Based on Kleinfelder's 2004 Phase I ESA, it was determined that the Walmart site had been used as an apple orchard from at least the early 1900s until 1999. The property owner discontinued apple orchard activities in 1999 and had the apple trees removed from the Walmart site between 1999 and 2000. The Phase I ESA report recommended completing a limited Phase II ESA to assess the potential presence of lead, arsenic and pesticides in shallow soil prior to redevelopment activities.

In September 2004, Kleinfelder collected 12 discrete soil samples at depths ranging between 6 inches to 1 foot bgs throughout the former apple orchard area of the Walmart site. Lead concentrations exceeded

the MTCA Method A soil cleanup level for lead in four samples. Each sample collected at the Walmart site contained total arsenic concentrations that exceeded the MTCA Method A soil cleanup level. Organochlorinated pesticide analysis results indicated 4,4'-DDT at a concentration exceeding the MTCA Method A soil cleanup level for DDT.

Based on the relatively low arsenic and lead concentrations, low leachability values of these metals, large volume of affected soils, significant depth to groundwater, and discussions with representatives from Ecology, it was determined that on-site containment would be an effective remedy for the Walmart site. We understand that the remedy completed included the following:

- 15,000 tons of excess excavated soils that could not be used during construction were transported to the Wenatchee Regional Landfill for disposal.
- Walmart site surfaces were covered with buildings structures, asphalt parking lot and small landscaped islands.
- Landscaped islands were covered with at least 12 inches of imported soil and separated from the underlying soil with a geotextile fabric.
- Landscaping irrigation systems were installed on top of the geotextile fabric before being buried.
- Long-term institutional controls including a restrictive covenant.

In 2007, a restrictive covenant was recorded for the Walmart site. A No Further Action (NFA) letter was sent to the property owner, and the Walmart site status was changed to reflect an NFA determination.

2.3.2. Lot 18 Apple Blossom

The Lot 18 Apple Blossom property (Apple Blossom) is located east of the LCCH property on the east side of North Apple Blossom Drive and comprises approximately 1.9 acres. A Phase I report prepared by Aerotech Environmental Consulting in 2017 indicates that the previous occupancy and use of the Apple Blossom Property was a large apple orchard from the 1900s to 1999. As the orchard operated on the property during a time when lead-arsenate was a commonly used pesticide, Aerotech recommended that shallow soil samples be collected and analyzed for lead and arsenic along with organophosphates and organochlorines.

In March 2017, Environmental Associates, Inc. (EAI) performed limited subsurface sampling and testing at the Apple Blossom property. EAI advanced five shallow boings and collected samples from 6 to 8 inches bgs at various accessible locations on the site. Soil samples collected by EAI were analyzed for total arsenic and lead, organophosphates and organochlorines. Soil sample results for total arsenic and lead were reported with concentrations exceeding MTCA Method A cleanup levels. Soil sample results for organophosphates and organochlorines were either not detected or detected at concentrations less than the MTCA cleanup levels.

Similar to the Chelan Walmart site, on-site containment (capping) was selected in the method to address the contaminated soil at the Lot 18 Apple Blossom site. Contaminated soils were capped by buildings and parking lots, which acted as low permeability barriers to control stormwater infiltration through the contaminated soil and as physical barriers to control contact with the contaminated soil. Areas of the property used either to infiltrate stormwater or that were covered with permeable surfaces were sampled and tested to demonstrate contaminant levels in those areas met MTCA Method A cleanup levels.

Permeable surface areas for which soil did not meet MTCA cleanup levels were covered with a geotextile/barrier fabric and at least 12-inches of clean fill material.

3.0 SITE SPECIFIC HEALTH AND SAFETY PLAN

The Contractor shall develop a site-specific Health and Safety Plan (HASP) for use by contractor personnel during earthwork and Site construction where contaminated soil may be encountered. The Contractor's HASP should meet the requirements established under 29 CFR 1910.120 and WAC 296-843 (Hazardous Waste Operations), including the use of appropriately trained workers, monitoring and identification of contaminated media, Contractor's health and safety officer's authority and responsibilities, and health and safety briefings for applicable site personnel.

The Contractor is responsible for health and safety of their workers, subcontractors and visitors to the Site. The Contractor should establish the minimum personal protective equipment (PPE) requirements for the work and shall provide the necessary training and equipment needed to accomplish these requirements.

Known contaminants at the Site include lead, arsenic and 4,4'-DDE from past agricultural land use. The main exposure pathways anticipated during construction of the LCCH are contaminated dust inhalation and direct contact with the contaminated soil. The Contractor's HASP should include dust control methods, PPE, and other appropriate methods to manage the risks associated with these exposure pathways to protect workers and Site visitors.

Workers and site visitors should be informed about risks associated with exposure to contaminated soil.

4.0 CONTAMINATED SOIL MANAGEMENT

For soil handling purposes, Site soil is considered contaminated with lead, arsenic and/or pesticides unless additional soil samples are collected to document that contaminants are not present at levels of regulatory concern. Contaminated soil must be characterized, managed, handled and disposed in accordance with applicable federal, state and local regulations. We understand that the LCCH plans to address the contaminated soil in a similar manner as the neighboring properties by keeping the contaminated soil onsite and capping it with structures, paved parking and landscaping. We also understand that off-site soil disposal will only occur if on-site capping is not an option for some portion of the soil based on the soil properties (physical and chemical) or if there is excess soil that cannot be used as fill.

4.1 Contaminated Soil Capping

LCCH's preferred contaminated soil management is to keep it on site and capped and to avoid additional costs and delays that may be associated with off-site disposal. Capping contaminated soil, if properly designed given Site conditions, generally reduces direct contact exposure risk. We understand that capping contaminated soil was among the Ecology-accepted remedial alternatives at the nearby sites described in Section 2.3.

Capping guidelines include but are not limited to the following:

- Site soil should not be left exposed after construction is completed. Site soil should be placed beneath buildings, pavement, or landscaping as physical barriers (caps) to control exposure to the contaminated soil.
- Under certain circumstances and provided excavated soil would not classify as a Dangerous Waste, contaminated soil can be moved from one area of the Site to another to be consolidated and capped to meet the cut and fill needs of the project plans.
- Contaminated soil left or placed beneath structures or pavement should meet the structural specifications, including compaction requirements, for soil placed in those locations and depths. If imported structural fill is placed above contaminated soil, a geotextile separation fabric should be placed between the imported and site materials to separate the contaminated soil from the non-contaminated imported soil.
- Contaminated soil beneath landscaped areas should be capped with a geomembrane or in certain circumstances a geotextile separation fabric and a minimum of 1 foot thick clean (non-contaminated) imported soil. The required thickness of overlying contaminated soil will depend on Site conditions, location and other factors.
- Portions of the Site that are not developed at this time should either have restricted access (such as fencing) or be capped in the manner described for landscaped areas.
- Trenches excavated to install utilities or irrigation lines should be backfilled with imported fill, to control contact with the contaminated soil during future maintenance activities. Alternatively, irrigation lines in landscaped areas could be installed above the geotextile separation fabric to avoid contact with the contaminated soil.

Additional capping requirements may apply for the Site.

4.2 Stormwater Features

To control contaminant migration off site or to groundwater, stormwater *should not be* discharged through contaminated soil. Contaminated soil should be removed from the features that are designed to infiltrate stormwater into the subsurface (such as drywells, swales and infiltration basins). The contaminated soil removed from the stormwater features can be placed in other capped areas of the Site following the considerations outlined above. Soil samples should be collected to confirm that the contaminated soil has been removed to at least concentrations less than the MTCA cleanup levels. If soil sampling indicates the contaminated soil extends to depths below a given planned stormwater feature, then the contaminated soil should be removed and replaced with clean, non-contaminated imported fill to control stormwater infiltration through contaminated soil.

4.3 Off-site Disposal

If Site soil needs to be transported off site (such as excess fill or soil that does not meet project specifications) then it will need to be sampled to profile it for disposal or other allowed off-site use depending on contaminant levels. Soil designated for transport off site should be stockpiled and then sampled according to the procedures described below (Section 5.0). An environmental professional should be engaged to interpret the chemical analytical results and assist in profiling the soil for disposal at an

appropriate facility. Soil designated for off-site disposal might take several weeks to obtain approval from the disposal facility.

Based on chemical analytical results obtained from the stockpile samples, the soil might profile in one of the following categories:

- Contaminated soil – Concentrations of one or more of contaminants of concern are greater than MTCA cleanup levels. The MTCA cleanup levels for the known contaminants are summarized below in Table I. Based on the 2009 Phase II ESA data, the Site soil is categorized as contaminated soil. Contaminated soil should only be disposed at a permitted facility. Based on the known contaminants, Waste Management's Greater Wenatchee landfill will likely accept contaminated soil from the LCCH Site. However, additional sampling and testing may be required by the disposal facility before acceptance. Additional sampling could potentially include a leachability analysis of the lead and/or arsenic using the Toxicity Characteristic Leaching Procedure (TCLP). If soil is planned for off-site disposal, the potential disposal facility should be engaged early. Contaminated soil should not be transported to other properties for either permanent placement or temporary storage.
- Impacted soil – Soil is considered impacted if lead and arsenic are detected in samples at concentrations greater than the natural background concentrations for those metals (Table I). Also, the soil is considered impacted if organochlorine pesticides (or other unknown potential contaminants) are detected at concentrations greater than the laboratory reporting limit but less than the MTCA cleanup level (Table I). Impacted soil also should be disposed at an appropriate facility. Because impacted soil does not designate as contaminated, other disposal facilities might be able to accept the soil as construction waste. Disposal requirements for those facilities should also be met before transporting impacted soil.
- Non-regulated soil – Contaminant concentrations are either not detected or detected below background levels (lead and arsenic). Non-regulated soil does not have a restricted end use either on site or off site.
- Dangerous Waste – Contaminated soil might further designate as a Washington State dangerous waste depending on the concentrations of the contaminants or the results of potential follow-up analyses, such as TCLP. Like contaminated soil, soil that designates as a Dangerous Waste can only be disposed at a permitted facility such as Waste Management's Chemical Waste Management of the Northwest facility located near Arlington, Oregon.

TABLE I. CONTAMINANT CLEANUP LEVELS AND BACKGROUND CONCENTRATIONS

Contaminant	MTCA Method A Cleanup Level Unrestricted Land Use (mg/kg)	Background Concentrations[1] (mg/kg)
Metals		
Arsenic	5	7.61
Lead	250	13.1
Organochlorine Pesticides		
4,4'-DDT	3	NE
4,4'DDD	4.2 [2]	NE
4,4'DDE	2.9 [2]	NE

Notes: [1]Source: Ecology 1994; [2]MTCA Method B Cancer Cleanup Level
mg/kg = milligrams per kilogram; NE = Not Established; DDT = dichlorodiphenyltrichloroethane;
DDD = dichlorodiphenyldichloroethane; DDE = dichlorodiphenyldichloroethylene

4.4 Contaminated Soil Handling

Contaminated soil can either be loaded directly into trucks and transported for off-site permitted disposal or can be temporarily stockpiled on plastic sheeting on the site, pending disposal or reuse on site. Stockpiles shall be surrounded by sandbags and covered with plastic sheeting to minimize contaminant-impacted runoff and wind-blown dust. The sandbags shall reduce the potential for stormwater run on to, or leachate flow from the stockpiles; additionally, the sandbags may be used to anchor the plastic sheeting.

Trucks used to transport contaminated soil should be covered with tarps to control contaminated soil erosion or deposition on public roads. Extra care should be taken as part of the Site temporary erosion and sediment control (TESC) plan, to control tracking site soil off site and control potentially contaminated runoff from leaving the Site. TESC best management practices (BMPs) should be frequently inspected and rigorously maintained to control potentially contaminated soil and runoff from leaving the Site.

Any soil tracked off site, should be cleaned up immediately and managed as contaminated soil. Contaminated soil should be removed from vehicles and equipment before exiting the Site or demobilization. If tire washes are used to remove soil from equipment and vehicles, the wash water should be captured and contained as potentially contaminated water, sampled, and disposed at an appropriate facility based on the sample results.

4.5 Dust Control

The contractor should minimize fugitive dust generated from on-site fill by actively suppressing dust to control the inhalation exposure pathway. Dust control can include but is not limited to:

- Clearing only those areas where immediate activity will take place while maintaining original ground cover as long as practical.
- Spraying exposed surfaces with water or other suitable palliative and repeating as necessary throughout the course of construction. Water applied as dust control shall not leave the Site as Surface runoff.

5.0 SOIL SAMPLING AND CHARACTERIZATION

Soil samples shall be collected, as needed, to profile soil for off-site disposal or to confirm that contaminated soil has been removed from planned stormwater features. Other samples might be collected at the request of the owner or Contractor to characterize the soil for use on site in non-capped areas. Site soil will be considered contaminated, regardless of the origination location or depth, until appropriate soil samples have been collected and analyzed to profile the soil as non-regulated. Based on the site history, contaminants of concern include arsenic, lead and pesticides. Chemical analysis shall include:

- Total lead and arsenic using Environmental Protection Agency (EPA) Method 6010; and
- Organochlorine pesticides using EPA Method 8081.

Additional COCs might be identified from specific areas if unexpected soil contamination is encountered (Section 6.0). Soil samples will be submitted on a 48-hour rush turnaround time (TAT) to reduce construction delays. Longer TATs might be requested if the construction schedule can accommodate the additional delay. Additional soil samples or analyses might be required for soil profiling if contaminated soil is transported off-site for disposal.

Soil sampling and handling procedures should be in accordance with analytical sample preservation requirements, EPA chain-of-custody requirements, Ecology guidelines and industry standards.

Soil samples should be collected from soil left in place, such as stormwater features, at a rate of 1 sample per 625 square feet (a roughly 25 feet by 25 feet area) or fraction thereof. At least one sample should be collected from each stormwater feature. Stockpile samples should be collected at the rates presented in Table II to adequately profile the soil for disposal or other uses.

TABLE II. TYPICAL NUMBER OF SAMPLE NEEDED TO ADEQUATELY CHARACTERIZE STOCKPILED SOIL

Bulk Cubic Yards (CY) of Soil	Number of Representative samples for Chemical Analysis
0-100	3
101-500	5
501-1,000	7
1,000-2,000	10
>2,000	10 + 1 for each additional 500 CY of soil

(Ecology 2011)

An environmental professional should be retained to collect soil samples and interpret the laboratory results.

6.0 DISCOVERY OF UNEXPECTED POTENTIALLY PETROLEUM CONTAMINATED SOIL

For the purposes of this SMP, Site soil is assumed to be contaminated with lead, arsenic, and organochlorine pesticides. However, if soil with the characteristics of other contaminants (such as petroleum hydrocarbons) are encountered, then GeoEngineers (Table III) and the owner should be contacted, and the soil should be over excavated, segregated and stockpiled. Characteristics of potentially contaminated soil might include:

- Soil staining;
- Petroleum hydrocarbon or other chemical odors;
- The presence of debris fill (brick, glass, metal, ash, clinkers, or slag);
- A moderate or heavy sheen when placed in contact with water; and/or
- Significant concentrations of organic vapors detected using headspace field screening methods.

Upon discovery of potentially contaminated/impacted soil, the Contractor should refer to this guide for contact information of people to notify, as well as information regarding the location, type and actions taken to address the potentially contaminated soil.

Appropriate chemical analyses will be determined in the event of such a discovery, based upon location of discovery and field screening observations. If the soil sampling/chemical testing identify contaminants of concern, the soil will be classified according to the definitions presented in Section 4.3. Recommendations for onsite reuse or offsite disposal will be made based on the classification or the soil.

TABLE III. GEOENGINEERS PROJECT CONTACTS

Name	Title	Cell Phone	Office Phone	Email
Dana Carlisle	Environmental Principal	425.861.6040	425.417.9260	dcarlisle@geoengineers.com
Scott Lathen	Environmental Project Manager	509.251.5239	509.209.2843	slathen@geoengineers.com
JR Sugalski	Environmental Engineer	509.991.4471	509.209.2830	jsugalski@geoengineers.com

7.0 ENVIRONMENTAL COVENANT AND DOCUMENTATION

Procedures for "Establishing Environmental Covenants under the Model Toxics Control Act" are available in Appendix A and on Ecology's website at https://fortress.wa.gov/ecy/publications/documents/1509054.pdf.

During construction of the hospital and management of the contaminated soil, records, including as-built plans, should be kept indicating:

- Locations where contaminated soil is left in-place or consolidated on site;
- Confirmation sample locations and results;
- Locations of unexpected soil contamination;
- Areas where geotextile separation fabric is placed to separate imported fill and contaminated soil left in-place;
- Waste profile results and waste characterization; and
- Waste disposal documentation indicating the quantity of soil transported off site.

8.0 LIMITATIONS

We have prepared this plan for the exclusive use of LCCH and their authorized agents. Within the limitations of scope, schedule and budget, our services have been executed in accordance with generally accepted environmental science practices in this area at the time this plan was prepared. No warranty or other conditions, express or implied, should be understood.

Please refer to Appendix D, titled "Report Limitations and Guidelines for Use," for additional information pertaining to use of this plan.

9.0 REFERENCES

Environmental Associates, Inc. (EAI), Limited Soil Sampling and Testing at Lot 18 Apple Blossom, Chelan, Washington. Dated April 12, 2017.

GeoEngineers, Inc. (GeoEngineers), Phase I and II Environmental Site Assessment for Proposed Apple Blossom Drive Lots 20 through 26 and Open Space Tract located in Chelan, Washington. Dated February 6, 2009.

Kleinfelder. 2004a. Phase I Environmental Site Assessment, Proposed Commercial Site, Former Isenhart Orchards Property, NE of SR 97A and Isenhart Road, Chelan, Washington, dated August 27, 2004.

Kleinfelder. 2004b. Limited Phase II Environmental Site Assessment, Proposed Commercial Site, Former Isenhart Orchards Property, NE of SR 97A and Isenhart Road, Chelan, Washington, dated October 7, 2004.

Kleinfelder. 2005. Environmental Contingency Plan for Walmart Supercenter Development Site, 108 Apple Blossom Drive, Chelan, Washington. Dated September 8, 2005.

Washington Department of Ecology (Ecology). 1994. Natural Background Soil Metals Concentrations in Washington State. Dated October 1994.

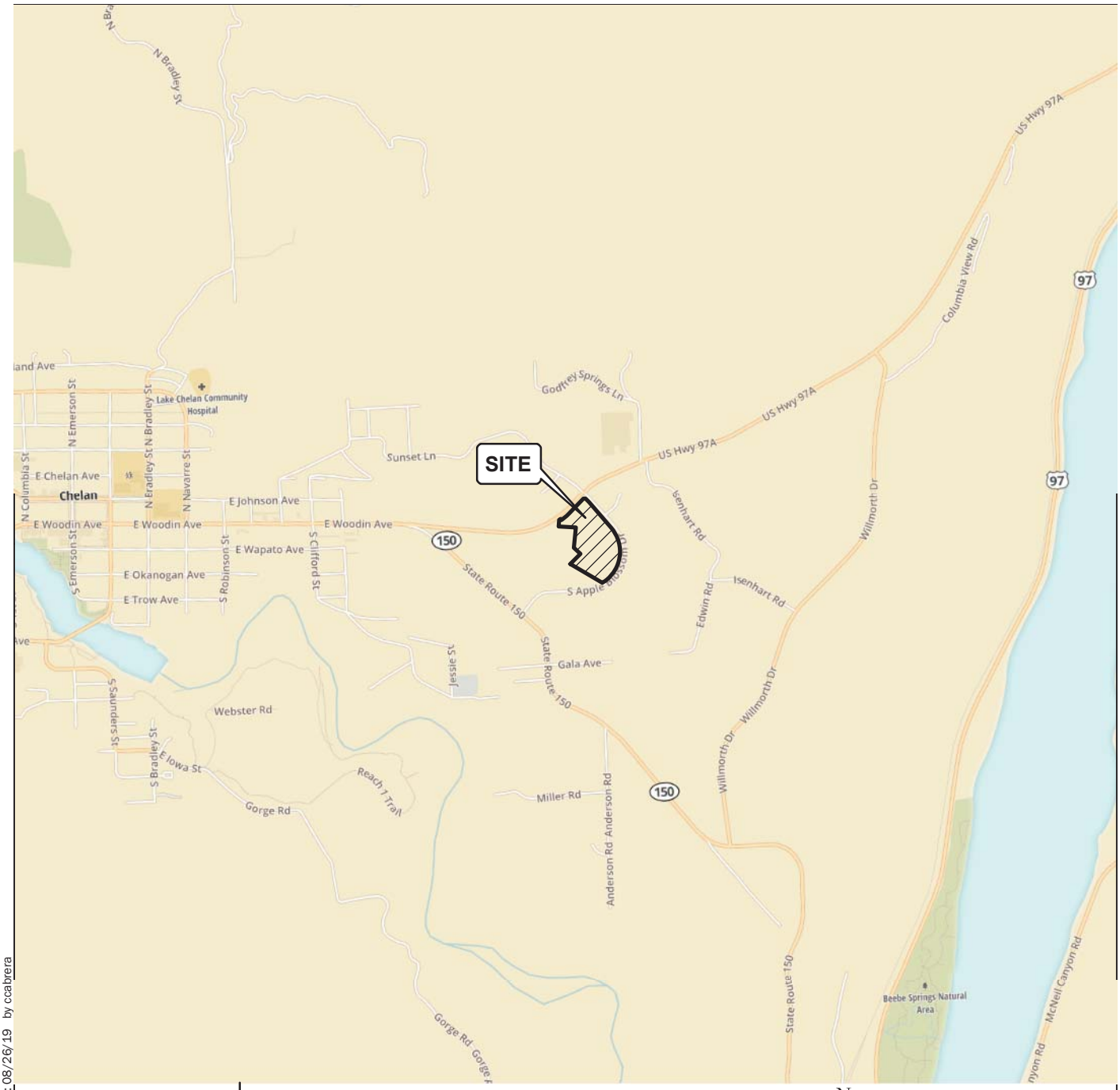
Washington Department of Ecology (Ecology). 2007. "No Further Action Determination for Isenhart Orchards Property," Letter from Brianne Harcourt, Toxics Cleanup Program. June 25, 2007.

Washington Department of Ecology (Ecology). 2011. Guidance for remediation of Petroleum Contaminated Sites. Dated September 2011.

Washington Department of Ecology (Ecology). 2017. "No Further Action will likely be necessary at Lot 18 Apple Blossom Property." Letter from Jennifer Lind, DRO Toxics Cleanup Program. November 9, 2017.

FIGURES

GeoEngineers



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Feet

Notes:

1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Data Source: Mapbox Open Street Map, 2016

Projection: NAD 1983 UTM Zone 10N

Vicinity Map

Lake Chelan Community Hospital
Chelan, Washington

GeoEngineers

Figure 1

P:\18\18155001\GIS\MXD\18155500103_F01_VicinityMap.mxd Date Exported: 08/26/19 by ccabrera

P:\18\18155001\GIS\MXD\1815500103_F02_SitePlan.mxd Date Exported: 08/26/19 by ccabrera

Legend

Approximate Project Area

N
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200 0 200

Feet

Notes:

1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Data Source: Roads from Chelan County GIS. Aerial from ESRI.

Projection: NAD 1983 StatePlane Washington North FIPS 4601 Feet

Site Plan

Lake Chelan Community Hospital
Chelan, Washington

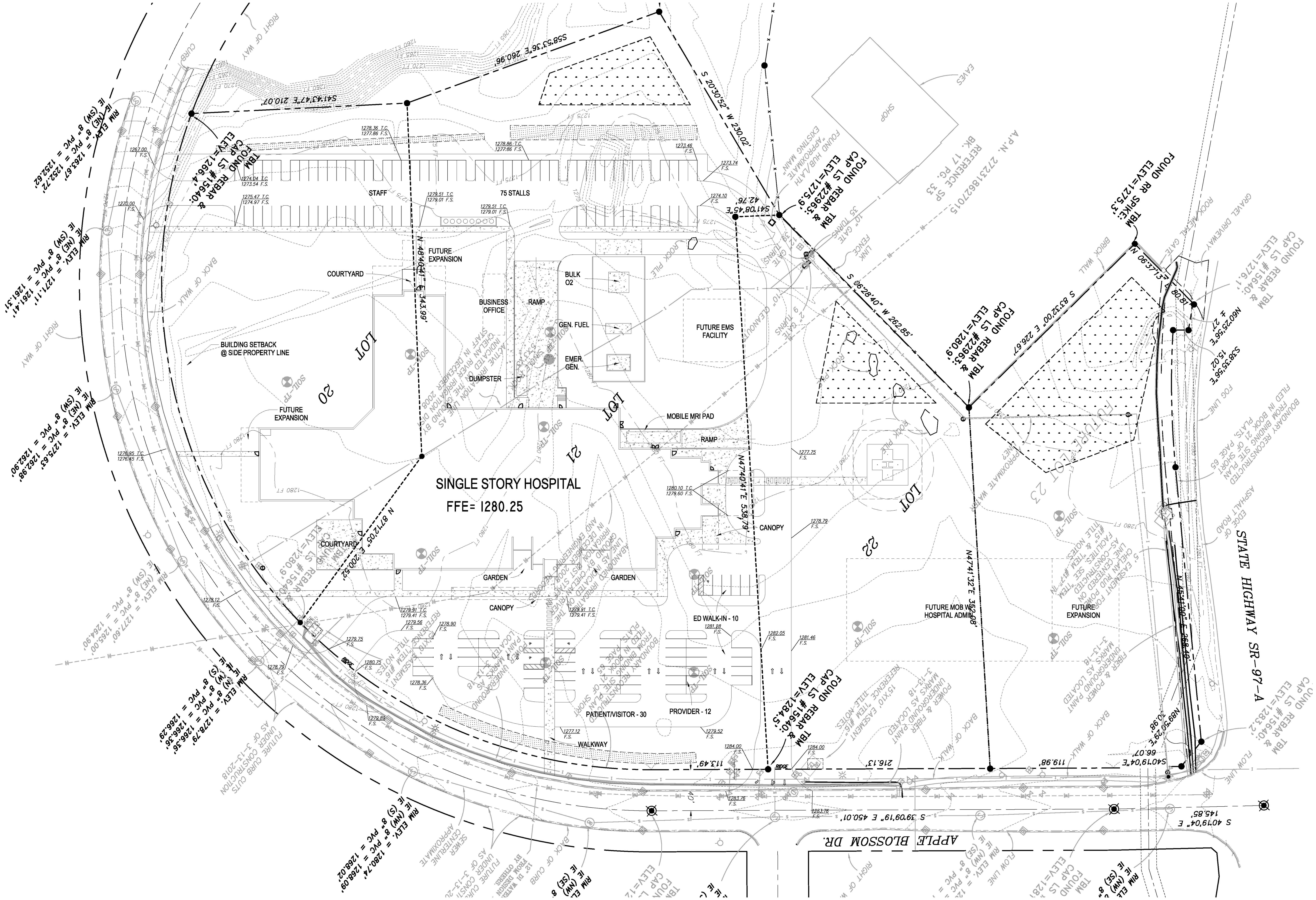
GeoEngineers

Figure 2

APPENDICES

GeoEngineers

APPENDIX A
Grading and Drainage Plan



REFERENCE NOTES:

① xxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

ENGINEER'S NOTES:

xxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

GRAPHIC SCALE

(IN FEET)
1 inch = 40 ft.

PROGRESS PRINT
(NOT FOR CONSTRUCTION)

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CONTRACTOR NOTE

ALL EXISTING UTILITIES SHOWN ON PLANS ARE TO BE VERIFIED HORIZONTALLY AND VERTICALLY PRIOR TO ANY CONSTRUCTION. ALL EXISTING FEATURES INCLUDING BURIED UTILITIES ARE SHOWN AS INDICATED ON RECORD MAPS AND SURVEYS FURNISHED BY OTHERS. WE ASSUME NO LIABILITY FOR THE ACCURACY OF THOSE RECORDS AND SURVEYS. CONTACT THE UTILITY OWNER/AGENCY FOR THE FINAL LOCATION OF EXISTING UTILITIES IN AREAS CRITICAL TO CONSTRUCTION.

UNDERGROUND SERVICE ALERT
ONE-CALL NUMBER
811
CALL TWO BUSINESS DAYS BEFORE YOU DIG

COLLINS WOERMAN

710 SECOND AVENUE SUITE 1400
SEATTLE, WASHINGTON 98104-1710
T. 206.245.2100 F. 206.245.2101

PROJECT

LAKE CHELAN COMMUNITY HOSPITAL

106 SOUTH APPLE BLOSSOM DRIVE
CHELAN, WA 98816

OWNER

LAKE CHELAN COMMUNITY HOSPITAL & CLINICS

CONSULTANT

DCI ENGINEERS
707 W. 2ND AVENUE
SPOKANE, WASHINGTON 99201

ISSUED

MARK	DATE	DESCRIPTION
	08/30/2019	100% SD

PROJECT NO.	LAKE01.16.079
DRAWN BY	JFS
ISSUE DATE	08/30/2019

SEAL

SHEET TITLE / NUMBER

GRADING AND DRAINAGE PLAN

C1.2

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APPENDIX B
Historical Data

TABLE 1
SOIL CHEMICAL ANALYTICAL RESULTS[1]
AGRICULTURAL CHEMICALS
PROPOSED HOSPITAL AND MEDICAL CENTER, APPLE BLOSSOM DRIVE LOTS 20 THROUGH 26 AND OPEN SPACE
CHELAN, WASHINGTON

Exploration Identification[1]	Petroleum hydrocarbons (NWTPH-HCID)	Organochlorine Pesticides (EPA Method 8081A) (ug/kg)			Organophosphate Pesticides (by SIM GC/MS) (µg/kg)	Total Metals (EPA Method 6010B) (mg/kg)	
		4,4'-DDE	4,4'DDD	4,4'DDT		Arsenic	Lead
Shed Soil at surface	ND	ND	ND	29	--	12	190
ETP-1-1.5	--	ND	ND	ND	ND	ND	ND
ETP-2-3.0	--	53	ND	25	--	66	19
ETP-3-0.5	--	880	19	1,500	ND	150	780
ETP-4-1.0	--	180	ND	280	ND	43	110
ETP-5-0.5	--	85	ND	190	--	55	26
ETP-6-0.5	--	320	ND	200	ND	110	680
ETP-7-0.5	--	320	ND	670	--	140	600
ETP-8-1.0	--	20	ND	15	--	54	5.9
ETP-9-0.5	--	110	ND	280	ND	180	770
ETP-10-0.5	--	750	39	2,000	ND	120	1,500
ETP-11-0.5	--	3,000	61	1,500	--	94	540
ETP-12-0.5	--	800	47	2,100	ND	360	2,200
MTCA Method A Cleanup Level - Unrestricted Land Use	2,000 for diesel-range hydrocarbons	2,900 [2]	4,200[2]	3,000	Varies	20	250

Notes:

[1] Samples were obtained on January 20, 2009. The approximate exploration locations are shown on Figure 2.

[2] MTCA Method B cleanup level

ug/kg = micrograms per kilogram

mg/kg = milligrams per kilogram

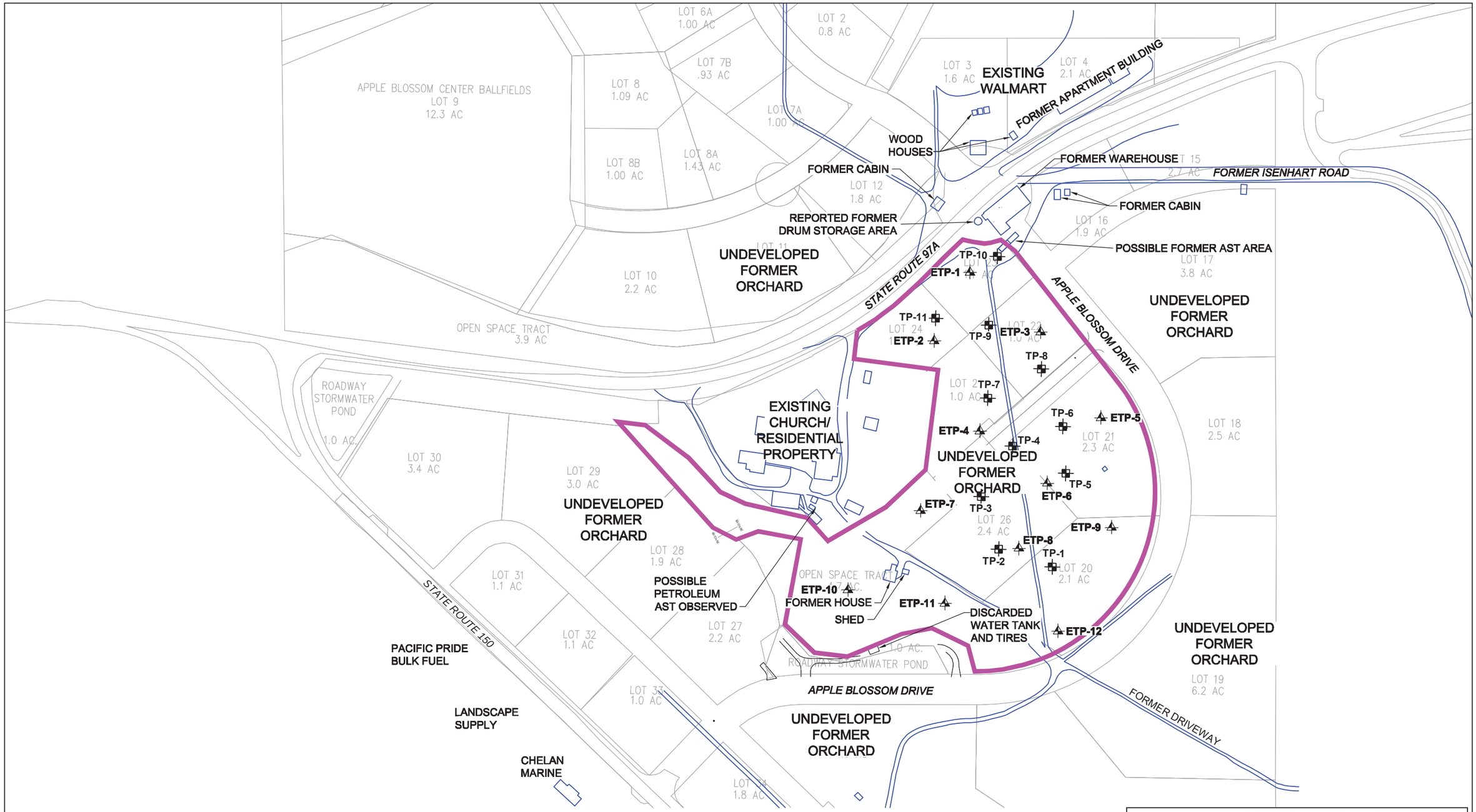
ND = not detected (refer to laboratory report for method analytes and detection limits);

MTCA = Model Toxics Control Act

Chemical analyses performed by OnSite Environmental of Redmond, Washington; Organophosphate pesticides by Analytical Resources, Inc. of Tukwila, Washington

Shaded values exceed the referenced soil cleanup levels.

-- = not analyzed



Notes:
1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Reference: Base maps provided by RH2 Engineering via email on December 1, 2008.

Legend

- Approximate Subject Property Boundary
- Former Orchard Features
- TP-1 — Geotechnical Test Pit Number and Approximate Location, 2008
- ETP-1 — Environmental Test Pit Location, 2009
- Parcel Boundaries

N W E S

250 0 250
Feet

Site Plan - Phase I ESA and Phase II ESA Explorations

Proposed Hospital Property
Chelan, Washington

GeoEngineers

Figure 2

REDM\P:\18155001\00\CAD\18155001OO.dwg JAR:TJM:BMK 02/05/09