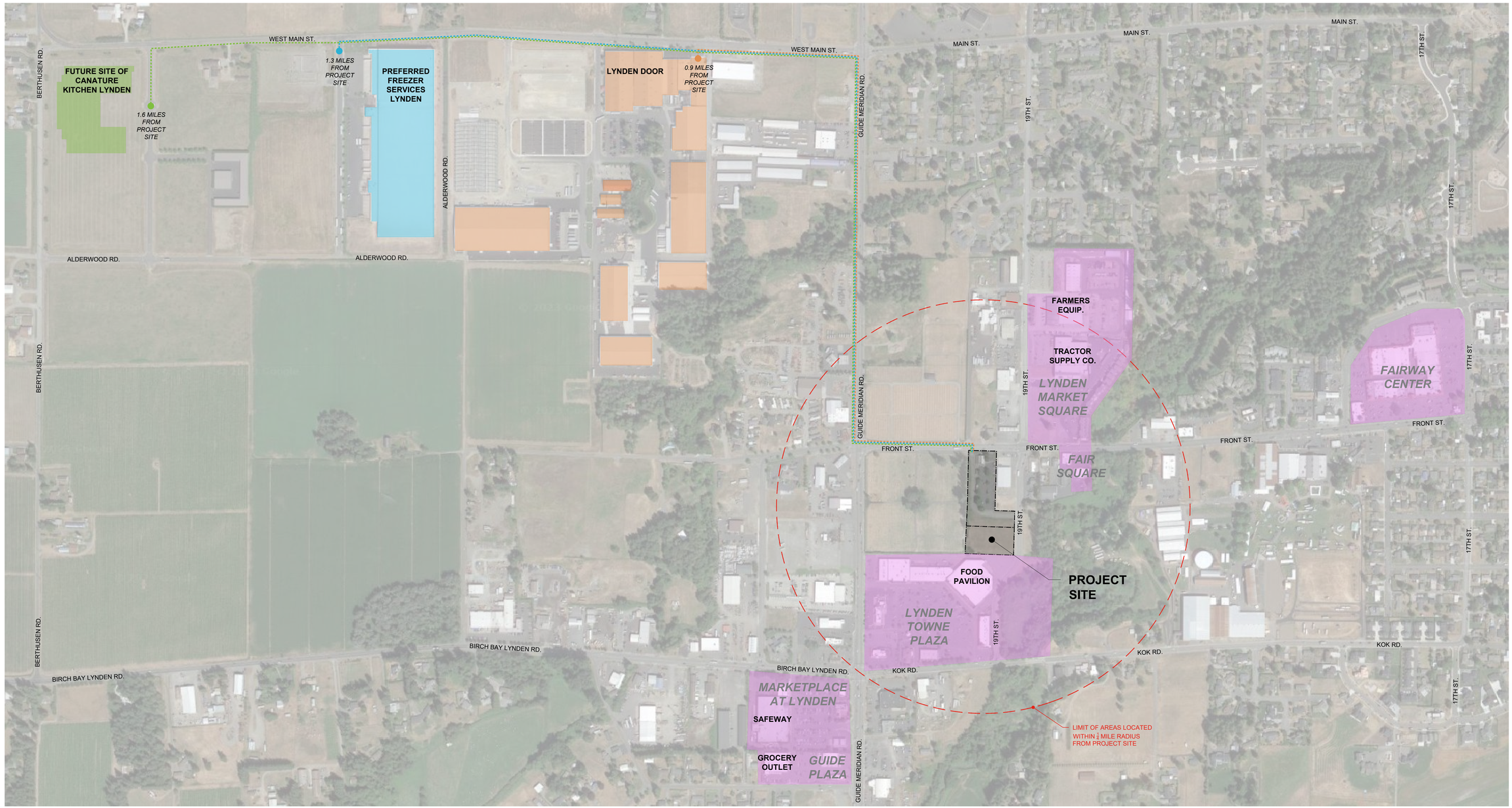
EXHIBIT B



1 VICINITY AND CONTEXT MAP

SCALE: 1" = 300'-0"

0 150' 300' 600'

N

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WTA Lynden Station

1945 Front Street, Lynden WA, 98264
Whatcom Transit Authority

Job No:	2312 Date: 30 JAN. 2024
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Checked By:	JM
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VICINITY AND CONTEXT MAP

A100

EXHIBIT B

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1 EXISTING CONDITIONS SITE PLAN
SCALE: 1" = 30'-0"

0 15' 30' 60'

N

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EXISTING CONDITIONS SITE PLAN

A101

EXHIBIT B

PARKING CALCS PER LYNDEN MUNICIPAL CODE

RESIDENTIAL PHASE 1:

3-BEDROOM TOWNHOUSE	28 UNITS	X3	=	84 STALLS
2-BEDROOM UNIT	15 UNITS	X2	=	30 STALLS
1-BEDROOM UNIT	17 UNITS	X2	=	34 STALLS
SUBTOTAL	60 UNITS		=	148 STALLS

TOTAL COMMERCIAL:

OFFICES	3,300 SF / 250	=	13.2 STALLS
DAYCARE	1,700 SF / 250	=	6.8 STALLS
ADDITION	3,000 SF/ 250	=	12.0 STALLS
SUBTOTAL	8,000 SF = 32 STALLS - 25%	=	24 STALLS

TOTAL ADA STALLS:

COMMERCIAL	(IBC 1106.1)	=	1 STALLS
RESIDENTIAL	2% OF STALLS (IBC 1106.2)	=	3 STALLS
SUBTOTAL		=	4 STALLS

PROJECT TOTAL = 148 + 24 + 4 = 176 STALLS REQUIRED

1 MASTER PLAN - PHASE 1

SCALE: 1" = 30'-0"

0 15' 30' 60'

ACTUAL PARKING PROVIDED

PERMANENT SURFACE PARKING:	126 STALLS
OVERFLOW SURFACE PARKING:	52 STALLS
TOTAL =	178 STALLS *(45 COMPACT PROVIDED, 53 COMPACT ALLOWED)*

STREET PARKING ON 19TH

4(2) + 2(7) + 5 = 27 TOTAL STREET STALLS FEASIBLE

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MASTER PLAN

PHASE 1

A110

EXHIBIT B

PARKING CALCS PER LYNDEN MUNICIPAL CODE

RESIDENTIAL PHASE 1:

3-BEDROOM TOWNHOUSE	28 UNITS	X3	=	84 STALLS
2-BEDROOM UNIT	15 UNITS	X2	=	30 STALLS
1-BEDROOM UNIT	17 UNITS	X2	=	34 STALLS
SUBTOTAL	60 UNITS			= 148 STALLS

RESIDENTIAL PHASE 2:

3-BEDROOM TOWNHOUSE	20 UNITS	X3	=	60 STALLS
2-BEDROOM UNIT	18 UNITS	X2	=	36 STALLS
1-BEDROOM UNIT	18 UNITS	X2	=	36 STALLS
SUBTOTAL	56 UNITS			= 132 STALLS

TOTAL RESIDENTIAL (BOTH PHASES):

3-BEDROOM TOWNHOUSE	48 UNITS	X3	=	144 STALLS
2-BEDROOM UNIT	33 UNITS	X2	=	66 STALLS
1-BEDROOM UNIT	35 UNITS	X2	=	70 STALLS
SUBTOTAL	116 UNITS			= 280 STALLS

TOTAL COMMERCIAL:

OFFICES	3,300 SF / 250		=13.2 STALLS
DAYCARE	1,700 SF / 250		= 6.8 STALLS
ADDITION	3,000 SF/ 250		=12.0 STALLS
SUBTOTAL	8,000 SF = 32 STALLS - 25%	=	24 STALLS

TOTAL ADA STALLS:

COMMERCIAL	(IBC 1106.1)	=	1 STALLS
RESIDENTIAL	2% OF STALLS (IBC 1106.2)	=	6 STALLS
SUBTOTAL		=	7 STALLS

PROJECT TOTAL = 148 + 132 + 24 + 7 = 311 STALLS REQUIRED

PARKING CALCS PER ALTERNATE STRATEGY

RESIDENTIAL PHASE 1:

3-BEDROOM TOWNHOUSE	28 UNITS	X2	=	56 STALLS
2-BEDROOM UNIT	15 UNITS	X2	=	30 STALLS
1-BEDROOM UNIT	17 UNITS	X2	=	34 STALLS
SUBTOTAL	60 UNITS			= 120 STALLS

RESIDENTIAL PHASE 2:

3-BEDROOM TOWNHOUSE	20 UNITS	X2	=	40 STALLS
2-BEDROOM UNIT	18 UNITS	X2	=	36 STALLS
1-BEDROOM UNIT	18 UNITS	X2	=	36 STALLS
SUBTOTAL	56 UNITS			= 112 STALLS

TOTAL RESIDENTIAL (BOTH PHASES):

3-BEDROOM TOWNHOUSE	48 UNITS	X2	=	96 STALLS
2-BEDROOM UNIT	33 UNITS	X2	=	66 STALLS
1-BEDROOM UNIT	35 UNITS	X2	=	70 STALLS
SUBTOTAL	116 UNITS			= 232 STALLS

TOTAL COMMERCIAL:

OFFICES	3,300 SF / 250		=13.2 STALLS
DAYCARE	1,700 SF / 250		= 6.8 STALLS
ADDITION	3,000 SF/ 250		=12.0 STALLS
SUBTOTAL	8,000 SF = 32 STALLS - 25%	=	24 STALLS

TOTAL ADA STALLS:

COMMERCIAL	(IBC 1106.1)	=	1 STALLS
RESIDENTIAL	2% OF STALLS (IBC 1106.2)	=	5 STALLS
SUBTOTAL		=	6 STALLS

PROJECT TOTAL = 120 + 112 + 24 + 6 = 262 STALLS REQUIRED

1 MASTER PLAN - PHASE 2

SCALE: 1" = 30'-0"

0 15' 30' 60'

N

ACTUAL PARKING PROVIDED

SURFACE PARKING:	128 STALLS *(42 COMPACT)*
LEVEL "P1":	107 STALLS *(10 COMPACT)*
LEVEL "P2":	51 STALLS *(0 COMPACT)*
TOTAL =	286 STALLS *(52 COMPACT PROVIDED, 85 COMPACT ALLOWED)*

STREET PARKING ON 19TH

4(2) + 2(7) + 5 = 27 TOTAL STREET STALLS FEASIBLE

TOTAL AVAILABLE PARKING

27 OFFSITE + 286 ONSITE = 313 TOTAL STALLS

SUMMARY OF AREAS

TOTAL LOT AREA (GROSS):	= 153,602 SF
FLEX SPACE REQ'D (20% OF NET):	= 30,720 SF (30,720 SF PROVIDED)
RESIDENTIAL OPEN SPACE REQ'D (10% OF NET):	= 15,360 SF (16,483 SF PROVIDED)
BUILDING AREA PHASE 1: 4(2,650 SF) + 4(6,000 SF) + 3(9,100 SF)	= 61,900 SF
BUILDING AREA PHASE 2: 4(6,000 SF) + 3(9,300 SF)	= 51,900 SF
TOTAL CONDITIONED FLOOR AREA: (61,900 SF + 51,900 SF)	= 113,800 SF
STRUCTURED PARKING AREA: (270' x 85') + (270' x 64')	= 40,230 SF

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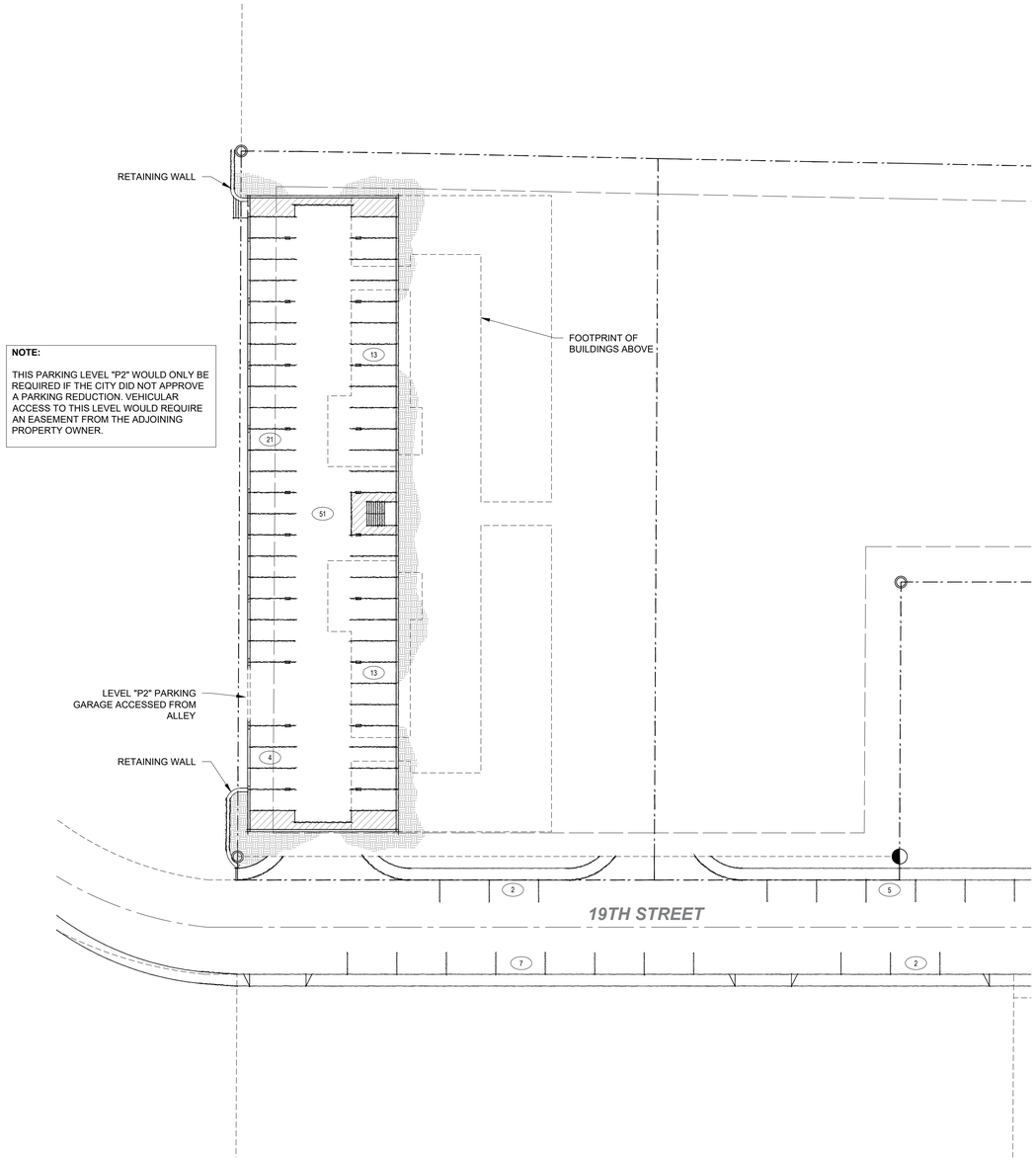
MASTER PLAN

PHASE 2

A111

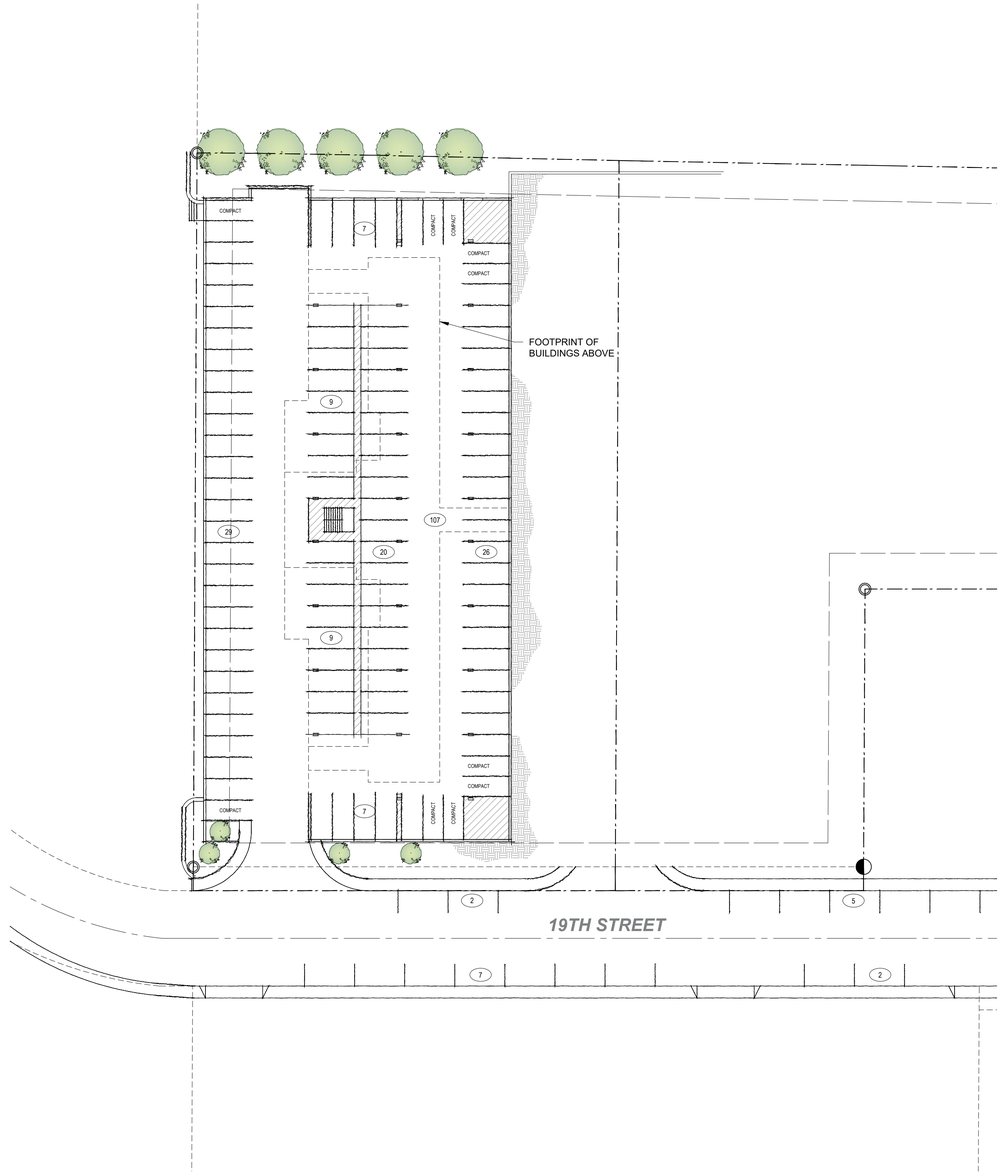
EXHIBIT B



NOTE:

THIS PARKING LEVEL "P2" WOULD ONLY BE REQUIRED IF THE CITY DID NOT APPROVE A PARKING REDUCTION. VEHICULAR ACCESS TO THIS LEVEL WOULD REQUIRE AN EASEMENT FROM THE ADJOINING PROPERTY OWNER.

2 LEVEL P2 PARKING PLAN
SCALE: 1" = 30'-0"



1 LEVEL P1 PARKING PLAN
SCALE: 1" = 30'-0"

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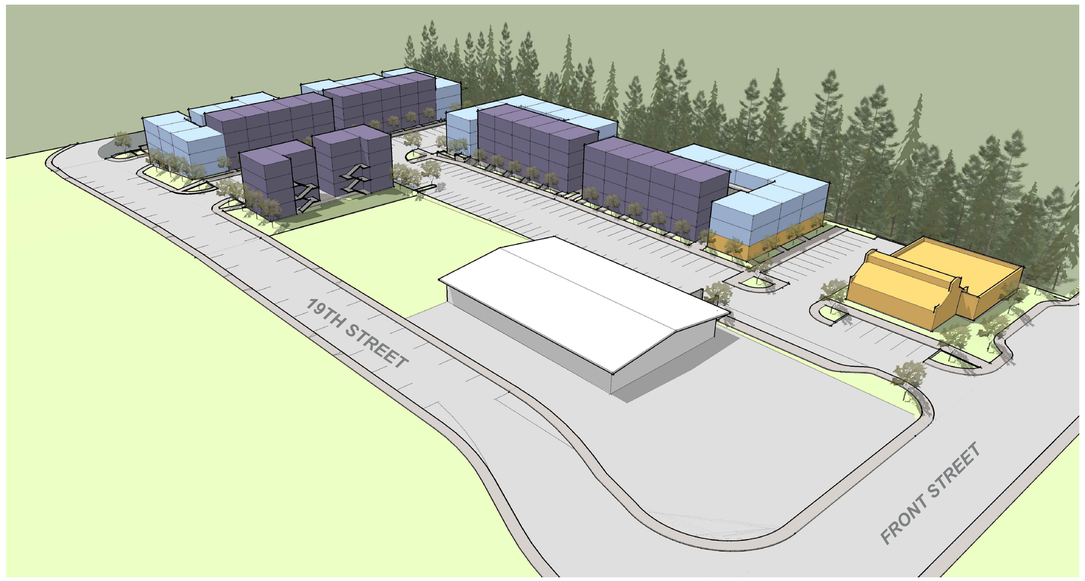
LOWER LEVEL PARKING PLANS

A112

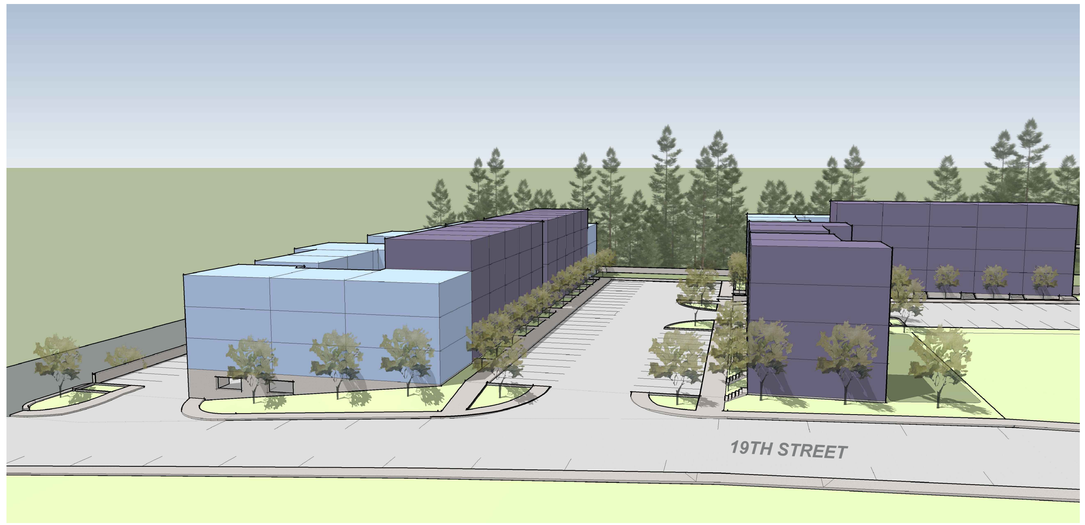
EXHIBIT B



1 SW AERIAL VIEW
SCALE: NTS

2 NW AERIAL VIEW
SCALE: NTS

3 FRONT STREET ENTRY VIEW
SCALE: NTS



4 19TH STREET ENTRY VIEW
SCALE: NTS

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RENDERINGS

A120

EXHIBIT B

Report
Environmental Site Assessment and Preliminary Geotechnical Services
Proposed Lynden Transfer Center/Park & Ride Site
Lynden, Washington

August 15, 1996

For

Whatcom Transit Authority

EXHIBIT B

GeoEngineers

15 YEARS

Consulting Engineers and Geoscientists
Offices in Washington, Oregon, and Alaska

August 15, 1996

Whatcom Transit Authority
c/o Construction Consulting
198 Barrel Springs Road
Bellingham, Washington 98226

Attention: Ms. Sarah Spence

We are pleased to submit four copies of our report entitled "Environmental Site Assessment, and Preliminary Geotechnical Engineering Services, Proposed Lynden Transfer Center/Park & Ride Site, Lynden, Washington." Our services were completed in general accordance with our proposal dated May 29, 1996 with subsequent modifications because of environmental conditions encountered at the site.

Preliminary conclusions from our Phase I environmental site assessment were transmitted via a memorandum dated June 20, 1996 to Ms. Spence with Construction Consulting. The proposed site exploration was changed in accordance with our recommendations and included test pit exploration at a former underground storage tank location and exploration and cleanup of an isolated area where petroleum contamination was observed associated with a storm drain system. The results of these latter environmental services were transmitted in a draft letter dated July 17, 1996 that was also forwarded to Ms. Spence.

We appreciate the opportunity to provide these services for the proposed WTA project. Please call if you have any questions regarding this report.

Yours very truly,

GeoEngineers, Inc.

J. Robert Gordon, P.E.
Principal

JRG:dam
Document ID: 3567010.R

File No. 3567-010-B73

GeoEngineers, Inc.
801 West Orchard Drive, Suite 2
Bellingham, WA 98225
Telephone (360) 647-1510
Fax (360) 647-5044

EXHIBIT B

CONTENTS

EXHIBIT B

CONTENTS (continued)

REPORT
ENVIRONMENTAL SITE ASSESSMENT AND PRELIMINARY GEOTECHNICAL ENGINEERING SERVICES PROPOSED LYNDEN TRANSFER CENTER/PARK & RIDE SITE LYNDEN, WASHINGTON FOR WHATCOM TRANSIT AUTHORITY

INTRODUCTION

This report presents the results of our environmental site assessment (ESA) and preliminary geotechnical engineering services for the proposed Lynden Transfer Center/Park & Ride Site to be located at 1933 Front Street in Lynden, Washington. A farm implement company, the North Washington Implement, Co. (NWIC), presently operates at the site. The site is bounded by Front Street to the north, Nineteenth Street to the east, a cemetery to the west, and a shopping center to the south. The generalized location of the site is shown in the Vicinity Map and Listed Sites, Figure 1.

These services were provided to help Whatcom Transit Authority (WTA) evaluate purchase of the subject property. We understand that the WTA intends to purchase a portion of the site to develop into the Lynden Transfer Center/Park & Ride site. The site development will consist of paved drive and parking areas and small, lightweight buildings and canopies for WTA personnel and riders. The specific location and design of the facilities had not been completed at the time of this writing.

Our original services only included a Phase I ESA to research potential environmental liabilities associated with the site. Upon conclusion of our Phase I ESA research, our environmental services were expanded to include exploration at a former underground storage tank (UST) area and evaluation/remediation of a catch basin area where petroleum hydrocarbons were identified. Appendix A contains a listing of the documentation sources and references used during this Phase I ESA study. Appendix B presents the results of the "good faith" asbestos survey completed by Welch Enterprises, Inc. Appendix C provides details regarding our field exploration program, soil sampling and field screening methodologies. Appendix D presents a summary of the chemical analytical program and the laboratory results.

SCOPE

The original scope of services is outlined in our proposal dated May 29, 1996. The Phase I ESA and preliminary geotechnical study were to include four borings to 15 feet. We also discussed additional services including the installation of monitoring wells in three of the borings and performing chemical analytical testing of soil and/or ground water samples should subsurface contamination be expected or confirmed during other project activities.

The results of our Phase I ESA research identified two potential sources of environmental contamination at the site: (1) a former UST area and (2) a storm water system with a catch basin and infiltration system that appeared to discharge petroleum products onto the ground surface and/or below ground in the yard area. As an alternative to the original exploration program consisting of four borings, we recommended program consisting of (1) a test pit exploration with chemical analytical sampling of a base sample at the former UST location and (2) test pit exploration and/or remediation at the catch basin infiltration area, as appropriate depending upon the conditions encountered. This change in scope was authorized by Ms. Sarah Spence with Construction Consulting. The specific scope of services completed for this project is outlined below.

PHASE I ENVIRONMENTAL SITE ASSESSMENT

The purpose of the Phase I ESA is to identify the presence or likely presence of hazardous substances, including petroleum products, that may have resulted or could result in a release of hazardous substances into the site surface or subsurface. Our scope of services completed is in general accordance with the intent of the Phase I ESA scope identified in ASTM Standard E 1527-94, Standard Practice for Phase I ESAs. The specific scope of services is outlined below.

1. Review readily available geotechnical or environmental reports for the subject site and surrounding area.
2. Review available federal, state and local environmental databases for listings of known or suspected environmental problems at the subject site or nearby properties. The specific databases reviewed are as follows, with the minimum search radius or area for each database given in parentheses:

EPA (U.S. Environmental Protection Agency) Lists	
NPL (National Priorities List)	(1 mile)
CERCLIS (Comprehensive Environmental Response, Compensation and Liability Information System) List	(0.5 mile)
RCRA (Resource Conservation and Recovery Act) List TSD (treatment, storage and disposal) Facilities	(1 mile)
RCRA List Generators and Transporters	(Site and Adjoining Properties)
ERNS (Emergency Response Notification System) List	(Site)
Ecology (Washington State Department of Ecology) and Local Health Department Lists	
Toxics Cleanup Program Affected Media and Contaminants Report	(1 mile)
Registered UST (underground storage tank) Sites List	(Site and Adjoining Properties)
Leaking UST Sites List	(0.5 mile)
Active and Abandoned Landfills or	

Solid Waste Disposal Facilities List (0.5 mile)

3. Review EPA and Ecology files for properties identified in the vicinity of the site that may have an environmental impact on the site, as appropriate.
4. Interview available representatives of the local fire department, health department and Ecology regarding history of the subject site and surrounding properties relative to the likely presence of hazardous substances, as appropriate.
5. Interview property owners regarding past and present uses of the properties including the historical use, generation, storage or release of hazardous materials at the site, as available.
6. Review historical aerial photographs, fire insurance maps and city business directories, as available, to identify past development history on and adjacent to the site relative to the possible use, generation, storage, release or disposal of hazardous materials.
7. Review a property history report (chain-of-title documents), as available.
8. Review a current United States Geological Survey (USGS) topographic map to identify the physical setting of the property.
9. Identify the source of potable water for the site and the type and age of the sewage disposal system used at the site from available information resources.
10. Conduct a visual reconnaissance of the site and adjacent properties to identify any visible signs of possible contamination and potential sources of contamination from hazardous materials.
11. Subcontract a "good faith" asbestos survey in the buildings to determine the likely presence of asbestos containing materials (ACMs).

PHASE II ESA ACTIVITIES

As mentioned above, our environmental services were expanded to include evaluation of potential contamination at the former UST area and a storm drain catch basin area where surficial petroleum contamination was identified. The specific scope of services completed for what we will refer to as Phase II ESA activities include:

1. Excavate one test pit at the former UST cluster location to a depth sufficient to penetrate through the backfill into the native soil and observe the conditions with respect to potential residual contamination.
2. Conduct field screening on soil samples obtained from the base of the UST cluster excavation for evidence of petroleum-related contamination using visual, water sheen and headspace vapor screening methods.
3. Submit one soil sample obtained from the base of the original UST cluster excavation for chemical analysis of total petroleum hydrocarbons (TPH) quantified as gasoline by Ecology Method WTPH-G, benzene, ethylbenzene, toluene and xylenes (BETX) by EPA Method 8020 and TPH quantified as diesel by Ecology Method WTPH-D.

4. Excavate one test pit immediately south of the surface contamination from the catch basin to the storm drainage system and stockpile the excavation material on plastic to the side of the excavation.
5. Obtain a composite sample from the resulting soil stockpile and submit for chemical analysis of TPH quantified as gasoline by Ecology Method WTPH-G, BETX by EPA Method 8020 and TPH quantified as diesel- and oil-range hydrocarbons by Ecology Method WTPH-D Extended.
6. Complete a remedial excavation of petroleum contaminated soils around two perforated pipes discharging from the catch basin, and place the excavated material on plastic. Field screening methods were used to determine the limits of the excavation.
7. Obtain four soil samples from the limits of the remedial excavation and submit them for the same suite of chemical analyses as identified in task 5 above.
8. Obtain three discrete soil samples from the resulting soil stockpile and submit them for the same suite of chemical analyses as identified in task 5 above.
9. Evaluate the field and laboratory data with regard to existing regulatory concerns and provide conclusions and recommendations to WTA and the site owner.
10. Provide a summary of our Phase I and Phase II ESA activities in the report.

PRELIMINARY GEOTECHNICAL STUDY

The purpose of the preliminary geotechnical study at this time is to research existing data and monitor the subsurface explorations completed for the environmental investigation as a basis to determine fatal flaws and suitability of the site for its intended purpose as a transfer center/park & ride facility. Specifically, we completed the following scope of services:

1. Review our information for the site obtained during the Phase I ESA, geologic maps and other available information.
2. Evaluate the native soil conditions based on monitoring the excavation of two test pits and a remedial excavation.
3. Provide preliminary conclusions regarding the suitability of the site for its intended purpose, including discussion of any significant design or construction procedures that will be appropriate beyond conventional practices.
4. Provide a brief summary of our preliminary conclusions in the report, including test pit logs, soil classifications and a site plan indicating location of explorations.

PHASE I ESA

SITE CONDITIONS

General

The site is rectangular in shape and comprises approximately 4.5 acres as shown in the Site Plan, Figure 2. The site is bounded to the north by Front Street, to the east by Nineteenth Street, to the south by a shopping center, and to the west by a cemetery. The site is presently developed

and used as a farm/yard implement store with sales and service capabilities. Potable water and sewer services are provided to the site by the City of Lynden.

The site elevation based on our review of the USGS topographic quadrangle is approximately 90 feet (mean sea level). The site and general vicinity slope gently downward to the north and a rockery borders the southern property line that is shared with the shopping center. Fishtrap Creek is the closest water body and is located approximately 500 feet to the east of the site. The creek flows to the south toward the Nooksack River.

Site Reconnaissance

We performed a reconnaissance of the site and adjacent properties on June 18, 1996. We walked the site with the present property owner, Mr. Jim Hale.

Site. As previously mentioned, the site use is a farm implement/small engine equipment sales and service facility. The prominent site features are shown in Figure 2 and consist of the following: a large steel frame building with a concrete slab to the north and to the south of the building; a smaller wood frame building; a concrete slab south of the smaller wood frame building that has a limited canopy over the top; a storm drain system that collects and discharges water from the slab south of the large building. An asbestos survey was completed for both buildings; the results of which are presented in a subsequent section of this report.

The large building is a one-story steel frame structure with a continuous slab-on-grade throughout with the exception of an area that has a basement. The northern approximately 2/3 of the building is used for offices, parts storage and sales area. The walls are primarily paneling or sheetrock. The floor coverings are primarily vinyl sheet flooring. The ceilings are dropped acoustical tiles and some "popcorn" textured sheetrock. The southern approximately 1/3 of the building is the service area for farm implements. Numerous tractors were being serviced in the facility at the time of our site visit. The floor slab has surface staining from oil products, however, no floor drains are reportedly present in this portion of the building. The basement has a slab-on-grade floor with one floor drain located in the store room where the hot water heater is located. The basement has a lunch room and another room where hoses are stored and fittings attached. With the exception of the surface petroleum staining, stored petroleum and solvent products and possibly some retail garden products, we did not evidence of the storage, disposal or release of hazardous materials inside of the building.

A smaller wood-frame building is located in the northwest corner of the site. This building also has a continuous slab-on-grade floor. The eastern portion of the building is used for maintenance and repair of small engines on lawn and garden equipment (e.g., lawnmowers, chain saws, weed cutters, etc.) and some small recreation equipment (e.g., ATVs and jet skis). Most of the building is used for storage of equipment and products associated with equipment. Several 55-gallon drums, 5-gallon cans and smaller containers of oil were stored in this building, including two 55 gallon drums that store heating oil for an oil furnace. We did not observe any floor drains in the building. With the exception of the stored petroleum products and possibly

some retail garden products, we did not evidence of the storage, disposal or release of hazardous materials inside of the building.

Mr. Hale indicated that a small diesel and a small gasoline underground storage tank were located at the southwest corner of the building. The fuel dispensers were located in the same immediate vicinity. They were removed and the area backfilled (see the "Interview" section of the report for more details).

With the exception of the concrete slab areas shown in Figure 2, the yard area around the buildings is not paved and has native soil, grass or gravel surfacing. Much of the yard area around the buildings and the open yard area south of the large building is used for storage of farm implements (e.g., tractors, harvesters, discs, balers, trucks, trailers, etc.) and other small engine equipment. Small areas of isolated ground staining by petroleum products, representing "de minimus" amounts based on our observations, were observed where some of the equipment had leaked oil. Several empty 55-gallon drums and two pallets of batteries were located at the southwest corner of the large building. We understand that the batteries are recycled. The area immediately behind the northwest building is used for storage of recreation equipment. We understand that the drive areas were recently treated with lignin.

A 3,000 gallon trailer-mounted above ground storage tank is located along the south wall of the large building on the concrete slab south of the large building. We understand that this is used to store waste oil which is used in the heating system to the shop area. Any residual waste oil and solvent products are recycled.

The tractors and some of the other larger farm equipment are pressure washed on the slab located south of the large building. Two catch basins are located in the slab area. Significant surface staining by oil and grease is present on the slab and particularly in the vicinity of the westernmost catch basin. Mr. Hale indicated that this catch basin is connected to another catch basin located in the yard area to the south (see Figure 2). Mr. Hale stated that at the present time the outlet(s) to the yard catch basin is plugged so that the runoff discharges out of the catch basin onto the ground surface. A significant quantity of water and black "sludge" type material is evident on the ground surface immediately south and west of the catch basin. Mr. Hale is not sure where the catch basin outlets are routed. He suggested that the catch basin outlet consists of one or more infiltration trenches with clay pipes. He recalled at the time of our interview that an excavation may have been completed at one of the tile locations to install rock to create more infiltration area (essentially creating a "dry well").

Adjacent Sites. As mentioned previously, the site is immediately bounded by Front Street to the north, Nineteenth Street to the east, a shopping center to the south, and a cemetery to the west. North of the site directly across Front Street is a Unocal and Pacific Pride service station with USTs. A Cost Cutter store is located in the opposite quadrant of the intersection between Front and Nineteenth Streets. To the east across 19th Street is a veterinarian hospital, vision clinic, a vacant land and a residence. On the south side, a large shopping center is anchored by an Ennen's 'The Fair' grocery store with numerous small retail tenants.

Asbestos Survey

An asbestos survey was completed for the structures at the site by Welch Enterprises, Inc. (Welch) on June 20, 1996 under subcontract to our firm. Seventeen suspect samples of asbestos containing materials were obtained for chemical analysis; fifteen samples were tested because two samples were additional samples of materials that tested positive. Asbestos at greater than 1 percent was determined to be present in eight of the samples. All the samples consisted of either "popcorn" ceiling texture or vinyl (floor) sheeting. If renovation or demolition will affect any of these materials, the handling and/or removal of these materials must be performed by certified asbestos workers. A copy of the "Good Faith Survey" completed by Welch is included as Appendix B.

Geologic Conditions

The site vicinity is located within a portion of northwest Washington that has been occupied by glaciers several times in the last million years. The most recent glaciation, the Fraser Glaciation, includes the Vashon Stade, Everson Interstade and Sumas Stade, which respectively reflect periods of glacial advance, retreat and advance. The ice sheet advanced as far south as Olympia during the Vashon Stade, approximately 13,000 to 18,000 years ago. The Everson Interstade was a period of ice retreat, approximately 11,000 to 13,000 years ago. The ice sheet extended approximately four miles south of Sumas during the Sumas Stade, approximately 10,000 years ago.

The geologic map (Easterbrook, 1976) shows one geologic unit at the site vicinity. The unit is (Sumas) Outwash Sand and Gravel which consists of advance and recessional sand and gravel that was deposited by meltwater streams flowing from the glacier during the most recent glaciation. The melting water and sediment formed an outwash plain and incised outwash channels in the pre-existing topography, including this area near the Nooksack Valley.

Hydrogeologic Conditions

Based on our experience in the area and review of a study performed in the area (Kathleen Creahan, 1988), the site is underlain by an unconfined aquifer within the Sumas Outwash Sand and Gravel unit. The ground water table is likely in excess of 20 feet deep in the vicinity of the site with a south/southwesterly flow direction.

HISTORICAL INFORMATION

Interviews

We interviewed Mr. Hale and an employee of NWIC regarding the site historical conditions. Mr. Hale purchased the property in 1989 or 1990 from Howard de Graaff and Bernice Telgenhoff. De Graaff and Telgenhoff purchased and developed the site as a John Deere farm implement sales and service facility (NWIC) in approximately 1975. The property was farmland prior to that time. The larger building was constructed with the original 1975 development. The wood framed structure in the northwest corner of the site was originally a

lumber store, Westside Building Supply. The original NWIC owners purchased the lumber store site and incorporated that property into their farm implement business. The facility has been a farm implement and small engine equipment (lawn, garden and small recreation) sales and service facility since that time. The facility may have had a septic tank and drainfield when first constructed; however, water and sewer services are presently provided by the City of Lynden.

Mr. Hale indicated that he started working at the facility in 1976. He stated that two USTs were located at the southwest corner of the large building as part of the original development. He recalled that one was a 500 gallon gasoline tank and the other was a 600 gallon diesel tank. The dispensers were located in the same immediate vicinity with very short piping. As part of his purchase agreement six years ago, the USTs, piping and dispensers were removed. The owner, the fire department and Mr. Hale were present at the time of removal. No evidence of releases or contamination was observed, but no chemical analytical testing was performed (chemical testing was not standard practice at that time).

Subsequent to completion of our Phase II ESA activities including the site exploration, Mr. Hale recalled that a waste oil UST was located at the southwest corner of the concrete slab at the south end of the large building (Figure 2). The waste oil UST was installed in approximately 1985. It was removed at the same time as the gasoline and diesel UST and observed by the same parties as described above. No evidence of releases or contamination was observed, but no chemical analytical test was performed.

Mr. Hale's description of the storm drain system with catch basins in the south slab and yard was presented previously in the "Site Reconnaissance" section of this report. With the exception of the release of petroleum products associated with a catch basin collection and discharge system, Mr. Hale indicated that he was not aware of any releases or disposal of hazardous materials on the site. Small quantities of oil have leaked from some of the farm implement equipment on the slabs and in the yard area. Lignin is sprayed on the gravel and dirt roadways as a dust suppressant. Based on information provided by suppliers, lignin is a non-toxic/non-hazardous polymer derived from the wood pulping process.

With regard to adjacent properties, Mr. Hale indicated that he was not aware of any releases or disposal of hazardous materials. The Unocal/Pacific Pride service station located directly across Front Street to the north of the site was constructed recently. He indicated that he was not aware of any releases from that facility.

Aerial Photographs

We reviewed aerial photographs dated 1961, 1975, and 1986 for the site and vicinity. In the 1961 photograph, the site appears to be farmland with a house, barn, storage building and possibly a few outbuildings. Some trees and landscaping are apparent surrounding the house and storage building; the rest appears to be actively cultivated farmland.

The 1975 and 1986 aerial photographs show the site with the two current structures. The area around the buildings had been cleared and possibly graveled for parking. Nineteenth Street is not present in any of the aerial photographs.

Kroll Maps

Kroll maps (real estate atlases) are generally available for sites within city limits. The only locally available Kroll map was updated in November 1994 and does not show the site.

Metsker's Maps

Metsker's County maps (real estate atlases) are generally available for sites within the county limits. The only locally available Metsker's map was dated 1983 and shows the site.

Sanborn Maps

Sanborn maps (fire department atlases) are generally available for sites within city limits. The only locally available Sanborn maps are dated 1932 and 1941 (updated November 1963) and do not show the site.

Historical Directories

We reviewed Polk's Bellingham City Directories which included the City of Lynden. The site and vicinity is not within the city limits and was not included in the listings.

We also reviewed Cole's Bellingham City Directories dated 1985, 1990, 1994-95, and 1995-96 for listings in the vicinity of the site. The 1985 Cole directory did not list the site location. The 1990 Cole directory shows North Washington Implement Company and J&H Leasing located at 1933 Front Street. The following adjacent sites are listed: Lynden Auction Market located at 1900 Front Street; Lynden Family Video and Western Union located at 1905 Front Street; George Telgenhoff located at 1907 Front Street; Len Vanderstalt located at 1911 Front Street; Doctors Anderson, Caligiuri, Hardman, Pederson, Plotts and Street and Kulshan Veterinarian Hospital located at 1919 Front Street; Wayne Crenshaw located at 1921 Front Street; Pacific Pride (fuel station) located at 1922 Front Street; Dr. Rodger Ekman located at 1924 Front Street; D. Vanderyacht Insurance and Up Rite Door Company located at 1924 Front Street; Duane Elsbee located at 1926 Front Street; and Lynden Ice Company and Lynden Meat Company located at 1936 Front Street.

The 1994-95 Cole directory lists North Washington Implement Company and J&H Leasing located at 1933 Front Street. The following adjacent sites are listed: Lynden Family Video located at 1905 Front Street; George Telgenhoff located at 1907 Front Street; Len Vanderstalt located at 1911 Front Street; Kulshan Veterinarian Hospital located at 1919 Front Street; Pacific Pride Fuel and Unocal 76 located at 1922 Front Street; and Lynden Ice Company and Lynden Meat Company located at 1936 Front Street. Also listed are: Dr. Rodger Ekman and Lynden Vision Clinic located at 201 19th Street; Andgar Corporation located at 203 19th Street; Building Dari Tech located at 307 19th Street; Bay Lyn Glass located at 407 19th Street; Framers Equipment Company located at 410 19th Street; and Floor Images, K Mini Storage and The Mailbox located at 413 19th Street.

The 1995-96 Cole directory lists North Washington Implement Company and J&H Leasing located at 1933 Front Street. The directory lists the same addresses as the 1994-95 Cole directory above.

REGULATORY REVIEW

General

We reviewed EPA and Ecology lists for information on properties with environmental concerns located within the minimum search distances identified in the "Scope of Services" section of this report. The listed sites identified within the specified search distances are assigned identification numbers, which are keyed to their respective description and approximate location in Figure 1. The following is a summary of the lists reviewed and their contents.

EPA Lists

- NPL list dated October 2, 1995. This list includes sites that have been officially designated as priority cleanup sites. No listed NPL sites are located within a 1-mile radius of the site.
- CERCLIS list dated March 25, 1996. This list includes sites where hazardous substances are known or suspected to have been released and where assessment and remediation under EPA's CERCLA program may be in progress. No listed CERCLIS sites are within a 1/2-mile radius of the subject site.
- RCRA notification system dated February 29, 1996. This list identifies facilities that are classified by the EPA as hazardous waste generators, transporters and/or handlers, or as TSD facilities. Sites appearing on this list does not imply that releases of hazardous materials have occurred at the facility. The site is not listed as a RCRA generator or transporter; no listed RCRA generators or transporters are listed adjacent to the site. No listed RCRA TSD facilities are located within a 1-mile radius of the subject site.
- ERNS database dated January 1, 1995 through September, 30 1995 and February 16, 1996. The ERNS database contains a listing of releases of oil and hazardous substances reported to various federal agencies since October 1990. The site address is not listed in the ERNS database.

Ecology and Health Department Lists

- Toxics Cleanup Program C&SCS List dated November 13, 1995. The C&SCS list identifies potential contaminated sites for which Ecology has conducted an initial investigation. If the investigation showed that further action is needed, the site appears on this list. No listed sites are within 1-mile of the subject site.
- MTCA Site Registers dated October 10, 1995 through June 4, 1996. The Site Register also identifies potential contaminated sites recently brought to the attention of Ecology. No listed sites are within 1-mile of the subject site.

- Registered UST Site list dated April 18, 1996 of USTs registered with Ecology. The subject site, listed as North Washington Implement Company at 1933 Front Street, is listed. The list indicates three steel unprotected USTs between 111 and 1,100 gallons, all of which have been removed. One UST was used for leaded gasoline, one was for waste oil and the other UST contents are not identified (assumed to be the former diesel UST). One site with registered USTs was identified on or adjacent to the subject site.
  1. Western Biomass Services, Inc. located at 1920 Front Street with two coated steel USTs (one used for unleaded gasoline and the other with unknown contents) and one fiberglass reinforced plastic UST (used for unleaded gasoline). This is the Unocal/Pacific Pride service station located across Front Street.
- Leaking UST Site list dated February 2, 1996 of leaking USTs reported to Ecology. No leaking UST sites are located within a 1/2-mile radius of the subject site.
- "The Northwest Environmental Compliance Report Quick Reference Guide" dated April 1993; "Landfills in Washington" (source unknown, received by GeoEngineers March 1996); "Area Landfills" from *Associated General Contractors of Washington Water Quality Manual* dated 1990. No landfills are listed within the 1/2-mile radius of the subject site.
- "Solid Waste Landfills of Record, Whatcom County." This list provides all recorded landfills within Whatcom County. One landfill is listed:
  2. City of Lynden landfill located near Tromp Road as shown in Figure 1, is located within 1/2 mile of the site. The landfill is closed. It is our understanding that the landfill has been closed since 1981. No environmental studies regarding this landfill have been completed to our knowledge.

PHASE I ESA CONCLUSIONS AND RECOMMENDATIONS

Conclusions

We performed a Phase I ESA for the proposed WTA Lynden Transfer Center/Park & Ride site identified in Figure 2 in general accordance with the scope and limitations of ASTM E 1527-94. The site was farmland prior to development as a farm implement/small engine equipment sales and service facility.

Insignificant surface staining of oil products from the storage and maintenance of equipment in the building and yards areas, that likely represents "de minimus" conditions, is present on paved or ground surfaces. Petroleum products, solvents and lawn/garden products are stored and/or dispensed at the site and therefore represent a potential source of past or present contamination. The petroleum products are in containers for retail sale and are used at the facility.

This assessment has revealed no evidence of recognized environmental contamination conditions in connection with the subject site, with the exception of two areas that were described in detail in the previous text of this report: former UST areas and a yard catch basin area.

Two sites were listed within the search distances identified in this report. A City of Lynden (closed) landfill is located between 1/3 and 1/2 mile west of the subject site. No environmental studies have been performed associated with the landfill to our knowledge. Ground water flow direction is south/southwest. Therefore, the landfill site is crossgradient from the subject site. It is very unlikely that the landfill would have impacted the subject site. The other site identified, the existing Unocal and Pacific Pride service station, is located directly across Front Street and therefore upgradient of the subject site. The service station has several USTs. Therefore, should a significant release occur from the service station USTs, it is likely that this site will be impacted via ground water contamination. The service station is relatively new (constructed in the 1980s) and is not on any regulatory lists as having any releases.

Recommendations/Remedial Actions

At the conclusion of the Phase I ESA, we recommended that two on-site areas with potential for petroleum related contamination be further evaluated: the former diesel and gasoline UST area (we were not aware of the former waste oil UST area at that time) and the yard catch basin area.

As mentioned previously, our original proposal suggested a subsurface exploration program that included drilling hollow-stem auger borings and potentially installing monitoring wells to evaluate subsurface soil and/or ground water contamination. However, under these circumstances, we recommended assessment of the potential contamination conditions using an excavator because it would allow better visual evaluation of the conditions.

PHASE II ESA ACTIVITIES

GENERAL

The Phase II ESA activities that we recommended consists of exploration and chemical analytical sampling of soil samples at the former diesel and gasoline UST area and the yard catch basin area. Mr. Jim Hale, owner of the site, and Ms. Sarah Spence of Construction Consulting as WTA's representative, verbally authorized our Phase II ESA activities on June 21, 1996.

Details regarding the Phase II ESA activities are described in the subsequent section of this report. The location of the field explorations and remedial excavation completed are shown in Figure 2. Details of the subsurface exploration program, soil sampling procedures, and field screening are presented in Appendix C. The logs of test pits are presented in Table 1. The laboratory reports, chain-of-custody records and our data quality review are included in Appendix D.

UST AREA EVALUATION

As previously mentioned, the former gasoline and diesel USTs, piping and dispensers were located in the same general vicinity. Mr. Hale and another employee identified the former UST cluster location. On June 27, 1996 we completed one exploration test pit (TP-1) with a

track mounted excavator at the site of the USTs. The test pit was completed to a depth of ten feet. We observed fill materials, including concrete rubble that was part of the concrete collar for the USTs, to an approximate depth of 8 feet. Native soil, consisting of sand with occasional gravel and trace silt was encountered below the fill. The test pit logs and results of the field screening are shown in Table 1.

No field evidence of petroleum-related contamination was observed. No groundwater was observed. The most likely location of remnant contamination would be immediately below the interface between the UST backfill and the native soil. One soil sample was obtained from directly below the native soil interface. TP-1 was backfilled with the soil excavated from the test pit since the field screening indicated a very low likelihood of contamination.

The soil sample was submitted for chemical analysis of TPH quantified as gasoline by Ecology Method WTPH-G, BETX by EPA method 8020 and TPH quantified as diesel by Ecology Method WTPH-D. No petroleum related contaminants were detected, which is consistent with the observations of those who were present during the removal of the USTs. We conclude that the likelihood of significant contamination at the former gasoline and diesel UST location is very low.

As previously described, the presence of a former waste oil UST was not identified until after our field exploration program was completed. The property owner at that time, Mr. Hale and the fire department were apparently present when the gasoline and diesel USTs were removed as well as when the waste oil UST was removed. Based on our experience at this site and other sites, a release from the waste oil UST would have been readily apparent in the native sandy soils. Therefore, based on the information available, it is our opinion that it is unlikely that a release occurred. However, subsurface exploration and/or chemical testing would be required to provide further evaluation.

CATCH BASIN EVALUATION

As previously mentioned, petroleum related contamination, likely oil and grease, is evident at the surface immediately south of the catch basin in the yard area. A test pit (TP-2) was excavated immediately to the south of the surface contamination. Material from TP-2 was stockpiled (SP-1) on plastic immediately adjacent to TP-2. Field screening indicated no evidence of contamination within the test pit. The test pit revealed drain rock at the northwest corner in the direction of the catch basin.

The excavation was continued to the north and northwest locating drain rock and an infiltration gallery. The drain rock was approximately 20 feet by 25 feet in plan view and three feet in depth. Within the drain rock was a perforated pipe system originating from the catch basin with two perforated pipes branching from this stem as can be seen in Figure 3. The pipes were filled with an oily sludge which contaminated some of the drain rock immediately adjacent to the pipes. The drain rock and associated pipes were removed and stockpiled on plastic sheeting immediately south of the excavation (SP-2). The catch basin, which was determined to be a clogged oil/water separator, failed during our remedial excavation process, releasing its contents

into the excavation. The contents of the failed catch basin and the material it contaminated in the excavation were removed and placed in the same stockpile.

The limits of the remedial excavation are shown in Figure 3. Fourteen samples were obtained from the limits of the remedial excavation to evaluate for petroleum-related contamination using field screening methods and no evidence of additional contamination was observed. The results of the field screening are presented in Table 2. Four discrete samples were obtained and submitted for chemical analysis of TPH quantified as gasoline and BETX by WTPH-G/BETX and TPH quantified as diesel/heavy oil by WTPH-D Extended. The chemical analytical results are presented in Table 3. No petroleum related contaminants were detected in the chemical analysis. One soil sample (SP-1-N) was obtained from the stockpiled soil from the excavation of test pit TP-2 and submitted for the same suite of analyses as the sample from the limits of excavation. The results are also presented in Table 3. No petroleum related contaminants were detected. Therefore, we advised Ms. Spence and Mr. Hale that this stockpiled soil is suitable as backfill material at the site.

Three soil samples were obtained from the stockpiled soil and rock from the remedial excavation (SP-2-N, SP-2-W and SP-2-S) and submitted for the same suite of analyses as the samples from the limits of the excavation. The results are presented in Table 3. Gasoline-range petroleum hydrocarbons were detected in one soil sample at a concentration of 7.3 milligrams per kilogram (mg/kg), which is less than the Ecology cleanup level of 100 mg/kg. The gasoline range hydrocarbons are likely representative of the more volatile end of the diesel range hydrocarbons detected in the sample. BETX was not detected in any of the samples. Heavy oil-range petroleum hydrocarbons were detected in all three samples at concentrations of 110, 380, and 680 mg/kg. Two of these samples have concentrations greater than the Ecology cleanup level of 200 mg/kg. We recommended to Mr. Hale and Ms. Spence that this stockpiled material be disposed off-site in accordance with applicable state regulations.

A corrugated plastic four-inch diameter drain pipe was found adjacent to the catch basin. The corrugated pipe entered the infiltration area in the northeast corner and exited the infiltration through the east wall. It is our understanding that the pipe was used for drainage originating from the roof of the NWIC building and presently may be abandoned. Investigation of the some sediment in the pipe and area surrounding the pipe found no evidence of petroleum hydrocarbons.

We left the site after completion of the remedial excavation. We understand that the catch basin and infiltration area were reconstructed by RAM Construction. The existing oil/water separator was rebuilt and an additional catch basin was placed immediately south and connected to it. Imported drain rock was placed in the excavation in addition to new perforated PVC piping with dimensions similar to the previous design. The corrugated pipe was left terminated adjacent to the catch basin. We understand that the material from SP-1 was used to fill over the drain rock to the present grade. We understand that the existing waste oil/water separator in the slab area was also reconstructed.

Based on the results of the chemical analytical testing and our observations, actions to mitigate subsurface petroleum-related soil contamination in the vicinity of the yard catch basin

have been completed successfully. The petroleum contamination was heavy oil and grease and therefore did not penetrate significantly into the native soil. It is our opinion that no further evaluation of this area is warranted.

PRELIMINARY GEOTECHNICAL ENGINEERING CONCLUSIONS

As previously discussed, the site is in an area that is underlain by a geologic unit known as the Sumas Outwash Sand and Gravel. Based on our experience in the Lynden area, the outwash material typically consists of a medium dense, relatively "clean" sand. The subsurface conditions at the site were observed during the excavation of two test pits and a remedial excavation in the yard area. The test pit logs are presented in Table 1. The native soil conditions observed consist of medium dense fine to medium sand with occasional gravel and trace silt. These conditions are typical and consistent with the geologic mapping.

We conclude that the site is suitable for the proposed use as a public transportation transfer center and "park & ride" facility. The native soils will provide adequate bearing support for the typical light-weight structures associated with transfer centers/park & ride facilities. Typical design parameters presented by the Uniform Building Code (UBC) for sand materials will be suitable for design. Based on the limited explorations that we observed, the sand does not have a significant gravel content. Therefore, the sand will not have a high subgrade modulus value. We suggest that it may be appropriate to include a gravel base in the pavement design to stiffen the subgrade, particularly for bus traffic.

Based on our research and discussions with on-site personnel, ground water is greater than 15 to 20 feet deep and therefore will not be a consideration during design or construction. The sand does not have a significant silt content that is referred to as "binder". Therefore, the sand can be susceptible to disturbance from construction and even foot traffic if it is dry. However, the sand will likely drain relatively rapidly such that site construction could occur during moderately inclement weather.

LIMITATIONS

We have prepared this report for use by Whatcom Transit Authority, Construction Consulting and their design team in the design of a portion of the project. The data and report may be provided to the contractors and others interested in the site, but our report, conclusions and interpretations should not be construed as a warranty of the subsurface conditions.

If there are any changes in the location, configuration or type of facilities to be constructed or the project design conflicts with the assumptions presented herein, the conclusions and recommendations presented in this report might not be fully applicable. If any such changes are made, we should be retained to review our conclusions and recommendations and to provide written modification or verification of these recommendations. When the design has been finalized, our firm should also be retained to review the appropriate final design drawings and

specifications to see that our recommendations have been interpreted and implemented as intended.

Variations in subsurface conditions between the locations of the explorations should be expected because of the past grading activities at the site. A contingency for unanticipated conditions should be included in the project budget and schedule. We recommend that sufficient monitoring, testing and consultation be provided by our firm during construction to confirm that the conditions encountered are consistent with those indicated by the explorations and to provide recommendations for design changes should the conditions revealed during the work differ from those anticipated.

The scope of our services does not include services related to construction safety precautions and our recommendations are not intended to direct the contractor's methods, techniques, sequences or procedures, except as specifically described in our report for consideration in design.

The information presented herein for the Phase I ESA is based on the above described data and site visits. The report may be provided to lenders and regulatory agencies. GeoEngineers has relied upon information provided by others in our description of historical conditions. The available data do not provide definitive information with regard to all past uses, operations or incidents at the site. No environmental subsurface exploration or chemical testing were performed for this study. A possibility always exists for areas of contamination that were not identified. Further evaluation of such possible contamination would require appropriate subsurface exploration and testing.

Within the limitations of scope, schedule and budget, our services have been executed in accordance with generally accepted geotechnical and Phase I ESA practices in this area at the time the report was prepared. No warranty or other conditions, express or implied, should be understood.

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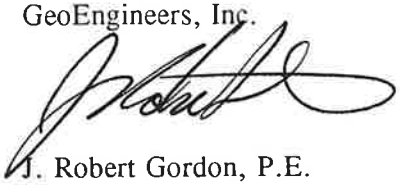
We appreciate this opportunity to be of service to Whatcom Transit Authority. Please call if you have any questions regarding this report or we can provide additional assistance.

Respectfully submitted,
GeoEngineers, Inc.



J. Robert Gordon, P.E.
Principal

JRG:dam
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TABLE 1
TEST PIT LOGS AND SUMMARY OF FIELD SCREENING RESULTS

Test Pit Number	Sample Number	Sample Depth (feet)	Field Screening Results[1]		Classification[1] Symbol	Depth (feet)	Soil Description
			Headspace Vapors (ppm)	Sheen			
TP-1	1	1.0	<100	NS	SP	0.0-1.5	Brown fine to medium sand with gravel and trace of silt (medium dense, moist) (fill)
	2	4.0	<100	NS	SP	1.5-8.0	Brown fine to medium sand with occasional gravel, trace of silt, and occasional
	3	6.0	<100	NS			concrete rubble (medium dense, moist) (fill)
	4	8.0	<100	NS	SP	8.0-10.0	Brown fine to medium sand with occasional gravel and trace of silt
	5	9.0	<100	NS			(medium dense, moist)
							Test pit completed at 10.0 feet on 06/26/96
							No ground water seepage observed
							Minor caving observed
							Disturbed soil samples obtained at 1.0, 4.0, 6.0, 8.0 and 9.0 feet
TP-2						0.0-0.8	Sod
	1	1.0	<100	NS	ML	0.8-3.0	Brown silt with fine to medium sand and occasional roots
	2	1.5	<100	NS			(medium stiff to stiff, moist)
	3	4.0	<100	NS	SP	3.0-10.0	Brown fine to medium sand with occasional gravel and trace of silt
	4	6.0	<100	NS			(medium dense, moist)
	5	8.0	<100	NS			Test pit completed at 10.0 feet on 06/27/96
	6	10.0	<100	NS			No ground water seepage observed
							Minor caving observed
							Disturbed soil samples obtained at 1.0, 1.5, 4.0, 6.0, 8.0 and 10.0 feet

NOTES:

[1]See Appendix C for detailed explanation of exploration program, field screening methods, and description of classification symbols

NS = No Visible Sheen

ppm = parts per million

< = less than

EXHIBIT B

EXHIBIT B

TABLE 2
RESULTS OF FIELD SCREENING
SOIL SAMPLES FROM REMEDIAL EXCAVATION

Location Number	Date Sampled	General Location	Depth of Sample (feet)	Field Screening[1]	
				Headspace Vapors (ppm)	Sheen
1	06/27/96	East	2	<100	NS
2	06/27/96	North	3	<100	NS
3	06/27/96	West	3	<100	NS
4	06/27/96	South	3	<100	NS
5	06/27/96	North	3	<100	NS
6	06/27/96	East	3	<100	NS
7	06/27/96	Bottom	3	<100	NS
8	06/27/96	Bottom	3	<100	NS
9	06/27/96	Bottom	3	<100	NS
10	06/27/96	Bottom	3	<100	NS
11	06/27/96	Bottom	6	<100	NS
12	06/27/96	South	3	<100	NS
13	06/27/96	East	4	<100	NS
14	06/27/96	South	4	<100	NS

NOTES:

[1]See Appendix C for a detailed explanation of field screening methods.

ppm = parts per million

< = less than

TABLE 3
SUMMARY OF CHEMICAL ANALYTICAL DATA[1]
SOIL SAMPLES FROM EXCAVATION LIMITS

Sample	Date Sampled	General Location	Depth of Sample (feet)	Field Screening[2]		BETX[3] (EPA Method 8020) (mg/kg)				Gasoline[4] (mg/kg)	Diesel[5] (mg/kg)	Oil[6] (mg/kg)
				Headspace Vapors (ppm)	Sheen	B	E	T	X			
1 - West	06/27/96	Excavation Bottom	3	<100	NS	<0.1	<0.1	<0.1	<0.3	<5.0	<23	<100
2 - East	06/27/96	Excavation Bottom	3	<100	NS	<0.1	<0.1	<0.1	<0.3	<5.0	<23	<100
3 - East	06/27/96	Excavation Bottom	6	<100	NS	<0.1	<0.1	<0.1	<0.3	<5.0	<23	<100
4 - South	06/27/96	Excavation Bottom	2	<100	NS	<0.1	<0.1	<0.1	<0.3	<5.0	<25	<100
SP-2-N	06/27/96	Excavation Stockpile	N/A	<100	NS	<0.1	<0.1	<0.1	<0.3	<5.0	<25	110
SP-2-W	06/27/96	Excavation Stockpile	N/A	<100	NS	<0.1	<0.1	<0.1	<0.3	7.3	<25	680
SP-2-S	06/27/96	Excavation Stockpile	N/A	<100	NS	<0.1	<0.1	<0.1	<0.3	<5.0	<23	380
SP-1-N	06/27/96	TP-1 Stockpile	N/A	<100	NS	<0.1	<0.1	<0.1	<0.3	<5.0	<23	<100
MTCA Method A Cleanup Levels						0.5	20.0	40.0	20.0	100	200	200

Notes:

[1]Chemical analyses conducted by AVOCET Environmental Testing. Laboratory results are presented in Appendix D.

[2]See Appendix C for a detailed explanation of field screening methods.

[3]B = benzene, E = ethylbenzene, T = toluene, X = total xylenes

[4]Gasoline quanified by Ecology Method WTPH-G

[5]Diesel quantified by Ecology Method WTPH-D Extended

[6]Oil quantified by Ecology Method WTPH-D Extended

mg/kg = milligrams per kilogram

ppm = parts per million

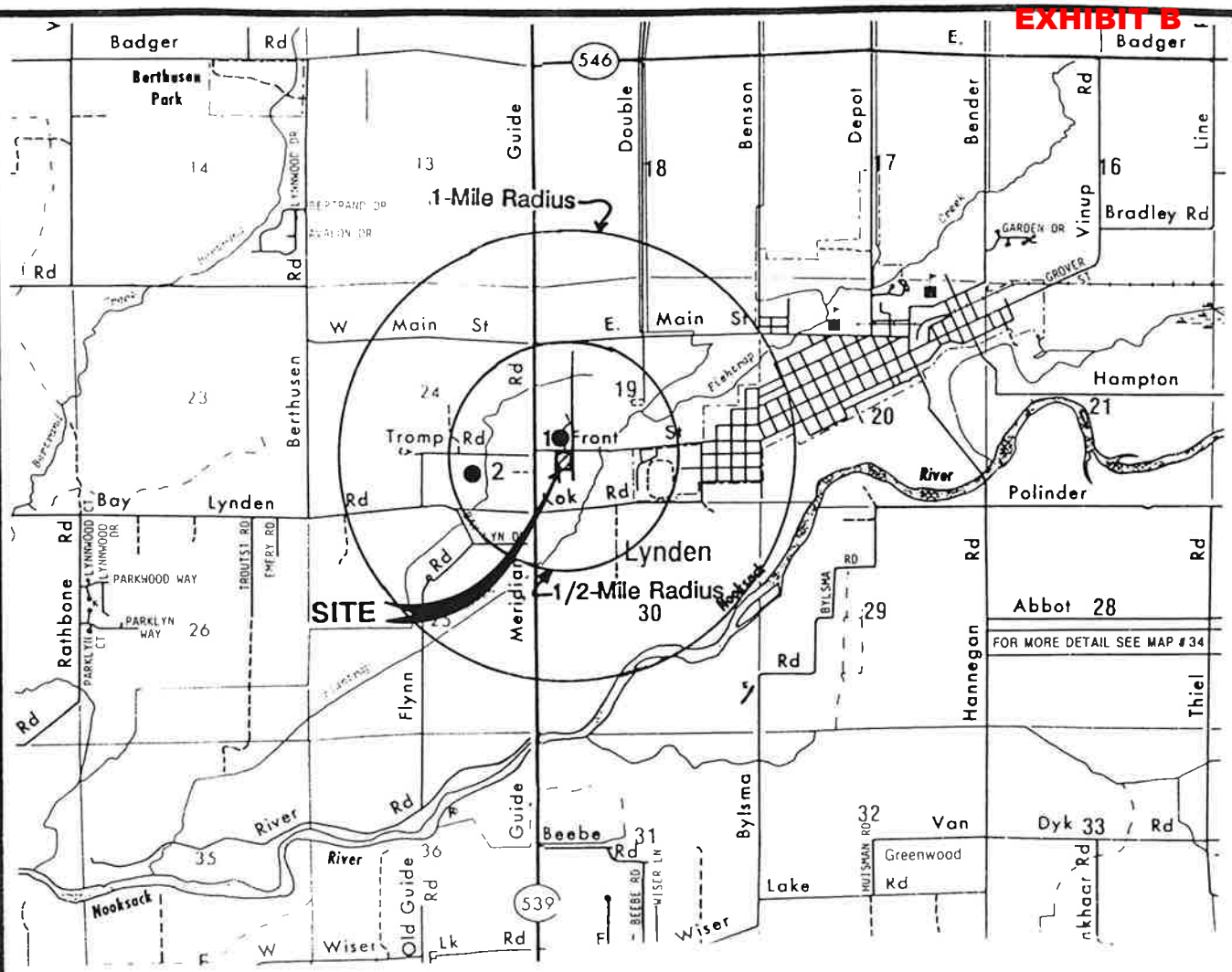
< = less than

N/A = Not applicable

Shading indicates concentrations exceeding MTCA method A cleanup leve

EXHIBIT B

EXHIBIT B



Listed Site:

1 Western Biomass Services, Inc. located at 1920 Front Street, Lynden.

2 City of Lynden Landfill (closed)

Reference: Totem Atlas of Northwestern Washington, this is an authorized copy of a page from the Totem Atlas of Island, Skagit, Whatcom and San Juan Counties, a copyrighted publication. - A.W. Tanner

Geo Engineers

VICINITY MAP AND LISTED SITES

FIGURE 1

#3567-010-B73 JRG:dam 07/08/96

EXHIBIT B

#3567-010-B73 GRS:JRG:dam 07/30/96

19TH STREET

FRONT STREET

Concrete Slab

North Washington Implement Co. Building

Concrete Slab

LOT 2

TP-2

Approximate Limits of Remedial Excavation (See Figure 3)

Former Gasoline & Diesel UST Location

TP-1

Former Waste Oil UST Location

North Washington Implement Co. Building

Concrete Slab

Concrete Slab

LOT 1

LOT 3

N

0 60 120

SCALE IN FEET

EXPLANATION:

- TP-1 TEST PIT LOCATIONS AND NUMBER
- EXISTING CATCH BASIN LOCATION
- NEW CATCH BASIN LOCATION

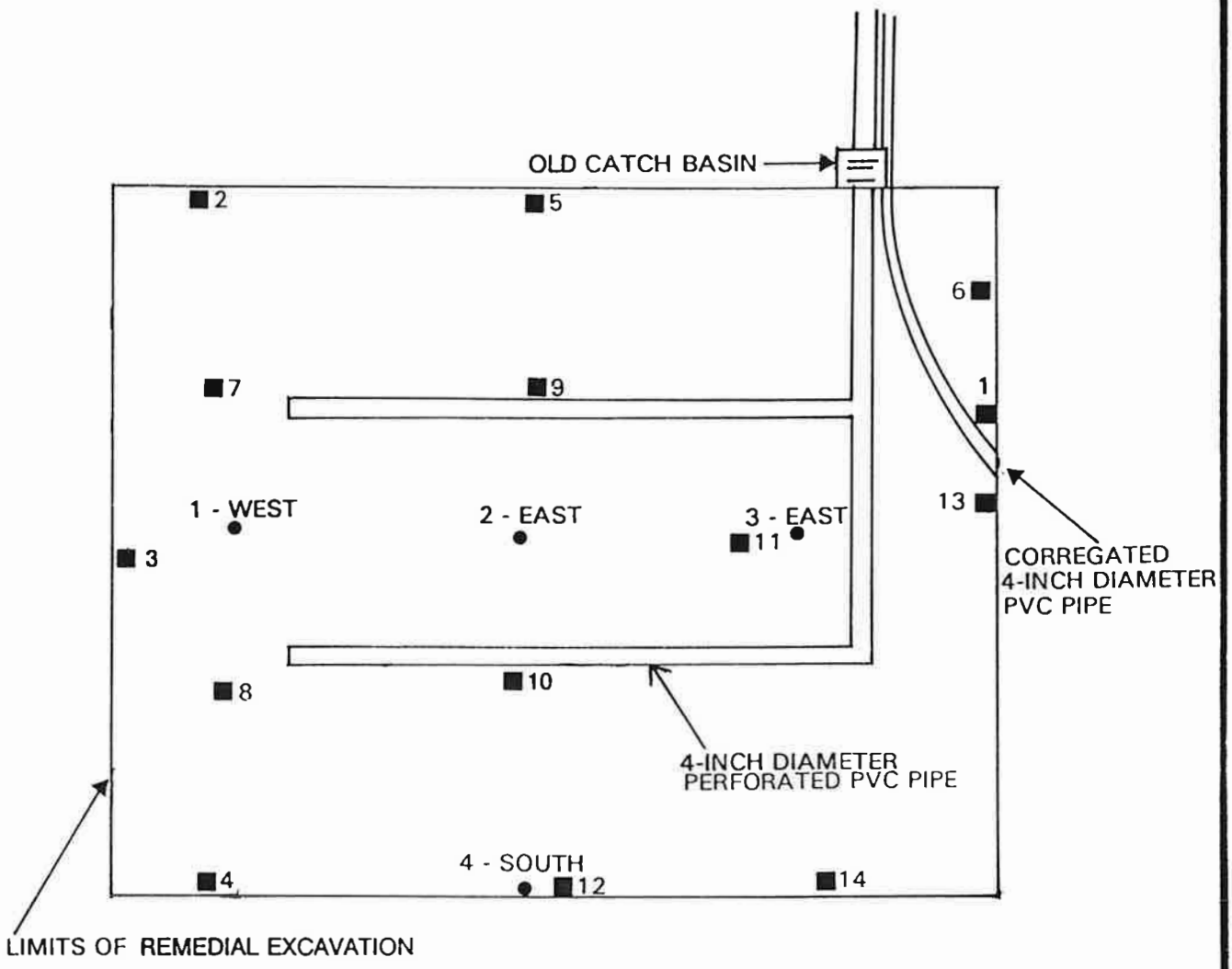
Reference: Short Plat Map for North Washington Implement Company provided by Larry Steele & Associates dated 09/08/95.

GeoEngineers

SITE PLAN

FIGURE 2

EXHIBIT B



0 5 10

APPROXIMATE SCALE IN FEET

N

EXPLANATION:

- ● 1 - WEST — CHEMICAL SAMPLE NUMBER AND LOCATION
- ■ 1 — FIELD SCREENING NUMBER AND LOCATION

#3567-010-B73 GRS:jlb 08/05/96

GeoEngineers

REMEDIAL EXCAVATION

FIGURE 3

EXHIBIT B

APPENDIX A

APPENDIX A

REFERENCES

PUBLISHED REFERENCES

- "Geologic Map of Western Whatcom County, Washington" by Don Easterbrook dated 1976.
- Totem Atlas, Whatcom County, page 34.
- EPA's NPL dated October 2, 1995.
- EPA's CERCLIS dated March 25, 1996.
- EPA's RCRA notification system dated February 29, 1996.
- EPA's ERNS through January 1, 1995 through September 30, 1995 and February 16, 1996.
- Ecology's Registered UST list dated April 18, 1996.
- Ecology's Leaking UST sites list dated February 2, 1996.
- Ecology's Toxics Cleanup Program Affected Media and Contaminants Report dated November 13, 1995.
- Ecology's MTCA Site Register dated October 10, 1995 through June 4, 1996.
- "Water Table Elevations and Groundwater Flow in an Unconfined Aquifer in Northern Whatcom County" (a thesis submitted to Western Washington University in partial fulfillment for the Degree of Masters of Science), by Kathleen Creahan, July 1988.
- "The Northwest Environmental Compliance Report Quick Reference Guide" dated April 1993; "Landfills in Washington" (source unknown, received by GeoEngineers March 1996); "Area Landfills" from *Associated General Contractors of Washington Water Quality Manual* dated 1990.
- USGS topographic map "Lynden" dated 1952 (photorevised 1972).

PERSONAL COMMUNICATIONS

- Interview with Mr. Jim Hale of the North Washington Implement Company by Mr. J. Robert Gordon of GeoEngineers on June 18, 1996 and other undocumented times.

OTHER REFERENCES

- Aerial photographs provided by Whatcom County dated 1961, 1975, and 1986.
- Cole City of Bellingham directories dated 1985, 1990, 1994-95 and 1995-96.
- Sanborn Maps dated 1932 and 1941 (updated 1963).
- Metsker's Map dated 1983.

EXHIBIT B

APPENDIX B

EXHIBIT B

Welch Enterprises, Inc.
115 Lind St., PO Box 366
Mount Vernon WA 98273
(360) 336-9578

WELCHE1099NP

June 24, 1996

GeoEngineers
JUN 25 1996
ROUTING JRG
FILE# 3567-010-B73

J. Gordon
GEO Engineers
801 W. Orchard Dr., Suite 2
Bellingham, Wa. 98225

RE: **Asbestos Good Faith Survey - North Washington Implement Co.**
1933 Front St.
Lynden, Wa.

On June 20, 1996, our firm inspected two commercial buildings located at the above referenced address.

The purpose of this inspection/survey was to determine the presence or absence of building materials that might contain asbestos. Title 40 Code of Federal Regulations (40 CFR), subpart M, section 61.141, established the allowable limit of asbestos in building materials at 1% by weight. Materials containing more than 1% asbestos are regulated and must be handled in accordance with Federal, State, and Local regulations.

Seventeen bulk samples were collected and fifteen subsequently analyzed for asbestos content by Polarized Light Microscopy with Stain Dispersion. Samples # 2A, 3, 4, 6, 7, 8, 9, and 11 were found to contain more than 1% asbestos.

The material represented by these samples will require handling/removal by certified asbestos workers prior to any remodeling, renovation, or demolition that will lead to disturbance or removal of asbestos. Prior to removal of these materials, ten-day notices must be filed with the local Air Pollution Authority and the State Department of Labor & Industries.

This letter and attached sample list, site sketch, and lab report will comprise the 'Good Faith Survey'.

Please call us if you have any questions.

Sincerely,

Dave B. Phillips
AHERA Bldg. Insp. Cert. # J&J960119-BR-02

Enclosure

EXHIBIT B

Welch Enterprises, Inc.
115 Lind St., PO Box 366
Mount Vernon WA 98273
(360) 336-9578

WELCHE1099NP

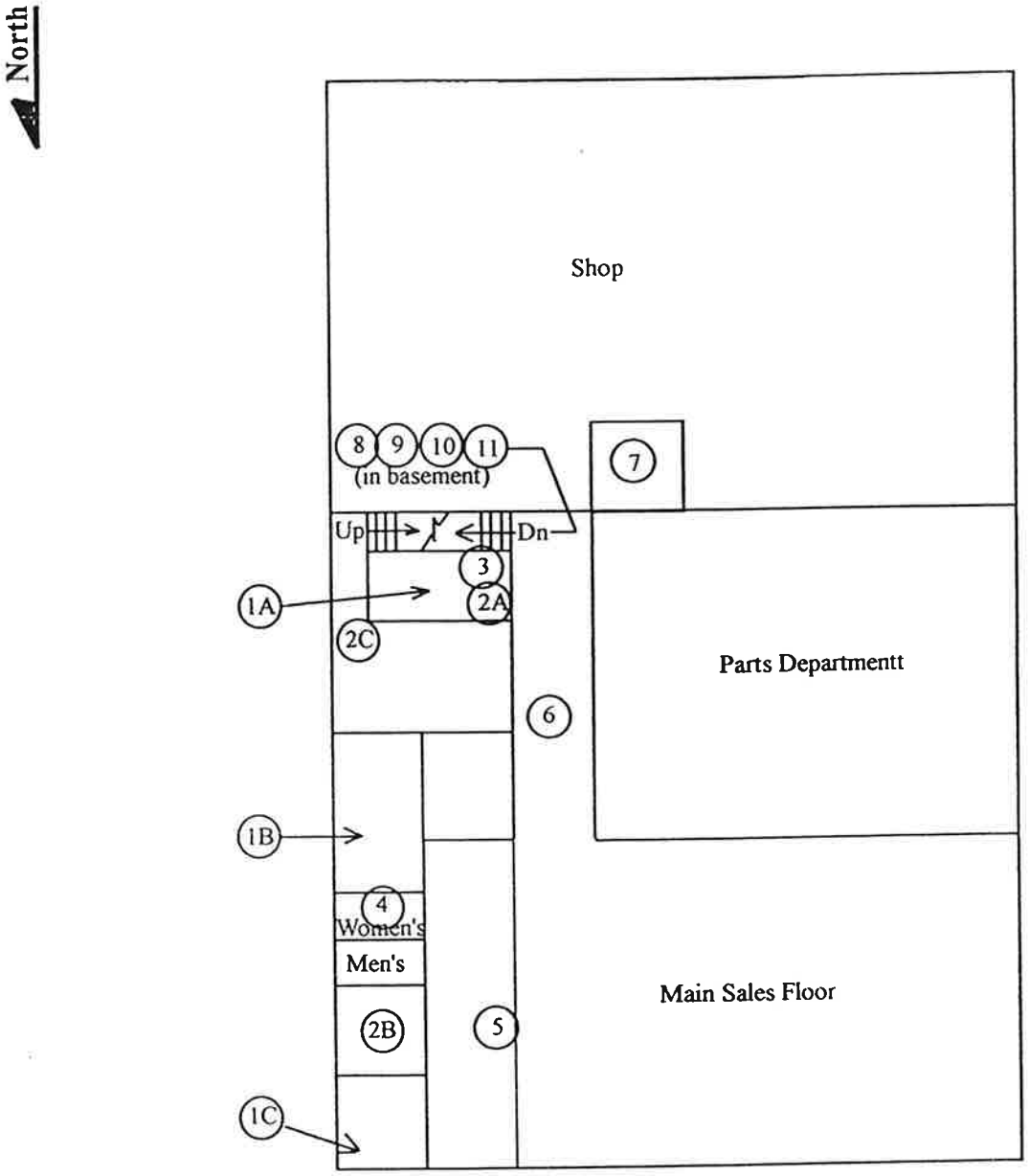
RE: **Asbestos Survey - North Washington Implement Co.**
1933 Front Street
Lynden, Wa.

Sample List

Sample #	Location	Material	Quantity	Asbestos %
Main Sales Building (steel frame);				
1A	SE corner , ceiling	Spray insulation	~10,000 sf	N/D
1B	E center , ceiling	Spray insulation	~	N/D
1C	NE corner , upper wall	Spray insulation	~	N/D
2A	**S. office by stairs to basement**	**'Popcorn' ceiling texture**	**~820 sf**	**Chry. 15-20%**
2B	2nd office from N.	'Popcorn' ceiling texture	~	N/T
2C	SE. corner office by stairs to loft	'Popcorn' ceiling texture	~	N/T
3	**S. office by stairs to basement**	**Vinyl sheet**	**~ 85 sf**	**Chty. 20-25%**
4	**Restrooms (both same)**	**Vinyl sheet**	**~ 100 sf**	**Chry. 20-25%**
5	E side of showroom	Vinyl tiles	~ 360 sf	N/D
6	**Aisle between parts counter & offices**	**Vinyl sheet**	**~ 270 sf**	**Chry. 20-25%**
7	**Shop office**	**Vinyl sheet**	**~ 50 sf**	**Chry. 20-25%**
8	**Basement lunchroom**	**Vinyl sheet**	**~ 220 sf**	**Chry. 20-25%**
9	**Basement lunchroom & stair cceiling**	**'Popcorn' ceiling texture**	**~ 350 sf**	**Chry. 10-15%**
10	Basement walls (typical throughout)	Sheetrock w/joint comp.		N/D
11	**Basement stair risers**	**Vinyl sheet**	**~ 60 sf**	**Chry. 20-25%**
Small Engine Repair Building (wood frame);				
12	Shop/Office ceiling	Acoustical tile	~ 250 sf	N/D
13	Roof	Asphault roofing	~ 5800 sf	N/D

N/T = Not Tested (previous sample tested positive)
N/D = None Detected

EXHIBIT B



Main Building
1933 Front Street
Lynden, Wa.

No Scale - Ref. Only

(x) = Sample Locations

Welch Enterprises, Inc.
PO Box 366
Mt. Vernon, Wa. 98273
6/24/96

EXHIBIT B

Mt. Vernon Asbestos Lab

Welch Enterprises, Inc.
AIHA Lab # 021307

115 Lind St, PO Box 366
Mount Vernon WA 98273

Phone (360) 336-9578
FAX (360) 336-9579

ASBESTOS BULK SAMPLE ANALYSIS

Client Name: **GEO Engineers**
801 W. Orchard Dr., Suite 2
Bellingham, Wa. 98225
(360) 647-1510

Attention: **J. Gordon**

Source of Samples: **North Washington Implement Co.**
1933 Front St.
Lynden, Wa.

Date Rec'd: 6/20/96

Analytical Method: Polarized Light Microscopy with Dispersion Staining (PLM-DS Method)

Sample No.:	1A	**Analysis:**	**Asbestos:**	None Detected
Lab No.:	17398B			
Location:	Main bldg., SE corner, spray insulation - ceiling		**Other fibers:**	Cellulose
Description:	Grey fibrous mass			
Sample No.:	1B	**Analysis:**	**Asbestos:**	None Detected
Lab No.:	17399B			
Location:	Main bldg., E center, spray insulation - ceiling		**Other fibers:**	Cellulose
Description:	Grey fibrous mass			
Sample No.:	1C	**Analysis:**	**Asbestos:**	None Detected
Lab No.:	17400B			
Location:	Main bldg., NE corner, spray insulation - upper walls		**Other fibers:**	Cellulose
Description:	Green fibrous mass			
Sample No.:	2A	**Analysis:**	**Asbestos:**	**Chrysotile 15-20%**
Lab No.:	17401B			
Location:	Main bldg. S. office by stairs (material also throughout office area)		**Other fibers:**	Cellulose
Description:	'Popcorn' ceiling texture			
Sample No.:	3	**Analysis:**	**Asbestos:**	**Chrysotile 20-25%**
Lab No.:	17402B			
Location:	Main bldg. S. office by stairs		**Other fibers:**	Cellulose
Description:	Off white vinyl sheet w/grey fibrous backing			
Sample No.:	4	**Analysis:**	**Asbestos:**	**Chrysotile 20-25%**
Lab No.:	17403B			
Location:	Main bldg. women's restroom (Men's same)		**Other fibers:**	Cellulose
Description:	Green patterned vinyl sheet w/grey fibrous backing			

Analyst: Dave B. Phillips Date: 6-24-96

Dave B. Phillips / Rodney R. Welch

Samples retained for 60 days unless otherwise requested in writing.

Lab results are completely confidential. Written permission is required to release results to another party.

1

EXHIBIT B

Mt. Vernon Asbestos Lab

Welch Enterprises, Inc.
AIHA Lab # 021307

115 Lind St, PO Box 366
Mount Vernon WA 98273

Phone (360) 336-9578
FAX (360) 336-9579

ASBESTOS BULK SAMPLE ANALYSIS

Sample No.:	5	**Analysis:**	**Asbestos:**	None Detected
Lab No.:	17404B			
Location:	Main bldg. E side of showroom (in front of bathrooms & N offices)		**Other fibers:**	Cellulose & Synthetic
Description:	Off white vinyl tile w/yellow mastic			
Sample No.:	6	**Analysis:**	**Asbestos:**	**Chrysotile 20-25%**
Lab No.:	17405B			
Location:	Main bldg. aisle between parts counter & offices		**Other fibers:**	Cellulose
Description:	Stone pattern vinyl sheet w/grey fibrous backing			
Sample No.:	7	**Analysis:**	**Asbestos:**	**Chrysotile 20-25%**
Lab No.:	17406B			
Location:	Main bldg. shop office		**Other fibers:**	Cellulose
Description:	Yellow patterned vinyl sheet w/grey fibrous backing			
Sample No.:	8	**Analysis:**	**Asbestos:**	**Chrysotile 20-25%**
Lab No.:	17407B			
Location:	Main bldg. basement lunchroom		**Other fibers:**	Cellulose
Description:	Green & yellow patterned vinyl sheet w/grey fibrous backing			
Sample No.:	9	**Analysis:**	**Asbestos:**	**Chrysotile 10-15%**
Lab No.:	17408B			
Location:	Main bldg. basement lunchroom		**Other fibers:**	Cellulose
Description:	'Popcorn' ceiling texture			
Sample No.:	10	**Analysis:**	**Asbestos:**	None Detected
Lab No.:	17409B			
Location:	Main bldg. basement walls (typical throughout)		**Other fibers:**	Cellulose
Description:	Sheetrock w/joint compound			
Sample No.:	11	**Analysis:**	**Asbestos:**	**Chrysotile 20-25%**
Lab No.:	17410B			
Location:	Main bldg. stairs to basement - tread risers		**Other fibers:**	Cellulose
Description:	Orange & tan pebble pattern vinyl sheet w/grey fibrous backing			
Sample No.:	12	**Analysis:**	**Asbestos:**	None Detected
Lab No.:	17411B			
Location:	Small engine repair bldg., shop & office 12" x 12"ceiling tiles		**Other fibers:**	Cellulose
Description:	Tan acoustical tile			
Sample No.:	13	**Analysis:**	**Asbestos:**	None Detected
Lab No.:	17412B			
Location:	Small engine repair bldg., roof		**Other fibers:**	Cellulose & glass
Description:	Multiple layers asphault roofing			

Analyst: Dave B. Phillips / Rodney R. Welch Date: 6-24-96

Samples retained for 60 days unless otherwise requested in writing.

Lab results are completely confidential. Written permission is required to release results to another party.

APPENDIX C

APPENDIX C

FIELD EXPLORATIONS

SUBSURFACE SOIL CONDITIONS AND SAMPLES

Subsurface soil conditions were explored at two test pit locations and at a remedial excavation at the locations shown in Figures 2. The test pits and remedial excavation were completed by Ram Construction on June 27, 1996. The test pits were excavated to an approximate depth of 10 feet using a rubber-tired backhoe. The remedial excavation was generally excavated to an approximate depth of 3 feet with a deeper section to 6 feet below the ground surface.

Test pit TP-1 was excavated at a former underground storage tank (UST) cluster location. Several soil samples were field screened. One soil sample was obtained from immediately below the UST backfill in the native soils and submitted for chemical analysis. Since no evidence of petroleum-related contamination was observed and the former UST location is in a heavy traffic area for large equipment, the excavated soils were backfilled in the test pit excavation. Test pit TP-2 was excavated south (downgradient) from a catch basin that had discharged petroleum product at the ground surface. Several samples were field screened, but no evidence of petroleum-related contamination was observed.

Limits of the remedial excavation were determined by observing the residual heavy oils and greases around the catch basin and infiltration pipe area as discussed in the text of the report. Samples were obtained from the vertical and lateral limits of the excavation.

The soil sampling equipment was decontaminated prior to and between each sampling event using a nonphosphate detergent and distilled water rinse. Representatives from GeoEngineers determined the soil sampling locations.

The soil samples were split into two portions: one for field screening and descriptive logging and the other for chemical analysis, where appropriate. Selected soil samples were placed in cold transport containers with appropriate chain-of-custody documentation and delivered to the analytical laboratory. Information noted on the sample labels included the job number, sample number, sampling date. Chain-of-custody procedures were observed during transport of the samples to the laboratory.

A member of our staff examined and classified the soils encountered and prepared a log of each test pit and the excavation. Soils encountered were classified visually in general accordance with ASTM D-2488-90, which is described in Figure C-1. The test pit logs, along with the results of the field screening as described below, are presented in Table 1.

Analytical results for the soil samples obtained from the test pits are summarized in the text. Analytical results for the soil samples obtained from the remedial excavation limits are summarized in Table 2. The laboratory reports are presented in Appendix D.

FIELD SCREENING OF SOIL SAMPLES

Our staff member conducted field screening on soil samples obtained from the test pits, remedial excavation and soil stockpiles. Field screening results are used as a general guideline to delineate areas of potential contamination in soils. In addition, screening results are often used as a basis for selecting soil samples for chemical analysis. The field screening methods used include (1) visual examination, (2) sheen screening, and (3) headspace vapor screening using a Bacharach TLV Sniffer calibrated to hexane. Results of headspace and sheen screening from the test pits are presented on Table 1; the field screening results from the remedial excavation and stockpiles are presented in Tables 2 and 3.

Visual screening consists of inspecting the soil for stains indicative of residual contamination. Visual screening is generally more effective when contamination is related to heavy petroleum hydrocarbons such as motor oil, or when contaminant concentrations are high. Sheen screening and headspace vapor screening are more sensitive screening methods that have been effective in detecting contamination at concentrations less than regulatory cleanup guidelines.

Sheen screening involves placing of the soil in water and observing the water surface for signs of a sheen. Because of its sensitivity, the sheen method is first tested on soils obtained from a portion of the site believed to be clean and unaffected by contaminants, thereby establishing a site-specific background level of sheen.

Sheens are classified as follows:

No Sheen (NS)	No visible sheen. Note: background samples at the site are classified as NS.
Slight Sheen (SS)	Light colorless, dull sheen; spread is irregular, not rapid; sheen dissipates rapidly.
Moderate Sheen (MS)	Light to heavy screen; may have some color/iridescence; spread is irregular to flowing; may be rapid; few remaining areas of no sheen on water surface.
Heavy Sheen (HS)	Heavy sheen with colors/iridescence; spread is rapid; entire water surface may be covered with sheen.

Headspace vapor screening involves placing a soil sample in a plastic sample bag. The sample bag is sealed and shaken slightly to expose the soil to the air trapped in the bag. The probe of a Bacharach TLV Sniffer is inserted in the bag. The instruments measure the concentrations of combustible or organic vapors present in the sample bag headspace in ppm (parts per million). The lower threshold of significance for the TLV Sniffer in this application is 100 ppm (1.0 percent of the lower explosive limit of hexane).

Field screening results are site- and excavation-specific. The results vary with soil type, soil moisture and organic content, and ambient air temperature.

EXHIBIT B

APPENDIX D

APPENDIX D

CHEMICAL ANALYTICAL PROGRAM

ANALYTICAL METHODS

Chain-of-custody procedures were followed during the transport of the field samples to the analytical laboratory. The samples were held in cold storage pending extraction and/or analysis. The analytical results, analytical methods reference and laboratory QA/QC (quality assurance/quality control) records are included in this appendix. The analytical results are also summarized in the text and Table 2 of this report.

ANALYTICAL DATA REVIEW

The laboratory maintains an internal quality assurance program as documented in its laboratory quality assurance manual. The laboratory uses a combination of blanks, surrogate recoveries, duplicates, matrix spike recoveries, matrix spike duplicate recoveries, blank spike recoveries and blank spike duplicate recoveries to evaluate the validity of the analytical results. The laboratory also uses data quality goals for individual chemicals or groups of chemicals based on the long-term performance of the test methods. The data quality goals were included in the laboratory reports. The laboratory compared each group of samples with the existing data quality goals and noted any exceptions in the laboratory report. No additional data review was performed on the analytical results and QA/QC.

ANALYTICAL DATA REVIEW SUMMARY

The analytical results for this project were reviewed for conformance with the data quality goals. Data quality problems were not encountered in this project.

EXHIBIT B

Avocet Environmental Testing
1500 North State Street
Bellingham, WA 98225
(360) 734-9033

AVOCET
ENVIRONMENTAL TESTING

GeoEngineers

JUL 12 1996

ROUTING JRG ☐ Fill ☐
☐ ☐ ☐
FILE# 3567-010-73

Client	Geo Engineers
Contact Name	Gary Stevens
Chain of Custody	C 8333
Date Sampled	6/27/96
Date Received	7/3/96
Date Extracted	7/5/96
Date Analyzed	7/5/96
Date Reported	7/9/96
Project	**Whatcom Transit Authority 3567-010-B73**
Matrix	Soil
Test Performed	**Total Petroleum Hydrocarbons - Gasoline Range**
Method	**WTPH G/BTEX 8020**
Analyst	HC

Sample Source	Log Number	Sample Result	Units	Practical Quantitation Limit	Surrogate Recovery
Method Blank	-------	<5.0	mg/Kg	5.0	110%
TP-1	05724795	<5.0	mg/Kg	5.0	109%

< = Less than
Surrogate Recovery Limits 50 - 150%.
All results reported on a dry weight basis.

Joann Ernst
Operations Manager

EXHIBIT B

Avocet Environmental Testing
1500 North State Street
Bellingham, WA 98225
(360) 734-9033

AVOCET
ENVIRONMENTAL TESTING

Client	Geo Engineers
Contact Name	Gary Stevens
Chain of Custody	C 8333
Date Sampled	6/27/96
Date Received	7/3/96
Date Extracted	7/5/96
Date Analyzed	7/7/96
Date Reported	7/9/96
Project	**Whatcom Transit Authority 3567-010-B73**
Matrix	Soil
Test Performed	**Total Petroleum Hydrocarbons - Diesel Range**
Method	**WTPH-D**
Analyst	HC

Source of Sample	Log Number	Sample Result	Units	Practical Quantitation Limit	Surrogate Recovery
Method Blank	----	<25	mg/Kg	25	73%
TP-1	05724795	<25	mg/Kg	25	92%

< = Less than
Surrogate Recovery Limits 50 - 150%.
All results reported on a dry weight basis.

Joann Ernst
Operations Manager

EXHIBIT B

Avocet Environmental Testing
1500 North State Street
Bellingham, WA 98225
(360) 734-9033

AVOCET
ENVIRONMENTAL TESTING

Client	Geo Engineers
Contact Name	Gary Stevens
Chain of Custody	C 8333
Date Sampled	6/27/96
Date Received	7/3/96
Date Extracted	7/5/96
Date Analyzed	7/5/96
Date Reported	7/9/96
Project	**Whatcom Transit Authority 3567-010-B73**
Matrix	**Soil**
Test Performed	**BTEX Distinction**
Method	**WTPH G/BTEX 8020**
Analyst	HC

Source of Sample	Log Number	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	Surrogate Recovery
Method Blank	----	<0.1	<0.1	<0.1	<0.3	95%
B-1	05724795	<0.1	<0.1	<0.1	<0.3	94%
Practical Quantitation Limit		0.1	0.1	0.1	0.3	

< = Less than
Surrogate Recovery Limits 50 - 150%.
... results reported on a dry weight basis.

Joann Ernst
Operations Manager

AVOCET ENVIRONMENTAL TESTING

CHAIN OF CUSTODY

C 08333

Avocet Environmental Testing
1500 North State Street
Bellingham, WA 98225
(360) 734-9033 FAX (360) 734-0061
TOLL FREE 800/442-TEST (8378)

CLIENT Geo Engineers
ADDRESS 801 W. Orchard Dr. Suite 2
CITY, STATE, ZIP Bellingham, WA 98225

DAY PHONE (360) 647-1510
FAX (360) 647-5044
SYSTEM ID # ______ CIRCLE GROUP A B

PO # ______
CONTACT NAME Gary Stevens
COLLECTOR OF SAMPLE GRS

NAME OR LOCATION OF SAMPLE (IF DIFFERENT FROM ABOVE) WTA 3567-010-B23

SOURCE # ______

SOURCE OF SAMPLE	MATRIX	CONTAINER	SAMPLE DATE/TIME	PRESERVATION METHOD	ANALYSIS REQUESTED	LOG NO.
TP-1	S	Glass ☒ Plastic ☐ VOA ☐	DATE 04/22/96 TIME 9:15	Ice (circled) ☐ H$_2$SO$_4$ ☐ NaOH ☐ HNO$_3$ ☐ Other	WTPH-G/BETX WTPH-D	05724795
		Glass ☐ Plastic ☐ VOA ☐	DATE TIME	Ice ☐ H$_2$SO$_4$ ☐ NaOH ☐ HNO$_3$ ☐ Other		
		Glass ☐ Plastic ☐ VOA ☐	DATE TIME	Ice ☐ H$_2$SO$_4$ ☐ NaOH ☐ HNO$_3$ ☐ Other		
		Glass ☐ Plastic ☐ VOA ☐	DATE TIME	Ice ☐ H$_2$SO$_4$ ☐ NaOH ☐ HNO$_3$ ☐ Other		
		Glass ☐ Plastic ☐ VOA ☐	DATE TIME	Ice ☐ H$_2$SO$_4$ ☐ NaOH ☐ HNO$_3$ ☐ Other		
		Glass ☐ Plastic ☐ VOA ☐	DATE TIME	Ice ☐ H$_2$SO$_4$ ☐ NaOH ☐ HNO$_3$ ☐ Other		
		Glass ☐ Plastic ☐ VOA ☐	DATE TIME	Ice ☐ H$_2$SO$_4$ ☐ NaOH ☐ HNO$_3$ ☐ Other		
		Glass ☐ Plastic ☐ VOA ☐	DATE TIME	Ice ☐ H$_2$SO$_4$ ☐ NaOH ☐ HNO$_3$ ☐ Other		

REMARKS:

EXHIBIT B

		DATE	TIME
RELEASING SIGNATURE	[signature]	07/03/96	
RECEIVING SIGNATURE	Rae Randall	7/3/96	0914

		DATE	TIME
RELEASING SIGNATURE			
RECEIVING SIGNATURE			

EXHIBIT B

Avocet Environmental Testing
1500 North State Street
Bellingham, WA 98225
(360) 734-9033

AVOCET
ENVIRONMENTAL TESTING

GeoEngineers

JUL 10 1996
ROUTING GRS ☐ JRG ☐
☐ ☐ ☐
FILE# 3567-010-73

Client	Geo Engineers
Contact Name	Gary Stevens
Chain of Custody	C 8332
Date Sampled	6/27/96
Date Received	6/28/96
Date Extracted	6/28/96
Date Analyzed	6/28/96
Date Reported	7/8/96
Project	**Whatcom Transit Authority 3567-010-B73**
Matrix	Soil
Test Performed	**Total Petroleum Hydrocarbons - Gasoline Range**
Method	**WTPH G/BTEX 8020**
Analyst	HC

Sample Source	Log Number	Sample Result	Units	Practical Quantitation Limit	Surrogate Recovery
Method Standard	------	<5.0	mg/Kg	5.0	108%
SP-2-N	05724680	<5.0	mg/Kg	5.0	110%
SP-2-W	05724681	7.3	mg/Kg	5.0	110%
SP-2-S	05724682	<5.0	mg/Kg	5.0	110%
SP-1-N	05724683	<5.0	mg/Kg	5.0	109%
1-West	05724684	<5.0	mg/Kg	5.0	111%
2-East	05724685	<5.0	mg/Kg	5.0	109%
3-East	05724686	<5.0	mg/Kg	5.0	110%
4-South	05724687	<5.0	mg/Kg	5.0	110%

< = Less than
Surrogate Recovery Limits 50 - 150%.
All results reported on a dry weight basis.

Joann Ernst
Operations Manager

EXHIBIT B

Avocet Environmental Testing
1500 North State Street
Bellingham, WA 98225
(360) 734-9033

AVOCET
ENVIRONMENTAL TESTING

Client	Geo Engineers
Contact Name	Gary Stevens
Chain of Custody	C 8332
Date Sampled	6/27/96
Date Received	6/28/96
Date Extracted	6/28/96
Date Analyzed	6/28/96
Date Reported	7/8/96
Project	**Whatcom Transit Authority 3567-010-B73**
Matrix	Soil
Test Performed	**Total Petroleum Hydrocarbons - Diesel Range**
Method	**WTPH-D**
Analyst	HC

Source of Sample	Log Number	Test Performed	Sample Result	Units	Practical Quantitation Limit	Surrogate Recovery
Method Blank	----	Diesel	<25	mg/Kg	25	62%
		Heavy Oil	<100	mg/Kg	100	
SP-2-N	05724680	Diesel	<25	mg/Kg	25	79%
		Heavy Oil	110	mg/Kg	100	
SP-2-W	05724681	Diesel	<25	mg/Kg	25	97%
		Heavy Oil	680	mg/Kg	100	
SP-2-S	05724682	Diesel	<25	mg/Kg	25	70%
		Heavy Oil	380	mg/Kg	100	
SP-1-N	05724683	Diesel	<25	mg/Kg	25	57%
		Heavy Oil	<100	mg/Kg	100	
1-West	0574684	Diesel	<25	mg/Kg	25	66%
		Heavy Oil	<100	mg/Kg	100	
2-East	05724685	Diesel	<25	mg/Kg	25	52%
		Heavy Oil	<100	mg/Kg	100	
3-East	05724686	Diesel	<25	mg/Kg	25	72%
		Heavy Oil	<100	mg/Kg	100	
4-South	0574687	Diesel	<25	mg/Kg	25	55%
		Heavy Oil	<100	mg/Kg	100	

< = Less than
Surrogate Recovery Limits 50 - 150%.
All results reported on a dry weight basis.

Joann Ernst
Operations Manager

Avocet Environmental Testing
1500 North State Street
Bellingham, WA 98225
(360) 734-9033

EXHIBIT B

AVOCET
ENVIRONMENTAL TESTING

C..ent Geo Engineers
Contact Name Gary Stevens

C ain of Custody C 8332

D^te Sampled 6/27/96
C te Received 6/28/96
Date Extracted 6/28/96
Date Analyzed 6/28/96
C te Reported 7/8/96

Project **Whatcom Transit Authority 3567-010-B73**
M itrix Soil

Test Performed **BTEX Distinction**
M ethod **WTPH G/BTEX 8020**
A alyst HC

S urce of Sample	Log Number	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	Surrogate Recovery
Method Standard		<0.1	<0.1	<0.1	<0.3	92%
S P-2-N	05724680	<0.1	<0.1	<0.1	<0.3	95%
S. P-2-W	05724681	<0.1	<0.1	<0.1	<0.3	94%
SP-2-W Duplicate	05724681	<0.1	<0.1	<0.1	<0.3	94%
S P-2-S	05724682	<0.1	<0.1	<0.1	<0.3	94%
S P-1-N	05724683	<0.1	<0.1	<0.1	<0.3	93%
1-West	05724684	<0.1	<0.1	<0.1	<0.3	94%
? East	05724685	<0.1	<0.1	<0.1	<0.3	93%
: East	05724686	<0.1	<0.1	<0.1	<0.3	94%
4-South	05724687	<0.1	<0.1	<0.1	<0.3	94%
P actical Quantitation Limit		0.1	0.1	0.1	0.3	

< Less than
S rogate Recovery Limits 50 - 150%.
All results reported on a dry weight basis.

Joann Ernst
Operations Manager

AVOCET ENVIRONMENTAL TESTING

CHAIN OF CUSTODY

C 08332

1500 North State Street
Bellingham, WA 98225
(360) 734-9033 FAX (360) 734-0061
TOLL FREE 800/442-TEST (8378)

CLIENT GeoEngineers | DAY PHONE (360) 647-1510 | PO #

ADDRESS 801 West Orchard Dr. Suite 2 | FAX (360) 647-5044 | CONTACT NAME Gary Stevens

CITY, STATE, ZIP Bellingham, WA 98225 | SYSTEM ID # | CIRCLE GROUP A B | COLLECTOR OF SAMPLE GRS

NAME OR LOCATION OF SAMPLE (IF DIFFERENT FROM ABOVE) Whatcom Transit Authority 3567-010-B73 | SOURCE #

SOURCE OF SAMPLE	MATRIX	CONTAINER	SAMPLE DATE/TIME	PRESERVATION	METHOD OF ANALYSIS REQUESTED	LOG NO.
SP-2-N standard	S	Glass ☒ Plastic ☐ VOA ☐	DATE 04/27/96 TIME 14:55	Ice ☒ H_2SO_4 ☐ Other; NaOH ☐ HNO_3 ☐	WTPH-G/BETX WTPH-D extended.	05724680
SP-2-W standard	S	Glass ☒ Plastic ☐ VOA ☐	DATE 04/27/96 TIME 14:46	Ice ☒ H_2SO_4 ☐ Other; NaOH ☐ HNO_3 ☐		4681
SP-2-S standard	S	Glass ☒ Plastic ☐ VOA ☐	DATE 04/27/96 TIME 14:50	Ice ☒ H_2SO_4 ☐ Other; NaOH ☐ HNO_3 ☐		4682
SP-1-N 24-hour TAT	S	Glass ☒ Plastic ☐ VOA ☐	DATE 04/27/96 TIME 15:00	Ice ☒ H_2SO_4 ☐ Other; NaOH ☐ HNO_3 ☐		4683
1-West 24-hour TAT	S	Glass ☒ Plastic ☐ VOA ☐	DATE 04/27/96 TIME 14:10	Ice ☒ H_2SO_4 ☐ Other; NaOH ☐ HNO_3 ☐		4684
2-East 24-hour TAT	S	Glass ☒ Plastic ☐ VOA ☐	DATE 04/27/96 TIME 14:21	Ice ☒ H_2SO_4 ☐ Other; NaOH ☐ HNO_3 ☐		4685
3-East 24-hour TAT	S	Glass ☒ Plastic ☐ VOA ☐	DATE 04/27/96 TIME 14:23	Ice ☒ H_2SO_4 ☐ Other; NaOH ☐ HNO_3 ☐		40816
4-South 24-hour TAT	S	Glass ☒ Plastic ☐ VOA ☐	DATE 04/27/96 TIME 14:24	Ice ☒ H_2SO_4 ☐ Other; NaOH ☐ HNO_3 ☐		4687

REMARKS:

	DATE	TIME
RELEASING SIGNATURE	04/28/96	
RECEIVING SIGNATURE Dae Randall	4/28/96	0802

	DATE	TIME
RELEASING SIGNATURE		
RECEIVING SIGNATURE		

D-8

EXHIBIT B

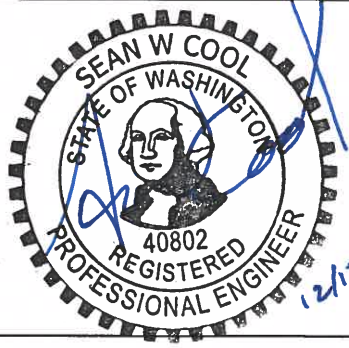
EXHIBIT B

GeoEngineers

Memorandum

554 West Bakerview Road, Bellingham, Washington 98226, Telephone: 360.647.1510, Fax: 360.647.5044 www.geoengineers.com

To:	Jeff McClure, AIA (RMC Architects)
From:	Aaron Hartvigsen, PE Sean Cool, PE
Date:	December 13, 2023
File:	3567-017-00
Subject:	Geotechnical Services – Feasibility Narrative WTA Lynden Park-and-Ride Master Planning Lynden Washington



INTRODUCTION AND PROJECT UNDERSTANDING

The following is a summary of anticipated site conditions and feasibility-level geotechnical design considerations for the proposed Whatcom Transit Authority (WTA) Park-and-Ride site in Lynden, Washington. This memorandum is based on communications with Jeff McClure of RMC Architects (RMC), previous experience in the project vicinity, and previous experience on similar projects. WTA is assessing the feasibility of site development and has requested this evaluation be based on existing information from the site and nearby vicinity only, without additional subsurface exploration at this time.

As currently envisioned, the masterplan for the 3.5 acre property will consist of a new mixed-use residential development including multifamily and commercial uses. Parking will be primarily handled through surface lots, but a parking structure (one level below grade) toward the southern end of the property may be proposed. New buildings will likely be three to four stories high. Foundation loads are anticipated to be moderate to heavy.

SITE INFORMATION

The project site is located south of the existing Lynden Park-and-Ride, between the Lynden Cemetery and 19th Street in Lynden, Washington. The project site is in an area zoned as CSR, Regional Commercial Services. The site is currently a vacant lot with mowed grass. The following sections outline our review of available existing information.

Historical Site Information

No Sanborn fire maps or property reports by the Department of Archeology and Historic Preservation are available for the site. Historical aerial photographs from 1943, 1955, 1966 and 1987 were reviewed. The 1943 photo depicts the site as sparsely covered with what appears to be native trees. The cemetery to the west was cleared and lined with trees. The 1955 and 1966 photos show the site to be cleared and used as an agricultural field with a house, barn, and storage buildings on the lot to the north. The 1987 photo shows that the site appears to be a laydown area for a farm tractor and implement business located north of the subject site. Google earth imagery dated 2004 shows that the site had been reconverted to a mowed field, which appears to have been maintained until present day.

EXHIBIT B

Surface Conditions

The site consists of mowed grass and slopes gently downward to the south with a grade change on the order of 6 to 7 feet. The lot to the north is elevated slightly with a sloped transition. The southern boundary has a 4- to 10-foot-tall rockery. The site is bounded by Blueline Manufacturing and Equipment/Napa Auto Parts (in the same building) and the WTA Park-and-Ride to the north, 19th Street to the east, Lynden Cemetery to the west and a paved alley behind a grocery store to the south. Fishtrap Creek is located on the west side of 19th Street and flows south to the Nooksack River.

Geologic Setting

Our interpretation of the geologic conditions at the site vicinity is based on a review of selected information in available literature, and the subsurface conditions encountered during geotechnical explorations in the project vicinity.

We reviewed a U.S. Geological Survey (USGS) map for the project area, "Geologic Map of the Bellingham 1:100,000 Quadrangle, Washington" by T.J. Lapen (2000). The site is in an area mapped as outwash sand and gravel from the Sumas Stade of the Fraser glaciation. The Sumas outwash consists of advance and recessional sand and gravel that were deposited by meltwater streams flowing from the glacier during the most recent glaciation. The melting water and sediment formed an outwash plain. In this portion of Whatcom County the Sumas outwash unit is known to consist primarily of relatively "clean" sand with low fines (silt and clay) content.

Not mapped in the immediate vicinity, but underlying the outwash unit is Bellingham (glaciomarine) Drift. Glaciomarine drift typically consists of unsorted, unstratified silt, and clay with varying amounts of sand, gravel, cobbles, and occasional boulders. Glaciomarine drift is derived from sediment melted out of floating glacial ice that was deposited on the sea floor. Where glaciomarine drift is encountered below another geologic unit (such as outwash), the clay is typically medium stiff to soft for the full depth of the unit. Glaciomarine drift was not encountered to the full depth explored in any site explorations completed or reviewed for this report.

Previous Nearby Site Explorations

No subsurface information could be located at or in the immediate vicinity of the site; however, GeoEngineers previously completed site explorations for projects both north, east, and south of the project site as noted below.

- Lynden WTA Park & Ride Phase I Environmental Site Assessment: GeoEngineers completed a Phase I ESA in 1996 for the WTA Park-and-Ride north of the site. The project included completion of two test pits; one just east of the existing Blue Line Manufacturing/Napa Auto Parts building and one along the southern edge of the same lot. The southern most test pit encountered 0.8 feet of sod overlying silt with sand to a depth of 3 feet below ground surface (bgs). From 3 to 10 feet medium dense clean sand was encountered interpreted to be glacial outwash. No groundwater was observed during excavation in June of 1996.
- Lynden Fairgrounds LID Improvements: Site explorations were completed on the east side of Fishtrap Creek within the Lynden Fairgrounds, approximately 850 feet east of the project site. The site explorations encountered topsoil overlying medium dense glacial outwash sand. Explorations consisted of test pits that extended between depths of 5 and 15½ feet bgs. Groundwater was encountered as shallow as 13 feet bgs. The United States Department of Agriculture completed a boring along the

EXHIBIT B

western edge of the fairgrounds that extended to a depth of 28½ feet bgs. The upper 5 feet encountered silty sand, and the remainder of the boring encountered cleaner sand with silt to the full depth explored. Groundwater was not encountered during drilling on March 9, 2020.

- Kok Road Sewer: Site explorations were completed for design of the sewer replacement on Kok Road between SR 539 and 19th Street, approximately 830 feet south of the site. The site explorations encountered a thin mantle of fill overlying medium dense glacial outwash sand that graded with higher silt content with depth. At the bottom of the boring at 26½ feet bgs gray clay was encountered that may have been the transition to glaciomarine drift. Groundwater was measured in monitoring wells ranging between 10½ to 13 feet bgs.

Anticipated Site Subsurface Conditions

Based on our review and interpretation of local geologic conditions, and review of available subsurface explorations, we interpret that the site is likely underlain by a surficial topsoil/fill layer and glacial outwash sand.

- Fill/Topsoil: Given the history of limited site development it is likely that the near surface soils consist of topsoil and or some gravel fill associated with the prior site use as a laydown yard and minor grading. On the order of 3 feet of silt with sand may be encountered in portions of the site based on explorations from the Phase I ESA completed to the north.
- Glacial Outwash Deposits: The site is mapped as outwash sand and gravel which is generally medium dense. This unit is present underlying the site based on the reviewed nearby explorations and likely extends greater than 15 feet bgs and possibly as much as 26 feet bgs based on the Kok Road boring.
- Glaciomarine Drift: Based on nearby explorations, the outwash sand is likely underlain by a medium stiff to soft clay layer that can be relatively thick. None of the nearby explorations extended a significant distance into this layer to confirm the presence or thickness of this layer, if present.
- Groundwater: Groundwater is likely to be encountered at depths of 10 feet bgs or greater. The sandy soils are likely hydraulically connected to nearby Fishtrap Creek and groundwater levels would be anticipated to be similar. Groundwater elevations will fluctuate with season, precipitation, creek levels, and other factors.

CRITICAL AREAS CONSIDERATIONS

The City of Lynden Critical Areas Ordinance (CAO) requires a geologically hazardous area site assessment be completed for the proposed project in accordance with the Lynden Municipal Code (LMC), Chapter 16.16.400, regarding Critical Areas. Therefore, geologically hazardous areas (steep slopes, earthquake-sensitive areas, and volcanic debris flow areas) will need to be evaluated and mitigation (if appropriate) will be required as part of the design-level geotechnical submittals.

We completed a preliminary review of the City of Lynden Geologic Hazards maps. The site does not meet criteria for a steep slope. The site is outside the mapped volcanic debris flow area. Therefore, the only remaining geologic hazard that requires evaluation is earthquake-sensitive areas. The site is mapped as having very low liquefaction susceptibility. In our opinion, based on our understanding of the site geology and other regional site explorations in the Sumas outwash, there is low to moderate risk that liquefiable soils are present below the site; however, this hazard can be mitigated with appropriate shallow or pile supported foundation design

EXHIBIT B

and possibly ground improvement, if needed. Confirmation of the subsurface conditions by completing site-specific geotechnical explorations will be necessary to meet critical areas evaluation requirements.

In addition to the CAO requirements above, the site appears to be located approximately 7½ miles east of the mapped Drayton Harbor fault scarp, which would not likely present a risk of surface rupture at the site. The site also appears to be beyond 150 feet buffer of Fishtrap Creek. Therefore, shoreline permits or exemptions should not be needed; however, this assumption should be confirmed with City planners.

DESIGN AND CONSTRUCTION CONSIDERATIONS

The proposed building will have moderate to heavy column and continuous footing loads. The following sections describe preliminary design and construction considerations. Additional studies and analyses will be required as the project becomes further defined.

Seismic Design Considerations

- Based on interpreted geologic conditions, the site is not likely underlain by significant thickness of liquefiable soils. However, it is possible that there are less dense portions of the saturated sandy outwash soils that are susceptible to liquefaction. The building support options described below will effectively mitigate for liquefaction hazard if found to be present during subsequent design phases.
- If a sufficient thickness of soft or liquefiable soils are encountered underlying the site, the site would be classified by the International Building Code (IBC) as Site Class F. The proposed multi-story building is likely to have a fundamental period of vibration less than 0.5 seconds. Therefore, we do not anticipate that a site-specific seismic response analysis would be required for this project. If site soils are not susceptible to liquefaction, and if the potentially underlying clay is stiff enough the site would be classified as Site Class D.
- If non-liquefiable soils are encountered and foundations are extended to competent glacial outwash soil, then standard IBC seismic design practices will be appropriate.

Building Support

As noted, the most likely scenario for subsurface soil conditions include competent bearing soils in the sandy glacial outwash. The following are likely building support scenarios.

- Where competent glacial outwash soils are encountered without the potential for liquefaction, conventional shallow foundation design will be appropriate for the building.
- Building footings within the zone of influence of the rockery to the south will need to extend deep enough to avoid surcharging the rockery. We understand that a potential design alternative is to include one story of below-grade daylight parking near the elevation of the alley to the south.
- Where liquefiable soils are determined to be present below the building footprint other foundation support/mitigation options such as ground improvement (rammed aggregate piers or rigid inclusions) could be required.
    - Ground Improvement: Ground improvement costs depend on the method used and depth of the element. Costs for ground improvement vary and is dependent on many factors that are not

EXHIBIT B

available at this time. The advantage of ground improvement for liquefaction mitigation over other options like pile foundations, is that a conventional shallow foundation (mat foundation or spread footings) is constructed over the top of the improvement, which reduces structural requirements and costs.

- If liquefaction hazard is marginal, an intermediate structural solution, such as grade beam style foundations may also be implemented as adequate mitigation.

Conventional slab-on-grade design can likely be used based on anticipated site conditions with shallow depth to competent glacial outwash soils. If thicknesses of fill or soft soils are encountered that are too great for overexcavation and replacement, mitigation may be necessary if including heavier slab reinforcing and or support by ground improvement (if used to support the structure).

Temporary Shoring

We understand that the proposed building may have a parking level with similar site grades as the alley to the south. This would require temporary slopes or shoring for building to the north, east and west. Where deeper excavation is required without adequate space for temporary slopes, or where zero lot line basement walls are planned, temporary shoring may be required. Cantilevered or tied back soldier pile walls may be feasible. The City of Lynden does not have a well-defined policy for allowing temporary shoring elements within the public right-of-way and should be approached early in the process if any portion of the temporary shoring will extend beyond the property line.

Stormwater Considerations

Based on the anticipated site soil conditions and site topography, stormwater infiltration will need to be carefully evaluated and considered. The glacial outwash sand likely present underlying the site is typically suitable for infiltration, however, the depth to groundwater, depth of infiltration facility and potential impacts to adjacent properties will need to be considered by the project civil engineer for design. The site should be monitored for groundwater levels during the winter to evaluate seasonal high. Infiltration rates should be determined by completing a pilot infiltration test (PIT) near the proposed infiltration area and at anticipated elevation of infiltration. If there is inadequate separation between infiltration facility and seasonal high groundwater levels (less than 3 to 5 feet) a groundwater mounding analysis may be required.

FEASIBILITY SUMMARY

The project is geotechnically feasible based on our review of existing information. The primary project challenges from a geotechnical perspective are the slight potential for liquefiable soils that may require ground improvement to support the proposed structure and reduce differential settlement of foundations to an acceptable level. Geologically hazardous critical areas that will require mitigation are limited to seismic considerations that will be mitigated as part of the foundation support design for the project.

No existing subsurface information is available for the site. In order to develop a detailed foundation support strategy and design recommendations, and improved cost estimate, geotechnical borings and/or cone penetrometer tests (CPT) will be required to characterize the subsurface soil profile.

EXHIBIT B

- We recommend that two deep explorations be completed to a depth of at least 60 feet below bottom of foundation to define seismic design parameters.
- Groundwater monitoring wells should be installed and monitored through the wet season to determine seasonal high groundwater levels.
- In addition to the deep explorations, shallow test pits should also be completed to further define the near surface conditions and evaluate infiltration potential. PITs should be completed when the civil engineer has prepared a concept stormwater plan.

LIMITATIONS

We have prepared this memorandum for RMC Architects and Whatcom Transit Authority. This information is being provided as to evaluate preliminary site selection and planning and is not for design.

Within the limitations of scope, schedule and budget, our services have been executed in accordance with generally accepted practices in the field of geotechnical engineering in this area at the time this memorandum was prepared. The conclusions, recommendations, and opinions presented in this memorandum are based on our professional knowledge, judgment and experience. No warranty or other conditions, express or implied, should be understood.

We trust that this memorandum provides the information required at this time. If you have any questions regarding this memorandum, please contact us.

AJH:SWC:leh

2140601722

EXHIBIT B

LYNDEN TRANSIT STATION LOT LINE ADJUSTMENT

SITUATE IN A PORTION OF THE SOUTHWEST QUARTER OF SECTION 19, TOWNSHIP 40 NORTH, RANGE 3 EAST, W.M., CITY OF LYNDEN, WHATCOM COUNTY, WASHINGTON

PACIFIC SURVEY & ENGINEERING INC
1812 CORNWALL AVE, BELLINGHAM, WA 98225 PHONE: 671.7387 FAX: 671.4685 EMAIL: pse@psesurvey.com www.psesurvey.com

DECLARATION

KNOW ALL MEN BY THESE PRESENTS, THAT WE, THE UNDERSIGNED, BEING OWNERS IN FEE SIMPLE OF THE LAND HEREBY PLATTED, DO HEREBY DECLARE THAT THIS "LYNDEN TRANSIT STATION LOT LINE ADJUSTMENT" IS MADE WITH OUR FREE CONSENT AND IN ACCORDANCE WITH OUR WISHES ON THIS 13 DAY OF June, 2014

Pete Stark

PETE STARK, GENERAL MANAGER
WHATCOM TRANSPORTATION AUTHORITY

SURVEYOR'S NOTES

1) DATA FOR THIS SURVEY WAS GATHERED BY FIELD TRAVERSE UTILIZING ELECTRONIC DATA COLLECTION IN OCTOBER OF 2012 AND JUNE 2014.

2) EQUIPMENT USED: THEOMAT 00'01.5"
EDM: ± 2 PPM, ± 3 MM

3) CORNER MONUMENTS RECOVERED AND SET IN OCTOBER 2012 AND JUNE 2014.

4) HORIZONTAL DATUM: NAD 83/91 NORTH ZONE. COORDINATES DERIVED FROM ROS AF NO. 2110801244.

BASIS OF BEARING: MONUMENTED WEST LINE OF THE SOUTHWEST 1/4 OF SECTION 19, BEARING S01°33'22"W (AS SHOWN)

5) FOR ADDITIONAL BOUNDARY INFORMATION REFERENCE NWIC SHORT PLAT AF NO. 960509096 AND NWIC LOT LINE ADJUSTMENT AF NO. 1980402210.

6) OCCUPATIONAL INDICATOR NOTE:
IN ACCORDANCE WITH THE REVISED CODE OF WASHINGTON: 58.09 AND WASHINGTON ADMINISTRATIVE CODE CHAPTER 332-130, THIS RECORD OF SURVEY MAY DEPICT OCCUPATIONAL INDICATORS, SUCH AS FENCES. THESE INDICATORS REPRESENT A POTENTIAL FOR CLAIMS OF UNWRITTEN TITLE. THIS SURVEY DOES NOT RESOLVE ANY OF THE LEGAL OWNERSHIP ISSUES THAT MAY ARISE FROM THESE UNWRITTEN TITLE CLAIMS.

LEGAL DESCRIPTION
(PER CHICAGO TITLE PLAT CERTIFICATE, ORDER NO. 245351995)

CURRENT LEGAL DESCRIPTION:

LOT 1, AS DELINEATED ON NWIC LOT LINE ADJUSTMENT NO. 2 SHORT PLAT, ACCORDING TO THE MAP THEREOF, RECORDED UNDER AUDITOR'S FILE NO. 1980402210, RECORDS OF WHATCOM COUNTY, WASHINGTON.

SITUATE IN WHATCOM COUNTY, WASHINGTON.

LOT 3, AS DELINEATED ON NWIC SHORT PLAT, ACCORDING TO THE MAP THEREOF, RECORDED IN VOLUME 34 OF SHORT PLATS, PAGE 40, UNDER AUDITOR'S FILE NO. 960509096, RECORDS OF WHATCOM COUNTY, WASHINGTON.

SITUATE IN WHATCOM COUNTY, WASHINGTON.

PROPOSED LEGAL DESCRIPTION:

LOT A, LYNDEN TRANSIT STATION LOT LINE ADJUSTMENT, RECORDED UNDER AUDITOR'S FILE NO. 2140601722, RECORDS OF WHATCOM COUNTY, WASHINGTON.

LOT B, LYNDEN TRANSIT STATION LOT LINE ADJUSTMENT, RECORDED UNDER AUDITOR'S FILE NO. 2140601722, RECORDS OF WHATCOM COUNTY, WASHINGTON.

SITUATE IN WHATCOM COUNTY, WASHINGTON.

ACKNOWLEDGMENT

COUNTY OF WHATCOM)
STATE OF WASHINGTON)

ON THIS 13TH DAY OF JUNE, 2014, BEFORE ME, THE UNDERSIGNED, PERSONALLY APPEARED PETE STARK, GENERAL MANAGER OF WHATCOM TRANSPORTATION AUTHORITY, DESCRIBED IN AND WHO EXECUTED THE FOREGOING INSTRUMENT TO BE HIS/HER FREE AND VOLUNTARY ACT AND DEED FOR THE USES AND PURPOSES THEREIN MENTIONED. IN WITNESS WHEREOF, I HAVE SET MY HAND AND AFFIXED MY OFFICIAL SEAL THE DAY AND YEAR ABOVE WRITTEN.

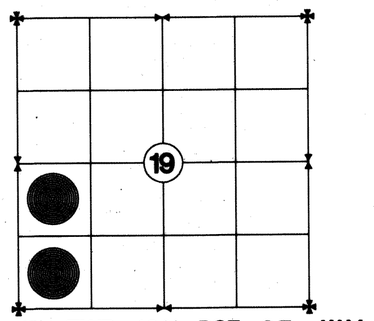
NOTARY PUBLIC IN AND FOR THE ~~STATE~~ OF WASHINGTON

RESIDING AT BELLINGHAM, WA

ADAM S MORROW
NOTARY PUBLIC
STATE OF WASHINGTON
COMMISSION EXPIRES
09-02-2015

ROAD RIGHT-OF-WAY NO PROTEST COVENANT

THE OWNERS OF LOTS A AND B OF THIS LOT LINE ADJUSTMENT, COVENANT TO THE CITY OF LYNDEN, BY THEIR SIGNATURE(S) HEREON, TO SUPPORT, WITHOUT OBJECTION, THE FUTURE DETERMINATION AND DEDICATION OF RIGHT-OF-WAY FOR PUBLIC ROAD PURPOSES. THIS COVENANT SHALL RUN WITH THE LAND AND BE BINDING ON GRANTEE(S), HEIRS, DEVISEES, SUCCESSORS AND ASSIGNS AND ALL OWNERS NOW OR HEREAFTER OF THE LAND SUBJECT TO THIS LOT LINE ADJUSTMENT.



SEC. 19 , TWP. 40 N., RGE. 3 E ., W.M.

CITY APPROVAL

I HEREBY CERTIFY THAT I HAVE REVIEWED THE LOT LINE ADJUSTMENT ENTITLED "LYNDEN TRANSIT STATION LOT LINE ADJUSTMENT" PURSUANT TO SECTION 17.08.010 OF THE LYNDEN MUNICIPAL CODE AND FINDING EVERYTHING TO BE IN ORDER HEREBY APPROVE THE SAME THIS 18TH DAY OF June, 2014.

Amy Harksell

AMY HARKSELL, A.I.C.P. CITY PLANNING DIRECTOR

AUDITOR'S CERTIFICATION

FILED FOR RECORD THIS 19 DAY OF June, 2014 AT 10:20AM
UNDER WHATCOM COUNTY AUDITORS FILE NO. 2140601722

Debbie Adelstein by Kelli Whitmer
WHATCOM COUNTY AUDITOR'S OFFICE

PREPARED AT THE REQUEST OF
WHATCOM TRANSPORTATION AUTHORITY
4111 BAKERVIEW SPUR RD.
BELLINGHAM, WA 98226

SURVEYOR'S CERTIFICATE

I HEREBY CERTIFY THAT THIS LOT LINE ADJUSTMENT WAS PREPARED UNDER MY DIRECTION AND IS BASED UPON AN ACTUAL FIELD SURVEY AT THE REQUEST OF WHATCOM TRANSPORTATION AUTHORITY IN SEPTEMBER 2012, THAT ALL PROVISIONS OF APPLICABLE STATE STATUTES AND CITY ORDINANCES HAVE BEEN COMPLIED WITH; AND THAT THE TECHNICAL DATA SHOWN THEREON IS CORRECT.

ADAM S. MORROW, P.L.S.
LICENSE NO. 40525

ADAM SCOTT MORROW
STATE OF WASHINGTON
40525
REGISTERED
PROFESSIONAL LAND SURVEYOR

DRAWN BY: JJA CHECKED BY: ASM F.B.# 221.27A DATE: 6.13.2014 JOB NO. 2012104 SHEET NO. 1 OF 2 DWG. NO. 2012104_svX_LLA.dwg

2140601722

EXHIBIT B

LYNDEN TRANSIT STATION LOT LINE ADJUSTMENT

PACIFIC SURVEY & ENGINEERING INC
1812 CORNWALL AVE, BELLINGHAM, WA 98225 PHONE:671.7387 FAX:671.4685 EMAIL: pse@psesurvey.com www.psesurvey.com

LINE TABLE		
LINE	BEARING	LENGTH
L1	S01°58'09"W	25.71
L2	S02°30'18"W	49.52
L3	S02°48'05"W	56.00
L4	S02°46'45"W	45.71
L5	S02°46'45"W	9.21
L6	S02°40'45"W	56.24
L7	S02°37'39"W	38.64
L8	S02°37'39"W	9.23
L9	S02°43'20"W	50.64
L10	S00°23'33"W	44.68
L11	S01°10'14"W	46.54
L12	S01°28'48"W	48.49
L13	S00°40'39"W	45.48
L14	S02°20'53"W	39.82
L15	S00°52'29"W	40.70
L16	S01°56'00"W	53.45

SURVEY SYMBOL LEGEND

- = EXISTING CONCRETE MONUMENT (RECORD)
- = EXISTING REBAR AND CAP PLS#18927
- = SET REBAR AND CAP PLS#40525
- = SET P.K. NAIL WITH FLASHER PLS#40525
- = EXISTING 3/4" IRON PIPE PLS#13138
- = EXISTING P.K. NAIL WITH FLASHER IN CONCRETE
- = EXISTING COTTON GIN SPIKE

GRAPHIC SCALE
(us survey feet)
0 30
30 25 100
1 inch = 30 feet

GUIDE MERIDIAN (SR 539)
S01°33'22"W 2638.73'
1467.13'
1171.60'
R2E R3E
24 19 25 30

S88°08'38"E 1048.97'
FRONT STREET
178.04'
CITY UTILITIES EASEMENT (AF# 1980402210)
30'
10'
S 01°33'22" W 44.33'
CHAINLINK FENCE CORNER 0.2' EAST OF PLAT LINE
CHAINLINK FENCE CORNER 0.8' WEST OF SET PK AND FLASHER
AF NO. 2020501702
ASPHALT 0.9' WEST OF PLAT LINE (MAX.)
SERVICE BUILDING
LOT 1
LOT A
99,111 SF
2.28 AC±
TRANSIT SHELTER
N.W.I.C.
TRANSIT STATION PARKING
TRANSIT SHELTER
DEED LINE
BOUNDARY PER AF NO. 950915104
LOT LINE ADJUSTMENT
NO. 2
379.00'
S01°33'22"W
LOT 2
R=110.00'
L=41.29'
D=21°30'22"
S 23°03'44" W 31.17'
R=142.00'
L=53.30'
D=21°30'22"
AQUEOUS
A
SHORT PLAT
B
19TH STREET
AF NO. 1980402210
R.O.S. AF NO. 2040800610
CHAINLINK FENCE CORNER N 48° W, 1.2' FROM FOUND CORNER MONUMENT
CHAINLINK FENCE CORNER 0.5' NORTH OF PLAT LINE
PREVIOUS LOT LINE
S88°08'37"E 126.48'
116.48'
10'
524.13'
S01°33'22"W
104.07'
NEW LOT LINE
S 88°08'38" E
306.18'
296.18'
LOT 3
N.W.I.C.
LOT B
54,491 SF
1.25 AC±
SHORT PLAT
AF NO. 9605040096
281.00'
176.93'
10' CITY UTILITIES EASEMENT (AF# 1980402210)
CHAINLINK FENCE CORNER 1.1' WEST OF PLAT LINE
BARBED WIRE FENCE CORNER 1.8' NORTH OF FOUND IP
BARBED WIRE FENCE CORNER 0.8' NORTH OF PLAT LINE
S88°08'38"E 309.38'
299.38'
ROCK RETAINING WALL (2' SOUTH TYP)
20.00'
20' 20'
19TH STREET
LOT LINE ADJUSTMENT
B
PSE

ADAM SCOTT MORROW
STATE OF WASHINGTON
40525
REGISTERED PROFESSIONAL LAND SURVEYOR

DRAWN BY: JJA CHECKED BY: ASM F.B.# 221.27A DATE: 6.13.14 JOB NO. 2012104 SHEET NO. 2 OF 2 DWG. NO. 2012104_svX_LLA.dwg

EXHIBIT B

Pacific Surveying & Engineering, Inc

land surveying • civil engineering • consulting • planning • gis

909 Squalicum Way, Suite 111, Bellingham, WA 98225

Phone 360.671.7387 Facsimile 360.671.4685 Email info@psesurvey.com

PRELIMINARY STORMWATER NARRATIVE MEMORANDUM

To: Jeff McClure
RMC Architects
1223 Railroad Avenue
Bellingham, WA 98225

From: David Galbraith, P.E.

Date: January 23, 2024

Re: WTA Lynden Station – Preliminary Stormwater Narrative

1 Introduction

1.1 Purpose of Memorandum

Pacific Surveying and Engineering prepared this memorandum to provide a narrative for the stormwater management improvements associated with the proposed development at the WTA Lynden Station Site located at 1945 Front Street in Lynden (Tax parcels 400319085079 & 400319081114). The stormwater narrative focuses on the two-phase site plan provided by RMC Architects dated December 7, 2023.

1.2 Existing Conditions

The site is located south of Front Street and west of 19th Street in Lynden WA. The northern portion of the site is currently developed with a commercial building and associated access, parking, and utilities. The southern portion of the site is undeveloped pasture grass. The soil on the site is classified as Soil Unit 100 Lynden Sandy Loam, 3 to 8 percent slopes with a Hydrologic Soil Group rating A. Based on the Hydrologic Soil Group rating A and past project experience in the vicinity, the native soils likely have a high infiltration rate and are suitable for infiltrating stormwater onsite. For the purposes of this narrative a long-term design infiltration rate of 12 inches per hour is assumed. It is recommended a geotechnical soil evaluation be completed early on in the design process to establish actual design long term infiltration rates for the site. This soil investigation and report will be required as part of the permitting process and will inform the final stormwater system sizing calculations.

The developed and undeveloped portions of the site slope from the north down towards the south. Any stormwater runoff that leaves the site is collected in the 19th Street stormwater conveyance

system and discharged into an undeveloped conveyance system east of 19th Street approximately 225-feet south of the site.

Stormwater runoff from the developed portion of the site is collected onsite via an underground stormwater management system. Based on a site investigation, it appears there is an underground infiltration system approximately 20-feet south of the east / west access road connecting to 19th Street. This analysis was completed without the benefit of the design or as-built drawings for the existing development; therefore the extent of the existing stormwater management system is unknown.

Stormwater from the undeveloped portion of the site (south) likely infiltrates. In the event stormwater runoff does occur, it would enter the conveyance system in 19th Street or sheet flow to the neighboring property to the south where it is collected and conveyed to the 19th Street system.

2 Proposed Site Improvements

The two phased site plan presented for analysis includes a mix of commercial and residential uses with the existing commercial structure adjacent to Front Street remaining. The second phase of the project replaces a portion of the phase 1 parking on the south end of the site with additional residential units and parking.

The first phase of the project proposes roughly 32,450 SF (0.75 ac) of lawn / landscaping and 101,850 SF (2.34 ac) of hard surfacing (roofs, sidewalks, parking, access) on site.

The second phase of the project will add an additional 14,650 SF (0.34 ac) of impervious surface area to the southern end of the project.

The project will be subject to the City of Lynden stormwater standards and the Washington State Department of Ecology's Stormwater Management Manual for Western Washington, 2019 edition (DOE Manual). Based on review of the site options, the proposed improvements include more than 10,000 SF of new plus replaced hard surface area and will therefore be subject to DOE Manual Minimum Stormwater Requirements (MR's) No.1 – 9.

A key element of the stormwater analysis is the feasibility to infiltrate stormwater runoff onsite. Based on our review of available soils data, it is highly likely that infiltration is feasible and is therefore assumed to play a part in the stormwater management system for the site.

2.1 Proposed Stormwater Improvements

Of the MR's, MR 6 Runoff Treatment and MR 7 Flow Control pose the biggest impact to the site design and construction costs. For this reason we have focused on these two MR's for this narrative.

The site improvements will be required to meet MR 6 Runoff Treatment for stormwater runoff from the pollution generating impervious surface areas (access roads & parking areas) and MR 7 Flow Control for runoff from the entire project site. Both of these requirements may be met by a variety of different methods approved by the DOE Manual.

2.1.1 MR 6 Runoff Treatment

There are multiple ways in accordance with the DOE Manual to meet the runoff treatment requirement. Surface treatment systems such as bioretention cells (similar to raingardens) and Compost Amended Vegetated Filter Strips (CAVFS) can meet this requirement but may be limited on this site due to the lack of available surface space that may be designated for stormwater systems. When there is a lack of surface space, underground treatment systems may be utilized. In this case there are a number of underground systems including sand filters and a variety of manufactured treatment devices such as Contech Stormfilters, Filterra bioretention or Old Castle BioPods to name a few.

There are no indications the site will pose special challenges to meet the runoff treatment requirement and typical methods will be adequate. The final runoff treatment system will be selected and sized during the design process to best suite the regulatory requirements and ownership goals.

A runoff treatment system will be required for the runoff from Phase 1 and a second runoff treatment system will be required to treat the runoff form the Phase 2 improvements. Based on the topography of the site and placement of the Phase 2 parking area, the stormwater runoff from the Phae 2 parking area will not be able to be conveyed to the Phase 1 treatment system. Only the runoff from the pollution generating impervious surface aeras (roads and parking areas) are required to be routed through the runoff treatment systems.

2.1.2 MR 7 Flow Control

To meet the flow control requirement on the site it is assumed infiltration is feasible and will be utilized. Due to the topography of the stie an infiltration gallery will be required for phase 1 and a separate infiltration facility will be required for the phase 2 improvements. Boths systems will be designed using an assumed long-term design infiltration rate for the native soils of 12-inches per hour and the Western Washington Hydrology Model.

It is expected that the infiltration gallery serving the Phase 1 improvements will be placed under the access road on the south end of the phase 1 improvements. Assuming the entire Phase 1 area including 32,450 SF (0.75 ac) of lawn / landscaping and 101,850 SF (2.34 ac) of hard surfacing (roofs, sidewalks, parking, access) is directed to the infiltration gallery, the system is required to be 130 feet long x 25 feet wide x 3 feet deep filled with washed rock (30% voids) to provide infiltration and meet the flow control requirements for the Phase 1 improvements. A sketch on the attached Phase 1 site plan shows a potential location for the infiltration gallery and is intended to provide a relative scale of the facility compared to the overall site.

It is expected that the infiltration gallery serving the Phase 2 improvements will be placed under the parking garage on the southernmost portion of the site. Portions of the phase 2 improvements will continue to be routed to the Phase 1 infiltration gallery, approximately 4,300 SF (0.10 ac) of lawn / landscaping and 22,950 SF (0.53 ac) of hard surfacing (roofs, sidewalks, parking, access) will be directed to the Phase 2 infiltration gallery. The Phase 2 system is required to be 200 feet long x 4 feet wide x 3 feet deep filled with washed rock (30% voids) to provide infiltration and meet the flow control requirements for the Phase 2 improvements. A sketch on the attached Phase 2 site plan shows a potential location for the infiltration gallery and is intended to provide a relative scale of the facility compared to the overall site.

It should be noted that the infiltration galleries shown on the attached exhibits are based on the native soil infiltration rate assumptions stated and are for reference only. The final sizing and configuration of the infiltration galleries will be developed through the design process. The galleries may be separated into multiple facilities or take on different geometry to better fit the final site design. The intent of the exhibit is to show the infiltration system is feasible with the assumed infiltration rates. There are no indications the site will pose special challenges to meet the flow control requirements and infiltration is a feasible option.

For the purposes of this analysis, it is assumed the existing stormwater management system that provides flow control is fully abandoned and not salvageable. Although certain site configurations may allow for some of the infrastructure to be saved and re-used, the extent of salvaging the existing system won't be clear until a full topographic map of the site with existing site utilities and a final site plan area available.

3 Conclusion

Our preliminary stormwater analysis shows that typical methods will provide the stormwater management required for the site. Runoff treatment will be required followed by an infiltration system to fully infiltrate stormwater runoff from the site. It is recommended that a geotechnical study be completed sooner than later in the design phase to confirm infiltration on site is feasible and to provide long term design infiltration rates for the soils. The information gained from the geotechnical study will steer the stormwater system design strategy and system sizing.

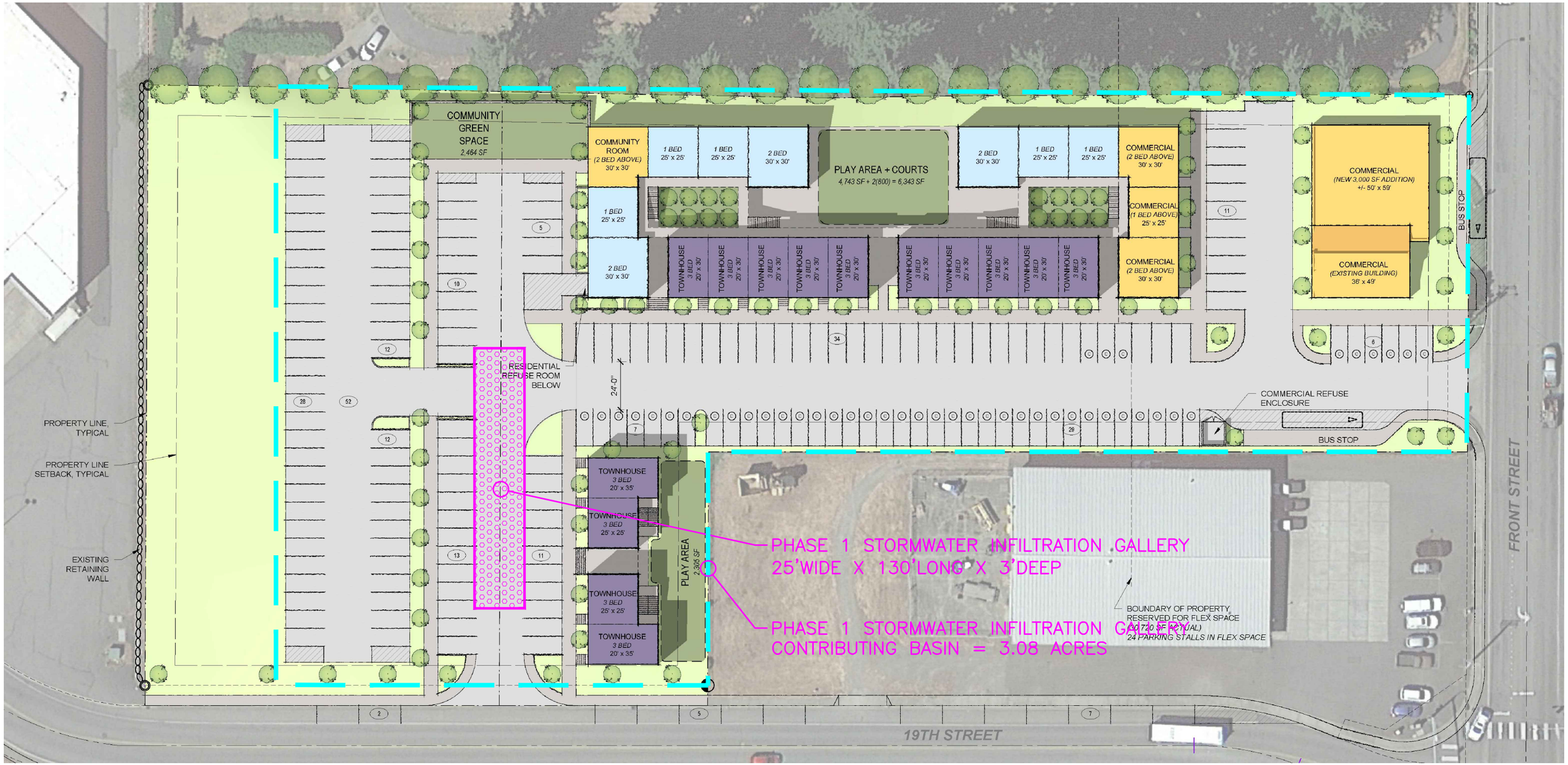
Attachments:

- RMC Site Plan Exhibits – Phase 1 & Phase 2 Infiltration Gallery Exhibits
- NRCS Soil Map
- WWHM Infiltration Gallery Report

EXHIBIT B

RMC Site Plan Exhibits – Phase 1 & Phase 2 Site Plans with Infiltration Galleries

EXHIBIT B



RMC ARCHITECT SITE PLAN PHASE 1, DECEMBER 7, 2023

PSE

PACIFIC SURVEYING & ENGINEERING, INC. 909 Squalicum Way, Suite 111 | BELLINGHAM, WA 98225 T: 360.671.7387 | F: 360.671.4685 WWW.PSESURVEY.COM | INFO@PSESURVEY.COM	WTA LYNDEN STATION 1945 FRONT STREET LYNDEN, WA
PRELIMINARY STORMWATER PHASE 1 INFILTRATION GALLERY EXHIBIT	DRAWN: XXX CHECKED: XXX DATE: 01.19.2024
SCALE: NTS JOB#: 2023286 DWG: 2023286_ecP_SP_Pre_SD.dwg	SHEET 01 OF 02

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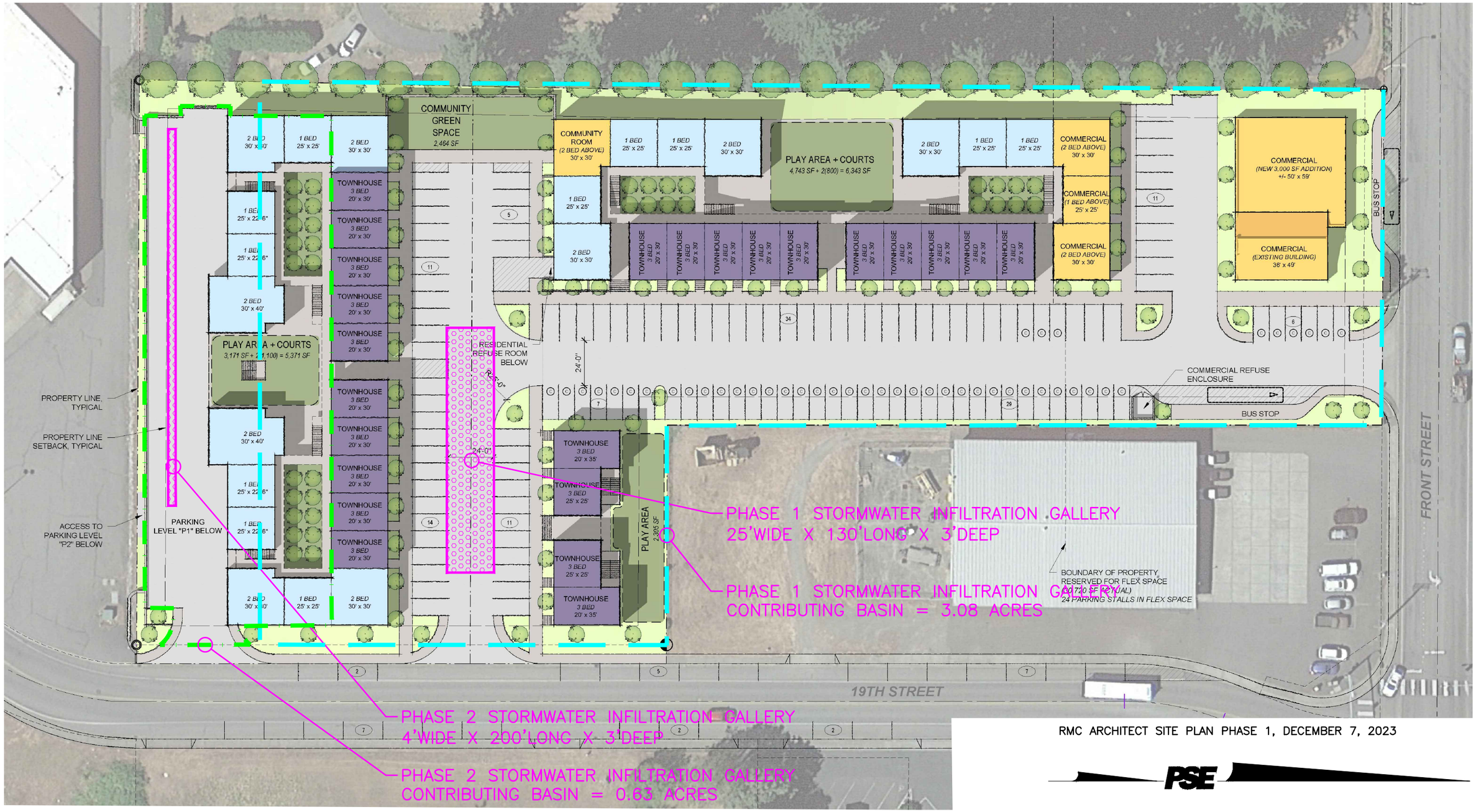
EXHIBIT B



RMC ARCHITECT SITE PLAN PHASE 1, DECEMBER 7, 2023

PACIFIC SURVEYING & ENGINEERING, INC.
909 Squalicum Way, Suite 111 | BELLINGHAM, WA 98225
T: 360.671.7387 | F: 360.671.4685
WWW.PSESURVEY.COM | INFO@PSESURVEY.COM

WTA LYNDEN STATION

1945 FRONT STREET

LYNDEN, WA

PRELIMINARY STORMWATER

PHASE 2 INFILTRATION GALLERY EXHIBIT

DRAWN:	XXX	SCALE:	NTS
CHECKED:	XXX	JOB#:	2023286
DATE:	01.19.2024	DWG:	2023286_ecP_SP_Pre_SD.dwg

SHEET 02 OF 02

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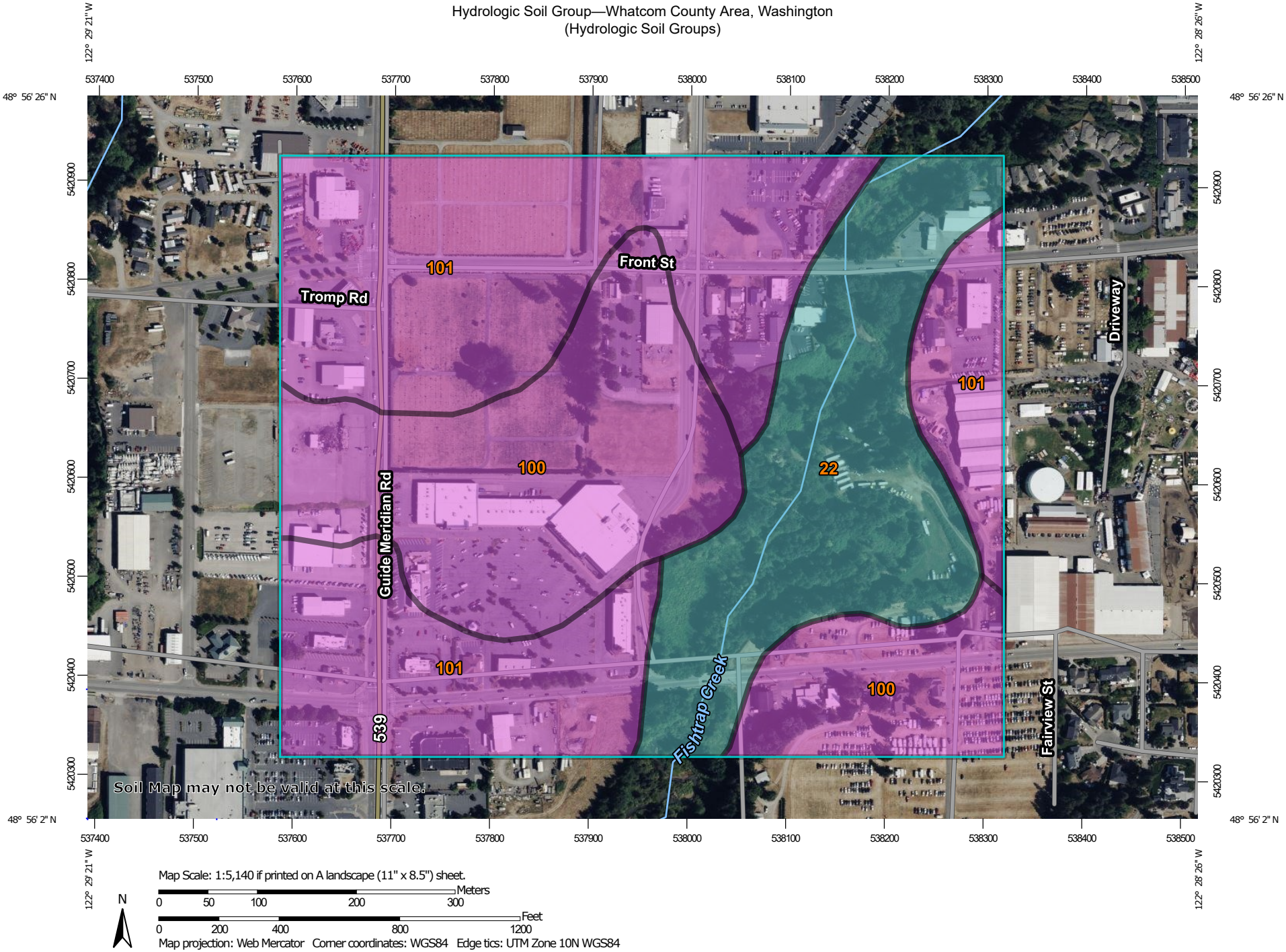
EXHIBIT B

NRCS Soil Map

EXHIBIT B

Hydrologic Soil Group—Whatcom County Area, Washington
(Hydrologic Soil Groups)



Map Scale: 1:5,140 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 50 100 200 300

Feet
0 200 400 800 1200

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 10N WGS84

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

Soil Rating Polygons

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Lines

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Points

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Whatcom County Area, Washington
Survey Area Data: Version 23, Aug 29, 2023

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Aug 14, 2022—Sep 1, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
22	Briscot silt loam, drained, 0 to 2 percent slopes	C	25.3	22.9%
100	Lynden sandy loam, 3 to 8 percent slopes	A	34.4	31.1%
101	Lynden-Urban land complex, 0 to 3 percent slopes	A	50.8	46.0%
Totals for Area of Interest			**110.5**	**100.0%**

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

EXHIBIT B

WWHM Infiltration Gallery Reports

EXHIBIT B

WWHM2012
PROJECT REPORT

Project Name: WTA_P1_Jan2024
Site Name: WTA Lynden Station - Phase 1
Site Address: 1945 Front Street
City : Lynden
Report Date: 1/19/2024
Gage : Blaine
Data Start : 1948/10/01
Data End : 2009/09/30
Precip Scale: 1.00
Version Date: 2021/08/18
Version : 4.2.18

Low Flow Threshold for POC 1 : 50 Percent of the 2 Year

High Flow Threshold for POC 1: 50 year

PREDEVELOPED LAND USE

Name : Basin 1
Bypass: No

GroundWater: No

Pervious Land Use	acre
A B, Forest, Flat	3.083
Pervious Total	3.083

Impervious Land Use	acre
Impervious Total	0
Basin Total	3.083

Element Flows To:

Surface	Interflow	Groundwater

MITIGATED LAND USE

Name : Basin 1
Bypass: No

GroundWater: No

Pervious Land Use	acre
C, Pasture, Flat	.745
Pervious Total	0.745

Impervious Land Use	acre
ROADS FLAT	2.338
Impervious Total	2.338
Basin Total	3.083

Element Flows To:

Surface	Interflow	Groundwater
Gravel Trench Bed 1	Gravel Trench Bed 1	

Name : Gravel Trench Bed 1
Bottom Length: 130.00 ft.
Bottom Width: 25.00 ft.
Trench bottom slope 1: 0 To 1
Trench Left side slope 0: 0 To 1
Trench right side slope 2: 0 To 1
Material thickness of first layer: 4
Pour Space of material for first layer: 0.3
Material thickness of second layer: 0
Pour Space of material for second layer: 0
Material thickness of third layer: 0
Pour Space of material for third layer: 0
Infiltration On
Infiltration rate: 12
Infiltration safety factor: 1
Total Volume Infiltrated (ac-ft.): 410.44
Total Volume Through Riser (ac-ft.): 0.017
Total Volume Through Facility (ac-ft.): 410.457
Percent Infiltrated: 100
Total Precip Applied to Facility: 0
Total Evap From Facility: 0
Discharge Structure
Riser Height: 3 ft.
Riser Diameter: 8 in.

Element Flows To:

Outlet 1	Outlet 2

Gravel Trench Bed Hydraulic Table

Stage(feet)	Area(ac.)	Volume(ac-ft.)	Discharge(cfs)	Infilt(cfs)
0.0000	0.074	0.000	0.000	0.000
0.0444	0.074	0.001	0.000	0.902

0.0889	0.074	0.002	0.000	0.902
0.1333	0.074	0.003	0.000	0.902
0.1778	0.074	0.004	0.000	0.902
0.2222	0.074	0.005	0.000	0.902
0.2667	0.074	0.006	0.000	0.902
0.3111	0.074	0.007	0.000	0.902
0.3556	0.074	0.008	0.000	0.902
0.4000	0.074	0.009	0.000	0.902
0.4444	0.074	0.009	0.000	0.902
0.4889	0.074	0.010	0.000	0.902
0.5333	0.074	0.011	0.000	0.902
0.5778	0.074	0.012	0.000	0.902
0.6222	0.074	0.013	0.000	0.902
0.6667	0.074	0.014	0.000	0.902
0.7111	0.074	0.015	0.000	0.902
0.7556	0.074	0.016	0.000	0.902
0.8000	0.074	0.017	0.000	0.902
0.8444	0.074	0.018	0.000	0.902
0.8889	0.074	0.019	0.000	0.902
0.9333	0.074	0.020	0.000	0.902
0.9778	0.074	0.021	0.000	0.902
1.0222	0.074	0.022	0.000	0.902
1.0667	0.074	0.023	0.000	0.902
1.1111	0.074	0.024	0.000	0.902
1.1556	0.074	0.025	0.000	0.902
1.2000	0.074	0.026	0.000	0.902
1.2444	0.074	0.027	0.000	0.902
1.2889	0.074	0.028	0.000	0.902
1.3333	0.074	0.029	0.000	0.902
1.3778	0.074	0.030	0.000	0.902
1.4222	0.074	0.031	0.000	0.902
1.4667	0.074	0.032	0.000	0.902
1.5111	0.074	0.033	0.000	0.902
1.5556	0.074	0.034	0.000	0.902
1.6000	0.074	0.035	0.000	0.902
1.6444	0.074	0.036	0.000	0.902
1.6889	0.074	0.037	0.000	0.902
1.7333	0.074	0.038	0.000	0.902
1.7778	0.074	0.039	0.000	0.902
1.8222	0.074	0.040	0.000	0.902
1.8667	0.074	0.041	0.000	0.902
1.9111	0.074	0.042	0.000	0.902
1.9556	0.074	0.043	0.000	0.902
2.0000	0.074	0.044	0.000	0.902
2.0444	0.074	0.045	0.000	0.902
2.0889	0.074	0.046	0.000	0.902
2.1333	0.074	0.047	0.000	0.902
2.1778	0.074	0.048	0.000	0.902
2.2222	0.074	0.049	0.000	0.902
2.2667	0.074	0.050	0.000	0.902
2.3111	0.074	0.051	0.000	0.902
2.3556	0.074	0.052	0.000	0.902
2.4000	0.074	0.053	0.000	0.902
2.4444	0.074	0.054	0.000	0.902
2.4889	0.074	0.055	0.000	0.902
2.5333	0.074	0.056	0.000	0.902
2.5778	0.074	0.057	0.000	0.902

2.6222	0.074	0.058	0.000	0.902
2.6667	0.074	0.059	0.000	0.902
2.7111	0.074	0.060	0.000	0.902
2.7556	0.074	0.061	0.000	0.902
2.8000	0.074	0.062	0.000	0.902
2.8444	0.074	0.063	0.000	0.902
2.8889	0.074	0.064	0.000	0.902
2.9333	0.074	0.065	0.000	0.902
2.9778	0.074	0.066	0.000	0.902
3.0222	0.074	0.067	0.023	0.902
3.0667	0.074	0.068	0.121	0.902
3.1111	0.074	0.069	0.255	0.902
3.1556	0.074	0.070	0.404	0.902
3.2000	0.074	0.071	0.547	0.902
3.2444	0.074	0.072	0.665	0.902
3.2889	0.074	0.073	0.747	0.902
3.3333	0.074	0.074	0.799	0.902
3.3778	0.074	0.075	0.860	0.902
3.4222	0.074	0.076	0.909	0.902
3.4667	0.074	0.077	0.956	0.902
3.5111	0.074	0.078	1.000	0.902
3.5556	0.074	0.079	1.043	0.902
3.6000	0.074	0.080	1.084	0.902
3.6444	0.074	0.081	1.123	0.902
3.6889	0.074	0.082	1.161	0.902
3.7333	0.074	0.083	1.198	0.902
3.7778	0.074	0.084	1.234	0.902
3.8222	0.074	0.085	1.269	0.902
3.8667	0.074	0.086	1.303	0.902
3.9111	0.074	0.087	1.336	0.902
3.9556	0.074	0.088	1.368	0.902
4.0000	0.074	0.089	1.399	0.902

ANALYSIS RESULTS

Stream Protection Duration

Predeveloped Landuse Totals for POC #1
Total Pervious Area:3.083
Total Impervious Area:0

Mitigated Landuse Totals for POC #1
Total Pervious Area:0.745
Total Impervious Area:2.338

Flow Frequency Return Periods for Predeveloped. POC #1

Return Period	Flow(cfs)
2 year	0.002798
5 year	0.005758
10 year	0.008945

25 year	0.015041
50 year	0.021644
100 year	0.030612

Flow Frequency Return Periods for Mitigated. POC #1

Return Period	**Flow(cfs)**
2 year	0
5 year	0
10 year	0
25 year	0
50 year	0
100 year	0

Stream Protection Duration
Annual Peaks for Predeveloped and Mitigated. POC #1

Year	**Predeveloped**	**Mitigated**
1949	0.002	0.000
1950	0.002	0.000
1951	0.003	0.000
1952	0.002	0.000
1953	0.002	0.000
1954	0.002	0.000
1955	0.002	0.000
1956	0.002	0.000
1957	0.002	0.000
1958	0.002	0.000
1959	0.002	0.000
1960	0.002	0.000
1961	0.002	0.000
1962	0.002	0.000
1963	0.002	0.000
1964	0.006	0.000
1965	0.002	0.000
1966	0.007	0.000
1967	0.002	0.000
1968	0.005	0.000
1969	0.002	0.000
1970	0.002	0.000
1971	0.002	0.000
1972	0.002	0.000
1973	0.002	0.000
1974	0.002	0.000
1975	0.002	0.000
1976	0.071	0.000
1977	0.002	0.000
1978	0.002	0.000
1979	0.002	0.000
1980	0.002	0.000
1981	0.002	0.000
1982	0.044	0.000
1983	0.002	0.000
1984	0.023	0.000
1985	0.002	0.000
1986	0.002	0.000
1987	0.002	0.000
1988	0.002	0.000

1989	0.002	0.404
1990	0.002	0.000
1991	0.002	0.000
1992	0.002	0.000
1993	0.002	0.000
1994	0.002	0.000
1995	0.002	0.000
1996	0.040	0.000
1997	0.027	0.000
1998	0.002	0.000
1999	0.002	0.000
2000	0.002	0.000
2001	0.001	0.000
2002	0.002	0.000
2003	0.002	0.000
2004	0.002	0.000
2005	0.002	0.000
2006	0.002	0.000
2007	0.002	0.000
2008	0.002	0.000
2009	0.002	0.000

Stream Protection Duration
Ranked Annual Peaks for Predeveloped and Mitigated. POC #1

Rank	Predeveloped	Mitigated
1	0.0711	0.4040
2	0.0441	0.0000
3	0.0400	0.0000
4	0.0265	0.0000
5	0.0228	0.0000
6	0.0066	0.0000
7	0.0063	0.0000
8	0.0045	0.0000
9	0.0034	0.0000
10	0.0025	0.0000
11	0.0025	0.0000
12	0.0025	0.0000
13	0.0025	0.0000
14	0.0025	0.0000
15	0.0025	0.0000
16	0.0025	0.0000
17	0.0025	0.0000
18	0.0025	0.0000
19	0.0025	0.0000
20	0.0025	0.0000
21	0.0025	0.0000
22	0.0025	0.0000
23	0.0025	0.0000
24	0.0025	0.0000
25	0.0024	0.0000
26	0.0024	0.0000
27	0.0024	0.0000
28	0.0024	0.0000
29	0.0024	0.0000
30	0.0024	0.0000
31	0.0024	0.0000

32	0.0024	0.0000
33	0.0024	0.0000
34	0.0024	0.0000
35	0.0024	0.0000
36	0.0024	0.0000
37	0.0024	0.0000
38	0.0024	0.0000
39	0.0024	0.0000
40	0.0024	0.0000
41	0.0024	0.0000
42	0.0024	0.0000
43	0.0024	0.0000
44	0.0024	0.0000
45	0.0024	0.0000
46	0.0024	0.0000
47	0.0024	0.0000
48	0.0023	0.0000
49	0.0023	0.0000
50	0.0023	0.0000
51	0.0023	0.0000
52	0.0023	0.0000
53	0.0022	0.0000
54	0.0022	0.0000
55	0.0022	0.0000
56	0.0022	0.0000
57	0.0022	0.0000
58	0.0022	0.0000
59	0.0021	0.0000
60	0.0021	0.0000
61	0.0013	0.0000

Stream Protection Duration
POC #1
The Facility PASSED

The Facility PASSED.

Flow(cfs)	Predev	Mit	Percentage	Pass/Fail
0.0014	2597	3	0	Pass
0.0016	1929	3	0	Pass
0.0018	1353	3	0	Pass
0.0020	840	3	0	Pass
0.0022	457	3	0	Pass
0.0024	126	3	2	Pass
0.0026	30	3	10	Pass
0.0028	27	3	11	Pass
0.0030	26	3	11	Pass
0.0032	25	3	12	Pass
0.0034	24	3	12	Pass
0.0036	24	3	12	Pass
0.0039	24	3	12	Pass
0.0041	24	3	12	Pass
0.0043	24	3	12	Pass
0.0045	23	3	13	Pass
0.0047	21	3	14	Pass
0.0049	21	3	14	Pass

0.0051	21	3	14	Pass
0.0053	21	3	14	Pass
0.0055	21	3	14	Pass
0.0057	19	3	15	Pass
0.0059	18	3	16	Pass
0.0061	17	3	17	Pass
0.0063	17	3	17	Pass
0.0065	16	3	18	Pass
0.0067	14	3	21	Pass
0.0069	14	3	21	Pass
0.0071	14	3	21	Pass
0.0073	14	3	21	Pass
0.0075	13	3	23	Pass
0.0077	13	3	23	Pass
0.0079	13	3	23	Pass
0.0081	13	3	23	Pass
0.0084	13	3	23	Pass
0.0086	13	3	23	Pass
0.0088	13	3	23	Pass
0.0090	12	3	25	Pass
0.0092	12	3	25	Pass
0.0094	11	3	27	Pass
0.0096	11	3	27	Pass
0.0098	11	3	27	Pass
0.0100	10	3	30	Pass
0.0102	10	3	30	Pass
0.0104	10	3	30	Pass
0.0106	10	3	30	Pass
0.0108	10	3	30	Pass
0.0110	9	3	33	Pass
0.0112	9	3	33	Pass
0.0114	9	3	33	Pass
0.0116	9	3	33	Pass
0.0118	9	3	33	Pass
0.0120	9	3	33	Pass
0.0122	9	3	33	Pass
0.0124	9	3	33	Pass
0.0126	9	3	33	Pass
0.0129	9	3	33	Pass
0.0131	9	3	33	Pass
0.0133	9	3	33	Pass
0.0135	8	3	37	Pass
0.0137	8	3	37	Pass
0.0139	8	3	37	Pass
0.0141	8	3	37	Pass
0.0143	8	3	37	Pass
0.0145	8	3	37	Pass
0.0147	8	3	37	Pass
0.0149	8	3	37	Pass
0.0151	8	3	37	Pass
0.0153	8	3	37	Pass
0.0155	8	3	37	Pass
0.0157	8	3	37	Pass
0.0159	8	3	37	Pass
0.0161	8	3	37	Pass
0.0163	8	3	37	Pass
0.0165	8	3	37	Pass

0.0167	8	3	37	Pass
0.0169	8	3	37	Pass
0.0171	8	3	37	Pass
0.0173	8	3	37	Pass
0.0176	8	3	37	Pass
0.0178	8	3	37	Pass
0.0180	8	3	37	Pass
0.0182	8	3	37	Pass
0.0184	8	3	37	Pass
0.0186	8	3	37	Pass
0.0188	8	3	37	Pass
0.0190	8	3	37	Pass
0.0192	8	3	37	Pass
0.0194	8	3	37	Pass
0.0196	8	3	37	Pass
0.0198	8	3	37	Pass
0.0200	8	3	37	Pass
0.0202	8	3	37	Pass
0.0204	8	3	37	Pass
0.0206	8	3	37	Pass
0.0208	8	3	37	Pass
0.0210	8	3	37	Pass
0.0212	8	3	37	Pass
0.0214	8	3	37	Pass
0.0216	8	3	37	Pass

Water Quality BMP Flow and Volume for POC #1
On-line facility volume: 0 **acre-feet**
On-line facility target flow: 0 **cfs.**
Adjusted for 15 min: 0 **cfs.**
Off-line facility target flow: 0 **cfs.**
Adjusted for 15 min: 0 **cfs.**

LID Report

LID Technique	Used for Water Quality Treatment?	Total Volume Needs Treatment (ac-ft)	Volume Through Facility (ac-ft)	Infiltration Volume (ac-ft.)	Cumulative Volume Infiltration Credit	Percent Percent Treated	Comment
Gravel Trench Bed 1 POC	N	373.52			N	100.00	
Total Volume Infiltrated		373.52	0.00	0.00		100.00	0.00
						0%	No Treat. Credit

Compliance with LID Standard 8
Duration Analysis Result = Passed

Perlnd and Implnd Changes

No changes have been made.

EXHIBIT B

EXHIBIT B

WWHM2012
PROJECT REPORT

Project Name: WTA_P2_Jan2024
Site Name: WTA Lynden Station - Phase 2
Site Address: 1945 Front Street
City : Lynden
Report Date: 1/19/2024
Gage : Blaine
Data Start : 1948/10/01
Data End : 2009/09/30
Precip Scale: 1.00
Version Date: 2021/08/18
Version : 4.2.18

Low Flow Threshold for POC 1 : 50 Percent of the 2 Year

High Flow Threshold for POC 1: 50 year

PREDEVELOPED LAND USE

Name : Basin 1
Bypass: No

GroundWater: No

Pervious Land Use	acre
A B, Forest, Flat	.625
Pervious Total	0.625

Impervious Land Use	acre
Impervious Total	0
Basin Total	0.625

Element Flows To:

Surface	Interflow	Groundwater

MITIGATED LAND USE

Name : Basin 1
Bypass: No

GroundWater: No

Pervious Land Use	acre
C, Pasture, Flat	.099
Pervious Total	0.099

Impervious Land Use	acre
ROADS FLAT	0.526
Impervious Total	0.526
Basin Total	0.625

Element Flows To:

Surface	Interflow	Groundwater
Gravel Trench Bed 1	Gravel Trench Bed 1	

Name : Gravel Trench Bed 1
Bottom Length: 200.00 ft.
Bottom Width: 4.00 ft.
Trench bottom slope 1: 0 To 1
Trench Left side slope 0: 0 To 1
Trench right side slope 2: 0 To 1
Material thickness of first layer: 4
Pour Space of material for first layer: 0.3
Material thickness of second layer: 0
Pour Space of material for second layer: 0
Material thickness of third layer: 0
Pour Space of material for third layer: 0
Infiltration On
Infiltration rate: 12
Infiltration safety factor: 1
Total Volume Infiltrated (ac-ft.): 87.762
Total Volume Through Riser (ac-ft.): 0.001
Total Volume Through Facility (ac-ft.): 87.763
Percent Infiltrated: 100
Total Precip Applied to Facility: 0
Total Evap From Facility: 0
Discharge Structure
Riser Height: 3 ft.
Riser Diameter: 8 in.

Element Flows To:

Outlet 1	Outlet 2

Gravel Trench Bed Hydraulic Table

Stage(feet)	Area(ac.)	Volume(ac-ft.)	Discharge(cfs)	Infilt(cfs)
0.0000	0.018	0.000	0.000	0.000
0.0444	0.018	0.000	0.000	0.222

0.0889	0.018	0.000	0.000	0.222
0.1333	0.018	0.000	0.000	0.222
0.1778	0.018	0.001	0.000	0.222
0.2222	0.018	0.001	0.000	0.222
0.2667	0.018	0.001	0.000	0.222
0.3111	0.018	0.001	0.000	0.222
0.3556	0.018	0.002	0.000	0.222
0.4000	0.018	0.002	0.000	0.222
0.4444	0.018	0.002	0.000	0.222
0.4889	0.018	0.002	0.000	0.222
0.5333	0.018	0.002	0.000	0.222
0.5778	0.018	0.003	0.000	0.222
0.6222	0.018	0.003	0.000	0.222
0.6667	0.018	0.003	0.000	0.222
0.7111	0.018	0.003	0.000	0.222
0.7556	0.018	0.004	0.000	0.222
0.8000	0.018	0.004	0.000	0.222
0.8444	0.018	0.004	0.000	0.222
0.8889	0.018	0.004	0.000	0.222
0.9333	0.018	0.005	0.000	0.222
0.9778	0.018	0.005	0.000	0.222
1.0222	0.018	0.005	0.000	0.222
1.0667	0.018	0.005	0.000	0.222
1.1111	0.018	0.006	0.000	0.222
1.1556	0.018	0.006	0.000	0.222
1.2000	0.018	0.006	0.000	0.222
1.2444	0.018	0.006	0.000	0.222
1.2889	0.018	0.007	0.000	0.222
1.3333	0.018	0.007	0.000	0.222
1.3778	0.018	0.007	0.000	0.222
1.4222	0.018	0.007	0.000	0.222
1.4667	0.018	0.008	0.000	0.222
1.5111	0.018	0.008	0.000	0.222
1.5556	0.018	0.008	0.000	0.222
1.6000	0.018	0.008	0.000	0.222
1.6444	0.018	0.009	0.000	0.222
1.6889	0.018	0.009	0.000	0.222
1.7333	0.018	0.009	0.000	0.222
1.7778	0.018	0.009	0.000	0.222
1.8222	0.018	0.010	0.000	0.222
1.8667	0.018	0.010	0.000	0.222
1.9111	0.018	0.010	0.000	0.222
1.9556	0.018	0.010	0.000	0.222
2.0000	0.018	0.011	0.000	0.222
2.0444	0.018	0.011	0.000	0.222
2.0889	0.018	0.011	0.000	0.222
2.1333	0.018	0.011	0.000	0.222
2.1778	0.018	0.012	0.000	0.222
2.2222	0.018	0.012	0.000	0.222
2.2667	0.018	0.012	0.000	0.222
2.3111	0.018	0.012	0.000	0.222
2.3556	0.018	0.013	0.000	0.222
2.4000	0.018	0.013	0.000	0.222
2.4444	0.018	0.013	0.000	0.222
2.4889	0.018	0.013	0.000	0.222
2.5333	0.018	0.014	0.000	0.222
2.5778	0.018	0.014	0.000	0.222

2.6222	0.018	0.014	0.000	0.222
2.6667	0.018	0.014	0.000	0.222
2.7111	0.018	0.014	0.000	0.222
2.7556	0.018	0.015	0.000	0.222
2.8000	0.018	0.015	0.000	0.222
2.8444	0.018	0.015	0.000	0.222
2.8889	0.018	0.015	0.000	0.222
2.9333	0.018	0.016	0.000	0.222
2.9778	0.018	0.016	0.000	0.222
3.0222	0.018	0.016	0.023	0.222
3.0667	0.018	0.016	0.121	0.222
3.1111	0.018	0.017	0.255	0.222
3.1556	0.018	0.017	0.404	0.222
3.2000	0.018	0.017	0.547	0.222
3.2444	0.018	0.017	0.665	0.222
3.2889	0.018	0.018	0.747	0.222
3.3333	0.018	0.018	0.799	0.222
3.3778	0.018	0.018	0.860	0.222
3.4222	0.018	0.018	0.909	0.222
3.4667	0.018	0.019	0.956	0.222
3.5111	0.018	0.019	1.000	0.222
3.5556	0.018	0.019	1.043	0.222
3.6000	0.018	0.019	1.084	0.222
3.6444	0.018	0.020	1.123	0.222
3.6889	0.018	0.020	1.161	0.222
3.7333	0.018	0.020	1.198	0.222
3.7778	0.018	0.020	1.234	0.222
3.8222	0.018	0.021	1.269	0.222
3.8667	0.018	0.021	1.303	0.222
3.9111	0.018	0.021	1.336	0.222
3.9556	0.018	0.021	1.368	0.222
4.0000	0.018	0.022	1.399	0.222

ANALYSIS RESULTS

Stream Protection Duration

Predeveloped Landuse Totals for POC #1
Total Pervious Area:0.625
Total Impervious Area:0

Mitigated Landuse Totals for POC #1
Total Pervious Area:0.099
Total Impervious Area:0.526

Flow Frequency Return Periods for Predeveloped. POC #1

Return Period	Flow(cfs)
2 year	0.000133
5 year	0.000274
10 year	0.000426

25 year	0.000717
50 year	0.001034
100 year	0.001464

Flow Frequency Return Periods for Mitigated. POC #1

Return Period	**Flow(cfs)**
2 year	0
5 year	0
10 year	0
25 year	0
50 year	0
100 year	0

Stream Protection Duration
Annual Peaks for Predeveloped and Mitigated. POC #1

Year	**Predeveloped**	**Mitigated**
1949	0.000	0.000
1950	0.000	0.000
1951	0.000	0.000
1952	0.000	0.000
1953	0.000	0.000
1954	0.000	0.000
1955	0.000	0.000
1956	0.000	0.000
1957	0.000	0.000
1958	0.000	0.000
1959	0.000	0.000
1960	0.000	0.000
1961	0.000	0.000
1962	0.000	0.000
1963	0.000	0.000
1964	0.000	0.000
1965	0.000	0.000
1966	0.000	0.000
1967	0.000	0.000
1968	0.000	0.000
1969	0.000	0.000
1970	0.000	0.000
1971	0.000	0.000
1972	0.000	0.000
1973	0.000	0.000
1974	0.000	0.000
1975	0.000	0.000
1976	0.003	0.000
1977	0.000	0.000
1978	0.000	0.000
1979	0.000	0.000
1980	0.000	0.000
1981	0.000	0.000
1982	0.003	0.000
1983	0.000	0.000
1984	0.002	0.000
1985	0.000	0.000
1986	0.000	0.000
1987	0.000	0.000
1988	0.000	0.000

1989	0.000	0.004
1990	0.000	0.000
1991	0.000	0.000
1992	0.000	0.000
1993	0.000	0.000
1994	0.000	0.000
1995	0.000	0.000
1996	0.001	0.000
1997	0.002	0.000
1998	0.000	0.000
1999	0.000	0.000
2000	0.000	0.000
2001	0.000	0.000
2002	0.000	0.000
2003	0.000	0.000
2004	0.000	0.000
2005	0.000	0.000
2006	0.000	0.000
2007	0.000	0.000
2008	0.000	0.000
2009	0.000	0.000

Stream Protection Duration
Ranked Annual Peaks for Predeveloped and Mitigated. POC #1

Rank	Predeveloped	Mitigated
1	0.0033	0.0036
2	0.0025	0.0000
3	0.0021	0.0000
4	0.0017	0.0000
5	0.0007	0.0000
6	0.0002	0.0000
7	0.0002	0.0000
8	0.0001	0.0000
9	0.0001	0.0000
10	0.0001	0.0000
11	0.0001	0.0000
12	0.0001	0.0000
13	0.0001	0.0000
14	0.0001	0.0000
15	0.0001	0.0000
16	0.0001	0.0000
17	0.0001	0.0000
18	0.0001	0.0000
19	0.0001	0.0000
20	0.0001	0.0000
21	0.0001	0.0000
22	0.0001	0.0000
23	0.0001	0.0000
24	0.0001	0.0000
25	0.0001	0.0000
26	0.0001	0.0000
27	0.0001	0.0000
28	0.0001	0.0000
29	0.0001	0.0000
30	0.0001	0.0000
31	0.0001	0.0000

32	0.0001	0.0000
33	0.0001	0.0000
34	0.0001	0.0000
35	0.0001	0.0000
36	0.0001	0.0000
37	0.0001	0.0000
38	0.0001	0.0000
39	0.0001	0.0000
40	0.0001	0.0000
41	0.0001	0.0000
42	0.0001	0.0000
43	0.0001	0.0000
44	0.0001	0.0000
45	0.0001	0.0000
46	0.0001	0.0000
47	0.0001	0.0000
48	0.0001	0.0000
49	0.0001	0.0000
50	0.0001	0.0000
51	0.0001	0.0000
52	0.0001	0.0000
53	0.0001	0.0000
54	0.0001	0.0000
55	0.0001	0.0000
56	0.0001	0.0000
57	0.0001	0.0000
58	0.0001	0.0000
59	0.0001	0.0000
60	0.0001	0.0000
61	0.0001	0.0000

Stream Protection Duration
POC #1
The Facility PASSED

The Facility PASSED.

Flow(cfs)	Predev	Mit	Percentage	Pass/Fail
0.0001	1308	2	0	Pass
0.0001	740	2	0	Pass
0.0001	555	2	0	Pass
0.0001	386	2	0	Pass
0.0001	245	2	0	Pass
0.0001	133	2	1	Pass
0.0001	39	2	5	Pass
0.0001	28	2	7	Pass
0.0001	26	2	7	Pass
0.0002	26	2	7	Pass
0.0002	26	2	7	Pass
0.0002	24	2	8	Pass
0.0002	22	2	9	Pass
0.0002	21	2	9	Pass
0.0002	21	2	9	Pass
0.0002	21	2	9	Pass
0.0002	20	2	10	Pass
0.0002	20	2	10	Pass

0.0002	18	2	11	Pass
0.0003	17	2	11	Pass
0.0003	17	2	11	Pass
0.0003	16	2	12	Pass
0.0003	14	2	14	Pass
0.0003	13	2	15	Pass
0.0003	11	2	18	Pass
0.0003	11	2	18	Pass
0.0003	11	2	18	Pass
0.0003	11	2	18	Pass
0.0003	10	2	20	Pass
0.0003	10	2	20	Pass
0.0004	10	2	20	Pass
0.0004	10	2	20	Pass
0.0004	10	2	20	Pass
0.0004	10	2	20	Pass
0.0004	10	2	20	Pass
0.0004	10	2	20	Pass
0.0004	10	2	20	Pass
0.0004	10	2	20	Pass
0.0004	10	2	20	Pass
0.0004	10	2	20	Pass
0.0005	10	2	20	Pass
0.0005	10	2	20	Pass
0.0005	10	2	20	Pass
0.0005	10	2	20	Pass
0.0005	10	2	20	Pass
0.0005	10	2	20	Pass
0.0005	10	2	20	Pass
0.0005	10	2	20	Pass
0.0005	10	2	20	Pass
0.0005	10	2	20	Pass
0.0006	10	2	20	Pass
0.0006	10	2	20	Pass
0.0006	10	2	20	Pass
0.0006	10	2	20	Pass
0.0006	10	2	20	Pass
0.0006	10	2	20	Pass
0.0006	9	2	22	Pass
0.0006	9	2	22	Pass
0.0006	9	2	22	Pass
0.0006	9	2	22	Pass
0.0007	9	2	22	Pass
0.0007	9	2	22	Pass
0.0007	9	2	22	Pass
0.0007	9	2	22	Pass
0.0007	9	2	22	Pass
0.0007	9	2	22	Pass
0.0007	8	2	25	Pass
0.0007	8	2	25	Pass
0.0007	8	2	25	Pass
0.0007	8	2	25	Pass
0.0008	8	2	25	Pass
0.0008	8	2	25	Pass
0.0008	8	2	25	Pass
0.0008	8	2	25	Pass
0.0008	8	2	25	Pass

0.0008	8	2	25	Pass
0.0008	8	2	25	Pass
0.0008	8	2	25	Pass
0.0008	8	2	25	Pass
0.0008	8	2	25	Pass
0.0008	8	2	25	Pass
0.0009	7	2	28	Pass
0.0009	7	2	28	Pass
0.0009	7	2	28	Pass
0.0009	7	2	28	Pass
0.0009	7	2	28	Pass
0.0009	7	2	28	Pass
0.0009	7	2	28	Pass
0.0009	7	2	28	Pass
0.0009	7	2	28	Pass
0.0010	7	2	28	Pass
0.0010	6	2	33	Pass
0.0010	6	2	33	Pass
0.0010	6	2	33	Pass
0.0010	6	2	33	Pass
0.0010	6	2	33	Pass
0.0010	5	2	40	Pass
0.0010	5	2	40	Pass
0.0010	5	2	40	Pass

Water Quality BMP Flow and Volume for POC #1
On-line facility volume: 0 **acre-feet**
On-line facility target flow: 0 **cfs.**
Adjusted for 15 min: 0 **cfs.**
Off-line facility target flow: 0 **cfs.**
Adjusted for 15 min: 0 **cfs.**

LID Report

LID Technique	Used for Water Quality Treatment?	Total Volume Needs Treatment (ac-ft)	Volume Through Facility (ac-ft)	Infiltration Volume (ac-ft.)	Cumulative Volume Infiltration Credit	Percent Water Quality Treated	Percent Infiltrated	Comment
Gravel Trench Bed 1 POC	N	79.86			N	100.00		
Total Volume Infiltrated		79.86	0.00	0.00		100.00	0.00	No Treat. Credit

Compliance with LID Standard 8
Duration Analysis Result = Passed

Perlnd and Implnd Changes

No changes have been made.

EXHIBIT B