Management Plan

Please describe the details of your project to the extent known. Consult the guidance document for further information on regulatory requirements, rational for why the information is required, and how to find required information.

The scope and the timing for response will be provided. If information is requested and not received, it may result in the disallowance of the application.

Information on these topics may be required as part of the application processing and if further detail is necessary that is not part of the application and management plan received, you will be contacted and requested to provide additional information. In some circumstances, the use of a qualified professional to complete the plan may be required.

1.0 Background

1.1 Project Overview

Describe project for which authorization is requested, including construction and/or phased development details:

The property under this application is required for the Township's 80 Avenue extension project which involves construction of a new public roadway providing a new east/west connection between the intersections of 216 St/80 Ave and Glover Rd/Labonte Ave, south of Highway 1. Also included with the roadworks is the installation of a new watermain and associated drainage/storm sewer works. The roadway will be a new two lane undivided roadway with 3.5 m lanes, 1.5 m bike lanes on both sides, a 3 m multi-use pathway on the south side, roadside ditches and drainage/storm sewer facilities. This application is for road dedication and SRW for the Township of Langley to hold rights to the land for construction and maintenance of the roadway indefinitely.

1.2 Investigative Work

If any preliminary investigative work has been carried out, with or without an investigative authorization, provide details on work completed, incomplete or on-going from previous term.

Activity	Brief Description of Activity	Status (e.g. Complete, incomplete, ongoing)	Comments / Milestones
Environmental Overview Assessment	Identification of environmental features in the project area, determination of the potential environmental impacts of construction activities, and recommendation of mitigation measures to protect environmental resources.	Complete	All works will proceed with the implementation of appropriate best management practices and acquisition of appropriate authorizations.

Activity	Brief Description of Activity	Status (e.g. Complete, incomplete, ongoing)	Comments / Milestones
Archaeological Overview Assessment	1.Consult with BC Archaeology Branch's RAAD to determine the presence of previously identified sites. 2. Identify areas with medium to high overall archaeological site potential within project area. 3. Assess how activities could affect any intact cultural deposits 4. Formulate and present recommendations that will ensure effective management, assessment, protection, and/or mitigation of any significant archaeological deposits within the project area.	Complete	Possible Medium Archaeological Site Potential near eastern border of 22165 Labonte Ave. An Archaeological Impact Assessment will be performed prior to construction to adequately assess any potential heritage concerns with this area (Refered to as "Locality A") delineated in the Archaeological Overview Assessment prepared by Antiquus Archaeological Consultants Ltd. dated Oct. 30, 2014 (attached to this application).

Add Row

1.3 Confirmation of Safety Plan

Your Project must meet the Occupational Health and Safety (OHS) criteria set out by WorkSafe BC. Does your Project meet these criteria?

(•) Yes ( ) No

5.2.3 First Nations Consultation

Describe any contact you may have had, including the name of the First Nation(s) and representatives contacted.

Cara Brendzy of Sto:lo Nation and Ashley Doyle of Kwantlen First Nation were supportive of and coordinated community representation for the Archaeological Overview Assessment conducted by Antiquus Archaeological Consultants Ltd. in 2014. Additionally, Quint Stubbington of Kwantlen First Nation was involved with the fieldwork portion of the Archaeological Overview Assessment.

First Nation agencies with interest in the area of the project include Kwantlen First Nation, Katzie First Nation, Tsawwassen First Nation, Semiahmoo First Nation, and Sto:lo Nation. The Archaeological Overview Assessment conducted for the project was sent to the relevant First Nation agencies.

Formal heritage inspection permits were issued by Cara Brendzy of SRRMC (Permit No. 2014-042) and Ashley Doyle of Kwantlen First Nation (Permit No. SQ 2015-06).

2.0 Location

2.1 Description

Provide a general description of the location of the project:

The project involves construction of a roadway along the north side of the following two parcels:
- 22165 Labonte Avenue, Lot 2, DL 317, NWD, PL 2444 (PID# 004-210-913)
- Lot 1, DL 317, NWD, PL NWP2444 (PID# 004-210-891)

Both these properties are next to each other at the west end of Labonte Avenue and located immediately adjacent (south) of Highway 1 between 216 Street and Glover Road in the Township of Langley.

Please refer to the attached "General Location Map" for a general location of the project within the Township of Langley.

2.2 Location Justification

Provide your reasons/justification of the need for this type of project at this location:

This project has been identified in the Township's Master Transportation Plan Future Road Classification and forms part of the Township's future road network. This project will provide an important link to access the future 216 Street Interchange and provides improved access from Trinity Western University to Willoughby. The road will also include a watermain which improves the municipal water supply in the area.

2.3 Seasonal Expectations of Use

When will the Project require use of the land? Include information on key works during construction phases as well as operations phase. Please reference reduced risk fish windows as required by DFO:

Project Phase (Construction / Operations)	Brief Description of Activity / Works	Season
Construction	Construction of roadway	July/August 2016 to approx. July/August 2018
Post-Construction	Ongoing Maintenance and Operations	Approx. July/August 2018 to indefinitely

Add Row

3.0 Infrastructure and Improvements

3.1 New Facilities and Infrastructure

Detail any new facilities, infrastructure or processes proposed and any ancillary uses. Provide details of planned construction methods and materials, and construction scheduling.

Facility/Infrastructure/Process	Construction Methods/Materials	Construction Schedule
Two lane roadway	clearing, excavation, placement of fill, paving, grading/ ditching, installation of storm sewer, concrete works, electrical ducting and streetlights, and watermain. All fill materials will be imported granular materials from approved sources.	Commence in July/August 2016 and complete by July/ August 2018

Add Field

3.2 Access

Identify existing and proposed roads used for access and their use by season. Include any proposed connections to public or Forest Service Roads; traffic information including volume of traffic during construction/operation and phase or season that the traffic is expected:

Roadway/Proposed Connection	Existing/Proposed	Existing Road Classification	Road Permittee Information and Road Use Agreements	Traffic Volume		Mitigation of Traffic Effects
				Construction Phase	Operations Phase	
Proposing to build a new roadway connecting the intersection of 80 Ave/216 St to the intersection of Labonte Ave/Glover Rd.	N/A	N/A	N/A	N/A	TBD approx. 5000 vpd	N/A

Add Field

3.3 Utility Requirements and Sources

Describe utility requirements and sources, include agreements in place or underway allowing access to utilities.

The proposed roadway will include installation of a municipal water supply main, storm sewer, and streetlighting along the road alignment. No external utility companies are proposing to install additional infrastructure on the roadway within these two properties.

3.4 Water Supply

Identify water requirements for construction and operation phases (e.g. surface water and/or groundwater), including sources, location, volume and a general description of infrastructure planned to meet water supply requirements, include any agreements outside of Water Act Authorizations identified above (Section I, Authorizations, Permits or Approvals), such as Municipal water supply.

Project Phase (Construction/ Operation)	Water Requirement (e.g. Surface water or ground water, etc)	Source/location	Volume	Infrastructure Description	Agreements
N/A	N/A	N/A	N/A	N/A	N/A

Add Field

3.5 Waste Collection Treatment and Disposal

Identify water requirements for construction and operation phases (e.g. surface water and/or groundwater), including:

Project Phase (Construction/ Operation)	Water Requirement (e.g. Surface water or ground water, etc)	Source/location	Volume	Infrastructure Description	Agreements
N/A	N/A	N/A	N/A	N/A	N/A

Add Field

4.0 Environmental

Describe any significant impacts and proposed mitigation for the following environmental classes:

4.1 Land Impacts

4.1.1 Vegetation Removal

Is any timber removal required?

○ Yes ◉ No

Are any areas of vegetation to be cleared, outside of timber removal?

○ Yes ◉ No

4.1.2 Soil Disturbance

Will there be any areas of soil disturbance, including clearing, grubbing, excavation and levelling?

◉ Yes ○ No

Disturbance Type	Impacts	Proposed Mitigations
Clearing and Grubbing	Removal of grasses and stripping of topsoil	topsoil will be stockpiled and re-used where possible and if excess then removed from site
Excavation and fill placement	Excavation and placement of fill in areas of cut and fill	Excavation material to be removed from site.
Excavation, trenching, and backfilling for watermain and storm sewer works	Excavation, and placement of fill in areas of cut	Excavation material to be removed from site.

Add Field

Is the area to be excavated a Brownfield site or has the potential to be contaminated?

○ Yes ◉ No

Is there potential for disturbance of archaeological, paleontological fossils or historical artifacts?

◉ Yes ○ No

Additional research and plans may be required. Heritage Conservation Act

4.1.3 Riparian Encroachment

Will any works be completed within or adjacent to the riparian zone of any water body?

◉ Yes ○ No

Identify all works that may affect the Riparian zone, the impacts, and proposed mitigations:

Work Type	Impacts	Proposed Mitigations

Work Type	Impacts	Proposed Mitigations
Works adjacent to and enclosure (storm sewer/culvert) of a class B water course located adjacent to but not within the subject properties.	Enclosure of a portion of class B watercourse and construction activities within the riparian zone.	Application will be made for relevant federal and provincial approvals as well as works undertaken following Best Management Practices under the supervision of a Qualified Environmental Professional (QEP).
Retaining wall/Fill placement within the riparian zone of a class A watercourse located adjacent to but not within the subject properties.	Construction activities within the riparian zone.	Application will be made for relevant federal and provincial approvals as well as works undertaken following Best Management Practices under the supervision of a Qualified Environmental Professional (QEP).

Add Field

4.1.4 Pesticides and Herbicides

Will there be any use of pesticides or herbicides during construction, operations and/or maintenance?

○ Yes ◉ No

4.1.5 Visual Impacts

Will there be any adverse effects of the projects, and any potential adverse effects on sight lines to the project area from surrounding areas likely to be used for scenic viewing by residents or other users?

○ Yes ◉ No

4.1.6 Archaeological Sites

Are there any known or high potential (Arch Procedure) archaeological sites within the project area?

○ Yes ◉ No

Have you conducted an AIA or engaged an archaeologist to assist with your investigations?

◉ Yes ○ No

Please include information or reports generated:

An Archaeological Overview Assessment (AOA) has been conducted by Antiquus Archaeological Consultants. This Archaeological Overview Assessment is summarized in a report prepared by Antiquus Archaeological Consultants Ltd. for the Township of Langley titled "An Archaeological Overview Assessment for a Proposed 1.8 km Extension Project of 80th Avenue (216 Street to Glover Road), in the Township of Langley, B.C.. This report identifies two localities along the project alignment which are considered to have medium archaeological site potential. One of the sites is located immediately east of one of the subject properties and borders the east property line. An Archaeological Impact Assessment will be conducted to adequately assess any potential heritage concerns within this locality prior to land-alterations. A copy of the AOA report is attached to this application.

4.1.7 Construction Methods and Materials

Identify the types of construction materials, the methods used, their impacts, and any mitigations:

Construction Material/Method	Impacts	Mitigations
Imported Embankment Fill-Pitrun	Possible erosion/dust	Follow best management practices to prevent impacts to surrounding property and downstream watercourses
Granular Road Subbase and Base	Possible erosion/dust	Follow best management practices to prevent impacts to surrounding property and downstream watercourses
Hot-mix asphalt concrete paving	Minor	Follow property placement procedures
Concrete sidwalks, curb and gutter, barriers, and streetlight bases	Prevention of deleterious substance migration during placement of cast in place.	Follow best management practices to prevent migration of deleterious substances to surrounding property and downstream watercourses
Waterworks (PVC main, valves, etc)	Erosion and excavation near sensitive watercourses and property	Follow best management practices to prevent migration of deleterious substances to surrounding property and downstream watercourses
PVC and Concrete storm sewers, culverts, and manholes	Erosion and excavation near sensitive watercourses and property	Follow best management practices to prevent migration of deleterious substances to surrounding property and downstream watercourses
Placement of topsoil, growing medium, sod, trees shrubs, and groundcovers	Possible erosion/dust	Follow best management practices to prevent impacts to surrounding property and downstream watercourses
Electrical conduit, junction boxes, poles, and wiring	Erosion and excavation near sensitive watercourses and property	Follow best management practices to prevent migration of deleterious substances to surrounding property and downstream watercourses

Add Field

4.2 Atmospheric Impacts

4.2.1 Sound, Odor, Gas or Fuel Emissions

Will the project construction or operation cause any of the following to disturb wildlife or nearby residents:

(Best management practices for sound)

Sound? ○ Yes ◉ No

Odor? ○ Yes ◉ No

Gas? ○ Yes ◉ No

Fuel Emissions? ○ Yes ◉ No

4.3 Water or Land Covered by Water Impacts

4.3.1 Drainage Effects

Will the project result in changes to land drainage?

◉ Yes ○ No

Describe the potential effect or impact and include plans for mitigation/management:

Effect	Potential Impacts	Proposed Mitigations / Management Plan
The project will alter the current drainage patterns as the proposed roadway would bisect the existing lands and cross over several existing culverts		The proposed storm sewer works will manage the existing drainage such that there are no negative impacts to the existing upstream, downstream, or adjacent properties. The proposed storm sewer and drainage facilities will control the 2, 5, and 100 year flows to prevent these flows from exceeding pre-construction flows.

Add Field

4.3.2 Public Access

Will the project result in changes to public access?

◉ Yes ○ No

Describe the potential effect or impact and include plans for mitigation/management:

Effect	Potential Impacts	Proposed Mitigations / Management Plan
This new roadway will allow the public to travel between the intersections of 216 St/80 Ave and Glover Rd/Labonte Ave		Pedestrians, cyclists, and motor vehicles will be confined to the roadway.

Add Field

4.3.3 Flood Potential

Will the project result in a potential for flooding?

○ Yes ◉ No

4.4 Fish and Wildlife Habitat Impacts

4.4.1 Disturbance to Wildlife and Wildlife Habitat

Will the project result in adverse effects to wildlife or wildlife habitat?
(BC Wildlife Act)

(•) Yes ( ) No

Provide a description of any potential adverse effects to wildlife and wildlife habitat from proposed construction and operation (including seasonal considerations, potential adverse effects from changes to access by hunters and fishers, along with proposed measures to mitigate adverse effects).

Project Phase		Potential Impacts	Proposed Mitigations / Management Plan
Construction		Vegetation clearing, instream culvert placement, and excavation/infill associated with road works.	Works to proceed with the implementation of best management practices as outlined in the "Land Development Guidelines for the Protection of Aquatic Habitat (DFO 1993)" and "Standards and Best Practices for Instream Works (MWLAP 2004)" and as specified in Sections 40, 41, 42, 43, and 44 of the "Water Regulation under the Water Act (BC 1996a)", and the Township of Langley "Erosion and Sediment Control Bylaw 4381 (TOL 2009)". If clearing works occur during the bird breeding season, a pre-construction survey by a qualified biologist will be performed to ensure compliance with section 34 of the "Wildlife Act (BC 1996c)". If active bird nests are found they will be protected by a buffer zone as prescribed in the "Ministry of Environment (MOE 2012)" guidance document "Develop with Care".

Add Field

Will the project (construction or operations phase) occur in and around streams, lakes, estuarine or marine environments?

(•) Yes ( ) No

Describe the fish habitat on or near the project site, include potential impacts of the Project (e.g. stream crossings, water diversions, etc), including seasonal considerations, and plans to manage/mitigate effects.

Project Phase	Impacts	Proposed Mitigations / Management
Construction	The project alignment lies within the Salmon River watershed and crosses Guy Creek which is located just east of the subject properties. Guy Creek is a known fish bearing watercourse (MOE 2014). Fish species documented for Guy Creek are Oncorhynchus keta (Coho Salmon), Oncorhynchus clarki (Cutthroat trout), and Oncorhynchus mykiss (Steelhead trout).	Works to proceed with the implementation of best management practices as outlined in the "Land Development Guidelines for the Protection of Aquatic Habitat (DFO 1993)" and "Standards and Best Practices for Instream Works (MWLAP 2004)" and as specified in Sections 40, 41, 42, 43, and 44 of the "Water Regulation under the Water Act (BC 1996a)", and the Township of Langley "Erosion and Sediment Control Bylaw 4381 (TOL 2009)".

Add Field

Is the project (construction or operations phase) likely to increase erosion or sedimentation?

(•) Yes ( ) No

Describe the fish habitat on or near the project site, include potential impacts of the Project (e.g. stream crossings, water diversions, etc), including seasonal considerations, and plans to manage/mitigate effects.

Project Phase	Impacts	Proposed Mitigations / Management
Construction	The project alignment lies within the Salmon River watershed and crosses Guy Creek which is located just east of the subject properties. Guy Creek is a known fish bearing watercourse (MOE 2014). Fish species documented for Guy Creek are Oncorhynchus keta (Coho Salmon), Oncorhynchus clarki (Cutthroat trout), and Oncorhynchus mykiss (Steelhead trout).	Works to proceed with the implementation of best management practices as outlined in the "Land Development Guidelines for the Protection of Aquatic Habitat (DFO 1993)" and "Standards and Best Practices for Instream Works (MWLAP 2004)" and as specified in Sections 40, 41, 42, 43, and 44 of the "Water Regulation under the Water Act (BC 1996a)", and the Township of Langley "Erosion and Sediment Control Bylaw 4381 (TOL 2009)".

Add Field

Will the project (construction or operations phase) require water diversion?

( ) Yes (•) No

Will the project threaten or endanger species at risk in the area?

Species At Risk Act

(•) Yes ( ) No

How and what mitigation is planned?

Project Phase	Impacts	Proposed Mitigations / Management

Project Phase	Impacts	Proposed Mitigations / Management
Construction	Site reconnaissance did not identify species at risk habitat or species at risk located within the immediate project area however, it is possible that construction activities may result in incidental encounters, particularly around complex riparian habitat around Guy Creek.	A qualified biologist will monitor the works to ensure that wildlife is protected from harm due to construction activities. If a species at risk is encountered during the course of conducting construction works, the biologist would be required to stop works and contact the MOE to determine the best course of action to mitigate impacts to the species at risk. Fish and wildlife salvages may need to be performed in work zones involving instream or riparian disturbance (MOE 2006), particularly installation of fill and culvert works below high water mark. Salvages will be conducted prior to construction by permitted qualified environmental professionals and reported to the Province (FLNRO).

Add Field

5.0 Socio-Community

5.1 Land Use

Describe the current community setting on or near the project area, including the location of non-aboriginal and aboriginal communities or known use areas.

The zoning of the subject properties are Rural designated RU-1. The lands are also located within the provincial Agricultural Land Reserve. The attached General Location Map shows the project location in relation to local non-aboriginal and aboriginal communities.

The proposed infrastructure has been designed to avoid impacts and provide buffers to existing ALR lands. There will be minimal local impacts and positive nearby impacts to farm traffic.

5.1.1 Land Management Plans and Regional Growth Strategies

Are there any land and resource management plans, coastal plans, provincial, regional growth strategies or local government plans with zoning, or management policies or use restrictions in place that could limit or preclude your proposed use of the land? *(Please refer to the Union of BC Municipalities (UBCM), and check the websites of the municipality, regional district or other organization with jurisdiction including your project area.)*

(•) Yes ( ) No

Please list:

The project is located on lands located within the provincial Agricultural Land Reserve which would make it impossible to construct the proposed roadway without approval from the Agricultural Land Commission. The Agricultural Land Commission has approved the project in it's decision letter dated November 9, 2015 (ALC File: 53820) and attached to this application.

5.2 Socio-Community Conditions

5.2.1 Adjacent Users or Communities

Is the project likely to restrict public access, or the ability, or the ability of adjacent land owners or tenure holder to access their property or tenures?

( ) Yes (•) No

5.2.2 Existing Services

Provide a description any increased demand on fire protection and other health facilities and emergency services arising from your Project, including proposed management or mitigation measures.

Given that the proposed roadway provides a new link (which currently does not exist) between the intersections of 80 Ave/216 St and Labonte Ave/Glover road, the project will improve access for fire protection and other health facilities and emergency services in the area. The installation of a new watermain (where there currently is not one) along the entire alignment will improve the ability of fire protection services in the project area.

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