

Staff Report to Council

Planning & Development

FILE: 4520-08-2018-06

REPORT DATE: June 08, 2020 MEETING DATE: June 16, 2020
TO: Mayor and Council
FROM: Anne Berry, Director of Planning and Development
SUBJECT: Soil Removal and Fill Deposit Permit Application – 12150 Golden Ears Way

CHIEF ADMINISTRATIVE OFFICER REVIEW/APPROVAL:



RECOMMENDATION(S): THAT Council:

- A. Approve the issuance of a Soil Removal and Fill Deposit Permit to 0994778 B.C. Ltd., for 12150 Golden Ears Way with the following conditions:
 - A.1 A valid temporary access permit renewal from the Ministry of Transportation Infrastructure, which includes a temporary construction access plan and traffic management plan, is required for the issuance of the permit; AND
 - A.2 Filling activities are prohibited on Saturdays, Sundays and statutory holidays and restricted to the hours between 7:00 a.m. and 5:00 p.m. any other day of the week; OR
- B. Other.

PURPOSE

The purpose of this application is to permit the removal of 17,383 cubic metres of soil and the deposit of 85,640 cubic metres of fill to raise current site grades for construction purposes above the floodplain to build a Volkswagen and G.M. dealership.

DISCUSSION

Background:

The Soil Removal and Fill Deposit Regulation Bylaw restricts the removal of soil or the depositing of fill on lands within the City. When the deposit of fill or removal of soil is 500 cubic metres or greater, the proposed activities require Council authorization before issuance of a permit. The application is for removal of 17,383 cubic metres of soil and the deposit of 85,640 cubic metres of fill on the 3.43 hectares (8.47 acres) site (See Attachment "A" Subject Property Map). The bylaw requires the following information from applicants:

- Topographic information about the placement or removal of soil signed and sealed by a Qualified Professional;
- A description of the composition and volume of the soil to be deposited or removed;
- Method of soil removal or fill deposits;
- Proposed accesses to the site during the operations including the proposed routes and schedules of trucks;
- Proposed measures to prevent tracking of soil or other material onto highways and measures for cleaning the highways abutting the parcel where fill is to be placed;
- Proposed measures to control erosion, drainage and soil stability during and after removal or deposit signed and sealed by a Qualified Professional;
- Certification that the soil to be removed or fill to be deposited meets the applicable provincial Ministry's criteria.

The development proposed at 12150 Golden Ears Way is two dealerships. The subject property is zoned C-1 (Highway Commercial), and the Official Community Plan (OCP) land use designation is Highway Commercial. The subject property is located west of the Golden Ears overpass on the north side of Lougheed Highway.

The applicant has applied for a Soil Deposit and Fill Removal Permit to raise current site grades for construction purposes above the floodplain. (Attachment B)

Before placing engineered fill comprised of clean sand or sand and gravel, materials considered to compromise the design recommendations such as, but not limited to, vegetation, topsoil, variable fills, and loose disturbed materials are to be removed. The source of the fill used is dependent on the timing of the permit.

GeoPacific Consultants Ltd will review site preparation, and trucks will be used for soil removal and fill deposits.

To reduce the potential negative impacts on the surrounding properties, the following measures will be taken:

- gravelling of a driveway;
- access permit from the Ministry of Transportation and Infrastructure (MOTI) which includes a temporary construction access plan and traffic management plan. The City does not have jurisdictional authority over the traffic management due to the site access being on a Ministry controlled-access highway; and
- erosion and sediment control plan will be followed and monitored by a Qualified Professional throughout the project.

Relevant Policy, Bylaw, or Legislation:

The Soil Removal and Fill Deposit Regulation Bylaw No. 2593, 2013 regulates the placement of fill or the removal of soil or other material on land in the City.

Council Policy C030, Geotechnical Report Guidelines, provides information to prospective applicants and their engineering professionals on when geotechnical reports are required and set out the standards and requirements to be addressed in those reports.

Transportation Act - Ministry of Transportation and Infrastructure - Temporary Construction Access Permit.

Analysis:

Geotechnical Report

Policy No. C030 "Geotechnical Report Guidelines" (Attachment C) applies to projects requiring fill and soil consolidation to support a foundation. The policy sets the standards and requirements to be addressed. GeoPacific Ltd. has prepared a geotechnical report dated July 25, 2018, which meets the standards set out in Policy No. C030.

Road Access

The MOTI permits certain works to be constructed in the highway right-of-way, where it is practical and safe to do so. All developers must apply for and receive a permit from the MOTI before constructing or maintaining a work or structure or pipe on roads or land controlled by the Minister of Transportation, according to Section 62 of the *Transportation Act*. A temporary construction permit access onto Lougheed Highway

was issued to the applicant on March 18, 2019 (Attachment D). Since then the applicant has applied for renewal of the permit, staff have included the renewal as a condition of the permit.

Highway's safety and efficiency depends to a large extent upon the amount and type of roadside conflict with through traffic. Most conflict comes from traffic movements to and from connecting streets, businesses, residences and other development along the highway. Highway users have certain rights of safe and efficient travel. Ministry staff consider these competing interests when evaluating access permits, in accordance with provincial legislation and case law. As a condition of the permit, all works must comply with the temporary construction access plan approved by the Ministry. The permit includes the details of the access and a detailed traffic management plan (Attachment E). Below is a summary for the permits conditions:

- Construction must be completed on or before September 30, 2019;
- The Permittee must ensure that the most current edition of the MOTI regulations are followed throughout the duration of the permit;
- Site access must be constructed in accordance with the MOTI regulations
- Certified Traffic Control must be supplied by the Permittee in accordance with the MOTI's Traffic Control Manual For Work on Roadway;
- No Dirt, sand or waste materials are to be store on the road, road shoulder, or ditch and;
- The applicant must clean up a sill or repair any roadway as soon as it occurs;

Road Cleaning

The access to the property is off Lougheed Highway. A stabilized access point from Lougheed Highway will be installed. It will provide a roadway structure that will assist in the removal of muddy soils from vehicle wheels and minimize the transportation of fine sediments onto Lougheed Highway. A temporary wheel wash will be installed to ensure no material is tracked on to the roads (Attachment F).

As per specifications on the Erosion & Sediment Control Plan and the City of Pitt Meadows Soil Removal and Fill Deposit Regulation Bylaw No. 2593, 2013 all haul roads within proximity of the site are required to be kept clear and any debris tracked onto city roads must be removed daily.

The MOTI will be in charge of enforcement on the controlled access highway. City bylaw staff will be in close contact with Ministry to ensure compliance is being met. Any debris on city roads will be dealt with immediately.

Operations Hours

The filling would be prohibited on Saturdays, Sundays and statutory holidays and restricted to the hours between 7:00 a.m. to 5:00 p.m. on weekdays. 0994778 B.C. Ltd.

can apply for a renewal of the permit 30 days before the expiry date of the existing permit.

Project Delay

There have been significant delays to this project. The Development Permit for this project went to ADP on April 17, 2019. The applicant was informed shortly after by both applicant and the city's environmental staff that the Ministry of Forests, Lands, Natural Resource Operations and Rural Development (FLNROD) declared a portion of the site as a wetland and therefore as proposed, the application could not proceed.

On October 20, 2019, the applicant forwarded three reports from qualified environmental professionals to FLNROD. All three reports concluded there are no wetlands on the site.

As of April 15, 2020, the applicant was informed by FLNROD that due to the historical changes in the drainage patterns water is not ponded on the site for sufficient length of time to allow anaerobic conditions to be created and concluded that there are currently no wetlands located on this site and that the project could proceed. The applicant forwarded the correspondence to the City.

Archaeological Sites

According to mapping prepared by the Ministry of Forests, Lands, and Natural Resource Operations, no archaeological sites are identified on the site. It is expected that, if archaeological artifact finds are discovered during the fill process, applicant would report these finds directly to appropriate provincial authorities.

COUNCIL STRATEGIC PLAN ALIGNMENT

- ☐ Principled Governance ☒ Balanced Economic Prosperity ☐ Corporate Excellence
☐ Community Spirit & Wellbeing ☐ Transportation & Infrastructure Initiatives
☐ Not Applicable

FINANCIAL IMPLICATIONS

- ☒ None ☐ Budget Previously Approved ☐ Referral to Business Planning
☐ Other

Road levies will not be collected due to the use of the MOTI's controlled-access highway. Levies are only collected when city roads are being used. In this case no city roads will be used. A deposit of \$517,390 will be taken for the site.

PUBLIC PARTICIPATION

☒ Inform ☐ Consult ☐ Involve ☐ Collaborate ☐ Empower

KATZIE FIRST NATION CONSIDERATIONS

Referral ☐ Yes ☒ No

SIGN-OFFS

Written by:

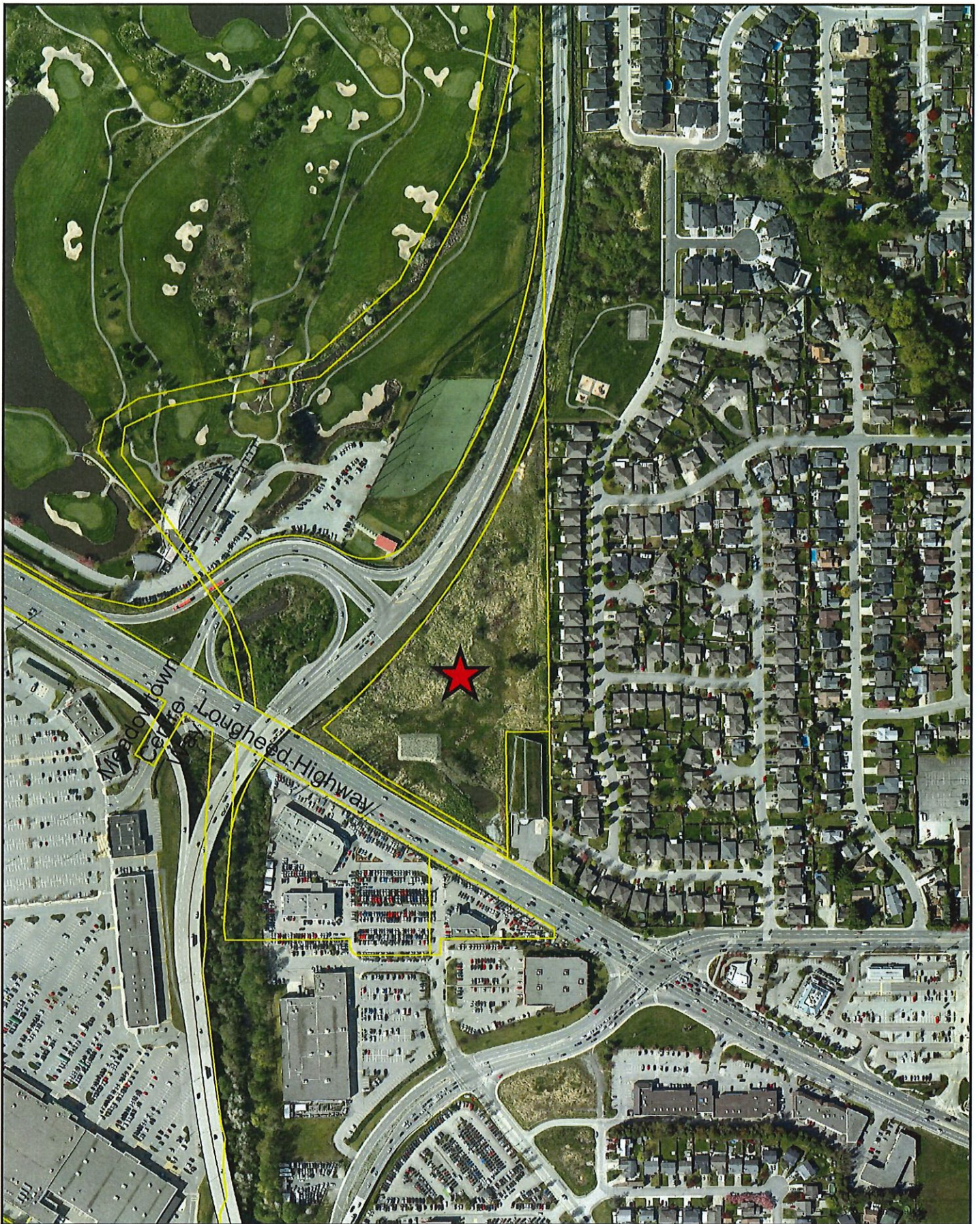
Chantal Gemperle, Supervisor of Building
& Bylaws, Licensing Inspector

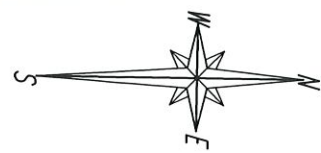
Reviewed by:

Alex Wallace, Manager of Planning and
Development

ATTACHMENT(S):

- A. Subject Property Map
- B. Fill Plan
- C. Council Policy C030, Geotechnical Report Guidelines
- D. Ministry of Transportation and Infrastructure Temporary Access Permit
- E. Temporary Construction Access Plan
- F. Erosion Sediment Control Plan

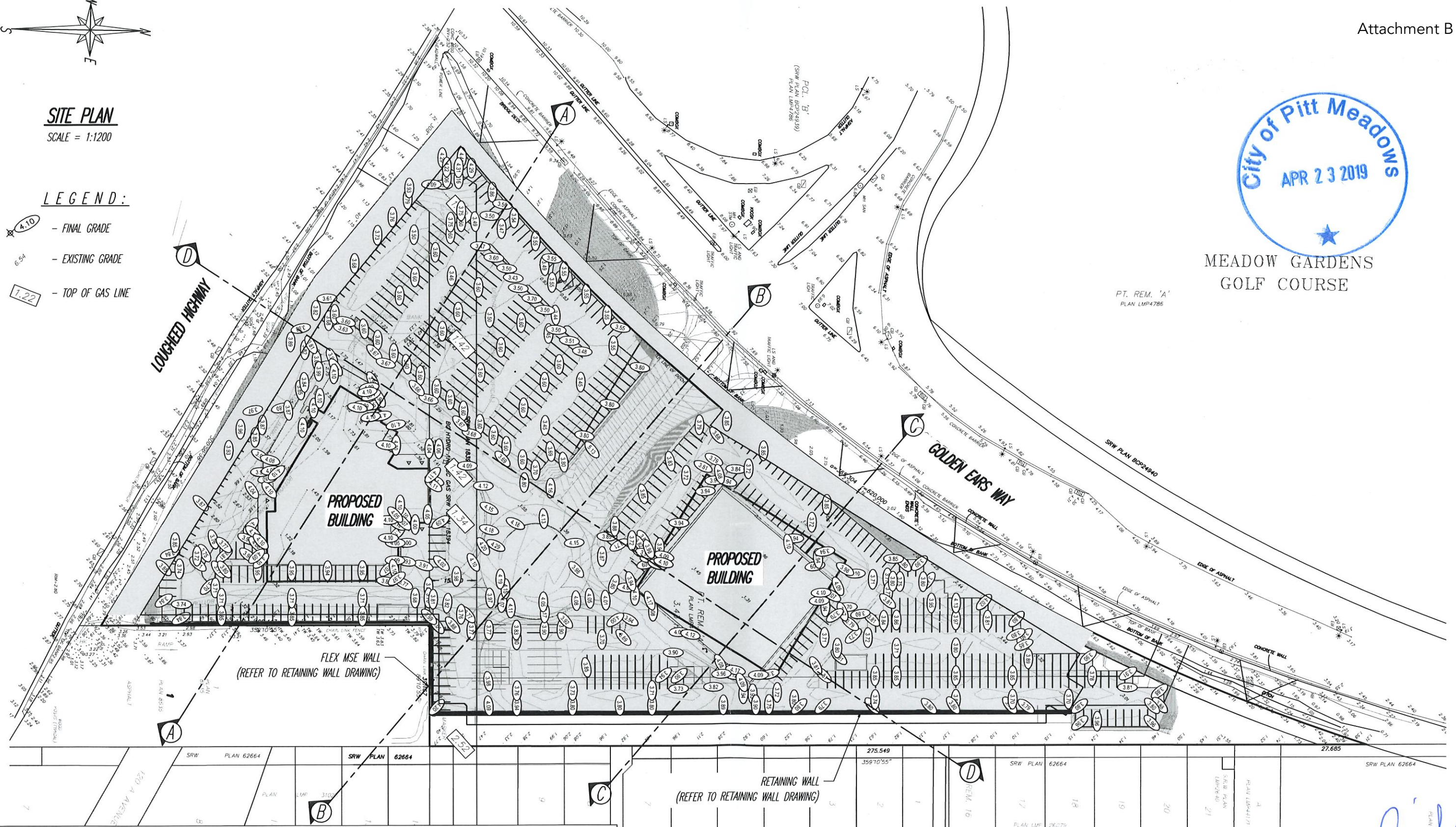


**SITE PLAN**

SCALE = 1:1200

LEGEND:

- FINAL GRADE
 - EXISTING GRADE
 - TOP OF GAS LINE



MEADOW GARDENS
GOLF COURSE

PT. REM. 'A'
PLAN LMP4786

- NOTES:**
- FILL PLACEMENT ALONG GAS LINE RIGHT OF WAY PLUS 5.0M EACH SIDE SHALL BE PLACED IN STAGE, WITH A MAXIMUM THICKNESS OF 1.0m PER STAGE. FILL TYPE SHALL BE APPROVED BY FORTIS BC.
 - SETTLEMENT MONITORING SHALL BE COMPLETED AND PROVIDED TO GEOPACIFIC DURING FILL PLACEMENT ALONG SERVICES ROW. GEOPACIFIC SHOULD REVIEW AND APPROVED PRIOR TO EACH STAGE OF FILL PLACEMENT ALONG GAS ROW.

REFERENCE:
THINK SPACE ARCHITECTURE
CAD File : ACAD-05146-CO-100 AND 152
Date: 2019-04-04



GEOPACIFIC
VANCOUVER KAMLOOPS CALGARY

1779 W. 75th Avenue
Vancouver, B.C. V6P 6P2
P 604.439.0922
F 604.439.9189

DATE: MAY 15, 2018
DRAWN BY: R.J. APPROVED BY: M.J.K. REVIEWED BY: F.B.
SCALE: AS SHOWN

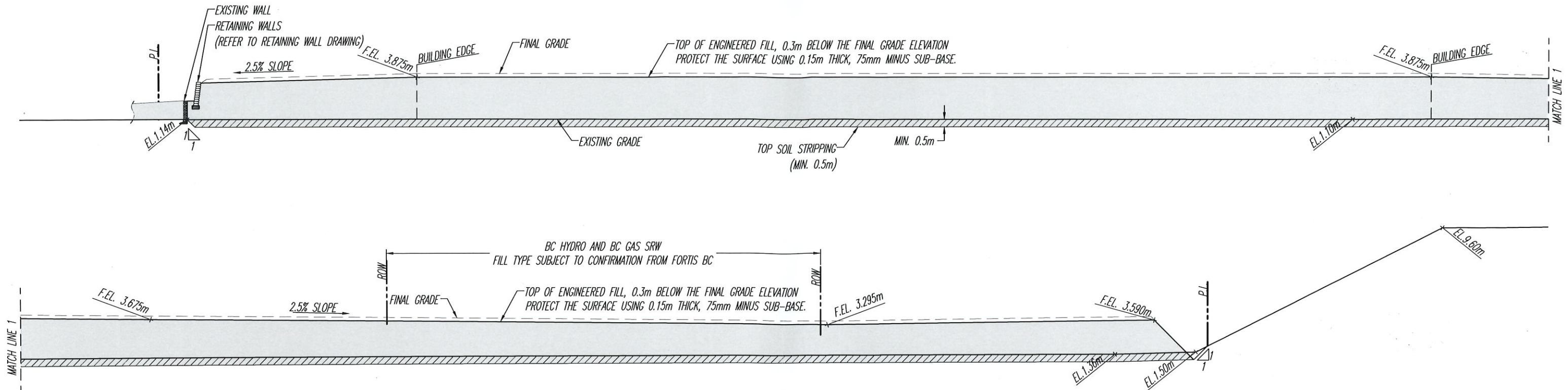
AUTO CANADA VW-GM
12150 GOLDEN EARS WAY, PITT MEADOWS, BC
-FILL - SITE PLAN

FILE NO.: 7055
DWG. NO.: G-F1

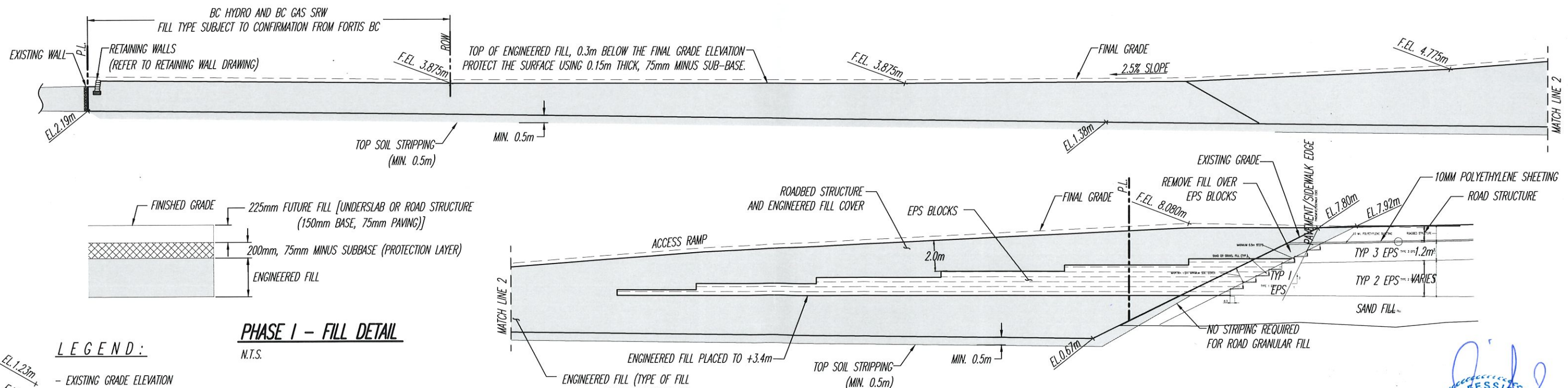
REVISIONS:
A. JUNE 25, 2018
B. AUGUST 20-2018
C. APRIL 12, 2019

APR 22 2019





SECTION A
SCALE = 1:250

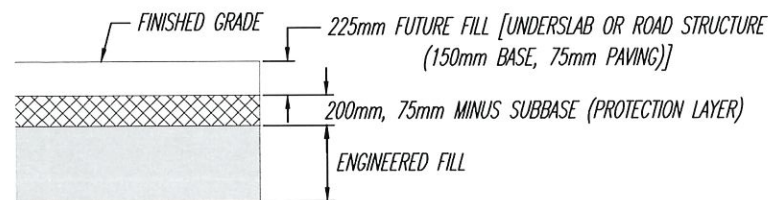


SECTION B
SCALE = 1:250

LEGEND:

- EL. 1.23m - EXISTING GRADE ELEVATION
- F.E.L. 4.10m - PHASE I FILL ELEVATION
- = FINAL GRADE (F.G.) - 225mm

PHASE I - FILL DETAIL
N.T.S.



REFERENCE:



GEOPACIFIC
VANCOUVER KALHLOPS CALGARY

1779 W. 75th Avenue
Vancouver, B.C. V6P 6P2
P 604.439.0922
F 604.439.9189

DATE:	MAY 15, 2018		
DRAWN BY:	R.J.	APPROVED BY:	M.J.K.
REVIEWED BY:	F.B.		
SCALE:	AS SHOWN		

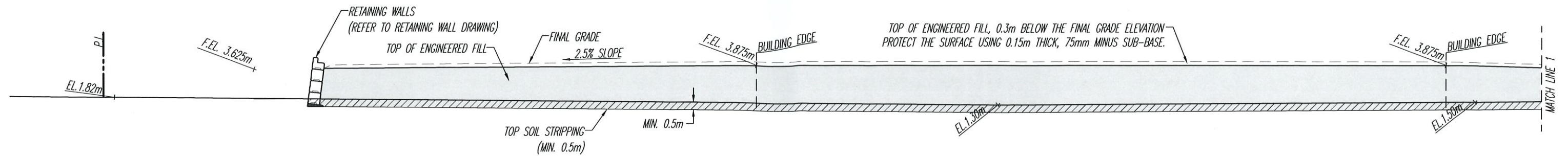
AUTO CANADA VW-GM
12150 GOLDEN EARS WAY, PITT MEADOWS, BC
FILE - SECTION A & B

FILE NO.: **7055**
DWG. NO.: **G-F2**

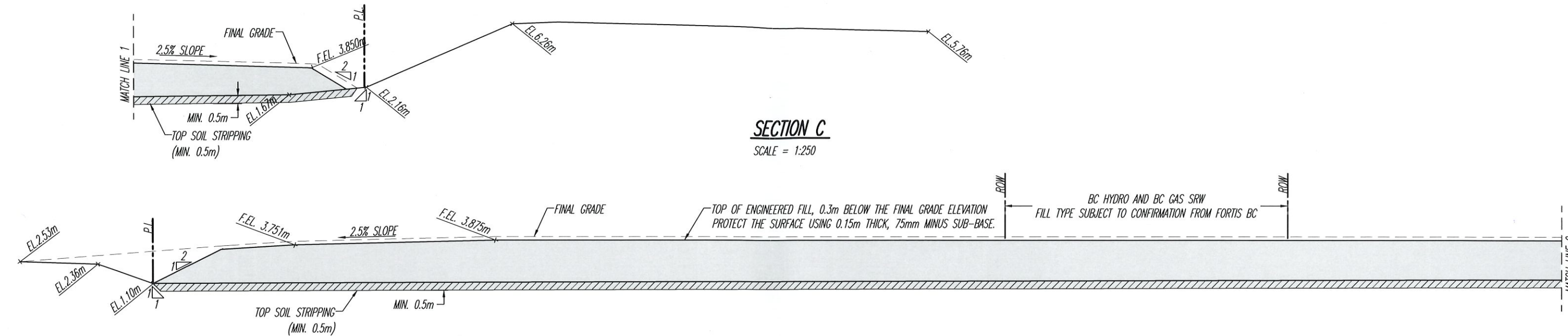
REVISIONS:
A. JUNE 25, 2018
B. AUGUST 20, 2018
C. APRIL 12, 2019 - Retaining Walls



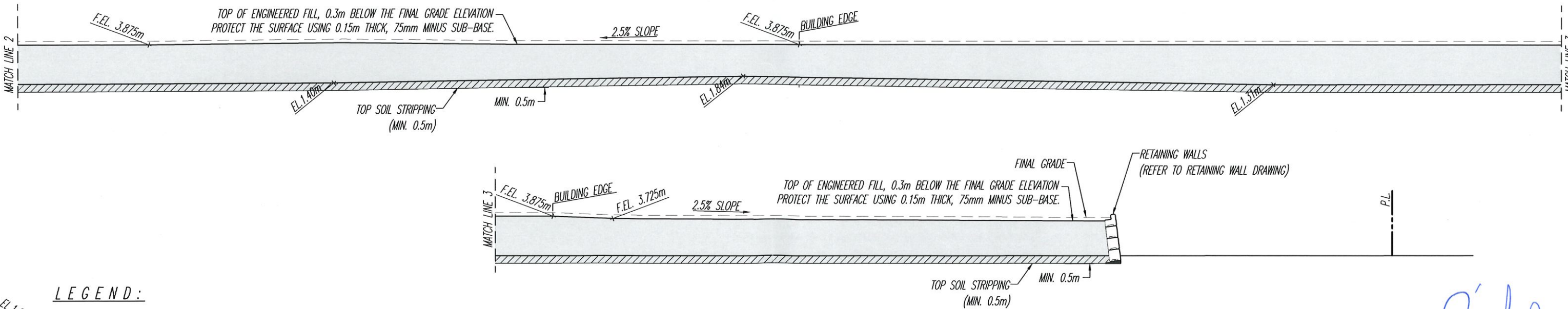
APR 22 2019



SECTION C
SCALE = 1:250



SECTION D
SCALE = 1:250



LEGEND:
 EL. 1.23m - EXISTING GRADE ELEVATION
 F.E.L. 4.10m - PHASE I FILL ELEVATION
 = FINAL GRADE (F.G.) - 225mm

REFERENCE:



GEOPACIFIC
VANCOUVER KAMLOOPS CALGARY

1779 W. 75th Avenue
Vancouver, B.C. V6P 6P2
P 604.439.0922
F 604.439.9189

DATE:

MAY 15, 2018

DRAWN BY:

R.J.

APPROVED BY:

M.J.K.

REVIEWED BY:

F.B.

SCALE:

AS SHOWN

AUTO CANADA VW-GM
12150 GOLDEN EARS WAY, PITT MEADOWS, BC
PITT -- SECTION C & D

FILE NO.:

7055

DWG. NO.:

G-F3

REVISIONS:

A. JUNE 25, 2018

B. AUGUST 20, 2018

C. APRIL 12, 2019 - Retaining Walls



APR 22 2019

PART 1 – GENERAL

- 1.01: In these Notes, the Engineer is GeoPacific Consultants Ltd.
- 1.02: These Notes must be read in conjunction with Drawings G-F1, G-F2 and G-F3.
- 1.03: The work described and shown involves the supply and of fill material, site preparation and placement and compaction of permanent fill.
- 1.04: Contractor to confirm all dimensions shown on these fill drawings by reference to the Architect's, Structural Engineer's and Topographic and Legal Surveyor's plans. Any discrepancy to be reported immediately to the Geotechnical Engineer.
- 1.05: Soil conditions, site preperation and fill placement are covered in the geotechnical report by GeoPacific Consultants Ltd.

PART 2 – MATERIALS

- 2.01: Engineered FILL – Engineered fill (Permanent fill) shall consist of clean sand to sand & gravel, compacted to a minimum of 95% Modified Proctor maximum dry density at a moisture compact within 2% of optimum for compaction.
- 2.02: COVER FILL – Permanent fill to use for protection of the fill shall consist of 75mm minus sand & gravel road sub-base, compacted to a minimum of 95% Modified Proctor maximum dry density at a moisture compact within 2% of optimum for compaction.

PART 3 – EXECUTION

- 3.01: Stripping of Unsuitable Soils, as directed by the Engineer, will be replaced with Permanent fill as defined above. Unsuitable soils are defined as asphalt, concrete, construction debris, vegetation, organic soil, loose / soft soils and other deleterious materials. Any grade reinstatement below the proposed slab elevation and parking lot elevations must be done using permanent fill.
- 3.02: The fill shall be placed in lift not more than 300mm thick each loose lift.

PART 4 – MONITORING POINTS

- 4.01: Settlement gauges or monitoring points should be placed on the stripped subgrade. A permanent benchmark should be established outside the influence of this or any other fill placement area. The benchmark should have survey control with Municipal records.
- 4.02: Determine the elevation of the base of the settlement gauges relative to the benchmark and determine the approximate locations of the settlement gauges relative to the property lines.
- 4.03: Determine the length of the riser pipe and elevation of the top of the settlement gauges and monitoring points.
- 4.05: The elevations of the tops of the settlement gauges or monitoring point should be surveyed every day that fill is placed and at weekly intervals thereafter until primary settlement is essentially complete. As a minimum, the first and last set of settlement readings must be taken by BCLS. The surveyed elevations shall be forwarded to the Engineer without delay, after each set of readings.
- 4.07: The Geotechnical Engineer responsible for the performance of the building will determine the duration of the staging.

PART 5 – REVIEWS

The Contractor shall notify GeoPacific a minimum of 24 hours in advance of the commencement of the following aspects of the work:

1. Site stripping
2. Compaction Testing each lift

REFERENCE:



GEOPACIFIC
VANCOUVER KALLOOPS CALGARY

1779 W. 75th Avenue
Vancouver, B.C. V6P 6P2
P 604.439.0922
F 604.439.9189

DATE:

MAY 15, 2018

DRAWN BY:

R.J.

APPROVED BY:

M.J.K.

REVIEWED BY:

F.B.

SCALE:

AS SHOWN

AUTO CANADA VW-GM
12150 GOLDEN EARS WAY, PITT MEADOWS, BC
~~FILE~~ - SPECIFICATIONS

FILE NO.:

7055

DWG. NO.:

G-F4

REVISIONS:

A.

B.

C.



APR 22 2019

COUNCIL POLICY C030

13 - Planning & Development

Geotechnical Report Guidelines

Effective Date: October 2, 2007

Revised Date: July 3, 2012

Reaffirmed Date: July 21, 2015

1. Purpose

The City is relying on the geotechnical engineer's report to avoid, or at least mitigate as specified, any damage to property and/or injury to persons from occurring as a result of geotechnical concerns relating to proposed development.

This policy provides information to prospective applicants and their engineering professionals on when geotechnical reports are required and sets out the standards and requirements to be addressed in those reports.

2. Policy

Application

A geological and geotechnical review, report, study or site specific study is required by the City to support Development Permit, Building Permit, and Rezoning or Subdivision applications in areas as determined by the City from time to time.

A geological and geotechnical review may be required when any of the following conditions apply:

- The project is located on or within 15 metres of a natural, existing or proposed slope greater than 20%
- The project proposes to direct storm water to an existing or proposed slope greater than 20%
- The project will require site grading involving more than 500 m³ or cuts/fills in excess of 1.2 metres in depth or height
- The project will require pre-load or soil consolidation to support a foundation.

Level of Safety

The professional engineer shall consider the following requirements when determining whether a property is “safe” or can be “safely used”:

- The extent of property damage and damage/harm to life and limb which occurs is not likely to be in any way greater than the damage or harm which would occur prior to the development taking place.

A detailed geotechnical review and onsite investigation shall be undertaken by qualified professional geological or geotechnical engineers in order to determine whether the proposed development can occur in a safe manner and to describe mitigation requirements to be employed, where appropriate. The professional shall be guided by the City’s requirement that development shall have a level of safety for any and all geotechnical failures with a 0.5% probability of failure occurring in a 50 year period (a return period of 1:10,000) for applications requiring rezoning, subdivision or development permit approval and a 2% probability of failure occurring in a 50 year period (a return period of 1:2475) for building permit applications.

The City reserves the right to modify this standard to suit the proposed development.

Report Requirements

A geotechnical report shall address the following minimum requirements pertaining to slope and soil stability:

- The professional geotechnical engineer has reviewed all information available to the consultant, including previous geotechnical reports and relevant materials located within the City’s Geotechnical Library. Each report shall describe the specific information reviewed and onsite tests conducted to arrive at the conclusions and recommendations within the report
- Each report shall contain all logs of geotechnical explorations (boring, test pits, trench logs, etc.) conducted on the property, plus a statement explaining the sufficiency in number and depth in order to evaluate site conditions and acquire data to justify all conclusions and recommendations
- The scope and intent of the proposed development
- Statement that there is no net decrease in overall slope and soil stability resulting from the proposed development or works
- Identification, probability and consequences of risks and a statement that slope/soil instabilities will be mitigated by the owner/developer to provide for the safe occupation and use of the development lands and adjacent nearby lands
- Other factors which the professional geotechnical engineer considers relevant to the review, including an assessment of risk, potential consequences, and mechanisms to guarantee ongoing maintenance of slope/soil stabilities over time



- A construction management plan, monitoring and reporting requirements by the professional geotechnical engineer
- Sign and seal each report/letter submitted to the City.

Professional Assurances

The professional geotechnical engineer **MUST** provide in writing the following specific geotechnical assurances **to the City** with each report/letter:

- The professional geotechnical engineer has carried out all necessary surface and subsurface investigations that the Engineer considers necessary to provide the review, design and supervision undertaking being given and adherence to these guidelines
- The professional geotechnical engineer will provide the review, design and supervision such that, in the Engineer's opinion, the site is suitable for the proposed development and the proposed development does not and will not compromise in any way the stability of the soil on-site or soil on lands which are adjacent or nearby, and will not cause or contribute to such soils becoming susceptible to land slip, land slide, rock fall, mud/land flow, debris flow, torrent, erosion, slumping, creeping, settling, avalanches or other such occurrence
- In the professional geotechnical engineer's opinion, in the event of any land slip, land slide, rock fall, mud flow, debris flow, debris torrent, erosion, slumping, settling or other such occurrence, which occurs after the proposed development is completed, the extent of the property damage and damage to life and limb which occurs is not likely to be in any way greater than the damage or harm which would occur prior to the development taking place
- The professional geotechnical engineer's undertaking that he/she is retained by the owner/developer to review, consult, design and fully supervise the construction of the proposed development, and that on completion of the work, he/she will confirm in writing that he/she has fulfilled the review, design and supervision undertakings and the proposed development can be safely used for its intended purpose, taking into consideration future changes which could reasonably occur to the proposed development over time. In the event the retainer is terminated for any reason by the owner/developer, the Engineer shall be obligated to immediately notify the City in writing of that fact
- The professional geotechnical engineer's undertaking that he/she shall notify the City if he/she becomes aware of changes or new information which could affect the outcome of their geotechnical review and/or recommendations.

Professional Liability Insurance

The professional geotechnical engineer shall provide the City with evidence of occurrence based professional liability insurance coverage which does not lapse in the amount of at least \$2,000,000 as provided to their client.

Covenants

The owner/developer may be required by the City to register a covenant against the property title at the Land Titles Office as a notification to future land owners. The covenant will incorporate provisions included in the geotechnical report(s) and indemnify the City against all claims. During the construction phase enforcement of the covenant provisions are the joint responsibility of the owner/developer and the professional geotechnical engineer.

Security

The owner/developer may be required by the City to provide bonding as security for performance of the on-site and off-site construction works and secure the provisions outlined in the geotechnical report(s) pertaining to that construction.

Peer Review

The City may require a professional geotechnical engineer peer review for conformance to good engineering practice and adherence to these guidelines on a case by case basis. The peer review shall be completed by a qualified professional geotechnical engineer engaged directly by the City. Any costs incurred by the City to conduct a peer review shall be borne by the owner/developer. The Engineer engaged by the City shall notify the professional geotechnical engineer and owner/developer in writing of the peer review.



**BRITISH
COLUMBIA**

Ministry of Transportation
and Infrastructure

Permit/File Number: 2018-03516

Office: Lower Mainland District

PERMIT TO CONSTRUCT, USE, AND MAINTAIN ACCESS TO A CONTROLLED ACCESS HIGHWAY

PURSUANT TO TRANSPORTATION ACT AND/OR THE INDUSTRIAL ROADS ACT AND/OR THE MOTOR VEHICLE ACT AND/OR AS DEFINED IN THE NISGA'A FINAL AGREEMENT AND THE NISGA'A FINAL AGREEMENT ACT.

BETWEEN:

The Minister of Transportation and Infrastructure

Lower Mainland District
310-1500 Woolridge Street
Coquitlam, BC V3K 0B8

("The Minister")

AND:

Patricia Scott
#200-15511 123 Avenue NW
Edmonton Alberta T3V 0C3

0994778 B.C. LTD., INC. NO. BC0994778
200-15505 YELLOWHEAD TRAIL NW
EDMONTON, AB T5V 1E5

("The Permittee")

WHEREAS:

- A. The Minister has the authority to grant permits for the auxiliary use of highway right of way, which authority is pursuant to both the Transportation Act and the Industrial Roads Act, the Motor Vehicle Act, as defined in the Nisga'a Final Agreement and the Nisga'a Final Agreement Act;
- B. The Permittee has requested the Minister to issue a permit pursuant to this authority for the following purpose:

The installation, operation, and maintenance of a temporary construction access onto Lougheed Hwy.

TEMPORARY ACCESS FOR PRELOADING ONLY TO SERVE DEVELOPMENT AT 12150 GOLDEN EARS WAY IN PITT MEADOWS, LOCATED OFF OF LOUGHEED HIGHWAY. LEGALLY DESCRIBED AS LOT A EXCEPT: FIRSTLY; PART SUBDIVIDED BY PLAN LMP45462 SECONDLY; PART SUBDIVIDED BY PLAN BCP16025 THIRDLY; PART PARCEL A (STATUTORY RIGHT OF WAY PLAN BCP24939) FOURTHLY; PART PARCEL B (STATUTORY RIGHT OF WAY PLAN BCP24939) FIFTHLY; PART SUBDIVIDED BY PLAN BCP50365 DISTRICT LOT 223, 224, 246 AND 286 GROUP 1 NEW WESTMINSTER DISTRICT PLAN LMP4786

ALL WORKS TO BE IN ACCORDANCE WITH DRAWING R1- MOT-C1-002 DATED 2018-09-08 AS SUBMITTED, OR THE PERMIT IS VOID.

The Minister is prepared to issue a permit on certain terms and conditions;

ACCORDINGLY, the Minister hereby grants to the Permittee a permit for the Use (as hereinafter defined) of highway right of way on the following terms and conditions:

1. The Minister shall designate an official ("the Designated Ministry Official") who shall act as the Minister's agent in the administration of this permit in the manner hereinafter set out.



2. The Use shall be carried out according to the reasonable satisfaction of the Designated Ministry Official.
3. The Permittee shall indemnify and save harmless the Ministry, its agents and employees, from and against all claims, liabilities, demands, losses, damages, costs and expenses, fines, penalties, assessments and levies made against or incurred, suffered or sustained by the Ministry, its agents and employees, or any of them at any time or times, whether before or after the expiration or termination of this permit, where the same or any of them are based upon or arise out of or from anything done or omitted to be done by the Permittee, its employees, agents or Subcontractors, in connection with the permit.
4. The Permittee shall make diligent attempts to determine if there are other users of the right of way in the vicinity of the Permittee's location whose use may be affected. It shall be the responsibility of the Permittee to contact any such users before exercising any of the rights granted hereunder and to attempt to reach an accommodation.
5. The Minister shall take reasonable care to do as little damage or interference, as possible, to any Use authorized by this permit in the carrying out of the construction, extension, alteration improvement, repair, maintenance or operation of any work adjacent thereto, but the Minister shall not be responsible for any damage regardless.
6. The Minister at the absolute discretion of the Minister may, at any time, cancel this permit for any reason upon giving reasonable notice; provided, however, that in the case of default by the Permittee or in the case of an emergency no notice shall be necessary. The Minister shall not be liable for any loss incurred as a result of permit cancellation.
7. Placing of speed arresters on the access (or accesses) or in the Permittee's property without the prior consent in writing of the Designated Ministry Official shall render the permit void.
8. The Permittee shall be responsible for replacing any survey monuments that may be disturbed or destroyed by the Use. Replacement must be by a British Columbia land surveyor at the Permittee's expense.
9. The Permittee shall remove any mud, soil, debris, or other foreign material tracked onto the highway from the access authorized herein. Such removal shall be at the Permittee's expense and shall be done at any time the material unduly inconveniences traffic and, in any event, daily.
10. The Permittee acknowledges that the issuance of this permit by the Minister is not a representation by the Minister that this permit is the only authority needed to carry out the Use. The Permittee shall give deference to any prior permission given for use of the right of way in the vicinity of the permit area, shall obtain any other permission required by law, and shall comply with all applicable laws regardless of their legislative origin.
11. At the end of the term of this permit, or when the permit is cancelled or abandoned, the Permittee shall, if so requested by the Minister, remove all installations and shall leave the site as near as reasonably possible in the condition it was in before this permit was issued or such other condition as shall reasonably be required by the Designated Ministry Official. If the Permittee refuses to comply with these obligations, the Minister may perform them as required and the Permittee shall be liable to the Minister for the costs of doing so.
12. The rights granted to the Permittee in this permit are not assignable without the consent of the Minister.
13. As a condition of this permit, the permittee unconditionally agrees with the Ministry of Transportation and Infrastructure that the permittee is the prime contractor or will appoint a qualified prime contractor, as described in Section 118 of the Workers Compensation Act, for the purposes of the work described by this permit, at the work location described in this permit, and that the permittee or designated prime contractor will observe and perform all of the duties and obligations which fall to be discharged by the prime contractor pursuant to the Workers Compensation Act and the Occupational Health and Safety Regulation.
14. The permittee is advised and acknowledges that the following hazards may be present at the work location and need to be considered in co-ordinating site safety: overhead hazards, particularly electrical or telecommunications lines; buried utilities, particularly electrical, telecommunication, and gas lines; traffic, danger trees, falling rocks, and sharp or infectious litter.
15. Any works within the Ministry right-of-way that fall within the scope of "engineering" under the Engineers and Geoscientists Act will be performed by a Professional Engineer, and shall comply with this Ministry's "Engineer of Record and Field Review Guidelines". The Guidelines can be viewed on the Ministry's website at <http://www2.gov.bc.ca/assets/gov/driving-and-transportation/transportation-infrastructure/engineering-standards-and-guidelines/technical-circulars/2009/t06-09.pdf>
16. The permittee is responsible for preventing the introduction and spread of noxious weeds on the highway right-of-way as defined by the British Columbia Weed Control Act and Weed Control Regulation.
17. The Use shall be carried out according to the following drawings and specifications, which are attached and shall be considered to be part of this permit:
HERE DESCRIBE THE ATTACHMENTS
18. (a) The rights granted under this permit shall not be exercised before March 18, 2019.
(b) The Construction and Installations must be completed on or before September 30, 2019.
19. The layout shown on the submitted drawing is a condition of this permit, and any change in layout without the prior consent in



writing of the Designated Ministry Official shall render the permit void.

20. **The Permittee must ensure that the most current editions of the following standards and specifications, manuals and guides are used and complied with during the installation, operation, and maintenance of the works:**
 - (a) Ministry Utility Policy Manual,
 - (b) Ministry Traffic Control Manual for Work on Roadways,
 - (c) Ministry Traffic Management Guidelines for Work on Roadways, and
 - (d) Ministry Standard Specifications for Highway Construction.
21. **A wheel wash to clean all wheels of equipment on site shall be present at all times and utilized as needed or to the satisfaction of the Designated Ministry Official, to ensure, no debris is tracked onto the Provincial Public right-of-way or highway.**
22. **A work notification/lane closure form H1080 must be submitted to the Roads Area Manager, Korry.Bonhomme@gov.bc.ca, (phone: 604-329-7646) for approval five (5) business days prior to commencement of works (see attached).**
23. **Brushing of the Provincial Public right-of-way is required and is the responsibility of the Permittee to ensure maximum sight distance, and to the satisfaction of the Designated Ministry Official.**
24. The access (or accesses) shall be constructed with a minimum 600mm X 9 metre culvert pipe manufactured to CSA or ASTM standards and laid at ditch invert elevation. Maintenance and periodic cleaning of this culvert is the responsibility of the Permittee.
25. **The access must be constructed with a minimum 15m throat width and turning radius. The access must be designed in accordance with Chapter 700 Supplement to TAC.**
26. The profile of the access shall not exceed 2% grade from the ditch line for a distance of at least 15 metres as measured away from the highway along the centerline of the access.
27. **Machines with steel tracks or flat steel pads shall not be allowed within the road travelled portion or shoulder of the highway any time.**
28. The Permittee shall, at his cost, supply, erect, and maintain standard traffic control devices in accordance with the Ministry of Transportation Traffic Control Manual for Works on Roadways and WCB Regulation, Part 18.
29. It is the responsibility of the permittee to ensure that all equipment and vehicles crossing Provincial highways or side roads have the proper approvals and insurance as required and issued by the Commercial Vehicle Safety and Enforcement Division. For permits or inquiries please contact the Provincial Permit Centre at 1-800-559-9688.
30. **Certified Traffic Control must be supplied by the Permittee as and when required in accordance with the "Traffic Control Manual for Work on Roadways". Works that require a lane closure must have separate Lane Closure Application and Traffic Control Plan which must be submitted to the Ministry of Transportation & Infrastructure three (3) business days prior to commencing the permitted works.**
31. That where the said works are in the proximity of any bridge, culvert, ditch or other existing work, such work shall be properly maintained and supported in such manner as not to interfere with its proper function, and on the completion of the said works any bridge, culvert, ditch or other existing work interfered with shall be completely restored to its original condition.
32. **No dirt, sand, or waste materials are to be stored on the road, road shoulder, or ditch. Any debris, slash, and refuse created by these works shall be removed from the work site and/or washed or swept from the road to satisfaction of the District Official.**
33. No gates are to be placed within the Provincial Public right-of-way.
34. Excavations across entrances, whether private or commercial, must be backfilled and thoroughly compacted by the end of the current working day. The surface must be restored, whether paved or gravel, to its original condition within 48 hours. Affected property owners must be notified at least 48 hours in advance before excavating a driveway.
35. That when necessary all excavations, materials, or other obstructions are to be efficiently fenced, lit, and watched, and at all times every possible precaution is to be taken to ensure the safety of the public.
36. The Permittee shall ensure that employees and contractors do not park within the traveled portion of the Highway or Highway shoulder. Loading and unloading of equipment within the traveled surface or shoulder of the Highway is prohibited.
37. The Permittee shall take all reasonable precautions to attempt to ensure the safety of the public in connection with the Use. In particular, but not so as to limit this obligation, the Permittee shall, if so required by the Designated Ministry Official on reasonable grounds, prepare and implement a traffic control plan. The contents of the plan and the manner in which it is



implemented must meet the reasonable satisfaction of the Designated Ministry Official.

38. The Permittee will ensure that the works do not, impair, impede or otherwise interfere with; I. public passage on the Highways; II. the provision of highway maintenance services by the Province, or by its servants, contractors, agents or authorized representatives of the Province in connection with the Highways; or III. the operation of the Highways;
39. **The Permittee shall ensure all equipment working on or hauling material on, to, and from the work site does not damage or deposit material onto any part of an existing roadway. Materials spilled onto the public roadway or driveways open to public traffic shall be cleaned up immediately. The Permittee has the full responsibility to repair any damage to existing highways, local roads, and driveways caused by its construction equipment and/or operations.**
40. Any area of highway right-of-way disturbed during the permitted works including road shoulders, fill slopes, cut slopes, ditches, and the utility corridor is to be restored to the original grade and compaction and left in a neat, tidy, and free draining condition. The site shall be restored to its original or better condition.
41. All works shall be undertaken in a manner that avoids the discharge of siltation or other deleterious substances into any watercourse. The Permittee shall not disturb Designated Watercourses unless the express written consent of the appropriate Environmental Agencies is obtained prior to initiating construction activities.
42. The work site, or any disturbed areas, are to be reseeded to standards set out in Section 757, Standard Specifications for Highway Construction.
43. **Permittee to be responsible for all future maintenance of said works for the duration of permit. This permit is not transferable and valid only for the Permittee.**
44. **This permit in no way relieves the owner or occupier of the responsibility from adhering to all other legislation, including zoning, and other land use bylaws of a municipality or regional district.**
45. **This permit in no way grants exclusive use to the Permittee for any portion of the access on the Provincial Public right-of-way.**
46. **This permission may be withdrawn in whole or in part by any official or employee of the Ministry of Transportation and Infrastructure, or by a police officer, whenever he/she considers that the operation is offering an undue safety and/or traffic hazard to vehicles and persons using the highway, or that unforeseen damage is being done to the highway, its structures, and/or appurtenances.**
47. **The Permittee shall be responsible for any settlement, erosion, or other damage caused as a result of these works.**

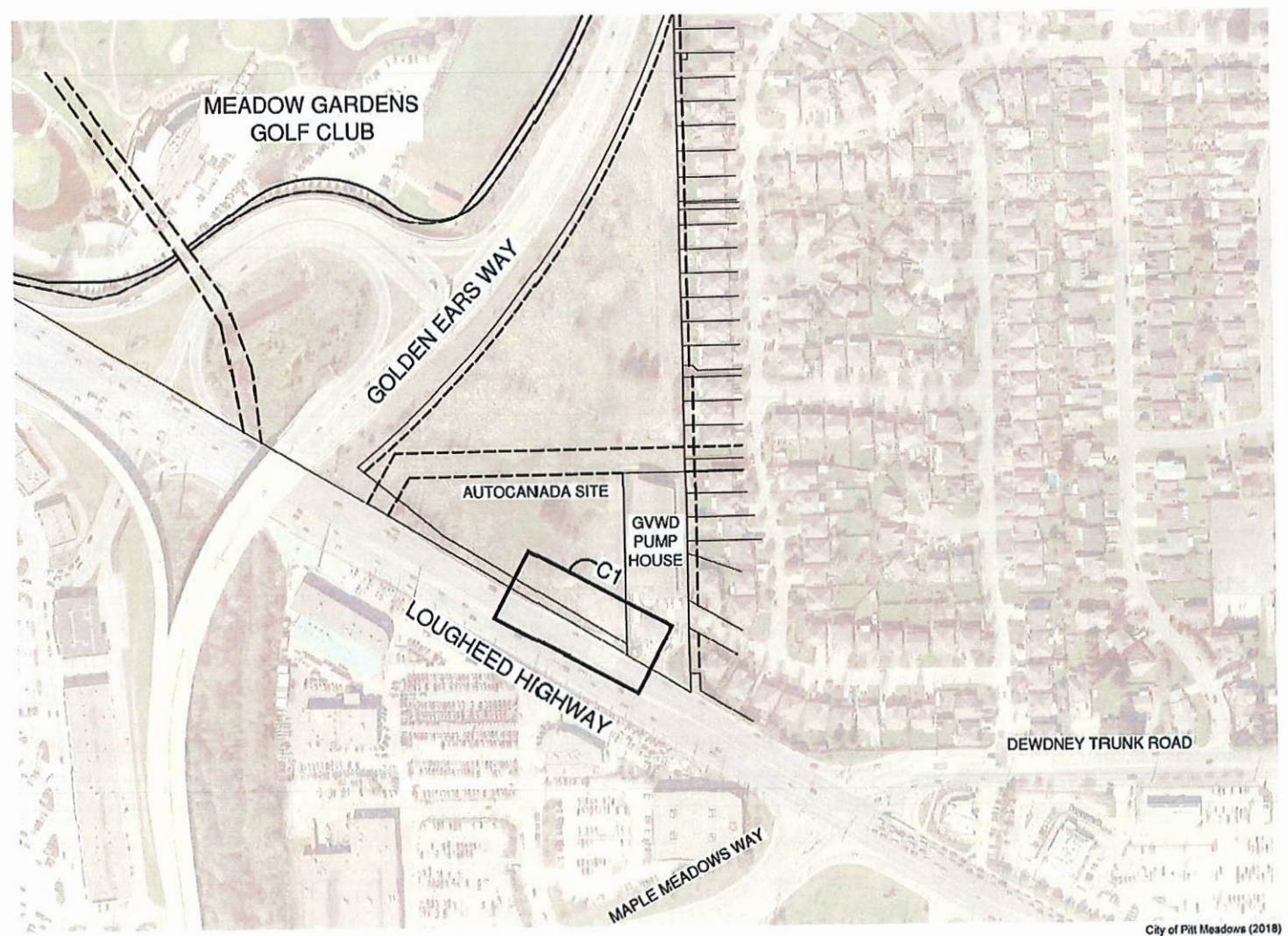
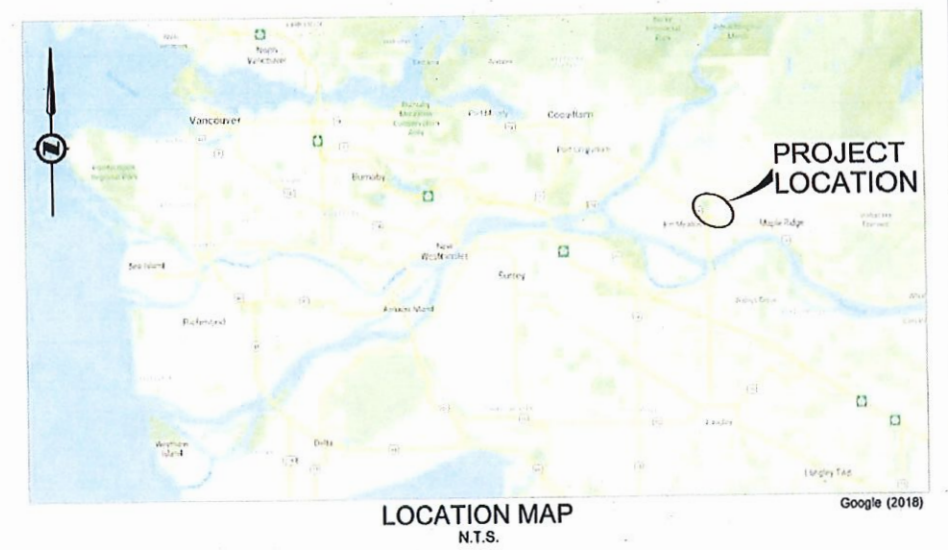
The rights granted to the Permittee in this permit are to be exercised only for the purpose as defined in Recital B on page 1.

Dated at Coquitlam, British Columbia, this 18th day of March, 2019


Rupinder Prihar, Area Development and Operations Technician
On Behalf of the Minister

DRAWING INDEX				
SEGMENT	SHEET No.	SHEET TITLE	REV	DESCRIPTION
C1	000	COVER SHEET	B	IFP
	001	LOCATION MAP, KEY PLAN AND DRAWING INDEX	B	IFP
	002	LEGEND	B	IFP
	101	PLAN	B	IFP
	201	PROFILE	B	IFP
	301	TYPICAL SECTION	B	IFP
	401	GEOMETRICS & LANING	B	IFP
	501	SPOT ELEVATIONS	B	IFP
	601	SIGNAGE & PAVEMENT MARKINGS	B	IFP
FIGURE	101 ATURN	TURNING TEMPLATE	B	IFP


AUTOCANADA SITE WORK
TEMPORARY CONSTRUCTION ACCESS
LOUGHEED HIGHWAY



KEY PLAN
N.T.S.



REV	DATE	REVISIONS	NAME
A	2019-09-11	ISSUED FOR PERMIT	J.R.
B	2018-09-28	RE-ISSUED FOR PERMIT	J.R.



DESIGNED	S.L.	DATE	2018-09-08
QUALITY CONTROL	J.R.	DATE	2018-09-08
QUALITY ASSURANCE	J.R.	DATE	2018-09-08
DRAWN	S.L.	DATE	2018-09-08

J.R.
SENIOR DESIGNER
DATE 2018-09-08

LOCATION MAP, KEY PLAN & DRAWING INDEX	
AUTOCANADA SITE WORK LOUGHEED HIGHWAY ACCESS	

FILE NUMBER	PROJECT NUMBER
2111-05146-00	
REV	DRAWING NUMBER
R1	R1-MOT-C1-001

LEGEND

EXISTING	
LINETYPES	
PROPERTY LINE	.....
SECTION BOUNDARY	.....
EASEMENT BOUNDARY	.....
FENCE	.....
EDGE OF PAVEMENT	.....
RETAINING WALL	.....
GRAVEL SHOULDER	.....
CONCRETE BARRIER	.....
OVERHEAD WIRES	.....
TREELINE	.....
DITCH	.....
SWALE	.....
TOP OF BANK	.....
BOTTOM OF BANK	.....
WATER EDGE	.....
EXISTING CONTOURS MAJOR	.....
EXISTING CONTOURS MINOR	.....
UTILITY SYMBOLS	
POWER POLE W/ TRANSFORMER	.....
POWER POLE	.....
POWER AND TELEPHONE POLE	.....
TELEPHONE POLE	.....
UTILITY POLE	.....
GUY POLE W/ ANCHOR	.....
B.C. TEL KIOSK	.....
UNDERGROUND MARKER	.....
DETAIL SYMBOLS	
ROAD SIGN	.....
BOARD SIGN	.....
STD. DAVIT POLE WITH SIGN	.....
POST	.....
DRAINAGE SYMBOLS	
MANHOLE	.....
CATCH BASIN	.....
CULVERT IN	.....

PROPOSED	
LINETYPES	
RETAINING WALL / TRENCH BOX / SHEET PILE WALL	.....
CONCRETE BARRIER	.....
CLEARING & GRUBBING	.....
LIMIT OF CUT / FILL (TOES)	.....
HIGHWAY CONTROL LINE	.....
PAVEMENT EDGE	.....
SHOULDER EDGE	.....
PAINTLINE DASHED	.....
PAINTLINE DECEL/ACCEL	.....
PAINTLINE DOUBLE YELLOW	.....
DITCH	.....
SWALE	.....
DETAIL SYMBOLS	
CULVERT	.....
ROAD PATTERNS	
PROPOSED GRAVEL SURFACE	.....
PROPOSED ASPHALT SURFACE	.....

**McElhanney**

REV	DATE	REVISIONS	NAME
A	2018-05-11	ISSUED FOR PERMIT	J.R.
B	2018-09-21	RE-ISSUED FOR PERMIT	J.R.



DESIGNED SL DATE 2018-05-08

QUALITY CONTROL J.R. DATE 2018-05-09

QUALITY ASSURANCE J.R. DATE 2018-05-09

DRAWN SL DATE 2018-05-08

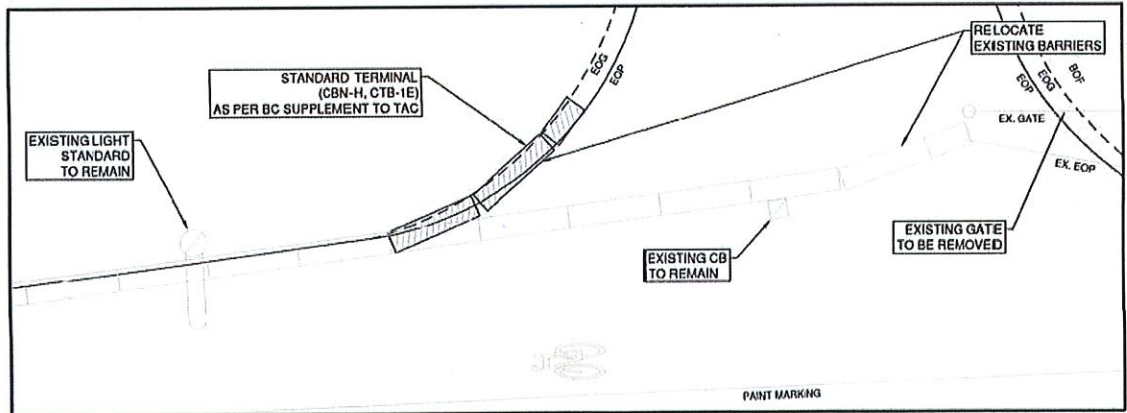
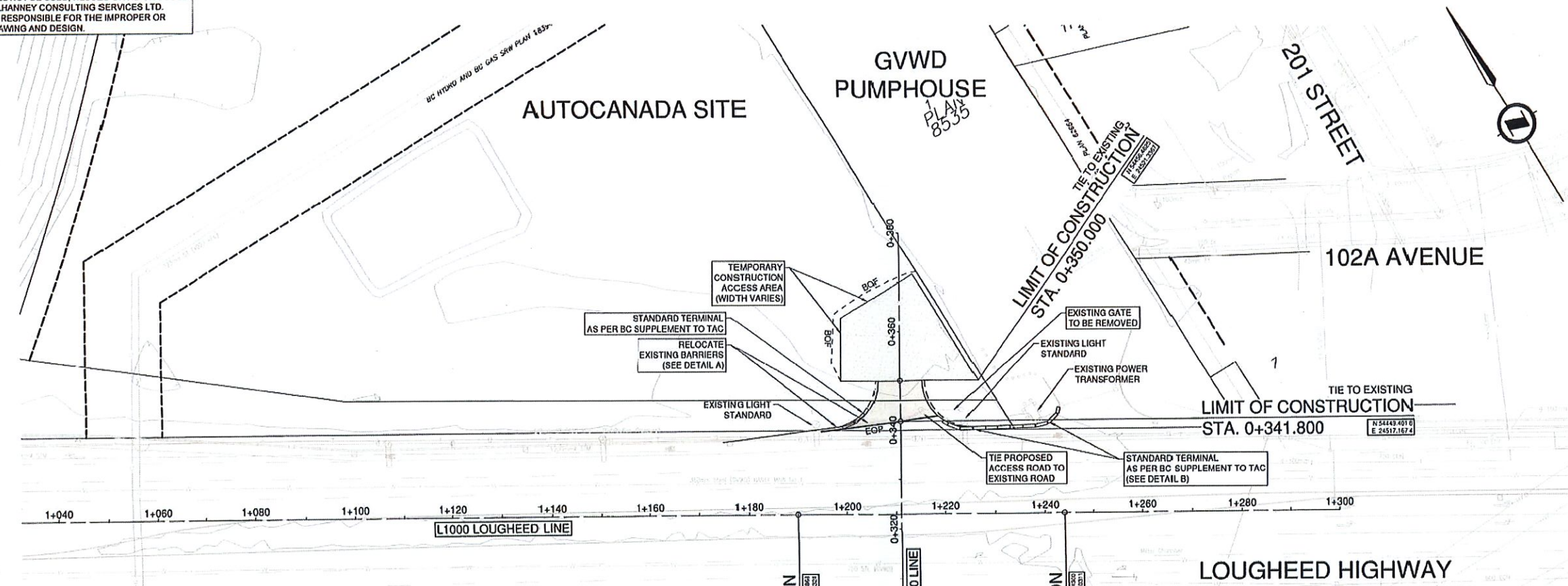
DATE 2018-05-08

SENIOR DESIGNER J.R.

LEGEND			
AUTOCANADA SITE WORK LOUGHEED HIGHWAY ACCESS			
FILE NUMBER	PROJECT NUMBER	REV	DRAWING NUMBER
2111-05146-00	R1	B	R1-MOT-C1-002

INFORMATION SHOWN ON THIS DRAWING REGARDING EXISTING UTILITIES IS COMPILED FROM SOME RECORD DRAWINGS AND SOME SURVEYS, AND MAY NOT BE COMPLETE. CONTRACTOR SHALL EXPOSE AND CONFIRM THE LOCATIONS AND ELEVATIONS OF ALL EXISTING UTILITIES AND ADVISE THE ENGINEER OF ANY POTENTIAL CONFLICT.

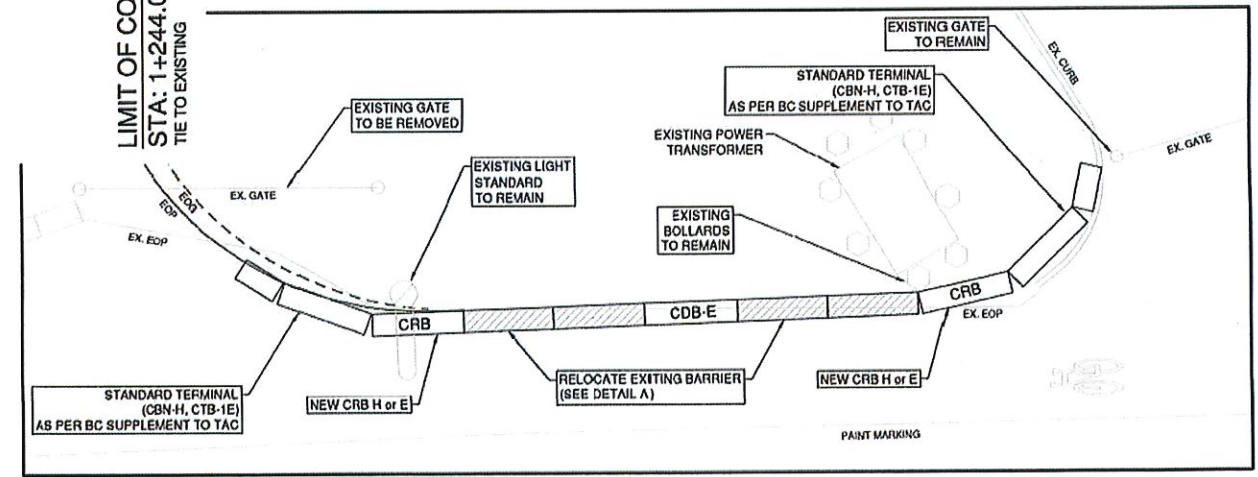
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CONC. BARRIER DETAIL-A
SCALE: N.T.S.

ALIGNMENT	CLASSIFICATION	DESIGN SPEED	DESIGN VEHICLE
L1000 LOUGHEED	UAD	60 km/h	CUSTOM TRUCK & TRAILER
L300	PRIVATE ACCESS	10 km/h	CUSTOM TRUCK & TRAILER

NEW BARRIER COMPONENTS TABLE	
ITEMS	NUMBER OF UNITS
CBN-H	2
CTB-1E	2
CRB-H or E	2
CDB-E	1



CONC. BARRIER DETAIL-B
SCALE: N.T.S.

REFERENCE DRAWINGS	
PROFILES	R1-MOT-C1-201 TO 202
TYPICAL SECTIONS	R1-MOT-C1-301
GEOMETRICS & LANING	R1-MOT-C1-401
SPOT ELEVATIONS	R1-MOT-C1-501
SIGNAGE & PAVEMENT MARKINGS	R1-MOT-C1-601



REV	DATE	REVISIONS	NAME
A	2018-06-11	ISSUED FOR PERMIT	J.R.
B	2018-09-28	RE-ISSUED FOR PERMIT	J.R.

AutoCanada

DESIGNED: S.I. DATE: 2018-06-09
QUALITY CONTROL: J.R. DATE: 2018-06-09
QUALITY ASSURANCE: J.R. DATE: 2018-09-09
DRAWN: S.I. DATE: 2018-09-09

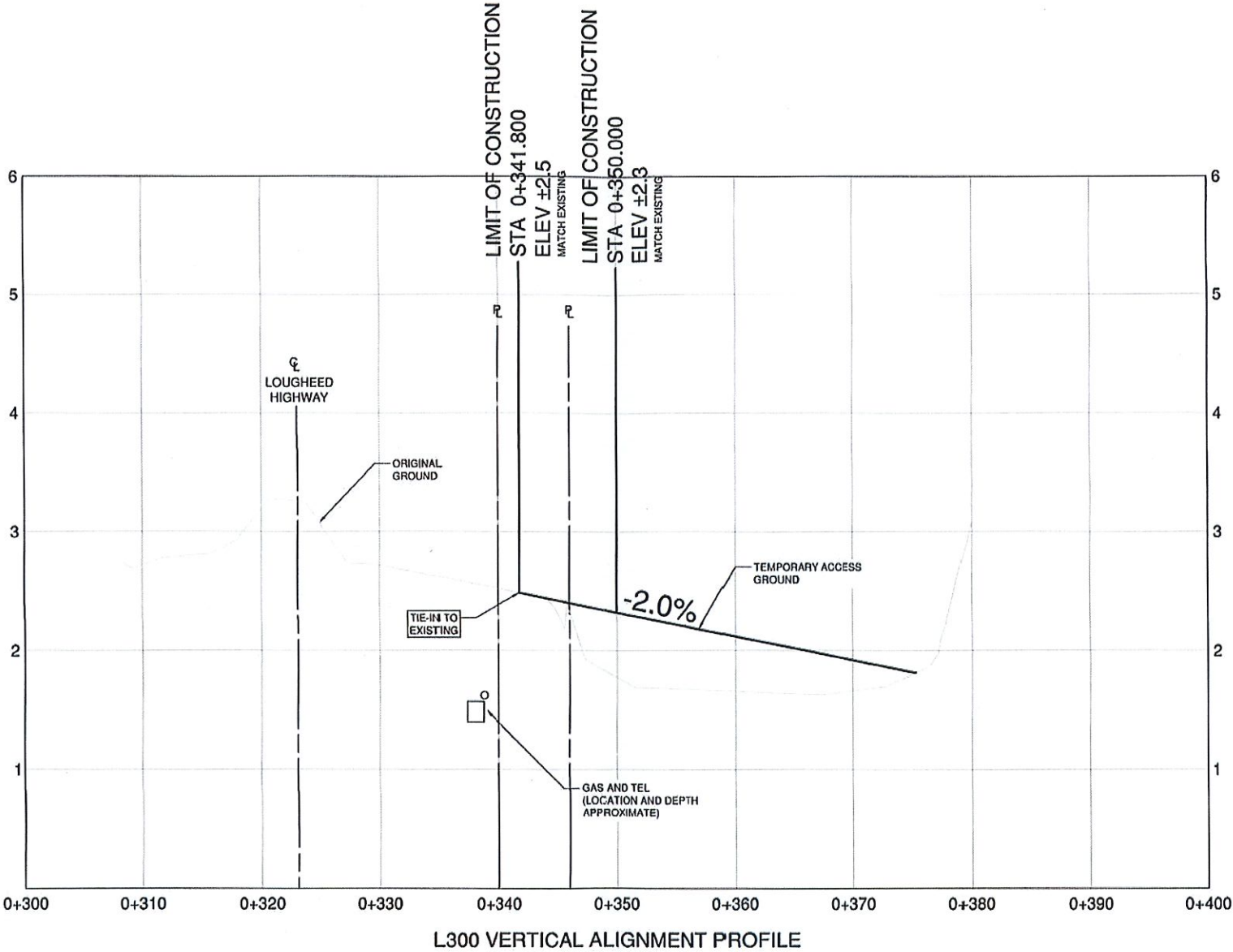
2018-09-28

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PLAN		AUTOCANADA SITE WORK		TEMPORARY LOUGHEED HIGHWAY ACCESS		TAC TYPE 2B	
FILE NUMBER	2111-05146-00	PROJECT NUMBER	R1	DRAWING NUMBER	R1-MOT-C1-101	REV	B

INFORMATION SHOWN ON THIS DRAWING REGARDING EXISTING UTILITIES IS COMPILED FROM SOME RECORD DRAWINGS AND SOME SURVEYS, AND MAY NOT BE COMPLETE. CONTRACTOR SHALL EXPOSE AND CONFIRM THE LOCATIONS AND ELEVATIONS OF ALL EXISTING UTILITIES AND ADVISE THE ENGINEER OF ANY POTENTIAL CONFLICT.

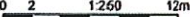
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ALIGNMENT	CLASSIFICATION	DESIGN SPEED	DESIGN VEHICLE
L300	PRIVATE ACCESS	10 km/h	CUSTOM TRUCK & TRAILER

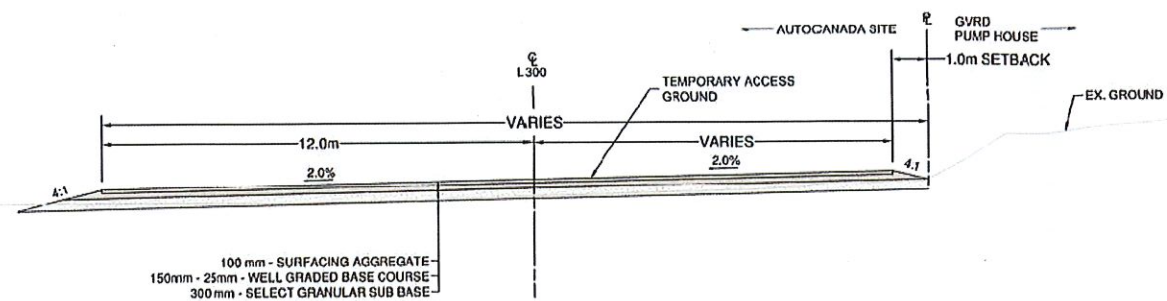
REFERENCE DRAWINGS	
PLAN	R1-MOT-C1-101
TYPICAL SECTIONS	R1-MOT-C1-301
GEOMETRICS & LANING	R1-MOT-C1-401
SPOT ELEVATIONS	R1-MOT-C1-501
SIGNAGE & PAVEMENT MARKINGS	R1-MOT-C1-601



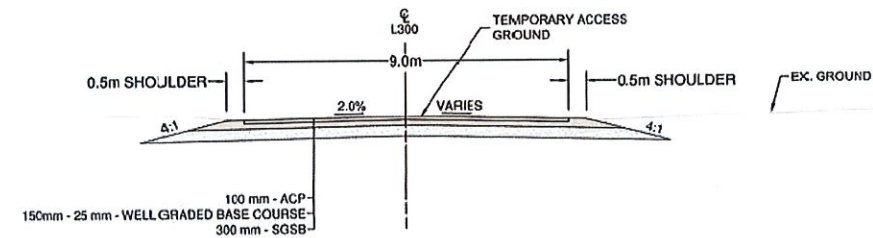
SCALE				CAD FILE NAME	R1-MOT-C1-200
				PLOT DATE	2018-09-23
REV	DATE	REVISIONS			NAME
A	2018-06-11	ISSUED FOR PERMIT			J.R.
B	2018-09-23	RE-ISSUED FOR PERMIT			J.R.

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TYPICAL SECTION
GRAVEL ACCESS AREA



TYPICAL SECTION
L300 ACCESS
STA 0+341.800 TO STA 350.000

REFERENCE DRAWINGS

PLAN	R1-MOT-C1-101
PROFILES	R1-MOT-C1-201
GEOMETRICS & LANING	R1-MOT-C1-401
SPOT ELEVATIONS	R1-MOT-C1-501
SIGNAGE & PAVEMENT MARKINGS	R1-MOT-C1-601



SCALE 0 1 1:100 5m		CAD FILE NAME R1-MOT-C1-300	
		PLOT DATE 2018-09-28	
REV	DATE	REVISIONS	NAME
A	2018-09-11	ISSUED FOR PERMIT	J.R.
B	2018-09-28	RE-ISSUED FOR PERMIT	J.R.



DESIGNED	S.L.	DATE	2018-09-08
QUALITY CONTROL	J.R.	DATE	2018-09-08
QUALITY ASSURANCE	J.R.	DATE	2018-09-08
DRAWN	S.L.	DATE	2018-09-08
SENIOR DESIGNER	J.R.	DATE	2018-09-08

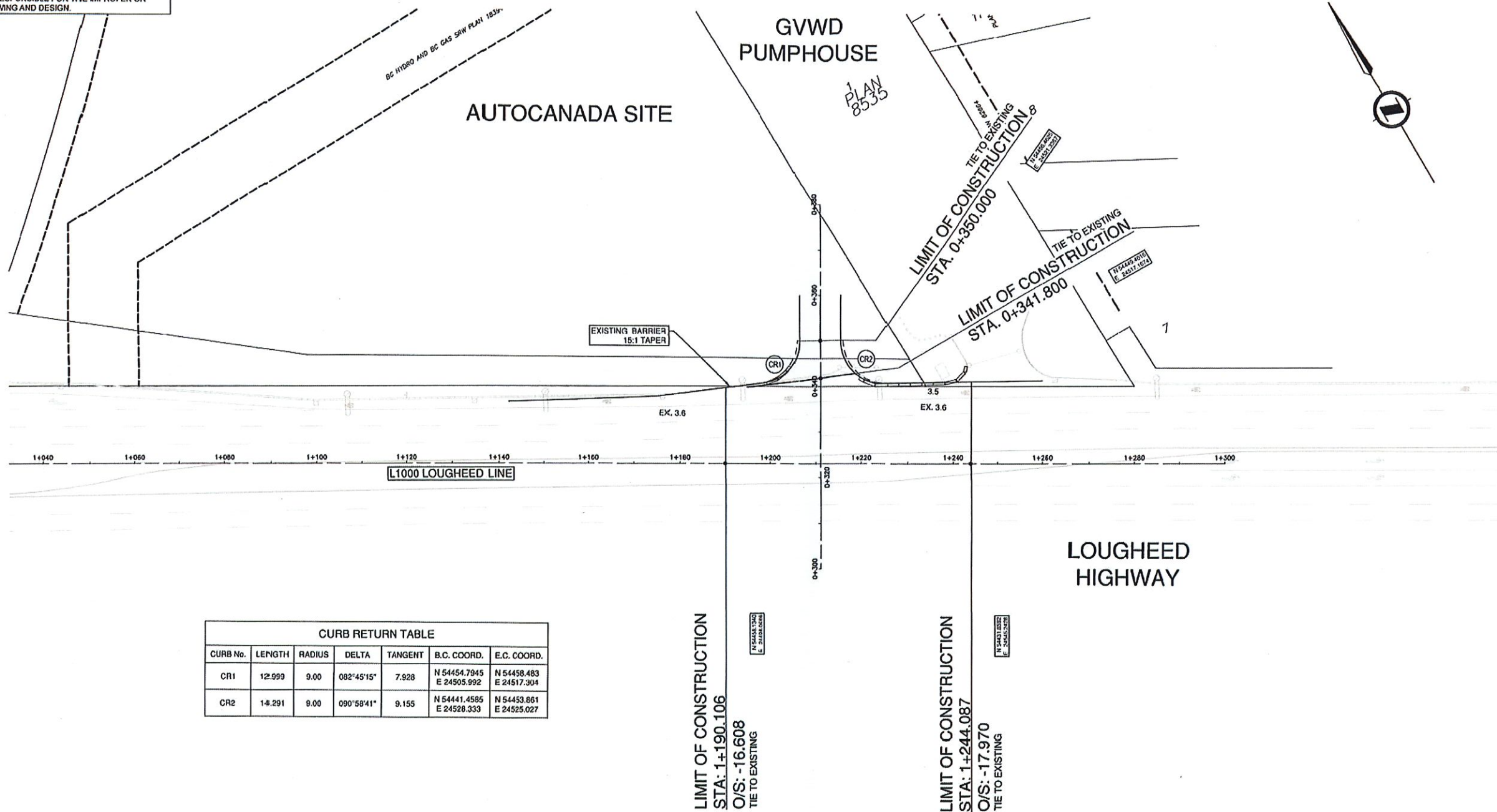
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TYPICAL SECTION AUTOCANADA SITE WORK TEMPORARY LOUGHEED HIGHWAY ACCESS TAC TYPE 2B

FILE NUMBER	PROJECT NUMBER	REV	DRAWING NUMBER	REV
2111-05146-00		R1	R1-MOT-C1-301	B

INFORMATION SHOWN ON THIS DRAWING REGARDING EXISTING UTILITIES IS COMPILED FROM SOME RECORD DRAWINGS AND SOME SURVEYS, AND MAY NOT BE COMPLETE. CONTRACTOR SHALL EXPOSE AND CONFIRM THE LOCATIONS AND ELEVATIONS OF ALL EXISTING UTILITIES AND ADVISE THE ENGINEER OF ANY POTENTIAL CONFLICT.

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CURB RETURN TABLE						
CURB No.	LENGTH	RADIUS	DELTA	TANGENT	B.C. COORD.	E.C. COORD.
CR1	12.999	9.00	082°45'15"	7.928	N 54454.7945 E 24505.992	N 54458.483 E 24517.304
CR2	14.291	9.00	090°58'41"	9.155	N 54441.4585 E 24528.333	N 54453.861 E 24525.027

ALIGNMENT	CLASSIFICATION	DESIGN SPEED	DESIGN VEHICLE
L1000 LOUGHEED	UAD	60 km/h	CUSTOM TRUCK & TRAILER
L300	PRIVATE ACCESS	10 km/h	CUSTOM TRUCK & TRAILER

REFERENCE DRAWINGS	
PLAN	R1-MOT-C1-101
PROFILES	R1-MOT-C1-201
TYPICAL SECTIONS	R1-MOT-C1-301
SPOT ELEVATIONS	R1-MOT-C1-501
SIGNAGE & PAVEMENT MARKINGS	R1-MOT-C1-601



REV	DATE	REVISIONS	NAME
A	2018-06-11	ISSUED FOR PERMIT	J.R.
B	2018-09-28	RE-ISSUED FOR PERMIT	J.R.

SCALE 0 5 1:500 25m		CAD FILENAME R1-MOT-C1-400
PLOT DATE 2018-09-28		
J.R. SENIOR DESIGNER		DATE 2018-06-08
DESIGNED S.L. DATE 2018-06-08		
QUALITY CONTROL J.R. DATE 2018-09-28		
QUALITY ASSURANCE J.R. DATE 2018-09-28		
DRAWN S.L. DATE 2018-06-08		



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GEOMETRICS & LANING				
AUTOCANADA SITE WORK				
LOUGHEED HIGHWAY ACCESS				
TAC TYPE 2B				
FILE NUMBER	PROJECT NUMBER	REV	DRAWING NUMBER	REV
2111-05146-00		R1	R1-MOT-C1-401	B

INFORMATION SHOWN ON THIS DRAWING REGARDING EXISTING UTILITIES IS COMPILED FROM SOME RECORD DRAWINGS AND SOME SURVEYS, AND MAY NOT BE COMPLETE. CONTRACTOR SHALL EXPOSE AND CONFIRM THE LOCATIONS AND ELEVATIONS OF ALL EXISTING UTILITIES AND ADVISE THE ENGINEER OF ANY POTENTIAL CONFLICT.

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AUTOCANADA SITE

GVWD
PUMPHOUSE

LOUGHEED HIGHWAY

L300

TEMPORARY SITE ACCESS

ALIGNMENT	CLASSIFICATION	DESIGN SPEED	DESIGN VEHICLE
L1000 LOUGHEED	UAD	60 km/h	CUSTOM TRUCK & TRAILER
L300	PRIVATE ACCESS	10 km/h	CUSTOM TRUCK & TRAILER

REFERENCE DRAWINGS

PLAN	R1-MOT-C1-101
PROFILES	R1-MOT-C1-201
TYPICAL SECTIONS	R1-MOT-C1-301
SIGNAGE & PAVEMENT MARKINGS	R1-MOT-C1-601



SCALE 0 1 1:100 5m		CAD FILENAME R1-MOT-C1-50	
		PLT DATE 2018-09-28	
REV	DATE	REVISIONS	NAME
A	2018-06-11	ISSUED FOR PERMIT	J.R.
B	2018-09-28	RE-ISSUED FOR PERMIT	J.R.



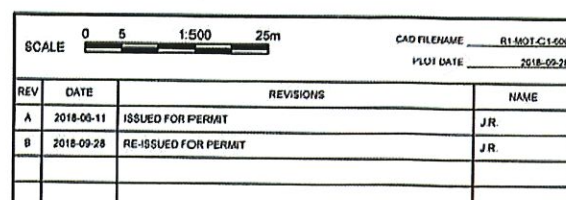
DESIGNED	J.R.	DATE	2018-06-08
QUALITY CONTROL	J.R.	DATE	2018-06-08
QUALITY ASSURANCE	J.R.	DATE	2018-06-08
DRAWN	J.R.	DATE	2018-06-08

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SPOT ELEVATIONS
AUTOCANADA SITE WORK
TEMPORARY LOUGHEED HIGHWAY ACCESS
TAC TYPE 2B

FILE NUMBER	PROJECT NUMBER	REV	DRAWING NUMBER	REV
2111-05146-00		R1	R1-MOT-C1-501	B

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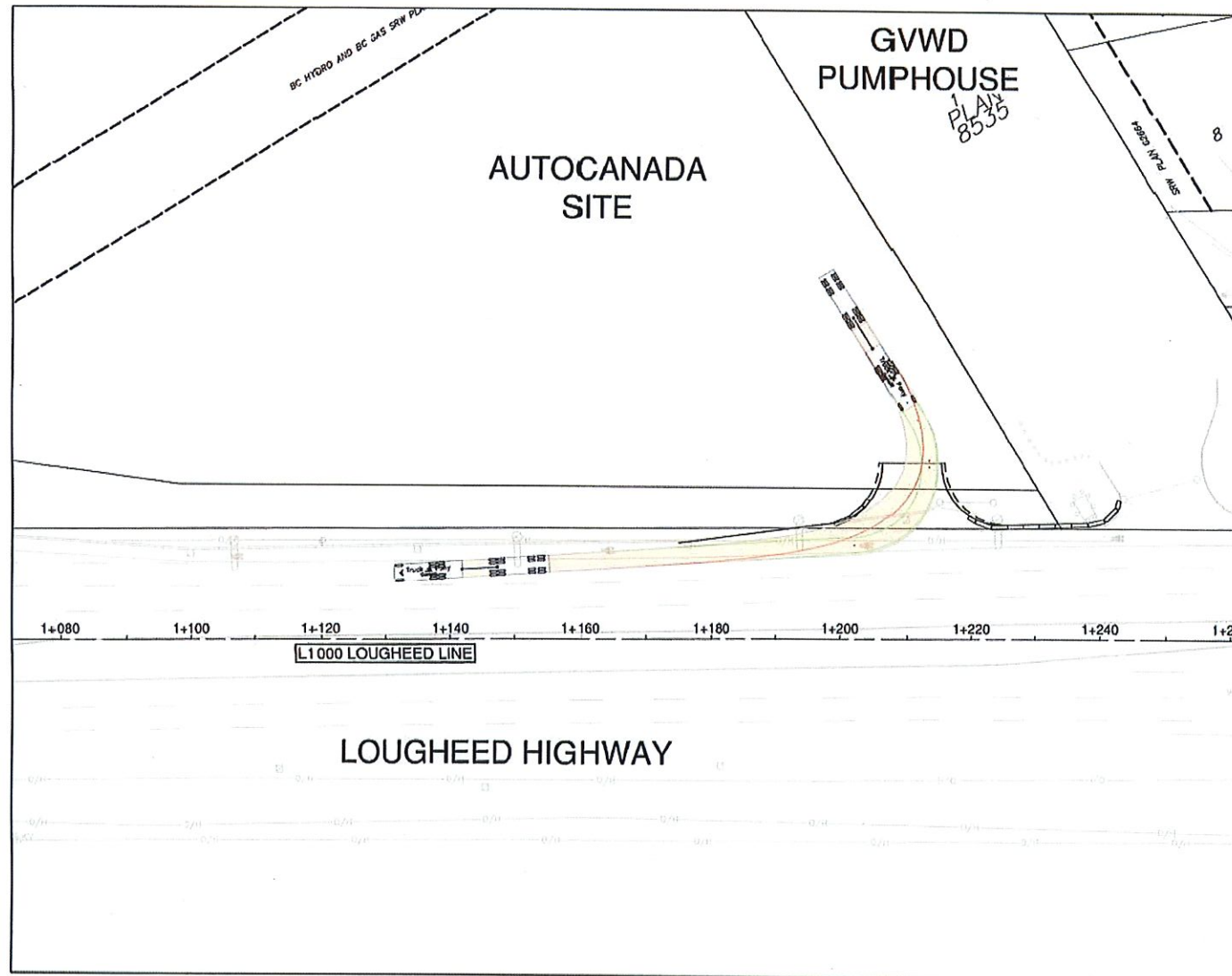


DESIGNED PN DATE 2018-06-08
 QUALITY CONTROL BB DATE 2018-06-08
 QUALITY ASSURANCE JR DATE 2018-06-08

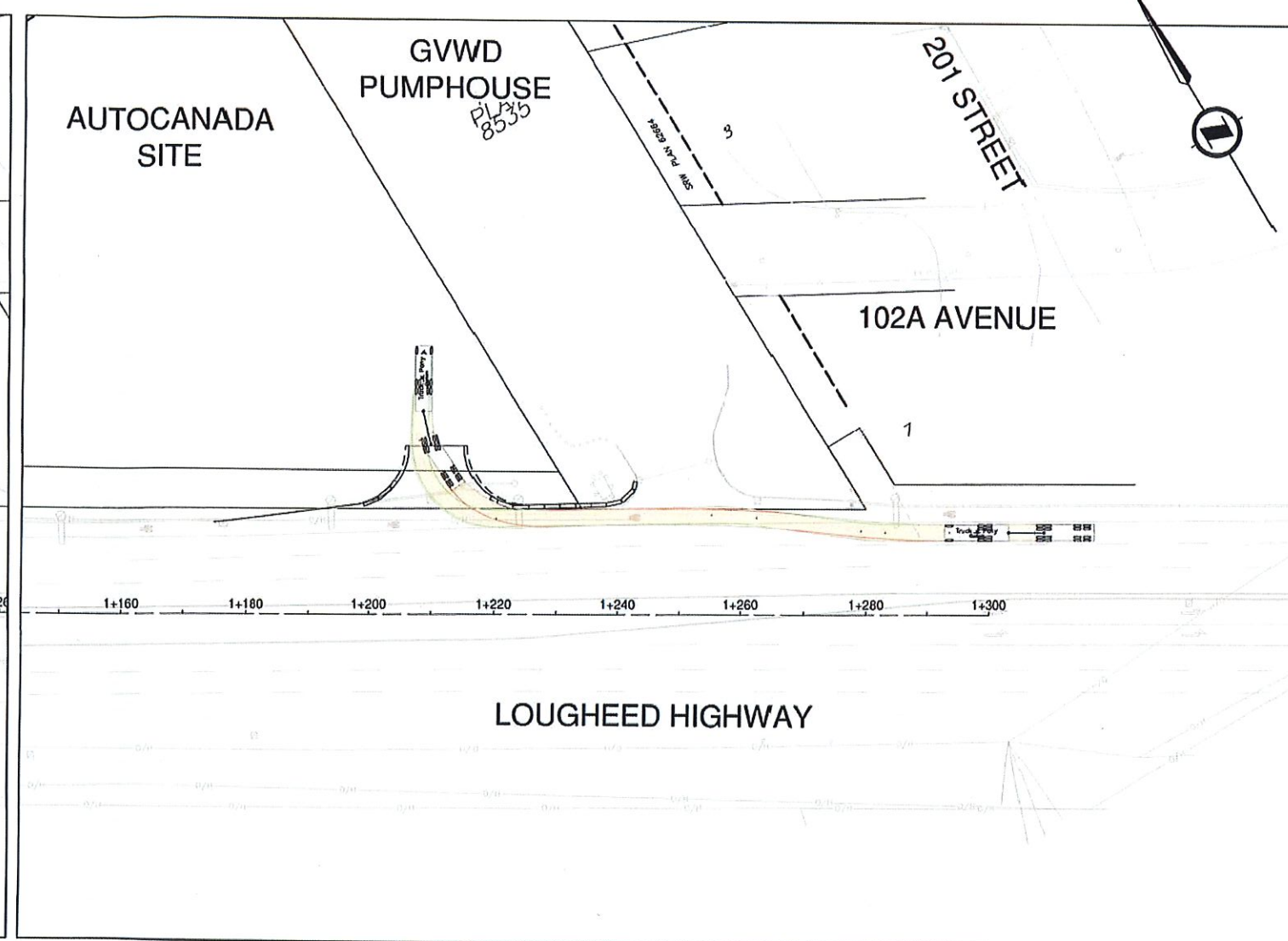
FILE NUMBER	PROJECT NUMBER	REG	DRAWING NUMBER	REV
2111-05146-00		R1	R1-MOT-C1-601	B

INFORMATION SHOWN ON THIS DRAWING REGARDING EXISTING UTILITIES IS COMPILED FROM SOME RECORD DRAWINGS AND SOME SURVEYS, AND MAY NOT BE COMPLETE. CONTRACTOR SHALL EXPOSE AND CONFIRM THE LOCATIONS AND ELEVATIONS OF ALL EXISTING UTILITIES AND ADVISE THE ENGINEER OF ANY POTENTIAL CONFLICT.

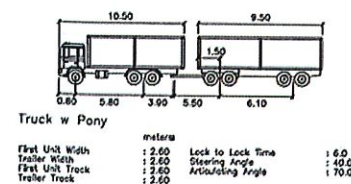
THIS DRAWING AND DESIGN SHALL NOT BE USED, REUSED OR REPRODUCED WITHOUT THE CONSENT OF McELHANNEY CONSULTING SERVICES LTD. McELHANNEY WILL NOT BE HELD RESPONSIBLE FOR THE IMPROPER OR UNAUTHORIZED USE OF THIS DRAWING AND DESIGN.



DESIGN VEHICLE - SITE
EXIT



DESIGN VEHICLE - SITE
ENTRANCE



STRAIGHT TRUCK AND
PONY TRAILER COMBINATION
NTS
DESIGN VEHICLE

ALIGNMENT	CLASSIFICATION	DESIGN SPEED	DESIGN VEHICLE
L1000 LOUGHEED	UAD	60 km/h	CUSTOM TRUCK & TRAILER
L300	PRIVATE ACCESS	10 km/h	CUSTOM TRUCK & TRAILER

REFERENCE DRAWINGS	
PROFILES	R1-MOT-C1-201 TO 202
TYPICAL SECTIONS	R1-MOT-C1-301
GEOMETRICS & LANING	R1-MOT-C1-401
SPOT ELEVATIONS	R1-MOT-C1-501
SIGNAGE & PAVEMENT MARKINGS	R1-MOT-C1-601



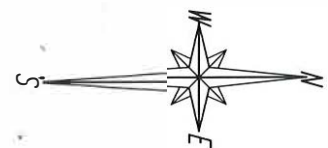
REV	DATE	REVISIONS	NAME
A	2018-06-11	ISSUED FOR PERMIT	J.R.
B	2018-09-28	RE-ISSUED FOR PERMIT	J.R.



DESIGNED: J.R. DATE: 2018-09-28
QUALITY CONTROL: J.R. DATE: 2018-09-28
QUALITY ASSURANCE: J.R. DATE: 2018-09-28
DRAWN: S.L. DATE: 2018-09-28

VEHICLE TURNING MOVEMENTS
AUTOCANADA SITE WORK
TEMPORARY LOUGHEED HIGHWAY ACCESS
TAC TYPE 2B

FILE NUMBER	PROJECT NUMBER	REV	DRAWING NUMBER	REV
2111-05146-00		R1	R1-MOT-C1-101 ATURN	B



ALL HAUL ROADS WITHIN VICINITY OF SITE TO BE SWEEPED OF ACCUMULATED SEDIMENT DAILY. SEDIMENT SHALL BE RETURNED TO SITE IN SUCH A MANNER THAT IT DOES NOT ENTER STORM WATER OR EXIT ROUTES. FLUSHING OF SEDIMENT INTO STORM DRAINS IS NOT PERMITTED.

DISCHARGE TO CULVERT WITH MONITORING OF T.S.S., TURBIDITY, AND pH.

SITE ENTRANCE/SITE EXIT/ASPHALT LEAD OUT/STEEL CULVERT AND WHEEL WASH TO BE INSTALLED PRIOR TO ANY MATERIAL BEING REMOVED OFFSITE.

SEDIMENT POND
(SEE G-ESC2 FOR DETAILS)

DRAINAGE SWALE
(SEE G-ESC5 FOR DETAILS)



ALL CATCH BASINS WITHIN 100m OF SITE EXIT ALONG HAUL ROUTE SHALL BE PROTECTED TO PREVENT ENTRY OF SEDIMENT INTO THE STORM SEWER. BMP C220 (SEE G-ESCS FOR DETAILS)

TRAFFIC RATED STEEL CULVERT TO BE INSTALLED AT ENTRANCE TO CONNECT SWALE.

ASPHALT LEAD OUT.

WHEEL WASH
(SEE G-ESC4 FOR DETAILS)

PROPOSED BUILDING

PHASE CONSTRUCTION TO RETAIN VEGETATION AS LONG AS PRACTICAL. PROTECT VEGETATION WITH SNOW FENCING. BMP C101 & C103

PROPOSED BUILDING

INSTALL SILT FENCE/SNOW FENCE AND SIGNAGE 2.0m FROM TOP OF THE BANK TO DELINEATE SETBACK FROM DITCH.

GOLDEN EARS WAY

STOCKPILES TO BE COVERED WITH POLY SHEETING A MINIMUM OF 6 MIL THICK PRIOR TO FORECASTED RAINFALL OR IF STOCKPILE IS TO REMAIN IN PLACE MORE THAN 3 DAYS. BMP C123 (SEE G-ESC6 FOR DETAILS)

SITE EXIT TO BE STABILIZED WITH 150mm CLEAR CRUSH GRAVEL A MINIMUM OF 300mm THICK. STABILIZED EXIT PAD MUST BE LOCATED IMMEDIATELY PRIOR TO SITE EXIT AND BE LOWER THAN EXISTING ROAD. EXIT PAD MAY BE RELOCATED BY THE CONTRACTOR AS REQUIRED. BMP C105 (SEE G-ESC6 FOR DETAILS)

SILT FENCE TO BE INSTALLED DOWN-SLOPE OF CONSTRUCTION ALONG EXISTING CONTOURS. BMP C233

INSTALL SILT FENCE/SNOW FENCE AND SIGNAGE 10.2m FROM TOP OF THE BANK TO DELINEATE SETBACK FROM STREAM

NOTES:

1. WATER TREATMENT SYSTEM, CATCH BASIN PROTECTION, ACCESS STABILIZATION, AND OTHER ESC MEASURES SHALL BE INSTALLED PRIOR TO THE BEGINNING OF BULK EXCAVATION.
2. GEOPACIFIC SHALL BE CONTACTED BY THE CONTRACTOR TO INSPECT THE INSTALLATION OF THE ESC SYSTEM PRIOR TO THE COMMENCEMENT OF ANY STRIPPING, EXCAVATION OR OTHER CONSTRUCTION.
3. MONITORING OF THE ESC SYSTEM AND DISCHARGE WATER TO OCCUR AS PER MUNICIPAL MONITORING AND REPORTING REQUIREMENTS. MONITORING MUST BE PERFORMED BY A QUALIFIED PERSON AS DEFINED IN THE MUNICIPAL BYLAW(S).
4. NO WATER MAY BE DISCHARGED FROM THE SITE THAT BYPASSES THE SEDIMENT CONTROL SYSTEM.
5. ALL CONCRETE TRUCKS SHALL UTILIZE A SELF-CONTAINED WASH SYSTEM. ALL WATER TO BE COLLECTED IN SELF-CONTAINED WASH SYSTEM. NO WASH WATER TO ENTER STORM DRAINS.
6. ALL CONCRETE TRUCKS SHALL UTILIZE LEAK PROOF CONTAINMENT BERMS TO ENSURE NO CONCRETE OR WASH WATER IS DEPOSITED ON ROADWAYS OR ENTERS THE STORM DRAINS. PLACEMENT OF PLYWOOD UNDER CONCRETE PUMPS AND BUCKETS IS NOT AN ADEQUATE METHOD OF SPILL PROTECTION.
7. NO EXCESS CONCRETE SHALL BE DUMPED ON SITE, EXCEPT IN DESIGNATED CONCRETE WASTE BINS. CONCRETE WASTE BINS MUST BE LINED WITH POLY SHEETING AND SECURED TO PREVENT CONCRETE LEAKAGE ONTO ROADWAYS.
8. ALL WASHOUT ACTIVITIES MUST BE PERFORMED OFF-SITE OR IN DESIGNATED AREAS ONLY. LOCATE DESIGNATED WASHOUT AREAS AS FAR AWAY FROM STORM DRAINS AS POSSIBLE.
9. THE CONTRACTOR IS RESPONSIBLE FOR ALL MAINTENANCE OF THE EROSION AND SEDIMENT CONTROL SYSTEM.
10. ALL BEST MANAGEMENT PRACTICES ARE DESIGNED WITH REFERENCE TO THE "STORMWATER MANAGEMENT MANUAL FOR WESTERN WASHINGTON" VOLUME II.

LEGEND:

- SILT FENCE (SEE G-ESC6 FOR DETAILS)
- SNOW FENCE (SEE G-ESC6 FOR DETAILS)
- SPEA (STREAMSIDE PROTECTION & ENHANCEMENT AREA)

SITE PLAN
SCALE = 1:1200

THINKSPACE
FILE No. 18579 DWG SK-01
APRIL 27, 2018



1779 W. 75th Avenue
Vancouver, B.C. V6P 6P2
P 604.439.0922
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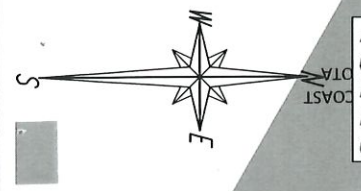
DATE	JUNE 12, 2018		
DRAWN BY	N.P.	APPROVED BY	F.B.
CHECKED BY		DESIGNED BY	M.L.I.
SCALE	AS SHOWN		

AUTOMOBILE DEALERSHIP
12150 GOLDEN EARS WAY, PITT MEADOWS, BC
EROSION & SEDIMENT CONTROL PLAN- CLEARING+GRUBBING PHASE

FILE NO.	7055
PROJECT	G-ESC1A
DATE	AUGUST 20, 2018 - Updated topographic survey
BY	
CHECKED	

APR 18 2019





ALL HAUL ROADS WITHIN VICINITY OF SITE TO BE SWEEPED OF ACCUMULATED SEDIMENT DAILY. SEDIMENT SHALL BE RETURNED TO SITE IN SUCH A MANNER THAT IT DOES NOT ENTER STORM WATER OR EXIT ROUTES. FLUSHING OF SEDIMENT INTO STORM DRAINS IS NOT PERMITTED.

DISCHARGE TO CULVERT WITH MONITORING OF T.S.S., TURBIDITY, AND pH.

SEDIMENT POND (SEE G-ESC2 FOR DETAILS)

DRAINAGE SWALE (SEE G-ESC5 FOR DETAILS)

SLOPES CONSISTING OF EXPOSED SOIL SHALL BE COVERED WITH POLY SHEETING A MINIMUM OF 6 mil THICK. BMP C123. (SEE G-ESC5 FOR DETAILS)

INSTALL SILT FENCE/SNOW FENCE AND SIGNAGE 2.0m FROM TOP OF THE BANK TO DELINEATE SETBACK FROM DITCH.

DRAINAGE SWALE TO BE CONNECTED TO POND

PHASE CONSTRUCTION TO RETAIN VEGETATION AS LONG AS PRACTICAL. PROTECT VEGETATION WITH SNOW FENCING. BMP C101 & C103

ALL CATCH BASINS WITHIN 100m OF SITE EXIT ALONG HAUL ROUTE SHALL BE PROTECTED TO PREVENT ENTRY OF SEDIMENT INTO THE STORM SEWER. BMP C220 (SEE G-ESC5 FOR DETAILS)

TRAFFIC RATED STEEL CULVERT TO BE INSTALLED AT ENTRANCE TO CONNECT SWALE.

ASPHALT LEAD OUT.

WHEEL WASH (SEE G-ESC4 FOR DETAILS)

PROPOSED BUILDING

PROPOSED BUILDING

SITE EXIT TO BE STABILIZED WITH 150mm CLEAR CRUSH GRAVEL A MINIMUM OF 300mm THICK. STABILIZED EXIT PAD MUST BE LOCATED IMMEDIATELY PRIOR TO SITE EXIT AND BE LOWER THAN EXISTING ROAD. EXIT PAD MAY BE RELOCATED BY THE CONTRACTOR AS REQUIRED. BMP C105 (SEE G-ESC6 FOR DETAILS)

STOCKPILES TO BE COVERED WITH POLY SHEETING A MINIMUM OF 6 mil THICK PRIOR TO FORECASTED RAINFALL OR IF STOCKPILE IS TO REMAIN IN PLACE MORE THAN 3 DAYS. BMP C123 (SEE G-ESC6 FOR DETAILS)

LEGEND:

- SILT FENCE (SEE G-ESC6 FOR DETAILS)
- SNOW FENCE (SEE G-ESC6 FOR DETAILS)
- SPEA (STREAMSIDE PROTECTION & ENHANCEMENT AREA)

INSTALL SILT FENCE/SNOW FENCE AND SIGNAGE 10.2m FROM TOP OF THE BANK TO DELINEATE SETBACK FROM STREAM

SITE PLAN
SCALE = 1:1200

REFERENCE:
THINKSPACE
FILE No. 18579 DWG SK-01
APRIL 27, 2018


 **GEOPACIFIC**
VANCOUVER KAMLOOPS CALGARY
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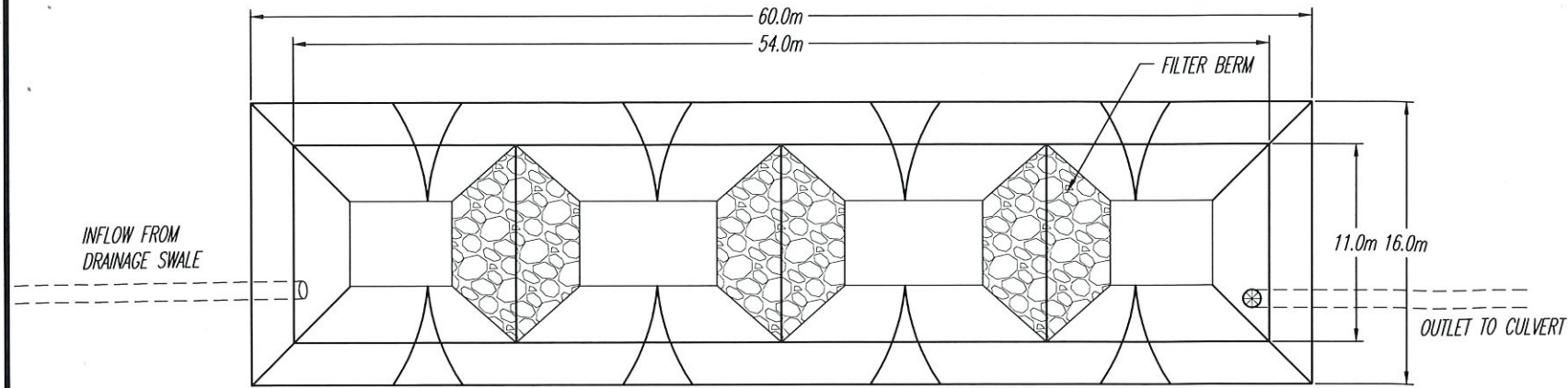
DATE: JUNE 12, 2018
DRAWN BY: N.P. APPROVED BY: F.B. REVIEWED BY: M.L.I.
SCALE: AS SHOWN

AUTOMOBILE DEALERSHIP
12150 GOLDEN EARS WAY, PITT MEADOWS, BC
EROSION & SEDIMENT-CONTROL PLAN - FILL/CIVIL PHASE

FILE NO: 7055
DWG. NO: G-ESC1B

REVISIONS:
A. AUGUST 20, 2018 - Updated topographic survey
B.
C.


APR 18 2019



POND PLAN VIEW (TYP.)
N.T.S.

FLOW RATE:

RATIONAL METHOD: $Q = CIA$

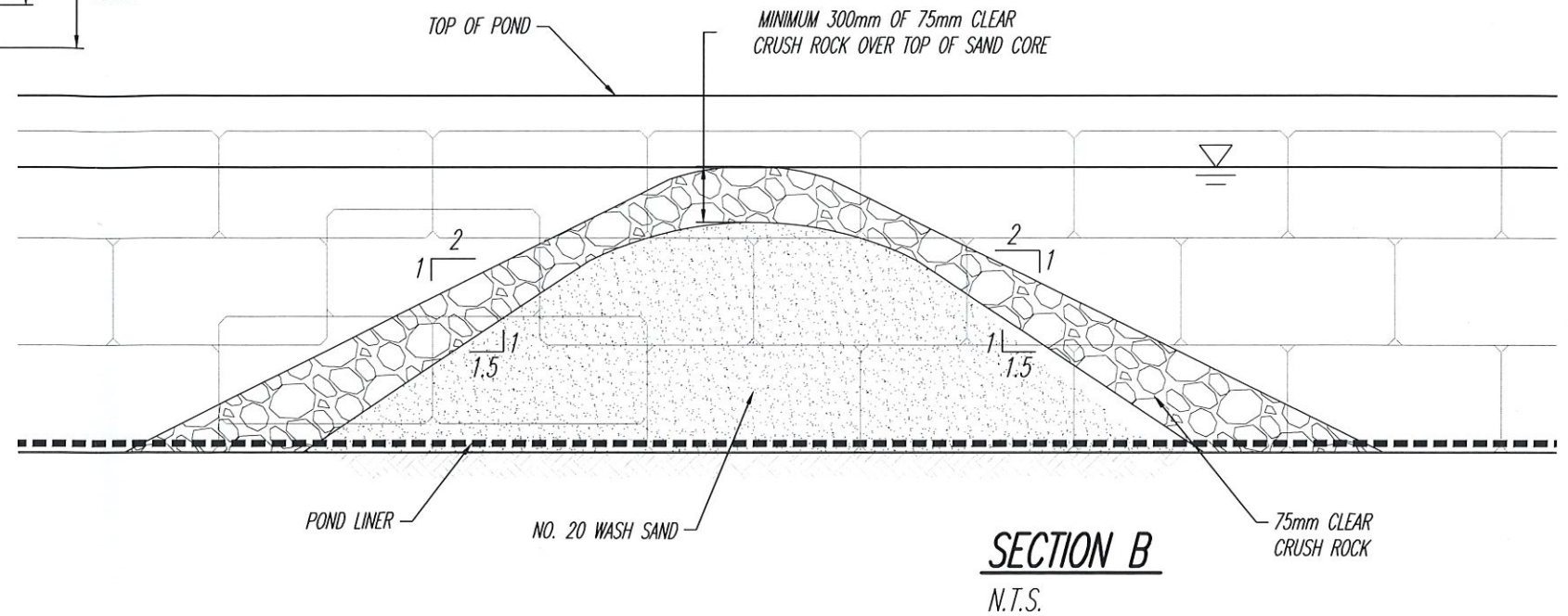
WHERE;
 Q = PEAK DISCHARGE FLOW RATE
 C = RUNOFF COEFFICIENT
 I = RAINFALL INTENSITY
 A = SITE CATCHMENT AREA

$C = 0.75$
 $I = 8 \text{ mm/HR}$
 $A = 34,275 \text{ m}^2$
 (DISTURBED AREA)

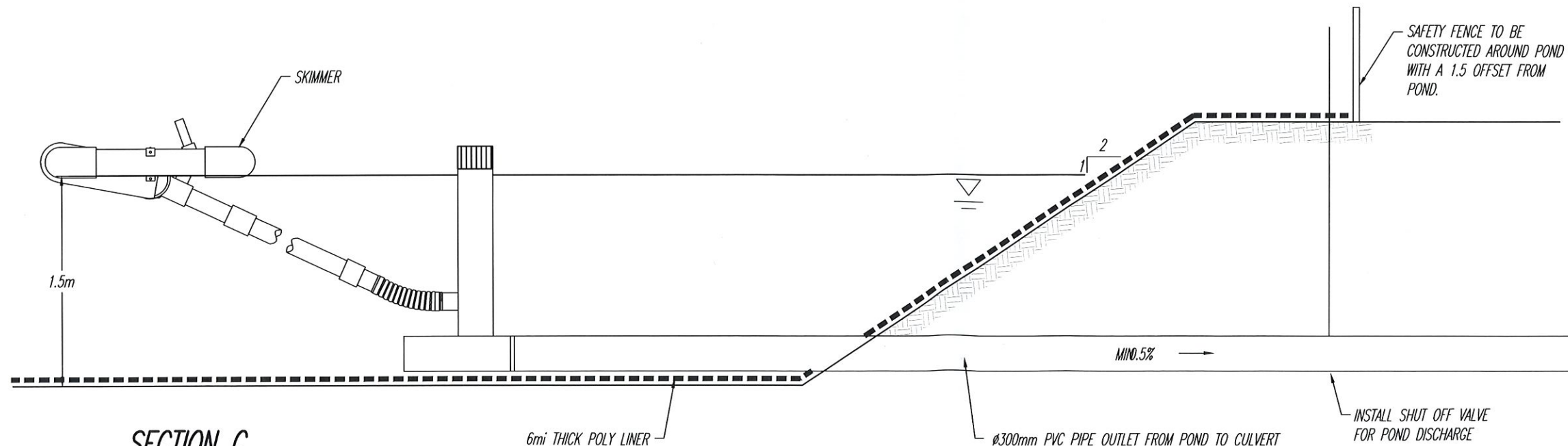
STORM = 2YEAR RETURN
 $Q = 57.5 \text{ L/SEC}$

POND SIZING:

FLOW RATE (Q) = $0.0575 \text{ m}^3/\text{SEC}$
 SETTLING VELOCITY (V_s) = 0.0002 m/SEC
 SAFETY FACTOR = 2.0
 REQUIRED POND AREA (A_s) = $\frac{(Q) \cdot (2.0)}{V_s}$
 $= 575 \text{ m}^2$
 POND AREA PROVIDED = 594 m^2



SECTION B
N.T.S.



SECTION C
N.T.S.

REFERENCE:



GEOPACIFIC
VANCOUVER KALLOOPS CALGARY

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DATE: JUNE 12, 2018
 DRAWN BY: N.P. APPROVED BY: F.B. REVIEWED BY: M.LI.
 SCALE: AS SHOWN

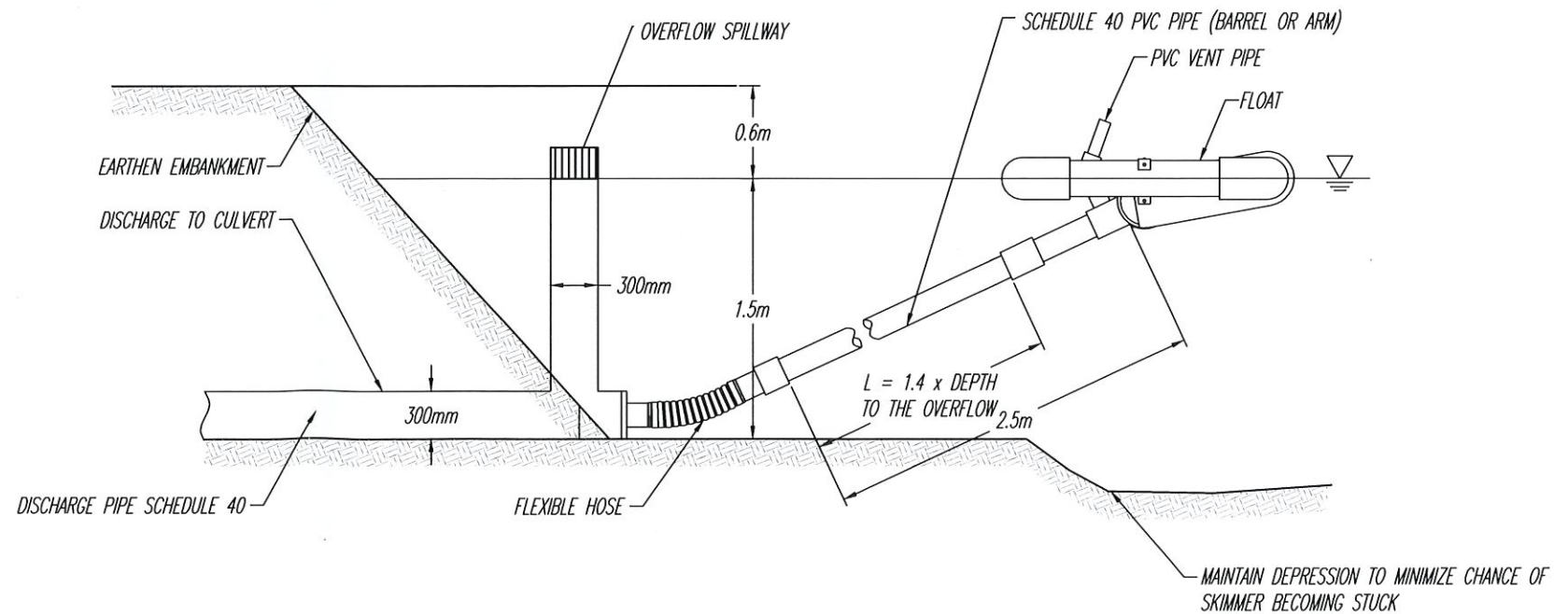
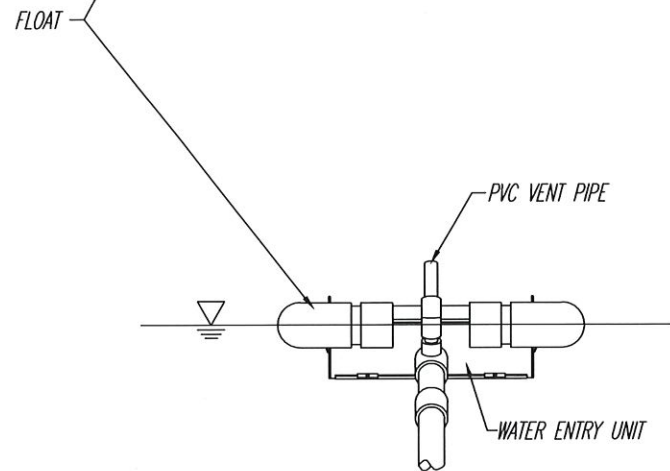
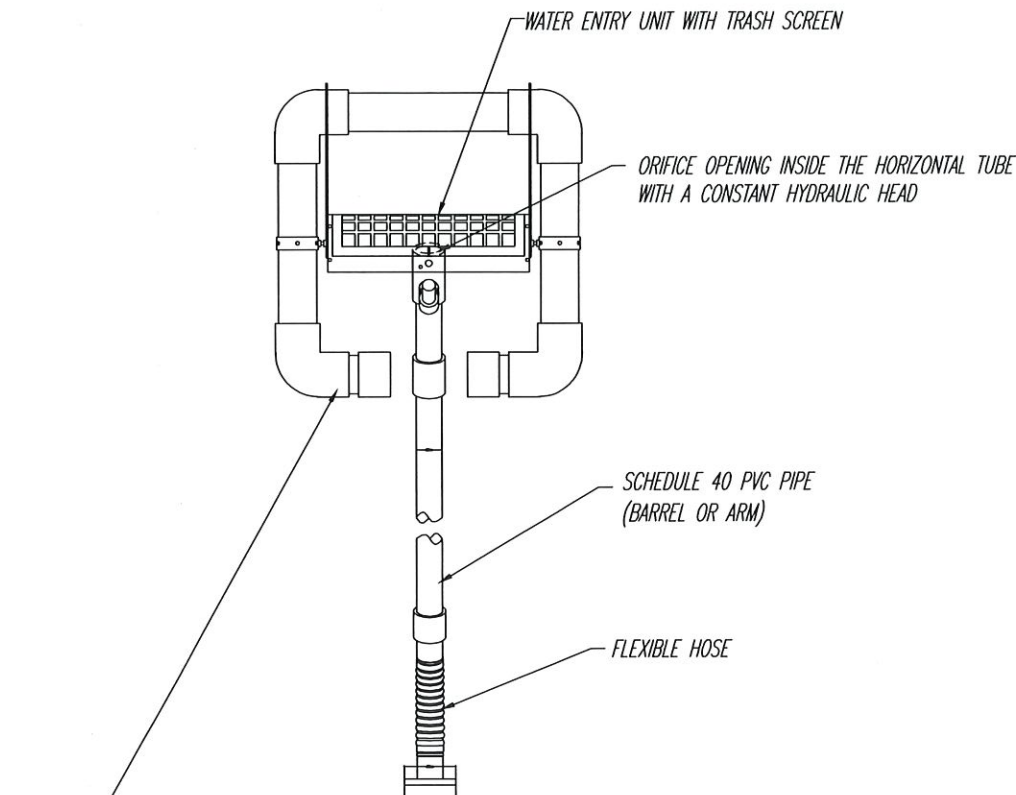
AUTOMOBILE DEALERSHIP
 12150 GOLDEN EARS WAY, PITT MEADOWS, BC
 EROSION & SEDIMENT CONTROL DETAILS (1 OF 5)

FILE NO.: 7055
 DWG. NO.: G-ESC2

REVISIONS:
 A.
 B.
 C.

APR 18 2019





SKIMMER DISCHARGE SYSTEM

N.T.S.

APR 18 2019

REFERENCE:



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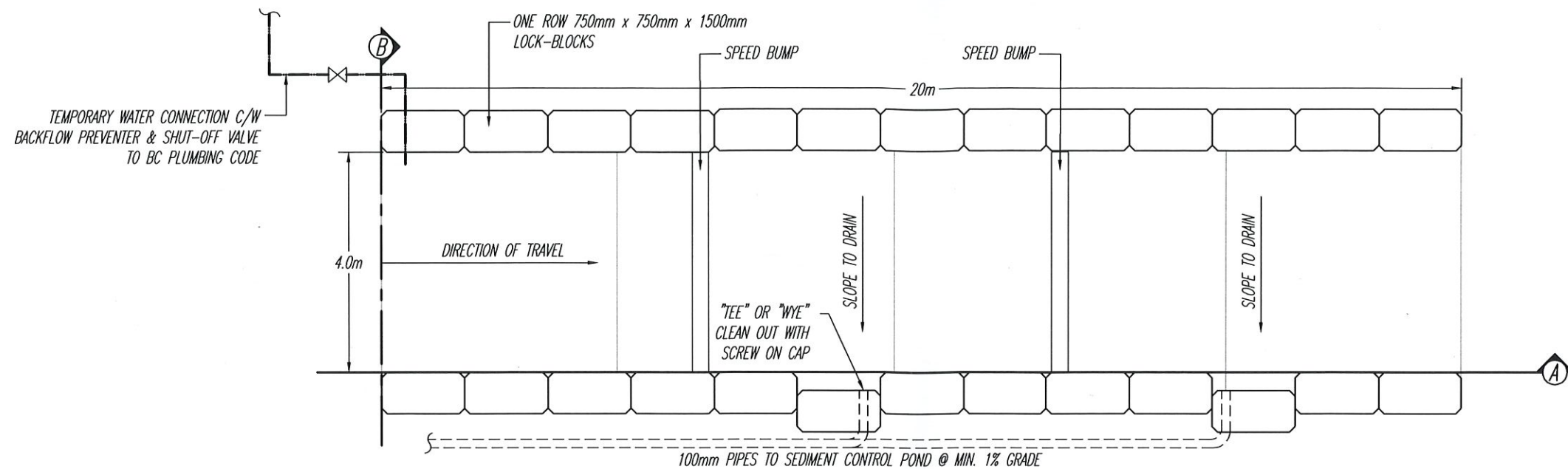
DATE:	JUNE 12, 2018		
DRAWN BY:	N.P.	APPROVED BY:	F.B.
REVIEWED BY:	M.Lt.		
SCALE:	AS SHOWN		

AUTOMOBILE DEALERSHIP
12150 GOLDEN EARS WAY, PITT MEADOWS, BC
EROSION & SEDIMENT CONTROL DETAILS (2 OF 5)

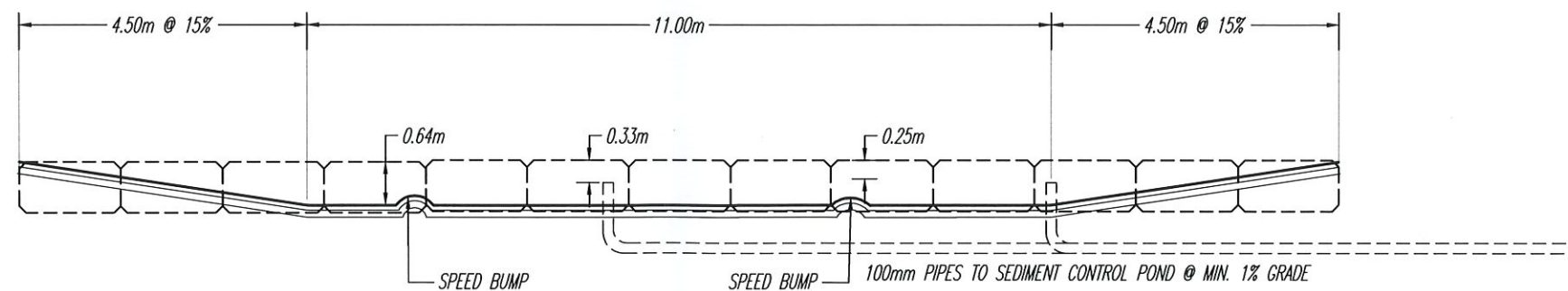
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DWG. NO.: **G-ESC3**

REVISIONS:
A.
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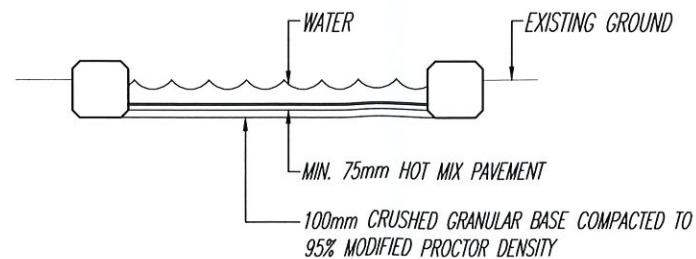




WHEEL WASH - PLAN VIEW
SCALE 1:100



SECTION A
SCALE 1:100



SECTION B
SCALE 1:100

NOTE:

1. ALL LOCK BLOCKS AND JOINTS TO BE GROUTED TO FORM LEAK TIGHT SYSTEM.
2. PROTECT DRAINS BY RECESSING LOCK BLOCKS AT LOW POINTS.
3. DRAIN OPENING TO HAVE A MANUFACTURED SLOTTED DRAIN CAP.
4. ALL WATER FROM WHEEL WASH TO BE DIRECTED TO SEDIMENT POND PRIOR TO BEING DISCHARGE FROM SITE.
5. WATER LEVEL TO BE CHECKED DAILY AND AFTER RAINFALL TO PREVENT OVER FLOW WHEN TRUCKS DRIVE THROUGH WHEEL WASH.
6. NO WATER TO BE DISCHARGED FROM WHEEL WASH DIRECTLY TO DRAINAGE SYSTEM.
7. CLEAN SEDIMENT AND WATER FROM WHEEL WASH AT LEAST TWICE A WEEK DURING HEAVY TRUCKING AND A MINIMUM OF ONCE A WEEK WHEN IN USE.
8. WATER DEPTH TO BE MAINTAINED AT 0.25m DEEP.
9. INSTALL TWO SPEED BUMPS IN WHEEL WASH TO REDUCE TRUCK SPEED.

APR 18 2019

REFERENCE:



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VANCOUVER KAHLOOPS CALGARY

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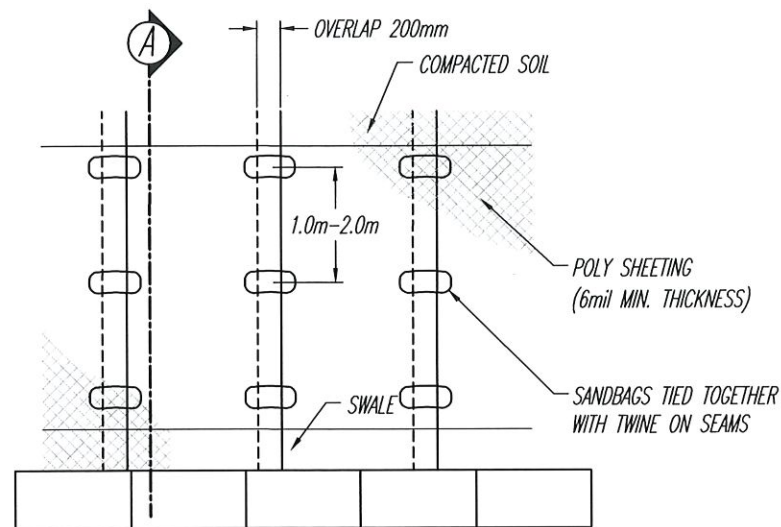
DATE:	JUNE 12, 2018		
DRAWN BY:	N.P.	APPROVED BY:	F.B.
		REVIEWED BY:	M.Lt.
SCALE:	AS SHOWN		

AUTOMOBILE DEALERSHIP
12150 GOLDEN EARS WAY, PITT MEADOWS, BC
EROSION & SEDIMENT CONTROL DETAILS (3 OF 5)

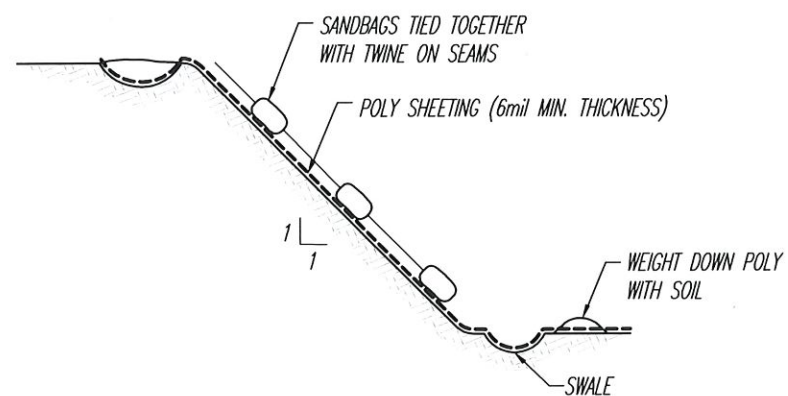
FILE NO.: **7055**
DWG. NO.: **G-ESC4**

REVISIONS:
A.
B.
C.





SLOPE PLAN VIEW



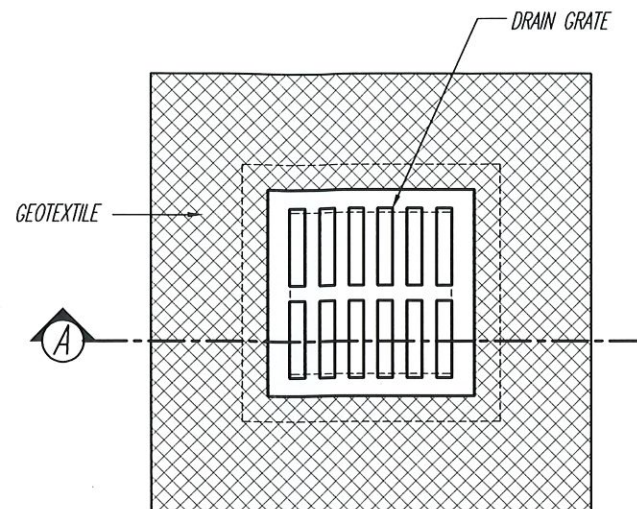
SLOPE SECTION A

PLASTIC COVERING – BMP C123

N.T.S.

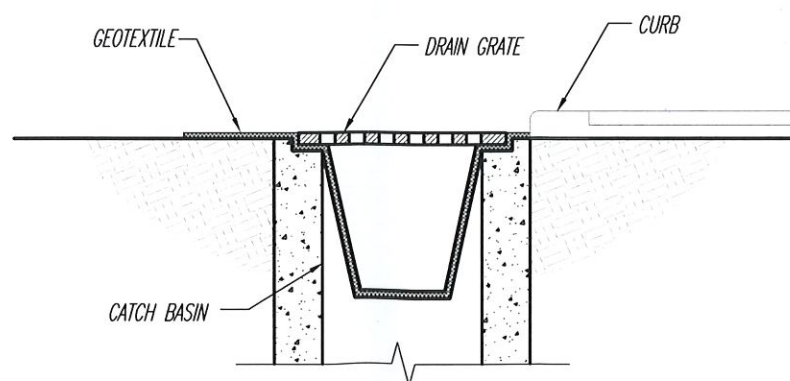
NOTE :

1. POLYETHYLENE SHEETING WITH A MINIMUM THICKNESS OF 6mil TO BE USED.
2. SHEETING TO BE PLACED PARALLEL TO THE SLOPE WITH A MINIMUM 200mm OVERLAP BETWEEN SHEETS.
3. TRENCH TO BE EXCAVATED AT THE HEAD OF THE SLOPE TO ALLOW SHEETING TO BE SECURED UNDER COMPACTED SOIL.
4. TRENCH TO BE EXCAVATED AT THE TOE OF THE SLOPE, TO A DEPTH OF 300mm, WHICH WILL ACT AS A SWALE.
5. BURLAP OR GEOTEXTILE BAGS FILLED WITH SAND TO BE PLACED AT 1.0m TO 2.0m INTERVALS ALONG SEAMS. BAGS TO BE TIED TOGETHER WITH TWINE TO HOLD IN PLACE.
6. REGULAR INSPECTION OF THE SHEETING IS REQUIRED. TORN SHEETS MUST BE REPLACED AND OPEN SEAMS MUST BE SEALED.



CATCH BASIN SEDIMENT SACK DETAIL – BMP C220

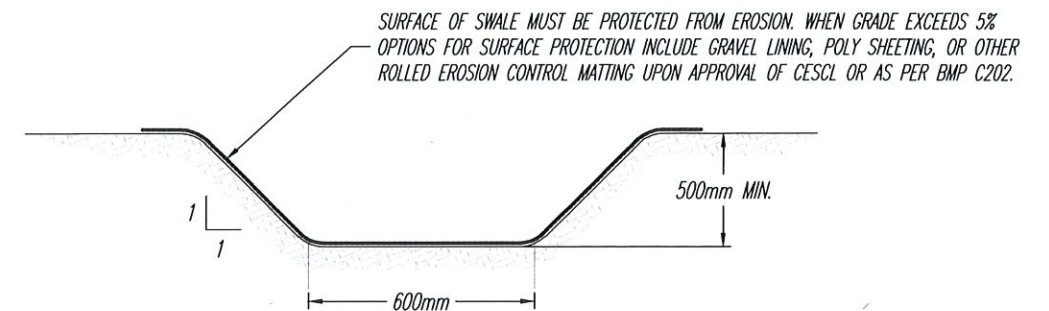
N.T.S.



- STORE SPARE CATCH BASIN PROTECTION ONSITE AT ALL TIMES.
- INSPECT CATCH BASIN PROTECTION WEEKLY, AND DAILY DURING STORM EVENTS.
- CLEAN OR REPLACE WHEN 1/3 FULL, CLOGGED, OR SIGNS OF WEAR OCCUR.
- CATCH BASIN PROTECTION TO BE USED ON ALL CATCH BASINS WITHIN 150m OF SITE EXIT ALONG HAUL ROUTE.

SECTION A

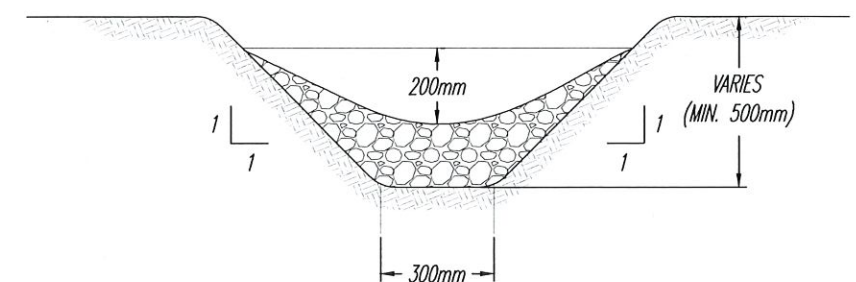
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DRAINAGE SWALE DETAIL – BMP C200

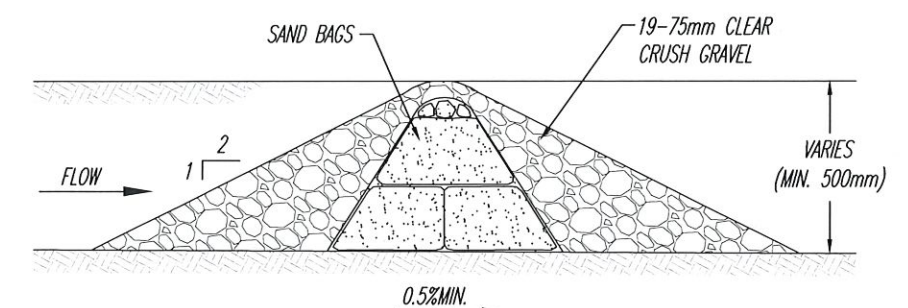
N.T.S.

SPACING OF CHECK DAMS BASED ON SLOPE OF SWALES	
SLOPE	SPACING OF CHECK DAMS
0.5%	EVERY 50m
1.0%	EVERY 35m
1.5%	EVERY 20m
2.0%	EVERY 15m
2.5%	EVERY 12m
3.0%	EVERY 10m



DRAINAGE SWALE DETAIL

N.T.S.



CHECK DAM DETAIL

N.T.S.

NOTES:

- CHECK DAMS TO HAVE "SMILING" PROFILE.
- DRAINAGE TRENCH TO BE CONSTRUCTED WITH MIN. SLOPE TO FACILITATE FLOW.
- CHECK DAMS TO BE SPACED SUCH THAT BOTTOM OF PRECEDING DAM IS AT EQUAL ELEVATION TO THE TOP OF NEXT DAM ON DOWNSTREAM SIDE.
- CHECK DAMS SHALL BE MONITORED AND SEDIMENT REMOVED WHEN IT REACHES HALF OF SUMP DEPTH.
- USE BUCKET OF EXCAVATION TO COMPACT SOILS BY PRESSING BUCKET OF EXCAVATOR AGAINST SOIL/ SIDE OF STOCK PILE OR SLOPE WITH ENOUGH FORCE TO COMPACT SOIL IN AREA.

REFERENCE:



GEOPACIFIC
VANCOUVER KALLOOPS CALGARY

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DATE:

JUNE 12, 2018

DRAWN BY:

N.P.

APPROVED BY:

F.B.

REVIEWED BY:

M.LI.

SCALE:

AS SHOWN

AUTOMOBILE DEALERSHIP
12150 GOLDEN EARS WAY, PITT MEADOWS, BC
EROSION & SEDIMENT CONTROL DETAILS (4 OF 5)

FILE NO.:

7055

DWG. NO.:

G-ESC5

REVISIONS:

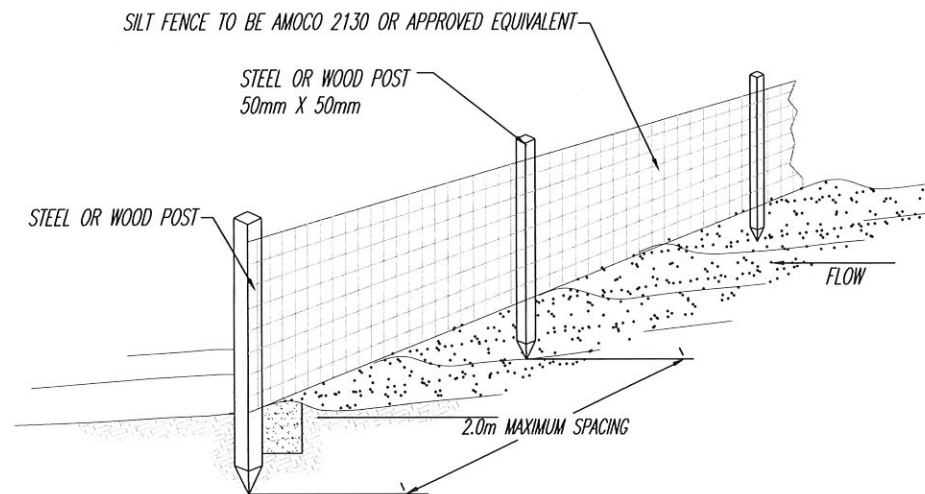
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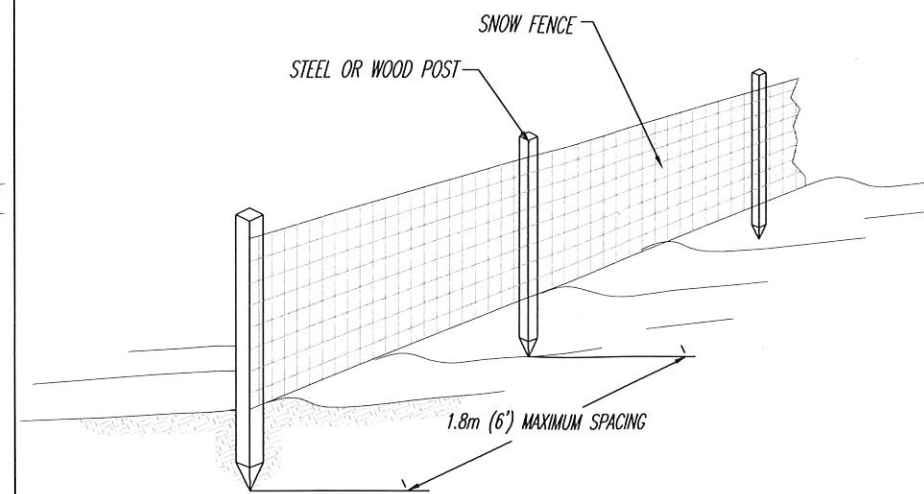
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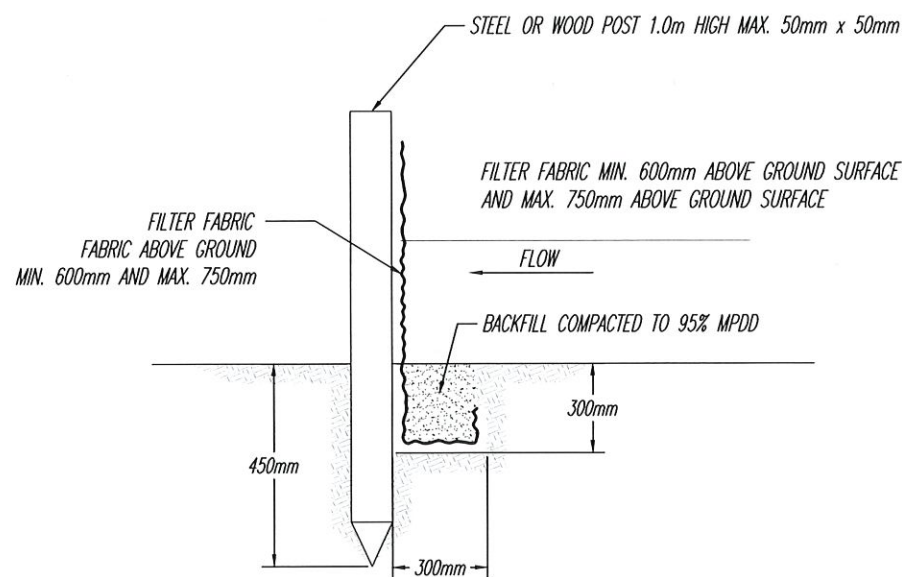




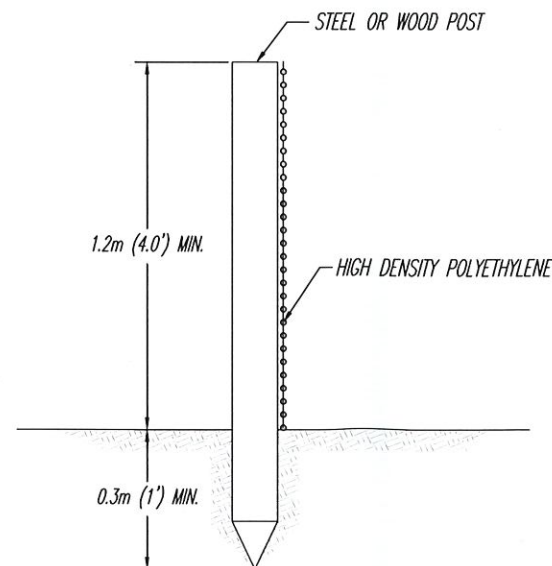
SILT FENCE PROFILE - BMP C233
N.T.S.



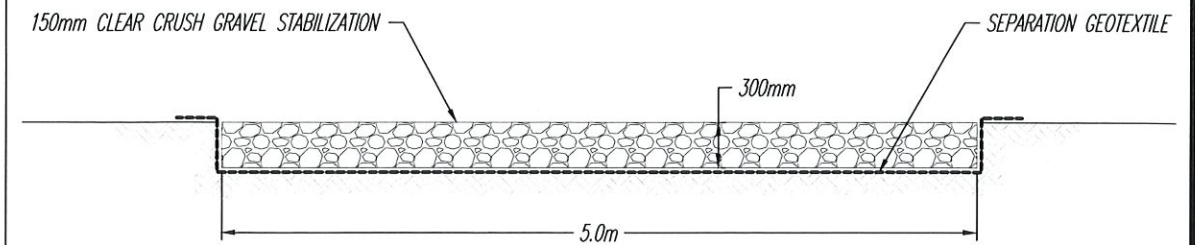
SNOW FENCE PROFILE - BMP C101 & C103
N.T.S.



SILT FENCE DETAIL
N.T.S.



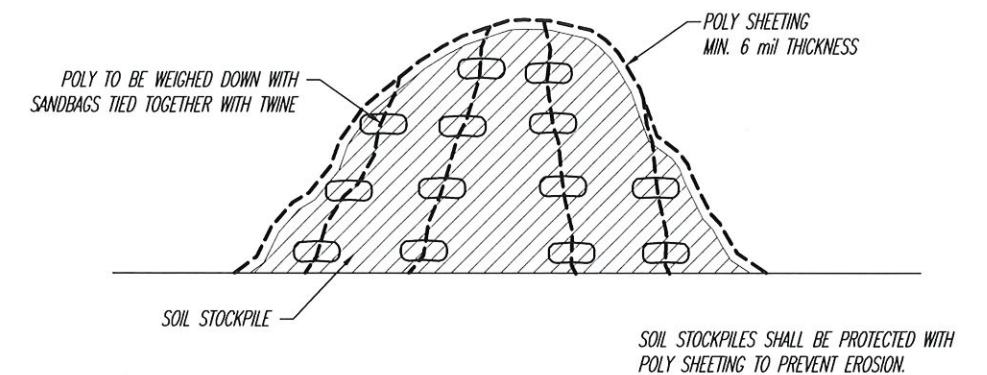
SNOW FENCE DETAIL
N.T.S.



GEOTEXTILE SEPARATION SPECS

GRAB TENSILE STRENGTH (ASTM D4751)	200psi MIN.
GRAB TENSILE ELONGATION (ASTM D4632)	30% MAX.
MULLEN BURST STRENGTH (ASTM D3786 - 80A)	400psi MIN.
AVERAGE OPENING SIZE (ASTM D4751)	20 - 45 (U.S. STANDARD SIZE)

STABILIZED CONSTRUCTION ENTRANCE/EXIT - BMP C105
SCALE = 1:50



PLASTIC SHEETING - BMP C123
N.T.S.

BUCKET PACKING/TRACK PACKING

- USE BUCKET OF EXCAVATOR TO COMPACT SOILS BY PRESSING BUCKET OF EXCAVATOR AGAINST SOIL/SIDE OF STOCKPILE OR SLOPE WITH ENOUGH FORCE TO COMPACT SOILS IN AREA
- USE A BULLDOZER TO TRACK PACK DESIRED AREA BY RUNNING THE BULLDOZER VERTICALLY UP THE SLOPE SO THAT THE TRACK PATTERN CREATES RIDGES PERPENDICULAR TO SLOPE, NOT PARALLEL TO SLOPE

APR 18 2019



REFERENCE:



GEOPACIFIC
VANCOUVER KAMLOOPS CALGARY

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DATE:

JUNE 12, 2018

DRAWN BY:
N.P.

APPROVED BY:
F.B.

REVIEWED BY:
M.L.I.

SCALE:

AS SHOWN

AUTOMOBILE DEALERSHIP
12150 GOLDEN EARS WAY, PITT MEADOWS, BC
EROSION & SEDIMENT CONTROL DETAILS (5 OF 5)

FILE NO.:

7055

DWG. NO.:

G-ESC6

REVISIONS:

A.

B.

C.

EROSION SEDIMENT CONTROL CRITERIA

1. SEDIMENT CONTROL

- 1.1 Under this plan, all persons including but not limited to the developer, project owner, the engineer of record, ESC supervisor, civil contractor, civil subcontractor, builder, & building sub trades herein after referred to as the owner/developer/person responsible; engaged on site shall comply with regulatory criteria as specified in the CEMP.
- 1.2 In accordance with City of Pitt Meadows, Drainage protection Bylaw 2266, 2007 and Subdivision and Development Bylaw No. 2589, 2013, the ESC permit of which this plan forms part thereof; deems the permit holder ultimately responsible for all site activities that result in a breach of compliance with the bylaw, for the duration of the permit.
- 1.3 No person shall obstruct or impede the flow of the Drainage System, store, transport or dispose of any waste or deleterious substance (including sediment) in such a manner, so as to permit the likely escape of the materials into the drainage system or release directly or indirectly deleterious substance into the drainage system.
- 1.4 No person shall cause or permit to be released, directly or indirectly into the Drainage system any sediment, earth, Construction or excavation wastes, cement, concrete, or other substances, which when mixed with water, will result in: a pH value outside of the ranges of 6.0-9.0; or a discharge exceeding a total suspended solids level of 75mg/L.

2. INSPECTION

- 2.1 Once the erosion and sediment control works have been completed, and before the start of any other on-site construction, the erosion and sediment control works shall be inspected and signed off by GeoPacific Consultants Ltd. to ensure that they are installed and constructed in accordance with the approved drawings. Any deficiencies in the sediment control works shall be corrected, before proceeding with any other on-site constructions.
- 2.2 Throughout the duration of the project inspections shall be conducted by a Qualified Professional (QP) weekly from September-May and bi-weekly from June-August. Reports shall include a review of ESC Facilities implemented and any deficiencies observed, maintenance undertaken or recommendations of adaptive measures to ensure compliance with approved ESC Plan.

3. MONITORING AND SAMPLING

- 3.1 Water samples shall be collected by a Certified Erosion and Sediment Control Lead at the monitoring points for the sediment control works as specified on ESC plan :
- Weekly, September to May.
 - Bi-weekly, June to August.
 - Following significant rainfall event (>25mm in 24hrs)
 - Additional monitoring is not required if SREs are within 48 hours of each other
- The samples shall be analyzed onsite for turbidity (NTU) and pH determination. If turbidity is analyzed at 65 NTU or over onsite, a sample is to be collected and analyzed in lab for total suspended solids.
- 3.2 The turbidity must not be greater than 75mg/L and pH between 6.0-9.0 at discharge point to any watercourse.
- 3.3 If during any construction work, any waste, deleterious substance, or water that exceeds limits of pH 6.0-9.0 or TSS above 75mg/L is being released directly or indirectly into the drainage system the Developer and/or Contractor performing the work must immediately notify the City.
- 3.4 Monitoring will continue until the site is stable and under control and no longer poses a threat to the drainage system or the City of Pitt Meadows no longer deems monitoring necessary. At this stage the ESC Facilities may be safely removed.

4. MAINTENANCE

- 4.1 Should any part of the sediment control works become damaged or blocked or in any other way not functioning properly, then the Contractor shall take all steps necessary to repair and/or remove such damage, or blockage, or other cause of malfunction in accordance with appropriate best management practiced guidance documents and legislation and shall immediately contact the City of Pitt Meadows.
- 4.2 Accumulated sediment removed during the maintenance of the treatment works, shall be disposed of in such a manner as to prevent its re-entry into the site drainage system, and /or into any storm sewer system or watercourse.
- 4.3 All storm drains within the vicinity of the truck ramp driveway shall be inspected. Any sediment accumulated by the storm drain inlet protection device shall be removed. The drain protection device shall be cleaned and replaced shall be cleaned and replaced when accumulation of sediment is approximately one third of sediment sock capacity.

5. ENFORCEMENT

- 5.1 Failure to implement an Erosion and Sediment Control Plan or comply with the Erosion and Sediment Control Criteria may result in a **Stop Work Order** or other legal action under the Drainage Protection Bylaw 2266, 2007 and/or Subdivision and Development Bylaw No. 2589, 2013
- 5.2 Federal and provincial environmental offences are strict liability offences and can result in fines and/or incarceration.

DRAWING LIST:

SITE PLAN-----	G-ESC1A, G-ESC1B
DETAILS-----	G-ESC2 - G-ESC6
ESC CRITERIA-----	G-ESC7

REFERENCE:



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N.P.	F.B.	M.Lt.	
SCALE:	AS SHOWN		

AUTOMOBILE DEALERSHIP
12150 GOLDEN EARS WAY, PITT MEADOWS, BC
EROSION & SEDIMENT CONTROL SPECIFICATIONS

FILE NO.:	7055	REVISIONS:	
DWG. NO.:	G-ESC7	A.	
		B.	
		C.	

APR 18 2019

