



Board of Directors
Thursday, October 29, 2020
1:00 pm
Via Zoom

Join Zoom Meeting

<https://zoom.us/j/98550500959?pwd=eS9JOFV6SUJZS3ZabCtGdHBSL0MyZz09>

Meeting ID: 985 5050 0959

Passcode: 587966

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F I N A L A G E N D A

1. Call to Order

2. Land Acknowledgement

- 2.a)** We acknowledge and appreciate that the land on which we gather is the converging, traditional and unceded territory of the Syilx, Secwepemc, Sinixt and Ktunaxa Peoples as well as the Metis Peoples whose footsteps have also marked these lands.

3. Consideration of the Agenda (additions/deletions)

- 3.a)** The agenda for the Regional District of Kootenay Boundary Board of Directors October 29, 2020 meeting is presented.

Recommendation: Corporate Vote Unweighted

That the agenda for the Regional District of Kootenay Boundary Board of Directors October 29, 2020 meeting be adopted as presented.

4. Draft Minutes

- 4.a)** The draft minutes of the Regional District of Kootenay Boundary Board of Directors meeting held October 14, 2020 are presented.
[Minutes-Board of Directors-14 Oct-BoD Oct 29 20 - Pdf](#)

Recommendation: Corporate Vote Unweighted

That the draft minutes of the Regional District of Kootenay Boundary Board of Directors meeting held October 14, 2020 be adopted as presented.

5. Presentations

There are no presentations.

6. **Delegation(s)**

There are no delegations.

7. **Applicants and Person Attending to Speak to Agenda Items**

7.a) Raimund Wege and Jean and Jim Benson, persons attending

Electoral Area Services Committee-October 15, 2020

Director Grieve Committee Chair / Director McGregor, Vice Chair

Application for Development Variance Permit-Electoral Area C/Christina Lake
[Staff Report BoykoCombs DVP BoD Oct 29 20](#)

Recommendation: Stakeholder Vote (Electoral Area Directors) Unweighted

That the Regional District of Kootenay Boundary Board of Directors denies the Development Variance Permit application submitted by Brock Pendergraft of Pendergraft Professional Land Surveying Inc., on behalf of Erica Boyko and Michael Combs, to vary Section 302.1(i) of the Area 'C' Zoning Bylaw No. 1300, 2007 to increase the maximum gross floor area of storage buildings, including garages, that may be located on a parcel that does not have a principal use or building provided they are only being used for non-commercial/industrial storage of personal goods or vehicles from 60 m² to 250 m² – a variance of 190 m², to facilitate the future subdivision on the properties legally described as Lot 2 District Lot 4037s Similkameen Division Yale District Plan KAP51313 and Lot 11 District Lot 4037s Similkameen Division Yale District Plan 31906, Electoral Area C/Christina Lake.

8. **Unfinished Business**

8.a) VERBAL UPDATES

M. Stephens, Interim Manager of Emergency Programs

Re: Verbal Update COVID-19 Pandemic Emergency Operations

Director Worley, Emergency Preparedness Liaison

M. Andison, Chief Administrative Officer

Re: Verbal Update on the Impacts of the Wage Continuation COVID-19 Pandemic Policy

Director Cacchioni, Finance Liaison

Recommendation: Corporate Vote Unweighted

That the verbal updates regarding the COVID-19 Pandemic Emergency Operations and the impacts of the Wage Continuation COVID-19 Pandemic Policy as presented to the Board on October 29, 2020 be received.

8.b) M. Andison, Chief Administrative Officer
Re: RDKB COVID 19 Services Restoration Plan
Board and Committee Meetings

A staff report from Mark Andison, CAO discussing the provisions for Board and Committee meetings included in the RDKB COVID-19 Services Restoration Plan is presented.

[COVID Services Restoration Plan - Meetings - Pdf](#)

Recommendation: Corporate Vote Unweighted

That the Regional District of Kootenay Boundary Board of Directors receive the staff report from Mark Andison, CAO RDKB regarding COVID-19 Services Restoration Plan - Board & Committee Meetings as presented to the Board on October 29, 2020.

8.c) J. Dougall, General Manager of Environmental Services
Re: McKelvey Creek Landfill Upgrades Project

A staff report from Janine Dougall, General Manager of Environmental Services regarding the McKelvey Creek Landfill Upgrade Project and the application for an "Investing in Canada Infrastructure Program-Rural and Northern Communities Infrastructure (ICIP-RNC)" grant is presented.

[Staff Report-McKelvey Crk Landfill Upgrade Prcjt -ICIP-RNC](#)

[Resolution-VoD Oct 29 20](#)

[McKelvey Creek Landfill Upgrade Project - Detailed Cost Estimate](#)
[Final-BoD Oct 29 20](#)

[McKelvey Creek Landfill Upgrades Preliminary Design Report-BoD](#)
[Oct 29 20](#)

Recommendation: Corporate Vote Unweighted

That the Regional District of Kootenay Boundary Board of Directors direct staff to submit an application for grant funding for the McKelvey Creek Landfill Upgrade Project through the Investing in Canada Infrastructure Program – Rural and Northern Communities.

FURTHER that the Board of Directors supports the project and commits to its share (\$203,906) of the project, as well as cost overruns.

9. Communications-RDKB Corporate Communications Officer

9.a) There is nothing new to report since the update provided at the October 14, 2020 meeting. A corporate communications update report will be provided at a future meeting.

10. Communications-Information Only

10.a) Agricultural Land Commission (ALC)-Oct. 2/20
Re: Covenant Referral Decision Letter-Electoral Area E/West
Boundary (Ferguson)

[ALC Covenant Decision-Area E-Ferguson-BoD Oct 29 20](#)

10.b) Agricultural Land Commission (ALC)-Sept. 11/20
Re: Subdivision Application Decision Letter-Electoral Area A (Fillmore)

[ALC Subdivision Decision-Area A-Fillmore-BoD Oct 29 20](#)

10.c) Agricultural Land Commission (ALC)-Sept. 28/20
Re: Non-Farm Use Decision-Electoral Area E/West Boundary (Natro Group Investments Inc. BC 0936270)

[ALC NonFarm Use Decision-Area E-Natro Group Investments-BoD Oct 29 20](#)

Recommendation: Corporate Vote Unweighted

That Communication-Information Only Items 10.a) to 10.c) be received and direction at the discretion of the Board.

11. Reports

11.a) Monthly Cheque Register Summary

The Cheque Register Summary for the Month of October 2020 will be provided at a future meeting.

11.b) RDKB Committee Minutes
Minutes of RDKB Committee Meetings as adopted by the respective Committees are presented.

East End Services (Sept. 15/20) and Electoral Area Services (Sept. 10/20).

[Minutes-East End Services-15 Sep-BoD Oct 20 20](#)

[Minutes-Electoral Area Services-10 Sep-BoD Oct 29 20 - Pdf](#)

Recommendation: Corporate Vote Unweighted

That the minutes of the East End Services Committee and the Electoral Area Services Committee meetings held on September 15, 2020 and September 10, 2020 be received.

11.c) Recreation Commission Minutes

The minutes of the Christina Lake Parks and Recreation Commission meeting held on July 8, 2020 are presented.

[Minutes-Electoral Area C - Parks & Rec - July 8 20](#)

Recommendation: Corporate Vote Unweighted

That the minutes of the Christina Lake Parks and Recreation Commission meeting of July 8, 2020 be received.

11.d) Draft Advisory Planning Commission (APC) Minutes

Draft minutes of the following RDKB Electoral Area Advisory Planning Commission meetings held during October are presented:

Electoral Area C/Christina Lake (Oct. 6/30), Electoral Area D/Rural Grand Forks (Oct. 6/20), Electoral Area E/West Boundary (Oct. 5/20), and Electoral Area E/West Boundary-Big White (Oct. 6/20).

[APC Minutes-Area C-Board- Oct 29 2020](#)

[APC Minutes-Area D-Board-Oct 29 2020](#)

[APC Minutes-Area E-Board-October 29 2020](#)

[APCMinutes-Big White-Board-Oct 29 2020](#)

Recommendation: Corporate Vote Unweighted

That the draft minutes of the following Advisory Planning Commission meetings held during October be received: Electoral Area C/Christina Lake (Oct. 6/30), Electoral Area D/Rural Grand Forks (Oct. 6/20), Electoral Area E/West Boundary (Oct. 5/20), and Electoral Area E/West Boundary-Big White (Oct. 6/20).

12. Committee Recommendations to Board of Directors

Application for Development Variance Permit

Electoral Area C/Christina Lake

This item has been moved to the front of the agenda to Item 7-Applicants and Persons Attending to Speak to Agenda Items and is now Agenda Item 7.a).

13. Refreshment Break

14. New Business

**14.a) B. Ihlen, General Manager of Finance/
Chief Financial Officer (CFO)**

Re: 2020 Third Quarter Budget Variance Report

A staff report from Barb Ihlen, General Manager of Finance/Chief Financial Officer (CFO) regarding the financial variance report for the third quarter of 2020 is presented.

[Staff Report-2020 3rd Quarter Budget Variance Report-BoD Oct 29 20](#)

Recommendation: Corporate Vote Unweighted

That the Regional District of Kootenay Boundary Board of Directors receive the 2020 Third Quarter Variance Report presented to the Board on October 29, 2020.

14.b) G. Denkovski, Manager of Infrastructure and Sustainability

**Re: Beaver Valley Water Service (500) System Upgrades
Investing in Canada Infrastructure Program – Rural and
Northern Communities Funding Application**

A Staff report form Goran Denkovski, Manager of Infrastructure and Sustainability regarding the Beaver Valley Water Service (500) system upgrades Investing in Canada Infrastructure Program – Rural and Northern Communities Funding Application.

[Staff Report - Beaver Valley Water Service \(500\) System Upgrades ICIP-RNC Grant Application - Board - October 29 2020 - Pdf](#)

Recommendation: Corporate Vote Unweighted

That the Regional District of Kootenay Boundary Board of Directors direct Staff to submit an application for grant funding application for the Beaver Valley Water Service (500) System Upgrades through the Investing in Canada Infrastructure Program – Rural and Northern Communities. **Further**, that the Board supports the project and commits to any cost overruns.

**14.c) G. Denkovski, Manager of Infrastructure and Sustainability
Re: Christina Lake Water Utility (550) System Upgrades
Investing in Canada Infrastructure Program – Rural and
Northern Communities Funding Application**

A Staff report form Goran Denkovski, Manager of Infrastructure and Sustainability regarding the Christina Lake Water Utility (550) system upgrades Investing in Canada Infrastructure Program – Rural and Northern Communities Funding Application.

[Staff Report - Christina Lake Water Utility Service \(550\) System Upgrades ICIP-RNC Grant Application - Board - October 29 2020 - Pdf](#)

Recommendation: Corporate Vote Unweighted

That the Regional District of Kootenay Boundary Board of Directors direct Staff to submit an application for grant funding application for the Christina Lake Water Utility (550) System Upgrades through the Investing in Canada Infrastructure Program – Rural and Northern Communities. **Further**, that the Board supports the project and commits to any cost overruns.

**14.d) G. Denkovski, Manager of Infrastructure and Sustainability
Re: Oasis Waterworks District Water System upgrades
Investing in Canada Infrastructure Program – Rural and
Northern Communities Funding Application**

A Staff report form Goran Denkovski, Manager of Infrastructure and Sustainability regarding the Oasis Waterworks District system upgrades Investing in Canada Infrastructure Program – Rural and Northern Communities Funding Application.

[Staff Report - Oasis Waterworks District Water System Upgrades ICIP-RNC Grant Application - Board - October 29 2020 - Pdf](#)

Recommendation: Corporate Vote Unweighted

That the Regional District of Kootenay Boundary Board of Directors direct Staff to submit an application for grant funding application for the Oasis Waterworks District Water System Upgrades through the Investing in Canada Infrastructure Program – Rural and Northern Communities. **Further**, that the Board supports the project and commits to any cost overruns.

**14.e) G. Denkovski, Manager of Infrastructure and Sustainability
Re: Anaconda Community Water System Upgrades Investing
in Canada Infrastructure Program – Rural and Northern
Communities Funding Application**

A Staff report from Goran Denkovski, Manager of Infrastructure and Sustainability regarding the Anaconda Community water system upgrades Investing in Canada Infrastructure Program – Rural and Northern Communities Funding Application.

[Staff Report - Anaconda Community Water System Upgrades ICIP-RNC Grant Application - Board - October 29 2020 - Pdf](#)

Recommendation: Corporate Vote Unweighted

That the Regional District of Kootenay Boundary Board of Directors direct Staff to submit an application for grant funding application for the Anaconda Water System Upgrades through the Investing in Canada Infrastructure Program – Rural and Northern Communities. **Further**, that the Board supports the project and commits to any cost overruns.

**14.f) D. Patterson, Planner
Re: FrontCounter BC Placer Lease Term Extension
Electoral Area E/West Boundary**

A staff report from Danielle Patterson, Planner regarding an invitation for RDKB comments from FrontCounter BC regarding an application for a 10 year placer lease term extension submitted by K. Harfman (lease 389741) in Electoral Area E/West Boundary is presented.

[Staff Report Harfman-Mining-Lease BoD Oct 29 20](#)

Recommendation: Corporate Vote Unweighted

That the Regional District of Kootenay Boundary Board of Directors direct staff to forward the staff report 'FrontCounter BC – Placer Lease Term Extension – Harfman application', which includes information regarding the limited land use regulations in the Electoral Area E/West Boundary pertaining to this proposal, to FrontCounter BC.

**14.g) D. Patterson, Planner
Re: FrontCounter BC Referral for Statutory Right of Way
Electoral Area D/Rural Grand Forks**

A staff report from Danielle Patterson, Planner regarding a FrontCounter BC referral for a proposed Statutory Right of Way in Electoral Area D/Rural Grand Forks, near the intersection of Granby Road and Snowball Creek West Road is presented.

[Staff Report-FrontCounter-Stat ROW-Fortis-Area D-BoD Oct 29 20](#)

Recommendation: Corporate Vote Unweighted

That the Regional District of Kootenay Boundary Board of Directors advise FrontCounter BC that the referral regarding FortisBC's proposed Statutory Right of Way on Lot 1 Plan KAP66479 Crossing Snowball Creek, in Electoral Area 'D'/Rural Grand Forks be received and further that The Regional District of Kootenay Boundary Board of Directors direct staff to forward this staff report, which includes comments from the Watershed Planner to FrontCounter BC for consideration.

14.h) Grants in Aid - as of October 22, 2020:

[Grants in Aid-Board-October 29 2020](#)

**Recommendation: Stakeholder Vote
(Electoral Area Directors) Weighted**

That the following grants-in-aid be approved:

1. United Way of Trail & District – BV Food Action Initiative – BV Christmas Hamper Program – Electoral Area 'A' - \$2,000.
2. Big White Mountain Community Development Association – Office Furnishings and Equipment – Electoral Area 'E'/West Boundary - \$5,000.

15. Board Appointments Updates

- 15.a)** The Board Appointment Updates will be presented at a future meeting.
- Southern Interior Development Initiative Trust (S.I.D.I.T.)-Director McGregor
 - B.C. Rural Centre/Southern Interior Beetle Action Coalition (S.I.B.A.C.)-Director McGregor
 - Okanagan Film Commission-Director Gee
 - Boundary Weed Stakeholders Committee-Director Gee
 - Columbia River Treaty Local Government Committee (CRT LGC)-Directors Worley & Langman
 - Columbia Basin Regional Advisory Committee (CBRAC)-Director Worley & Goran Denkovski, Manager of Infrastructure & Sustainability
 - West Kootenay Regional Transit Committee (Directors Cacchioni & Worley, Alternate Director Parkinson)
 - Rural Development Institute (RDI)-Director Worley
 - Chair's Update-Chair Langman

16. Bylaws

**16.a) T. Lenardon, Manager of Corporate
Administration/Corporate Officer
Re: Proposed RDKB FOI Bylaw No. 1739, 2020
For First, Second and Third Reading and Adoption**

A staff report from Theresa Lenardon, Manager of Corporate Administration/Corporate Officer presenting a revised bylaw for the administration of the *Freedom of Information and Protection of Privacy Act* and rescinding the previous Bylaw No. 842, 1994.

[Staff Report-FOI Bylaw 1739-Administer FoIPPA-BoD Oct 29 20 - Pdf](#)

Recommendation: Corporate Vote Unweighted

That Regional District of Kootenay Boundary Administration of the *Freedom of Information and Protection of Privacy Act* Bylaw No. 1739, 2020 be read a First, Second and Third time.

Recommendation: Corporate Vote Unweighted

That Regional District of Kootenay Boundary Administration of the *Freedom of Information and Protection of Privacy Act* Bylaw No. 1739, 2020 be Adopted.

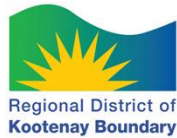
17. Late (Emergent) Items

18. Discussion of Items for Future Meetings

19. Question Period for Public and Media

20. Closed Meeting

21. Adjournment



Board of Directors

Minutes

Wednesday, October 14, 2020
Held via Zoom Online Video Conferencing

Board Members Present:

Director D. Langman, Chair
Director G. McGregor, Vice-Chair
Director A. Grieve
Director L. Worley
Director V. Gee
Director S. Morissette (by telephone)
Director M. Walsh
Director R. Cacchioni
Director A. Morel
Director C. Korolek
Director R. Dunsdon
Alternate Director M. Tollis

Staff Present:

M. Andison, Chief Administrative Officer
M. Forster, Executive Assistant/Recording Secretary
J. Chandler, General Manager of Operations/Deputy CAO
B. Ihlen, General Manager of Finance
J. Dougall, General Manager of Environmental Services
F. Maika, Corporate Communications Officer
D. Green, Manager of Information Services
J. Geary, Fire Chief Christina Lake
B. Champlin, Manager of Building Inspection
M. Stephens, Interim Manager of Emergency Programs
G. Denkovski, Manager of Infrastructure and Sustainability
D. Dean, Manager of Planning and Development
J. Kuhn, Administrative Clerk/Secretary

1. Call to Order

The Chair called the meeting to order at 1:14 pm.

2. Land Acknowledgement

We acknowledge and appreciate that the land on which we gather is the converging, traditional and unceded territory of the Syilx, Secwepemc, Sinixt and Ktunaxa Peoples as well as the Metis Peoples whose footsteps have also marked these lands.

3. Consideration of the Agenda (additions/deletions)

The agenda for the Regional District of Kootenay Boundary Board of Directors October 14, 2020 Board meeting was presented.

The agenda was amended by a change in order of agenda items: Item 14.g) Beaver Valley Water Service (500) Water Conservation Plan would be discussed when Director S. Morissette was able to join the Board meeting by telephone in order to cast a vote for the recommendation.

307-20

Moved / Seconded

Corporate Vote Unweighted

That the agenda for the Regional District of Kootenay Boundary Board of Directors October 14, 2020 Board meeting be adopted as amended.

Carried.

4. Draft Minutes

The draft minutes of the Regional District of Kootenay Boundary Board of Directors meeting held September 17, 2020 were presented.

Page 3, item 7a) McKelvey Creek Landfill Upgrade Project - "RDKB facility" will be amended to read "RDCK facility".

308-20

Moved / Seconded

Corporate Vote Unweighted

That the draft minutes of the Regional District of Kootenay Boundary Board of Directors meeting held September 17, 2020 be adopted as amended.

Carried.

5. Presentations

There were no presentations.

6. Delegation(s)

There were no delegations.

7. Applicants and Persons Attending to Speak to Agenda Items

There were no applicants or other persons attending the meeting.

8. Unfinished Business

8.a) M. Stephens, Interim Manager of Emergency Programs

Re: Verbal Update COVID-19 Emergency Operations

Director Worley, Emergency Programs Liaison

The Board of Directors were provided with an update on current COVID-19 emergency operations. M. Stephens informed the Directors that EOC is still activated for COVID-19.

8.b) M. Andison, Chief Administrative Officer

Re: Verbal Update on the Impacts of the Wage Continuation COVID-19 Pandemic Policy

Director Cacchioni, Finance Liaison

The Board of Directors were provided with an update on the ongoing impacts of the Wage Continuation COVID-19 Pandemic Policy. There was a slight increase in wages from the last reporting period.

309-20

Moved / Seconded

Corporate Vote Unweighted

That the Regional District of Kootenay Boundary Board of Directors receive the verbal updates on COVID-19 Emergency Operations and the impacts of the Wage Continuation COVID-19 Pandemic Policy as presented to the Board on October 14, 2020.

Carried.

8.c) M. Andison, Chief Administrative Officer

Re: Update on the RDKB COVID-19 Services Restoration Plan

Director Worley, Emergency Programs Liaison

Mark Andison, CAO presented a review of the RDKB Services Restoration Plan, which was approved by the Board of Directors on June 10, 2020 and provided a

high-level framework for the resumption and continuation of RDKB services in the context of the current COVID-19 pandemic.

Discussion ensued on the resumption of face-to-face Board and Committee meetings.

310-20

Moved / Seconded

Corporate Vote Unweighted

That the Regional District of Kootenay Boundary Board of Directors directs staff to bring back the discussion of the COVID-19 Services Restoration Plan for a fulsome discussion at the next Board meeting.

Carried.

8.d) J. Dougall, General Manager of Environmental Services

Re: Funding the McKelvey Creek Landfill Upgrade Project

A staff report from Janine Dougall, General Manager of Environmental Services regarding the use of reserve funds for the McKelvey Creek Landfill Upgrade Project was presented.

311-20

Moved / Seconded

Corporate Vote Weighted

That the Regional District of Kootenay Boundary Board of Directors direct that the required contribution from the RDKB associated with the McKelvey Creek Landfill Upgrade Project for the Investing in Canada Infrastructure Program - Rural and Northern Communities Infrastructure application, be obtained from the use of reserve funds from the Regional Solid Waste Service (010). **FURTHER** that any shortfall amounts be obtained through short-term borrowing if required.

Carried.

8.e) Advisory Planning Commission (APC) Appointments

Electoral Area A-Travis Mashford

Electoral Area C/Christina Lake-Leanne Keys

312-20

Moved / Seconded

Stakeholder Vote (Electoral Area Directors) Unweighted

That the Regional District of Kootenay Boundary Board of Directors appoint Travis Mashford to the Electoral Area A Advisory Planning Commission and Leanne Keys to the Electoral Area C/Christina Lake Advisory Planning Commission.

Carried.

9. Communications-RDKB Corporate Communications Officer

9.a) D. Green, Manager of Information Services

F. Maika, Corporate Communications Officer

Re: RDKB Website Redesign Project Update

A staff report from Frances Maika, Corporate Communications Officer and Dale Green, Manager of Information Services regarding the RDKB Website Redesign Project was presented.

313-20

Moved / Seconded

Corporate Vote Unweighted

That the Regional District of Kootenay Boundary Board of Directors receive the staff report titled "Website Redesign Project Update" as presented to the Board on October 14, 2020.

Carried.

10. Communications-Information Only

a) Village of Midway Public Library-Sept. 24/20

Re: Access to Membership Initiative-Electoral Area E/West Boundary Grant Request

b) BZAM Cannabis-Sept. 23/20

Re: Issuance of License for Standard Cultivation under *Cannabis Act*

c) Rossland Streamkeepers-Sept. 23/20-

Re: BC Parks Enhancement Fund-Director Worley

d) Columbia Basin Trust-June 4/20

Re: Update on Community Initiatives Funding Program (CBT CIFP) & Renewal

314-20

Moved / Seconded

Corporate Vote Unweighted

That Communication (Information only) items 10.a) to 10.d) be received and direction at the discretion of the Board.

Carried.

11. Refreshment Break

*Page 5 of 14
Board of Directors
October 14, 2020*

The Chair recessed the meeting at 1:55 pm.

The Chair reconvened the meeting at 2:05 pm.

12. Reports

12.a) Monthly Cheque Register Summary

Director Cacchioni, Finance Liaison

The Monthly Cheque Register Summary for the month of September 2020 was presented.

315-20

Moved / Seconded

Corporate Vote Unweighted

That the Cheque Register Summary for the month of September 2020 for \$640,460.85 be received.

Carried.

12.b) RDKB Committee Minutes

Minutes of RDKB Committee Meetings as adopted by the respective Committees are presented.

Beaver Valley Regional Parks and Regional Trails (June 16/20 & Sept. 21/20), Boundary Community Development Committee (Sept. 2/20), Utilities Committee (Sept. 9/20).

316-20

Moved / Seconded

Corporate Vote Unweighted

That the following minutes of RDKB Committee meetings, as adopted by the respective Committees be received: Beaver Valley Regional Parks and Regional Trails Committee (June 16/20 and Sept. 21/20), Boundary Community Development Committee (Sept. 2/20) and Utilities Committee (Sept. 9/20).

Carried.

12.c) Recreation Commission Minutes

Electoral Area C/Christina Lake & Grand Forks & District

Minutes of the Grand Forks and District Recreation Commission were presented.

317-20

Moved / Seconded

Corporate Vote Unweighted

*Page 6 of 14
Board of Directors
October 14, 2020*

That the minutes of the Grand Forks and District Recreation Commission meeting held on September 10, 2020 be received.

Carried.

12.d) Draft Advisory Planning Commission (APC) Minutes

Draft APC minutes will be provided at a future meeting.

13. Committee Recommendations to Board of Directors

Recommendations to the Board of Directors referred by the respective RDKB Committees are presented for consideration.

13.a) Boundary Community Development Committee-Oct. 7/20

Director McGregor, Chair

Christina Lake Pedestrian Bridge Grant Application

318-20

Moved / Seconded

Corporate Vote Weighted

That the Regional District of Kootenay Boundary Board of Directors approve the Christina Lake Pedestrian Bridge-grant application as presented to, and approved by the Boundary Community Development Committee on October 7, 2020.

FURTHER that the Board of Directors support the Regional District contribution for the project, estimated at \$564,357, for a total project cost of \$2,116,075 and further, that up to \$350,000 will be considered through short-term borrowing in support of the project and funded from the Christina Lake Parks and Trails Service (027).

Carried.

14. New Business

**14.a) Southeastern BC Regional Connectivity Committee
(Formerly "Regional Broadband Committee")**

Re: New Name and 2020 MoU

The Regional Broadband Committee is now named the "Southeastern BC Regional Connectivity Committee". There is a new Memorandum of Understanding (MoU) for 2020-2023, which must be endorsed by the RDKB Board of Directors as presented on October 14, 2020.

The composition of the original Regional Broadband Committee included Regional District Chairs as the representative. With the new MoU, Regional Districts can nominate and appoint any two Directors to sit on the Southeastern BC Regional

Connectivity Committee as there is no longer a requirement that the representative must be the Board Chair. The new arrangement invites all of the Columbia Shuswap Regional District and Shuswap Bands to participate. Other changes include a new secretariat and broader roles and responsibilities.

The Broadband Connectivity Strategy and the new 2020 MoU were emailed to the RDKB Board Directors on September 24, 2020. The Board now needs to approve the MoU and nominate and appoint 2 Directors to represent the RDKB on the new Southeastern BC Regional Connectivity Committee.

Directors Morel and Langman expressed their interest in sitting on this Committee.

319-20

Moved / Seconded

Corporate Vote Unweighted

That the Regional District of Kootenay Boundary Board of Directors approve the Southeastern BC Regional Connectivity Committee Memorandum of Understanding with the Regional Districts of Columbia Shuswap, Central Kootenay and East Kootenay, the Ktunaxa Nation Council and the Village of Valemount as voting members, for a term that commences October 2020 and expires on October 31, 2023.

Carried.

320-20

Moved / Seconded

Corporate Vote Unweighted

That the Regional District of Kootenay Boundary Board of Directors appoint Directors Morel and Langman to represent the RDKB on the Southeast BC Regional Connectivity Committee for a 1-year term commencing October 2020 and expiring October 2021 when the Board will make new appointments.

Carried.

**14.b) J. Chandler, General Manager of Operations/Deputy Chief
Administrative Officer**

Re: Budget Amendment for Christina Lake Fire Department Rescue Tools

A staff report from James Chandler, General Manager of Operations/Deputy Chief Administrative Officer seeking approval to use additional funding from the Christina Lake Fire Service reserve for the purchase of tools and equipment for road rescue and auto extrication was presented.

321-20

Moved / Seconded

Corporate Vote Weighted

That the Regional District of Kootenay Boundary Board of Directors approve up to \$55,000 to be utilized from the Christina Lake Fire Service reserves for the purchase of new auto extrication tools, as presented to the Board in the staff report titled "Budget Amendment for the Christina Lake Fire Department, Rescue Tools Purchase" on October 14, 2020. **FURTHER** that the 2020-2024 Five Year Financial Plan Bylaw No. 1735, 2020 be amended accordingly.

Carried.

14.c) D. Green, Manager of Information Technology

Re: Primary HCI Storage Refresh

A staff report from Dale Green, Manager of Information Technology regarding the procurement of a new ecosystem of hyperconverged storage hardware and services was presented.

322-20

Moved / Seconded

Corporate Vote Weighted

That the Regional District of Kootenay Boundary Board of Directors approve the agreement with Opus Consulting for the provision of storage hardware and services, at a cost of \$118,874.65 commencing October 2020 and expiring October 2025. **FURTHER** that the Board approve the authorized signatories to sign and enter into the agreement.

Carried.

14.d) Interior Medical Transport Society (IMTS)

Re: Request for Letter of Support for Non-Emergency Medical Transport Initiative

323-20

Moved / Seconded

Corporate Vote Unweighted

That the Regional District of Kootenay Boundary Board of Directors receive the request for a letter of support from the Interior Medical Transport Society (IMTS) respecting non-emergency medical transportation.

Carried.

14.e) G. Wiebe, Engineering and Safety Coordinator

Re: Rivervale Water and Streetlight Service (650) Water Conservation Plan

A Staff Report from Gabe Wiebe, Engineering and Safety Coordinator, regarding the Water Conservation Plan for the Rivervale Water and Streetlight Service was presented.

324-20

Moved / Seconded

Corporate Vote (Single Participant Service) Unweighted

That the Regional District of Kootenay Boundary Board of Directors approve the Rivervale Water and Streetlight Service (650) Water Conservation Plan as presented to the Board on October 14, 2020. **FURTHER**, that staff be directed to implement the Plan.

Carried.

14.f) G. Wiebe, Engineering and Safety Coordinator**Re: Christina Lake Water Utility Service (650) Water Conservation Plan**

A staff report from Gabe Wiebe, Engineering and Safety Coordinator, regarding the Water Conservation Plan for the Christina Lake Water Utility was presented.

325-20

Moved / Seconded

Corporate Vote (Single Participant Service) Unweighted

That the Regional District of Kootenay Boundary Board of Directors approve the Christina Lake Water Utility (550) Water Conservation Plan as presented to the Board on October 14, 2020. **FURTHER**, that staff be directed to implement the Plan.

Carried.

14.g) G. Wiebe, Engineering and Safety Coordinator**Re: Beaver Valley Water Service (500) Water Conservation Plan**

A staff report from Gabe Wiebe, Engineering and Safety Coordinator, regarding the Water Conservation Plan for the Beaver Valley Water Service was presented.

326-20

Moved / Seconded

**Stakeholder Vote (RDKB Electoral Area A & Village of Fruitvale)
Unweighted**

That the Regional District of Kootenay Boundary Board of Directors approve the Beaver Valley Water Service (500) Water Conservation Plan as presented to the Board on October 14, 2020. **FURTHER**, that staff be directed to implement the Plan.

Carried.

14.h) A staff report from Brian Champlin, Manager of Building Inspection Services, regarding a Building Bylaw Contravention for the property described as:

35 Beacon Road, Carmi, B.C.**Electoral Area 'E' / West Boundary-Parcel Identifier: 027-348-237****Lot D District Lot 472S Similkameen District Yale District Plan KAP85695**

*Page 10 of 14
Board of Directors
October 14, 2020*

Owner: John Morice

327-20

Moved / Seconded

Stakeholder Vote (Electoral Area Directors) Unweighted

That the Regional District of Kootenay Boundary Board of Directors direct the Chief Administration Officer to file a Notice in the Land Title Office pursuant to Section 302 of the *Local Government Act* and Section 57 of the *Community Charter* against the property legally described as Lot D, District Lot 472S, Similkameen Division Yale District, Plan KAP85695.

Carried.

**14.i) G. Denkovski, Manager of Infrastructure and Sustainability
Re: Application for Gas Tax Funding- Rock Creek & Boundary Fair
Association Renovation - Electoral Area 'E'/West Boundary**

An application for the disbursement of Electoral Area 'E'/West Boundary Gas Tax funds to the Rock Creek & Boundary Fair Association was presented.

328-20

Moved / Seconded

Corporate Vote Weighted

That the Regional District of Kootenay Boundary Board of Directors approves the Gas Tax application submitted by the Rock Creek & Boundary Fair Association and the allocation of Gas Tax funding for \$50,000 from Electoral Area 'E'/West Boundary for the costs associated with the renovations of the washroom and meeting room. **FURTHER**, that the Board approves the RDKB authorized signatories to sign and enter into the agreement.

Carried.

14.j) D. Patterson, Planner

Re: Temporary Use Permit Referral from the City of Rossland

A staff report from Danielle Patterson, Planner, presented a referral received from the City of Rossland regarding a Temporary Use Permit for a parking lot abutting Electoral Area B/Lower Columbia-Old Glory.

329-20

Moved / Seconded

Corporate Vote Unweighted

That the staff report regarding the City of Rossland referral for a proposed Temporary Use Permit for the parcel legally described as District Lot 1295 Kootenay District, the City of Rossland, be received.

Carried.

14.k) D. Patterson, Planner**Re: Policy Directive 20-26 Liquor & Cannabis Regulation Branch**

A staff report from Danielle Patterson, Planner, regarding Liquor and Cannabis Regulation Branch Policy Directive 20-26 was presented.

330-20

Moved / Seconded

Corporate Vote Unweighted

That the staff report regarding the Liquor and Cannabis Regulation Branch Policy Directive 20-26 be presented to the Regional District of Kootenay Boundary Board of Directors for consideration, with a recommendation of support.

Carried.

14.l) Grants in Aid - as of October 8, 2020:**331-20**

Moved / Seconded

Stakeholder Vote (Electoral Area Directors) Weighted

That the following grants-in-aid be approved:

1. JL Crowe Secondary School – Special Funding for less fortunate students' notebook computers during COVID crisis – Electoral Area 'A' - \$1,470
2. JL Crowe Secondary School – Special Funding for less fortunate students' notebook computers during COVID crisis – Electoral Area 'B'/Lower Columbia-Old Glory - \$1,470
3. Twin Rivers Community Choir – Virtual Choir Presentation to West Kootenay Citizens – Electoral Area 'B'/Lower Columbia-Old Glory - \$1,000
4. Grand Forks Border Bruin Association – Upgrade bathroom to meet COVID safety requirements – Electoral Area 'D'/Rural Grand Forks - \$5,000
5. Grand Forks Seniors Society – New Carpet for Carpet Bowling – Electoral Area 'D'/Rural Grand Forks - \$2,000
6. Beaverdell Community Club and Recreation Commission – Haunted House with COVID protocols – Electoral Area 'E'/West Boundary - \$500
7. Kettle River Food Share Society -- QuickBooks Online Subscription and Bookkeeping Program – Electoral Area 'E'/West Boundary - \$616
8. Westbridge Recreation Society – QuickBooks Subscription – Electoral Area 'E'/West Boundary - \$588

Carried.

15. Board Appointments Updates

Southern Interior Development Initiative Trust (S.I.D.I.T.)-Director McGregor
Director McGregor informed the Directors that she had resigned from the SIDIT Board.

B.C. Rural Centre/Southern Interior Beetle Action Coalition (S.I.B.A.C.)-Director McGregor
Director McGregor recently attended a meeting and will provide more information at a later date.

Okanagan Film Commission-Director Gee
A report was attached.

Boundary Weed Stakeholders Committee-Director Gee
Director Gee attended the Boundary Invasive Weeds Society AGM where moving forward with a look at bylaw enforcement for weed control was discussed.

Columbia River Treaty Local Government Committee (CRT LGC)-Directors Worley & Langman
A report was provided.

Columbia Basin Regional Advisory Committee (CBRAC)-Director Worley & Goran Denkovski, Manager of Infrastructure & Sustainability
A report was provided.

West Kootenay Regional Transit Committee (Directors Cacchioni & Worley, Alternate Director Parkinson) One of the major issues was a review of transit fares. Director Cacchioni will be bringing issues for discussion to the East End Service Committee meeting.

Rural Development Institute (RDI)-Director Worley
A report was provided.

Chair's Update-Chair Langman
Chair Langman spoke to the past UBCM which was held virtually for the first time and other virtual meetings she has attended.

332-20

Moved / Seconded

Corporate Vote Unweighted

That the Regional District of Kootenay Boundary Board of Directors receive the Board Appointment Updates as presented on October 14, 2020.

Carried.

16. Bylaws

There were no bylaws to consider.

17. Late (Emergent) Items

There were no late (emergent) items for discussion.

18. Discussion of Items for Future Meetings

RDKB COVID-19 Services Restoration Plan.

19. Question Period for Public and Media

A question period for public and media was not required.

20. Closed Meeting

The Board of Directors proceeded to a closed meeting pursuant to Section 90 (2)(e) of the *Community Charter*.

333-20

Moved / Seconded

Proceed to a closed meeting pursuant to Section 90 (2)(e) of the *Community Charter* at 2:27 pm.

Carried.

The Board of Directors reconvened to the open Board meeting at 3:02 pm.

21. Adjournment

The meeting was adjourned at 3:02 pm.



Staff Report

RE:	Development Variance Permit – Boyko-Combs		
Date:	October 29, 2020	File #:	C-4037s-07285.055
To:	Chair Langman and members of the Board of Directors		
From:	Danielle Patterson, Planner		

Issue Introduction

The Regional District of Kootenay Boundary (RDKB) received a Development Variance Permit application to increase the permitted size of accessory buildings on a parcel without a principal building in Electoral Area C/Christina Lake (see Attachments).

Property Information	
Owner(s):	Erica Boyko and Mike Combs
Agent:	Brock Pendergraft, Pendergraft Professional Land Surveying
Location:	7775 and 7777 McRae Road
Electoral Area:	Electoral Area C/Christina Lake
Legal Description:	Lot 11, Plan KAP31906 and Lot 2, KAP51313, District Lot 4037s, SDYD
Area:	2.1 ha (5.3 ac) and 1.1 ha (2.7 ac)
Current Use:	Residential and Vacant
Land Use Bylaws	
OCP Bylaw: 1125	Rural Residential
DP Area(s):	Partial - Waterfront Environmentally Sensitive
Zoning Bylaw: 1166	Rural Residential 3
Other	
Waterfront / Floodplain:	NA
Service Area:	Deer Ridge Water Association
Planning Agreement Area:	NA

History / Background Information

The subject properties are located on McRae Road near English Point at Christina Lake (see Site Location and Subject Property Maps). The subject property at 7775 McRae Road has a single family dwelling, a shop, two garages and a shed located on the parcel. The parcel at 7777 McRae Road is vacant. A single family dwelling and accessory buildings and structures are permitted uses in the Rural Residential 3 Zone.

Page 1 of 5

C:\Users\MCiardullo\Desktop\VPN Uploads\Board Items\October 29, 2020\2020-10-29_BoykoCombs_DVP_Board.docx

These properties are part of a Ministry of Transportation and Infrastructure (MoTI) subdivision application that was referred to the RDKB in 2019. The proposed subdivision involves the two existing lots and would create one new lot, resulting in three lots. All of the proposed lots are minimum of one (1) ha in area. Proposed Lot 1 would have the single family dwelling and one of the garages located on it, while Proposed Lot 2 would have the remaining buildings. Proposed Lot 3 is shown as being vacant.

The buildings on Proposed Lot 2 were identified through the subdivision referral as not meeting the Zoning Bylaw requirements. Section 302.1(i) of the zoning bylaw states that storage buildings may be located on a parcel that does not have a principal use or building if gross floor area does not exceed 60 m² and the buildings are used for non-commercial/industrial storage of personal goods.

The combined area of the buildings on Proposed Lot 2 were determined to be larger than 60 m². Meeting the requirements of the RDKB's land use bylaws is a condition of the Preliminary Layout Review (PLR) issued by MoTI for this subdivision application.

Proposal

The applicant is proposing to vary the permitted gross floor area of storage buildings on proposed Lot 2 from 60 m² to 250 m², for a variance of 190 m² (see Applicant Submission).

Advisory Planning Commission (APC)

The Electoral Area C/Christina Lake APC considered the application at their October 6, 2020 meeting. The APC recommends the application not be supported.

The reasons the APC provided for not supporting the proposal are summarized as follows:

- Concerns about whether the applicant is sourcing water from the Deer Ridge Water system or a well;
- The size of the requested variance exceeds other variances presented to the Board of Directors;
- Unanswered questions about campground operations and accessory buildings on the property that are not permitted in the Zoning Bylaw; and
- Concerns about current access and maintenance of a shared easement with neighbouring properties and access to the Deer Ridge Water system.

The subject property owners as well as members of the public attended the APC meeting. The APC meeting minutes did not contain comments from the subject property owners. Comments from members of the public are summarized as follows:

- Concerns about the legality of water connections, volume of water utilized, and their impact on the Deer Ridge Water Association;
- Comments about uses occurring on the property that are not permitted in the Zoning Bylaw, such as commercial vehicle storage and campground use; and

- Concerns the requested Development Variance Permit could result in the structures being used for “other uses”.

The APC received four emails from the public regarding the applicant’s proposal. All of the emails state they do not support the proposed Development Variance Permit. The content of the emails, as they may relate to the Development Variance Permit proposal, are summarized as follows:

- The size of the buildings and concerns that they would be used for commercial purposes, contrary to the Zoning Bylaw;
- The property owners have been using the property as an illegal campground since April 2020;
- The property is unsightly and contains derelict vehicles;
- At least one trailer on the property appears to have been occupied for over six months;
- The property owners have blocked existing property access easements, including the only available access to a neighbouring property;

Electoral Area Services Committee (EAS Committee)

The EAS Committee considered the application at the October 15, 2020 meeting. The EAS passed a motion for the proposal to be *“presented to the Regional District of Kootenay Boundary Board of Directors for consideration, with a recommendation to deny.”*

Implications

The RDKB application requests the inclusion of a clear statement as to whether a Development Variance Permit proposal may resolve a hardship, improve the development, or cause negative impacts to the neighbouring properties. Each Development Variance Permit is to be reviewed based on its own merit.

The applicant’s rationale states that the owner intends to build a new house on Proposed Lot 2 following approval of the MoTI subdivision. In the circumstance that a single family dwelling were built on the Proposed Lot 2, storage buildings would be permitted as accessory buildings. The applicant states that the hardship would be having to demolish the buildings in the interim to meet the Zoning Bylaw requirements. They explain that a development variance permit would allow the buildings to remain and would resolve this hardship.

The applicant also states that the variance would improve development by reducing the costs of developing the lot, by avoiding the removal and reconstruction of the storage buildings. The applicant also states that the variance would improve development through bringing the subdivision to a speedier resolution.

The applicant asserts that the variance would have no negative impacts to neighbouring properties as the structures within this proposal are already existing.

Access, volume, and quality of available water is part of the MoTI's subdivision review process, and does speak to issues related to the accessory building area variance as proposed in this application. None of the existing accessory buildings are located in an easement. As such, concerns over easement access do not directly relate to the requested variance; however, concerns with access to existing easements may indirectly relate to the likelihood that the property owners may abide by the nature of charges, liens, and interests registered on Title, including Development Variance Permits.

When considering the proposed Development Variance Permit, staff note the following:

1. The request for a 190 m² variance to allow accessory buildings of 250 m² is more than a four fold (416.7%) increase in the permitted area of storage buildings without a principal use in place. The 250 m² (2,690 ft²) area of the storage buildings is twice the area of the average single detached dwelling in British Columbia, which has an average area of 133 m² (1,430 ft²)¹.
2. If the Development Variance Permit was approved, the owners of the subject property would not be obligated to build a single family dwelling. This could result in the storage buildings staying on the subject property indefinitely as a legal-nonconformity.
3. Only a Temporary Use Permit could require the property owners to build a single family dwelling or require the buildings and structures to be removed in the absence of a single family dwelling after a period of time. In the Area C/Christina Lake OCP Bylaw No. 1520, 2014 the entire Plan Area is designated to allow for temporary uses (Section 2.0.1).
4. If the single family dwelling is built on the subject property, the storage buildings could be used for personal use, agriculture, or a home occupation (once a single family dwelling is constructed). Due to the size of storage buildings, the use of the buildings for a home occupation could potentially not align with the Area C/Christina Lake OCP Bylaw No. 1520, 2004 Policy 2.13.1.3(3) which states that home occupations *"should only operate at a scale and in a manner, which is entirely compatible with the predominately residential neighbourhoods. Large and growing home occupations should relocate to proper commercial or industrial zones if they can no longer meet this criteria."*

Due to OCP Policy 2.13.1.3(3), if the Development Variance Permit is approved, staff recommend the permit contain a condition that places some limitations on the ability of the storage buildings to be used for a home occupation to ensure compliance with the noted OCP policy.

¹ Government of Canada. *Statistics Canada: Canadian Housing Statistics Program*. Available from <https://www150.statcan.gc.ca/n1/daily-quotidien/190503/dq190503b-eng.htm>. Last updated May 3, 2019.

5. If the Development Variance Permit is approved, staff recommend the permit contain a condition that clearly states the development variance applies only to the existing storage buildings or the maintenance/replacement thereof. Such a condition would ensure that future storage buildings would be required to meet the existing Zoning Bylaw regulations.

There are bylaw infractions associated with these properties that are under investigation. The issuance of a Development Variance Permit would not bring any of the associated bylaw infractions into compliance.

Recommendation

That the Regional District of Kootenay Boundary Board of Directors denies the Development Variance Permit application submitted by Brock Pendergraft of Pendergraft Professional Land Surveying Inc., on behalf of Erica Boyko and Michael Combs, to vary Section 302.1(i) of the Area 'C' Zoning Bylaw No. 1300, 2007 to increase the maximum gross floor area of storage buildings, including garages, that may be located on a parcel that does not have a principal use or building provided they are only being used for non-commercial/industrial storage of personal goods or vehicles from 60 m² to 250 m² – a variance of 190 m², to facilitate the future subdivision on the properties legally described as Lot 2 District Lot 4037s Similkameen Division Yale District Plan KAP51313 and Lot 11 District Lot 4037s Similkameen Division Yale District Plan 31906, Electoral Area C/Christina Lake.

Attachments

1. Site Location Map
2. Subject Property Map
3. Applicant Submission

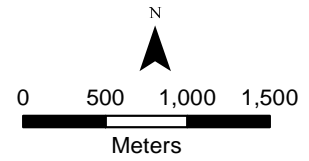


Regional District of
Kootenay Boundary

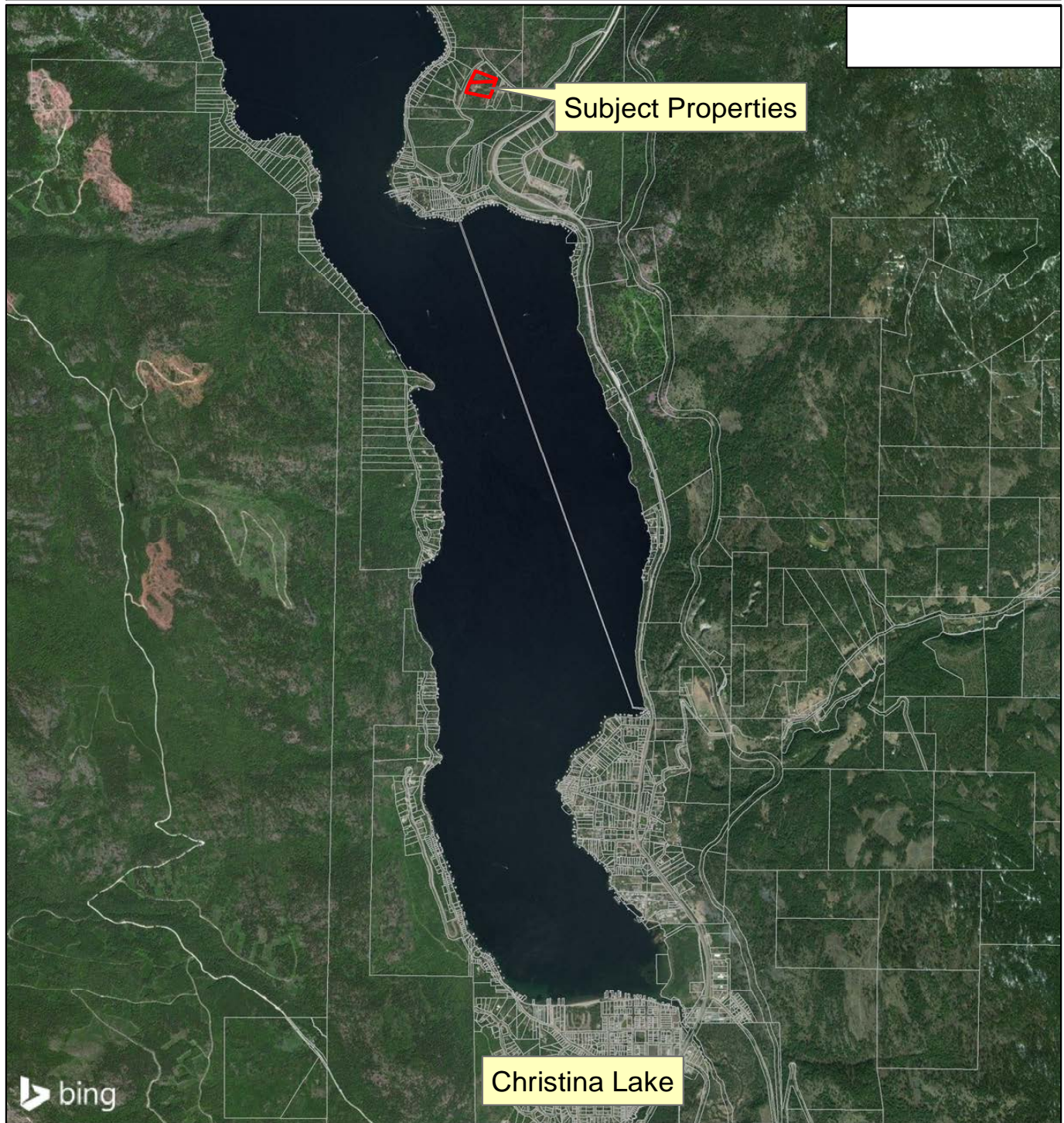
Date: 2019-07-25

Site Location Map

Lots 2, Plan KAP51313 & Lot 11
DL 4037s, SDYD



1:40,000



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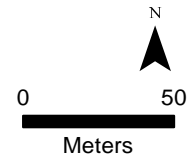


Regional District of
Kootenay Boundary

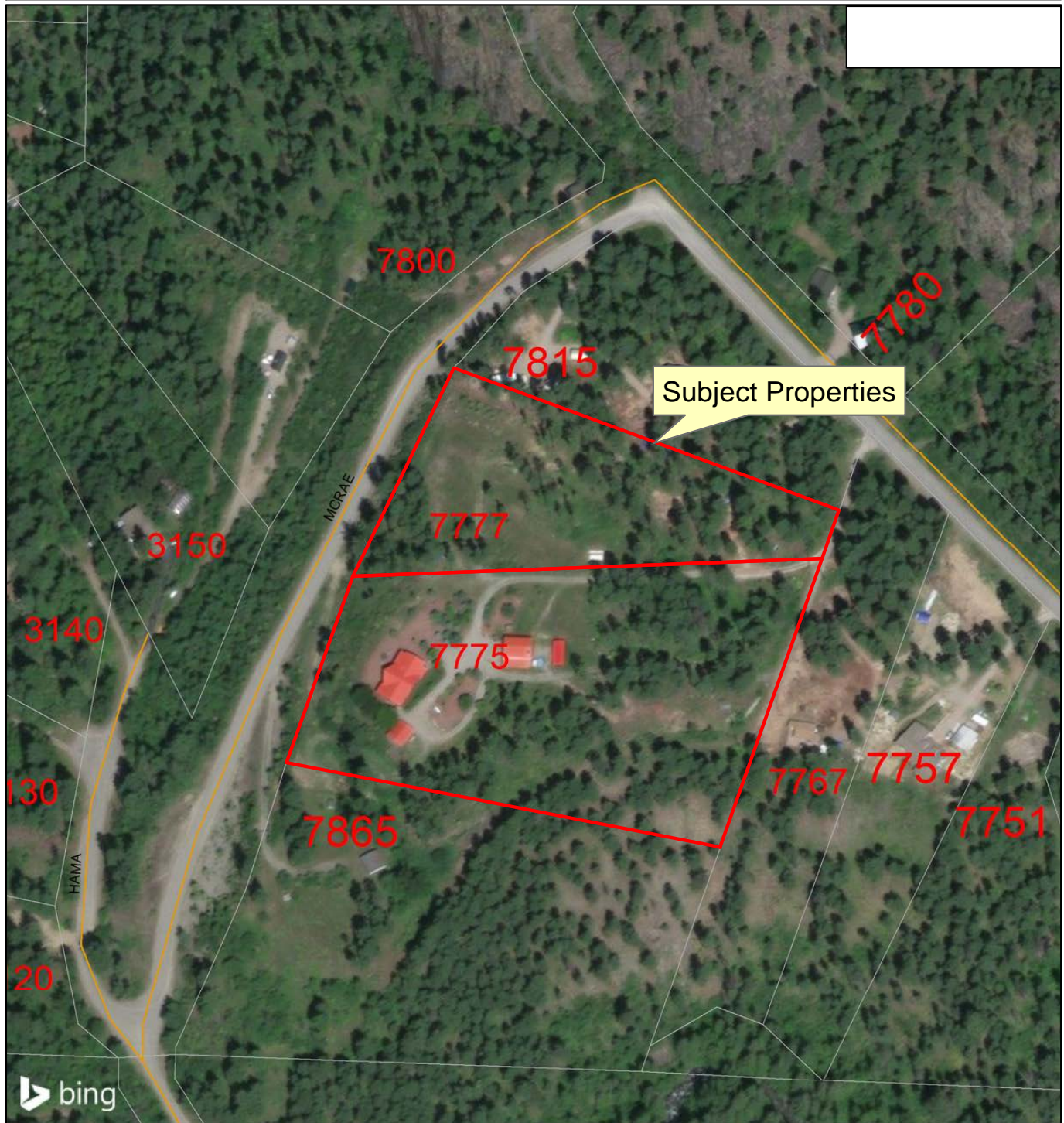
Date: 2019-07-25

Subject Properties Map

Lots 2, Plan KAP51313 & Lot 11
DL 4037s, SDYD



1:2,184



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PENDERGRAFT

PROFESSIONAL LAND SURVEYING

Brock A.W. Pendergraft, B.C.L.S.

Applicant Submission

P.O. Box 640 • 8714 Main Street
 Osoyoos, B.C. • V0H 1V0
 Phone: 250-495-7127
 E-mail: brock@pendergraffsurveying.ca
www.pendergraffsurveying.ca

August 6, 2020

RDKB Planning and Development Department
 2140 Central Avenue – PO Box 1965
 Grand Forks, BC, V0H 1H0

Proposed Development Variance Permit
7775-7777 McRae Road, Christina Lake
Mike Combs Proposed Subdivision EDAS file 2019-03458

My client Mike Combs has authorized me to act as agent for him for a proposed subdivision submitted to MOTI. We received a PLR back dated December 18, 2019, with MOTI eDAS file 2019-03458.

We received back RDKB staff report dated August 29, 2019, your file number C-4037s-07285 in relation to the proposed subdivision.

The proposed subdivision involves 2 existing lots, and would result in 3 lots, all a minimum of 1 ha.

Proposed Lot 1 currently has an existing residence on it. Mike intends to sell this lot.
 Proposed Lot 3 is currently vacant. Mike intends to sell this property as a vacant lot.

Proposed Lot 2 currently has a larger shop, newer garage, and an older storage garage on it. There is also a small sun deck and shed. These accessory buildings total around 250m² of floor area. There is no principle residence currently on Proposed Lot 2.

If his subdivision is completed, Mike would like to keep Proposed Lot 2 for himself and build his own new personal residence.

The present proposal would result in a contravention of your RDKB Area C zoning bylaw. Specifically Section 302.1(i) – Permitted Uses of Land, Buildings, and Structures in all Zones

Section 302.1.

i) Storage buildings, including garages, may be located on a parcel that does not have a principal use or building provided they are only to be used for the non-commercial/industrial storage of personal goods or vehicles. Such buildings are subject to the regulations for accessory buildings in the zone within which they are located and the gross floor area must not exceed 30m² for boat access only parcels and 60m² for all other parcels.

Applicant Submission

As the current accessory buildings floor area would exceed the 60m² limit, we would like to request a Development Variance Permit for relief from this section, in order to permit the subdivision to proceed without removal of the accessory buildings. We believe the intent of the bylaw was to prevent the construction of new accessory structures without a primary residence. The fact that these accessory structures are already existing and will end on a new lot during the course of subdivision is somewhat different from the plain intent of the bylaw.

Once the subdivision completes, Mike will be able to take out a building permit to construct his new principal residence on Proposed Lot 2. Once this occurs, the accessory buildings will be back in compliance with Section 302.1.

Allowing this proposal would both resolve a hardship & improve development.

The hardship that would be resolved is the unnecessary destruction of buildings. Mike would still be permitted to subdivide if he removes the accessory structures to be in compliance with the RDKB bylaws, but then he would need to re-construct them after building his new principal residence to meet his storage needs.

Possible destruction & re-building is not cost effective. It also would not be environmentally friendly by creating needless waste product. Allowing the variance would be the better alternative.

This proposal also improves development by reducing costs as stated above, as well as bring the subdivision to a speedier resolution. It would help the proposal achieve its goal of creating one extra 1 hectare lot, as was done to the north on plan KAP51313 in 1994 and to the east on plan KAP55961 in 1995. The newly created lots would have the same size and function as most of the surrounding lots.

There are no apparent negative impacts to neighboring properties as the accessory structures within this proposal are already existing. Requiring their removal would bring extra demolition noise and work, which could be considered a nuisance by neighbors.

I would hope that you approve this Development Variance Application for Section 302.1(i) based on the above. I am attaching the proposed subdivision drawings, as well as title searches, and the easement and covenant charges.

Sincerely,



Digitally signed by
Brock Pendergraft
RBRRHE
Date: 2020.08.06
16:59:13 -07'00'

Brock A.W. Pendergraft, BCLS

Applicant Submission

PROPOSED**SUBDIVISION PLAN OF:**

- (1) LOT 11, DL 4037s, SDYD, PLAN 31906
 (2) LOT 2, DL 4037s, SDYD, PLAN KAP51313.

PURSUANT TO SECTION 67 L.T.A.

RCGS 82E-012

LOT 11 PID: 001-559-402
 CHARGES: COVENANT 540735 SRW 568376
 EASEMENTS 568374 & 570255
 STATUTORY BUILDING SCHEME 546005

LOT 2 PID: 018-570-559
 CHARGES: COVENANT 540735 SRW 568376
 EASEMENTS 568376 & 570254
 STATUTORY BUILDING SCHEME 546005

SCALE 1:750

ALL DISTANCES SHOWN ARE IN METRES
 THE INTENDED SIZE OF THIS PLAN IS 300 mm
 IN WIDTH BY 600 mm IN HEIGHT (B SIZE)
 WHEN PLOTTED AT A SCALE OF 1:750

CIVIC ADDRESS:
 7775 / 7777 - MARAE ROAD, CHRISTINA LAKE

CLIENT: MARK CONNORS
 FIELD SURVEY DATE: APRIL 12, 2019

VERSION #1
 DRAWING DATE: MAY 30, 2019

LEGEND

- DENOTES STANDARD IRON POST PLACED
 * DENOTES STANDARD IRON POST FOUND
 △ DENOTES TRAVERSE HUB PLACED

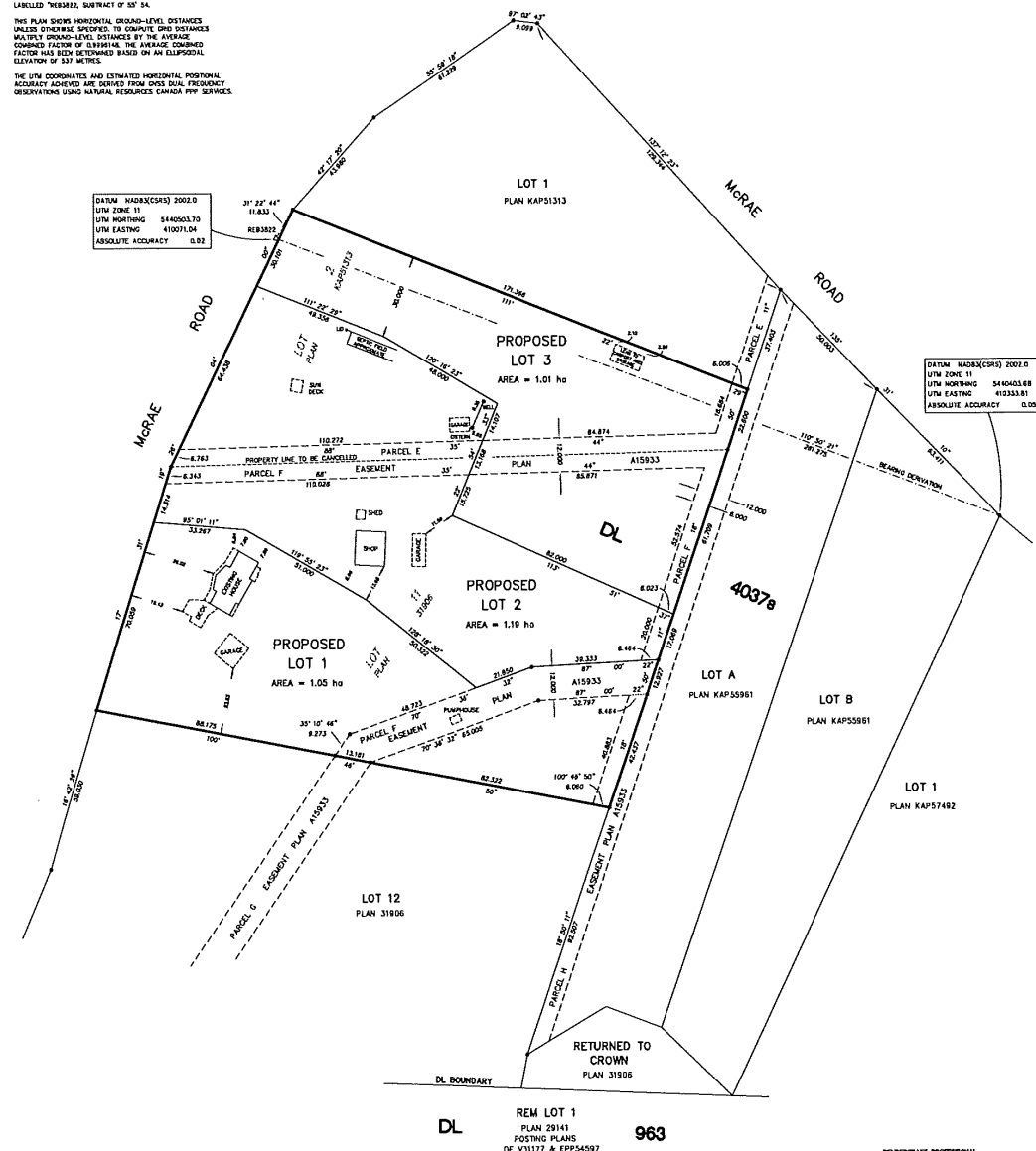
GRID MEASUREMENTS ARE DERIVED FROM ONE'S REAL
 FREQUENCY OBSERVATIONS AND ARE REFERRED
 TO THE CENTRAL MERIDIAN OF UTM ZONE 11
 TO OBTAIN LOCAL ASTROMETRIC MEASUREMENTS
 TO THE WORKMAN THROUGH THE TRAVERSE HUB
 LABELED "MEASUREMENT OF 50' 54"

THIS PLAN SHOWS HORIZONTAL GROUND-LEVEL DISTANCES
 UNLESS OTHERWISE SPECIFIED, TO COMPUTE GRID DISTANCES
 MULTIPLY GROUND-LEVEL DISTANCES BY THE AVERAGE
 CORRECTION FACTOR OF 0.999141. THE AVERAGE CORRECTION
 FACTOR HAS BEEN DETERMINED BASED ON AN ELLIPSOIDAL
 ELEVATION OF 537 METRES.

THE UTM COORDINATES AND ESTIMATED HORIZONTAL POSITIONAL
 ACCURACY ACHIEVED ARE DERIVED FROM ONE'S REAL FREQUENCY
 OBSERVATIONS USING NATURAL RESOURCES CANADA PPP SERVICES.

DATUM: NAD83(CSRS) 2002.0
 UTM ZONE 11
 UTM NORTHING: 5460053.70
 UTM EASTING: 410071.04
 ABSOLUTE ACCURACY: 0.05

DATUM: NAD83(CSRS) 2002.0
 UTM ZONE 11
 UTM NORTHING: 5460053.68
 UTM EASTING: 412333.81
 ABSOLUTE ACCURACY: 0.05



THIS PLAN LIES WITHIN THE REGIONAL DISTRICT
 OF KOOTENAY BOUNDARY.

**PODEGRAFT PROFESSIONAL
 LAND SURVEYING INC.**
 BOX 840
 COQUITON, B.C. V3H 1V0
 PHONE: (250) 485-7127
 FAX: (250) 485-7127
 EMAIL: info@podgraft.com
 OUR FILE NO. 119278 PROJ.2019
 DC FILE NO. 119278

Applicant Submission

PROPOSED

SUBDIVISION PLAN OF:

- (1) LOT 11, DL 4037s, SDYD, PLAN 31906
(2) LOT 2, DL 4037s, SDYD, PLAN KAP51313.

PURSUANT TO SECTION 67 L.T.A.

BCGS 82E.019

LOT 11 PH: 001-599-402
CHARGES: COVENANT 540738 SRW 555376
CASEMENTS 568374 & 570255
STATUTORY BUILDING SCHEME 546005

LOT 2 FID: 010-870-569
CHARGES: COVENANT S40735 SR# 568376
EASEMENTS 568376 & 570254
STATUTORY BUILDING SCHEME S46005

SCALE 1:750

ALL DISTANCES SHOWN ARE IN METRES

CIVIC ADDRESS:
7775 / 7777 - McRAE ROAD, CHRISTINA LAKE

CURRENT LAW CONCEPTS

FIELD SURVEY DATE: APRIL 12, 2019

VERSION #1

DRAWING DATE: MAY 20, 2019

LEGEND

DONATED STANDARD FROM POST PLACED

DEPTYES STAIRARD BOWN POST FOUND
BOWTHER TRAMING NEW ELAOTO

.....

GRID BEARINGS ARE DERIVED FROM DIALS DUAL
FREQUENCY OBSERVATIONS AND ARE REFERRED
TO THE CENTRAL MERIDIAN OF UTM ZONE 11.
TO OBTAIN LOCAL ASTRONOMIC BEARINGS REFERRED
TO THE MERIDIAN THROUGH THE TRAVERSE HUB
LABELLED "T03022, SUBTRACT 0° 55' 54"

THIS PLAN SHOWS HORIZONTAL GROUND-LEVEL DISTANCES UNLESS OTHERWISE SPECIFIED. TO COMPUTE OED DISTANCES MULTIPLY GROUND-LEVEL DISTANCES BY THE AVERAGE CORRECTION FACTOR OF 0.9996146. THE AVERAGE CORRECTION FACTOR HAS BEEN DETERMINED BASED ON AN ELLIPSOIDAL ELEVATION OF 537 METRES.

THE UTM COORDINATES AND ESTIMATED HORIZONTAL POSITIONAL ACCURACY ACHIEVED ARE DERIVED FROM GROUND FREQUENCY OBSERVATIONS USING NATURAL RESOURCES CANADA PPP SERVICES.

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DATE: 11-03-2002 09:00
UTM ZONE: 18N
UTM NORTHING: 5400000.00
UTM EASTING: 810000.00
ABSOLUTE ACCURACY: 0.02

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DATEW NAD83(CSRS) 2002.0
UTM ZONE 11
UTM NORTHING 546003.68
UTM EASTING 410333.61
ABSOLUTE ACCURACY RDS

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THIS PLAN LIES WITHIN THE REGIONAL DISTRICT
OF KNOTTWAY BOURNERY.

DL REM LOT 1
PLAN 29141
POSTING PLANS
OF V31177 & EPP54597

963

PENDING PROFESSIONAL
 LAND SURVEYING INC.
 BOX 840
 OSMOS, B.C. ©
 V8H 1W0
 PHONE (250) 495-7127
 FAX: 250-495-7127
 OUR FAX NO. 1122878 PRO1290
 OR FAX NO. 1122876



STAFF REPORT

Date: 22 Oct 2020 **File**
To: Chair Langman and Board of Directors
From: Mark Andison, Chief Administrative Officer
Re: RDKB COVID-19 Services Restoration Plan - Board & Committee Meetings

Issue Introduction

A staff report from Mark Andison, CAO discussing the provisions for Board and Committee meetings included in the RDKB COVID-19 Services Restoration Plan.

History/Background Factors

At its last meeting, the Board of Directors reviewed the RDKB COVID-19 Services Restoration Plan that it had approved in June (attached). As an outcome of its discussion about the Plan, the Board passed the following resolution:

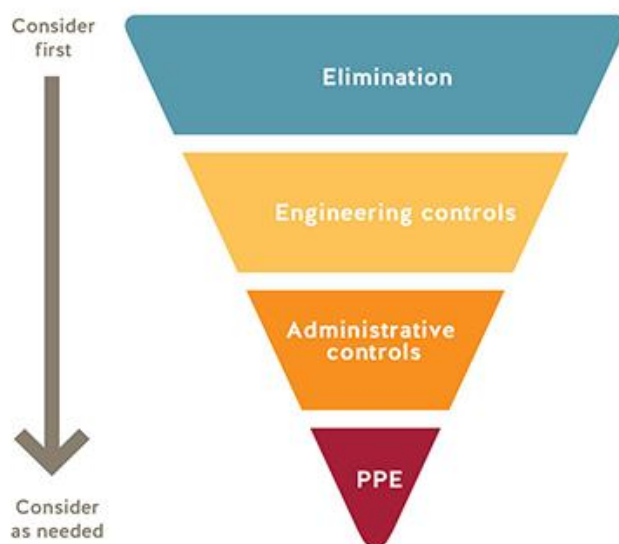
That the Regional District of Kootenay Boundary Board of Directors directs staff to bring back the discussion of the COVID-19 Services Restoration Plan for a fulsome discussion at the next Board meeting.

The plan was developed to guide the gradual reopening of facilities and the resumption of services, including at the two RDKB administration offices. The restoration of Regional District services has been, and continues to be, a gradual process and decisions are being guided by information and advice from health authorities, other levels of government, WorkSafeBC, and other stakeholder groups such as the BC Recreation & Parks Association (BCRPA), Lifesaving Society of BC, and provincial and national sport governing bodies.

Each RDKB program and service that has been affected by the COVID-19 pandemic has been evaluated on criteria, including workforce and workplace requirements, risk to vulnerable populations, ability to adhere to health protocols, financial impact, and more. The plan has adopted a staged approach, and assumes that there is no

setback in the collective societal progress to flatten the curve of infections within the province.

The WorksafeBC Occupational and Health Regulation requires organizations to implement infectious disease controls in the order shown below.



First level protection (elimination):

Use policies and procedures to keep people at a safe physical distance from one another. Limit the number of people in your workplace at any one time, and implement protocols to keep workers at least 2 metres from other workers, customers, and members of the public. For example, this would include ensuring physical distancing is maintained where possible through more appointment-based service provision, holding virtual meetings, and ensuring service participants and staff stay home if they are sick.

Second level protection (engineering controls):

If you cannot always maintain physical distancing, install [barriers](#) such as plexiglass to separate people.

Third level protection (administrative controls):

Establish rules and guidelines, such as enhanced cleaning and disinfecting protocols, telling workers not to share tools/work stations, implementing one-way doors or walkways, and promoting high levels of handwashing and personal hygiene as a key preventative measure. This includes providing access to washroom facilities and hand sanitizing stations.

Fourth level protection (PPE):

If the first three levels of protection are not enough to control the risk, consider the use of [non-medical masks](#). Be aware of the limitation of non-medical masks to protect the wearer from respiratory droplets. Ensure workers are [using masks appropriately](#).

In reviewing the RDKB COVID-19 Services Restoration Plan at its last meeting, the Board discussed the timing of the resumption of face-to-face Board and Committee meetings. The Plan currently includes the resumption of face-to-face meetings in Stage 4 of the services restoration process. Stage 4 is characterized by the full resumption of programs and services (return to normal operations), contingent upon: effective vaccination; "community" immunity; or broad successful treatments. The rationale for including the resumption of face-to-face meetings in Stage 4 of the Plan is that it has been demonstrated that the Board and committees can effectively meet remotely utilizing the RDKB's video-conferencing capacity, thereby completely eliminating the risk of COVID-19 transmission. As noted above, "elimination" is the first level protection identified by WorkSafe BC to be considered in managing infectious disease transmission. "Holding virtual meetings", as noted above, is one of the "elimination" directives identified by WorkSafe BC. If risk elimination cannot effectively be accomplished, then second, third, and fourth level protections may be considered.

Implications

There are examples of regional districts in the province that have returned to face-to-face meetings because they haven't been able to utilize video-conferencing alternatives satisfactorily. Because they haven't been able to utilize video-conferencing technology as a satisfactory means of eliminating transmission risk, they've moved to "second level protections" (engineering controls) as an alternative means of mitigating transmission risk. This has included the installation of plexi-glass barriers between each director around the Board table. The Regional District of East Kootenay, which has a significantly larger boardroom than the RDKB rooms, has installed plexi-glass between each seat at a cost of \$11,000. Similarly, Fraser-Fort George Regional District has installed plexi-glass between every second chair around its board table and leaves every second seat at the table vacant to further mitigate the risk.

Holding meetings virtually during the pandemic is identified by WorkSafe BC as a preferred means of eliminating the transmission risk wherever possible. The Zoom video-conferencing platform allows the RDKB to comply with the open meeting directives from the Province by allowing any members of the public who may wish to attend a meeting to connect to the meeting virtually. The RDKB boardrooms are not sufficiently large to allow the public to attend while adhering to physical distancing requirements. To meet physical distancing requirements in the RDKB boardrooms,

only a limited number of directors and staff would be able to attend in person. Essentially, most meetings would continue to be Zoom meetings, as some participants would be participating virtually while a limited number of directors are meeting face-to-face in a boardroom. It doesn't appear that there would be a functional benefit to having some directors grouped in a boardroom while the rest are participating remotely. Such arrangements would also require additional cleaning and other administrative protocols be put in place, as per the WorkSafe BC guidelines.

Advancement of Strategic Planning Goals

The development and review of the RDKB Services Restoration Plan in response to the COVID-19 pandemic advances the Board of Directors strategic objectives of: providing exceptional cost effective and efficient services; and responding to demographic/economic/social change .

Background Information Provided

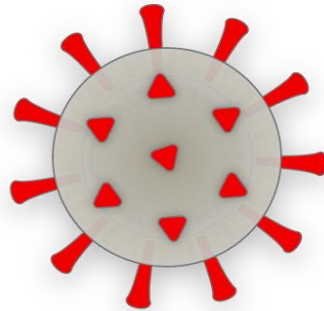
RDKB Services Restoration Plan

Alternatives

1. That the Board of Directors receive the staff report from Mark Andison, CAO RDKB regarding COVID-19 Services Restoration Plan - Board & Committee Meetings;
2. That the Board of Directors receive the staff report from Mark Andison, CAO regarding COVID-19 Services Restoration Plan - Board & Committee Meetings and amend the RDKB Services Restoration Plan and approve as amended;
3. Defer consideration of the Plan and refer to staff for further information.

Recommendation(s)

That the Board of Directors receive the staff report from Mark Andison, CAO RDKB regarding COVID-19 Services Restoration Plan - Board & Committee Meetings.



Regional District of Kootenay Boundary
Services Restoration Plan (V. 1)



Table of Contents

1	Executive Summary	3
1.1	Acknowledgement.....	3
2	Introduction	4
3	Strategic Objectives	5
4	Restoring Programs & Services Along a Continuum	5
4.1	Criteria	5
5	Staged Approach to Service Restoration	6
6	Plan for Restoring Services.....	8
6.1	Stage 1 (Mid-May Through Mid-June).....	8
6.2	Stage 2 (Late June Through September)	9
6.3	Stage 3 (September & Beyond)	9
6.4	Stage 4	10
7	Financial Impact.....	10
8	Concurrent Planning and Initiatives.....	10
9	Appendix A: Provincial Health Orders & Guidelines	12
9.1	Regarding Physical Distancing.....	12
9.2	Regarding Proper Hygiene & Sanitation.....	12
9.3	Regarding Signage & Communication	12
9.4	Regarding the Handling of Equipment & Materials.....	13
9.5	Regarding Employee Interactions	13
9.6	Regarding the Public.....	13
9.7	Regarding the Handling of Food & Beverages	13

1 Executive Summary

The Regional District of Kootenay Boundary (RDKB) plan for the restoration of programs and services affected by the COVID-19 pandemic ("RDKB COVID-19 Services Restoration Plan") is a coordinated corporate strategy.

The restoration of Regional District services will be a gradual process and decisions will be guided by information and advice from health authorities, other levels of government, WorkSafeBC, and other stakeholder groups. Each program and service offered by the Regional District that has been affected by the COVID-19 pandemic will be evaluated on criteria to mitigate risks to the public, staff, and the Regional District.

The RDKB Services Restoration Plan supports four primary strategic objectives guiding the Regional District's collective efforts to respond to and overcome the COVID-19 pandemic. The plan is a living document, and will be updated as necessary to reflect emerging information and advice from public health authorities, other levels of government, WorkSafeBC, and member municipalities.

The restoration of services will have a financial impact. In some cases, new administrative controls and workspace modifications may be necessary to ensure current health guidelines are adhered to.

1.1 Acknowledgement

This plan has been developed based on the City of Richmond's *Plan for the Restoration of Services and Programs Affected by the Covid-19 Pandemic* and the *Cowichan Valley Regional District Services Restoration Plan* and the RDKB appreciates the opportunity to build on their excellent work.

2 Introduction

The COVID-19 pandemic has had an impact on the RDKB's ability to effectively deliver programs and services to its citizens. Several Regional District services have temporarily ceased or have been modified in response to COVID-19. These services are primarily in the parks, recreation and culture areas, but also include areas such as customer service at the RDKB administrative offices in Trail and Grand Forks. These services were stopped or modified to ensure the health and well-being of the community and staff and in response to requirements by public health authorities for physical distancing among individuals. A summarized list of the Provincial Health Orders can be found in Appendix A.

The RDKB activated its Emergency Operations Centre (EOC) on March 10, 2020 in response to the developing COVID-19 pandemic. The impacts to the affected Regional District services occurred beginning March 17, 2020, with facility closures and service curtailments, and are ongoing. While some facilities were forced to close, most RDKB services have continued to function, however under new modified operating protocols designed to meet Public Health Orders and recommendations.

In response to communication by senior levels of government that there has been some success in flattening the curve of COVID-19 and signals appropriate segments of the economy may begin a slow re-opening, the Regional District has begun planning for the eventual restoration of programs services for when the timing is appropriate to do so. There will be some flexibility and discretion by the Regional District in many of the decisions around the restoration of services. Some actions to stop or modify services were originally taken in direct response to orders or advice from health authorities and senior levels of government, while other actions were in response to the public health protection considerations for the community.

The RDKB plan for the restoration of programs and services affected by the COVID-19 pandemic ("RDKB Services Restoration Plan") is a coordinated corporate strategy to re-open facilities and restore program and service delivery.

The restoration of Regional District services will be a gradual process and decisions will be guided by information and advice from health authorities, other levels of government, WorkSafeBC, and other stakeholder groups such as the BC Recreation & Parks Association (BCRPA), Lifesaving Society of BC, and provincial and national sport governing bodies. There is also a desire for alignment in the restoration of services with member municipalities in order to ensure balanced provision across the region and to avoid any one local government taking excessive risk and/or the load of participation from another local government.

The restoration of services will have a financial impact. It is anticipated that there will be extraordinary costs (both one-time and ongoing) of offering these services in a modified manner in order to continue to ensure the safety of the community and staff.

It is to be noted that the RDKB Services Restoration Plan is a living document. Information is subject to change based on changing advice and information from public health authorities, other levels of government, WorkSafeBC, and other stakeholder groups.

3 Strategic Objectives

The RDKB Services Restoration Plan supports four primary strategic objectives guiding the Regional District's collective efforts to respond to and overcome the COVID-19 pandemic. These include:

- Protect the health and safety of both employees and the public while serving as an essential service second line of defense against the COVID-19 pandemic as mandated by the Provincial Government;
- Protect Regional District assets while also continuing to the full extent possible to deliver Regional District services needed by the community, while adhering to restrictions and limits prescribed by the Provincial Health Officer and as mandated by the Regional District Board;
- Do the necessary planning and complete all work needed to ensure that all facilities, programs, services and equipment will be in optimum condition and at operational status when re-opened for community use; and
- Ensure that the appropriate staff resources and remote work assignments are in place to provide the administrative support services that will be needed over the full duration of the crisis to support all staff who are continuing to work on sustaining services as described above and on the recovery.

4 Restoring Programs & Services Along a Continuum

The restoration of programs and services consists of a carefully staged approach along a continuum that takes into account level of risk, exposure, and ability to effectively mobilize service delivery with strict adherence to health and safety guidelines.

4.1 Criteria

Each program and service offered by the Regional District that has been affected by the COVID-19 pandemic has been evaluated on criteria to mitigate risk and determine the appropriate timing to restore program and service offerings.

Factors considered to determine risk and impact of each service, or in some cases, groups of services, included the following:

1. Workforce and workplace safe work requirements

This includes the level of staff training required, the level of exposure of staff members and/or the public to other staff members and/or members of the public, the need for personal protective equipment, and the need to adapt the physical infrastructure of the work environment in order to mitigate risks and exposure.

2. Ability to adhere to health protocols

This includes physical distancing, proper and frequent hand washing, not touching one's own face, and any additional health protocols and guidelines put forward by the BC Centre for Disease Control or public health officers.

3. Risks to vulnerable populations

This includes seniors, those with compromised immune systems and/or pre-existing health conditions. Implementation of protective measures for vulnerable populations may be required. This may include phasing in senior-specific programs to a later point along the service restoration continuum.

4. Nature of participation in program or activity

This includes the mode of delivery (indoor, outdoor, or virtual), the extent to which equipment and materials are shared, the level of physical exertion involved, and the level of contact with others.

5. Additional risk

This includes any insurance implications, contractual agreements, and agreements with other user groups.

6. Timelines

This includes the length of time that it is estimated to take to be able to implement any necessary risk mitigation measures, train staff in necessary protocols, and/or complete physical adaptations needed.

7. Assumptions and prerequisites

This includes any assumptions made or prerequisites necessary in order to restore services according to the estimated timelines. This may include lifting of current government restrictions, access to other programs and amenities, or any other contingencies and dependencies for a particular program or service.

8. Financial Impact

This includes an analysis of the additional costs that will be incurred to mitigate risks, above and beyond existing expenses, timing of revenues, and any additional capital costs that may be required to modify facilities and work spaces.

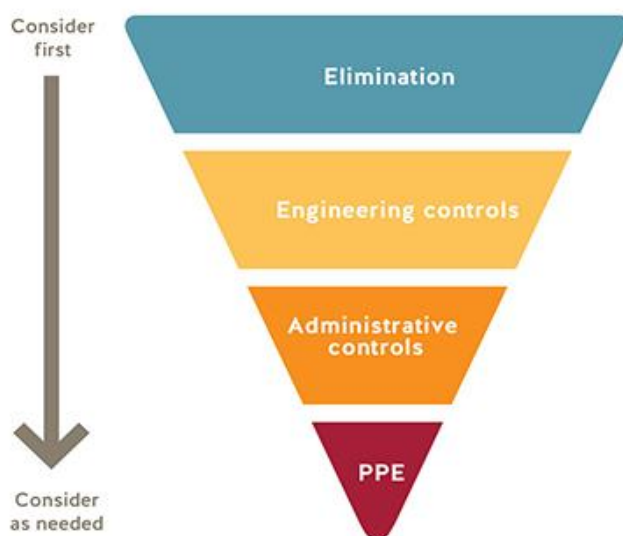
5 Staged Approach to Service Restoration

The Regional District Services Restoration Plan consists of stages. The timing of each stage, and the restoration of individual programs and services within each stage, is subject to change as the COVID-19 pandemic and Provincial direction evolves. This plan assumes that there is no setback in the collective societal progress to flatten the curve of infections.

The restoration of the Regional District's programs and services will necessitate changes in the way these services are conducted. A number of health and safety measures will be put in place across all facilities to ensure the safety of staff and the public.

WorksafeBC has provided the graphic below as a risk mitigation tool to be used as organizations consider operating protocols for workplaces. The WorksafeBC Occupational and Health Regulation requires organizations to implement infectious disease controls in the order shown below.

Note that different protocols offer different protection. Wherever possible, it is recommended that organizations use protocols that offer the highest level of protection and add additional protocols as required.



First level protection (elimination): Use policies and procedures to keep people at a safe physical distance from one another. Limit the number of people in your workplace at any one time, and implement protocols to keep workers at least 2 metres from other workers, customers, and members of the public. For example, this would include ensuring physical distancing is maintained where possible through more appointment-based service provision, holding virtual meetings, and ensuring service participants and staff stay home if they are sick.

Second level protection (engineering controls): If you cannot always maintain physical distancing, install barriers such as plexiglass to separate people.

Third level protection (administrative controls): Establish rules and guidelines, such as enhanced cleaning and disinfecting protocols, telling workers not to share tools/work stations, implementing one-way doors or walkways, and promoting high levels of handwashing and personal hygiene as a key preventative measure. This includes providing access to washroom facilities and hand sanitizing stations.

Fourth level protection (PPE): If the first three levels of protection are not enough to control the risk, consider the use of non-medical masks. Be aware of the limitation of non-medical masks to protect the wearer from respiratory droplets. Ensure workers are using masks appropriately.

6 Plan for Restoring Services

Mirroring the BC Restart Plan, the RDKB Service Restoration Plan envisions the resumption of regional services in a series of stages:

Stage 1 – (Mid-May – Mid-June) limited operations under enhanced protocols

Stage 2 – (Mid-June – September) expansion of operations to indoor facilities under enhanced protocols

Stage 3 - if transmission rates remain low or decline, further expanded service provision under enhanced protocols

Stage 4 – Return to normal operations, contingent upon: effective vaccination; “community” immunity; or broad successful treatments

6.1 Stage 1 (Mid-May Through Mid-June)

Characterized by the restoration of public access to most outdoor park amenities and outdoor programs with limits on group size. RDKB administrative offices re-opened, with limited hours and restrictions.

Parks & Trails Services

- Parks, playgrounds, dog park, disc golf, skate park re-opened with signage
- Sport courts with limited users and operating protocols for users
- Tennis courts/pickleball courts with limited users and operating protocols for users
- Campground at Beaver Valley Family Park
- Some washrooms open

Recreation Services

Some outdoor recreation programming where physical distancing can be maintained

RDKB Administrative Offices (Trail and Grand Forks)

- Following WorkSafeBC guidelines, front counter services limited to dog licenses, transit passes and drop-off of documents (simple, time-limited transactions)
- Public enquiries via email and phone
- Meetings with applicants via telephone or Zoom by appointment
- Site visits and inspections by appointment
- Development applications - electronic only
- Increased digital engagement including transition to web-based commission meetings and public hearings

6.2 Stage 2 (Late June Through September)

Characterized by the re-opening of recreation facilities with limited hours and/or restrictions. Registered programs are restored with modifications.

Recreation Services

- Outdoor programs
- Re-opening of RDKB recreation facilities (Grand Forks and District Aquatic Centre, Grand Forks and District Arena, Greater Trail Community Centre, Beaver Valley Arena)
- Indoor recreation programming where physical distancing can be maintained
- Indoor facility bookings where physical distancing can be maintained

RDKB Administrative Offices (Trail and Grand Forks)

- Continued modified service levels

6.3 Stage 3 (September & Beyond)

Characterized by expanded public access to programs and services.

Recreation Services

- Recreation programming and facility booking where physical distancing can not be maintained (hockey and other contact sports)

Theatre

- Bailey Theatre limited programming, no audiences (rehearsals, live streaming)

RDKB Administrative Offices (Trail and Grand Forks)

- Continued modified service levels

6.4 Stage 4

Characterized by full restoration of programs and services (return to normal operations)

Parks & Trails

- Lift restrictions on field bookings for sports tournaments
- Allow booking of park sites for third party special events

Recreation

- Events over 50 people

Theatre

- Bailey Theatre full programming with audiences

RDKB Administrative Offices (Trail and Grand Forks)

- Front counter services resume fully to pre-COVID levels (following applicable WorkSafeBC guidelines)
- Continued provision of web-based services and meetings to enhance overall service delivery
- In-person Board and Committee meetings, public hearings, public consultation, etc.

7 Financial Impact

The restoration of programs and services will have financial implications. It is anticipated that there will be extraordinary costs (both one-time and ongoing) of offering RDKB services in a modified manner in order to continue to ensure the safety of the community and staff. Further analysis will be required to consider these costs in the context of the Regional District's overall budget and quarterly reporting will be provided to the Board in this regard.

8 Concurrent Planning and Initiatives

While planning for the restoration of programs and services at an operational level, it is necessary to develop concurrent plans to support each stage and transition for the public and for employees. The following initiatives are recommended to be developed to support the RDKB Services Restoration Plan.

1. RDKB Exposure Control Plan: COVID-19

Just as the public will need clear information regarding the risk mitigation strategies that will be in place to protect the public, employees will need to understand their exposure risks and the resources that will be made available to them. RDKB employees may require additional support in the form of training, mental health services, or instruction on use of personal protective

equipment as they transition back to work or back to in-person service provision.

2. On-going Communications

As programs and services begin to open to the public, citizens will need to be informed about what is now available. They will also be looking to the Regional District for information to understand their risks and exposure, as well as to interpret the many, often ambiguous, guidelines provided by various authorities and the media. On-going communications during each Stage is recommended to support staff and the public as they navigate the various reactions that are to be expected as restrictions begin to ease and the economy begins to gradually expand in services. Public response to the COVID-19 pandemic locally has been commendable. Residents will need clear communication to understand and make decisions for themselves and their families about how to participate in programs and services as health authorities monitor the curve of transmission of COVID-19 on an ongoing basis.

3. A Cross-Functional Implementation

Upon approval of the RDKB Services Restoration Plan, the RDKB management team will continue ensure the Regional District is coordinated and cohesive throughout implementation of this plan. The management team will ensure that there is effective communication between departments and with senior management. As the plan is implemented, each stage will require careful review and monitoring to ensure it is current and relevant in light of any updates to health guidelines and other evolving factors

9 Appendix A: Provincial Health Orders & Guidelines

The RDKB Services Restoration Plan has been prepared following current Provincial Health Orders and guidelines and recommendations from local health authorities¹. The health and safety of RDKB employees and the public are at the forefront of any decisions regarding the restoration of programs and services. As Provincial Health Orders and guidelines and recommendations from health authorities and WorkSafeBC evolve, the plan will be evaluated to ensure current information and protocols are strictly adhered to.

The provision of in-person programs and services is planned following Provincial Health Orders and guidelines and advice received from Interior Health and WorkSafeBC. All plans will be updated according to new information available from local health authorities and WorkSafeBC. The following guidelines and recommendations pertain to the provision of RDKB programs and services.

9.1 Regarding Physical Distancing

- Ensure that when there are people on your premises there is sufficient space available to enable them to maintain a distance of two metres from one another.
- Encourage customers to maintain a two metre distance from one another in line-ups to entrances, washrooms and other places where line-ups may occur, by placing distance indicators.
- Install markers on the floor (two metres apart) to support physical distancing in locations such as reception desks.
- Install physical barriers (e.g. plexiglass sneeze guards) in locations such as reception desks.
- Must not host mass gatherings involving more than 50 people (but could have more than 50 people on site if physical distancing remains possible given the size of the facility).

9.2 Regarding Proper Hygiene & Sanitation

- Hand washing stations must be added if none currently exist.
- All common areas and surfaces should be cleaned at the end of each day. Examples include washrooms, shared offices, common tables, desks, light switches and door handles.

9.3 Regarding Signage & Communication

- Post signs encouraging people to maintain a two metre distance from one another throughout a space and ensure that there is sufficient space available for customers and staff to maintain that distance.

¹ <https://www2.gov.bc.ca/gov/content/health/about-bc-s-health-care-system/office-of-the-provincial-health-officer/current-health-topics/covid-19-novel-coronavirus>

- Post signs in your facility to encourage hand hygiene/regular hand washing among all staff and guests.
- Post signage that limits the number of occupants in any elevator to four people at a time.

9.4 Regarding the Handling of Equipment & Materials

- Do not provide eating facilities, such as picnic tables or tables with chairs.
- Encourage staff to avoid touching personal items of clients.
- Wherever possible, provide guests/clients with single-use personal items (e.g. pens, sugar packets, creamers).
- Follow routine cleaning practices with enhanced cleaning of high-touch surfaces or shared equipment.

9.5 Regarding Employee Interactions

- If an employee reports they are suspected or confirmed to have COVID-19 and have been at the workplace, clean and disinfect all areas where that person has worked.
- Reduce in-person meetings and other gatherings and hold shop meetings in open spaces or outside.
- Anyone with COVID-19-like symptoms, such as sore throat, fever, sneezing or coughing, must self-isolate at home for a minimum of 10 days from onset of symptoms, until their symptoms have completely resolved.

9.6 Regarding the Public

- Members of the public may be on your premises only for the time that it takes them to purchase and collect their purchase (simple, time-limited transactions).

9.7 Regarding the Handling of Food & Beverages

- Must NOT operate food or beverage services except for take-out or delivery service.

The Provincial Health Officer has not [explicitly] issued any orders requiring the closure of outdoor recreation facilities such as parks, dog parks, skate parks, playgrounds, picnic areas, walking, running and cycling trails, beaches, piers, boat launches, athletics fields, outdoor exercise equipment, tennis and basketball courts and golf courses as a result of the COVID-19 pandemic. The Provincial Health Officer believes that the risk of COVID-19 transmission in these environments is low and that it is possible to safely operate these facilities at this time.

There may be additional measures related to the type of facility that operators can implement to further reduce the risk of COVID-19 such as limiting the number of participants or modifying hours of operation.



STAFF REPORT

Date: 29 Oct 2020

File

ES – Solid Waste

To: Chair Langman and Board of Directors

From: Janine Dougall, General Manager of Environmental Services

Re: McKelvey Creek Landfill Upgrade Project – ICIP-RNC Application

Issue Introduction

A staff report from Janine Dougall, General Manager of Environmental Services regarding the McKelvey Creek Landfill Upgrade Project. The purpose of this report is to obtain the required resolution that formally authorizes staff to submit the application and outlines that the Board supports the project and commits to its share of the project, as well as cost overruns.

History/Background Factors

Included in the 2020 Regional Solid Waste Work Plan is the McKelvey Creek Landfill Upgrade Project.

The Regional District of Kootenay Boundary (RDKB) is committed to expanding its organics diversion capabilities across the regional district. The RDKB Board has provided direction that for the organic waste generated in the McKelvey Creek Wasteshed a partnership with the RDCK is the preferred option. As such, a letter of support and commitment was provided to supply and/or direct collected organic food waste to the Central Landfill facility once the organics processing infrastructure is constructed and operational and by no later than the end of 2022.

To facilitate the transport of collected food waste from residential and commercial sources to the RDCK facility, the RDKB will be proceeding with the construction of a transfer station facility at the McKelvey Creek Landfill.

The following includes the areas to be investigated/considered during the Project:

- Establishment of new Organic Material Transfer Station Infrastructure;
- Site servicing for water/sewer/fiber optic (eg. tying into Columbia Basin Broadband Corporation Infrastructure);

- Addition of second weigh scale;
- Optimized traffic flow with minimized health and safety issues;
- Potential relocation of existing recycling infrastructure;
- Minimizing impacts to available landfill space;
- Consideration for snow removal/stock pile areas;
- Stormwater collection and drainage.

On September 17, 2020 Tetra Tech Canada Inc. presented two conceptual design options along with Class D cost estimates for the upgrades to the McKelvey Creek Landfill. The purpose of providing the conceptual designs was to receive approval from the Board to proceed with one design, for which preliminary design was to be completed and a grant application submitted with Class C cost estimates to the Investing in Canada Infrastructure Program - Rural and Northern Communities Infrastructure (ICIP-RNC) by October 22, 2020.

At the September 17, 2020 Board meeting the Board selected Option 2, which includes a 50mm water service, on-site septic and two new scales as the preferred conceptual design for the McKelvey Creek Landfill Upgrade Project.

On September 24, 2020 a geotechnical investigation was completed at the McKelvey Creek Landfill and the information obtained was utilized to complete preliminary design.

Implications

The final report from Tetra Tech Canada Inc., which includes Class C cost estimates for the project, was received on October 19, 2020. Using information contained in the document, a detailed cost estimate for the project was developed and ultimately both documents were submitted as part of the grant application on October 21, 2020.

As the RDKB intends to proceed with detailed design works for the project in 2021 and before announcements will be made on successful projects, these costs are considered ineligible and were not included in the grant application numbers. Construction quality assurance was included, as these costs will be incurred during project construction activities. Further a 20% contingency for the overall project costs was included.

The ICIP-RNC grant funding allocation is dependent on the location of the constructed infrastructure and population. As the McKelvey Creek Landfill is located within City of Trail boundaries, the population associated with the project is 7,709 (2016 Census Data, City of Trail). As this population number is greater than 5,000 but less than 25,000, the ICIP-RNC grant will cover up to 90% of eligible project costs. The remaining 10% is required to be funded by the applicant.

As the total eligible project costs are \$2,039,057, the RDKB will be required to contribute \$203,906. A Board resolution was obtained on October 14, 2020 authorizing the use of reserve funds for this contribution requirement.

Relationship to Board Priorities



The initiation of food waste collection and diversion from landfill is a significant opportunity for the RDKB to minimize green house gas emissions from landfill.



The project will entail significant public and stakeholder engagement in infrastructure development as well as initiating curbside collection programs. Communications will also be required in the marketing of finished compost products.



The project has implications to cost effective and efficient services as the benefits will include extending landfill life and minimizing regulatory requirements surrounding landfill gas emissions. In addition, changes to traffic flow and the addition of a second scale will improve wait times and reduce congestion.

Background Information Provided

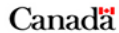
ICIP-RNC – McKelvey Creek Landfill Upgrade Project - Detailed Cost Estimate (Oct 20'20)
Tetra Tech Canada Inc. – Technical Memo – Preliminary Design Report, Drawings and Specifications (Oct 19'20)

Alternatives

1. That the Regional District of Kootenay Boundary Board of Directors direct THAT staff submit an application for grant funding for the McKelvey Creek Landfill Upgrade Project through the *Investing in Canada Infrastructure Program – Rural and Northern Communities*; and
THAT the Regional District of Kootenay Boundary Board supports the project and commits to its share (\$203,906) of the project, as well as cost overruns.
2. That the Regional District of Kootenay Boundary Board of Directors direct staff to not submit an application to the Investing in Canada Infrastructure Program – Rural and Northern Communities Infrastructure program for the McKelvey Creek Landfill Upgrade Project.

Recommendation(s)

That the Regional District of Kootenay Boundary Board of Directors direct, THAT staff submit an application for grant funding for the McKelvey Creek Landfill Upgrade Project through the *Investing in Canada Infrastructure Program – Rural and Northern Communities*; and
THAT the Regional District of Kootenay Boundary Board supports the project and commits to its share (\$203,906) of the project, as well as cost overruns.



Investing in Canada Infrastructure Program

Rural and Northern Communities
Detailed Cost Estimate

Applicant Name: Regional District of Kootenay Boundary

Project Number: IR0282

Project Title: McKelvey Creek Landfill Upgrade Project

Cost Estimate Developed By: Tetra Tech Canada Inc.

Date of Cost Estimate (DD-MM-YYYY): 20-Oct-20

Cost Estimate Class - A,B,C,D (see guidance below) : C

Optional: Phase of Project

(if phases identified as part of application):

Please Note: If the project can be phased, please use to additional tab(s) to show costs associated with each phase identified in the application on an individual sheet. Only include the works and the associated costs of the stand-alone phase on this new sheet. Project should be presented in individual phases only where phases can independently meet program outcomes and requirements (otherwise should be presented as a single project). The first page should present a breakdown of overall project costs, with totals corresponding with the amounts in the Project Cost section of the Application Form.

ELIGIBLE COSTS				
	Description	Quantity	Per Unit Amount	Total Cost
Project Planning				
For example, costs associated with environmental assessment, aboriginal consultation, climate lens assessments, community employment benefit plans				
Planning Sub-Total:				\$0
Design / Engineering				
It is recommended that a maximum 15% of construction project costs are engineering/consulting fees. Please separate cost associated with project management and project design/engineering	Construction Quality Assurance			111,164
Design / Engineering Sub-Total:				\$111,164
Construction / Materials				
Items should reflect the major components in your project without going into specific detail, add lines as necessary	General Site Preparation and Asphalt Strengthening			469,065
	Organics Transfer Infrastructure			810,485
	Water Line and Oil Grit Separator			214,500
	Septic Field			40,000
	Fibre Optics			54,000
Construction / Materials Sub-Total:				\$1,588,050
Other Eligible Costs				
For example (communications, testing)				
Other Eligible Costs Sub-Total:				\$0
Contingency				
Contingency is generally reflective of the Class of Cost Estimate	Contingency (20 Percent of Construction / Materials Sub-Total and Design/ Engineering Sub-Total)			339,843
Contingency Sub-Total:				\$339,843
TOTAL ELIGIBLE COSTS*:				\$2,039,057
INELIGIBLE COSTS				
	Description	Quantity	Per Unit Amount	Total Cost
Land Acquisition Cost Leasing Land, Building and Other Facilities Financing Charges Legal Fees In-kind Contribution Tax Rebate Other				
TOTAL INELIGIBLE COSTS*:				\$0
TOTAL GROSS PROJECT COSTS (Eligible + Ineligible)*:				\$2,039,057

*Totals must match totals in the Project Costs section of the Application Form.

Cost Estimate Comments

Details of Cost Estimates can be found in the mandatory document attached to application titled "Technical Memo - Preliminary Design Report, Drawings and Specifications (Tetra Tech October 19, 2020)

Cost Estimate Classes - definitions & assumptions [sourced from the Association of Professional Engineers and Geoscientists of British Columbia (APEGBC)]

Cost estimate class	Features & Uses	Suggested Contingency for Associated Class
Class A	Detailed estimate based on final drawings and specifications Used to evaluate tenders	±10-15%
Class B	Prepared after completing site investigations and studies, and after defining major systems Based on a project brief and preliminary design Used for project approvals and budgetary control	±15-25%
Class C	Prepared with limited site information and based on probable conditions Captures major cost elements Used to refine project definition and for preliminary approvals	±25-40%
Class D	Preliminary estimate based on little or no site information Represents the approximate magnitude of cost, based on broad requirements Used for preliminary discussion and long-term capital planning	±50%



TECHNICAL MEMO

ISSUED FOR USE

To:	Janine Dougall, General Manager of Environmental Services	Date:	October 19, 2020
c:		Memo No.:	02
From:	Hilary Wong, E.I.T. Jim Lapp Mohamed Shaath, P.Eng.	File:	704-SWM.SWOP04332-01
Subject:	Preliminary Design Report, Drawings, and Specifications		

1.0 INTRODUCTION

Tetra Tech Canada Inc. (Tetra Tech) was retained by the Regional District of Kootenay Boundary (RDKB) to provide engineering services for upgrades at the McKelvey Creek Landfill at Trail, BC. The landfill upgrades include new organics material transfer infrastructure, site servicing for water, sanitary, and fibre optics communication cable, addition of a second weigh scale, optimized traffic flow, and relocation of recycling infrastructure. The design considers minimal impacts to landfill space, snow removal and stockpile areas, and stormwater collection and drainage. Two conceptual options were presented to the RDKB Board of Directors (Board) on September 17, 2020, and the Board selected the conceptual design with two new scales, a 50 mm water line, septic field, and fibre optics connection. A geotechnical investigation was completed by Tetra Tech on September 24, 2020.

This design report outlines the 33% design components of the McKelvey Creek Landfill upgrades along with the accompanying Class C cost estimates. Detailed specifications (66% completion) are also attached in Appendix B.

2.0 PRELIMINARY DESIGN COMPONENTS

Figure 1 through Figure 7 show components of the proposed landfill upgrades, including some typical details. This section describes the key components.

2.1 Organics Material Transfer Infrastructure

Based on the space available at the McKelvey Creek Landfill, there is one feasible option identified for expanding the transfer station area to include bins for organics to the west of the existing bin wall. The plan includes construction of a ramp area large enough to allow vehicle traffic to bypass organic collection trucks unloading into transfer bins. Four 40 yd³ bins are provided for organics storage. This is shown on Figure 2. Typical details of the bin wall are included on Figure 4.

2.2 Site Servicing

2.2.1 Water Options

The purpose of having supplied water to the facility is to allow for washdown facilities for the organics transfer area, to supply water to an emergency shower near the household hazardous waste area, and to provide washroom

Tetra Tech Canada Inc.
Suite 110, 140 Quarry Park Boulevard SE
Calgary, AB T2C 3G3 CANADA
Tel 403.203.3355 Fax 403.203.3301

facilities for attendants. The selected water servicing option is extending a 50 mm line from the fire hydrant located partway up the landfill access road to the top of the landfill. The 50 mm line involves connecting to the existing fire hydrant and ploughing the line up to the attendant office beside the landfill access road. This option requires a booster pump in the building to achieve the desired pressure. The water service line is shown on Figure 5.

2.2.2 Septic Field

While several options were considered for the sanitary services, the best option from a cost and maintenance perspective is a septic field due to existing site conditions. A percolation test has been completed near the planned location of the septic field. While a detailed design has not yet been completed for the septic field, preliminary results of the percolation test and the geotechnical report indicate that the site is suitable for a septic field. The septic field is shown on Figure 6.

2.2.3 Fibre Optics

Fibre optics cables are required to provide an improved communications link which will allow for using credit cards and debit cards for payment at the scale. The best option identified is to mount the fibre optics cable to the existing power line that runs along the same route as the McKelvey Creek Diversion. The fibre optics route is shown on Figure 7.

2.3 Two New Weigh Scales

Two new scale decks are included in the preliminary design. A second scale deck would improve the traffic flow with inbound and outbound vehicles using separate scale decks. The plan shows installing two new scale decks south of the existing scale, which alleviates the high congestion area exiting the landfill and transfer station loop. This also provides the opportunity to upgrade the scale foundation to allow for easier cleaning access. The construction of the two new scales will likely cause the existing scale to be out of service for a period of time during construction. The new scale location with two scales is shown on Figure 2.

The existing scale office and scale will be removed and the area paved.

2.4 Scale House

A 40-foot mobile office trailer is proposed for the new scale house. The new scale house will be situated between the two scales to allow for one attendant to handle both inbound and outbound lanes. The structure will also have washroom facilities for the landfill staff and an emergency shower for the household hazardous waste area. The scale house with staff facilities is shown on Figure 2.

2.5 Recycling Infrastructure

With the addition of a second scale, the existing recycling infrastructure will have to be removed. This provides the opportunity to procure new recycling infrastructure for ease of operation. The preliminary design includes two 20-foot modified sea containers for storage of mega bags provided by Recycle BC, as shown in Photo 1. A ChemLoc Environmental Building, approximately a 24-foot unit, is proposed for fully contained storage of household hazardous waste, including paints, pesticides, solvents, and fuels. The recycling infrastructure is shown on Figure 2.

Photo 1: Modified Sea Containers for Storage of Recyclable Material



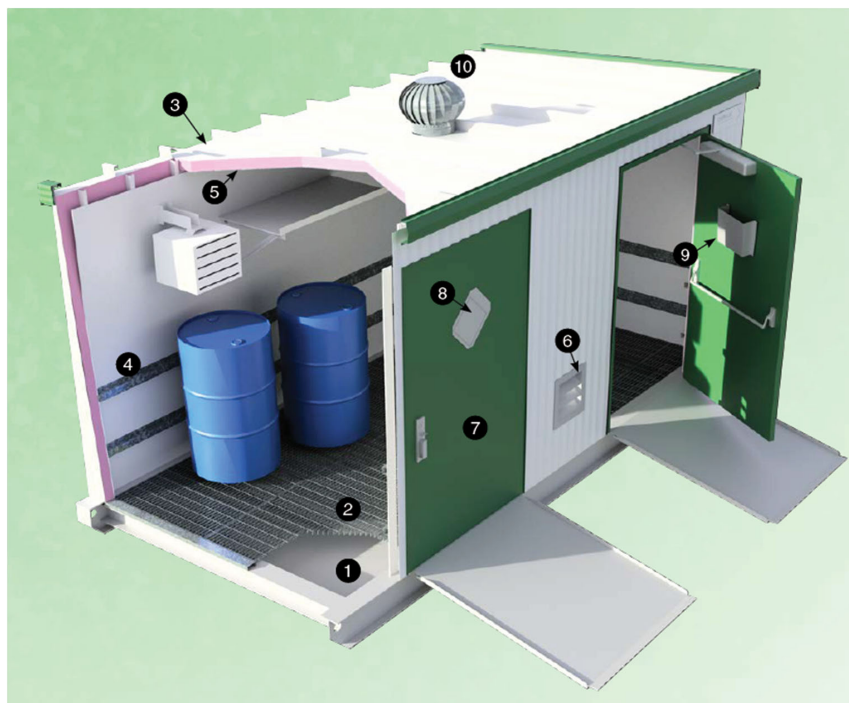


Photo 2: ChemLoc Environmental Building

2.6 Asphalt Strengthening and New Pavement Structures

The design of the existing pavement structure at McKelvey Creek was for a maximum wheel load of 4 tonnes. The future collection vehicles that are expected to use the new organics transfer facility can weigh up to 20 tonnes. The geotechnical report completed by Tetra Tech recommends asphalt strengthening of 50 mm. For any new pavement structures such as the new organics transfer area ramp, the recommended pavement structure is 75 mm of asphalt, 125 mm of granular base, and 300 mm of granular sub-base. The geotechnical report completed by Tetra Tech in 2020 contains further details of pavement structure.

2.7 Site Drainage

The site will continue to use the existing storm system for site drainage. Grading of the area may be required to maintain drainage to existing catch basins. An oil grit separator will be installed south of the organics transfer area.

3.0 CLASS C COST ESTIMATES

Table 3-1 shows the detailed breakdown of costs for the preliminary design in a Class C cost estimate. Table 3-2 shows the summary of costs grouped into major infrastructure items.

Table 3-1: Class C Cost Estimate (± 25%)

Item	Description	Unit	Approx. Quantity	Unit Price	Total Price
General Site Preparation Asphalt Strengthening	Mob/de-mob	L.S.	1	\$50,000.00	\$50,000
	Land clearing	m ²	2,315	\$10.00	\$23,150
	Grading	m ²	2,315	\$3.30	\$7,640
	Camera Inspection (First 200 m of Culvert)	L.S.	1	\$3,000.00	\$3,000
	50 mm Asphalt Strengthening (Upper Pad)	m ²	3,725	\$55.00	\$204,875
	50 mm Asphalt Strengthening (Access Road)	m ²	3,280	\$55.00	\$180,400
Waste Infrastructure	Deconstruct recycling building	L.S.	1	\$40,200.00	\$40,200
	Demolish HHW bunker	L.S.	1	\$3,000.00	\$3,000
	Scale Software Update (1 site)	L.S.	1	\$12,900.00	\$12,900
	Two Scales	each	2	\$75,000.00	\$150,000
	Scale Foundation	each	2	\$60,000.00	\$120,000
	Scale House	each	1	\$80,000.00	\$80,000
	Recycling Infrastructure	each	2	\$10,500.00	\$21,000
	Shipping Sea-Cans to site	L.S.	1	\$3,000.00	\$3,000
	HHW Container	each	1	\$30,000.00	\$30,000
	Gravel Pad for Recycling Area	m ³	131	\$66.00	\$8,633
	Engineered Fill	m ³	2,815	\$13.00	\$36,595
	Roll off bin wall	blocks	96	\$75.00	\$7,200
	New Asphalt	m ²	2,315	\$60.00	\$138,900
	Supply and Place Aggregate (425 mm)	m ³	984	\$66.00	\$64,936
	Concrete bin pads	m ³	47	\$660.00	\$31,020
	Supply and Place Aggregate for bin pads	m ³	47	\$66.00	\$3,102
	New bins and lids	each	4	\$10,000.00	\$40,000
	Lighting	each	2	\$10,000.00	\$20,000
50 mm Water Service	50mm Poly Water Line (ploughed in)	L.M.	375	\$200.00	\$75,000
	Booster Pump in Building	ea	1	\$10,000.00	\$10,000
	Tie to Existing	L.S.	1	\$10,000.00	\$10,000
	Road Removal & Replacement	m ²	300	\$65.00	\$19,500
Site Drainage	Oil Grit Separator	ea	1	\$100,000.00	\$100,000

MCKELVEY CREEK LANDFILL UPGRADES PRELIMINARY DESIGN REPORT
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Item	Description	Unit	Approx. Quantity	Unit Price	Total Price
Septic Field	Septic Field	L.S.	1	\$40,000.00	\$40,000
Fibre Optics	Supply and Install	L.S.	1	\$54,000.00	\$54,000
Infrastructure Subtotal					\$1,588,050
Engineering (8% of Infrastructure Subtotal)					\$127,044
Construction Quality Assurance (7% of Infrastructure Subtotal)					\$111,164
Contingency (20% of Infrastructure Subtotal, Engineering, and Construction Quality Assurance)					\$365,252
Total (Excluding GST)					\$2,191,510

Notes:

- Assumption is that a borrow source is available.
- Class C Cost estimates can range from -25% to +25% of total cost.

Table 3-2: Class C Cost Estimate Summary

Item	Price
General Site Preparation and Asphalt Strengthening	\$469,065
Waste Infrastructure	\$810,485
50 mm Water Service	\$114,500
Site Drainage	\$100,000
Septic Field	\$40,000
Fibre Optics	\$54,000
Infrastructure Subtotal	\$1,588,050
Engineering (8% of Infrastructure Subtotal)	\$127,044
Construction Quality Assurance (7% of Infrastructure Subtotal)	111,164
Contingency (20% of Infrastructure Subtotal, Engineering, and Construction Quality Assurance)	\$365,252
Total Capital	\$2,191,510


4.0 LIMITATIONS OF REPORT

This report and its contents are intended for the sole use of the Regional District of Kootenay Boundary and their agents. Tetra Tech Canada Inc. (Tetra Tech) does not accept any responsibility for the accuracy of any of the data, the analysis, or the recommendations contained or referenced in the report when the report is used or relied upon by any Party other than the Regional District of Kootenay Boundary, or for any Project other than the proposed development at the subject site. Any such unauthorized use of this report is at the sole risk of the user. Use of this document is subject to the Limitations on the Use of This Document attached in the Appendix or Contractual Terms and Conditions executed by both parties.

5.0 CLOSURE

We trust this technical memo meets your present requirements. If you have any questions or comments, please contact the undersigned.

Respectfully submitted,
 Tetra Tech Canada Inc.


 704-SWM.SWOP04332-01
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Prepared by:
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 Hilary.Wong@tetratech.com


 704-SWM.SWOP04332-01
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 704-SWM.SWOP04332-01
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/lc

Attachments: Appendix A – Limitations on the Use of This Document
 Appendix B – Figures 1 to 7
 Appendix C – Detailed Specifications

MCKELVEY CREEK LANDFILL UPGRADES PRELIMINARY DESIGN REPORT
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APPENDIX A

LIMITATIONS ON THE USE OF THIS DOCUMENT

LIMITATIONS ON USE OF THIS DOCUMENT

GEOENVIRONMENTAL

1.1 USE OF DOCUMENT AND OWNERSHIP

This document pertains to a specific site, a specific development, and a specific scope of work. The document may include plans, drawings, profiles and other supporting documents that collectively constitute the document (the "Professional Document").

The Professional Document is intended for the sole use of TETRA TECH's Client (the "Client") as specifically identified in the TETRA TECH Services Agreement or other Contractual Agreement entered into with the Client (either of which is termed the "Contract" herein). TETRA TECH does not accept any responsibility for the accuracy of any of the data, analyses, recommendations or other contents of the Professional Document when it is used or relied upon by any party other than the Client, unless authorized in writing by TETRA TECH.

Any unauthorized use of the Professional Document is at the sole risk of the user. TETRA TECH accepts no responsibility whatsoever for any loss or damage where such loss or damage is alleged to be or, is in fact, caused by the unauthorized use of the Professional Document.

Where TETRA TECH has expressly authorized the use of the Professional Document by a third party (an "Authorized Party"), consideration for such authorization is the Authorized Party's acceptance of these Limitations on Use of this Document as well as any limitations on liability contained in the Contract with the Client (all of which is collectively termed the "Limitations on Liability"). The Authorized Party should carefully review both these Limitations on Use of this Document and the Contract prior to making any use of the Professional Document. Any use made of the Professional Document by an Authorized Party constitutes the Authorized Party's express acceptance of, and agreement to, the Limitations on Liability.

The Professional Document and any other form or type of data or documents generated by TETRA TECH during the performance of the work are TETRA TECH's professional work product and shall remain the copyright property of TETRA TECH.

The Professional Document is subject to copyright and shall not be reproduced either wholly or in part without the prior, written permission of TETRA TECH. Additional copies of the Document, if required, may be obtained upon request.

1.2 ALTERNATIVE DOCUMENT FORMAT

Where TETRA TECH submits electronic file and/or hard copy versions of the Professional Document or any drawings or other project-related documents and deliverables (collectively termed TETRA TECH's "Instruments of Professional Service"), only the signed and/or sealed versions shall be considered final. The original signed and/or sealed electronic file and/or hard copy version archived by TETRA TECH shall be deemed to be the original. TETRA TECH will archive a protected digital copy of the original signed and/or sealed version for a period of 10 years.

Both electronic file and/or hard copy versions of TETRA TECH's Instruments of Professional Service shall not, under any circumstances, be altered by any party except TETRA TECH. TETRA TECH's Instruments of Professional Service will be used only and exactly as submitted by TETRA TECH.

Electronic files submitted by TETRA TECH have been prepared and submitted using specific software and hardware systems. TETRA TECH makes no representation about the compatibility of these files with the Client's current or future software and hardware systems.

1.3 STANDARD OF CARE

Services performed by TETRA TECH for the Professional Document have been conducted in accordance with the Contract, in a manner

consistent with the level of skill ordinarily exercised by members of the profession currently practicing under similar conditions in the jurisdiction in which the services are provided. Professional judgment has been applied in developing the conclusions and/or recommendations provided in this Professional Document. No warranty or guarantee, express or implied, is made concerning the test results, comments, recommendations, or any other portion of the Professional Document.

If any error or omission is detected by the Client or an Authorized Party, the error or omission must be immediately brought to the attention of TETRA TECH.

1.4 DISCLOSURE OF INFORMATION BY CLIENT

The Client acknowledges that it has fully cooperated with TETRA TECH with respect to the provision of all available information on the past, present, and proposed conditions on the site, including historical information respecting the use of the site. The Client further acknowledges that in order for TETRA TECH to properly provide the services contracted for in the Contract, TETRA TECH has relied upon the Client with respect to both the full disclosure and accuracy of any such information.

1.5 INFORMATION PROVIDED TO TETRA TECH BY OTHERS

During the performance of the work and the preparation of this Professional Document, TETRA TECH may have relied on information provided by persons other than the Client.

While TETRA TECH endeavours to verify the accuracy of such information, TETRA TECH accepts no responsibility for the accuracy or the reliability of such information even where inaccurate or unreliable information impacts any recommendations, design or other deliverables and causes the Client or an Authorized Party loss or damage.

1.6 GENERAL LIMITATIONS OF DOCUMENT

This Professional Document is based solely on the conditions presented and the data available to TETRA TECH at the time the data were collected in the field or gathered from available databases.

The Client, and any Authorized Party, acknowledges that the Professional Document is based on limited data and that the conclusions, opinions, and recommendations contained in the Professional Document are the result of the application of professional judgment to such limited data.

The Professional Document is not applicable to any other sites, nor should it be relied upon for types of development other than those to which it refers. Any variation from the site conditions present, or variation in assumed conditions which might form the basis of design or recommendations as outlined in this report, at or on the development proposed as of the date of the Professional Document requires a supplementary investigation and assessment.

TETRA TECH is neither qualified to, nor is it making, any recommendations with respect to the purchase, sale, investment or development of the property, the decisions on which are the sole responsibility of the Client.

1.7 NOTIFICATION OF AUTHORITIES

In certain instances, the discovery of hazardous substances or conditions and materials may require that regulatory agencies and other persons be informed and the client agrees that notification to such bodies or persons as required may be done by TETRA TECH in its reasonably exercised discretion.

APPENDIX B

Figures 1 to 7

MCKELVEY CREEK LANDFILL TRANSFER STATION HIGHWAY 3B, TRAIL, BRITISH COLUMBIA

OCTOBER 2020

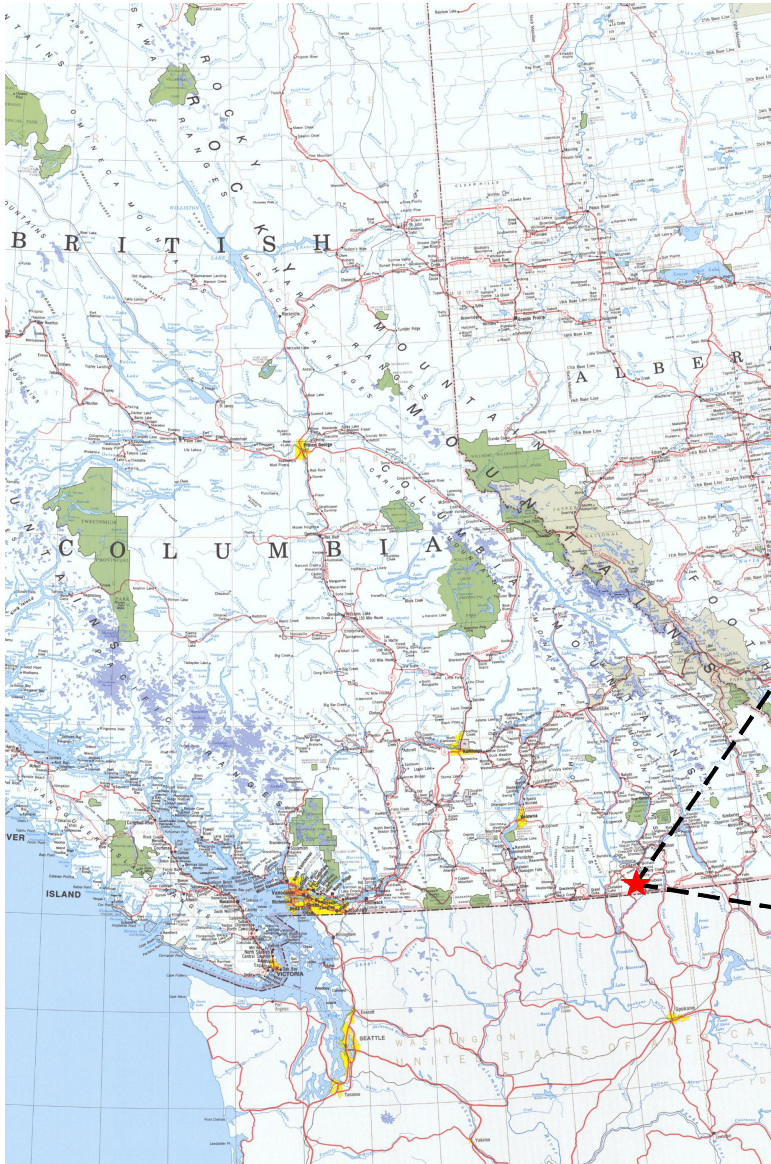
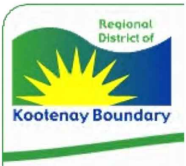
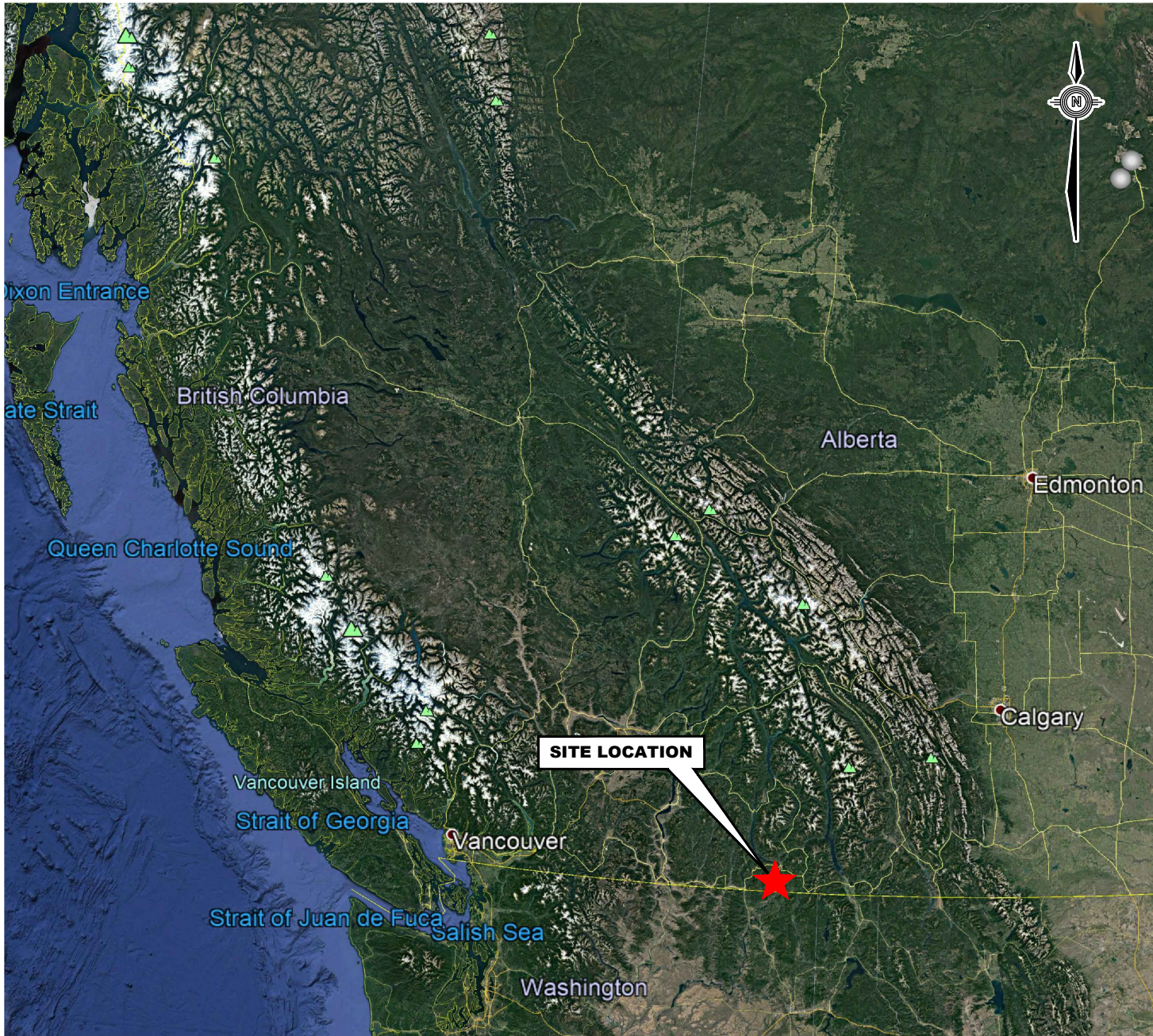


FIGURE LIST INDEX	
FIGURE NUMBER	DRAWING TITLE
Figure 1	SITE LOCATION PLAN
Figure 2	PRELIMINARY DESIGN SITE PLAN
Figure 3	CROSS-SECTIONS
Figure 4	TYPICAL DETAILS
Figure 5	WATER SERVICE DESIGN
Figure 6	SEPTIC FIELD DESIGN
Figure 7	FIBRE OPTIC NETWORK AND FTTP

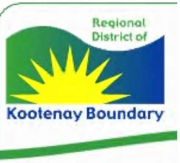



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NUM	DATE	APR	DESCRIPTION
DRAWING STATUS			

CLIENT



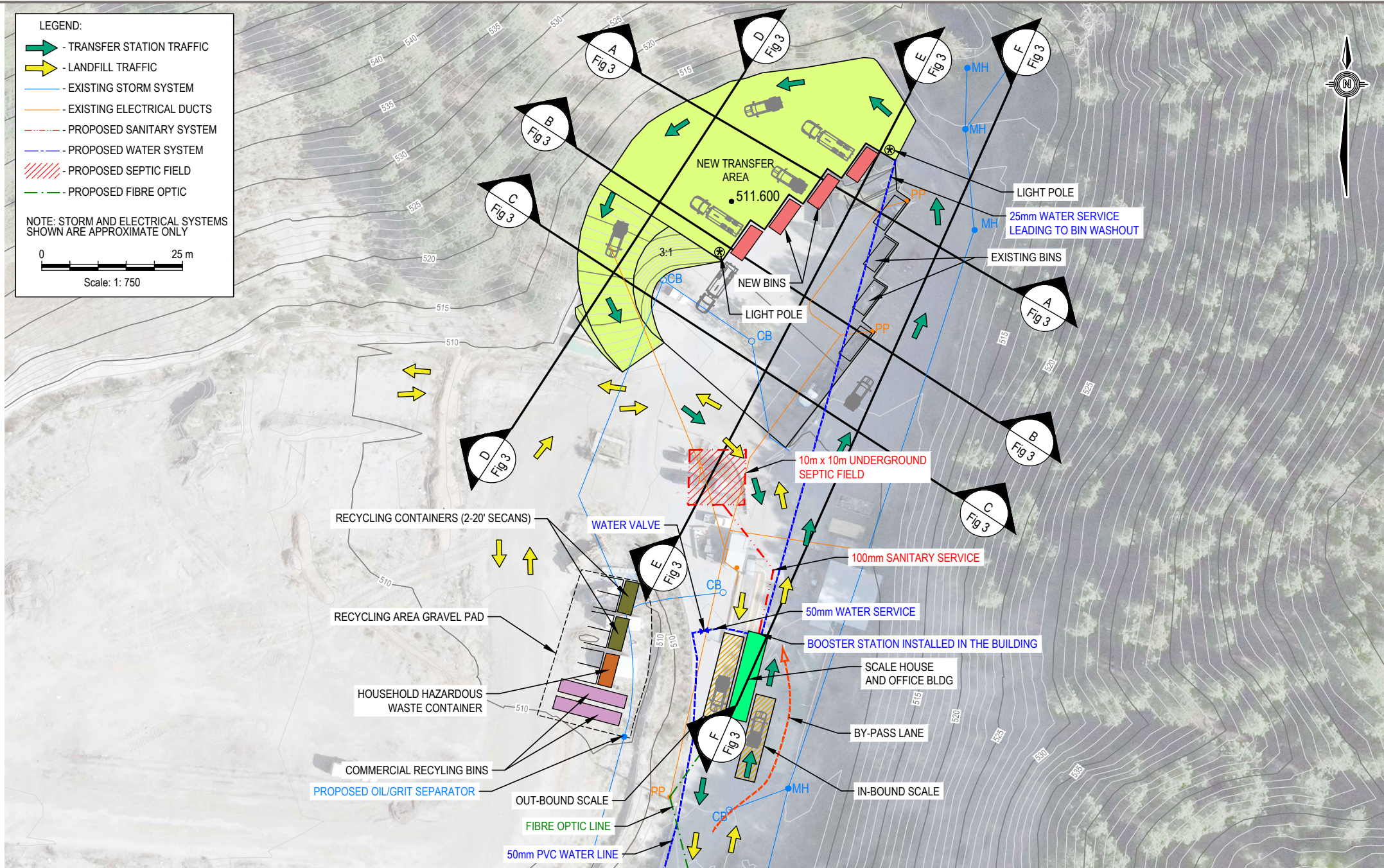


MCKELVEY CREEK LANDFILL TRANSFER STATION
HIGHWAY 3B, TRAIL, BC

SITE LOCATION PLAN

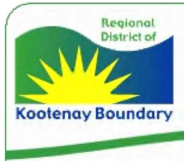
PROJECT No. SWM.SWOP04332-01	OFFICE EDM	DES DBD	CKD JL	REV -	DRAWING
DATE: October 2020	SHEET No. 1 of 7	DWN DRG/DBD	APP JL	STATUS A	Figure 1


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MCKELVEY CREEK LANDFILL TRANSFER STATION

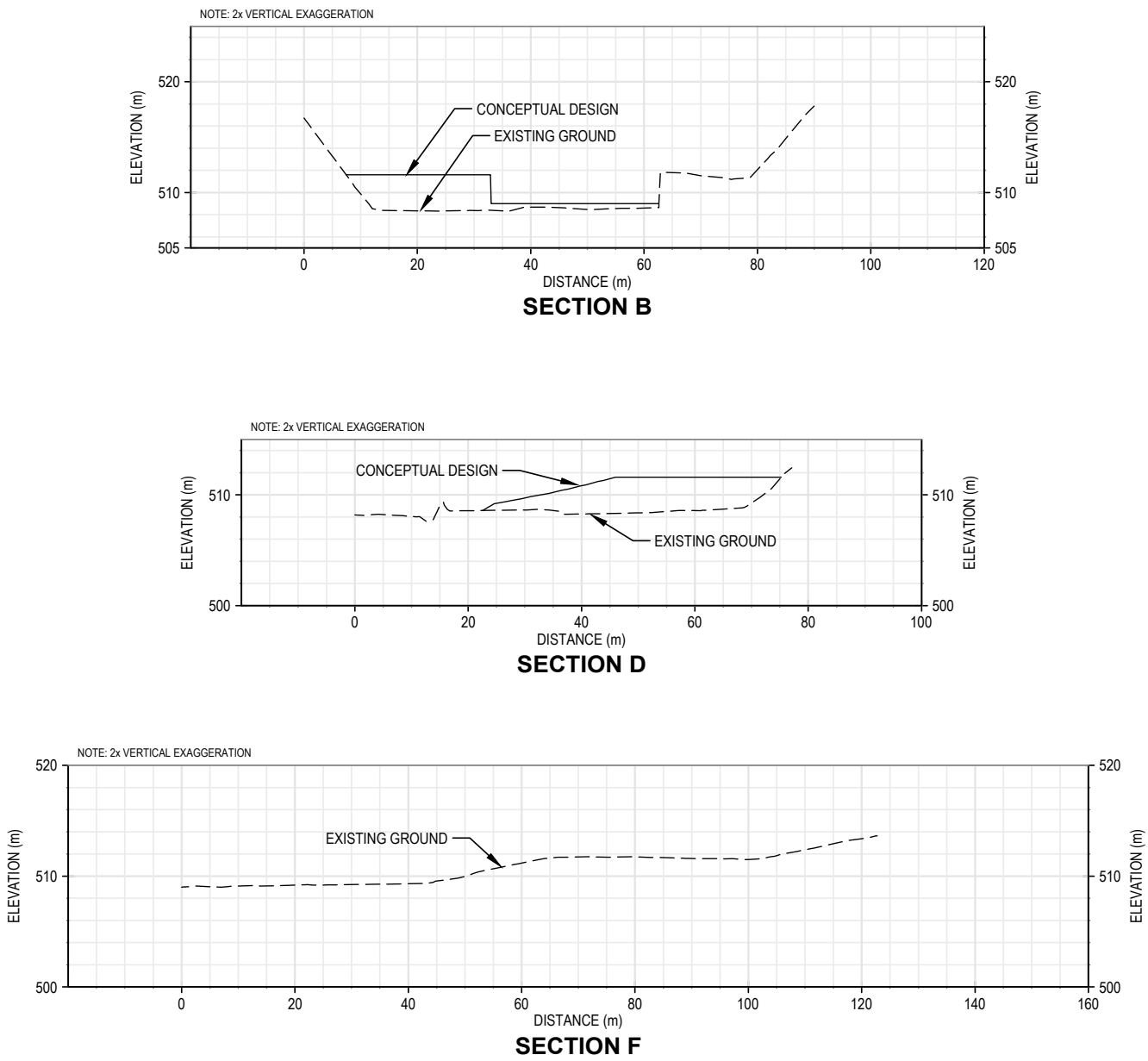
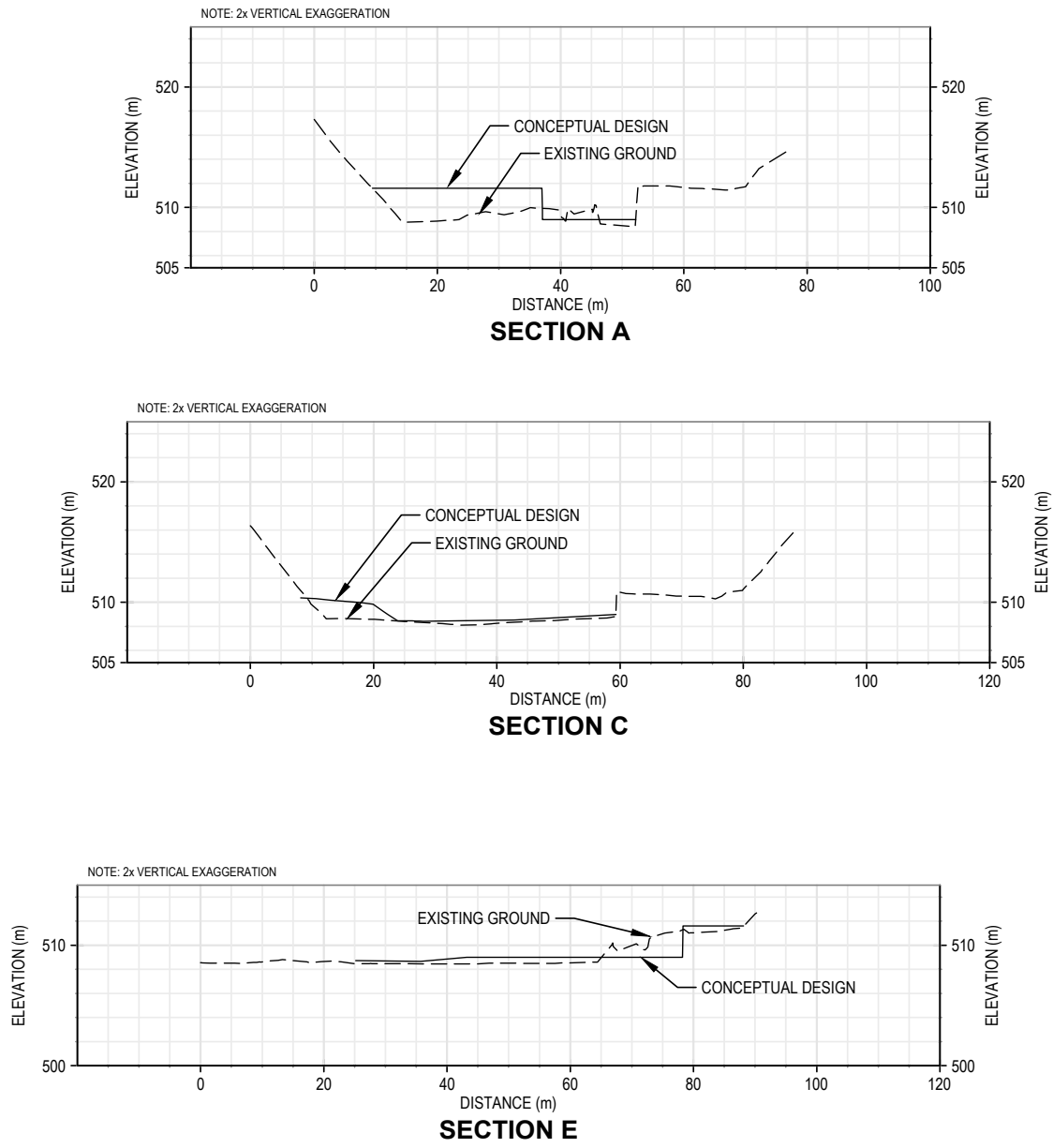
HIGHWAY 3B, TRAIL, BC

PRELIMINARY DESIGN SITE PLAN

Figure 2


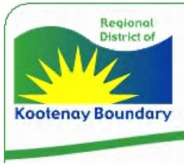
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DATE: October 2020	SHEET No. 2 of 7	DWN DRG/DBD	APP JL	STATUS A	

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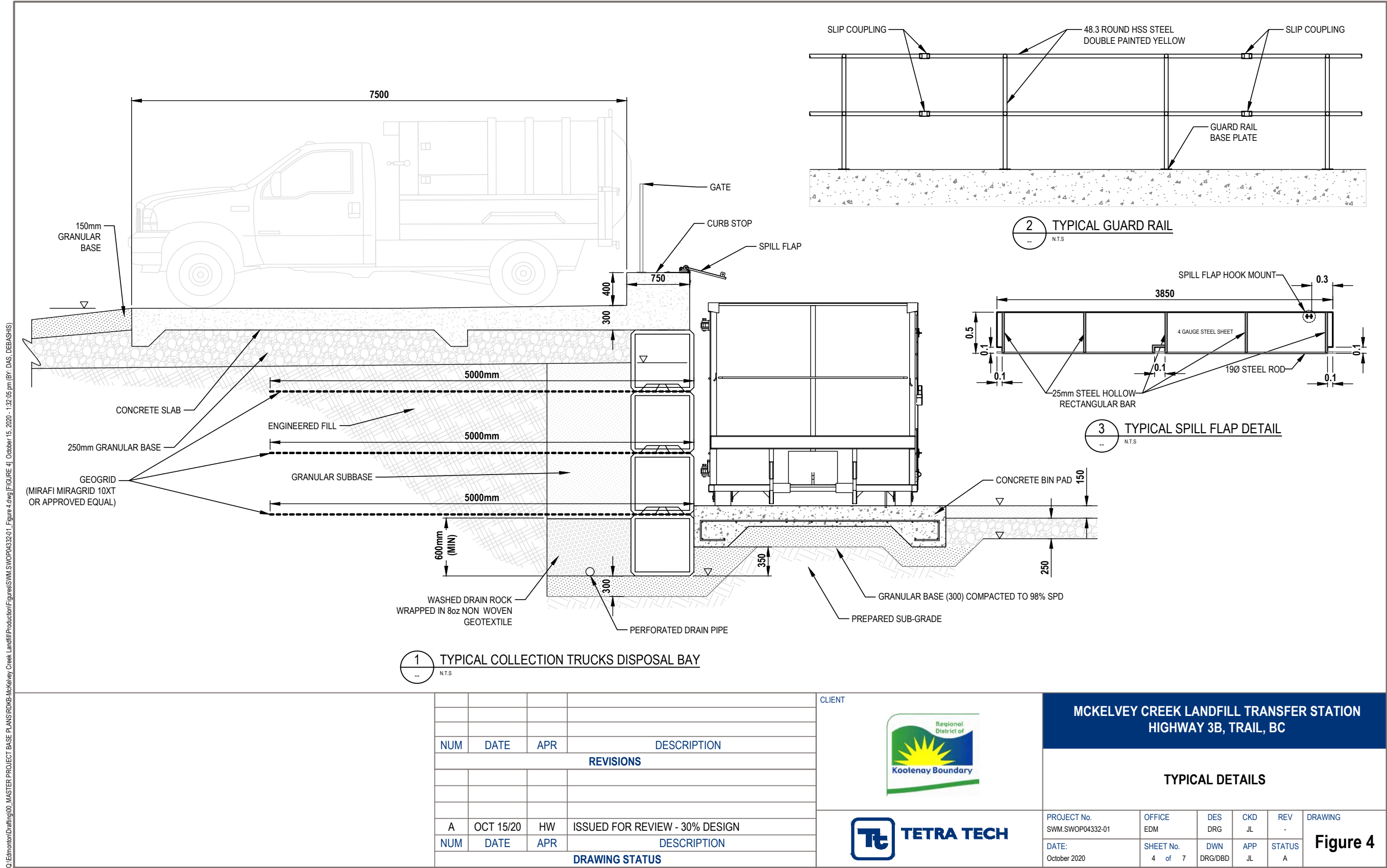
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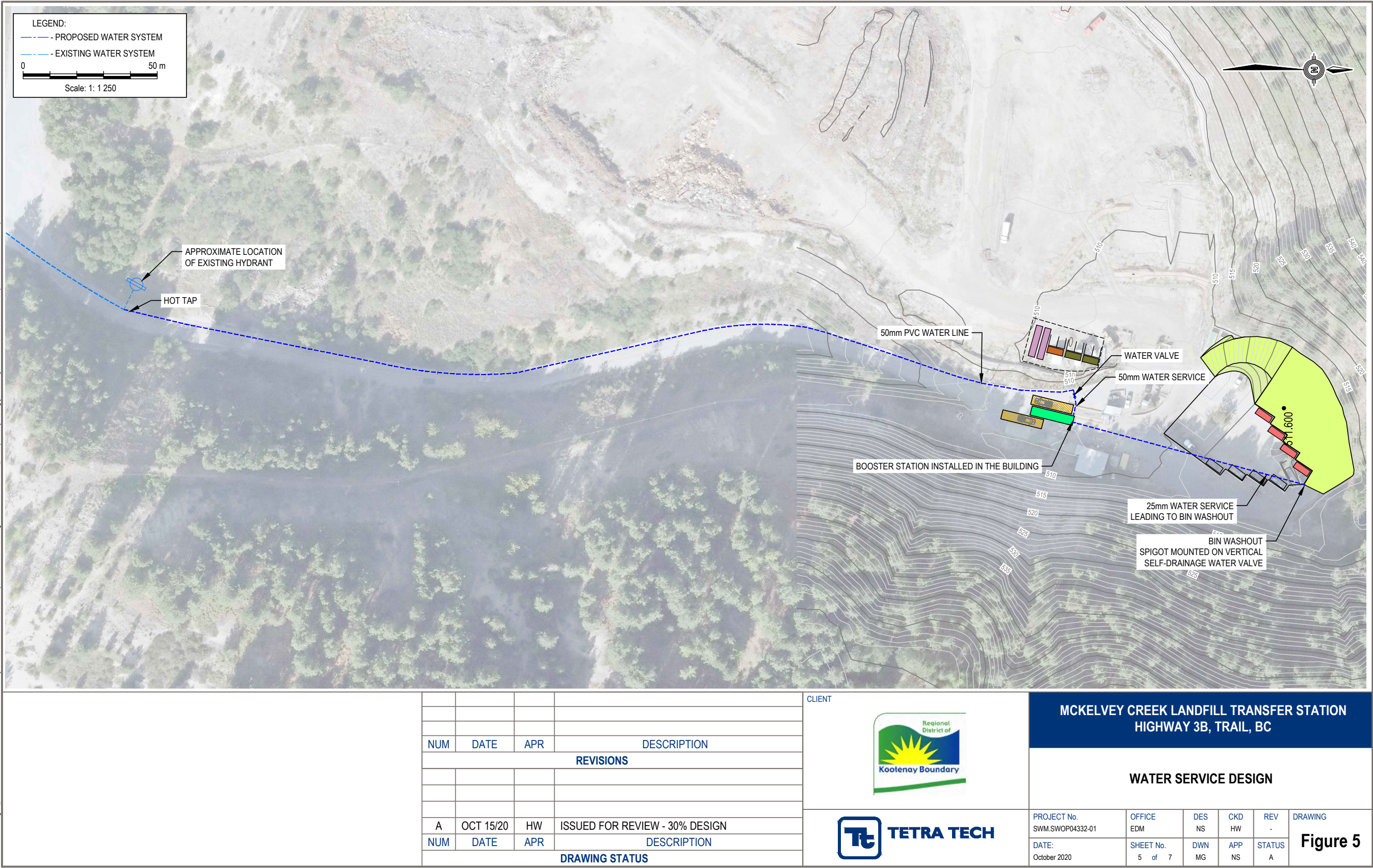


MCKELVEY CREEK LANDFILL TRANSFER STATION
HIGHWAY 3B, TRAIL, BC

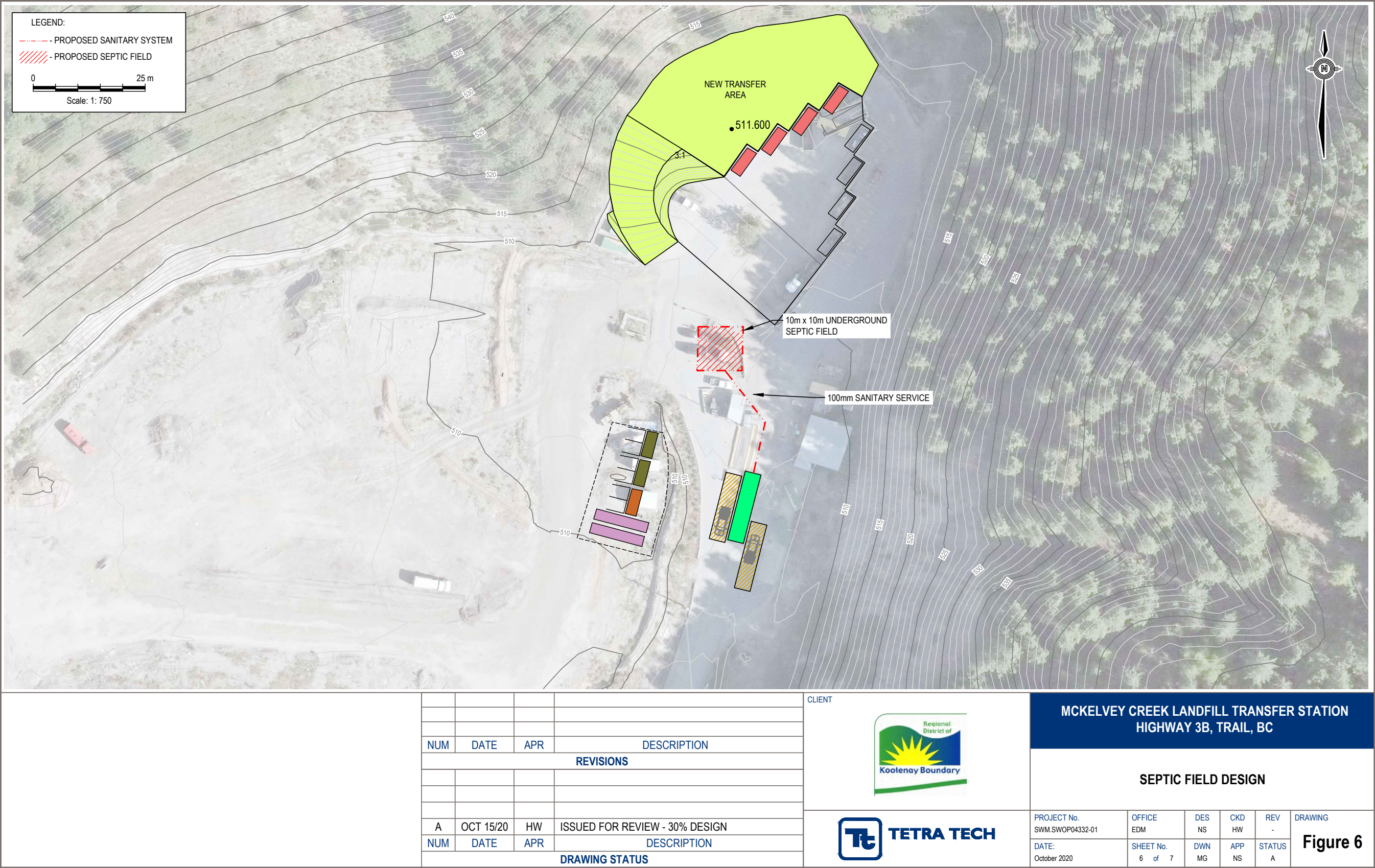
CROSS - SECTIONS

PROJECT No. SWM.SWOP04332-01	OFFICE EDM	DES DRG	CKD JL	REV -	DRAWING
DATE: October 2020	SHEET No. 3 of 7	DWN DRG/DBD	APP JL	STATUS A	Figure 3



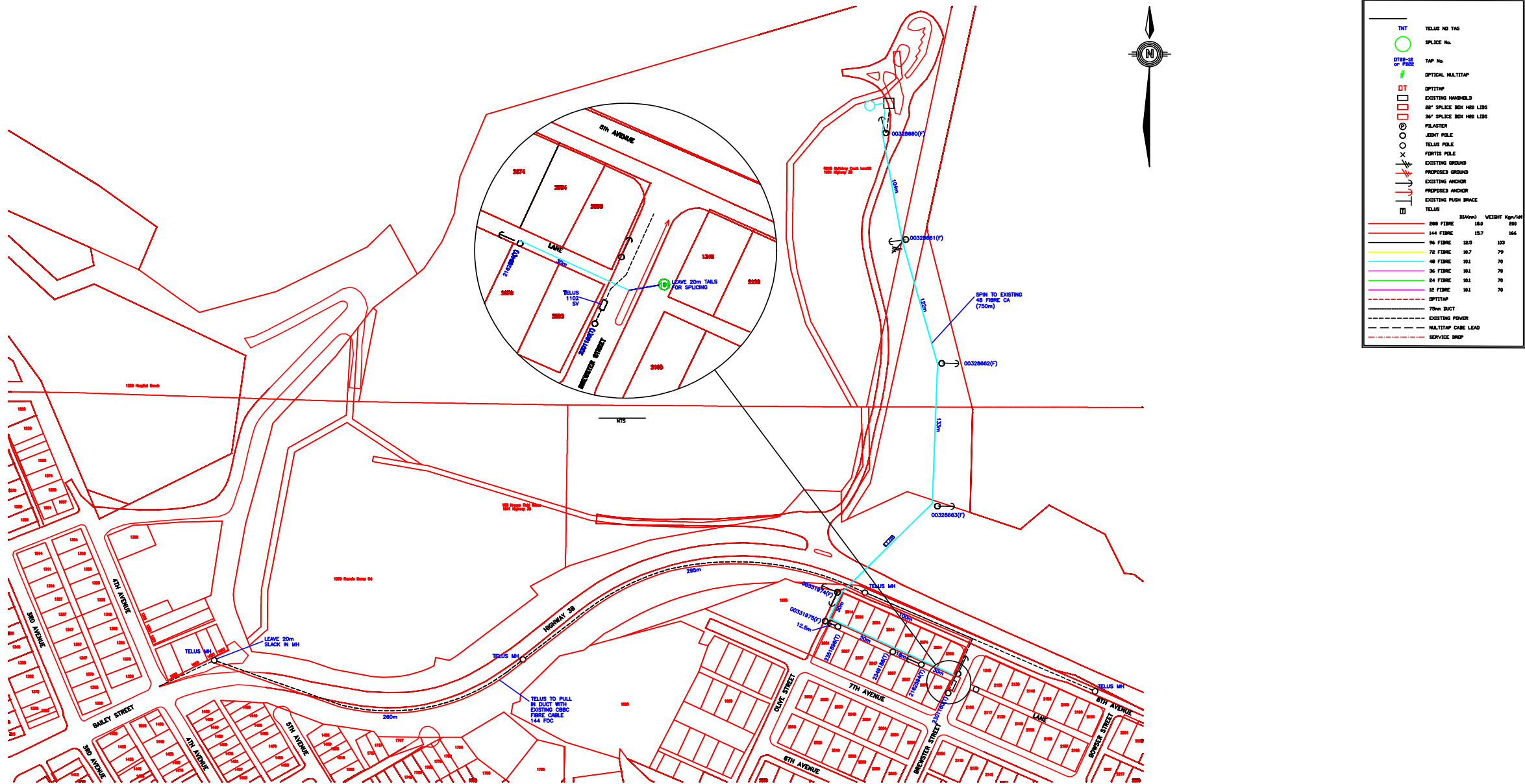


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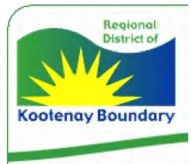


NOTES:

- 1) REFER TO VENDOR DRAWING 151-06245
- 2) FIBRE TO THE PREMISE IS: 48 FIBRE, 10.1 mm DIAMETER, SINGLE MODE CABLE.
- 3) DRAWING NOT TO SCALE

NUM	DATE	APR	DESCRIPTION
REVISIONS			
A	OCT 15/20	HW	ISSUED FOR REVIEW - 30% DESIGN
NUM	DATE	APR	DESCRIPTION
DRAWING STATUS			

CLIENT



MCKELVEY CREEK LANDFILL TRANSFER STATION
HIGHWAY 3B, TRAIL, BC

FIBRE OPTIC NETWORK AND FTTP

PROJECT No.	OFFICE	DES	CKD	REV	DRAWING
220229.00	KELOWNA	RK	HTS	-	Figure 7
DATE:	SHEET No.	DWN	APP	STATUS	
October 2020	7 of 7	RK	ME	A	

MCKELVEY CREEK LANDFILL UPGRADES PRELIMINARY DESIGN REPORT
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APPENDIX C

DETAILED SPECIFICATIONS

REGIONAL DISTRICT OF KOOTENAY BOUNDARY
MCKELVEY CREEK LANDFILL UPGRADES CONSTRUCTION
FILE: SWM.SWOP04332-01 | OCTOBER 2020 | ISSUED FOR REVIEW

PART 2-5
SCHEDULE "D"
GENERAL SPECIFICATIONS

PART 2
2-5 SCHEDULE "D"
GENERAL SPECIFICATION
PRELIMINARY SPECIFICATION
NOT FOR CONSTRUCTION

_Part 2-5 Index.docx



2-5 SCHEDULE "D" - GENERAL SPECIFICATIONS

Section		Pages
01 11 00	General Requirements	8
01 29 00	Payment Procedures	4
01 31 19	Project Meetings	3
01 33 00	Submittal Procedures	5
01 35 29.06	Health and Safety Requirements	4
01 35 43	Environmental Procedures	4
01 45 00	Quality Control	4
01 51 00	Temporary Utilities	3
01 52 00	Construction Facilities	4
01 55 26	Traffic Control	3
01 56 00	Temporary Barriers and Controls	2
01 61 00	Common Product Requirements	5
01 71 00	Examination and Preparation	4
01 71 13	Mobilization and Startup	2
01 73 00	Execution	5
01 77 00	Closeout Procedures and Submittals	6

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 01 11 00

MCKELVEY CREEK LANDFILL

GENERAL

704-SWM.SWOP04332-01

REQUIREMENTS

PAGE 1 OF 7

PART 1 GENERAL**1.1 SCOPE**

- .1 Includes general project description, drawing list, project schedule, and date for substantial performance.

1.2 SECTION INCLUDES

- .1 Summary of Work.
- .2 Drawings.
- .3 Project Coordination.
- .4 Furnishing of Documents.
- .5 Construction Records.
- .6 Time.
- .7 Completion Date.
- .8 Schedule.
- .9 Hours of Work.
- .10 Conduct of the Work.
- .11 Oral Agreements.
- .12 Measurement and Payment.

1.3 SUMMARY OF WORK

- .1 Title and description of Work:
 - .1 Construction of McKelvey Creek Landfill Upgrades, located in the City of Trail, BC at the legal location NTS D 26-G / 082 F 04.
- .2 The Works of this project involve the construction of a Landfill Upgrades, for the Regional District of Kootenay Boundary (Owner).
- .3 Work includes (but not limited to):
 - .1 Earthworks (excavation, fills and trenching);
 - .2 Camera inspection of creek diversion culvert at the inlet;
 - .3 Asphalt strengthening;
 - .4 Deconstruction of recycling building and demolishing household hazardous waste (HHW) bunker;
 - .5 Construction of elevated retaining wall;
 - .6 Construction of concrete pads for bins;
 - .7 Supply and installation of two scales and scale foundations;

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 01 11 00

MCKELVEY CREEK LANDFILL

GENERAL

704-SWM.SWOP04332-01

REQUIREMENTS

PAGE 2 OF 7

- .8 Supply and installation of collection trucks disposal bay spill flap;
- .9 Supply and installation of gates and jersey barriers;
- .10 Supply and installation of granular base and sub-base materials;
- .11 Excavation and construction of surface water control ditches and swales;
- .12 Supply and installation of an oil grit separator;
- .13 Supply and installation of a 50 mm poly water line;
- .14 Supply and installation of fibre optics connection;
- .15 Supply and installation of septic field;
- .16 Supply and placement of new organics collection bins;
- .17 Supply and installation of office trailer and modified Sea-Can units; and
- .18 Site lighting and connection to local electric utility system.

1.4 Drawings

- .1 Drawings issued with and forming part of the contract documents are as follows:

Drawing No.	Title
Figure 1	SITE LOCATION PLAN
Figure 2	PRELIMINARY DESIGN SITE PLAN
Figure 3	CROSS - SECTIONS
Figure 4	TYPICAL DETAILS
Figure 5	WATER SERVICE DESIGN
Figure 6	SEPTIC FIELD DESIGN
Figure 7	FIBRE OPTIC DESIGN

1.5 PROJECT COORDINATION

- .1 Coordinate progress of the Work, progress schedules, submittals, use of site, temporary utilities and construction facilities and controls.
- .2 Maintain at job site, one copy each of the following:
 - .1 Contract drawings and specifications.
 - .2 Addenda.
 - .3 Reviewed shop drawings.
 - .4 Change Orders/Instructions.
 - .5 Other modifications to Contract.
 - .6 Field test reports.
 - .7 Approved Work schedule.
 - .8 Manufacturer's installation and application instructions.

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 01 11 00

MCKELVEY CREEK LANDFILL

GENERAL

704-SWM.SWOP04332-01

REQUIREMENTS

PAGE 3 OF 7

- .9 Records of site safety meetings in compliance with the Workplace Safety and Health Act.

1.6 FURNISHING OF DOCUMENTS

- .1 Upon award of the Contract, the Contractor will be provided with two (2) complete sets of Conforming Contract Documents (including 11x17 Construction Plans). If the Contractor requires additional sets of the Bid Opportunity or drawings, they will be supplied in pdf format any hard copies will be supplied to him/her at cost.

1.7 CONSTRUCTION RECORDS

- .1 Construction records shall be the responsibility of the Engineer whom the Regional District of Kootenay Boundary comes to agreement with. The agreement will be separate from this Tender.
- .2 In addition to requirements in General Conditions, maintain on site one record copy of:
 - .1 Contract Drawings.
 - .2 Specifications.
 - .3 Addenda.
 - .4 Change Orders and other modifications to the Contract.
 - .5 Reviewed shop drawings, product data, and samples.
 - .6 Field test records.
 - .7 Inspection certificates.
 - .8 Manufacturer's certificates.
- .3 Label record documents and file in accordance with Section number listings in List of Contents of this Project Manual. Label each document "PROJECT RECORD" in neat, large, printed letters.
- .4 Maintain record documents in clean, dry and legible condition. Do not use record documents for construction purposes.
- .5 Further to the General Conditions, record actual site conditions on a set of marked up Contract Drawings. Identify the Drawings containing the Contractor's records of changes as the "Project Record Copy".
- .6 Record information concurrently with construction progress. Do not conceal Work until required information is recorded.
- .7 Contract Drawings and shop drawings: accurately and legibly mark each item to record actual construction, including:
 - .1 All deviations from Contract Documents caused by site conditions
 - .2 Measured horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements
 - .3 Locations of all pipes, valves and fittings to be buried.
 - .4 Field changes of dimension and detail.

REGIONAL DISTRICT OF KOOTENAY BOUNDARY	SECTION 01 11 00
MCKELVEY CREEK LANDFILL	GENERAL
704-SWM.SWOP04332-01	REQUIREMENTS
	PAGE 4 OF 7

- .5 Changes made by change orders or ordered by the Engineer, including a full description of the change, date of the approved change, and reason for deviation from original design.
- .6 Details not on original Contract Drawings.
- .7 References to related shop drawings and modifications.
- .8 Project Record Copy of Specifications: legibly mark each item to record actual construction, including:
 - .1 Manufacturer, trade name, and catalogue number of each product actually installed, particularly optional items and substitute items.
 - .2 Changes made by Addenda and change orders.
- .9 Other Documents: maintain manufacturer's certifications, inspection certifications, field test records, required by individual specifications sections.
- .10 Make record documents and Project Record Copies available for inspection on site by the Engineer at all times.
- .11 Not less than four (4) weeks prior to application for the Final Certificate of Completion, submit the Project Record Copy of Drawings to the Engineer for review.

1.8 TIME

- .1 Time is of the essence for this Work.

1.9 COMPLETION DATE

- .1 Complete the Work (Substantial Performance) within four months after Award of Contract.

1.10 SCHEDULE

- .1 Schedules Required
 - .1 Construction Progress Schedule will be completed by the Contractor and submitted to the Engineer within five (5) days after Award of Contract.
- .2 Format
 - .1 Prepare schedules in form of horizontal bar chart.
 - .2 Provide separate bar for each trade or operation.
 - .3 Provide horizontal time scale identifying first work day of each week.
 - .4 Format for listings: Chronological order of start of each item of Work.
 - .5 Indicate the following:
 - .1 Commencement and completion of work of each section of the specification conforming to the Project milestones and daily operation requirements.
 - .2 The major items of work for this contract are as follows:
 1. Award.
 2. Shop Drawings;
 3. Mobilization;
 4. Earthworks;
 5. Lock-block MSE Walls and Push Walls installation;

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 01 11 00

MCKELVEY CREEK LANDFILL

GENERAL

704-SWM.SWOP04332-01

REQUIREMENTS

PAGE 5 OF 7

6. Water Supply Line and Septic Field Installation;
7. Scale Foundation and Scale Installation;
8. Asphalt Strengthening and Paving;
9. Scale Office Installation;
10. Fibre Optics Line Connection;
11. Recycling Pad and Infrastructure Installation;
12. Signage;
13. Site lighting and connection to local electric utility system;
14. Demobilization.

- .3 Final completion date within time period required by Contract Documents.

1.11 HOURS OF WORK

- .1 The Contractor shall carryout the Work during the daylight hours between 7 AM to 7 PM. Permission to work outside of these times must be obtained from the Engineer and be conducted at no additional cost to the Contract.
- .2 The Contractor shall obtain the necessary permission and permits from the governing body to work at nights, or statutory holidays, when this is necessary.

1.12 CONDUCT OF THE WORK

- .1 Protection and Safety Precautions
 - .1 Comply with all requirements of provincial occupational health and safety regulations.
 - .2 The Contractor shall provide the necessary precautions to safeguard against any fire or explosion hazards during construction. The Contractor shall further provide adequate safety protection for personnel engaged on this Work and for all others who are exposed to the Work environment under this Contract.
 - .3 Adequate and sufficient guards for the prevention of accidents shall be installed and maintained by the Contractor at the construction site. The Contractor shall further provide adequate and sufficient safety lighting at night and during periods of poor visibility.
 - .4 The Contractor shall assume full responsibility for, and be liable for, any loss, injury or damage incurred to abutting property, structures, vehicles, pedestrians and animals caused through neglect by the Contractor or his employees during construction operations.
- .2 Cooperation with Others
 - .1 The Contractor's attention is directed to the fact that other contractors may be working in the areas on or adjoining the site.
 - .2 The activities of these entities may coincide with the Contractor's execution of the Work, and it will be the Contractor's responsibility to cooperate to the fullest extent with personnel working in the area, and such cooperation is an obligation of the Contractor under the terms of this Contract.
 - .3 The Contractor shall be respectful of area residents with respect to not working outside the hours of work and minimizing noise.
- .3 Existing Services and Utilities

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 01 11 00

MCKELVEY CREEK LANDFILL

GENERAL

704-SWM.SWOP04332-01

REQUIREMENTS

PAGE 6 OF 7

- .1 No responsibility will be assumed by the Owner or the Engineer for correctness or completeness of the Drawings with respect to the existing utilities, pipes or other objects either underground or on the surface, and neither the Owner nor the Engineer shall be liable for the incorrectness and inadequacy thereof. It shall be the responsibility of the Contractor to determine the location of all such utilities, pipes and other objects and to make good any damage done to them.

- .4 Contractor to Notify Utilities and Other Authorities
 - .1 Make timely application to authorities for required permits before starting work on a public right-of-way.
 - .2 Obtain utility clearances for underground plant in the vicinity of the Work before starting construction.
 - .3 Arrange with utilities to provide Safety Watch where required during construction.

- .5 Existing Trees, Shrubbery, Naturalized Plants Etc.
 - .1 No trees whatsoever shall be cut down without the written permission of the Engineer. Trees, shrubbery, fences, poles and all other private property and surface structures shall be protected unless their removal is shown on the drawings or authorized by the Engineer. When it is necessary to cut roots and tree branches, such cutting shall be done under the supervision and direction of the Engineer.

- .6 Damage to Streets and Structures
 - .1 Other than required to be done by the Contractor under the work of this Contract, all necessary precautions shall be exercised by the Contractor so as not to remove, disturb, or damage any existing pavements, streets, roads, boulevards, poles, hydrants, water pipes, gas pipes, electrical wires, cables, conduits, sewers or other existing facilities and equipment at the site of the Work. For all damage incurred thereto in the performance of the Work, the Contractor shall upon instructions from and to the satisfaction of the Engineer and the owners thereof, either replace or repair such damage, whichever may be deemed necessary in the opinion of, and acceptable to, the Engineer and the owners thereof and the costs of which shall be borne entirely by the Contractor. The Contractor shall also indemnify and save harmless the Owner from all claims made directly or indirectly against it in respect to any such damage.
 - .2 Damage by the Contractor to existing utilities in the performance of the Work, the owners of the utilities gas pipes, electrical wires, communication cables, conduits will carry out the replacement or repairs owned of the utility. The Contractor shall still be responsible for the costs of the repairs.

- .7 Surface Restoration Following Underground Works
 - .1 Unless otherwise specified, the Contractor shall be responsible for all surface restoration equal to or better than the original condition.
 - .2 The Contractor shall make himself fully aware of the conditions in the Work area prior to submitting his Tender and no payment will be made for any Work required as per this item.
 - .3 Arrangements shall be made by the Contractor with the Authority concerned regarding restoration of surfaces, where such surface restoration is not specifically detailed herein. The Contractor shall bear the full expense involved in replacing the surfaces to the satisfaction of the Authority having jurisdiction.

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 01 11 00

MCKELVEY CREEK LANDFILL

GENERAL

704-SWM.SWOP04332-01

REQUIREMENTS

PAGE 7 OF 7

- .4 It shall be the Contractor's responsibility to maintain all surfaces over the pipe trench, including pavement, boulevards, curbs, sidewalks, culverts, etc., to the satisfaction of the Authorities until permanent repairs have been made.
- .5 All ditches damaged during construction shall be graded and restored upon completion of the installation to conditions equal or better prior to construction. All costs for restoration is incidental to the Works performed.
- .6 The Contractor will also be responsible to maintain the drainage of the existing ditches during the construction period. Surface restoration and clean-up shall be done in a timely matter of two weeks behind the installation crews.
- .8 Protection of Survey Bars
 - .1 The Contractor shall not disturb, deface, alter, destroy or remove any survey post, monument or bar and if the same shall occur, then, and in every such case, the Engineer shall have such post, monument or bar replaced at the expense of the Contractor. The Contractor shall pay all costs and expenses incurred in connection therewith.
 - .2 If the Contractor is in doubt about the location of the bars in the field, he will contact the Engineer before doing any Work in the area. Other survey posts, monuments, or bars may exist and the Contractor shall exercise care at intersections and other places where such survey posts, monuments or bars may exist.
 - .3 Where a survey bar lies in the line of the proposed work and must be disturbed, the Contractor shall provide the Engineer with seventy-two (72) hours notice to have the survey bar referenced and relocated. The survey bar shall be referenced and replaced at no cost to the Contractor.
- .9 Continued Facility Operation
 - .1 The landfill shall remain operational throughout the duration of this Contract.
 - .2 Keep temporary interruptions to roadways and site infrastructure to an absolute minimum. Make such interruptions at the convenience of the occupants and obtain the approval of the Engineer, as to the time and duration.
 - .3 Any temporary roadway closures shall be coordinated with the Engineer and shall not impede access to the Site by the public or operations staff. Any temporary road closures shall be undertaken outside of the landfill's normal operating hours or by providing temporary alternative site access as approved by the Engineer.

1.13 ORAL AGREEMENTS

- .1 In the case of misunderstandings, disputes, or interpretation of the Contract Documents, oral agreements will not be considered.

PART 2 PRODUCTS (NOT USED)**PART 3 EXECUTION (NOT USED)****PART 4 MEASUREMENT AND PAYMENT**

- .1 No separate payment will be made for work under this Section.

END OF SECTION

REGIONAL DISTRICT OF KOOTENAY BOUNDARY	SECTION 01 29 00
MCKELVEY CREEK LANDFILL	PAYMENT
704-SWM.SWOP04332-01	PROCEDURES
	PAGE 1 OF 4

PART 1 GENERAL

1.1 SCOPE

- .1 This Section describes the basis of payment that will apply to this contract.

1.2 SECTION INCLUDES

- .1 Reference Standards.
- .2 Measurement.
- .3 Rejected Products.
- .4 Application for Progress Payment.
- .5 Schedule of Values.
- .6 Preparing Schedule of Unit Price Table Items.
- .7 Progress Payment.
- .8 Substantial Performance of Work.
- .9 Payment of Holdback Upon Substantial Performance of Work.
- .10 Progressive Release of Holdback.
- .11 Final Payment.
- .12 Measurement and Payment.

1.3 REFERENCE STANDARDS

- .1 Owner/Contractor Agreement.

1.4 MEASUREMENT

- .1 Measurement for Unit Price Work: As specified in individual Sections. Quantities indicated in the Schedule of Prices are for bidding and contract purposes only and are approximate. Quantities of material furnished and/or work performed as verified by Engineer determine payment.

REGIONAL DISTRICT OF KOOTENAY BOUNDARY	SECTION 01 29 00
MCKELVEY CREEK LANDFILL	PAYMENT
704-SWM.SWOP04332-01	PROCEDURES
	PAGE 2 OF 4

1.5 REJECTED PRODUCTS

- .1 Non-payment for rejected products: Payment will not be made for any of the following:
 - .1 Products determined as unacceptable before or after placement.
 - .2 Products not completely unloaded from the transporting vehicle.
 - .3 Products placed beyond the lines and levels of the required Works.
 - .4 Products remaining after completion of the Works.
 - .5 Loading, hauling, and disposing of rejected products.

1.6 APPLICATIONS FOR PROGRESS PAYMENT

- .1 Make applications for payment on account as monthly as Work progresses.
- .2 Date applications for payment last day of agreed monthly payment period and ensure amount claimed is for value, proportionate to amount of Contract, of Work performed and Products delivered to Place of Work at that date.
- .3 Submit to Engineer, at least 14 days before first application for payment. Schedule of values for parts of Work, aggregating total amount of Contract Price, to facilitate evaluation of applications for payment.

1.7 SCHEDULE OF VALUES

- .1 Provide schedule of values supported by evidence as Engineer may reasonably direct and when accepted by Engineer, be used as basis for applications for payment.
- .2 Include statement based on schedule of values with each application for payment.
- .3 Support claims for products delivered to Place of Work but not yet incorporated into Work by such evidence as Engineer may reasonably require to establish value and delivery of products.

1.8 PREPARING SCHEDULE OF UNIT PRICE TABLE ITEMS

- .1 Submit separate schedule of unit price items of Work requested in Tender Form.
- .2 Make form of submittal parallel to Schedule of Values, with each line item identified same as line item in Schedule of Values. Include in unit prices only:
 - .1 Cost of material.
 - .2 Delivery and unloading at site.
 - .3 Sales taxes.
 - .4 Installation, overhead and profit.
- .3 Ensure unit prices multiplied by quantities given equal material cost of that item in Schedule of Prices.

REGIONAL DISTRICT OF KOOTENAY BOUNDARY	SECTION 01 29 00
MCKELVEY CREEK LANDFILL	PAYMENT
704-SWM.SWOP04332-01	PROCEDURES
	PAGE 3 OF 4

1.9 PROGRESS PAYMENT

- .1 Engineer will issue to Owner, no later than 10 days after receipt of an application for payment, certificate for payment in amount applied for or in such other amount as Engineer determines to be due. If Engineer amends application, Engineer will give notification in writing giving reasons for amendment.

1.10 SUBSTANTIAL PERFORMANCE OF WORK

- .1 Prepare and submit to Engineer comprehensive list of items to be completed or corrected and apply for a review by Engineer to establish Substantial Performance of Work or substantial performance of designated portion of Work when Work is substantially performed if permitted by lien legislation applicable to Place of Work designated portion which Owner agrees to accept separately is substantially performed. Failure to include items on list does not alter responsibility to complete Contract.
- .2 No later than 10 days after receipt of list and application, Engineer will review Work to verify validity of application, and no later than 7 days after completing review, will notify Contractor if Work or designated portion of Work is substantially performed.
- .3 Engineer: state date of Substantial Performance of Work or designated portion of Work in certificate.
- .4 Immediately following issuance of certificate of Substantial Performance of Work, in consultation with Engineer, establish reasonable date for finishing Work.

1.11 PAYMENT OF HOLDBACK UPON SUBSTANTIAL PERFORMANCE OF WORK

- .1 After issuance of certificate of Substantial Performance of Work:
- .2 Submit application for payment of holdback amount.
- .3 Submit sworn statement that accounts for labour, subcontracts, products, construction machinery and equipment, and other indebtedness which may have been incurred in Substantial Performance of Work and for which Owner might in be held responsible have been paid in full, except for amounts properly retained as holdback or as identified amount in dispute.
- .4 After receipt of application for payment and sworn statement, Engineer will issue certificate for payment of holdback amount.
- .5 Where holdback amount has not been placed in a separate holdback account, Owner will, 10 days prior to expiry of holdback period stipulated in lien legislation applicable to Place of Work, place holdback amount in bank account in joint names of Owner and Contractor.
- .6 Amount authorized by certificate for payment of holdback amount is due and payable on day following expiration of holdback period stipulated in lien legislation applicable to Place of

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 01 29 00

MCKELVEY CREEK LANDFILL

PAYMENT

704-SWM.SWOP04332-01

PROCEDURES

PAGE 4 OF 4

Work. Where lien legislation does not exist or apply, holdback amount is due and payable in accordance with other legislation, industry practice, or provisions which may be agreed to between parties. Owner may retain out of holdback amount sums required by law to satisfy liens against Work or, if permitted by lien legislation applicable to Place of Work, other third party monetary claims against Contractor which are enforceable against Owner.

1.12 PROGRESSIVE RELEASE OF HOLDBACK

- .1 Where legislation permits, if Engineer has certified that Work of subcontractor or supplier has been performed prior to Substantial Performance of Work, Owner will pay holdback amount retained for such subcontract Work, or products supplied by such supplier, on day following expiration of holdback period for such Work stipulated in lien legislation applicable to Place of Work.
- .2 In addition to provisions of preceding paragraph, and certificate wording, ensure that such subcontract Work or products is protected pending issuance of final certificate for payment and be responsible for correction of defects or Work not performed regardless of whether or not such was apparent when such certificates were issued.

1.13 FINAL PAYMENT

- .1 Submit application for final payment when Work is completed.
- .2 Engineer will, no later than 10 days after receipt of application for final payment, review Work to verify validity of application. Engineer will give notification that application is valid or give reasons why it is not valid, no later than 7 days after reviewing Work.
- .3 Engineer will issue final certificate for payment when application for final payment is found valid.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

PART 4 MEASUREMENT AND PAYMENT

- .1 No separate payment will be made for work under this Section.

END OF SECTION

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 01 33 00

MCKELVEY CREEK LANDFILL

SUBMITTAL

704-SWM.SWOP04332-01

PROCEDURES

PAGE 1 OF 5

PART 1 GENERAL**1.1 SCOPE**

- .1 This Section covers procedures and requirements for submission of documents, data, drawings and samples related to the Works.

1.2 SECTION INCLUDES

- .1 Administrative.
- .2 Shop Drawings and Product Data.
- .3 Samples.
- .4 Measurement and Payment.

1.3 ADMINISTRATIVE

- .1 Submit to Engineer submittals listed for review. Submit promptly and in orderly sequence to not cause delay in Work. Failure to submit in ample time is not considered sufficient reason for extension of Contract Time and no claim for extension by reason of such default will be allowed.
- .2 Do not proceed with Work affected by submittal until review is complete.
- .3 Present shop drawings, product data, samples and mock-ups in SI Metric units.
- .4 Where items or information is not produced in SI Metric units converted values are acceptable.
- .5 Review submittals prior to submission to Engineer. This review represents that necessary requirements have been determined and verified, or will be, and that each submittal has been checked and co-ordinated with requirements of Work and Contract Documents. Submittals not stamped, signed, dated and identified as to specific project will be returned without being examined and considered rejected.
- .6 Notify Engineer, in writing at time of submission, identifying deviations from requirements of Contract Documents stating reasons for deviations.
- .7 Verify field measurements and affected adjacent Work are coordinated.
- .8 Contractor's responsibility for errors and omissions in submission is not relieved by Engineer's review of submittals.
- .9 Contractor's responsibility for deviations in submission from requirements of Contract Documents is not relieved by Engineer's review.
- .10 Keep one reviewed copy of each submission on site.

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 01 33 00

MCKELVEY CREEK LANDFILL

SUBMITTAL

704-SWM.SWOP04332-01

PROCEDURES

PAGE 2 OF 5

1.4 SHOP DRAWINGS AND PRODUCT DATA

- .1 The term shop drawings means drawings, diagrams, illustrations, schedules, performance charts, brochures and other data which are to be provided by Contractor to illustrate details of a portion of Work.
- .2 Submit drawings stamped and signed by professional engineer registered or licensed in British Columbia, Canada.
- .3 Indicate materials, methods of construction and attachment or anchorage, erection diagrams, connections, explanatory notes and other information necessary for completion of Work. Where articles or equipment attach or connect to other articles or equipment, indicate that such items have been co-ordinated, regardless of Section under which adjacent items will be supplied and installed. Indicate cross references to design drawings and specifications.
- .4 Allow 5 days for Engineer's review of each submission.
- .5 Adjustments made on shop drawings by Engineer are not intended to change Contract Price. If adjustments affect value of Work, state such in writing to Engineer prior to proceeding with Work.
- .6 Make changes in shop drawings as Engineer may require, consistent with Contract Documents. When resubmitting, notify Engineer in writing of revisions other than those requested.
- .7 Accompany submissions with transmittal letter containing:
 - .1 Date.
 - .2 Project title and number.
 - .3 Contractor's name and address.
 - .4 Identification and quantity of each shop drawing, product data and sample.
 - .5 Other pertinent data.
- .8 Submissions include:
 - .1 Date and revision dates.
 - .2 Project title and number.
 - .3 Name and address of:
 - .1 Subcontractor.
 - .2 Supplier.
 - .3 Manufacturer.
 - .4 Contractor's stamp, signed by Contractor's authorized representative certifying approval of submissions, verification of field measurements and compliance with Contract Documents.
 - .5 Details of appropriate portions of Work as applicable:
 - .1 Fabrication.
 - .2 Layout, showing dimensions, including identified field dimensions, and clearances.
 - .3 Setting or erection details.
 - .4 Capacities.

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 01 33 00

MCKELVEY CREEK LANDFILL

SUBMITTAL

704-SWM.SWOP04332-01

PROCEDURES

PAGE 3 OF 5

- .5 Performance characteristics.
 - .6 Standards.
 - .7 Operating weight.
 - .8 Wiring diagrams.
 - .9 Single line and schematic diagrams.
 - .10 Relationship to adjacent work.
- .9 After Engineer's review, distribute copies.
 - .10 Submit electronic copy of shop drawings for each requirement requested in specification Sections and as Engineer may reasonably request.
 - .11 Submit electronic of product data sheets or brochures for requirements requested in specification Sections and as requested Engineer where shop drawings will not be prepared due to standardized manufacture of product.
 - .12 Submit electronic of test reports for requirements requested in specification Sections and as requested by Engineer.
 - .1 Report signed by authorized official of testing laboratory that material, product or system identical to material, product or system to be provided has been tested in accord with specified requirements.
 - .2 Testing must have been within 2 years of date of contract award for project.
 - .13 Submit electronic copies of certificates for requirements requested in specification Sections and as requested by Engineer.
 - .1 Statements printed on manufacturer's letterhead and signed by responsible officials of manufacturer of product, system or material attesting that product, system or material meets specification requirements.
 - .2 Certificates must be dated after award of project contract complete with project name.
 - .14 Submit electronic copies of manufacturer's instructions for requirements requested in specification Sections and as requested by Engineer.
 - .1 Pre-printed material describing installation of product, system or material, including special notices and Safety Data Sheets concerning impedances, hazards and safety precautions.
 - .15 Submit electronic copies of Manufacturer's Field Reports for requirements requested in specification Sections and as requested by Engineer.
 - .16 Documentation of the testing and verification actions taken by manufacturer's representative to confirm compliance with manufacturer's standards or instructions.
 - .17 Submit electronic copies of Operation and Maintenance Data for requirements requested in specification Sections and as requested by Engineer.
 - .18 Delete information not applicable to project.
 - .19 Supplement standard information to provide details applicable to project.

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 01 33 00

MCKELVEY CREEK LANDFILL

SUBMITTAL

704-SWM.SWOP04332-01

PROCEDURES

PAGE 4 OF 5

- .1 Shop drawings will be returned to the Contractor with one (1) of the following notations:
 - .1 When stamped "ACCEPTED", issue construction copies as required for execution of the Work.
 - .2 When stamped "ACCEPTED AS NOTED" make the necessary revisions consistent with the Contract before issuing for Construction.
 - .3 When stamped "REVISE AND RE-SUBMIT", make the necessary revisions, consistent with the Contract, and submit again for review.
 - .4 When stamped "REJECTED", submit other drawings, brochures, etc., for review consistent with the Contract.
 - .5 Only shop drawings bearing "ACCEPTED" or "ACCEPTED AS NOTED" and have been stamped "ISSUED FOR CONSTRUCTION" shall be used on the Work and for fabrication of the products unless otherwise authorized by the Consultant.
- .2 After submittals are stamped "ACCEPTED" or "ACCEPTED AS NOTED", no further revisions are permitted unless re-submitted to the Consultant for further review.
- .3 Any adjustments made on shop drawings by the Consultant are not intended to change the Contract Price. If it is deemed that such adjustments affect the Contract Price, clearly state as such in writing prior to proceeding with fabrication and installation of the work.
- .4 Fabrication of products shall not commence until shop drawings have been reviewed by the Consultant and found not to require re-submission.
- .5 Shop drawings indicating design requirements not included in the Contract Documents require the seal of a Professional Consultant, registered in the province of Manitoba. Consultant calculations must be submitted for review, if requested, and must be signed by a Professional Consultant.

1.5 SAMPLES

- .1 Submit for review samples in duplicate as requested in respective specification Sections. Label samples with origin and intended use.
- .2 Deliver samples prepaid to Engineer.
- .3 Notify Engineer in writing, at time of submission of deviations in samples from requirements of Contract Documents.
- .4 Where colour, pattern or texture is criterion, submit full range of samples.
- .5 Adjustments made on samples Engineer are not intended to change Contract Price. If adjustments affect value of Work, state such in writing to Engineer prior to proceeding with Work.
- .6 Make changes in samples which Engineer may require, consistent with Contract Documents.
- .7 Reviewed and accepted samples will become standard of workmanship and material against which installed Work will be verified.

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 01 33 00

MCKELVEY CREEK LANDFILL

SUBMITTAL

704-SWM.SWOP04332-01

PROCEDURESPAGE 5 OF 5

PART 2 PRODUCTS (NOT USED)**PART 3 EXECUTION (NOT USED)****PART 4 MEASUREMENT AND PAYMENT**

- .1 No separate payment will be made for work under this Section.

END OF SECTION

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 01 35 29.06

MCKELVEY CREEK LANDFILL

HEALTH AND SAFETY

704-SWM.SWOP04332-01

REQUIREMENTS

PAGE 1 OF 4

PART 1 GENERAL**1.1 SCOPE OF WORK**

- .1 Develop a written site-specific Health and Safety Plan prior to commencing any on Site work and continue to implement, maintain, and enforce the plan until final demobilization from the Site.

1.2 SECTION INCLUDES

- .1 Related Requirements.
- .2 Reference Standards.
- .3 Action and Informational Submittals.
- .4 Filing of Notice.
- .5 Safety Assessment.
- .6 Meetings.
- .7 General Requirements.
- .8 Responsibility.
- .9 Compliance Requirements.
- .10 Unforeseen Hazards.
- .11 Health and Safety Coordinator.
- .12 Posting of Documents.
- .13 Correction of Non-Compliance.
- .14 Work Stoppage.
- .15 Measurement and Payment.

1.3 RELATED REQUIREMENTS

- .1 Section 01 33 00 - Submittal Procedures
- .2 Section 01 29 00 – Payment Procedures

1.4 REFERENCE STANDARDS

- .1 Canada Labour Code, Part 2, Canada Occupational Safety and Health Regulations

REGIONAL DISTRICT OF KOOTENAY BOUNDARY	SECTION 01 35 29.06
MCKELVEY CREEK LANDFILL	HEALTH AND SAFETY
704-SWM.SWOP04332-01	REQUIREMENTS
	PAGE 2 OF 4

- .2 Province of British Columbia
 - .1 Workers Compensation Act – Updated 2020.

1.5 ACTION AND INFORMATIONAL SUBMITTALS

- .1 Submit in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Submit site-specific Health and Safety Plan: Within 7 days after date of Notice to Proceed and prior to commencement of Work. Health and Safety Plan must include:
 - .1 Results of site specific safety hazard assessment.
 - .2 Results of safety and health risk or hazard analysis for site tasks and operation.
- .3 Engineer will review Contractor's site-specific Health and Safety Plan and provide comments to Contractor within 5 days after receipt of plan. Revise plan as appropriate and resubmit plan to Engineer within 5 days after receipt of comments from Engineer.
- .4 Engineer's review of Contractor's final Health and Safety plan should not be construed as approval and does not reduce the Contractor's overall responsibility for construction Health and Safety.

1.6 FILING OF NOTICE

- .1 File notice of project with Provincial authorities prior to beginning of Work.

1.7 SAFETY ASSESSMENT

- .1 Perform site specific safety hazard assessment related to project.

1.8 MEETINGS

- .1 Schedule and administer Health and Safety meeting with Engineer prior to commencement of Work.

1.9 GENERAL REQUIREMENTS

- .1 Develop written site-specific Health and Safety Plan based on hazard assessment prior to beginning site Work and continue to implement, maintain, and enforce plan until final demobilization from site. Health and Safety Plan must address project specifications.

Engineer may respond in writing, where deficiencies or concerns are noted and may request re-submission with correction of deficiencies or concerns.

1.10 RESPONSIBILITY

- .1 Be responsible for health and safety of persons on site, safety of property on site and for protection of persons adjacent to site and environment to extent that they may be affected by conduct of Work.
- .2 Comply with and enforce compliance by employees with safety requirements of Contract Documents, applicable federal, provincial, territorial and local statutes, regulations, and ordinances, and with site-specific Health and Safety Plan

REGIONAL DISTRICT OF KOOTENAY BOUNDARY	SECTION 01 35 29.06
MCKELVEY CREEK LANDFILL	HEALTH AND SAFETY
704-SWM.SWOP04332-01	REQUIREMENTS
	PAGE 3 OF 4

1.11 COMPLIANCE REQUIREMENTS

- .1 Comply with Workers Compensation Act and the Occupational Health and Safety Regulation, Government of British Columbia, 2020.
- .2 Comply with Canada Labour Code, Canada Occupational Safety and Health Regulations.

1.12 UNFORESEEN HAZARDS

- .1 When unforeseen or peculiar safety-related factor, hazard, or condition occur during performance of Work, follow procedures in place for Employee's Right to Refuse Work in accordance with Acts and Regulations of British Columbia and advise Engineer verbally and in writing.
- .2 When unforeseen or peculiar safety-related factor, hazard, or condition occur during performance of Work, advise Health and Safety Coordinator and follow procedures in accordance with Acts and Regulations of British Columbia and advise Engineer verbally and in writing.

1.13 HEALTH AND SAFETY COORDINATOR

- .1 Employ and assign to Work, competent and authorized representative as Health and Safety Co-ordinator. Health and Safety Co-ordinator must:
 - .1 Have site-related working experience specific to activities associated with building construction and earthworks.
 - .2 Have working knowledge of occupational safety and health regulations.
 - .3 Be responsible for completing Contractor's Health and Safety Training Sessions and ensuring that personnel not successfully completing required training are not permitted to enter site to perform Work.
 - .4 Be responsible for implementing, enforcing daily and monitoring site-specific Contractor's Health and Safety Plan.
 - .5 Be on site during execution of Work and report directly to and be under direction of the site supervisor].

1.14 POSTING OF DOCUMENTS

- .1 Ensure applicable items, articles, notices and orders are posted in conspicuous location on site in accordance with Acts and Regulations of British Columbia, and in consultation with Engineer.

1.15 CORRECTION OF NON-COMPLIANCE

- .1 Immediately address health and safety non-compliance issues identified by authority having jurisdiction or by Engineer.
- .2 Provide Engineer with written report of action taken to correct non-compliance of health and safety issues identified.
- .3 Engineer may stop Work if non-compliance of health and safety regulations is not corrected.

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 01 35 29.06

MCKELVEY CREEK LANDFILL

HEALTH AND SAFETY

704-SWM.SWOP04332-01

REQUIREMENTSPAGE 4 OF 4

1.16 WORK STOPPAGE

- .1 Give precedence to safety and health of public and site personnel and protection of environment over cost and schedule considerations for Work.

PART 2 PRODUCTS (NOT USED)**PART 3 EXECUTION (NOT USED)****PART 4 MEASUREMENT AND PAYMENT**

- .1 No separate payment will be made for work under this Section.

END OF SECTION

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 01 35 43

MCKELVEY CREEK LANDFILL

ENVIRONMENTAL

704-SWM.SWOP04332-01

PROCEDURES

PAGE 1 OF 4

PART 1 GENERAL**1.1 SCOPE OF WORK**

- .1 Be responsible for environmental control requirements for the overall site within the limits of the contract, including monitoring of erosion and sedimentation control and maintenance.

1.2 SECTION INCLUDES

- .1 Related Requirements.
- .2 Reference Standards.
- .3 Definitions.
- .4 Submittals.
- .5 Fires.
- .6 Disposal of Waste.
- .7 Drainage.
- .8 Site Clearing and Plant Protection.
- .9 Work Adjacent to Waterways.
- .10 Pollution Control.
- .11 Historic/Archaeological Control.
- .12 Notification.
- .13 Cleaning.
- .14 Measurement and Payment.

1.3 RELATED REQUIREMENTS

- .1 Section 01 33 00 - Submittal Procedures
- .2 Section 01 73 00 - Execution
- .3 Section 01 77 00 – Closeout Procedures and Submittals

1.4 DEFINITIONS

- .1 Environmental Pollution and Damage: presence of chemical, physical, biological elements or agents which adversely affect human health and welfare; unfavorably alter ecological

REGIONAL DISTRICT OF KOOTENAY BOUNDARY	SECTION 01 35 43
MCKELVEY CREEK LANDFILL	ENVIRONMENTAL
704-SWM.SWOP04332-01	PROCEDURES
	PAGE 2 OF 4

balances of importance to human life; affect other species of importance to humans; or degrade environment aesthetically, culturally and/or historically.

- .2 Environmental Protection: prevention/control of pollution and habitat or environment disruption during construction.

1.5 SUBMITTALS

- .1 Submit in accordance with Section 01 33 00 - Submittal Procedures.

1.6 FIRES

- .1 Fires and burning of rubbish on site is not permitted.

1.7 DISPOSAL OF WASTE

- .1 Do not bury waste on-Site unless approved by Engineer or Owner.
- .2 Do not dispose of waste or volatile materials, such as spirits, oil or paint thinner into waterways, storm or sanitary sewers.

1.8 DRAINAGE

- .1 Develop and submit erosion and Sediment Control Plan (ESC) identifying type and location of erosion and sediment controls provided. Plan to include monitoring and reporting requirements to assure that control measures are in compliance with erosion and sediment control plan.
- .2 Provide temporary drainage and pumping required to keep excavations and site free from water.
- .3 Ensure pumped water into waterways, sewer or drainage systems is free of suspended materials.
- .4 Do not pump water containing suspended materials into waterways, sewer or drainage systems
- .5 Control disposal or runoff of water containing suspended materials or other harmful substances in accordance with local authority requirements.
- .6 The Contractor shall provide erosion control devices such as silt fences as required to satisfy local authority requirements, or as directed by Engineer.

1.9 SITE CLEARING AND PLANT PROTECTION

- .1 Protect trees and plants on site and adjacent properties.
- .2 Protect trees and shrubs adjacent to construction work, storage areas and trucking lanes, and encase with protective wood framework from grade level to height of 2 metre minimum.
- .3 Protect roots of designated trees to dripline during excavation and site grading to prevent disturbance or damage.

REGIONAL DISTRICT OF KOOTENAY BOUNDARY	SECTION 01 35 43
MCKELVEY CREEK LANDFILL	ENVIRONMENTAL
704-SWM.SWOP04332-01	PROCEDURES
	PAGE 3 OF 4

.4 Avoid unnecessary traffic, dumping and storage of materials over root zones.

.5 Minimize stripping of topsoil and vegetation.

.6 Restrict tree removal to areas designated by Engineer.

1.10 WORK ADJACENT TO WATERWAYS

.1 Construction equipment to be operated on land only.

.2 Use waterway beds for borrow material only after written receipt of approval from Engineer.

.3 Waterways to be kept free of excavated fill, waste material and debris.

.4 Design and construct temporary crossings to minimize erosion to waterways.

.5 Do not skid logs or construction materials across waterways.

.6 Avoid indicated spawning beds when constructing temporary crossings of waterways.

1.11 POLLUTION CONTROL

.1 Maintain temporary erosion and pollution control features installed under this Contract.

.2 Control emissions from equipment and plant in accordance with local authorities' emission requirements.

.3 Prevent sandblasting and other extraneous materials from contaminating air and waterways beyond application area.

.1 Provide temporary enclosures where indicated.

.4 Cover or wet down dry materials and rubbish to prevent blowing dust and debris. Provide dust control for temporary roads.

1.12 HISTORICAL/ARCHAEOLOGICAL CONTROL

.1 Provide historical, archaeological, cultural resources, biological resources, and wetlands plan that defines procedures for identifying and protecting historical, archaeological, cultural resources, biological resources and wetlands known to be on project site: and identifies procedures to be followed if historical archaeological, cultural resources, biological resources and wetlands not previously known to be onsite or in area are discovered during construction.

.2 Plan: include methods to assure protection of known or discovered resources and identify lines of communication between Contractor personnel and Engineer.

1.13 NOTIFICATION

.1 Engineer will notify Contractor in writing of observed noncompliance with Federal, Provincial or Municipal environmental laws or regulations, permits, and other elements of Contractor's Environmental Protection Plan.

REGIONAL DISTRICT OF KOOTENAY BOUNDARY	SECTION 01 35 43
MCKELVEY CREEK LANDFILL	ENVIRONMENTAL
704-SWM.SWOP04332-01	PROCEDURES
	PAGE 4 OF 4

- .2 Contractor: after receipt of such notice, inform Engineer of proposed corrective action and take such action for approval by Engineer.
 - .1 Take action only after receipt of written approval by Engineer.
- .3 Engineer will issue stop order of work until satisfactory corrective action has been taken.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION

3.1 CLEANING

- .1 Progress Cleaning:
 - .1 Site cleaning in accordance with 01 73 00 – Execution.
 - .2 Leave Work area clean at end of each day.
- .2 Dispose rubbish and waste materials on site as directed by Engineer.
- .3 Ensure public waterways, storm and sanitary sewers remain free of waste and volatile materials disposal.
- .4 Final Cleaning: upon completion remove surplus materials, rubbish, tools and equipment in accordance with 01 77 00 – Closeout Procedures and Submittals.

PART 4 MEASUREMENT AND PAYMENT

- .1 No separate payment will be made for work under this Section.

END OF SECTION

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 01 45 00

MCKELVEY CREEK LANDFILL

QUALITY CONTROL

704-SWM.SWOP04332-01

PAGE 1 OF 4

PART 1 GENERAL**1.1 SCOPE**

- .1 This Section covers the portions of Work that involve Quality Control by Contractor, including, but not limited to inspections, testing, administrative and enforcement requirements.
- .2 Contractor shall hire a qualified testing agency to perform the quality control testing.

1.2 SECTION INCLUDES

- .1 Inspection.
- .2 Independent Inspection Agencies.
- .3 Access to Work.
- .4 Procedures.
- .5 Rejected Work.
- .6 Reports.
- .7 Test and Mix Design.
- .8 Mill Tests.
- .9 Equipment and Systems.
- .10 Measurement and Payment.

1.3 INSPECTION

- .1 Allow Engineer access to Work. If part of Work is in preparation at locations other than Place of Work, allow access to such Work whenever it is in progress.
- .2 Give timely notice requesting inspection if Work is designated for special tests, inspections or approvals by Engineer Instructions, or law of Place of Work.
- .3 If Contractor covers or permits to be covered Work that has been designated for special tests, inspections or approvals before such is made, uncover such Work, have inspections or tests satisfactorily completed and make good such Work.

1.4 INDEPENDENT INSPECTION AGENCIES

- .1 Unless otherwise allowed for in the Contract, Independent Inspection/Testing Agencies will be engaged by Consultant for purpose of inspecting and/or testing portions of Work. Cost of such services will be borne by Owner. The testing agency shall report all test results directly to the Consultant with original copies. Photocopies addressed to the Contractor will be unacceptable.

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 01 45 00

MCKELVEY CREEK LANDFILL

QUALITY CONTROL

704-SWM.SWOP04332-01

PAGE 2 OF 4

- .2 The Contractor cannot rely on the testing that will be carried out by the independent testing agency for quality control; the intention of this Testing is for determination by the Consultant of satisfactory completed work for progress payment.
- .3 It is the Contractor's responsibility to carry out whatever testing he feels is required to ensure that the work is in conformance with the Contract Documents.
- .4 Employment of inspection/testing agencies does not relax responsibility to perform Work in accordance with Contract Documents.
- .5 If defects are revealed during inspection and/or testing, appointed agency will request additional inspection and/or testing to ascertain full degree of defect. Correct defect and irregularities as advised by Engineer at no cost to Engineer/Owner. Pay costs for retesting and reinspection.

1.5 ACCESS TO WORK

- .1 Allow inspection/testing agencies access to Work, off site manufacturing and fabrication plants.
- .2 Co-operate to provide reasonable facilities for such access.

1.6 PROCEDURES

- .1 Notify Engineer 72 hours in advance of requirement for tests, in order that attendance arrangements can be made.
- .2 Submit samples and/or materials required for testing, as specifically requested in specifications. Submit with reasonable promptness and in orderly sequence to not cause delays in Work.
- .3 Provide labour and facilities to obtain and handle samples and materials on site. Provide sufficient space to store and cure test samples.

1.7 REJECTED WORK

- .1 Remove defective Work, whether result of poor workmanship, use of defective products or damage and whether incorporated in Work or not, which has been rejected by Engineer as failing to conform to Contract Documents. Replace or re-execute in accordance with Contract Documents.
- .2 Make good other Contractor's work damaged by such removals or replacements promptly.
- .3 If in opinion of Engineer it is not expedient to correct defective Work or Work not performed in accordance with Contract Documents, Owner will deduct from Contract Price difference in value between Work performed and that called for by Contract Documents, amount of which will be determined by Engineer.

1.8 REPORTS

- .1 Submit electronic copies of inspection and test reports to Engineer.

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 01 45 00

MCKELVEY CREEK LANDFILL

QUALITY CONTROL

704-SWM.SWOP04332-01

PAGE 3 OF 4

1.9 TESTS AND MIX DESIGNS

- .1 Furnish test results and mix designs as requested.

1.10 MILL TESTS

- .1 Submit mill test certificates as required.

1.11 EQUIPMENT AND SYSTEMS

- .1 Submit adjustment and balancing reports for mechanical, electrical and building equipment systems.

PART 2 PRODUCTS (NOT USED)**PART 3 EXECUTION****3.1 QUALITY CONTROL TESTING**

- .1 At a minimum the quality control testing shall achieve the following frequencies (should a particular specification within this contract document indicate a testing frequency contrary to the table below, the most stringent testing frequency shall apply):

Minimum Frequencies of Quality Control Testing		
Product	Description	Minimum QC Testing Frequency
Concrete	<ul style="list-style-type: none"> • Temperature • CSA A23.2-4C Air Content • CSA A23.2-5C Slump • CSA A23.2-6C Yield 	<ul style="list-style-type: none"> • Each load • Each load • Each load • Randomly 1 per 4 loads (min 1 per day)
Aggregate Quality (other than gradation and fracture)	<ul style="list-style-type: none"> • ASTM C 88 Mg S04 Soundness • ASTM D 2419 Sand Equivalent • BCH 1-9 Degradation • BCH 1-17 Petrographic 	<ul style="list-style-type: none"> • 1 per aggregate source • 1 per aggregate source • 1 per aggregate source • 1 per aggregate source if the aggregate fails any of the above three tests
Granular Subbase Course	<ul style="list-style-type: none"> • CSA A23.3-2A – Sieve Analysis • ASTM D4318 – Plasticity Index • ASTM D2922 – Density 	<ul style="list-style-type: none"> • 1 per 10,000 t placed • 1 test • Per Section 32 23 33.02
Granular Base Course	<ul style="list-style-type: none"> • CSA A23.3-2A – Sieve Analysis • ASTM D4318 – Plasticity Index • AASHTO T96 – Los Angeles Abrasion • ASTM D4318 – Liquid Limit • ASTM D2922 – Density 	<ul style="list-style-type: none"> • 1 per 2,000 t placed • 1 test per source • 1 test per source • 1 test per source • Per Section 32 23 33.02
All other Items and Work	<ul style="list-style-type: none"> • Per the Contract. 	<ul style="list-style-type: none"> • Where frequencies are not specified in the Contract, as mutually agreed between the Consultant and the Contractor as necessary to ensure conformance with the specified quality requirements.

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 01 45 00

MCKELVEY CREEK LANDFILL

QUALITY CONTROL

704-SWM.SWOP04332-01

PAGE 4 OF 4

PART 4 MEASUREMENT AND PAYMENT

- .1 No separate payment will be made for work under this Section.

END OF SECTION

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 01 15 00

MCKELVEY CREEK LANDFILL

TEMPORARY UTILITIES

704-SWM.SWOP04332-01

PAGE 1 OF 3

PART 1 GENERAL**1.1 SCOPE**

- .1 This Section covers Temporary Utilities required in a short-term capacity for construction of the Works.

1.2 SECTION INCLUDES

- .1 Related Requirements.
- .2 Reference Standards.
- .3 Submittals.
- .4 Installation and Removal.
- .5 Dewatering.
- .6 Water Supply.
- .7 Temporary Heating and Ventilation.
- .8 Temporary Power and Light.
- .9 Temporary Communication Facilities.
- .10 Fire Protection
- .11 Temporary Sanitary Facilities.
- .12 Measurement and Payment.

1.3 RELATED REQUIREMENTS

- .1 Section 01 33 00 – Submittal Procedures.

1.4 SUBMITTALS

- .1 Provide submittals in accordance with Section 01 33 00 – Submittal Procedures.

1.5 INSTALLATION AND REMOVAL

- .1 Provide temporary utilities controls in order to execute work expeditiously.
- .2 Remove from site all such work after use.

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 01 15 00

MCKELVEY CREEK LANDFILL

TEMPORARY UTILITIES

704-SWM.SWOP04332-01

PAGE 2 OF 3

1.6 DEWATERING

- .1 Provide temporary drainage and pumping facilities to keep excavations and site free from standing water.

1.7 WATER SUPPLY

- .1 No potable water is available for construction use.
- .2 Contractor shall be responsible for supplying all potable water required for constructing the Works.

1.8 TEMPORARY HEATING AND VENTILATION

- .1 Provide temporary heating required during construction period, including attendance, maintenance and fuel.
- .2 Construction heaters used inside building must be vented to outside or be flameless (vent free) type. Solid fuel salamanders are not permitted.
- .3 Provide temporary heat and ventilation in enclosed areas as required to:
 - .1 Facilitate progress of Work.
 - .2 Protect Work and products against dampness and cold.
 - .3 Prevent moisture condensation on surfaces.
 - .4 Provide ambient temperatures and humidity levels for storage, installation and curing of materials.
 - .5 Provide adequate ventilation to meet health regulations for safe working environment.

1.9 TEMPORARY POWER AND LIGHT

- .1 Contractor shall provide necessary power service.
- .2 Contractor shall arrange with the electrical utility, as needed, for additional power requirements, including power takeoff points, voltage and phasing, transformers, and metering, and shall pay resulting costs and fees.

1.10 TEMPORARY COMMUNICATIONS FACILITY

- .1 Contractor shall provide telephone service at the construction site office for Contractor's own use. Cellular telephone service is acceptable as a substitute for land-line telephone service.

1.11 FIRE PROTECTION

- .1 Contractor shall provide and maintain temporary fire protection equipment during performance of Work required by governing codes, regulations and bylaws.
- .2 Burning rubbish and construction waste materials is not permitted on Site.

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 01 15 00

MCKELVEY CREEK LANDFILL

TEMPORARY UTILITIES

704-SWM.SWOP04332-01

PAGE 3 OF 3

1.12 TEMPORARY SANITARY FACILITIES

- .1 Contractor shall provide on-site toilet and wash-up facilities for the work force that comply with applicable laws, ordinances, and regulations pertaining to the public health and sanitation.
- .2 Provide sufficient sanitary facilities for workers in accordance with local health authorities.
- .3 Maintain in clean condition.

PART 2 PRODUCTS (NOT USED)**PART 3 EXECUTION (NOT USED)****PART 4 MEASUREMENT AND PAYMENT**

- .1 No separate payment will be made for work under this Section.

END OF SECTION

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 01 52 00

MCKELVEY CREEK LANDFILL

CONSTRUCTION

704-SWM.SWOP04332-01

FACILITIES

PAGE 1 OF 4

PART 1 GENERAL**1.1 SCOPE**

- .1 This Section covers Facilities and Infrastructure required in a short-term capacity for the construction of the Works.

1.2 SECTION INCLUDES

- .1 Related Requirements.
- .2 Submittals.
- .3 Site Office.
- .4 Installation and Removal.
- .5 Site Storage/Loading.
- .6 Construction Parking.
- .7 Construction Signage.
- .8 Protection and Maintenance of Traffic.
- .9 Clean Up.
- .10 Temporary Erosion and Sedimentation Control.
- .11 Measurement and Payment.

1.3 RELATED REQUIREMENTS

- .1 Section 01 33 00 – Submittal Procedures
- .2 Section 01 35 43 – Environmental Procedures

1.4 SUBMITTALS

- .1 Provide submittals in accordance with Section 01 33 00 – Submittal Procedures.

1.5 SITE OFFICE

- .1 The Contractor shall supply a site office meeting the following requirements:
 - .1 The field office shall be conveniently located near the Site of the Work.
 - .2 The building shall have a minimum floor area of 20 square metres.

REGIONAL DISTRICT OF KOOTENAY BOUNDARY	SECTION 01 52 00
MCKELVEY CREEK LANDFILL	CONSTRUCTION
704-SWM.SWOP04332-01	FACILITIES
	PAGE 2 OF 4

- .3 The Building shall be suitable for all-weather use. It shall be capable of maintaining a temperature range between 16°C and 25°C.
- .4 The building shall be supplied with fluorescent lights and electrical wall outlets.
- .5 The building shall be furnished with a meeting table and a minimum of six chairs.
- .6 All Contractors' temporary structures located at the site shall be stabilized in a manner sufficient to prevent such temporary structures from being overturned by wind forces as defined in applicable building codes.
- .7 Provide adequate first aid facilities.

- .2 The Contractor shall maintain copies of Drawings, specifications, material safety data sheets (MSDS) for all products to be used on site, and other Contract documents, available for review and use at all times, at the site office.

1.6 INSTALLATION AND REMOVAL

- .1 Prepare site plan indicating proposed location and dimensions of area to be used by Contractor, number of trailers to be used, avenues of ingress/egress to fenced area and details of fence installation.
- .2 Identify areas which have to be gravelled to prevent tracking of mud.
- .3 Indicate use of supplemental or other staging area.
- .4 Provide construction facilities in order to execute work expeditiously.
- .5 Remove from site all such work after use.

1.7 SITE STORAGE/LOADING

- .1 Confine work and operations of employees by Contract Documents. Do not unreasonably encumber premises with products.
- .2 Do not load or permit to load any part of Work with weight or force that will endanger Work.

1.8 CONSTRUCTION PARKING

- .1 Parking will be permitted on site provided it does not disrupt performance of Work.
- .2 Provide and maintain adequate access to project site.

1.9 EQUIPMENT, TOOL AND MATERIALS STORAGE

- .1 Provide and maintain, in clean and orderly condition, lockable weatherproof sheds for storage of tools, equipment and materials.
- .2 Locate materials not required to be stored in weatherproof sheds on site in manner to cause least interference with work activities.

1.10 CONSTRUCTION SIGNAGE

- .1 Provide and erect project sign, within 2 weeks of signing Contract, in a location designated by Engineer.

REGIONAL DISTRICT OF KOOTENAY BOUNDARY	SECTION 01 52 00
MCKELVEY CREEK LANDFILL	CONSTRUCTION
704-SWM.SWOP04332-01	FACILITIES
	PAGE 3 OF 4

- .2 No other signs or advertisements, other than warning signs, are permitted on site.

1.11 PROTECTION AND MAINTENANCE OF TRAFFIC

- .1 Provide access and temporary relocated roads as necessary to maintain traffic.
- .2 Maintain and protect traffic on affected roads during construction period except as otherwise specifically directed by Engineer.
- .3 Provide measures for protection and diversion of traffic, including provision of watch-persons and flag-persons, erection of barricades, placing of lights around and in front of equipment and work, and erection and maintenance of adequate warning, danger, and direction signs
- .4 Protect travelling public from damage to person and property.
- .5 Contractor's traffic on roads selected for hauling material to and from site to interfere as little as possible with public traffic.
- .6 Verify adequacy of existing roads and allowable load limit on these roads. Contractor: responsible for repair of damage to roads caused by construction operations.
- .7 Construct access and haul roads necessary.
- .8 Haul roads: constructed with suitable grades and widths; sharp curves, blind corners, and dangerous cross traffic shall be avoided.
- .9 Provide necessary lighting, signs, barricades, and distinctive markings for safe movement of traffic.
- .10 Dust control: adequate to ensure safe operation at all times.
- .11 Location, grade, width, and alignment of construction and hauling roads: subject to approval by Engineer.
- .12 Lighting: to assure full and clear visibility for full width of haul road and work areas during night work operations.
- .13 Provide snow removal during period of Work.
- .14 Remove, upon completion of work, haul roads designated by Engineer.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION

3.1 TEMPORARY EROSION AND SEDIMENTATION CONTROL

- .1 Provide temporary erosion and sedimentation control measures to prevent soil erosion and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways, according to erosion and sediment control (ESC) plan in accordance with 01 35 43.

REGIONAL DISTRICT OF KOOTENAY BOUNDARY	SECTION 01 52 00
MCKELVEY CREEK LANDFILL	CONSTRUCTION
704-SWM.SWOP04332-01	FACILITIES

PAGE 4 OF 4

- .2 Inspect, repair, and maintain erosion and sedimentation control measures during construction until permanent vegetation has been established.
- .3 Remove erosion and sedimentation controls and restore and stabilize areas disturbed during removal.

PART 4 MEASUREMENT AND PAYMENT

- .1 No separate payment will be made for work under this Section.

END OF SECTION

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 01 55 26

MCKELVEY CREEK LANDFILL

TRAFFIC CONTROL

704-SWM.SWOP04332-01

PAGE 1 OF 3

PART 1 GENERAL**1.1 SCOPE**

- .1 This Section covers traffic control measures to be employed in construction of the Works.

1.2 SECTION INCLUDES

- .1 Reference Standards.
- .2 Traffic Regulation.
- .3 Protection of Public Traffic.
- .4 Informational and Warning Devices.
- .5 Control of Public Traffic.
- .6 Measurement and Payment.

1.3 REFERENCE STANDARDS

- .1 British Columbia Ministry of Transportation and Infrastructure
 - .1 Traffic Management Manual for Work on Roadways - 2020.

1.4 TRAFFIC REGULATION

- .1 Confine construction traffic to designated haul routes.
- .2 Provide all required traffic control permits and signage when construction operations or traffic encroach on public traffic lanes.
- .3 Control construction vehicular parking to prevent interference with access by emergency vehicles, and Owner's operations.
- .4 Monitor parking of construction personnel's vehicles. Maintain vehicular access to and through parking areas.
- .5 Prevent construction parking on or adjacent to access roads or in non-designated areas.
- .6 Repair damage caused by installation and removal or contractor and temporary facilities.

1.5 PROTECTION OF PUBLIC TRAFFIC

- .1 It will be the responsibility of the Contractor under the Contract to maintain traffic during the entire period of the Contract and to ensure that maximum protection is afforded to the road user and that the Contractor's operations in no way interfere with the safe operation of traffic.

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 01 55 26

MCKELVEY CREEK LANDFILL

TRAFFIC CONTROL

704-SWM.SWOP04332-01

PAGE 2 OF 3

- .2 Comply with requirements of Acts, Regulations and By-Laws in force for regulation of traffic or use of roadways upon or over which it is necessary to carry out Work or haul materials or equipment.
- .3 When working on travelled way:
 - .1 Place equipment in position to minimize interference and hazard to travelling public.
 - .2 Keep equipment units as close together as working conditions permit and preferably on same side of travelled way.
 - .3 Do not leave equipment on travelled way overnight.
- .4 Close lanes of road only after receipt of written approval Engineer.
 - .1 Before re-routing traffic erect suitable signs and devices.
- .5 Keep travelled way graded, free from pot holes and of sufficient width for required number of lanes of traffic.
 - .1 Provide 8 m wide minimum temporary roadway for traffic in two-way sections through Work and on detours.
 - .2 Provide 5 m wide minimum temporary roadway for traffic in one-way sections through Work and on detours.
- .6 Provide gravelled detours or temporary roads as indicated by Engineer to facilitate passage of traffic around restricted construction area.
- .7 Provide and maintain road access and egress to property fronting along Work under Contract and in other areas as indicated, except where other means of road access exist that meet approval of Engineer.

1.6 INFORMATIONAL AND WARNING DEVICES

- .1 Provide and maintain signs, flashing warning lights and other devices required to indicate construction activities or other temporary and unusual conditions resulting from Project Work which requires road user response.
- .2 Supply and erect signs, delineators, barricades and miscellaneous warning.
- .3 Meet with Engineer prior to commencement of Work to prepare list of signs and other devices required for project. If situation on site changes, revise list to approval of Engineer.
- .4 Continually maintain traffic control devices in use:
 - .1 Check signs daily for legibility, damage, suitability and location. Clean, repair or replace to ensure clarity and reflectance.
 - .2 Remove or cover signs which do not apply to conditions existing from day to day.

1.7 CONTROL OF PUBLIC TRAFFIC

- .1 Provide competent flag personnel, trained in accordance with, and properly equipped for situations as follows:
 - .1 Regulate traffic, when construction operations or related traffic encroaches on on-site public traffic lanes.

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 01 55 26

MCKELVEY CREEK LANDFILL

TRAFFIC CONTROL

704-SWM.SWOP04332-01

PAGE 3 OF 3

- .2 When public traffic is required to pass working vehicles or equipment that block all or part of travelled roadway.
- .3 When it is necessary to institute one-way traffic system through construction area or other blockage where traffic volumes are heavy, approach speeds are high and traffic signal system is not in use.
- .4 When workmen or equipment are employed on travelled way over brow of hills, around sharp curves or at other locations where oncoming traffic would not otherwise have adequate warning.
- .5 Where temporary protection is required while other traffic control devices are being erected or taken down.
- .6 For emergency protection when other traffic control devices are not readily available.
- .7 In situations where complete protection for workers, working equipment and public traffic is not provided by other traffic control devices.
- .8 At each end of restricted sections where pilot cars are required.
- .9 Delays to public traffic due to contractor's operators: 15 minutes maximum.

PART 2 PRODUCTS (NOT USED)**PART 3 EXECUTION (NOT USED)****PART 4 MEASUREMENT AND PAYMENT**

- .1 No separate payment will be made for work under this Section.

END OF SECTION

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 01 56 00

MCKELVEY CREEK LANDFILL

TEMPORARY BARRIERS

704-SWM.SWOP04332-01

AND ENCLOSURES

PAGE 1 OF 2

PART 1 GENERAL**1.1 SCOPE**

- .1 This Section covers the temporary barriers and controls required during construction of the Works to ensure safety for construction personnel and the public, and to reduce potential time losses due to preventable incidences.

1.2 SECTION INCLUDES

- .1 Installation and Removal.
- .2 Guard Rails and Barricades.
- .3 Security Fencing.
- .4 Vehicular Access to Site.
- .5 Public Traffic Flow.
- .6 Fire Routes.
- .7 Protection for Off-Site and Public Property.
- .8 Protection of Building Finishes.
- .9 Measurement and Payment.

1.3 INSTALLATION AND REMOVAL

- .1 Provide temporary controls in order to execute Work expeditiously.
- .2 Remove from site all such work after use.

1.4 GUARD RAILS AND BARRICADES

- .1 Contractor shall provide barriers to prevent unauthorized entry to construction areas and to protect existing facilities from damage during construction operations.
- .2 Provide as required by governing authorities and good practice, secure, rigid guard railings and barricades around deep excavations, open shafts.
- .3 Signage shall be used to delineate the Work.

1.5 VEHICULAR ACCESS TO SITE

- .1 Provide and maintain access roads, ramps and construction runways as may be required for access to Work.
- .2 Existing Roads: Reasonable use of existing on-Site roads for construction traffic is permitted subject to the following conditions:

REGIONAL DISTRICT OF KOOTENAY BOUNDARY	SECTION 01 56 00
MCKELVEY CREEK LANDFILL	TEMPORARY BARRIERS
704-SWM.SWOP04332-01	AND ENCLOSURES
	PAGE 2 OF 2

- .1 Do not interrupt or interfere with traffic on roads at any time except where approved by Engineer.
- .2 Tracked vehicles are not allowed on paved areas.

1.6 PUBLIC TRAFFIC FLOW

- .1 Provide and maintain competent signal flag operators, traffic signals, barricades and flares, lights, or lanterns as required to perform Work and protect public.

1.7 FIRE ROUTES

- .1 Maintain access to property including overhead clearances for use by emergency response vehicles.

1.8 PROTECTION FOR OFF-SITE AND PUBLIC PROPERTY

- .1 Protect surrounding private and public property from damage during performance of Work.
- .2 Be responsible for damage incurred.

1.9 PROTECTION OF BUILDING FINISHES

- .1 Provide protection for finished and partially finished building finishes and equipment during performance of Work.
- .2 Provide necessary screens, covers, and hoardings.
- .3 Confirm with Engineer locations and installation schedule 5 days prior to installation.
- .4 Contractor shall be responsible for damage incurred due to lack of or improper protection.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

PART 4 MEASUREMENT AND PAYMENT

- .1 No separate payment will be made for work under this Section.

END OF SECTION

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 01 61 00

MCKELVEY CREEK LANDFILL

COMMON PRODUCT

704-SWM.SWOP04332-01

REQUIREMENTS

PAGE 1 OF 5

PART 1 GENERAL**1.1 SCOPE**

- .1 This Section covers general procedures and requirements for transportation, storage, handling, protection, installation and execution of common products not covered in the general detailed or manufacturer's specifications.

1.2 SECTION INCLUDES

- .1 Related Requirements.
- .2 Quality.
- .3 Availability.
- .4 Product Substitution.
- .5 Storage, Handling and Protection.
- .6 Transportation.
- .7 Manufacturer's Instruction.
- .8 Quality of Work.
- .9 Coordination.
- .10 Concealment.
- .11 Remedial Work.
- .12 Location of Fixtures.
- .13 Fastenings.
- .14 Protection of Work in Progress.
- .15 Existing Utilities.
- .16 Measurement and Payment.

1.3 QUALITY

- .1 Products, materials, equipment and articles incorporated in Work shall be new, not damaged or defective, and of best quality for purpose intended. If requested, furnish evidence as to type, source and quality of products provided.
- .2 Procurement policy is to acquire, in cost effective manner, items containing highest percentage of recycled and recovered materials practicable consistent with maintaining

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 01 61 00

MCKELVEY CREEK LANDFILL

COMMON PRODUCT

704-SWM.SWOP04332-01

REQUIREMENTS

PAGE 2 OF 5

satisfactory levels of competition. Make reasonable efforts to use recycled and recovered materials and in otherwise utilizing recycled and recovered materials in execution of work.

- .3 Defective products, whenever identified prior to completion of Work, will be rejected, regardless of previous inspections. Inspection does not relieve responsibility but is precaution against oversight or error. Remove and replace defective products at own expense and be responsible for delays and expenses caused by rejection.
- .4 Should disputes arise as to quality or fitness of products, decision rests strictly with Engineer based upon requirements of Contract Documents.
- .5 Unless otherwise indicated in specifications, maintain uniformity of manufacture for any particular or like item throughout building.
- .6 Permanent labels, trademarks and nameplates on products are not acceptable in prominent locations, except where required for operating instructions, or when located in mechanical or electrical rooms.

1.4 AVAILABILITY

- .1 Immediately upon signing Contract, review product delivery requirements and anticipate foreseeable supply delays for items. If delays in supply of products are foreseeable, notify Engineer of such, in order that substitutions or other remedial action may be authorized in ample time to prevent delay in performance of Work.
- .2 In event of failure to notify Engineer at commencement of Work and should it subsequently appear that Work may be delayed for such reason, Engineer reserves right to substitute more readily available products of similar character, at no increase in Contract Price or Contract Time.

1.5 PRODUCT SUBSTITUTION

- .1 Document each request with complete data substantiating compliance of proposed substitution with the Contract Documents.
- .2 A request for substitution constitutes a representation that Contractor:
 - .1 Has investigated proposed product and determined that it meets or exceeds the quality level of the specified product.
 - .2 Will provide the same warranty for the substitution as for the specified product.
 - .3 Will coordinate installation and make changes to other Works which may be required for the Works to be complete at Contractor's expense and at no additional cost to Owner.
 - .4 Waives claims for additional costs or time extension which may subsequently become apparent.
 - .5 Substitutions will not be considered when they are indicated or implied on Shop Drawings or product data submittals without separate written request.

1.6 STORAGE, HANDLING AND PROTECTION

- .1 Handle and store products in manner to prevent damage, adulteration, deterioration and soiling and in accordance with manufacturer's instructions when applicable.

REGIONAL DISTRICT OF KOOTENAY BOUNDARY	SECTION 01 61 00
MCKELVEY CREEK LANDFILL	COMMON PRODUCT
704-SWM.SWOP04332-01	REQUIREMENTS
	PAGE 3 OF 5

- .2 Store packaged or bundled products in original and undamaged condition with manufacturer's seal and labels intact. Do not remove from packaging or bundling until required in Work.
- .3 Store products subject to damage from weather in weatherproof enclosures.
- .4 Store cementitious products clear of earth or concrete floors, and away from walls.
- .5 Keep sand, when used for grout or mortar materials, clean and dry. Store sand on wooden platforms and cover with waterproof tarpaulins during inclement weather.
- .6 Store sheet materials, lumber on flat, solid supports and keep clear of ground. Slope to shed moisture.
- .7 Store and mix paints in heated and ventilated room. Remove oily rags and other combustible debris from site daily. Take every precaution necessary to prevent spontaneous combustion.
- .8 Remove and replace damaged products at own expense and to satisfaction Engineer.
- .9 Touch-up damaged factory finished surfaces to Engineer's satisfaction. Use touch-up materials to match original. Do not paint over name plates.
- .10 Contractor shall be fully responsible for loss or damage to stored products, materials, and equipment.

1.7 TRANSPORTATION

- .1 Pay costs of transportation of products required in performance of Work.

1.8 MANUFACTURER'S INSTRUCTION

- .1 Unless otherwise indicated in specifications, install or erect products in accordance with manufacturer's instructions. Do not rely on labels or enclosures provided with products. Obtain written instructions directly from manufacturers.
- .2 Notify Engineer in writing, of conflicts between specifications and manufacturer's instructions, so that Engineer will establish course of action.
- .3 Improper installation or erection of products, due to failure in complying with these requirements, authorizes Engineer to require removal and re-installation at no increase in Contract Price or Contract Time.

1.9 QUALITY OF WORK

- .1 Ensure Quality of Work is of highest standard, executed by workers experienced and skilled in respective duties for which they are employed. Immediately notify Engineer if required Work is such as to make it impractical to produce required results.
- .2 Do not employ anyone unskilled in their required duties. Engineer reserves right to require dismissal from site, workers deemed incompetent or careless.
- .3 Decisions as to standard or fitness of Quality of Work in cases of dispute rest solely with Engineer, whose decision is final.

REGIONAL DISTRICT OF KOOTENAY BOUNDARY	SECTION 01 61 00
MCKELVEY CREEK LANDFILL	COMMON PRODUCT
704-SWM.SWOP04332-01	REQUIREMENTS
	PAGE 4 OF 5

1.10 COORDINATION

- .1 Ensure co-operation of workers in laying out Work. Maintain efficient and continuous supervision.
- .2 Be responsible for coordination and placement of openings, sleeves and accessories.

1.11 CONCEALMENT

- .1 In finished areas conceal pipes, ducts and wiring in floors, walls and ceilings, except where indicated otherwise.
- .2 Before installation inform Engineer if there is interference. Install as directed by Engineer.

1.12 REMEDIAL WORK

- .1 Perform remedial work required to repair or replace parts or portions of Work identified as defective or unacceptable. Co-ordinate adjacent affected Work as required.
- .2 Perform remedial work by specialists familiar with materials affected. Perform in a manner to neither damage nor put at risk any portion of Work.

1.13 LOCATION OF FIXTURES

- .1 Consider location of fixtures, outlets, and mechanical and electrical items indicated as approximate.
- .2 Inform Engineer of conflicting installation. Install as directed.

1.14 FASTENINGS

- .1 Provide metal fastenings and accessories in same texture, colour and finish as adjacent materials, unless indicated otherwise.
- .2 Prevent electrolytic action between dissimilar metals and materials.
- .3 Use non-corrosive hot dip galvanized steel fasteners and anchors for securing exterior work, unless stainless steel or other material is specifically requested in affected specification Section.
- .4 Space anchors within individual load limit or shear capacity and ensure they provide positive permanent anchorage. Wood, or any other organic material plugs are not acceptable.
- .5 Keep exposed fastenings to a minimum, space evenly and install neatly.
- .6 Fastenings which cause spalling or cracking of material to which anchorage is made are not acceptable.

1.15 PROTECTION OF WORK IN PROGRESS

- .1 Prevent overloading of parts of building. Do not cut, drill or sleeve load bearing structural member, unless specifically indicated without written approval of Engineer.

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 01 61 00

MCKELVEY CREEK LANDFILL

COMMON PRODUCT

704-SWM.SWOP04332-01

REQUIREMENTSPAGE 5 OF 5

1.16 EXISTING UTILITIES

- .1 When breaking into or connecting to existing services or utilities, execute Work at times directed by local governing authorities, with minimum of disturbance to Work, and pedestrian and vehicular traffic.
- .2 Protect, relocate or maintain existing active services. When services are encountered, cap off in manner approved by authority having jurisdiction. Stake and record location of capped service.

PART 2 PRODUCTS (NOT USED)**PART 3 EXECUTION (NOT USED)****PART 4 MEASUREMENT AND PAYMENT**

- .1 No separate payment will be made for work under this Section.

END OF SECTION

REGIONAL DISTRICT OF KOOTENAY BOUNDARY	SECTION 01 71 00
MCKELVEY CREEK LANDFILL	EXAMINATION AND
704-SWM.SWOP04332-01	PREPARATION
	PAGE 1 OF 4

PART 1 GENERAL

1.1 SCOPE

- .1 Scope of work includes utility locations, establishing survey control points, and layout.

1.2 SECTION INCLUDES

- .1 Related Requirements.
- .2 Reference Standards.
- .3 Qualifications of Surveyor.
- .4 Survey Reference Point.
- .5 Survey Requirements.
- .6 Existing Services.
- .7 Location of Equipment and Fixtures.
- .8 Records.
- .9 Submittals.
- .10 Subsurface Conditions.
- .11 Measurement and Payment.

1.3 RELATED REQUIREMENTS

- .1 Section 01 71 13 – Mobilization and Startup

1.4 REFERENCE STANDARDS

- .1 Owner's identification of existing survey control points and property limits.

1.5 QUALIFICATIONS OF SURVEYOR

- .1 Qualified registered land surveyor, licensed to practice in Place of Work, acceptable to Engineer.

1.6 SURVEY REFERENCE POINT

- .1 Existing base horizontal and vertical control points are designated on drawings.
- .2 Locate, confirm and protect control points prior to starting site work. Preserve permanent reference points during construction.

REGIONAL DISTRICT OF KOOTENAY BOUNDARY	SECTION 01 71 00
MCKELVEY CREEK LANDFILL	EXAMINATION AND
704-SWM.SWOP04332-01	PREPARATION
	PAGE 2 OF 4

- .3 Make no changes or relocations without prior written notice to Engineer.
- .4 Report to Engineer when reference point is lost or destroyed, or requires relocation because of necessary changes in grades or locations.
- .5 Require surveyor to replace control points in accordance with original survey control.

1.7 SURVEY REQUIREMENTS

- .1 Setting Out:
 - .1 The Contractor will give the Consultant a minimum of 48 hours notice in writing before requiring any levels, lines or stakes.
 - .2 Before commencing Work, the Contractor shall satisfy themselves as the meaning and correctness of all stakes, markers, and grade sheets.
 - .3 Contractor shall cooperate by making the Work available for such checking at suitable times, as required by the Consultant. This checking does not relieve the Contractor from his responsibility for the correctness of the layout Work.
- .2 The Contractor shall establish two permanent bench marks on site, referenced to established bench marks by survey control points. Record locations, with horizontal and vertical data in Project Record Documents.
- .3 Establish lines and levels, locate and lay out, by instrumentation.
- .4 Stake for grading, fill, topsoil placement and landscaping features.
- .5 Stake slopes and berms.
- .6 Establish pipe invert elevations.
- .7 Stake batter boards for foundations.
- .8 Establish foundation column locations and floor elevations.
- .9 Establish lines and levels for mechanical and electrical work.
- .10 Verify layout with Engineer and adjust as required.
- .11 Verify material lengths with Engineer prior to ordering materials for construction of the Works.
- .12 The Contractor to supply and pay for all stakes, markers, tools, and any help reasonably required in driving in stakes and setting out of work.
- .13 The Contractor shall have the same person available when a request for any help is made. This person shall be available from the first day of the start of construction through the Date of Substantial Performance.

1.8 EXISTING SERVICES

- .1 Before commencing work, establish location and extent of service lines in area of Work and notify Engineer of findings.

REGIONAL DISTRICT OF KOOTENAY BOUNDARY	SECTION 01 71 00
MCKELVEY CREEK LANDFILL	EXAMINATION AND
704-SWM.SWOP04332-01	PREPARATION
	PAGE 3 OF 4

- .2 Remove abandoned service lines within 4 metres of structures. Cap or otherwise seal lines at cut-off points as directed by Engineer.

1.9 LOCATION OF EQUIPMENT AND FIXTURES

- .1 Location of equipment, fixtures and outlets indicated or specified are to be considered as approximate.
- .2 Locate equipment, fixtures and distribution systems to provide minimum interference and maximum usable space and in accordance with manufacturer's recommendations for safety, access and maintenance.
- .3 Inform Engineer of impending installation and obtain approval for actual location.
- .4 Submit field drawings to indicate relative position of various services and equipment when required by Engineer.

1.10 RECORDS

- .1 The Contractor shall record all changes made during construction and provide record drawings to the Engineer upon completion of the Work.
- .2 Maintain a complete, accurate log of control and survey work as it progresses.
- .3 On completion of foundations and major site improvements, prepare a certified survey showing dimensions, locations, angles and elevations of Work.
- .4 Record locations of maintained, re-routed and abandoned service lines.

1.11 SUBMITTALS

- .1 Submit name and address of Surveyor to Engineer.
- .2 On request of Engineer, submit documentation to verify accuracy of field engineering work.
- .3 Submit certificate signed by surveyor certifying and noting those elevations and locations of completed Work that conform and do not conform with Contract Documents.

1.12 SUBSURFACE CONDITIONS

- .1 Promptly notify Consultant in writing if subsurface conditions at Place of Work differ materially from those indicated in Contract Documents, or a reasonable assumption of probable conditions based thereon.
- .2 After prompt investigation, should Consultant determine that conditions do differ materially, instructions will be issued for changes in Work as provided in Changes and Change Orders.

REGIONAL DISTRICT OF KOOTENAY BOUNDARY	SECTION 01 71 00
MCKELVEY CREEK LANDFILL	EXAMINATION AND
704-SWM.SWOP04332-01	PREPARATION

PAGE 4 OF 4

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

PART 4 MEASUREMENT AND PAYMENT

- .1 No separate payment will be made for work under this Section. Payment for establishing survey control points, layout, records, and survey requirements included in Payment Item 01 71 13/2.

END OF SECTION

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 01 71 13

MCKELVEY CREEK LANDFILL

MOBILIZATION AND

704-SWM.SWOP04332-01

STARTUP

PAGE 1 OF 2

PART 1 GENERAL**1.1 SCOPE**

- .1 Contractor shall be responsible for all preparatory work and operations required prior to beginning Work.

1.2 SECTION INCLUDES

- .1 Mobilization and Startup.
- .2 Measurement and Payment.

1.3 RELATED REQUIREMENTS

- .1 Section 01 29 00 – Payment Procedures
- .2 Section 01 33 00 – Submittal Procedures
- .3 Section 01 71 13 – Mobilization and Startup

1.4 MOBILIZATION AND STARTUP

- .1 Contractor shall not mobilize to the site without the Engineer's written authorization.
- .2 Mobilization shall include, but not limited to, the following:
 - .1 Performance of planning and scheduling activities necessary for the performance of the Works.
 - .2 Purchase of materials and mobilize equipment, supplies, and incidentals to the Site.
 - .3 Movement of personnel, tools, equipment, materials, supplies, and incidentals to the Project site and all preparatory work
 - .4 Establishment of all necessary facilities, including acquisition of easements for the Contractor's convenience.
 - .5 Obtaining permits necessary for the execution of the Work.
 - .6 Providing required bonds, workers' compensation board status, and proof of insurance.
- .3 Startup shall include, but not limited to the following:
 - .1 Establish site access and haul roads necessary to construct the Works and transport materials to and from temporary stockpile locations.
 - .2 Establish Site temporary utilities and facilities in areas designated by Engineer.
 - .3 Coordinate scheduling, submittals, and work of the various Sections of the Project Specifications.
 - .4 Surveying of original ground topography of entire Work area.
 - .5 Assisting Engineer in collection of representative samples for laboratory testing. Test samples may be collected from construction footprint or designated stockpile areas.

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 01 71 13

MCKELVEY CREEK LANDFILL

MOBILIZATION AND

704-SWM.SWOP04332-01

STARTUP

PAGE 2 OF 2

Excavation of test pits to collect samples will require an excavator supplied by the contractor.

PART 2 PRODUCTS (NOT USED)**PART 3 EXECUTION (NOT USED)****PART 4 MEASUREMENT AND PAYMENT****4.1 GENERAL**

- .1 Refer to Section 01 29 00 Payment Procedures: Requirements for measurement and payment.

4.2 MOBILIZATION AND STARTUP**.1 Mobilization**

- .1 Schedule of Prices Item No. 01 71 13/1.
 .2 Payment Basis: Lump sum price. Includes furnishing and maintaining insurance required by the Contract Documents; mobilization; and procuring necessary permits.

.2 Startup

- .1 Schedule of Prices Item No. 01 71 13/2.
 .2 Payment Basis: Lump sum price. Includes establishing temporary haul roads and site access, and temporary controls, field engineering, establishing survey control points, surveying and site layout; resource and material procurement activities.

END OF SECTION

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 01 73 00

MCKELVEY CREEK LANDFILL

EXECUTION

704-SWM.SWOP04332-01

PAGE 1 OF 5

PART 1 GENERAL**1.1 SCOPE**

- .1 Scope includes:
 - .1 General execution requirements for constructing the Works and survey requirements for unit based payment items.
 - .2 Requirements for deconstruction of existing building on site, demolishing concrete household hazardous waste bunker on site, and removal of demolition waste.

1.2 SECTION INCLUDES

- .1 Related Requirements.
- .2 Submittals.
- .3 Materials.
- .4 Preparation.
- .5 Execution.
- .6 Measurement and Payment.

1.3 RELATED REQUIREMENTS

- .1 Section 01 33 00 – Submittal Procedures

1.4 SUBMITTALS

- .1 Submittals: In accordance with Section 01 33 00 – Submittal Procedures
- .2 Submit written request in advance of cutting or alteration which affects:
 - .1 Structural integrity of elements of project.
 - .2 Integrity of weather-exposed or moisture-resistant elements.
 - .3 Efficiency, maintenance, or safety of operational elements.
 - .4 Visual qualities of sight-exposed elements.
 - .5 Work of Owner or separate contractor.
- .3 Include in request:
 - .1 Identification of project.
 - .2 Location and description of affected Work.
 - .3 Statement on necessity for cutting or alteration.
 - .4 Description of proposed Work, and products to be used.
 - .5 Alternatives to cutting and patching.
 - .6 Effect on Work of Owner or separate contractor.
 - .7 Written permission of affected separate contractor.

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 01 73 00

MCKELVEY CREEK LANDFILL

EXECUTION

704-SWM.SWOP04332-01

PAGE 2 OF 5

.8 Date and time work will be executed.

1.5 MATERIALS

- .1 Required for original installation.
- .2 Change in Materials: Submit request for substitution in accordance with Section 01 33 00 – Submittal Procedures.

1.6 PREPARATION

- .1 Inspect existing conditions, including elements subject to damage or movement during cutting and patching.
- .2 After uncovering, inspect conditions affecting performance of Work.
- .3 Beginning of cutting or patching means acceptance of existing conditions.
- .4 Provide supports to assure structural integrity of surroundings; provide devices and methods to protect other portions of project from damage.
- .5 Provide protection from elements for areas which are to be exposed by uncovering work; maintain excavations free of water.

1.7 EXECUTION

- .1 Execute cutting, fitting, and patching including excavation and fill, to complete Work.
- .2 Fit several parts together, to integrate with other Work.
- .3 Uncover Work to install ill-timed Work.
- .4 Remove and replace defective and non-conforming Work.
- .5 Remove samples of installed Work for testing.
- .6 Provide openings in non-structural elements of Work for penetrations of mechanical and electrical Work.
- .7 Execute Work by methods to avoid damage to other Work, and which will provide proper surfaces to receive patching and finishing.
- .8 Employ original installer to perform cutting and patching for weather-exposed and moisture-resistant elements, and sight-exposed surfaces.
- .9 Cut rigid materials using masonry saw or core drill. Pneumatic or impact tools not allowed on masonry work without prior approval.
- .10 Restore work with new products in accordance with requirements of Contract Documents.
- .11 Fit Work to pipes, sleeves, ducts, conduit, and other penetrations through surfaces.

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 01 73 00

MCKELVEY CREEK LANDFILL

EXECUTION

704-SWM.SWOP04332-01

PAGE 3 OF 5

- .12 Refinish surfaces to match adjacent finishes: Refinish continuous surfaces to nearest intersection. Refinish assemblies by refinishing entire unit.
- .13 Conceal pipes, ducts and wiring in floor, wall and ceiling construction of finished areas except where indicated otherwise.

PART 2 PRODUCTS (NOT USED)**PART 3 EXECUTION****3.1 SURVEY**

- .1 Reference point for elevations and lines will be provided by the Engineer. Establish all other required lines and grades from the Engineer's reference points.
- .2 Give forty-eight (48) hours' notice of need for reference points and ensure that line for reference points has been cleared.
- .3 Supply all stakes, hubs, pins templates, flagging, spray paint, poles, etc. required for the Work.
- .4 Be satisfied as to the correct meaning of all reference points. Discontinue Work and advise Engineer immediately if an error is suspected in drawings, specifications, reference points, grade sheets, etc.
- .5 Surveys completed for the purposes of quantity review and as built (record) drawings shall be done at a spacing of 20 m or as determined by the Engineer. Survey data shall be representative of the work done, not uniformly high or low.
- .6 Owner may confirm survey data through an independent survey.
- .7 Contractor shall submit survey data to the Engineer within 24 hours of the data being collected. The Engineer shall have a minimum of two working days from the time of reception to review and approve the survey data. Approval of survey data shall be granted to the Contractor by the Engineer through the Owner.
- .8 Contractor must ensure that duplicate point/shot numbers are not submitted.
- .9 Survey files submitted to the Engineer shall contain only one type of data. Separate files must be created and submitted for different types of data, e.g., Original ground, pipe work, swales shall be submitted in three different files.
- .10 Survey file names shall contain the date of data collection and a description of the data collected. Points contained within the survey file shall bear descriptions that clearly indicate the data they represent. Point names and file names should be very similar in nature. For example, topsoil stripping data collected on June 2, 2021 shall be submitted in a file named "June 2, 2021 – Topsoil Stripping", and the points contained within the file shall be named "Topsoil Stripping".
- .11 Only newly collected survey data shall be submitted. Previously submitted data shall not be included with new data.

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 01 73 00

MCKELVEY CREEK LANDFILL

EXECUTION

704-SWM.SWOP04332-01

PAGE 4 OF 5

- .12 Correct geosynthetic and earthwork terminologies, consistent with the contract documents, shall be used in descriptions of survey data pertaining to these items.
- .13 The following list presents the deliverables for the survey from the Contractor to the Engineer:

Item No.	Survey Submittals	Submittal Requirement	% of Line Item
1	Original ground topography of entire Work area.	To be submitted and approved prior to start of construction.	Included in payment item 01 71 13/2
2	Site Layout	Layout of Works to be constructed prior to commencement of construction. Layout to be approved by Engineer.	Included in payment item 01 71 13/2
4	Following placement of engineered fill.	Survey items to be submitted and approved prior to any placement of road aggregate.	20%
5	Following installation of Lock Block MSE walls and push walls.	To be submitted and approved prior to application for payment under the associated line item.	20%
6	Following gravel placement.	To be submitted and approved prior to application for payment under the associated line item.	15%
7	Following installation of drainage infrastructure.	To be submitted and approved prior to application for payment under the associated line item.	10%
8	Following installation of barrier systems and fences	To be submitted and approved prior to application for payment under the associated line item.	20%
9	Following topsoil placement and seeding.	To be submitted and approved prior to application for payment under the associated line item.	15%
11	Final As-Built ground topography of entire work area post ALL Work, including any disturbed areas outside of the designated work area. This item will also include any item requested by the Engineer throughout the duration of the contract that is not specifically listed above.	Survey must be submitted and approved prior to payment of Demobilization	Included in payment item 01 77 00/1

3.2 CLEAN UP

- .1 Remove construction debris, waste materials, packaging material from work site daily.
- .2 Clean dirt or mud tracked onto paved or surfaced roadways.
- .3 Store materials resulting from demolition activities that are salvageable.
- .4 Stack stored new or salvaged material not in construction facilities.

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 01 73 00

MCKELVEY CREEK LANDFILL

EXECUTION

704-SWM.SWOP04332-01

PAGE 5 OF 5

3.3 DEMOLITION OF EXISTING BUILDING ON SITE AND WASTE REMOVAL

- .1 Contractor is required to deconstruct the existing building and demolish the concrete bunker on site and remove the resulting waste to an area designated by the Engineer.
- .2 Timing of the building deconstruction shall be coordinated and confirmed by the Engineer to allow continues operation of the site as required.
- .3 There are additional waste pile near the existing building. These piles shall be removed from site and disposed in an area designated by the engineer.
- .4 Upon completion of this work the impacted areas shall be graded to allow drainage of surface water to existing ditch system(s)

PART 4 MEASUREMENT AND PAYMENT**4.1 GENERAL**

- .1 Refer to Section 01 29 00 Payment Procedures: Requirements for measurement and payment.

4.2 SURVEYING

- .1 Schedule of Prices Item No. 01 73 00/1.
- .2 Payment Basis: Lump sum price. Includes furnishing and maintaining insurance required by the Contract Documents; mobilization; and procuring necessary permits.

4.3 DEMOLITION OF EXISTING BUILDING ON SITE AND WASTE REMOVAL

- .1 Schedule of Prices Item No. 01 73 00/2.
- .2 Payment Basis: Lump sum price. Includes all labour, equipment and materials required to complete the existing building demolition, removal of demolition waste and other existing waste piles in the area from site as directed by the Engineer, and final clean up and grading of the area to allow surface water drainage to existing ditch system(s).

END OF SECTION

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 01 77 00

MCKELVEY CREEK LANDFILL

CLOSEOUT

704-SWM.SWOP04332-01

**PROCEDURES AND
SUBMITTALS**

PAGE 1 OF 6

PART 1 GENERAL**1.1 SCOPE**

- .1 Scope includes final closeout and submittal requirements including final cleaning and surveying, and warranties.

1.2 SECTION INCLUDES

- .1 Related Requirements.
- .2 Administrative Requirements.
- .3 Final Cleaning.
- .4 Submittals.
- .5 Format.
- .6 Contents – Project Record Documents.
- .7 As-Built Documents.
- .8 Recording Information on Project Record Documents.
- .9 Final Survey.
- .10 Warranties and Bonds.
- .11 Equipment and Systems.
- .12 Measurement and Payment.

1.3 RELATED REQUIREMENTS

- .1 Section 01 33 00 – Submittals
- .2 Section 01 29 00 – Payment Procedures

1.4 ADMINISTRATIVE REQUIREMENTS

- .1 Acceptance of Work Procedures:
 - .1 Contractor's Inspection: conduct inspection of Work, identify deficiencies and defects, and repair as required to conform to Contract Documents.
 - .1 Notify Engineer in writing of satisfactory completion of Contractor's inspection and submit verification that corrections have been made.
 - .2 Request Engineer's inspection.
 - .2 Engineer's Inspection:

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 01 77 00

MCKELVEY CREEK LANDFILL

CLOSEOUT

704-SWM.SWOP04332-01

PROCEDURES AND

PAGE 2 OF 6

SUBMITTALS

- .1 Engineer and Contractor to inspect Work and identify defects and deficiencies.
- .2 Contractor to correct Work as directed.
- .3 Completion Tasks: submit written certificates in English that tasks have been performed as follows:
 - .1 Work: completed and inspected for compliance with Contract Documents.
 - .2 Defects: corrected and deficiencies completed.
 - .3 Equipment and systems: tested, balanced, adjusted and fully operational.
 - .4 Certificates required by regulatory authorities submitted.
 - .5 Operation of systems: demonstrated to Owner's personnel.
 - .6 Work: complete and ready for final inspection.
- .4 Final Inspection:
 - .1 When completion tasks are done, request final inspection of Work by Engineer, and Contractor.
 - .2 When Work incomplete according to Engineer, complete outstanding items and request re-inspection.

1.5 FINAL CLEANING

- .1 When Work is Substantially Performed remove surplus products, tools, construction machinery and equipment not required for performance of remaining Work.
- .2 Remove waste products and debris other than that caused by others, and leave Work clean and suitable for occupancy.
- .3 Waste Management: separate waste materials for recycling and/or reuse.
- .4 Remove waste materials and debris from site at regularly scheduled times or dispose of as directed by Engineer. Do not burn waste materials on site.
- .5 When the Work is Substantially Performed, remove surplus products, tools construction machinery and equipment not required for performance of remaining Work.
- .6 Clean debris from drainage and storm water management systems.
- .7 Repair pavement, roads, sod, and all other areas affected by construction operations and restore them to original condition or to minimum condition specified.
- .8 Prior to final review remove surplus products, tools, construction machinery and equipment.
- .9 Remove waste materials from site at regularly scheduled times or dispose of as directed by Engineer. Do not burn waste materials on site.
- .10 Inspect finishes, fitments and equipment and ensure specified workmanship and operation.
- .11 Sweep paved areas, and rake clean landscaped surfaces.

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 01 77 00

MCKELVEY CREEK LANDFILL

CLOSEOUT

704-SWM.SWOP04332-01

PROCEDURES AND

PAGE 3 OF 6

SUBMITTALS

- .12 Broom clean and wash exterior walks, steps and surfaces; rake clean other surfaces of grounds.
- .13 Remove dirt and other disfiguration from exterior surfaces.
- .14 Clean and sweep roofs, gutters, areaways, and sunken wells.
- .15 Sweep and wash clean paved areas.
- .16 Clean equipment and fixtures to sanitary condition; clean or replace filters of mechanical equipment.
- .17 Clean roofs, downspouts, and drainage systems.
- .18 Remove debris and surplus materials from crawl areas and other accessible concealed spaces.

1.6 SUBMITTALS

- .1 Provide closeout submittals in accordance with Section 01 33 00 - Submittal Procedures.

1.7 FORMAT

- .1 Organize data as instructional manual.
- .2 Binders: vinyl, hard covered, 3 'D' ring, loose leaf with spine and face pockets.
- .3 When multiple binders are used correlate data into related consistent groupings.
 - .1 Identify contents of each binder on spine.
- .4 Cover: identify each binder with type or printed title 'Project Record Documents'; list title of project and identify subject matter of contents.
- .5 Provide tabbed fly leaf for each separate product and system, with typed description of product and major component parts of equipment.
- .6 Text: manufacturer's printed data, or typewritten data.
- .7 Drawings: provide with reinforced punched binder tab.
 - .1 Bind in with text; fold larger drawings to size of text pages.
- .8 Provide final survey data on USB hard drive.

1.8 CONTENTS – PROJECT RECORD DOCUMENTS

- .1 Table of Contents for Each Volume: provide title of project;
 - .1 Date of submission; names.
 - .2 Addresses, and telephone numbers of Consultant and Contractor with name of responsible parties.
 - .3 Schedule of products and systems, indexed to content of volume.

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 01 77 00

MCKELVEY CREEK LANDFILL

CLOSEOUT

704-SWM.SWOP04332-01

PROCEDURES AND

PAGE 4 OF 6

SUBMITTALS

- .2 For each product or system:
 - .1 List names, addresses and telephone numbers of subcontractors and suppliers, including local source of supplies and replacement parts.
- .3 Product Data: mark each sheet to identify specific products and component parts, and data applicable to installation; delete inapplicable information.
- .4 Drawings: supplement product data to illustrate relations of component parts of equipment and systems, to show control and flow diagrams.

1.9 RECORDING INFORMATION ON PROJECT RECORD DOCUMENTS

- .1 Record information on set of drawings provided by Engineer.
- .2 Use felt tip marking pens, maintaining separate colours for each major system, for recording information.
- .3 Record information concurrently with construction progress.
 - .1 Do not conceal Work until required information is recorded.
- .4 Contract Drawings and shop drawings: mark each item to record actual construction, including:
 - .1 Measured depths of elements of foundation in relation to finish first floor datum.
 - .2 Measured horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements.
 - .3 Measured locations of internal utilities and appurtenances, referenced to visible and accessible features of construction.
 - .4 Field changes of dimension and detail.
 - .5 Changes made by change orders.
 - .6 Details not on original Contract Drawings.
 - .7 Referenced Standards to related shop drawings and modifications.
- .5 Specifications: mark each item to record actual construction, including:
 - .1 Manufacturer, trade name, and catalogue number of each product actually installed, particularly optional items and substitute items.
 - .2 Changes made by Addenda and change orders.
- .6 Other Documents: maintain field test records, inspection certifications and manufacturer's certifications required by individual specifications sections.
- .7 Provide digital photos, if requested, for site records.

1.10 FINAL SURVEY

- .1 Field survey data, including all installed works. Pipe installations shall be surveyed, prior to backfilling, at a minimum of one survey point every 10 metres, including all pipe junctions, tees, valves, and connections.

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 01 77 00

MCKELVEY CREEK LANDFILL

CLOSEOUT

704-SWM.SWOP04332-01

PROCEDURES AND

PAGE 5 OF 6

SUBMITTALS**1.11 WARRANTIES AND BONDS**

- .1 Provide Warranties and Bonds fully executed and notarized.
- .2 Execute transition of Performance and Labour and Materials Payment Bond to Warranty Period requirements.

1.12 EQUIPMENT AND SYSTEMS

- .1 For each item of equipment and each system include description of unit or system, and component parts.
 - .1 Give function, normal operation characteristics and limiting conditions.
 - .2 Include performance curves, with engineering data and tests, and complete nomenclature and commercial number of replaceable parts.
- .2 Panel board circuit directories: provide electrical service characteristics, controls, and communications.
- .3 Include installed colour coded wiring diagrams.
- .4 Operating Procedures: include start-up, break-in, and routine normal operating instructions and sequences.
 - .1 Include regulation, control, stopping, shut-down, and emergency instructions.
 - .2 Include summer, winter, and any special operating instructions.
- .5 Maintenance Requirements: include routine procedures and guide for trouble-shooting; disassembly, repair, and reassembly instructions; and alignment, adjusting, balancing, and checking instructions.
- .6 Provide servicing and lubrication schedule, and list of lubricants required.
- .7 Include manufacturer's printed operation and maintenance instructions.
- .8 Include sequence of operation by controls manufacturer.
- .9 Provide original manufacturer's parts list, illustrations, assembly drawings, and diagrams required for maintenance.
- .10 Provide installed control diagrams by controls manufacturer.
- .11 Provide Contactor's co-ordination drawings, with installed colour coded piping diagrams.
- .12 Provide charts of valve tag numbers, with location and function of each valve, keyed to flow and control diagrams.
- .13 Provide list of original manufacturer's spare parts, current prices, and recommended quantities to be maintained in storage.

REGIONAL DISTRICT OF KOOTENAY BOUNDARY		SECTION 01 77 00
MCKELVEY CREEK LANDFILL	CLOSEOUT	
704-SWM.SWOP04332-01	PROCEDURES AND	PAGE 6 OF 6
	SUBMITTALS	

PART 2 PRODUCTS (NOT USED)**PART 3 EXECUTION (NOT USED)****PART 4 MEASUREMENT AND PAYMENT****4.1 GENERAL**

- .1 Refer to Section 01 29 00 – Payment Procedures: Requirements for measurement and payment.

4.2 DEMOBILIZATION AND CLOSEOUT

- .1 Schedule of Prices Item No. 01 77 00/1.
- .2 Payment Basis: Lump sum price. Includes final cleaning of equipment, construction facilities, and materials to be removed from the Site; removal of temporary construction and support facilities provided by Contractor; final Site cleanup, final grading, adjusting, field surveying of final works, restoration, record documents, warranties and bonds.

END OF SECTION

REGIONAL DISTRICT OF KOOTENAY BOUNDARY
MCKELVEY CREEK LANDFILL
FILE: 704-SWM.SWOP04332-01 | ISSUED FOR REVIEW

PART 2-6
SCHEDULE "E"
DETAILED SPECIFICATIONS

PART 2
2-6 SCHEDULE "E"
DETAILED SPECIFICATIONS
PRELIMINARY SPECIFICATION
NOT FOR CONSTRUCTION

_Part 2-6 Index.docx



2-6 SCHEDULE "E" - DETAILED SPECIFICATIONS

Civil Specifications

Section		Pages
03 10 00	Concrete Formwork	5
03 20 00.01	Concrete Reinforcing	5
03 30 00.01	Cast-In-Place Concrete	8
05 50 00.01	Metal Fabrications	5
10 14 53	Traffic Signage	6
13 34 23.01	Prefabricated Site Office	2
13 34 23.02	Modified Sea-Can	3
31 14 13	Soil Stripping and Stockpiling	4
31 23 33.01	Excavating and Trenching	10
31 23 33.02	Fill	9
31 32 19.13	Geogrid Soil Stabilization	4
31 32 19.16	Non-Woven Geotextile	5
31 37 00	Rip Rap	2
32 15 60	Roadway Dust Control	2
32 17 34	Guard Rails	5
32 91 19.13	Topsoil Placement and Final Grading	4
32 92 19.16	Hydraulic Seeding	6
32 31 13	Fencing	7
33 05 13	Precast Concrete	7
33 41 00	Pipeworks	5
33 42 13	Pipe Culverts	6
33 71 00	Electrical Work	3
33 14 16.13	Incoming Site Water Utility Distribution Piping	3
33 31 11	Public Sanitary Sewerage Gravity Piping	8
01 74 00	Cleaning	3
33 41 00	Storm Utility Drainage Piping	7

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 03 10 00

MCKELVEY CREEK LANDFILL

CONCRETE FORMWORK

704-SWM.SWOP04332-01

PAGE 1 OF 5

PART 1 GENERAL**1.1 SCOPE**

- .1 Work covered by this Section includes formwork for Cast-In-Place structural concrete. This section must be referenced to and interpreted simultaneously with all other sections pertinent to the Works described herein.

1.2 SECTION INCLUDES

- .1 Reference Standards.
- .2 Submittals.
- .3 Quality Assurance.
- .4 Delivery, Storage and Handling.
- .5 Formwork.
- .6 Form Ties.
- .7 Form Release Agent.
- .8 Expansion Joint Material.
- .9 Backer Road.
- .10 Void Form.
- .11 Examination.
- .12 Installation.
- .13 Form Ties.
- .14 Removal of Formwork.
- .15 Cleaning.
- .16 Measurement and Payment.

1.3 RELATED REQUIREMENTS

- .1 Section 03 20 00 – Concrete Reinforcing
- .2 Section 03 30 00 – Cast-In-Place Concrete

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 03 10 00

MCKELVEY CREEK LANDFILL

CONCRETE FORMWORK

704-SWM.SWOP04332-01

PAGE 2 OF 5

1.4 REFERENCE STANDARDS

- .1 Abbreviations for electrical terms shall be to CSA Z85-1983.
- .2 Abbreviations of standards organizations referenced in this and other sections are as follows:

ACI	American Concrete Institute
CSA	Canadian Standards Association
CEC	Canadian Electrical Code
IEEE	Institute of Electrical and Electronic Engineers
ANSI	American National Standards Institute
NBC	National Building Code
NFPA	National Fire Protection Association
EEMAC	Electrical & Electronic Manufacturers Association of Canada (formerly CEMA)
FM	Factory Mutual
NEMA	National Electrical Manufacturers Association (U.S.)
JIC	Joint Industry Conference
IPCEA	Insulated Power Cable Engineers Association
ISA	Instrument Society of America
IES	Illuminating Engineering Society
NETA	National Electrical Testing Association
CUL	Canadian Underwriters Laboratories Inc.
ETL	Electrical Testing Laboratories, Inc.
ASTM	American Society for Testing and Materials
AASHTO	American Association of State Highway and Transportation Officials
GRI	Geosynthetic Research Institute
- .3 CSA Group
 - .1 CSA A23.1 /A23.2, Concrete Materials and Methods of Concrete Construction/Methods of Test and Standard Practices for Concrete.
 - .2 CAN/CSA O86, Engineering Design in Wood.
 - .3 CSA O121, Douglas Fir Plywood.
 - .4 CSA O151, Canadian Softwood Plywood.
 - .5 CSA O153, Poplar Plywood.
 - .6 CAN/CSA O325.0, Construction Sheathing.
 - .7 CSA O437 Series, Standards for OSB and Waferboard.
 - .8 CSA S269.1, Falsework and Formwork.
 - .9 CAN/CSA S269.3, Concrete Formwork.
- .4 Reinforcing Steel Institute of Canada (RSIC): Manual of Standard Practice.

1.5 SUBMITTALS

- .1 Submit in accordance with Section 01 33 00 - Submittal Procedures.
- .1 Product Data:

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 03 10 00

MCKELVEY CREEK LANDFILL

CONCRETE FORMWORK

704-SWM.SWOP04332-01

PAGE 3 OF 5

- .1 Submit manufacturer's instructions, printed product literature and data sheets for proprietary materials used in formwork liners and include product characteristics, performance criteria, physical size, finish, and limitations.
 - .2 Shop Drawings:
 - .1 Prepare Shop Drawings in accordance with CSA S269.1 for formwork.
 - .2 Indicate formwork design data: permissible rate of concrete placement, and temperature of concrete, in forms.
- 1.6 QUALITY ASSURANCE**
- .1 Quality Assurance: in accordance with Section 01 45 00 - Quality Control.
- 1.7 DELIVERY, STORAGE AND HANDLING**
- .1 Deliver, store, and handle materials in accordance with Section 01 61 00 - Common Product.
 - .2 Delivery and Acceptance Requirements: deliver materials to site in original factory packaging, labelled with manufacturer's name and address.
 - .3 Storage and Handling Requirements:
 - .1 Store materials off ground and in accordance with manufacturer's recommendations.
 - .2 Store and protect formwork from damages.
 - .3 Replace defective or damaged materials with new.
- PART 2 PRODUCTS**
- 2.1 FORMWORK**
- .1 Plywood shall be exterior grade plywood manufactured in accordance with CSA O121-M with waterproof adhesive and smooth finish on face in contact with concrete.
 - .2 Forming lumber shall be NO. 2 or better pine, spruce or fir in accordance with CAN3-A23.1-M and NLGA grading rules.
 - .3 All lumber used for formwork shall be grade-marked.
- 2.2 FORM TIES**
- .1 For Cast-In-Place Concrete:
 - .1 Type that leaves no metal within 25 mm of concrete surface. Acceptable products include: Burke standard BA architectural Penta-ties, Dayton Plastic Cone Snap Ties or approved equivalent. Form ties to be provided with pre-cast concrete plugs.
 - .2 For Pre-Cast Structural Concrete
 - .1 Form ties not permitted – forms shall be of sufficiently rigid construction to prevent deflection during concrete placing or externally braced.

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 03 10 00

MCKELVEY CREEK LANDFILL

CONCRETE FORMWORK

704-SWM.SWOP04332-01

PAGE 4 OF 5

2.3 FORM RELEASE AGENT

- .1 Non-staining compound, effective in preventing adhesion of concrete to forms and providing clean oil and grease-free contact surfaces.
- .2 If concrete is to remain exposed, use the same form-releasing agent for all applications.

2.4 EXPANSION JOINT MATERIAL

- .1 Asphalt impregnated fibre board. Sealtight Fibre Expansion Joint or approved equal.

2.5 BACKER ROD

- .1 Extruded round, closed cell, low density polyethylene foam. ITP Standard Backer Rod or approved equal.

2.6 VOID FORM

- .1 Expanded polystyrene voiding. Korolite Type 1, Plastispan or approved equal.

PART 3 EXECUTION**3.1 EXAMINATION**

- .1 Prior to commencing installation, thoroughly examine other work upon which the work of this section is dependent. Report any deficiencies discovered and propose adjustments to the Engineer and obtain written authorization before proceeding.

3.2 INSTALLATION

- .1 Construct formwork in accordance with CAN3-A23.1-M.
- .2 Use plywood for forms wherever possible. Obtain approval of the Engineer where board forms are proposed.
- .3 Construct connections to permit easy removal of the formwork. Nail, screw, bolt, clamp or otherwise secure to retain the correct shape during consolidation of the concrete.
- .4 Erect formwork true to line, brace and strut to prevent deformation under the weight and pressure of wet concrete, construction loads, wind, and other forces. Ensure deflection does not exceed 3 mm.
- .5 Install all inserts including anchors, ties, bolts, nailers, anchor bolts, embedded plates as required by all trades or the contract documents.
- .6 Provide all voids, openings and blockouts required by trades or the contract documents. Openings shown on contract drawings must be confirmed with mechanical, electrical, landscape and architectural drawings as required. Openings not on structural drawings must be approved by the Engineer.
- .7 Apply form-releasing agent to faces of formwork in contact with concrete.

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 03 10 00

MCKELVEY CREEK LANDFILL

CONCRETE FORMWORK

704-SWM.SWOP04332-01

PAGE 5 OF 5

- .8 In general, make plywood forms from full sheets, cut sheets being used only where specifically indicated or necessary due to configuration of the structure.
- .9 Carefully arrange panels and form screws so that joints are in continuous straight lines as far as possible.
- .10 Butt and cover panel joints on the outside by walers or wood strips to prevent leakage of fines.
- .11 Ensure faces of formwork for contact with concrete are clean and free from splits, projecting nails and other defects.
- .12 Strength and rigidity of forms shall be such that they will not leak mortar or result in visible irregularities in the finished concrete, but in any case, the deflection of facing and support materials shall not exceed 0.0025 the span.

3.3 FORM TIES

- .1 Form ties shall be positioned in neat rows and at regular intervals. Installed location of ties to be approved by the Engineer.

3.4 REMOVALS OF FORMWORK

- .1 Remove formwork not structurally supporting concrete only after a period of not less than 24 hours at a surface temperature of the concrete of 10C or such longer period as necessary to ensure that the concrete is sufficiently hard so as not to damage the concrete by removing formwork, and that curing and protection operations are maintained.
- .2 Use proper tools recommended by the manufacturer for the removal of form ties.
- .3 Remove forms with care to prevent marring of concrete surfaces.

3.5 CLEANING

- .1 Thoroughly clean surfaces, remove fins and laitance.
- .2 Clean up debris to the satisfaction of the Engineer.

PART 4 MEASUREMENT AND PAYMENT

- .1 No separate payment will be made for work under this Section.

END OF SECTION

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 03 20 00.01

MCKELVEY CREEK LANDFILL

CONCRETE

704-SWM.SWOP04332-01

REINFORCING

PAGE 1 OF 5

PART 1 GENERAL**1.1 SCOPE**

- .1 This section applies to the supply, fabrication, and installation of reinforcing steel for cast-in-place and pre-cast concrete. This section must be referenced to and interpreted simultaneously with all other sections pertinent to the Works described herein.

1.2 SECTION INCLUDES

- .1 Related Requirements.
- .2 Reference Standards.
- .3 Submittals.
- .4 Quality Assurance.
- .5 Delivery, Storage and Handling.
- .6 Materials.
- .7 Fabrication.
- .8 Source Quality Control.
- .9 Field Bending.
- .10 Placing Reinforcement.
- .11 Field Touch Up.
- .12 Measurement and Payment.

1.3 RELATED REQUIREMENTS

- .1 Section 03 10 00 – Concrete Formwork
- .2 Section 03 30 00 – Cast-In-Place Concrete

1.4 REFERENCE STANDARDS

- .1 Abbreviations for electrical terms shall be to CSA Z85-1983.
- .2 Abbreviations of standards organizations referenced in this and other sections are as follows:

ACI	American Concrete Institute
CSA	Canadian Standards Association
CEC	Canadian Electrical Code
IEEE	Institute of Electrical and Electronic Engineers

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 03 20 00.01

MCKELVEY CREEK LANDFILL

CONCRETE

704-SWM.SWOP04332-01

REINFORCING

PAGE 2 OF 5

ANSI	American National Standards Institute
NBC	National Building Code
NFPA	National Fire Protection Association
EEMAC	Electrical & Electronic Manufacturers Association of Canada (formerly CEMA)
FM	Factory Mutual
NEMA	National Electrical Manufacturers Association (U.S.)
JIC	Joint Industry Conference
IPCEA	Insulated Power Cable Engineers Association
ISA	Instrument Society of America
IES	Illuminating Engineering Society
NETA	National Electrical Testing Association
CUL	Canadian Underwriters Laboratories Inc.
ETL	Electrical Testing Laboratories, Inc.
ASTM	American Society for Testing and Materials
AASHTO	American Association of State Highway and Transportation Officials
GRI	Geosynthetic Research Institute

.3 CSA Group

- .1 CSA A23.1 /A23.2, Concrete Materials and Methods of Concrete Construction/Methods of Test and Standard Practices for Concrete.
- .2 CAN/CSA O86, Engineering Design in Wood.
- .3 CSA O121, Douglas Fir Plywood.
- .4 CSA O151, Canadian Softwood Plywood.
- .5 CSA O153, Poplar Plywood.
- .6 CAN/CSA O325.0, Construction Sheathing.
- .7 CSA O437 Series, Standards for OSB and Waferboard.
- .8 CSA S269.1, Falsework and Formwork.
- .9 CAN/CSA S269.3, Concrete Formwork.

.4 ASTM International

- .1 ASTM A641/A641M, Standard Specification for Zinc-Coated (Galvanized) Carbon Steel Wire.
- .2 ASTM A143/A143M, Standard Practice for Safeguarding Against Embrittlement of Hot-Dip Galvanized Structural Steel Products and Procedure for Detecting Embrittlement.
- .3 ASTM A641/A641M, Standard Specification for Zinc-Coated (Galvanized) Carbon Steel Wire.
- .4 ASTM A775/A775M, Standard Specification for Epoxy-Coated Reinforcing Steel Bars.
- .5 ASTM A884/A884M Standard Specification for Epoxy-Coated Steel Wire and Welded Wire Reinforcement.
- .6 ASTM A1064/A1064M, Standard Specification for Carbon-Steel Wire and Welded Wire Reinforcement, Plain and Deformed, for Concrete.

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 03 20 00.01

MCKELVEY CREEK LANDFILL

CONCRETE

704-SWM.SWOP04332-01

REINFORCING

PAGE 3 OF 5

.5 CSA Group

- .1 CSA A23.1/A23.2, Concrete Materials and Methods of Concrete Construction/Test Methods and Standard Practices for Concrete.
- .2 CAN/CSA A23.3, Design of Concrete Structures.
- .3 CSA G30.18, Carbon Steel Bars for Concrete Reinforcement.
- .4 CSA G40.20/G40.21, General Requirements for Rolled or Welded Structural Quality Steel/Structural Quality Steel.
CSA W186, Welding of Reinforcing Bars in Reinforced Concrete Construction.

.6 Reinforcing Steel Institute of Canada (RSIC): Manual of Standard Practice.**1.5 SUBMITTALS**

- .1 Submit in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Product Data:
 - .1 Submit manufacturer's instructions, printed product literature and data sheets for proprietary materials used in formwork liners and include product characteristics, performance criteria, physical size, finish, and limitations.
- .3 Shop Drawings:
 - .1 Submit shop drawings including placing of reinforcement.
 - .2 Indicate on shop drawings, bar bending details, lists, quantities of reinforcement, sizes, spacing, locations of reinforcement and mechanical splices if approved by Consultant, with identifying code marks to permit correct placement without reference to structural drawings. Prepare reinforcement drawings in accordance with Reinforcing Steel Manual of Standard Practice by Reinforcing Steel Institute of Canada.
 - .3 Detail lap lengths and bar development lengths to CAN3 A23.3.

1.6 QUALITY ASSURANCE

- .1 Quality Assurance: in accordance with Section 01 45 00 - Quality Control.

1.7 DELIVERY, STORAGE AND HANDLING

- .1 Deliver, store, and handle materials in accordance with Section 01 61 00 - Common Product.
- .2 Delivery and Acceptance Requirements: deliver materials to site in original factory packaging, labelled with manufacturer's name and address.
- .3 Storage and Handling Requirements:
 - .1 Store materials off ground and in accordance with manufacturer's recommendations.
 - .2 Store and protect formwork from damages.
 - .3 Replace defective or damaged materials with new.

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 03 20 00.01

MCKELVEY CREEK LANDFILL

CONCRETE

704-SWM.SWOP04332-01

REINFORCING

PAGE 4 OF 5

PART 2 PRODUCTS**2.1 MATERIALS**

- .1 Substitute different size bars only if permitted in writing by Consultant.
- .2 Reinforcing steel: billet steel, grade 400, deformed bars to CAN/CSA G30.18, unless indicated otherwise.
- .3 Reinforcing steel: weldable low alloy steel deformed bars to CAN/CSA 30.18.
- .4 Cold drawn annealed steel wire ties: to CSA G30.3.
- .5 Deformed steel wire for concrete reinforcement: to CSA G30.14.
- .6 Welded steel wire fabric: to CSA G30.5.
- .7 Chairs, bolsters, bar supports, spacers: to CAN/CSA A23.1.
- .8 Mechanical splices: subject to approval of Consultant.
- .9 Plain round bars: to CAN/CSA G40.21.

2.2 FABRICATION

- .1 Fabricate reinforcing steel in accordance with CAN/CSA A23.1, ANSI/ACI 315, and Reinforcing Steel Manual of Standard Practice by the Reinforcing Steel Institute of Canada.
- .2 Obtain Consultant's approval for locations of reinforcement splices other than those shown on placing drawings.
- .3 Upon approval of Consultant, weld reinforcement in accordance with CSA W186.
- .4 Ship bundles of bar reinforcement, clearly identified in accordance with bar bending details and lists.

2.3 SOURCE QUALITY CONTROL

- .1 Provide Consultant with certified copy of mill test report of reinforcing steel, showing physical and chemical analysis, minimum 2 weeks prior to commencing reinforcing work.
- .2 Inform Consultant of proposed source of material to be supplied.

PART 3 EXECUTION**3.1 FIELD BENDING**

- .1 Do not field bend or field weld reinforcement except where indicated or authorized by Consultant.
- .2 When field bending is authorized, bend without heat, applying a slow and steady pressure.

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 03 20 00.01

MCKELVEY CREEK LANDFILL

CONCRETE

704-SWM.SWOP04332-01

REINFORCINGPAGE 5 OF 5

- .3 Replace bars which develop cracks or splits.

3.2 PLACING REINFORCEMENT

- .1 Place reinforcing steel as indicated on approved placing drawings and in accordance with CAN/CSA A23.1.
- .2 Use plain round bars as slip dowels in concrete. Paint portion of dowel intended to move within hardened concrete with one coat of asphalt paint. When paint is dry, apply a thick even film of mineral lubricating grease.
- .3 Prior to placing concrete, obtain Consultant's approval of reinforcing material and placement.
- .4 Ensure cover to reinforcement is maintained during concrete pour.

3.3 FIELD TOUCH-UP

- .1 Touch up damaged and cut ends of epoxy coated or galvanized reinforcing steel with compatible finish to provide continuous coating.

PART 4 MEASUREMENT AND PAYMENT

- .1 No separate payment will be made for work under this Section.

END OF SECTION

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 03 30 00.01

MCKELVEY CREEK LANDFILL

CAST-IN-PLACE

704-SWM.SWOP04332-01

CONCRETE

PAGE 1 OF 8

PART 1 GENERAL**1.1 SCOPE**

- .1 This section applies to the supply and installation of cast-in-place concrete. This section must be referenced to and interpreted simultaneously with all other sections pertinent to the Works described herein.

1.2 SECTION INCLUDES

- .1 Related Requirements.
- .2 Reference Standards.
- .3 Definitions.
- .4 Submittals.
- .5 Quality Assurance.
- .6 Delivery, Storage and Handling.
- .7 Ambient Conditions.
- .8 Sequencing and Scheduling.
- .9 Performance Criteria.
- .10 Materials.
- .11 Concrete Mixes.
- .12 Preparation.
- .13 Installation/Application.
- .14 Finishes.
- .15 Control Joints.
- .16 Expansion and Isolation Joints.
- .17 Curing.
- .18 Site Tolerance.
- .19 Field Quality Assurance.
- .20 Cleaning
- .21 Measurement and Payment.

REGIONAL DISTRICT OF KOOTENAY BOUNDARY	SECTION 03 30 00.01
MCKELVEY CREEK LANDFILL	CAST-IN-PLACE
704-SWM.SWOP04332-01	CONCRETE
	PAGE 2 OF 8

1.3 RELATED REQUIREMENTS

- .1 Section 03 10 00 – Concrete Formwork
- .2 Section 03 20 00 – Concrete Reinforcing
- .3 Section 05 50 00 – Metal Fabrications
- .4 Section 31 14 13 – Soil Stripping and Stockpiling
- .5 Section 31 23 33.02 – Fill

1.4 REFERENCE STANDARDS

- .1 Abbreviations for electrical terms shall be to CSA Z85-1983.
- .2 Abbreviations of standards organizations referenced in this and other sections are as follows:

ACI	American Concrete Institute
CSA	Canadian Standards Association
CEC	Canadian Electrical Code
IEEE	Institute of Electrical and Electronic Engineers
ANSI	American National Standards Institute
NBC	National Building Code
NFPA	National Fire Protection Association
EEMAC	Electrical & Electronic Manufacturers Association of Canada (formerly CEMA)
FM	Factory Mutual
NEMA	National Electrical Manufacturers Association (U.S.)
JIC	Joint Industry Conference
IPCEA	Insulated Power Cable Engineers Association
ISA	Instrument Society of America
IES	Illuminating Engineering Society
NETA	National Electrical Testing Association
CUL	Canadian Underwriters Laboratories Inc.
ETL	Electrical Testing Laboratories, Inc.
ASTM	American Society for Testing and Materials
AASHTO	American Association of State Highway and Transportation Officials
GRI	Geosynthetic Research Institute
- .3 CSA Group
 - .1 CSA A23.1 /A23.2, Concrete Materials and Methods of Concrete Construction/Methods of Test and Standard Practices for Concrete.
 - .2 CAN/CSA O86, Engineering Design in Wood.
 - .3 CSA O121, Douglas Fir Plywood.
 - .4 CSA O151, Canadian Softwood Plywood.

REGIONAL DISTRICT OF KOOTENAY BOUNDARY	SECTION 03 30 00.01
MCKELVEY CREEK LANDFILL	CAST-IN-PLACE
704-SWM.SWOP04332-01	CONCRETE
	PAGE 3 OF 8

- .5 CSA O153, Poplar Plywood.
- .6 CAN/CSA O325.0, Construction Sheathing.
- .7 CSA O437 Series, Standards for OSB and Waferboard.
- .8 CSA S269.1, Falsework and Formwork.
- .9 CAN/CSA S269.3, Concrete Formwork.
- .4 ASTM International
 - .1 ASTM A641/A641M, Standard Specification for Zinc-Coated (Galvanized) Carbon Steel Wire.
 - .2 ASTM A775/A775M, Standard Specification for Epoxy-Coated Reinforcing Steel Bars.
 - .3 ASTM A884/A884M Standard Specification for Epoxy-Coated Steel Wire and Welded Wire Reinforcement.
 - .4 ASTM A1064/A1064M Standard Specification for Carbon-Steel Wire and Welded Wire Reinforcement, Plain and Deformed, for Concrete.
 - .5 ASTM C920 Standard Specification for Elastomeric Joint Sealants.
 - .6 ASTM D1751, Standard Specification for Preformed Expansion Joint Filler for Concrete Paving and Structural Construction (Non extruding and Resilient Bituminous Types).
- .5 CSA Group
 - .1 CAN/CSA A5, Portland cement.
 - .2 CSA A23.1/A23.2, Concrete Materials and Methods of Concrete Construction/Methods of Test and Standard Practices for Concrete.
 - .3 CAN/CSA A3000, Cementitious Materials Compendium (Consists of A3001, A3002, A3003, A3004 and A3005).
 - .4 CAN/CSA G30.18, Billet-Steel Bars for Concrete Reinforcement.
- .6 Reinforcing Steel Institute of Canada (RSIC): Manual of Standard Practice.

1.5 DEFINITIONS

- .1 SMDD: Standard Maximum Dry Density in accordance with ASTM D698-2.

1.6 SUBMITTALS

- .1 Submit in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Product Data:
 - .1 Submit manufacturer's instructions, printed product literature and data sheets for proprietary materials used in Cast-In-Place Concrete and additives and include product characteristics, performance criteria, physical size, finish and limitations.
- .3 Shop Drawings:
 - .1 Submit placing drawings prepared in accordance with plans to clearly show size, shape, location and necessary details of reinforcing in accordance with RSIC Manual of Standard Practice.
 - .2 Submit drawings showing formwork and falsework design to: CSA A23.1/A23.2.

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 03 30 00.01

MCKELVEY CREEK LANDFILL

CAST-IN-PLACE

704-SWM.SWOP04332-01

CONCRETE

PAGE 4 OF 8

- .4 Provide testing results for review by Engineer and do not proceed without written approval when deviations from mix design or parameters found.
- .5 Quality Assurance Submittals:
 - .1 Submit in accordance with Section 01 45 00 - Quality Control.
 - .2 Mill Test Report: submit to Engineer certified copy of mill test report of reinforcing steel, 4 weeks prior to beginning reinforcing work.
 - .3 Upon request, submit in writing to Engineer source of reinforcement material
 - .4 Upon request, submit Engineer epoxy coating applicator certificates identified in Quality Assurance

1.7 QUALITY ASSURANCE

- .1 Provide to Engineer, 3 weeks minimum prior to starting concrete work, valid and recognized certificate from plant delivering concrete.
- .2 Quality Control Plan: provide written report to Engineer verifying compliance concrete in place meets performance requirements.
- .3 Perform work of this Section in accordance with CSA A23.1/A23.2.

1.8 DELIVERY, STORAGE AND HANDLING

- .1 Section 01 61 00 – Common Product Requirements: Requirements for delivery, storage, and handling.
- .2 Delivery and Acceptance Requirements:
 - .1 Concrete hauling time: deliver to site of Work and discharged within 120 minutes maximum after batching.
 - .1 Modifying maximum time limit without receipt of prior written agreement from Engineer and concrete producer as described in CSA A23.1/A23.2 is prohibited.
- .3 Concrete delivery: ensure continuous concrete delivery from plant meets CSA A23.1/A23.2.

1.9 AMBIENT CONDITIONS

- .1 Placing concrete during rain or weather events damaging to concrete is prohibited.
- .2 Protect newly placed concrete from rain or weather events in accordance with CSA A23.1/A23.2.
- .3 Cold weather protection:
 - .1 Maintain protection equipment, in readiness on Site.
 - .2 Use such equipment when ambient temperature below 5°C, or when temperature may fall below 5°C before concrete cured.
 - .3 Placing concrete upon or against surface at temperature below 5°C is prohibited.

REGIONAL DISTRICT OF KOOTENAY BOUNDARY	SECTION 03 30 00.01
MCKELVEY CREEK LANDFILL	CAST-IN-PLACE
704-SWM.SWOP04332-01	CONCRETE
	PAGE 5 OF 8

- .4 Hot weather protection:
 - .1 Protect concrete from direct sunlight when ambient temperature above 27°C.
 - .2 Prevent forms of getting too hot before concrete placed. Apply accepted methods of cooling not to affect concrete adversely.
- .5 Protect from drying.
- .6 Provide curing to hardened cast-in-place concrete for seven days employing either one or in combination of the following methods:
 - .1 Continuously keep moist of the concrete by spraying continuously of potable water and covered by vinyl polyethylene sheet or material to be approved by the Consultant.
 - .2 By spraying of curing compound thoroughly on the surface and covered the area with vinyl polyethylene sheet.
 - .3 By continuously ponding of potable water on the said area surface.
- .7 Construction joint surfaces for structural concrete should be roughened and cleaned until all aggregates are half exposed prior to concreting.

1.10 SEQUENCING AND SCHEDULING

- .1 Refer to Section 01 33 00 –Submittal Procedures.
- .2 Coordinate placement of cast-in-place concrete as required by other Sections.

PART 2 PRODUCTS

2.1 PERFORMANCE CRITERIA

- .1 Quality Control Plan: ensure concrete supplier meets performance criteria of concrete as established by Engineer and provide verification of compliance as described in PART 1 - QUALITY ASSURANCE.

2.2 MATERIALS

- .1 Portland Cement: CSA A5 Type 10, normal.
- .2 Water: to CSA A23.1/A23.2.
- .3 Aggregates: to CAN3-A23.1
- .4 Air entraining Admixture: to CAN3-A266.1
- .5 Reinforcing bars:
 - .1 Billet steel, grade 400, deformed bars to CSA G30.18, unless indicated otherwise.
- .6 Reinforcing bar Accessories:
 - .1 Tie Wire: Minimum 1.5 mm thick annealed type.
 - .2 Chairs, Bolsters, Bar Supports, Spacers: Sized and shaped for strength and support of reinforcement during concrete placement. Do not use masonry block.

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 03 30 00.01

MCKELVEY CREEK LANDFILL

CAST-IN-PLACE

704-SWM.SWOP04332-01

CONCRETE

PAGE 6 OF 8

- .7 Welded steel wire fabric:
 - .1 Plain in accordance ASTM A1064/A1064M, fabricated from as drawn steel wire into flat sheets; sizes as indicated on Drawings.
 - .2 Finish:
 - .1 Galvanized: Fabricated from galvanized wire having Class A coating in accordance with ASTM A1064/A1064M.
- .8 Premoulded joint filler:
 - .1 Bituminous impregnated fibreboard: to ASTM D1751.
- .9 Joint sealer/filler: grey to ASTM C920, Type M, Grade NS.
- .10 Sealer: [proprietary poly-siloxane resin blend].
- .11 Other concrete materials: to CSA A23.1/A23.2.

2.3 CONCRETE MIXES

- .1 Proportion concrete in accordance with CAN3-A23.1-M to yield the following properties.
 - .1 Type 10 cement;
 - .2 Minimum compressive strength at 28 days: 35MPa;
 - .3 Nominal size of coarse aggregate: 20mm
 - .4 Slump at time and point of discharge: 80mm
 - .5 Air content: 4 – 7%
 - .6 Calcium Chloride is NOT Permitted.
- .2 Do not change concrete mix without prior approval of the Consultant. Should change in material source be proposed, new mix design to be approved by the Engineer.

PART 3 EXECUTION

3.1 PREPARATION

- .1 Obtain the approval of the Engineer prior to placing concrete. Provide 24 hours notice prior to placing concrete.
- .2 Placement of concrete is permitted only after approval of equipment and mix. Place concrete reinforcing in accordance with Section 03 20 00 - Concrete Reinforcing.
- .3 During concreting operations:
 - .1 Development of cold joints not allowed.
 - .2 Concrete delivery and handling to facilitate placing with minimum of rehandling, and without damage to existing structure or Work.
- .4 Protect previous Work from staining.
- .5 Clean and remove stains prior to application of concrete finishes.

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 03 30 00.01

MCKELVEY CREEK LANDFILL

CAST-IN-PLACE

704-SWM.SWOP04332-01

CONCRETE

PAGE 7 OF 8

3.2 INSTALLATION/APPLICATION

- .1 Do cast-in-place concrete work in accordance with CSA A23.1/A23.2.
- .2 Sleeves and inserts:
 - .1 Cast in sleeves, ties, slots, anchors, reinforcement, frames, conduit, bolts, waterstops, joint fillers and other inserts required built-in.

3.3 FINISHES

- .1 Formed surfaces exposed to view: in accordance with CSA A23.1/A23.2.
- .2 Concrete surfaces below finished grade shall receive a wood float finish.
- .3 Concrete surfaces above finished grade, shall receive a steel troweled finish with edges neatly tooled.
- .4 Honeycombed concrete shall be cut out and replaced.

3.4 CONTROL JOINTS

- .1 Form control joints in slabs on grade at locations indicated, to CSA A23.1/A23.2 and install specified joint sealer/filler.

3.5 EXPANSION AND ISOLATION JOINTS

- .1 Install premoulded joint filler in expansion and isolation joints full depth of slab flush with finished surface to CSA A23.1/A23.2.

3.6 CURING

- .1 Use curing compounds compatible with applied finish on concrete surfaces free of bonding agents and to CSA A23.1/A23.2.

3.7 SITE TOLERANCES

- .1 Concrete floor slab finishing tolerance to CSA A23.1/A23.2.

3.8 FIELD QUALITY ASSURANCE

- .1 Concrete testing: to CSA A23.1/A23.2 by testing laboratory designated and paid for by Contractor.
- .2 Methods of Testing by Contractor:
 - .1 Molding and securing specimens from each sample.
 - .2 Compressive Strength: Specimens will be tested at 7 and 28 days.
 - .3 Slump for each strength test.
 - .4 Total air content for each strength test.
 - .5 Temperature of concrete sample and mixing water for each strength test or as required.

REGIONAL DISTRICT OF KOOTENAY BOUNDARY		SECTION 03 30 00.01
MCKELVEY CREEK LANDFILL	CAST-IN-PLACE	
704-SWM.SWOP04332-01	CONCRETE	PAGE 8 OF 8

3.9 CLEANING

- .1 Use trigger operated spray nozzles for water hoses.
- .2 Designate cleaning area for tools to limit water use and runoff.

PART 4 MEASUREMENT AND PAYMENT

4.1 GENERAL

- .1 Refer to Section 01290 – Payment Procedures: Project Measurement and Payment.

4.2 CONCRETE PADS

- .1 Schedule of Prices Item No. 03 30 00/1.
- .2 Measurement Basis: Per pad installation.
- .3 Payment Basis: Unit Price. Includes excavation, subgrade preparation, backfill, granular base course, compaction, formwork, reinforcement, concrete, fasteners and accessories; placing, consolidating, leveling, troweling, curing and protection, and quality assurance testing.

END OF SECTION

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 05 50 00.01

MCKELVEY CREEK LANDFILL

METAL FABRICATIONS

704-SWM.SWOP04332-01

PAGE 1 OF 5

PART 1 GENERAL**1.1 SCOPE**

- .1 This Section refers to those portions of the Work that are unique to metal fabrication. This section must be referenced to and interpreted simultaneously with all other sections pertinent to the Works described herein.
- .2 Work covered under this section includes but is not limited to the fabrication and installation of the steel spill flaps and guard rails.
- .3 Work related to guardrails is included in Section 32 17 34 – Guardrails.

1.2 RELATED REQUIREMENTS

- .1 Section 03 33 00 – Cast-In-Place Concrete
- .2 Section 33 05 13 – Precast Concrete

1.3 REFERENCE STANDARDS

- .1 Abbreviations for electrical terms shall be to CSA Z85-1983.
- .2 Abbreviations of standards organizations referenced in this and other sections are as follows:

ACI	American Concrete Institute
CSA	Canadian Standards Association
CEC	Canadian Electrical Code
IEEE	Institute of Electrical and Electronic Engineers
ANSI	American National Standards Institute
NBC	National Building Code
NFPA	National Fire Protection Association
EEMAC	Electrical & Electronic Manufacturers Association of Canada (formerly CEMA)
FM	Factory Mutual
NEMA	National Electrical Manufacturers Association (U.S.)
JIC	Joint Industry Conference
IPCEA	Insulated Power Cable Engineers Association
ISA	Instrument Society of America
IES	Illuminating Engineering Society
NETA	National Electrical Testing Association
CUL	Canadian Underwriters Laboratories Inc.
ETL	Electrical Testing Laboratories, Inc.
ASTM	American Society for Testing and Materials
AASHTO	American Association of State Highway and Transportation Officials
GRI	Geosynthetic Research Institute

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 05 50 00.01

MCKELVEY CREEK LANDFILL

METAL FABRICATIONS

704-SWM.SWOP04332-01

PAGE 2 OF 5

- .3 ASTM International (ASTM)
 - .1 ASTM A 53/A 53M, Standard Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated Welded and Seamless.
 - .2 ASTM A269M, Standard Specification for Seamless and Welded Austenitic Stainless Steel Tubing for General Service.
 - .3 ASTM A307, Standard Specification for Carbon Steel Bolts and Studs, 60,000 PSI Tensile Strength.
- .4 CSA Group (CSA)
 - .1 CSA G40.20 /G40.21, General Requirements for Rolled or Welded Structural Quality Steel/Structural Quality Steel.
 - .2 CAN/CSA G164, Hot Dip Galvanizing of Irregularly Shaped Articles.
 - .3 CSA S16, Design of Steel Structures.
 - .4 CSA W48, Filler Metals and Allied Materials for Metal Arc Welding (Developed in co-operation with the Canadian Welding Bureau).
 - .5 CSA W59, Welded Steel Construction (Metal Arc Welding) [Metric]
- .5 The Master Painters Institute (MPI)
 - .1 Architectural Painting Specification Manual
- .6 Underwriters Laboratories (UL)
 - .1 UL 2768, Architectural Surface Coatings

1.4 SUBMITTALS

- .1 Submit in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Contractor shall prepare and submit shop drawings to the Engineer for review. Fabrication shall not proceed until shop drawings have been approved by the Engineer.
- .3 Product Data:
 - .1 Submit manufacturer's instructions, printed product literature and data sheets for bolts, tubing, pipe, sections, plates and include product characteristics, performance criteria, physical size, finish and limitations.
- .4 Shop Drawings:
 - .1 Indicate materials, core thicknesses, finishes, connections, joints, method of anchorage, number of anchors, supports, reinforcement, details, and accessories.

1.5 QUALITY ASSURANCE

- .1 Test Reports: submit certified test reports showing compliance with specified performance characteristics and physical properties.
- .2 Certifications: submit product certificates signed by manufacturer certifying materials comply with specified performance characteristics and criteria and physical requirements.

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 05 50 00.01

MCKELVEY CREEK LANDFILL

METAL FABRICATIONS

704-SWM.SWOP04332-01

PAGE 3 OF 5

1.6 DELIVERY, STORAGE AND HANDLING

- .1 Deliver, store and handle materials in accordance with manufacturer's written instructions or Section 01 61 00 - Common Product Requirements.
- .2 Delivery and Acceptance Requirements: deliver materials to site in original factory packaging, labelled with manufacturer's name and address.
- .3 Storage and Handling Requirements:
 - .1 Store materials indoors, in dry location, off ground and in accordance with manufacturer's recommendations in clean, dry, well-ventilated area.
 - .2 Replace defective or damaged materials with new.

PART 2 PRODUCTS**2.1 MATERIALS**

- .1 Steel sections and plates: to CSA G40.20/G40.21, Grade 350W.
- .2 Steel pipe: to ASTM A53/A53M, wall thickness as indicated on Drawings.
 - .1 Galvanized finish.
- .3 Welding materials: to CSA W59.
- .4 Welding electrodes: to CSA W48 Series.
- .5 Bolts and anchor bolts: to ASTM A307.
- .6 Grout: non-shrink, non-metallic, flowable, 15 MPa at 24 hours.

2.2 FABRICATION

- .1 Fabricate work square, true, straight and accurate to required size, with joints closely fitted and properly secured.
- .2 Where possible, fit and shop assemble work, ready for erection.
- .3 Use materials of size and thickness indicated, or if not indicated, as required to produce strength and durability in finished product for use intended.
- .4 Work to dimensions indicated or accepted on shop drawings, using proven details of fabrication and support.
- .5 Continuously weld seams in compliance with AWS recommendations. Grind exposed welds smooth and flush to blend with adjoining surfaces.
- .6 Form exposed connections with fine line joints, flush and smooth, using concealed fastening wherever possible.
- .7 Provide for anchorage of type indicated co-ordinated with supporting structure. Fabricate and space anchoring devices to provide adequate support for intended use.

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 05 50 00.01

MCKELVEY CREEK LANDFILL

METAL FABRICATIONS

704-SWM.SWOP04332-01

PAGE 4 OF 5

- .8 At tee and cross intersections, provide coped joints.
- .9 Interconnect pipe at bends by means of prefabricated elbow fittings having a 90° pipe bend.
- .10 At elbow bends for interior and exterior corners, provide mitered joints.
- .11 Provide anchors for embedding units in concrete as per manufacturer's recommendations to meet design requirements.

2.3 FINISHES

- .1 Galvanizing: hot dipped galvanizing with zinc coating 600 g/m² to CAN/CSA-G164.

2.4 ISOLATION COATING

- .1 Isolate aluminum from following components, by means of bituminous paint:
 - .1 Dissimilar metals except stainless steel, zinc, or white bronze of small area.
 - .2 Concrete, mortar and masonry.
 - .3 Wood.

2.5 PILLOW BLOCK

- .1 UCP204-12 Pillow Bearing or approved equivalent.
 - .1 Minimum Basic Load (CR): 12,800 N.
 - .2 Set Screw Type.

2.6 SPILL FLAP WINCH

- .1 Manufacturer: Jet 110302 ¾ Ton 5' Lift VLP Series Lever Chain Puller or approved equivalent.

PART 3 EXECUTION**3.1 EXAMINATION**

- .1 Verification of Conditions: verify conditions of substrates previously installed under other Sections or Contracts acceptable for metal fabrications installation in accordance with manufacturer's written instructions.
 - .1 Visually inspect substrate in presence of Engineer.
 - .2 Inform Engineer of unacceptable conditions immediately upon discovery.
 - .3 Proceed with installation only after unacceptable conditions remedied and after receipt of approval from Engineer.

3.2 ERECTION - GENERAL

- .1 Do welding work in accordance with CSA W59 unless specified otherwise.
- .2 Erect metalwork square, plumb, straight, and true, accurately fitted, with tight joints and intersections.

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 05 50 00.01

MCKELVEY CREEK LANDFILL

METAL FABRICATIONS

704-SWM.SWOP04332-01

PAGE 5 OF 5

- .3 Provide suitable means of anchorage acceptable to Engineer such as dowels, anchor clips, bar anchors, expansion bolts and shields, and toggles.
- .4 Exposed fastening devices to match finish and be compatible with material through which they pass.
- .5 Supply components for work by other trades in accordance with shop drawings and schedule.
- .6 Make field connections with bolts to CSA S16. Welds only permitted where specifically noted on Drawings.
- .7 Deliver items over for casting into concrete and building into masonry together with setting templates to appropriate location and construction personnel.
- .8 Touch-up galvanized surfaces with zinc rich primer where burned by field welding.
 - .1 Primer: maximum VOC limit [250] g/L [to GS-11].

3.3 CLEANING

- .1 Leave Work area clean at end of each day.
- .2 Final Cleaning: upon completion remove surplus materials, rubbish, tools and equipment.

3.4 PROTECTION

- .1 Protect installed products and components from damage during construction.
- .2 Repair damage to adjacent materials caused by metal fabrications installation.

PART 4 MEASUREMENT AND PAYMENT**4.1 GENERAL**

- .1 Refer to Section 01 29 00 – Payment Procedures: Requirements for measurement and payment.

4.2 SPILL FLAPS

- .1 Schedule of Prices Item No. 05 50 00.01/1
- .2 Measurement Basis: Per spill flap installation.
- .3 Payment Basis: Unit Price. Includes supply and installation of Spill Flaps, fittings and appurtenances, winch and accessories as shown on Drawings.

END OF SECTION

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 10 14 53

MCKELVEY CREEK LANDFILL

TRAFFIC SIGNAGE

704-SWM.SWOP04332-01

PAGE 1 OF 6

PART 1 GENERAL**1.1 SCOPE**

- .1 This Section specifies the requirements to supply and install roadway signs as shown in the Drawings. This section must be referenced and interpreted simultaneously with all other sections pertinent to the Works described herein. Work covered under this section includes but is not limited to:

- .1 Supply and install signage as shown on Drawings.

1.2 SECTION INCLUDES

- .1 Related Requirements.
 .2 Reference Standards.
 .3 Design Requirements.
 .4 Submittals.
 .5 Delivery, Storage and Handling.
 .6 Materials.
 .7 Fabrication.
 .8 Installation.
 .9 Correcting Defects.
 .10 Protection.
 .11 Measurement.
 .12 Measurement and Payment.

1.3 RELATED REQUIREMENTS

- .1 Section 03 30 00 – Cast In Place Concrete
 .2 Section 05 50 00 – Metal Fabrications

1.4 REFERENCE STANDARDS

- .1 Abbreviations for electrical terms shall be to CSA Z85-1983.
 .2 Abbreviations of standards organizations referenced in this and other sections are as follows:
 ACI American Concrete Institute
 CSA Canadian Standards Association

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 10 14 53

MCKELVEY CREEK LANDFILL

TRAFFIC SIGNAGE

704-SWM.SWOP04332-01

PAGE 2 OF 6

CEC	Canadian Electrical Code
IEEE	Institute of Electrical and Electronic Engineers
ANSI	American National Standards Institute
NBC	National Building Code
NFPA	National Fire Protection Association
EEMAC	Electrical & Electronic Manufacturers Association of Canada (formerly CEMA)
FM	Factory Mutual
NEMA	National Electrical Manufacturers Association (U.S.)
JIC	Joint Industry Conference
IPCEA	Insulated Power Cable Engineers Association
ISA	Instrument Society of America
IES	Illuminating Engineering Society
NETA	National Electrical Testing Association
CUL	Canadian Underwriters Laboratories Inc.
ETL	Electrical Testing Laboratories, Inc.
ASTM	American Society for Testing and Materials
AASHTO	American Association of State Highway and Transportation Officials
GRI	Geosynthetic Research Institute

- .3 American Association of State Highway and Transportation Officials (AASHTO)
 - .1 Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals, (5th Edition).
- .4 ASTM International
 - .1 ASTM A123/A123M, Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products.
 - .2 ASTM A276, Standard Specification for Stainless Steel Bars and Shapes.
 - .3 ASTM B209M, Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate [Metric].
 - .4 ASTM B210M, Standard Specification for Aluminum-Alloy Drawn Seamless Tubes [Metric].
 - .5 ASTM B211M, Standard Specification for Aluminum and Aluminum-Alloy Bar, Rod and Wire [Metric].
- .5 Canadian General Standards Board (CGSB)
 - .1 CGSB 62-GP-9M, Prefabricated Markings, Positionable, Exterior, for Aircraft Ground Equipment and Facilities.
 - .2 CGSB 62-GP-11M, Marking Material, Retroreflective, Enclosed Lens, Adhesive Backing and Amendment.
- .6 CSA Group (CSA)
 - .1 CSA G40.20/G40.21, General Requirements for Rolled or Welded Structural Quality Steel/Structural Quality Steel.
 - .2 CAN/CSA O80 Series, Wood Preservation.
 - .3 CSA O121, Douglas Fir Plywood.

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 10 14 53

MCKELVEY CREEK LANDFILL

TRAFFIC SIGNAGE

704-SWM.SWOP04332-01

PAGE 3 OF 6

- .4 CSA W47.2, Certification of Companies for Fusion Welding of Aluminum.
- .5 CAN/CSA-Z809, Sustainable Forest Management.
- .7 Forest Stewardship Council (FSC)
 - .1 FSC-STD-01-001, FSC Principle and Criteria for Forest Stewardship.
- .8 Green Seal Environmental Standards (GS)
 - .1 GS-11, Paints and Coatings.
- .9 South Coast Air Quality Management District (SCAQMD), California State, Regulation XI. Source Specific Standards
 - .1 SCAQMD Rule 1113, Architectural Coatings.
- .10 The Master Painters Institute (MPI)
 - .1 Architectural Painting Specification Manual - [current edition].

1.5 DESIGN REQUIREMENTS

- .1 Sign supports and appurtenances to be capable of withstanding summation of following loads:
 - .1 Wind and ice loading specified to be consistent with anticipated loads in locality of installation. Refer to National Building Code of Canada and/or applicable provincial building code.
 - .2 Dead load of signboards, sign supports, and appurtenances.
 - .3 Ice load on one face of signboards and around surface of all structural members and appurtenances.
- .2 Structural deflections and vibration in accordance with American Association of State Highway and Transportation Officials (AASHTO), "Specifications for the Design and Construction of Structural Supports for Highway Signs".

1.6 SUBMITTALS

- .1 Submit in accordance with Section 01 33 00 – Submittal Procedures.
- .2 Product Data:
 - .1 Submit manufacturer's instructions, printed product literature and data sheets for traffic signage, including product characteristics, performance criteria, physical size, finish and limitation.
- .3 Shop Drawings:
 - .1 Submit shop drawings for signage structures and customized roadway sign boards (i.e., non-standard traffic signs) indicating product data and design for review and approval by Engineer.

1.7 DELIVERY, STORAGE AND HANDLING

- .1 Deliver, store and handle materials in accordance with manufacturer's written instructions, or in accordance with Section 01 61 00 – Common Product Requirements.

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 10 14 53

MCKELVEY CREEK LANDFILL

TRAFFIC SIGNAGE

704-SWM.SWOP04332-01

PAGE 4 OF 6

- .2 Delivery and Acceptance Requirements: deliver materials to site in original factory packaging, labelled with manufacturer's name and address.

- .3 Storage and handling requirements:

- .1 Store materials off ground, in a dry location and indoors in accordance with manufacturer's recommendations in clean, dry, well-ventilated area/
- .2 Replace defective or damaged materials with new.

PART 2 PRODUCTS**2.1 MATERIALS**

- .1 Sign supports:
 - .1 Telespar posts conform to the standard specification for hot rolled carbon sheet steel, structural quality, ASTM A 570 – 79, 45 mm x 45 mm square size with hot dip galvanized zinc coating per AASHTO M 120 followed by a chromate conversion coating and a clear organic exterior coating.
 - .2 Anchor sleeve and concrete base.
 - .3 Bolts, nuts, washers and other hardware for roadside signs to be cast aluminum alloy, or galvanized steel.
- .2 Signboards:
 - .1 Sign grade aluminum panel to ASTM B209M, pre-cut to required dimensions. Minimum thickness to be 2.0 mm for standard signboards.
 - .2 Connecting straps and brackets to ASTM B209M.
 - .3 3M HI-Intensity Scotchlite.
 - .4 Signs shall be mounted at a height of 2.5 metres, plus or minus 0.5 metres, measured from the ground elevation at the base of the post to the bottom of the sign.

2.2 FABRICATION

- .1 Supports:
 - .1 Connect aluminum support members by welding in accordance with CSA W47.2. Work to be performed by Canadian Welding Bureau qualified members only. Flame cutting of members not permitted.
 - .2 Welds to be of same strength as adjacent member or casting.
 - .3 Reinforce in area of electrical hand holes to equal strength of full section member.
 - .4 Remove sharp edges and burrs.
- .2 Signboards
 - .1 Aluminum blanks: Degrease, etch and bonderize with chemical conversion coating. Clean surfaces with xylene thinner. Dry. Aluminum signboards are to be painted before installation. Spray and bake face of signboards with two coats of enamel in accordance with CAN/CGSB-1.104.
 - .2 Sign identification
 - .1 Apply sign number and date of installation with 25 mm high stencil painted black letters on lower left back face of each signboard.

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 10 14 53

MCKELVEY CREEK LANDFILL

TRAFFIC SIGNAGE

704-SWM.SWOP04332-01

PAGE 5 OF 6

.3 Signage Details

- .1 The signage details are shown on Drawings. The Contractor shall verify the information with the Engineer prior to ordering.

PART 3 EXECUTION**3.1 INSTALLATION****.1 Sign Bridge:**

- .1 Erect sign bridge as indicated. Permissible tolerance: 12 mm maximum departure from vertical.

.2 Sign Support:

- .1 Erect supports as indicated. Permissible tolerance: 50 mm maximum departure from vertical for direct buried supports. Where separate concrete footings have been placed, erect posts with base plates resting on levelling nuts and restrained with nuts and washers. Permissible tolerance: 12 mm maximum departure from vertical.
- .2 Coat underside of base plate with corrosion protective paint before installation. Connect shoe base to shaft with inside and outside fillet welds.
- .3 Close open aluminum tubes and posts with aluminum cap. Cut oblong holes in shoe bases to drain condensation. Install aluminum bolt cover on each base plate restraining nut.
- .4 Erect posts plumb and square to details as indicated.

.3 Signboard:

- .1 Fasten signboards to supporting posts and brackets as indicated.
- .2 Fasten lane markers to signboard.
- .3 Use strapping with crimped or bolted connections where signs fastened to utility poles.
- .4 Use T-shape aluminum stiffeners to join portions of sign panel on site. Cover face of T-stiffener with material identical to face of sign panel.

3.2 CORRECTING DEFECTS

- .1 Correct defects, identified by Engineer, in sign message, consistency of reflectivity, colour or illumination. Correct angle of signboard and adjust luminaire aiming angle for optimum performance during night conditions to approval of Engineer.

3.3 PROTECTION

- .1 Protect installed products and components from damage during construction.
- .2 Repair damage to adjacent materials caused by traffic signage installation and salvage operations.

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 10 14 53

MCKELVEY CREEK LANDFILL

TRAFFIC SIGNAGE

704-SWM.SWOP04332-01

PAGE 6 OF 6

PART 4 MEASUREMENT AND PAYMENT**4.1 GENERAL**

- .1 Refer to Section 01 29 00 – Payment Procedures: Requirements for measurement and payment.

4.2 TRAFFIC SIGNAGE

- .1 Schedule of Prices Item No. 10 14 53/1
- .2 Payment Basis: Lump Sum. Includes the supply and installation of all sign supports and sign boards as shown on Drawings.

END OF SECTION

REGIONAL DISTRICT OF KOOTENAY BOUNDARY	SECTION 13 34 23.1
MCKELVEY CREEK LANDFILL	PREFABRICATED SITE
704-SWM.SWOP04332-01	OFFICE
	PAGE 1 OF 2

PART 1 GENERAL

1.1 SCOPE

- .1 This section specifies the requirements to supply and install the prefabricated site office as shown in the Contract Documents or as directed by the Consultant. This section must be referenced to and interpreted simultaneously with all other sections pertinent to the Works described herein.

1.2 SUBMITTALS

- .1 Submit in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Shop Drawings:
 - .1 As a minimum, shop drawings to indicate proposed office layout, materials and finishes for review and approval by Engineer.

1.3 DELIVERY, STORAGE AND HANDLING

- .1 Deliver, store and handle materials in accordance with Section 01 61 00 - Common Product Requirements.
- .2 Storage and Handling Requirements:
 - .1 Store materials in accordance with manufacturer's recommendations.
 - .2 Replace defective or damaged materials with new.

PART 2 PRODUCTS

2.1 GENERAL

- .1 Products shall comply with relevant federal and provincial safety, electrical, mechanical and building codes.

2.2 MATERIALS

- .1 Provide fully functional, free standing and insulated 3.0 m x 12.2 m Skid ATCO (or equivalent) type office able to accommodate three (3) people.
- .2 The prefabricated site office includes but not limited to:
 - .1 Propane Furnace
 - .2 Office space
 - .3 Work desk and a chair
 - .4 Bathroom with toilet and sink
 - .5 Shower facility
 - .6 Access door with "panic" hardware at the end of the office
 - .7 Windows on all sides with blinds and security screens
 - .8 First aid station and eye wash station

REGIONAL DISTRICT OF KOOTENAY BOUNDARY	SECTION 13 34 23.1
MCKELVEY CREEK LANDFILL	PREFABRICATED SITE
704-SWM.SWOP04332-01	OFFICE
	PAGE 2 OF 2

- .9 Steps and handrails
- .10 Lighting and electric outlets

2.3 FINISHES

- .1 The Attendant Office interior and exterior shall be finished to specifications provided by the Owner.

PART 3 EXECUTION

3.1 GRADING

- .1 Correct ground undulations at the locations of installation to obtain smooth uniform surface.

3.2 INSTALLATION

- .1 Upon Engineer's written approval, prefabricated site office shall be supplied and installed at the location as designated on the plans and Drawing or as directed by the Engineer.

3.3 PAINT TOUCH-UP

- .1 Repair damaged painted surface. Clean damaged surfaces with wire brush removing loose and cracked paint. Apply two coats of approved paint to damaged areas.

PART 4 MEASUREMENT AND PAYMENT

4.1 GENERAL

- .1 Refer to Section 01 29 00 – Payment Procedures: Requirements for measurement and payment.

4.2 PRE-FABRICATED SITE OFFICE

- .1 Schedule of Prices Item No. 13 34 23.01/1.
- .2 Measurement Basis: Lump Sum.
- .3 Payment Basis: Lump Sum: Includes supply, transporting, and installation of the fully functional pre-fabricated site office as per drawings and specifications.

END OF SECTION

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 13 34 23.2

MCKELVEY CREEK LANDFILL

PREFABRICATED

704-SWM.SWOP04332-01

MODIFIED SEA CAN

PAGE 1 OF 3

PART 1 GENERAL**1.1 SCOPE**

- .1 This section specifies the requirements to supply and install the prefabricated modified Sea-Can as shown in the Contract Documents or as directed by the Engineer. This section must be referenced to and interpreted simultaneously with all other sections pertinent to the Works described herein.

1.2 SUBMITTALS

- .1 Submit in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Shop Drawings:
 - .1 As a minimum, shop drawings shall indicate proposed layout, sections, materials, finishes and electrical components of the modified Sea-Can.
 - .2 Shop drawings showing the electrical components of the modified Sea-Can shall meet the requirements of this specification and relevant provincial and federal standards. These drawings shall be reviewed and stamped by a qualified engineer (hired by the contractor) in British Columbia.

1.3 DELIVERY, STORAGE AND HANDLING

- .1 Deliver, store and handle materials in accordance with Section 01 61 00 - Common Product Requirements.
- .2 Storage and Handling Requirements:
 - .1 Store materials in accordance with manufacturer's recommendations.
 - .2 Replace defective or damaged materials with new.

PART 2 PRODUCTS**2.1 GENERAL**

- .1 Products shall comply with relevant federal and provincial safety, electrical, mechanical and building standards, as applicable.
- .2 There will be two types of modified Sea-Can on site:
 - .1 Type 1 will be used to store Household Hazardous Waste, used oil and glycol. Hazardous location classification for electrical components of the modified Sea-Can shall be determined by a qualified engineer hired by the contractor.
 - .2 Type 2 will be used to store recyclable material for the Recycle BC program.

2.2 MATERIALS

- .1 Type 1 Sea-Can: Provide fully functional, free standing single use 40' high cube Sea-Can modified with the following minimum specifications:
 - .1 Sea-Can shall be divided in three equal sized compartments using ¼" steel plates, or approved equivalent.

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 13 34 23.2

MCKELVEY CREEK LANDFILL

PREFABRICATED

704-SWM.SWOP04332-01

MODIFIED SEA CAN

PAGE 2 OF 3

- .2 Each compartment shall be equipped with:
 - .1 One 8' roll up door;
 - .2 One light fixture, one junction box and one switch, meeting the requirements for Hazardous Location Classification as specified by Canadian Electrical Code.
 - .3 12"x12" manual louver.
 - .4 Stock Sea-Can wood floor shall be removed and replaced with welded 1/4" steel plate underneath container floor.
 - .5 Steel plate flooring shall be fully seam welded to provide liquid tight spill containment.
 - .6 The welded steel plate shall be covered by carbon steel serrated heavy-duty bar grating suitably supported for 300 lbs/ft².with 1/4" deflection.
 - .7 Spill containment volume to top of bar grate to be 53 ft³ (1.5 m³) minimum per compartment.
- .3 Minimum three exterior light fixtures and one electric panel (mounted outside the Sea-Can, and protected from elements), meeting the requirements for Hazardous Location Classification as specified by Canadian Electrical Code.
- .4 Include one 570 L dual-wall tank supplied by Westeel Ltd. (or approved alternative) for placement in the modified Sea-Can. The tank shall conform the following specifications
 - .1 Meets requirement of ULC S602-14 & S652 standards
 - .2 Tank type: Closed secondary containment.
 - .3 Material: Carbon steel.
 - .4 Nominal material thickness: 2 mm
 - .5 Max operating pressure: 7 kPa
 - .6 Maximum operating vacuum: 300 Pa
- .2 Type 2 Sea-Can: Provide fully functional, free standing single use Sea-Can modified with the following minimum specifications:
 - .1 Sea-Can shall have the following dimensions: 20' x 8' x 8'6" high
 - .2 Sea-Can shall have two 8' side by side roll-up doors
 - .3 Operable cargo doors
 - .4 1" sprayfoam insulation applied to the ceiling

PART 3 EXECUTION**3.1 GRADING**

- .1 Correct ground undulations at the locations of installation to obtain smooth uniform surface.

3.2 INSTALLATION

- .1 Upon Engineer's written approval, prefabricated modified Sea-Can shall be supplied and installed at the location as designated on the plans and Drawing or as directed by the Engineer.
- .2 Install the dual wall tank in a location approved by the Engineer.

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 13 34 23.2

MCKELVEY CREEK LANDFILL

PREFABRICATED

704-SWM.SWOP04332-01

MODIFIED SEA CAN

PAGE 3 OF 3

3.3 PAINT TOUCH-UP

- .1 Repair damaged painted surface. Clean damaged surfaces with wire brush removing loose and cracked paint. Apply two coats of approved paint to damaged areas.

PART 4 MEASUREMENT AND PAYMENT**4.1 GENERAL**

- .1 Refer to Section 01 29 00 – Payment Procedures: Requirements for measurement and payment.

4.2 MODIFIED SEA-CAN

- .1 Schedule of Prices Item No. 13 34 23.02/1.
- .2 Measurement Basis: Lump Sum.
- .3 Payment Basis: Lump Sum: Includes supply, transporting, and installation of the fully functional pre-fabricated modified Sea-Can as per drawings and specifications. Item also includes supply, transportation and installation of the 570 L dual-wall tank as per current specification.

END OF SECTION

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 31 14 13

MCKELVEY CREEK LANDFILL

SOIL STRIPPING AND

704-SWM.SWOP04332-01

STOCKPILING

PAGE 1 OF 4

PART 1 GENERAL**1.1 SCOPE**

- .1 Scope of work includes the stripping of fine-grained materials (includes topsoil, subsoil and unsuitable materials encountered during construction) within the construction footprint, subgrade preparation, hauling and stockpiling of materials to on-site stockpile location. This Section must be referenced to and interpreted simultaneously with all other sections pertinent to the Works described herein.

1.2 SECTION INCLUDES

- .1 Related Requirements.
- .2 Reference Standards.
- .3 Measurement.
- .4 Measurement and Payment.

1.3 RELATED REQUIREMENTS

- .1 Section 01 35 43 – Environmental Procedures
- .2 Section 03 30 00.01 – Cast-In-Place Concrete

1.4 EXISTING CONDITIONS

- .1 Examine subsurface investigation report, prepared by Tetra Tech, October 2020. Geotechnical Assessment Report for RDKB BC McKelvey Creek Landfill Upgrade Project.

PART 2 PRODUCTS (NOT USED)**PART 3 EXECUTION****3.1 TEMPORARY EROSION AND SEDIMENTATION CONTROL**

- .1 Provide temporary erosion and sedimentation control measures to prevent soil erosion and discharge of soil-bearing water runoff or airborne dust in accordance with the erosion and sediment control plan.
- .2 Inspect, repair, and maintain erosion and sedimentation control measures during construction until permanent vegetation has been established.
- .3 Remove erosion and sedimentation controls and restore and stabilize areas disturbed during removal.

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 31 14 13

MCKELVEY CREEK LANDFILL

SOIL STRIPPING AND

704-SWM.SWOP04332-01

STOCKPILING

PAGE 2 OF 4

3.2 STRIPPING OF TOPSOIL

- .1 Do not handle topsoil while in wet or frozen condition or in any manner in which soil structure is adversely affected as determined by Engineer.
- .2 Commence topsoil stripping of areas as indicated on Drawings or as directed by Engineer.
- .3 Strip topsoil to depths as directed by Engineer. Avoid mixing topsoil with subsoil.

3.3 STOCKPILING

- .1 Stockpile aggregates on site locations as indicated in Drawings or as directed by Engineer.
- .2 Topsoil stockpile height not to exceed 3 metres.
- .3 Stockpile adequate quantities of topsoil adjacent to the construction area as required to construct the Works.
- .4 Protect stockpiles from contamination and compaction.
- .5 Cover topsoil that has been piled for long term storage, with trefoil or grass to maintain agricultural potential of soil.
- .6 Stockpiling sites to be level, well drained, and of adequate bearing capacity and stability to support stockpiled materials and handling equipment.
- .7 Do not use intermixed or contaminated materials. Remove and dispose of rejected materials as directed by Engineer within 48 hours of rejection.
- .8 During winter operations, prevent ice and snow from becoming mixed into stockpile or in material being removed from stockpile.
- .9 Implement sufficient erosion and sediment control measures to prevent sediment release off construction boundaries and into water bodies.

3.4 PREPARING SUBGRADE SURFACE

- .1 The subgrade shall be scarified to a depth of 300 mm, unless otherwise specified. The loosened material shall be windrowed to the side, and the exposed surface shall be thoroughly compacted. The windrowed material shall then be uniformly mixed, shaped to conform to the dimensions, lines, grades and cross-section as established by the Engineer, and compacted to obtain an average of one hundred percent, and with no test results being less than ninety-seven percent of the maximum dry density at optimum moisture content established by the Moisture-Density Relation tests using Standard Compaction. Approved material shall be added or removed to restore true grade and cross-section as directed by the Engineer.
- .2 When material varies from optimum moisture content, it shall be treated in the following manner. When a deficiency in moisture content exists, the material shall be watered and thoroughly mixed until optimum moisture content is attained. When an excess in moisture content exists, the material shall be worked and aerated until optimum moisture content is attained. The use of lime or any other material to assist in drying material shall be entirely at the Contractor's discretion.

REGIONAL DISTRICT OF KOOTENAY BOUNDARY	SECTION 31 14 13
MCKELVEY CREEK LANDFILL	SOIL STRIPPING AND
704-SWM.SWOP04332-01	STOCKPILING
	PAGE 3 OF 4

- .3 Any large rocks encountered during the subgrade preparation process, which constitute a hazard to traffic due to size or protrusion from the finished subgrade, shall be removed and disposed of as directed by the Engineer.
- .4 The finished subgrade surface shall be firm and uniform, true to grade and cross-section, and shall be approved by the Engineer before placing subsequent material thereon. Subgrade that does not conform to the requirements as to grade, cross-section, moisture content or density shall be reworked until such requirements are met.
- .5 Where required, the subgrade shall be prepared to a depth exceeding 300 mm on sections of the roadway as designated by the Engineer. When such work has been ordered, it shall be carried out in layers, each of which do not exceed 150 mm in depth, and requirements for density and optimum moisture as specified above shall apply for each layer.
- .6 Subgrade ramps of whatever nature at approaches to bridge structures, or adjacent to fixed obstructions, shall be removed to the lines and grades as directed by the Engineer. When the surplus material has been removed, the subgrade shall then be prepared in accordance with these specifications.
- .7 The Contractor shall, at his own expense, repair any damages to a prepared subgrade surface as well as repair damages done to culverts by his equipment, and shall remove any obstructions he may have placed which will interfere with the normal function of a drainage system.
- .8 The finish subgrade shall be graded to within +/- 50mm of the design grade measured normal to finish grade, but not uniformly high or low

3.5 PREPARATION OF GRADE

- .1 Verify that grades are correct and notify Engineer if discrepancies occur. Do not begin work until instructed by Engineer.
 - .1 Grade area only when soil is dry to lessen soil compaction.
 - .2 Grade soil establishing natural contours and eliminating uneven areas and low spots, ensuring positive drainage.

3.6 CLEANING

- .1 On completion and verification of performance of installation, remove surplus materials, excess materials, rubbish, tools and equipment.

PART 4 MEASUREMENT AND PAYMENT

4.1 GENERAL

- .1 Refer to Section 01 29 00 – Payment Procedures: Requirements for measurement and payment.

4.2 STRIPPING AND STOCKPILING

- .1 Schedule of Prices Item No. 31 14 13/1.

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 31 14 13

MCKELVEY CREEK LANDFILL

SOIL STRIPPING AND

704-SWM.SWOP04332-01

STOCKPILINGPAGE 4 OF 4

- .2 Measurement Basis: cubic metre measured in place.
- .3 Payment Basis: Unit price. Includes stripping and excavation of fine grained materials, preparing subgrade and grade, erosion control, hauling, stockpiling, placement and shaping of stockpiles.

END OF SECTION

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 31 23 33.01

MCKELVEY CREEK LANDFILL

EXCAVATING AND

704-SWM.SWOP04332-01

TRENCHING

PAGE 1 OF 10

PART 1 GENERAL**1.1 SCOPE**

- .1 This section refers to those portions of the Work that are unique to excavation, including construction of ditching and swales. This section must be referenced to and interpreted simultaneously with all other sections pertinent to the Works described herein.

1.2 SECTION INCLUDES

- .1 Related Requirements.
- .2 Reference Standards.
- .3 Definitions.
- .4 Submittals.
- .5 Quality Assurance.
- .6 Existing Conditions.
- .7 Materials.
- .8 Temporary Erosion Control and Sedimentation Control.
- .9 Site Preparation.
- .10 Preparation/Protection.
- .11 Stripping and Stockpiling.
- .12 Dewatering.
- .13 Excavation.
- .14 Restoration.
- .15 Measurement and Payment.

1.3 RELATED REQUIREMENTS

- .1 Section 01 35 43 – Environmental Procedures.
- .2 Section 31 14 13 – Soil Stripping and Stockpiling.

1.4 REFERENCE STANDARDS

- .1 Abbreviations for electrical terms shall be to CSA Z85-1983.

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 31 23 33.01

MCKELVEY CREEK LANDFILL

EXCAVATING AND

704-SWM.SWOP04332-01

TRENCHING

PAGE 2 OF 10

.2 Abbreviations of standards organizations referenced in this and other sections are as follows:

ACI	American Concrete Institute
CSA	Canadian Standards Association
CEC	Canadian Electrical Code
IEEE	Institute of Electrical and Electronic Engineers
ANSI	American National Standards Institute
NBC	National Building Code
NFPA	National Fire Protection Association
EEMAC	Electrical & Electronic Manufacturers Association of Canada (formerly CEMA)
FM	Factory Mutual
NEMA	National Electrical Manufacturers Association (U.S.)
JIC	Joint Industry Conference
IPCEA	Insulated Power Cable Engineers Association
ISA	Instrument Society of America
IES	Illuminating Engineering Society
NETA	National Electrical Testing Association
CUL	Canadian Underwriters Laboratories Inc.
ETL	Electrical Testing Laboratories, Inc.
ASTM	American Society for Testing and Materials
AASHTO	American Association of State Highway and Transportation Officials
GRI	Geosynthetic Research Institute

.3 ASTM International (ASTM)

- .1 ASTM C117, Standard Test Method for Material Finer than 0.075 mm (No.200) Sieve in Mineral Aggregates by Washing.
- .2 ASTM C136, Standard Test Method for Sieve Analysis of Fine and Coarse Aggregates.
- .3 ASTM D422-63, Standard Test Method for Particle-Size Analysis of Soils.
- .4 ASTM D698, Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft³) (600 kN-m/m³).
- .5 ASTM D1557, Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft³) (2,700 kN-m/m³).
- .6 ASTM D4318, Standard Test Methods for Liquid Limit, Plastic Limit, and Plasticity Index of Soils.

.4 Canadian General Standards Board (CGSB)

- .1 CAN/CGSB-8.1, Sieves, Testing, Woven Wire, Inch Series.
- .2 CAN/CGSB-8.2, Sieves, Testing, Woven Wire, Metric.

1.5 DEFINITIONS

- .1 Borrow material: material obtained from locations outside area to be graded and required for construction of fill areas or for other portions of Work.
- .2 Common excavation: excavation of materials of whatever nature, which are not included under definitions of rock excavation.

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 31 23 33.01

MCKELVEY CREEK LANDFILL

EXCAVATING AND

704-SWM.SWOP04332-01

TRENCHING

PAGE 3 OF 10

- .3 Excavation: Removal of materials of whatever nature encountered, whether wet, frozen, or otherwise, including dense tills, hardpan, frozen materials, cemented materials, concrete fragments, asphalt pavement, boulders or rock fragments less than 1 cubic metres in volume, and weathered rock which can be removed by ripping or excavating with heavy duty mechanical construction equipment without drilling and blasting.
- .4 Excavation Limits: Areal excavation limits shown on the Drawings to specified depth or as directed by Engineer and does not include areas shown as being on hold pending further sampling and analysis by Engineer.
- .5 Subsoil: materials excavated directly beneath the topsoil layer. Capable of supporting root growth and suitable for use in landscape restoration.
- .6 Topsoil:
 - .1 Material capable of supporting good vegetative growth and suitable for use in top dressing, landscaping and seeding.
 - .2 Material reasonably free from subsoil, clay lumps, brush, objectionable weeds, and other litter, and free from cobbles, stumps, roots, and other objectionable material larger than 25 millimeters in any dimension.
- .7 Waste material: excavated material unsuitable for use in Work or surplus to requirements.
- .8 Unsuitable materials:
 - .1 Weak, chemically unstable, and compressible materials.
 - .2 Frost susceptible materials under excavated areas.
 - .1 Fine grained soils with plasticity index less than 10 when tested to ASTM D4318, and gradation within limits specified when tested to ASTM D422 and ASTM C136: Sieve sizes to [CAN/CGSB-8.2] [CAN/CGSB-8.1].
 - .2 Coarse grained soils containing more than 20% by mass passing 0.075 mm sieve.
- .9 Select Fill: Selected material derived from usable common excavation and placed above original ground or stripped surface up to top of ramp elevation.
- .10 Subgrade: Original ground surface or prepared surface upon which embankments are constructed.
- .11 SMDD: Standard Maximum Dry Density in accordance with ASTM D698-2.
- .12 Corrected maximum dry density is defined as (correction applied for plus 20 mm material):
 - .1 $D = (F1 \times D1) + (0.9 \times D2 \times F2)$.
 - .2 Where:
 - .1 D = corrected maximum dry density kg/m.
 - .2 $F1$ = fraction (decimal) of total field sample passing 5 mm sieve.
 - .3 $F2$ = fraction (decimal) of total field sample retained on 5 mm sieve. (equal to $1.00 - F1$)
 - .4 $D1$ = maximum dry density, kg/m of material passing 5 mm sieve determined in accordance with ASTM D698.

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 31 23 33.01

MCKELVEY CREEK LANDFILL

EXCAVATING AND

704-SWM.SWOP04332-01

TRENCHING

PAGE 4 OF 10

.5 D2 = bulk density, kg/m, of material retained on 5mm sieve, equal to 1000 G where G is bulk specific gravity (dry basis) of material when tested to ASTM C127.

.3 For free draining aggregates, determine D1 (maximum dry density) to ASTM D4253 wet method when directed by the Engineer.

1.6 SUBMITTALS

- .1 Make submittals in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Quality Control: in accordance with Section 01 45 00 - Quality Control.
 - .1 Submit to Engineer notice at least 7 days prior to excavation work, to ensure cross sections are taken.
 - .2 Submit to Engineer written when bottom of excavation is reached.
 - .3 Submit to Engineer Testing results/report as described in PART 3 of this Section.
- .3 Preconstruction Submittals:
 - .1 Submit construction equipment list for major equipment to be used in this section prior to start of Work.
 - .2 Submit records of underground utility locates, indicating: clearance record from utility authority, location plan of relocated and abandoned services, as required, and location plan of existing utilities as found in field.

1.7 QUALITY ASSURANCE

- .1 Qualification Statement: submit proof of insurance coverage for professional liability.
- .2 Submit design and supporting data at least 2 weeks prior to beginning Work.
- .3 Design and supporting data submitted to bear stamp and signature of qualified professional engineer registered or licensed in Alberta, Canada.
- .4 Keep design and supporting data on site.
- .5 Engage services of qualified professional Engineer who is registered or licensed in Alberta, Canada in which Work is to be carried out to design and inspect cofferdams, shoring, bracing and underpinning required for Work.
- .6 Do not use soil material until written report of soil test results are approved by Engineer.
- .7 Health and Safety Requirements:
 - .1 Do construction occupational health and safety in accordance with Section 01 35 29.06 - Health and Safety Requirements.

1.8 EXISTING CONDITIONS

- .1 Examine geotechnical report prepared by Tetra Tech, 2020. Geotechnical Assessment Report for RDKB BC McKelvey Creek Landfill Upgrade Project.
- .2 Buried Services:
 - .1 Before commencing work verify location of buried services on and adjacent to site.

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 31 23 33.01

MCKELVEY CREEK LANDFILL

EXCAVATING AND

704-SWM.SWOP04332-01

TRENCHING

PAGE 5 OF 10

- .2 Arrange with appropriate authority for relocation of buried services that interfere with execution of work: pay costs of relocating services.
 - .3 Remove obsolete buried services within 2 m of foundations: cap cut-offs.
 - .4 Size, depth and location of existing utilities and structures as indicated are for guidance only. Completeness and accuracy are not guaranteed.
 - .5 Prior to beginning excavation Work, notify applicable Engineer establish location and state of use of buried utilities and structures.
 - .6 Confirm locations of buried utilities by careful test excavations, or soil hydrovac methods.
 - .7 Maintain and protect from damage, water, sewer, gas, electric, telephone and other utilities and structures encountered.
 - .8 Where utility lines or structures exist in area of excavation, obtain direction of Engineer before removing.
 - .9 Record location of maintained, re-routed and abandoned underground lines.
 - .10 Confirm locations of recent excavations adjacent to area of excavation.
- .3 Existing Buildings and surface features:
- .1 Conduct, with Engineer, condition survey of existing buildings, trees and other plants, lawns, fencing, service poles, wires, rail tracks, pavement, survey bench marks and monuments which may be affected by Work.
 - .2 Protect existing buildings and surface features from damage while Work is in progress. In event of damage, immediately make repair as directed by Engineer.
 - .3 Where required for excavation, cut roots or branches as directed by Engineer.

1.9 PROTECTION OF EXISTING FEATURES

- .1 Existing buried utilities and structures.
- .2 Size, depth, and location of existing utilities and structures as indicated are for guidance only. Completeness and accuracy are not guaranteed.
- .3 Prior to commencing excavation work, notify applicable owner or authorities having jurisdiction, establish location and state of use of buried utilities and structures. Owners or authorities having jurisdiction to clearly mark such locations to prevent disturbance during work.
- .4 Confirm locations of buried utilities by careful test excavations.
- .5 Maintain and protect from damage, gas, electric, telephone and other utilities and structures encountered.
- .6 Where utility lines or structures exist in area of excavation, obtain direction from Engineer before proceeding.
- .7 Record location of maintained, re-routed and abandoned underground lines.

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 31 23 33.01

MCKELVEY CREEK LANDFILL

EXCAVATING AND

704-SWM.SWOP04332-01

TRENCHING

PAGE 6 OF 10

1.10 APPROVALS

- .1 At least two weeks prior to commencing delivery of granular materials, the Contractor must provide the Engineer with documentation specifying the source (i.e., origin) and environmental quality of all proposed materials and provide samples as required by the Engineer.
- .2 If, in opinion of the Engineer, materials from the proposed off-site source do not meet, or cannot reasonably be processed to meet specified requirements, locate alternative source or demonstrate that material from source in question can be processed to meet specified requirements.
- .3 Should a change of off-site material source be proposed during Work, advise Engineer 2 weeks in advance of proposed change to allow sampling and testing.
- .4 Acceptance of material does not preclude future rejection if it is subsequently found to lack uniformity, or if it fails to conform to requirements specified, or if its field performance is found to be unsatisfactory.

PART 2 PRODUCTS**2.1 MATERIALS – GENERAL**

- .1 Materials to be composed of inert, durable material, reasonably uniform in quality and free from soft or disintegrate particles.
- .2 Materials should be free of unsuitable materials including:
 - .1 Frozen material or material containing snow or ice.
 - .2 Tree, stumps, branches, roots, or other wood or lumber.
 - .3 Wire, steel, cast iron, cans, drums, or other foreign material.
 - .4 Materials containing hazardous or toxic constituents at hazardous or toxic concentrations.
- .3 Compactable to specified density.
- .4 All proposed materials to meet standards contained in Contaminated Sites Regulations (CRS) applicable to place of work.

PART 3 EXECUTION**3.1 TEMPORARY EROSION AND SEDIMENTATION CONTROL**

- .1 Provide temporary erosion and sedimentation control measures to prevent soil erosion and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways.
- .2 Inspect, repair, and maintain erosion and sedimentation control measures during construction until permanent vegetation has been established.
- .3 Remove erosion and sedimentation controls and restore and stabilize areas disturbed during removal.

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 31 23 33.01

MCKELVEY CREEK LANDFILL

EXCAVATING AND

704-SWM.SWOP04332-01

TRENCHING

PAGE 7 OF 10

3.2 SITE PREPARATION

- .1 Remove obstructions, ice and snow, from surfaces to be excavated within limits indicated.

3.3 PREPARATION/PROTECTION

- .1 Keep excavations clean, free of standing water, and loose soil.
- .2 Where soil is subject to significant volume change due to change in moisture content, cover and protect to Engineer's approval.
- .3 Protect natural and man-made features required to remain undisturbed. Unless otherwise indicated or located in an area to be occupied by new construction, protect existing trees from damage.
- .4 Protect buried services that are required to remain undisturbed.

3.4 STRIPPING OF TOPSOIL, SUBSOIL AND UNSUITABLE MATERIALS AND STOCKPILING

- .1 Strip and stockpile fill material as per Section 31 14 13 – Soil Stripping and Stockpiling.

3.5 DEWATERING

- .1 Keep excavations free of water while Work is in progress.
- .2 Provide for Engineer details of proposed dewatering methods, including dikes, well points, and sheet pile cut-offs.
- .3 Avoid excavation below groundwater table if quick condition or heave is likely to occur.
 - .1 Prevent piping or bottom heave of excavations by groundwater lowering, sheet pile cut-offs, or other means.
- .4 Protect open excavations against flooding and damage due to surface run-off.
- .5 Dispose of water in a manner not detrimental to public and private property, or portion of Work completed or under construction.
 - .1 Provide and maintain temporary drainage ditches and other diversions outside of excavation limits.

3.6 EXCAVATION

- .1 Excavate to lines, grades, elevations and dimensions as indicated in Drawings.
- .2 Remove obstructions encountered during excavation and remove from site.
- .3 Excavation must not interfere with bearing capacity of adjacent foundations.
- .4 Do not disturb soil within branch spread of trees or shrubs that are to remain.
 - .1 If excavating through roots, excavate by hand and cut roots with sharp axe or saw.

REGIONAL DISTRICT OF KOOTENAY BOUNDARY	SECTION 31 23 33.01
MCKELVEY CREEK LANDFILL	EXCAVATING AND
704-SWM.SWOP04332-01	TRENCHING
	PAGE 8 OF 10

- .5 For trench excavation, unless otherwise authorized by Engineer in writing, do not excavate more than 30 m of trench in advance of installation operations and do not leave open more than 15 m at end of day's operation.
- .6 Keep excavated and stockpiled materials safe distance away from edge of trench as directed by Engineer.
- .7 Restrict vehicle operations directly adjacent to open trenches.
- .8 Do not obstruct flow of surface drainage or natural watercourses.
- .9 Earth bottoms of excavations to be undisturbed soil, level, free from loose, soft or organic matter.
- .10 Notify Engineer when bottom of excavation is reached.
- .11 Obtain Engineer approval of completed excavation.
- .12 Remove unsuitable material from trench bottom including those that extend below required elevations to extent and depth as directed by Engineer.
- .13 Correct unauthorized over-excavation as follows:
 - .1 Fill under other areas with Granular Base Course compacted to not less than 98 percent of Standard Maximum Dry Density.
- .14 Hand trim, make firm and remove loose material and debris from excavations.
 - .1 Where material at bottom of excavation is disturbed, compact foundation soil to density at least equal to undisturbed soil.
- .15 Install geotextiles in accordance with Section 31 32 19.16 –Non-Woven Geotextile.
- .16 Install geogrid soil reinforcement in accordance with Section 31 32 19.13 – Geogrid Soil Stabilization.
- .17 Upon completion of Work, remove waste materials and debris, trim slopes, and correct defects as directed by Engineer.
- .18 Reinstate surfaces to elevation which existed before excavation.
- .19 Clean and reinstate areas affected by Work as directed by Engineer.
- .20 Protect newly graded areas from traffic and erosion and maintain free of trash or debris.

3.7 DISPOSAL OF UNSUITABLE OR EXCESS EXCAVATED MATERIAL

- .1 Dispose excavated material determined by Engineer as unsuitable for backfill or excess excavated material, on-site as shown on Drawings or as directed by ENGINEER.

3.8 OVER EXCAVATION

- .1 Notify Engineer when soil at the bottom of the excavation appears unsuitable and proceed as directed by Engineer. Where, in Engineer 's opinion, the undisturbed condition of the soils is

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 31 23 33.01

MCKELVEY CREEK LANDFILL

EXCAVATING AND

704-SWM.SWOP04332-01

TRENCHING

PAGE 9 OF 10

inadequate for the support of installations, over excavate to adequate supporting soils as directed by Engineer and refill the excavated space with approved material to the proper elevation in accordance with the procedure specified for backfill. Where so directed by Engineer and except as otherwise specified, the excavation and removal of inadequate material as specified, supply and installation of such material in excess of quantities shown on the Drawings will be paid for under the appropriate item of the Schedule of Prices.

- .2 Backfill over excavated areas in accordance with Section 31 23 33.02 – Fill.
- .3 Should unauthorized excavation be carried below the lines and grades shown on the Drawings and in excess of specified limits and tolerance because of Contractor's operations including errors, methods of construction, or to suit his convenience, correct unauthorized excavation as follows:
 - .1 Fill under unauthorized over excavation areas by extending the indicated bottom elevation of the base of the material specified to be placed to the unauthorized excavation bottom without altering the required top elevation and compact in accordance with Section 31 23 33.02 unless otherwise directed by Engineer.
 - .2 Additional excavation to remove weakened or disturbed soil or any additional activity caused by Contractor's error, unsuitable construction methods or procedures, or to suit Contractor's convenience and subsequent additional backfill and compaction to correct deficiencies shall be at no additional cost to Owner.

3.9 TEMPORARY STOCKPILING

- .1 Stockpile excavated materials on the Site at locations designated by Engineer.
- .2 Construct stockpile sites so that they are well drained, free of foreign materials, and of adequate bearing capacity to support the weight of materials to be placed thereon.
- .3 Provide and maintain access to stockpiles.
- .4 Separate differing materials with substantial dividers or stockpile apart to prevent mixing.
- .5 Prevent contamination or segregation of soil types.
- .6 Direct surface water away from stockpile sites to prevent erosion or deterioration of materials.

3.10 TOLERANCES

- .1 A. Excavation Depth: Within +/- 25 mm or less.
- .2 B. Trench Depth: Within +/- 25 mm or less.
- .3 C. Trench Width: Within +/- 100 mm or less.

3.11 RESTORATION

- .1 Reinstall surfaces to elevation which existed before excavation.
- .2 Clean and reinstall areas affected by Work as directed by Engineer.
- .3 Protect newly graded areas from traffic and erosion and maintain free of trash or debris.

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 31 23 33.01

MCKELVEY CREEK LANDFILL

EXCAVATING AND

704-SWM.SWOP04332-01

TRENCHING

PAGE 10 OF 10

PART 4 MEASUREMENT AND PAYMENT**4.1 GENERAL**

- .1 Refer to Section 01 29 00 – Payment Procedures: Requirements for measurement and payment.

4.2 STRIPPING AND STOCKPILING

- .1 Included in Payment Item 31 14 13/1.

4.3 DITCH EXCAVATION

- .1 Schedule of Prices Item No. 31 23 33.01/1
- .2 Measurement Basis: Per linear metre of ditch excavated, measured along the centerline of ditch alignment.
- .3 Payment Basis: Unit Price. Includes the excavation, grading and contouring of ditch slopes, hauling, of materials to stockpile location, disposal of unsuitable or excess excavated materials, material segregation and separation, stockpile shaping and contouring.

END OF SECTION

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 31 23 33.02

MCKELVEY CREEK LANDFILL

FILL

704-SWM.SWOP04332-01

PAGE 1 OF 9

PART 1 GENERAL**1.1 SECTION INCLUDES**

- .1 Related Requirements.
- .2 Reference Standards.
- .3 Definitions.
- .4 Submittals.
- .5 Existing Conditions.
- .6 Materials.
- .7 Quality Control testing
- .8 Measurement and Payment.

1.2 RELATED REQUIREMENTS

- .1 Section 03 30 00.01 – Cast-In-Place Concrete
- .2 Section 31 14 13 – Soil Stripping and Stockpiling
- .3 Section 31 23 33.01 – Excavation and Trenching
- .4 Section 33 05 13 – Precast Concrete

1.3 REFERENCE STANDARDS

- .1 Abbreviations for electrical terms shall be to CSA Z85-1983.
- .2 Abbreviations of standards organizations referenced in this and other sections are as follows:

ACI	American Concrete Institute
CSA	Canadian Standards Association
CEC	Canadian Electrical Code
IEEE	Institute of Electrical and Electronic Engineers
ANSI	American National Standards Institute
NBC	National Building Code
NFPA	National Fire Protection Association
EEMAC	Electrical & Electronic Manufacturers Association of Canada (formerly CEMA)
FM	Factory Mutual

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 31 23 33.02

MCKELVEY CREEK LANDFILL

FILL

704-SWM.SWOP04332-01

PAGE 2 OF 9

NEMA	National Electrical Manufacturers Association (U.S.)
JIC	Joint Industry Conference
IPCEA	Insulated Power Cable Engineers Association
ISA	Instrument Society of America
IES	Illuminating Engineering Society
NETA	National Electrical Testing Association
CUL	Canadian Underwriters Laboratories Inc.
ETL	Electrical Testing Laboratories, Inc.

.3 ASTM American Society for Testing and Materials

.4 ASTM International (ASTM)

- .1 ASTM C117, Standard Test Method for Material Finer than 0.075 mm (No.200) Sieve in Mineral Aggregates by Washing.
- .2 ASTM C136, Standard Test Method for Sieve Analysis of Fine and Coarse Aggregates.
- .3 ASTM D422-63, Standard Test Method for Particle-Size Analysis of Soils.
- .4 ASTM D698, Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft³) (600 kN-m/m³).
- .5 ASTM D1557, Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft³) (2,700 kN-m/m³).
- .6 ASTM D4318, Standard Test Methods for Liquid Limit, Plastic Limit, and Plasticity Index of Soils.

.5 Canadian General Standards Board (CGSB)

- .1 CAN/CGSB-8.1, Sieves, Testing, Woven Wire, Inch Series.
- .2 CAN/CGSB-8.2, Sieves, Testing, Woven Wire, Metric.

.6 CSA Group (CSA)

- .1 CAN/CSA-A3000, Cementitious Materials Compendium.
 - .1 CSA-A3001, Cementitious Materials for Use in Concrete.
- .2 CSA-A23.1/A23.2, Concrete Materials and Methods of Concrete Construction/Methods of Test and Standard Practices for Concrete.

1.4 DEFINITIONS

.1 Common excavation: excavation of materials of whatever nature, which are not included under definitions of rock excavation.

.2 Topsoil:

- .1 Material capable of supporting good vegetative growth and suitable for use in top dressing, landscaping and seeding.
- .2 Material reasonably free from subsoil, clay lumps, brush, objectionable weeds, and other litter, and free from cobbles, stumps, roots, and other objectionable material larger than 25 millimeters in any dimension.

.3 Subsoil: materials excavated directly beneath the topsoil layer. Capable of supporting root growth and suitable for use in landscape restoration.

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 31 23 33.02

MCKELVEY CREEK LANDFILL

FILL

704-SWM.SWOP04332-01

PAGE 3 OF 9

- .4 Waste material: excavated material unsuitable for use in Work or surplus to requirements.
- .5 Borrow material: material obtained from locations outside area to be graded and required for construction of fill areas or for other portions of Work.
- .6 Unsuitable materials:
 - .1 Weak, chemically unstable, and compressible materials.
 - .2 Frost susceptible materials under excavated areas.
 - .1 Fine grained soils with plasticity index less than 10 when tested to ASTM D4318, and gradation within limits specified when tested to ASTM D422 and ASTM C136: Sieve sizes to [CAN/CGSB-8.2] [CAN/CGSB-8.1].
 - .2 Coarse grained soils containing more than 20 % by mass passing 0.075 mm sieve.
- .7 Select Backfill: selected material derived from usable excavation and placed above original ground or stripped surface up to top of ramp elevation.
- .8 Subgrade: Original ground surface or prepared surface upon which embankments or structures are constructed.
- .9 SMDD: Standard Maximum Dry Density in accordance with ASTM D698.
- .10 Corrected maximum dry density is defined as (correction applied for plus 20 mm material):
 - .1 1.4.9.1 $D = (F1 \times D1) + (0.9 \times D2 \times F2)$.
 - .2 Where: D = corrected maximum dry density kg/m. F1 = fraction (decimal) of total field sample passing 5 mm sieve. F2 = fraction (decimal) of total field sample retained on 5 mm sieve. (equal to 1.00 – F1) D1 = maximum dry density, kg/m of material passing 5 mm sieve determined in accordance with ASTM D698. D2 = bulk density, kg/m, of material retained on 5mm sieve, equal to 1000 G where G is bulk specific gravity (dry basis) of material when tested to ASTM C127.
 - .3 For free draining aggregates, determine D1 (maximum dry density) to ASTM D4253 wet method when directed by the Engineer.

1.5 SUBMITTALS

- .1 Make submittals in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Quality Control: in accordance with Section 01 45 00 - Quality Control.
 - .1 Submit condition survey of existing conditions as described in EXISTING CONDITIONS article of this Section.
 - .2 Submit to Engineer Testing/Inspection results as described in PART 3 of this Section.
- .3 Preconstruction Submittals:
 - .1 Submit construction equipment list for major equipment to be used in this section prior to start of Work.
- .4 Samples:
 - .1 Submit samples in accordance with Section 01 33 00 - Submittal Procedures.

- .2 Submit 20 kg samples of type of fill specified including representative samples of excavated material.

1.6 APPROVALS

- .1 At least two weeks prior to commencing delivery of granular materials, the contractor must provide the Engineer with documentation specifying the source (i.e., origin) and environmental quality of all proposed materials and provide samples as required by the Engineer.
- .2 If, in opinion of the Engineer, materials from the proposed off-site source do not meet, or cannot reasonably be processed to meet specified requirements, locate alternative source or demonstrate that material from source in question can be processed to meet specified requirements.
- .3 Should a change of off-site material source be proposed during Work, advise Engineer 2 weeks in advance of proposed change to allow sampling and testing.
- .4 Acceptance of material does not preclude future rejection if it is subsequently found to lack uniformity, or if it fails to conform to requirements specified, or if its field performance is found to be unsatisfactory.

1.7 EXISTING CONDITIONS

- .1 Examine subsurface investigation report, prepared by Tetra Tech, October 2020. Geotechnical Assessment Report for RDKB BC McKelvey Creek Landfill Upgrade Project.

PART 2 PRODUCTS

2.1 MATERIALS – GENERAL

- .1 Materials to be composed of inert, durable material, reasonably uniform in quality and free from soft or disintegrate particles.
- .2 Materials should be free of unsuitable materials including:
 - .1 Frozen material or material containing snow or ice.
 - .2 Tree, stumps, branches, roots, or other wood or lumber.
 - .3 Wire, steel, cast iron, cans, drums, or other foreign material.
 - .4 Materials containing hazardous or toxic constituents at hazardous or toxic concentrations.
- .3 Compactable to specified density.

2.2 ENGINEERED FILL

- .1 Proposed borrow source area is provided in the attached drawing.
- .2 Materials used for engineered fill shall be free of unsuitable materials.
- .3 Low to medium plastic clay with the following range of plasticity properties is considered suitable for use as Engineered Fill:

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 31 23 33.02

MCKELVEY CREEK LANDFILL

FILL

704-SWM.SWOP04332-01

PAGE 5 OF 9

Liquid Limit	20 to 40 %
Plastic Limit	10 to 20%
Plasticity Index	10 to 30%

2.3 GRANULAR BASE COURSE

- .1 Granular Base Course to be 20.0 mm crushed gravel and when tested according to CSA A23.3-2A, (Sieve sizes to CAN/CGSB-8.2), or latest revised issue, to have a generally uniform gradation conforming to following gradation limits:

Sieve Designation (mm)	Percent Passing by Weight (%)
20.0	100
12.5	60 - 92
5.0	37 - 62
2.0	26 - 44
0.4	12 - 27
0.16	7 - 18
0.08	2 - 8

- .2 Crushed particles at least 60 percent of the particles by mass passing each sieve must have two or more freshly fractured faces.
- .3 Liquid Limit for Granular Base Course: to ASTM D4318, maximum 25.

2.4 GRANULAR SUBBASE MATERIAL

- .1 Granular Subbase material to be pit-run 75.0 mm crushed gravel and when tested according to CSA A23.3-2A, (Sieve sizes to CAN/CGSB-8.2), or latest revised issue, to have a generally uniform gradation conforming to the following gradation limits:

Sieve Designation (mm)	Percent Passing by Weight (%)
25.0	80% Maximum
4.75	60% Maximum

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 31 23 33.02

MCKELVEY CREEK LANDFILL

FILL

704-SWM.SWOP04332-01

PAGE 6 OF 9

0.075	10% Maximum
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- .2 The Plasticity Index for Pit-Run Gravel: to ASTM D4318, maximum 8.0.

2.5 DRAIN ROCK

- .1 Drain rock material to be 19.0 mm crush drain rock material and when tested according to CSA A23.3-2A, (Sieve sizes to CAN/CGSB-8.2), or latest revised issue, to have a generally uniform gradation conforming to the following gradation limits.

Sieve Designation (mm)	Percent Passing by Weight (%)
25.0	100
19.0	70 - 80
12.5	5 - 10
4.75	2 - 5
0.075	0 - 2

PART 3 EXECUTION

3.1 SITE PREPARATION

- .1 Remove obstructions, ice and snow, from surfaces to be excavated within limits indicated.

3.2 PREPARING SUBGRADE SURFACE

- .1 Refer to Section 31 13 13 (Soil Stripping and Stockpiling), Article 3.4.

3.3 PROCESSING

- .1 Process aggregate uniformly using methods that prevent contamination, segregation and degradation.
- .2 Blend aggregates, if required, to obtain gradation requirements, percentage of crushed particles, or particle shapes, as specified. Use methods and equipment approved by Engineer.
- .3 Wash aggregates, if required to meet specifications. Use only equipment approved by Engineer.
- .4 When operating in stratified deposits use excavation equipment and methods that produce uniform, homogeneous aggregate.

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 31 23 33.02

MCKELVEY CREEK LANDFILL

FILL

704-SWM.SWOP04332-01

PAGE 7 OF 9

3.4 STOCKPILING

- .1 Stockpile fill materials in areas designated by Engineer.
- .2 Stockpile aggregates on site locations as indicated unless directed otherwise by Engineer.
 - .1 Handle, stockpile and transport aggregates to avoid segregation, contamination, and degradation
- .3 Stockpiling sites to be level, well drained, and of adequate bearing capacity and stability to support stockpiled materials and handling equipment.
- .4 Do not use intermixed or contaminated materials. Remove and dispose of rejected materials as directed by Engineer within 48 hours of rejection.
- .5 During winter operations, prevent ice and snow from becoming mixed into stockpile or in material being removed from stockpile.
- .6 Implement sufficient erosion and sediment control measures to prevent sediment release off construction boundaries and into water bodies.

3.5 PLACEMENT OF ENGINEERING FILL, GRANULAR SUB BASE, GRANULAR BASE COURSE – GENERAL

- .1 Do not place material unless the applicable surveys on the sub-grade surfaces have been carried out and accepted by the Engineer, and the sub-grade surface has been approved by the Engineer.
- .2 Place Material in continuous horizontal layers not exceeding 150 mm loose depth and compact. Place using methods that does not result in segregation or degradation of the material.
- .3 Do not place material in a wet or frozen condition. Compaction and placement must not be adversely affected by weather conditions including pooling water in placement area.
- .4 Place materials on a clean surface, properly shaped and free from debris, to the lines and thickness shown on the contract drawings and maintain free of contamination by other materials throughout the construction process.
- .5 Placement shall be scheduled in consideration of water levels. Under no circumstances will material placement be permitted through standing water associated with tidal inundation.

3.6 PLACEMENT OF ENGINEERED FILL, GRANULAR SUB BASE, GRANULAR BASE COURSE, – TOLERANCE

- .1 Finish surfaces of pit-run gravel, granular base course, and granular surfacing shall be within the following limits of established grade measured normal to finish grade, but not uniformly high or low.
 - .1 Engineered Fill: +/- 15mm
 - .2 Granular Subbase (Pit-run Gravel): +/- 25mm
 - .3 Granular Base Course: +/- 15mm

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 31 23 33.02

MCKELVEY CREEK LANDFILL

FILL

704-SWM.SWOP04332-01

PAGE 8 OF 9

- .2 Correct surface irregularities by adding or removing material until the surface is within the specified tolerances.

3.7 PLACEMENT OF ENGINEERED FILL, GRANULAR SUB BASE, GRANULAR BASE COURSE, GRANULAR SURFACING – THICKNESS AND COMPACTION

- .1 Compaction equipment to be capable of obtaining required material densities.
- .2 Apply water as necessary during compaction to obtain specified density.
- .3 Place and compact material lifts not exceeding 150mm loose depths. Compact each lift to the minimum SMDD in accordance with ASTM D698, as shown. Process material as required ensuring moisture content is within 2 percent of optimum.
 - .1 Engineered Fill: 98%
 - .2 Granular Sub-Base: 100%
 - .3 Granular Base Course: 100%

3.8 QUALITY CONTROL DENSITY TESTING (CONTRACTOR)

- .1 A minimum of one density and moisture content test will be completed for each 1000 square meters of compacted lift, or Engineer pre-approved alternative frequency.
- .2 The testing agency (as per Section 01 45 00 – Quality Control) shall carry out inspection and testing of material compaction and gradation.

3.9 RESTORATION

- .1 Reinstate areas to elevation which existed before excavation.
- .2 Clean and reinstate areas affected by Work as directed by Engineer.
- .3 Use temporary plating to support traffic loads over unshrinkable fill for initial 24 hours.
- .4 Protect newly graded areas from traffic and erosion and maintain free of trash or debris.

PART 4 MEASUREMENT AND PAYMENT

4.1 GENERAL

- .1 Refer to Section 01 29 00 – Payment Procedures: Requirements for measurement and payment.

4.2 DRAIN ROCK

- .1 No separate payment made for Drain Rock. Included in Payment Item 33 05 13/1.

4.3 ENGINEERED FILL

- .1 Schedule of Prices Item No. 31 23 33.02/1
- .2 Measurement Basis: Per cubic metre of compacted fill, measured by surveyed volume.

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 31 23 33.02

MCKELVEY CREEK LANDFILL

FILL

704-SWM.SWOP04332-01

PAGE 9 OF 9

- .3 Payment Basis: Unit Price. Includes excavation from stockpiles, hauling, grading, compacting disposal of unsuitable or excess materials, and compaction testing.

4.4 250 GRANULAR SUBBASE

- .1 Schedule of Prices Item No. 31 23 33.02/2
- .2 Measurement Basis: Per square metre of compacted material, measured by surveyed area.
- .3 Payment Basis: Unit Price. Includes subgrade preparation; supply of aggregate, placement, grading, compaction, and compaction testing.

4.5 150 GRANULAR BASE COURSE

- .1 Schedule of Prices Item No. 31 23 33.02/3
- .2 Measurement Basis: Per square metre of compacted material, measured by surveyed area.
- .3 Payment Basis: Unit Price. Includes supply of aggregate, placement, grading, compaction, and compaction testing.

END OF SECTION

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 31 32 19.13

MCKELVEY CREEK LANDFILL

GEOGRID SOIL

704-SWM.SWOP04332-01

STABILIZATION

PAGE 1 OF 4

PART 1 GENERAL**1.1 SCOPE**

- .1 This Section specifies the requirements to supply and install geogrid as shown in Drawings. This section must be referenced and interpreted simultaneously with all other sections pertinent to the Works described herein.

1.2 SECTION INCLUDES

- .1 Related Requirements.
 .2 Reference Standards.
 .3 Measurement.
 .4 Measurement and Payment.

1.3 RELATED REQUIREMENTS

- .1 Section 31 23 33.02 – Fill
 .2 Section 33 05 13 – Precast Concrete

1.4 REFERENCE STANDARDS

- .1 Abbreviations for electrical terms shall be to CSA Z85-1983.
- .2 Abbreviations of standards organizations referenced in this and other sections are as follows:
- | | |
|-------|--|
| ACI | American Concrete Institute |
| CSA | Canadian Standards Association |
| CEC | Canadian Electrical Code |
| IEEE | Institute of Electrical and Electronic Engineers |
| ANSI | American National Standards Institute |
| NBC | National Building Code |
| NFPA | National Fire Protection Association |
| EEMAC | Electrical & Electronic Manufacturers Association of Canada
(formerly CEMA) |
| FM | Factory Mutual |
| NEMA | National Electrical Manufacturers Association (U.S.) |
| JIC | Joint Industry Conference |
| IPCEA | Insulated Power Cable Engineers Association |
| ISA | Instrument Society of America |
| IES | Illuminating Engineering Society |
| NETA | National Electrical Testing Association |
| CUL | Canadian Underwriters Laboratories Inc. |

REGIONAL DISTRICT OF KOOTENAY BOUNDARY	SECTION 31 32 19.13
MCKELVEY CREEK LANDFILL	GEOGRID SOIL
704-SWM.SWOP04332-01	STABILIZATION
	PAGE 2 OF 4

ETL	Electrical Testing Laboratories, Inc.
ASTM	American Society for Testing and Materials
AASHTO	American Association of State Highway and Transportation Officials
GRI	Geosynthetic Research Institute

- .3 ASTM International
 - .1 ASTM D1248, Standard Specification for Polyethylene Plastics Extrusion Materials For Wire and Cable.
 - .2 ASTM D4101, Standard Specification for Polypropylene Injection and Extrusion Materials.
 - .3 ASTM D4218, Standard Test Method for Determination of Carbon Black Content in Polyethylene Compounds By the Muffle-Furnace Technique.
 - .4 ASTM D5262, Standard Test Method for Evaluating the Unconfined Tension Creep Behaviour of Geosynthetics.
 - .5 ASTM D6637, Standard Test Method for Determining Tensile Properties of Geogrids by the Single or Multi-Rib Tensile Method.
- .4 Drexel University - Geosynthetic Research Institute (GRI)
 - .1 GRI GG2, Geogrid Junction Strength.

1.5 SUBMITTALS

- .1 Provide in accordance with Section 01 33 00 – Submittal Procedures
- .2 Prior to ordering any materials, the Contractor shall submit the manufacturer's certification stating that the material proposed for use for this project has physical properties equal to the certified values.
- .3 Once the approved materials have been ordered, the contractor shall submit the manufactures certifications for each roll of material to be delivered to site to the Consultant for review at least 3 weeks prior to the start of the installation of the geosynthetics.

1.6 DELIVERY, STORAGE AND HANDLING

- .1 Deliver, store and handle materials in accordance with Section 01 61 00 - Common Product Requirements and manufacturer's written instructions.
- .2 During delivery and storage, protect geogrids from direct sunlight, ultraviolet rays, excessive heat, mud, dirt, dust, debris and rodents.

PART 2 PRODUCTS

2.1 MATERIALS

- .1 Geogrid: TENSAR UX 1600, or approved equivalent. open grid polymer having uniaxial orientation, free of striations, roughness, pinholes, blisters, undispersed raw materials or any sign of contamination by foreign matter.
 - .1 Roll width: 1.3 m minimum.
 - .2 Roll length: 61 m minimum.

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 31 32 19.13

MCKELVEY CREEK LANDFILL

GEOGRID SOIL

704-SWM.SWOP04332-01

STABILIZATION

PAGE 3 OF 4

- .3 Polymer: high density polyethylene: to ASTM D1248.
- .2 Geogrid physical properties (minimum average roll values):
 - .1 Ultimate tensile strength: 144 kN/m.
 - .2 Tensile Strength at 5% Strain: 58 kN/m.
 - .3 Junction Strength: 135 kN/m.

PART 3 EXECUTION**3.1 EXAMINATION**

- .1 Verification of conditions: Verify that conditions of substrate previously installed under other Sections or Contracts are acceptable for soil stabilization installation in accordance with manufacturer's written instructions.
 - .1 Visually inspect substrate in presence of Engineer.
 - .2 Inform Engineer of unacceptable conditions immediately upon discovery.
 - .3 Proceed with installation only after unacceptable conditions have been remedied and after receipt of approval to proceed from Engineer.

3.2 PREPARATION

- .1 Temporary Erosion and Sedimentation Control:
 - .1 Provide temporary erosion and sedimentation control measures to prevent soil erosion and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways.
 - .2 Inspect, repair, and maintain erosion and sedimentation control measures during construction until permanent vegetation has been established.
 - .3 Remove erosion and sedimentation controls and restore and stabilize areas disturbed during removal.

3.3 INSTALLATION

- .1 Place geogrid material by unrolling onto graded surface in manner and locations indicated and retain in position in accordance with manufacturer's written recommendations.
- .2 Place geogrid on sloping surfaces in one continuous length from toe of slope to upper extent of geogrid.
- .3 Overlap each successive strip of geogrid 600 mm over previously laid strip or as recommended by manufacturer.
- .4 Join successive strips of geogrid as recommended by manufacturer.
- .5 Protect geogrid from displacement, damage or deterioration before and during placement of overlaid aggregate, geotextiles and soil layers.
- .6 After installation, cover with overlay layer within 10 days of placement.
- .7 Replace damaged or deteriorated geogrid to approval of Engineer.

REGIONAL DISTRICT OF KOOTENAY BOUNDARY	SECTION 31 32 19.13
MCKELVEY CREEK LANDFILL	GEOGRID SOIL
704-SWM.SWOP04332-01	STABILIZATION
	PAGE 4 OF 4

- .8 Embed geogrid between lock blocks in accordance to manufacturer's written instructions.

3.4 CLEANING

- .1 Leave Work area clean at end of each day.
- .2 Final Cleaning: upon completion remove surplus materials, rubbish, tools and equipment.

3.5 PROTECTION

- .1 Vehicular traffic not permitted directly on geogrid.
- .2 Do not overload soil or aggregate covering geogrid.

PART 4 MEASUREMENT AND PAYMENT

4.1 GENERAL

- .1 Refer to Section 01 29 00 – Payment Procedures: Requirements for measurement and payment.

4.2 GEOGRID REINFORCEMENT

- .1 No separate payment will be made for the work under this Section. Works included in this Section are included in Payment Item No. 33 05 13/1.

END OF SECTION

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 31 32 19.16

MCKELVEY CREEK LANDFILL

NON-WOVEN

704-SWM.SWOP04332-01

GEOTEXTILE

PAGE 1 OF 5

PART 1 GENERAL**1.1 SCOPE**

- .1 Scope of work includes the supply and installation of geotextile fabric associated with the installation of rip rap armoring. This section must be referenced to and interpreted simultaneously with all other sections pertinent to the Works described herein.

1.2 SECTION INCLUDES

- .1 Related Requirements.
- .2 Reference Standards.
- .3 Submittals.
- .4 Delivery, Storage and Handling.
- .5 Materials.
- .6 Examination.
- .7 Installation.
- .8 Cleaning.
- .9 Protection.
- .10 Measurement and Payment.

1.3 RELATED REQUIREMENTS

- .1 Section 31 23 33.01 – Excavating and Trenching
- .2 Section 31 37 00 – Rip Rap
- .3 Section 33 05 13 – Precast Concrete

1.4 REFERENCE STANDARDS

- .1 Abbreviations for electrical terms shall be to CSA Z85-1983.
- .2 Abbreviations of standards organizations referenced in this and other sections are as follows:

ACI	American Concrete Institute
CSA	Canadian Standards Association
CEC	Canadian Electrical Code
IEEE	Institute of Electrical and Electronic Engineers

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 31 32 19.16

MCKELVEY CREEK LANDFILL

NON-WOVEN

704-SWM.SWOP04332-01

GEOTEXTILE

PAGE 2 OF 5

ANSI	American National Standards Institute
NBC	National Building Code
NFPA	National Fire Protection Association
EEMAC	Electrical & Electronic Manufacturers Association of Canada (formerly CEMA)
FM	Factory Mutual
NEMA	National Electrical Manufacturers Association (U.S.)
JIC	Joint Industry Conference
IPCEA	Insulated Power Cable Engineers Association
ISA	Instrument Society of America
IES	Illuminating Engineering Society
NETA	National Electrical Testing Association
CUL	Canadian Underwriters Laboratories Inc.
ETL	Electrical Testing Laboratories, Inc.
ASTM	American Society for Testing and Materials
AASHTO	American Association of State Highway and Transportation Officials
GRI	Geosynthetic Research Institute

- .3 ASTM International
 - .1 ASTM A123/A123M, Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products.
 - .2 ASTM D4491, Standard Test Methods for Water Permeability of Geotextiles by Permittivity.
 - .3 ASTM D4595, Standard Test Method for Tensile Properties of Geotextiles by the Wide-Width Strip Method.
 - .4 ASTM D4716, Standard Test Method for Determining the (In-Plane) Flow Rate Per Unit Width and Hydraulic Transmissivity of a Geosynthetic Using a Constant Head.
 - .5 ASTM D4751, Standard Test Method for Determining Apparent Opening Size of a Geotextile.
- .4 Canadian General Standards Board (CGSB)
 - .1 CAN/CGSB-4.2 No. 11.2, Textile Test Methods - Bursting Strength - Ball Burst Test (Extension of September 1989).
 - .2 CAN/CGSB-148.1, Methods of Testing Geotextiles and Complete Geomembranes.
 - .1 No.2, Methods of Testing Geosynthetics - Mass per Unit Area.
 - .2 No.3, Methods of Testing Geosynthetics - Thickness of Geotextiles.
 - .3 No.6.1, Methods of Testing Geotextiles and Geomembranes - Bursting Strength of Geotextiles Under No Compressive Load.
 - .4 No.7.3, Methods of Testing Geotextiles and Geomembranes - Grab Tensile Test for Geotextiles.
 - .5 No. 10, Methods of Testing Geosynthetics - Geotextiles - Filtration Opening Size.
- .5 CSA Group
 - .1 CSA G40.20/G40.21, General Requirements for Rolled or Welded Structural Quality Steel/Structural Quality Steel.

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 31 32 19.16

MCKELVEY CREEK LANDFILL

NON-WOVEN

704-SWM.SWOP04332-01

GEOTEXTILE

PAGE 3 OF 5

1.5 SUBMITTALS

- .1 Provide in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Product Data:
 - .1 Provide manufacturer's instructions, printed product literature and data sheets for geotextiles and include product characteristics, performance criteria, physical size, finish and limitations.
- .3 Test and Evaluation Reports:
 - .1 Submit copies of mill test data and certificate at least 4 weeks prior to start of Work.

1.6 DELIVERY, STORAGE AND HANDLING

- .1 Delivery, store and handle materials in accordance with manufacturer's written instructions.
- .2 Storage and Handling Requirements
 - .1 Store materials off ground and in accordance with manufacturer's recommendations in clean, dry, well ventilated area.
 - .2 Store and protect geotextiles from direct sunlight and UV rays.
 - .3 Replace defective or damaged materials with new.

PART 2 PRODUCTS**2.1 MATERIALS**

- .1 Geotextile: non-woven synthetic fibre fabric, Nilex 4508E or approved equivalent, supplied in rolls.
 - .1 Width: 4.5 m minimum.
 - .2 Length: 200 m minimum.
- .2 Physical properties:
 - .1 Thickness: to CAN/CGSB-148.1, No.3, minimum 2.3 mm.
 - .2 Mass per unit area: minimum 270 g/m².
 - .3 Grab tensile strength and elongation:
 - .1 Breaking force: minimum 975 N.
 - .2 Elongation: 50 %.
- .3 Hydraulic properties:
 - .1 Apparent opening size (AOS): 0.180 mm.
 - .2 Permittivity: 1.5 per second.

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 31 32 19.16

MCKELVEY CREEK LANDFILL

NON-WOVEN

704-SWM.SWOP04332-01

GEOTEXTILE

PAGE 4 OF 5

PART 3 EXECUTION**3.1 EXAMINATION**

- .1 Verification of Conditions: verify that conditions of substrate previously installed are acceptable for geotextile material installation in accordance with manufacturer's written instructions.
 - .1 Visually inspect substrate in presence of Engineer.
 - .2 Inform Engineer of unacceptable conditions immediately upon discovery.
 - .3 Proceed with installation only after unacceptable conditions have been remedied and after receipt of written approval to proceed with from Engineer.

3.2 INSTALLATION

- .1 Place geotextile material by unrolling onto grade surface in orientation, manner and locations indicated.
- .2 Place geotextile material smooth and free of tension stress, folds, wrinkles and creases.
- .3 Place geotextile material on sloping surface in one continuous length from toe of slope to upper extent of geotextile.
- .4 Overlap each successive strip of geotextile 600mm over previously laid strip.
- .5 Join successive strips of geotextile by sewing pinning, heat bonding, or approved alternative.
- .6 Protect installed geotextile material from displacement, damage, or deterioration before, during and after placement of material layers.
- .7 After installation, cover with overlying layer within 4 hours of placement.
- .8 Replace damaged or deteriorated geotextile to approval of Engineer.
- .9 Place and compact soil layers in accordance with Section 31 23 33.01 – Excavating, Trenching and Backfilling.

3.3 CLEANING

- .1 Leave work clean at the end of each day.
- .2 Final Cleaning: upon completion, remove surplus materials, rubbish, tools and equipment.

3.4 PROTECTION

- .1 Vehicular traffic not permitted directly on geotextile.
- .2 Do no overload soil or aggregate covering on geotextile.

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 31 32 19.16

MCKELVEY CREEK LANDFILL

NON-WOVEN

704-SWM.SWOP04332-01

GEOTEXTILEPAGE 5 OF 5

PART 4 MEASUREMENT AND PAYMENT**4.1 NON- WOVEN GEOTEXTILE**

- .1 No separate payment will be made for the work under this section. Works included in this section are included in payment item No. 33 05 13/1.

END OF SECTION

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 32 15 60

MCKELVEY CREEK LANDFILL

ROADWAY DUST

704-SWM.SWOP04332-01

CONTROL

PAGE 1 OF 2

PART 1 GENERAL**1.1 SCOPE**

- .1 The Scope of work includes the provision of dust control measures to be applied during the construction of the Works. This section must be referenced to and interpreted simultaneously with all other sections pertinent to the Works described herein.

1.2 SECTION INCLUDES

- .1 Related Requirements.
- .2 Reference Standards.
- .3 Materials.
- .4 Preparation.
- .5 Dust Control.
- .6 Measurement and Payment.

1.3 RELATED REQUIREMENTS

- .1 Section 01 35 43 – Environment Procedures

PART 2 PRODUCTS**2.1 MATERIALS**

- .1 Water: in accordance with Engineer's approval.

PART 3 EXECUTION**3.1 PREPARATION**

- .1 Temporary Erosion and Sedimentation Control:
 - .1 Provide temporary erosion and sedimentation control measures to prevent soil erosion and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways, according to the erosion and sediment control plan.

3.2 DUST CONTROL

- .1 Water to be applied during execution of Work, until successful hand-over of the project, to ensure that dust is adequately abated throughout.
- .2 Contractor to apply water as needed and on request of Engineer.

REGIONAL DISTRICT OF KOOTENAY BOUNDARY	SECTION 32 15 60
MCKELVEY CREEK LANDFILL	ROADWAY DUST
704-SWM.SWOP04332-01	CONTROL

PAGE 2 OF 2

.3 Apply water with distributors equipped with means of shut-off and with spray system to ensure uniform application.

.4 **Do not used Calcium Chloride for dust control.**

PART 4 MEASUREMENT AND PAYMENT

4.1 GENERAL

.1 No separate payment will be made for work under this Section.

END OF SECTION

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 32 17 34

MCKELVEY CREEK LANDFILL

GUARDRAILS

704-SWM.SWOP04332-01

PAGE 1 OF 5

PART 1 GENERAL**1.1 SECTION INCLUDES**

- .1 Reference Standards.
- .2 Submittals.
- .3 Quality Assurance.
- .4 Delivery, Storage and Handling.
- .5 Sequencing and Scheduling.
- .6 Precast Concrete Catch Basins.
- .7 Precast Lock Blocks.
- .8 Precast Concrete Median Barriers.
- .9 Precast Concrete Wheel Stops.
- .10 Precast Concrete Septic Holding Tank.
- .11 Measurement and Payment.

1.2 RELATED REQUIREMENTS

- .1 Section 05 50 00 – Metal Fabrication
- .2 Section 33 05 13 – Precast Concrete

1.3 REFERENCE STANDARDS

- .1 Abbreviations for electrical terms shall be to CSA Z85-1983.
- .2 Abbreviations of standards organizations referenced in this and other sections are as follows:

ACI	American Concrete Institute
CSA	Canadian Standards Association
CEC	Canadian Electrical Code
IEEE	Institute of Electrical and Electronic Engineers
ANSI	American National Standards Institute
NBC	National Building Code
NFPA	National Fire Protection Association
EEMAC	Electrical & Electronic Manufacturers Association of Canada (formerly CEMA)
FM	Factory Mutual

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 32 17 34

MCKELVEY CREEK LANDFILL

GUARDRAILS

704-SWM.SWOP04332-01

PAGE 2 OF 5

NEMA	National Electrical Manufacturers Association (U.S.)
JIC	Joint Industry Conference
IPCEA	Insulated Power Cable Engineers Association
ISA	Instrument Society of America
IES	Illuminating Engineering Society
NETA	National Electrical Testing Association
CUL	Canadian Underwriters Laboratories Inc.
ETL	Electrical Testing Laboratories, Inc.
ASTM	American Society for Testing and Materials
AASHTO	American Association of State Highway and Transportation Officials
GRI	Geosynthetic Research Institute

.3 ASTM International

- .1 ASTM A307- Carbon Steel Bolts and Studs, 60,000 psi Tensile Strength.
- .2 ASTM A325M - High-Strength Bolts for Structural Steel Joints (Metric).

.4 CSA Group

- .1 CAN/CSA G40.20 - General Requirements for Rolled orWelded Structural Quality Steel.
- .2 CAN/CSA G40.21 - Structural Quality Steel.
- .3 CSA W47.1- Certification of Companies for Fusion Welding of Steel Structures.
- .4 CSA W59 - Welded Steel Construction (Metal Arc Welding).
- .5 CSA G164 - Hot Dip Galvanizing of Irregularly Shaped Articles.

1.4 DESIGN REQUIREMENTS

- .1 Guardrails to be capable of withstanding a concentrated load of 1.3 kN (300 lbf) applied at any point in any direction.

1.5 SUBMITTALS

- .1 Submit in accordance with Section 01 33 00 - Submittal Procedures.

.1 Product Data:

- .1 Submit manufacturer's instructions, printed product literature and data sheets.

.2 Shop Drawings:

- .1 Submit shop drawings showing fabrication and installation of guardrail system. Include plans, elevations, details of sections and connections, anchorages and accessory items.
- .2 Where fabrications are indicated to comply with certain requirements for design loadings, include structural computations, material properties and other information needed for structural analysis.
- .3 Detail lap lengths and bar development lengths to CAN3 A23.3.

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 32 17 34

MCKELVEY CREEK LANDFILL

GUARDRAILS

704-SWM.SWOP04332-01

PAGE 3 OF 5

1.6 REGULATORY REQUIREMENTS

- .1 Comply with the following regulations:
 - .1 Occupational Health and Safety Regulation.
 - .2 Alberta Building Code.
 - .3 Canadian National Building Code.

1.7 QUALITY ASSURANCE

- .1 Quality Assurance: in accordance with Section 01 45 00 - Quality Control.
- .2 Hand Rail and Guard Rail shall be welded or seamless hollow structural steel tubing, class C, conforming to CAN/CSA G40.20 and CAN/CSA G40.21
- .3 Pre-assemble items in shop to greatest extent possible to minimize field splicing and assembly. Disassemble guardrails only as necessary for shipping and handling. Clearly mark units for reassembly and a co-ordinated installation.

1.8 WARRANTY

- .1 The warranty period for this Work shall be 1 year.

1.9 DELIVERY, STORAGE AND HANDLING

- .1 Section 01 61 00 – Common Product Requirements: Requirements for delivery, storage, and handling.
- .2 Store material with labeling in place.
- .3 Store, and handle material with applicable requirements of the specified references, the manufacturer's instructions, and as specified herein.
- .4 Use every precaution not to damage the material.

PART 2 PRODUCTS**2.1 GENERAL REQUIREMENTS**

- .1 Welding shall conform to CSA W59M and W47.1. No transverse welds are permitted on the rail sections.
- .2 All components and associated hardware except for self-drilling, self-tapping fasteners shall be hot dip galvanized after fabrication and shall conform to CSA G164M.
- .3 The individual components shall be capable of being assembled to conform to the finished structure as indicated on Drawings.

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 32 17 34

MCKELVEY CREEK LANDFILL

GUARDRAILS

704-SWM.SWOP04332-01

PAGE 4 OF 5

2.2 MATERIALS

- .1 Metal surfaces: use only materials which are smooth and free of surface blemishes including pitting, seam marks, roller marks, rolled trade names and roughness.
- .2 Steel pipe (rails, posts and fittings): to ASTMA53, as required for design loading, 48.3 mm outer diameter x 3.8 mm wall thickness.
- .3 Expansion Joints: as shown on drawings. No expansion joints to be placed above bin pads.
- .4 Wall mounting plates: to ASTM A36, 6 mm thickness, finished to match rail, and securement to suit.
- .5 Finish: hot dipped galvanized finish.
- .6 Fasteners: as shown on Drawings.

2.3 FABRICATION

- .1 Fabricate work true to dimension, square, plumb, level and free from distortion or defects detrimental to performance. Adjust rail by eye for appearance.
- .2 Use materials of size and thickness indicated, or if not indicated, as required to produce strength and durability in finished product for use intended.
- .3 Work to dimensions indicated or accepted on shop drawings, using proven details of fabrication and support.
- .4 Continuously weld seams in compliance with AWS recommendations. Grind exposed welds smooth and flush to blend with adjoining surfaces.
- .5 Form exposed connections with fine line joints, flush and smooth, using concealed fastening wherever possible.
- .6 Provide for anchorage of type indicated co-ordinated with supporting structure. Fabricate and
- .7 space anchoring devices to provide adequate support for intended use.
- .8 At tee and cross intersections, provide coped joints.
- .9 Interconnect pipe at bends by means of prefabricated elbow fittings having a 90° pipe bend.
- .10 At elbow bends for interior and exterior corners, provide mitered joints.
- .11 Provide anchors for embedding units in concrete as per manufacturer's recommendations to meet design requirements.

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 32 17 34

MCKELVEY CREEK LANDFILL

GUARDRAILS

704-SWM.SWOP04332-01

PAGE 5 OF 5

PART 3 EXECUTION**3.1 EXAMINATION**

- .1 Examine surfaces and areas upon which the work of this Section depends. Report to the Engineer in writing, defects of work prepared by other trades and other unsatisfactory site conditions which would cause defective installation of products, or cause latent defects in workmanship and function.
- .2 Verify site dimensions.

3.2 INSTALLATION

- .1 Install guardrails in accordance with approved shop drawings and manufacturer's recommendations.
- .2 Co-ordinate installation.
- .3 Install all work true, level and tightly fitted. Adjust guardrail prior to anchoring to ensure matching alignment at abutting joints. Space posts at intervals indicated, or if not indicated, as required by design loadings. Plumb posts in each direction.
- .4 Locate perimeter guardrail no more than 150 mm inboard of the inside face of a barrier.

3.3 FIELD TOUCH-UP

- .1 Immediately after installation, touch up abraded areas with galvanized repair paint to ASTM A 780.

PART 4 MEASUREMENT AND PAYMENT**4.1 GENERAL**

- .1 Section 01 29 00 - Payment Procedures.

4.2 GUARD RAIL

- .1 Schedule of Prices Item No. 32 17 34/1.
- .2 Measurement Basis: per linear metre of guard rail installed.
- .3 Payment Basis: Unit price. Includes supply and installation of Guard, Expansion Joints, Bolt Sets, and accessories.

END OF SECTION

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 32 91 19.13

MCKELVEY CREEK LANDFILL

TOPSOIL PLACEMENT

704-SWM.SWOP04332-01

AND FINAL GRADING

PAGE 1 OF 4

PART 1 GENERAL**1.1 SCOPE**

- .1 This Section specifies the requirements to place topsoil to the lines, grades and dimensions shown in Drawings. This Section must be referenced to and interpreted simultaneously with all other sections pertinent to the Works described herein.

1.2 SECTION INCLUDES

- .1 Related Requirements.
- .2 Definitions.
- .3 Submittals.
- .4 Quality Assurance.
- .5 Topsoil.
- .6 Soil Amendments.
- .7 Source Quality Control.
- .8 Temporary Erosion and Sedimentation Control.
- .9 Stripping of Topsoil.
- .10 Preparation of Existing Grade.
- .11 Placing and Spreading of Topsoil/Planting Soil.
- .12 Soil Amendments.
- .13 Finish Grading.
- .14 Acceptance.
- .15 Surplus Material.
- .16 Cleaning.
- .17 Measurement and Payment.

1.3 RELATED REQUIREMENTS

- .1 Section 01 35 43 – Environmental Procedures.
- .2 Section 31 14 13 – Soil Stripping and Stockpiling.

REGIONAL DISTRICT OF KOOTENAY BOUNDARY	SECTION 32 91 19.13
MCKELVEY CREEK LANDFILL	TOPSOIL PLACEMENT
704-SWM.SWOP04332-01	AND FINAL GRADING
	PAGE 2 OF 4

.3 Section 31 23 33.01 – Excavating and Trenching.

.4 Section 32 92 19.16 – Hydraulic Seeding

PART 2 PRODUCTS

2.1 TOPSOIL

.1 Topsoil for seeded areas: mixture of particulates, microorganisms and organic matter which provides suitable medium for supporting intended plant growth.

.1 Obtain topsoil from borrow area (see attached map). Contractor shall process stockpiled materials from site grading to remove organic or non-organic wastes, oversized particles and other materials deemed to be deleterious by the Engineer prior to placement. Topsoil to be placed and spread in areas indicated on the Drawings and in areas disturbed by the Contractor that requires re-instatement.

.2 Topsoil within construction area should be stripped and stockpiled on a prepared topsoil area as designated by the owner.

.3 Capable of sustaining rigorous plant growth.

.4 Finished surface free from:

.1 Debris and stones over 50 mm diameter.

.2 Course vegetative material, 10 mm diameter and 100 mm length, occupying more than 2% of soil volume.

.5 Consistence: friable when moist.

PART 3 EXECUTION

3.1 TEMPORARY EROSION AND SEDIMENTATION CONTROL

.1 Inspect, repair, and maintain erosion and sedimentation control measures during construction until permanent vegetation has been established.

.2 Remove erosion and sedimentation controls and restore and stabilize areas disturbed during removal.

3.2 PREPARATION OF EXISTING GRADE

.1 Verify that grades are correct.

.1 If discrepancies occur, notify Engineer and do not commence work until instructed by Engineer.

.2 Grade soil, eliminating uneven areas and low spots, ensuring positive drainage.

.3 Remove debris, roots, branches, stones in excess of 50 mm diameter and other deleterious materials.

.1 Remove soil contaminated with calcium chloride, toxic materials and petroleum products.

.2 Remove debris which protrudes more than 75 mm above surface.

.3 Dispose of removed material off site.

REGIONAL DISTRICT OF KOOTENAY BOUNDARY	SECTION 32 91 19.13
MCKELVEY CREEK LANDFILL	TOPSOIL PLACEMENT
704-SWM.SWOP04332-01	AND FINAL GRADING
	PAGE 3 OF 4

- .4 Cultivate entire area which is to receive topsoil to minimum depth of 100 mm.
 - .1 Cross cultivate those areas where equipment used for hauling and spreading has compacted soil.

3.3 PLACING AND SPREADING OF TOPSOIL/PLANTING SOIL

- .1 Scarify subgrade to a minimum depth of 100 mm prior to placing topsoil. Re-cultivate subgrade compacted during hauling or spreading.
- .2 Topsoil used shall not contain stones larger than 25 mm in diameter and be free of roots and branches larger than 25 mm in diameter and 300 mm long. Coordinate with requirements of harrowing, cultivating and seeding equipment.
- .3 Place topsoil after Engineer has accepted subgrade.
- .4 Spread topsoil in uniform layers not exceeding 150 mm to specified thickness.
- .5 Furrows from activities to be perpendicular to flow of water down slopes.

3.4 FINISH GRADING

- .1 Grade to eliminate rough spots and low areas and ensure positive drainage.
 - .1 Prepare loose friable bed by means of cultivation and subsequent ranking.
 - .2 Site shall be graded to provide positive drainage throughout.
- .2 Consolidate topsoil to required bulk density using equipment approved by Engineer.
 - .1 Leave surfaces smooth, uniform and firm against deep footprinting.
- .3 Finished topsoil surfaces shall be within the following limits of established grade measured normal to the slope, but not uniformly high or low: +75 mm to – 25 mm.

3.5 ACCEPTANCE

- .1 Engineer will inspect and test topsoil in place and determine acceptance material, depth of topsoil and finish grading.

3.6 CLEANING

- .1 Upon completion of installation, remove surplus materials, rubbish, tools, and equipment barriers.

PART 4 MEASUREMENT AND PAYMENT

4.1 GENERAL

- .1 Refer to Section 01 29 00 – Payment Procedures: Requirements for measurement and payment.

REGIONAL DISTRICT OF KOOTENAY BOUNDARY	SECTION 32 91 19.13
MCKELVEY CREEK LANDFILL	TOPSOIL PLACEMENT
704-SWM.SWOP04332-01	AND FINAL GRADING

PAGE 4 OF 4

4.2 TOPSOIL PLACEMENT

- .1 Schedule of Unit Prices Item No. 32 91 19.13/1.
- .2 Measurement Basis: By the square metre, measured in place.
- .3 Payment Basis: Unit price. Includes preparation of existing grade, supply of topsoil, topsoil preparation and addition of soil amendments; hauling, placing, spreading, rolling and finish grading.

END OF SECTION

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 33 05 13

MCKELVEY CREEK LANDFILL

PRECAST CONCRETE

704-SWM.SWOP04332-01

PAGE 1 OF 7

PART 1 GENERAL**1.1 SCOPE**

- .1 This section applies to the supply and installation of precast concrete. This section must be referenced and interpreted simultaneously with all Other sections pertinent to the Works described herein.

1.2 SECTION INCLUDES

- .1 Reference Standards.
- .2 Submittals.
- .3 Quality Assurance.
- .4 Delivery, Storage and Handling.
- .5 Sequencing and Scheduling.
- .6 Precast Concrete Catch Basins.
- .7 Precast Lock Blocks.
- .8 Precast Concrete Median Barriers.
- .9 Precast Concrete Wheel Stops.
- .10 Precast Concrete Septic Holding Tank.
- .11 Measurement and Payment.

1.3 RELATED REQUIREMENTS

- .1 Section 31 14 13 – Soil Stripping and Stockpiling
- .2 Section 31 23 33.02 – Fill
- .3 Section 31 23 33.01 – Excavating and Trenching
- .4 Section 31 32 19.13 – Geogrid Soil Stabilization
- .5 Section 33 41 00 – Pipeworks

1.4 REFERENCE STANDARDS

- .1 Abbreviations for electrical terms shall be to CSA Z85-1983.

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 33 05 13

MCKELVEY CREEK LANDFILL

PRECAST CONCRETE

704-SWM.SWOP04332-01

PAGE 2 OF 7

.2 Abbreviations of standards organizations referenced in this and other sections are as follows:

ACI	American Concrete Institute
CSA	Canadian Standards Association
CEC	Canadian Electrical Code
IEEE	Institute of Electrical and Electronic Engineers
ANSI	American National Standards Institute
NBC	National Building Code
NFPA	National Fire Protection Association
EEMAC	Electrical & Electronic Manufacturers Association of Canada (formerly CEMA)
FM	Factory Mutual
NEMA	National Electrical Manufacturers Association (U.S.)
JIC	Joint Industry Conference
IPCEA	Insulated Power Cable Engineers Association
ISA	Instrument Society of America
IES	Illuminating Engineering Society
NETA	National Electrical Testing Association
CUL	Canadian Underwriters Laboratories Inc.
ETL	Electrical Testing Laboratories, Inc.
ASTM	American Society for Testing and Materials
AASHTO	American Association of State Highway and Transportation Officials
GRI	Geosynthetic Research Institute

.3 ASTM International

- .1 ASTM A48/A48M, Standard Specification for Grey Iron Castings.
- .2 ASTM A123/A123M, Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products.
- .3 ASTM C117, Standard Test Method for Materials Finer than 75-mm (No. 200) Sieve in Mineral Aggregates by Washing.
- .4 ASTM C136, Standard Test Method for Sieve Analysis of Fine and Coarse Aggregates.
- .5 ASTM C139, Standard Specification for Concrete Masonry Units for Construction of Catch Basins and Manholes.
- .6 ASTM C150: Standard Specification for Portland Cement.
- .7 ASTM C478M, Standard Specification for Precast Reinforced Concrete Manhole Sections (Metric).
- .8 ASTM D698, Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft³(600 kN-m/m³)).
- .9 ASTM C923: Standard Specification for Resilient Connectors Between Reinforced Concrete Manhole Structures, Pipes, and Laterals.

.4 CSA Group

- .1 CSA A23.1/A23.2, Concrete Materials and Methods of Concrete Construction/Test Methods and Standard Practices for Concrete.
- .2 CAN/CSA-A165, CSA Standards on Concrete Masonry Units.

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 33 05 13

MCKELVEY CREEK LANDFILL

PRECAST CONCRETE

704-SWM.SWOP04332-01

PAGE 3 OF 7

- .3 CAN/CSA-A3000, Cementitious Materials Compendium.
- .4 CSA G30.18, Carbon Steel Bars for Concrete Reinforcement.

1.5 DEFINITIONS

- .1 SMDD: Standard Maximum Dry Density in accordance with ASTM D698-2.

1.6 SUBMITTALS

- .1 Submit in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Product Data:
 - .1 Submit manufacturer's instructions, printed product literature and data sheets for maintenance holes and catch basin structures and include product characteristics, performance criteria, physical size, finish and limitations.
 - .2 Submit a minimum of 21 days prior to delivery to Site.
- .3 Shop Drawings:
 - .1 Submit drawings stamped and signed by professional engineer registered or licensed in Alberta, Canada.

1.7 QUALITY ASSURANCE

- .1 Submit in accordance with Section 01 45 00 - Quality Control Requirements.
- .2 Certifications:
 - .1 Submit manufacturer's test data and certification at least 4 weeks prior to beginning Work. Include manufacturer's drawings, information and shop drawings where pertinent.
 - .2 Certificates: submit certificates signed by manufacturer certifying that materials comply with specified performance characteristics and physical properties.
 - .3 Manufacturer's Instructions: submit manufacturer's installation instructions and special handling criteria, installation sequence, and cleaning procedures.

1.8 DELIVERY, STORAGE AND HANDLING

- .1 Deliver, store and handle materials in accordance with Section 01 61 00 - Common Product Requirements and with manufacturer's written instructions.
- .2 Delivery and Acceptance Requirements: deliver materials to site in original factory packaging, labelled with manufacturer's name and address.
- .3 Storage and Handling Requirements:
 - .1 Store materials in accordance with manufacturer's recommendations in clean, dry, well-ventilated area.
 - .2 Store and protect precast structures from nicks, scratches, and blemishes.
 - .3 Replace defective or damaged materials with new.

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 33 05 13

MCKELVEY CREEK LANDFILL

PRECAST CONCRETE

704-SWM.SWOP04332-01

PAGE 4 OF 7

1.9 SEQUENCING AND SCHEDULING

- .1 Refer to Section 01 33 00 –Submittal Procedures.
- .2 Coordinate placement of inlet, outlet pipe and risers as required by other Sections.

PART 2 PRODUCTS**2.1 PRECAST LOCK BLOCKS**

- .1 Manufacturer: Product no. 9013 (or approved equivalent), Lafarge, Plain Face Blocks, will be used for the erection of the lock block and push walls.
- .2 Components:
 - .1 0.76 m x 0.76 m x 1.52 m, (Standard Keyed Block);

2.2 CONCRETE MEDIAN BARRIERS (JERSEY BARRIERS)

- .1 Lafarge Standard 9001 or approved equivalent.

2.3 CONCRETE WHEEL STOPS

- .1 Manufacturer: Lafarge Concrete Parking Curb or approved equivalent.
- .2 Length: 2.37 m.
- .3 Height: 0.185 m.
- .4 Accessories: 15M Rebar Pins.

2.4 BOLLARDS

- .1 Lafarge Standard 9339 or approved equivalent.

PART 3 EXECUTION**3.1 EXAMINATION**

- .1 Section 01 73 03 – Execution Requirements: Requirements for examination of existing conditions before starting work.
- .2 Verify that filled and compacted area is ready to receive work, and dimensions and elevations are as shown on Drawings.

3.2 GENERAL

- .1 Erect pre-cast work in accordance with CSA A23.4.

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 33 05 13

MCKELVEY CREEK LANDFILL

PRECAST CONCRETE

704-SWM.SWOP04332-01

PAGE 5 OF 7

- .2 Supply anchors for pre-cast units required to be cast into cast-in-place concrete frame. Provide such items in ample time to meet construction program. Supply layout drawings locating accurately the position of all cast-in items to be installed by other Sections.

3.3 PREPARATION

- .1 Unsuitable Materials: Materials not approved for use as determined by ENGINEER and include the following:
 - .1 Material containing loam, roots, or organic matter.
 - .2 Clays which are classified as inorganic clays of high plasticity in accordance with ASTM D2487.
 - .3 Soft and/or organic clays and silts of low strength.
 - .4 Rock and lumps of material with dimensions greater than specified layer thickness before compaction.
- .2 Maintain materials and surrounding air temperature to minimum 10 degrees C prior to, during, and 48 hours after completion of masonry work.
- .3 Dewatering: Pump excavation free of standing water.

3.4 PREPARING SUBGRADE SURFACE

- .1 Refer to Section 31 13 13 (Soil Stripping and Stockpiling), Article 3.4.

3.5 INSTALLATION OF LOCK-BLOCKS

- .1 Over-excavate Lock Block wall alignment to a depth of 300 mm and compact to a minimum of 98 percent standard maximum dry density in accordance with ASTM D698.
- .2 Set pre-cast concrete units straight, level and square.
- .3 Set elevations and alignment between units to within allowable tolerances before connecting units.
- .4 Place a complete row of blocks.
- .5 Backfill behind the drainage rock with Reinforced Backfill.
- .6 Anchor geogrids to the full depth of Lock Blocks at elevations shown on drawings.
- .7 Fasten units in place as per approved connection detail shop drawings. Protect work from damage by weld splatter.

3.6 HANDLING AND ERECTION

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 33 05 13

MCKELVEY CREEK LANDFILL

PRECAST CONCRETE

704-SWM.SWOP04332-01

PAGE 6 OF 7

- .1 Pre-cast components shall be handled and erected in accordance with CSA A23.4 and as per the manufacturer's instructions.
- .2 Pre-cast components shall be delivered and handled in such a manner as to avoid warpage.
- .3 Holes and reglets shall be protected from forming of ice during freezing weather.
- .4 Welding of the pre-cast units shall be performed by certified welders in accordance with CSA A23.4, Clause 32.
- .5 Units shall be set plumb and true with joints parallel and uniform.
- .6 All necessary precautions shall be taken to prevent weld burn or splatter on to exposed surfaces.
- .7 Patch damaged, or chipped components as required.

3.7 BOLLARDS INSTALLATION

- .1 As per manufacturer recommendation.

PART 4 MEASUREMENT AND PAYMENT**4.1 GENERAL**

- .1 Refer to Section 01 29 00 – Payment Procedures: Project Measurement and Payment.

4.2 LOCK BLOCK MSE WALL

- .1 Schedule of Prices Item No. **33 05 13/1.**
- .2 Measurement Basis: Per linear metre of lock block wall installation
- .3 Payment Basis: Unit Price. Includes excavation, subgrade preparation, and backfill; supply and installation of granular base course, perforated drain pipe, drain rock, non-woven geotextile, granular subbase, precast lock blocks, bolts, geogrid reinforcement and accessories as shown on Drawings.

4.3 CONCRETE MEDIUM BARRIERS

- .1 Schedule of Prices Item No. **33 05 13/2.**
- .2 Measurement Basis: Per medium barrier installation
- .3 Payment Basis: Unit Price. Includes supply and installation of medium barriers as shown on Drawings.

4.4 CONCRETE WHEEL STOPS

- .1 Schedule of Prices Item No. **33 05 13/3.**
- .2 Measurement Basis: Per wheel stop installation.

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 33 05 13

MCKELVEY CREEK LANDFILL

PRECAST CONCRETE

704-SWM.SWOP04332-01

PAGE 7 OF 7

- .3 Payment Basis: Unit Price. Includes supply and installation of wheel stops and accessories as shown on Drawings.

4.5 PRECAST LOCK BLOCK PUSH WALL

- .1 Schedule of Prices Item **No. 33 05 13/4**
- .2 Measurement Basis: Per linear metre of lock block push wall installation.
- .3 Payment Basis: Unit Price. Includes supply and installation of precast lock blocks.

4.6 BOLLARD INSTALLATION

- .1 Schedule of Prices Item **No. 33 05 13/5**
- .2 Measurement Basis: Each.
- .3 Payment Basis: Unit Price. Includes supply and installation of each bollard in locations shown on drawings, or as directed by Engineer.

END OF SECTION

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 33 41 00

MCKELVEY CREEK LANDFILL

PIPEWORKS

704-SWM.SWOP04332-01

PAGE 1 OF 5

PART 1 GENERAL**1.1 SECTION INCLUDES**

- .1 Related Requirements.
- .2 Definitions.
- .3 Submittals.
- .4 Quality assurance.
- .5 Delivery, storage and handling.

1.2 RELATED REQUIREMENTS

- .1 Section 31 23 33.02 - Fill
- .2 Section 31 23 33.01 – Excavating and Trenching
- .3 Section 31 32 19.16 – Non-Woven Geotextile
- .4 Section 33 05 13 – Precast Concrete

1.3 DEFINITIONS

- .1 HDPE: High Density Polyethylene
- .2 PVC: Polyvinyl Chloride
- .3 SMDD: Standard Maximum Dry Density in accordance with ASTM D698.

1.4 SUBMITTALS

- .1 Submit in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Product Data:
 - .1 Submit manufacturer's instructions, printed product literature and data sheets for Pipes and Backfill and include product characteristics, performance criteria, physical size, finish and limitations.
- .3 Certification to be marked on pipe.
- .4 Test and Evaluation Reports: submit manufacturer's test data and certification at least 2 weeks prior to beginning Work.

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 33 41 00

MCKELVEY CREEK LANDFILL

PIPEWORKS

704-SWM.SWOP04332-01

PAGE 2 OF 5

- .5 Manufacturer's Instructions: submit to Engineer 1 copy of manufacturer's installation instructions.

1.5 QUALITY ASSURANCE

- .1 PVC Pipe: CSA B137.3. Pipe sizes are specified in metric units; however, equivalent IPS pipe sizes shall be used to avoid fitting problems with valves, fittings, and manhole adapters.

1.6 DELIVERY, STORAGE AND HANDLING

- .1 Deliver, store and handle materials in accordance with Section 01 61 00 - Common Product Requirements.
- .2 Delivery and Acceptance Requirements: deliver materials to site in original factory packaging, labelled with manufacturer's name and address.
- .3 Storage and Handling Requirements:
 - .1 Store materials in accordance with manufacturer's recommendations.
 - .2 Store and protect pipes from damage.
 - .3 Replace defective or damaged materials with new.

PART 2 PRODUCTS**2.1 PERFORATED DRAIN PIPE**

- .1 Manufacturer: AquaQ Big 'O' HDPE Tubing, 100mm HDPE perforated tubing, or approved equivalent.
- .2 Size: 100 mm diameter
- .3 Tube Stiffness: 210 kPa
- .4 Accessories:
 - .1 Polyester sediment filter sock.
 - .2 Snap adapter.
 - .3 Insert end caps.

2.2 NON-PERFORATED DRAIN PIPE

- .1 Manufacturer: IPEX Blue Brute, SDR25 PVC pressure pipe, or approved equivalent.
- .2 Size: 100 mm
- .3 Ring Stiffness: 625 kPa
- .4 Fittings: SDR25 injection-molded gasketed PVC.
- .5 Accessories:
 - .1 PVC Grate end cap. Quantity:2.

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 33 41 00

MCKELVEY CREEK LANDFILL

PIPEWORKS

704-SWM.SWOP04332-01

PAGE 3 OF 5

2.3 GRANULAR BEDDING

- .1 Granular Bedding material shall be Granular Base Course as shown in Section 31 23 33.02 – Fill.

PART 3 EXECUTION**3.1 EXAMINATION**

- .1 Verification of Conditions: verify that conditions of substrate previously installed under other Sections or Contracts are acceptable for pipe culvert installation in accordance with drawings and manufacturer's written instructions.
 - .1 Visually inspect substrate in presence of Engineer.
 - .2 Inform Engineer of unacceptable conditions immediately upon discovery.
 - .3 Proceed with installation only after unacceptable conditions have been remedied and after receipt of written approval to proceed from Engineer.

3.2 PREPARATION

- .1 Temporary Erosion and Sedimentation Control:
 - .1 Provide temporary erosion and sedimentation control measures to prevent soil erosion and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways, according to the erosion and sediment control plan.
 - .2 Inspect, repair, and maintain erosion and sedimentation control measures during construction until permanent vegetation has been established.
 - .3 Remove erosion and sedimentation controls and restore and stabilize areas disturbed during removal.

3.3 DEWATERING

- .1 The Contractor is to assume full responsibility for maintaining dry excavation during placement of granular bedding and backfill.

3.4 EXCAVATION

- .1 Excavate to the width and depth shown on drawings or as directed by the Engineer in accordance with Section 31 23 33.01 - Excavating and Trench.
- .2 Make bottom of completed excavation firm for its full length and width. Where, in opinion of the Engineer, soil bottom elevation is unsuitable for foundation of the pipe, excavate to additional width and depth as directed and backfill such additional excavation with granular subbase material compacted to 98% of Standard Proctor Maximum Dry Density.
- .3 Obtain Engineer's approval of trench line and depth prior to placing bedding material or pipe.
- .4 Disposal of unsuitable materials encountered at the culvert sites will follow the disposal methods approved by the Consultant.

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 33 41 00

MCKELVEY CREEK LANDFILL

PIPEWORKS

704-SWM.SWOP04332-01

PAGE 4 OF 5

3.5 GRANULAR BEDDING

- .1 Dewater excavation, as necessary, to allow placement of culvert bedding in dry condition.
- .2 Place 150 mm minimum thickness of approved granular material on bottom of excavation and compact to 98 percent minimum SMDD.
- .3 Shape bedding to fit lower segment of pipe exterior so that width of at least 50 percent of pipe diameter is in close contact with bedding and to camber as indicated or as directed by Engineer, free from sags or high points.
- .4 Place bedding in unfrozen condition.
- .5 Compact bedding to a minimum of 98% SMDD.

3.6 LAYING PVC PIPE

- .1 Install non-woven geotextile filtration layer as per drawings.
- .2 Prevent debris and water from entering inside of pipe.
- .3 Ensure bottom of pipe is in contact with shaped bed or compacted fill throughout its length.
- .4 Lay pipe to slope gradients shown on the Drawings with maximum variation from true slope of 1 cm in 3 m. Maintain positive drainage for all pipe sections.

3.7 BACKFILLING

- .1 Backfill around and over culverts as indicated or as directed by Engineer.
- .2 Backfill under the haunches of the pipe and extending upward immediately adjacent to the pipe shall be placed in layers not exceeding 150 mm in depth, and each layer shall be thoroughly compacted at optimum moisture content by means of pneumatic or other mechanical tamping equipment, taking special care to obtain required density under haunches.
- .3 Water jetting is not an approved method for haunch compaction. Do not attempt jetting without permission from the Consultant.
- .4 Place backfill material in 150 mm layers to full width, alternately on each side of culvert as not to displace it.
- .5 If required, add water or dry material to achieve optimum moisture content.
- .6 Compact each layer to a minimum of 95% SMDD.
- .7 Pipe couplers to be installed as per manufacturer's specifications.
- .8 Sufficient backfill to prevent damage should be placed before using heavy compaction or construction equipment directly above the pipe.
- .9 Backfill to lines and grades indicated on drawings.

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 33 41 00

MCKELVEY CREEK LANDFILL

PIPEWORKS

704-SWM.SWOP04332-01

PAGE 5 OF 5

- .10 Provide a minimum 300 mm overlap for non-woven geotextile filtration layer. Bond overlap layers by applying heat.

PART 4 MEASUREMENT AND PAYMENT**4.1 GENERAL**

- .1 Refer to Section 01 29 00 – Payment Procedures: Requirements for measurement and payment.

4.2 PERFORATED DRAIN PIPE

- .1 No payment will be made for this item, included in item No. 33 05 13/1.

4.3 NON-PERFORATED DRAIN PIPE

- .1 Schedule of Prices Item No. 33 41 00/1.
- .2 Measurement Basis: By the linear metre, measure in place along the centerline of the pipe.
- .3 Payment Basis: Unit Price: Includes excavation, transporting suitable materials to temporary stockpiles, temporary stockpiling, disposal of unsuitable or excess excavated materials, supply and installation of drainage pipe, couplers, and fittings; backfilling, compaction, non-woven geotextile, and regrading to grades as shown on Drawings.

END OF SECTION

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 01 74 00

MCKELVEY CREEK LANDFILL

CLEANING

704-SWM.SWOP04332-01

PAGE 1 OF 2

Part 1 General**1.1 RELATED REQUIREMENTS**

- .1 Section [_____].

1.2 REFERENCE STANDARDS

- .1 Canadian Construction Documents Committee (CCDC)
 - .1 CCDC 2-[2008], Stipulated Price Contract.

1.3 PROJECT CLEANLINESS

- .1 Maintain Work in tidy condition, free from accumulation of waste products and debris, [including] that caused by Owner or other Contractors.
- .2 Remove waste materials from site at daily regularly scheduled times or dispose of as directed by [Consultant] .
- .3 Clear snow and ice from access to building, [remove from site] [bank/pile snow in designated areas only].
- .4 Make arrangements with and obtain permits from authorities having jurisdiction for disposal of waste and debris.
- .5 Dispose of waste materials and [at designated dumping areas].
- .6 Clean interior areas prior to start of finishing work, and maintain areas free of dust and other contaminants during finishing operations.
- .7 Store volatile waste in covered metal containers, and remove from premises at end of each working day.
- .8 Provide adequate ventilation during use of volatile or noxious substances. Use of building ventilation systems is not permitted for this purpose.
- .9 Use only cleaning materials recommended by manufacturer of surface to be cleaned, and as recommended by cleaning material manufacturer.
- .10 Schedule cleaning operations so that resulting dust, debris and other contaminants will not fall on wet, newly painted surfaces nor contaminate building systems.

1.4 FINAL CLEANING

- .1 [Refer to CCDC 2, GC 3.14].
- .2 When Work is Substantially Performed remove surplus products, tools, construction machinery and equipment not required for performance of remaining Work.
- .3 Remove waste products and debris other than that caused by others, and leave Work clean and suitable for occupancy.
- .4 Prior to final review remove surplus products, tools, construction machinery and equipment.
- .5 Remove waste products and debris [including] that caused by Owner or other Contractors.

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 01 74 00

MCKELVEY CREEK LANDFILL

CLEANING

704-SWM.SWOP04332-01

PAGE 2 OF 2

- .6 Remove waste materials from site at regularly scheduled times or dispose of as directed by [Consultant].
- .7 Make arrangements with and obtain permits from authorities having jurisdiction for disposal of waste and debris.
- .8 Broom clean and wash exterior walks, steps and surfaces; rake clean other surfaces of grounds.
- .9 Sweep and wash clean paved areas.

Part 2 Products**2.1 NOT USED**

- .1 Not Used.

Part 3 Execution**3.1 NOT USED**

- .1 Not Used.

END OF SECTION

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 33 14 16.13

MCKELVEY CREEK LANDFILL

INCOMING SITE WATER

704-SWM.SWOP04332-01

UTILITY DISTRIBUTION

PAGE 1 OF 3

PIPING**Part 1 General****1.1 RELATED REQUIREMENTS**

- .1 Section [31 23 33.01 - Excavating, Trenching and Backfilling].
- .2 Section [01 74 00 - Cleaning].

1.2 REFERENCE STANDARDS

- .1 American National Standards Institute/American Water Works Association (ANSI/AWWA)
 - .1 ANSI/AWWA C104/A21.4-[08], Standard for Cement-Mortar Lining for Ductile-Iron Pipe and Fittings.
 - .2 ANSI/AWWA C110/A21.10-[08], American National Standard for Ductile Iron and Grey Iron Fittings for Water.
 - .3 ANSI/AWWA C111/A21.11-[07], American National Standard for Rubber Gasket-Joints for Ductile-Iron Pressure Pipe and Fittings.
 - .4 ANSI/AWWA C151/A21.51-[09], AWWA Standard for Ductile-Iron Pipe, Centrifugally Cast.
 - .5 ANSI/AWWA C901-[08], AWWA Standard for Polyethylene (PE) Pressure Pipe and Tubing, ½ Inch (13 mm) through 3 Inch (76 mm), for Water Service.
- .2 ASTM International (ASTM)
 - .1 ASTM A307-[10], Standard Specification for Carbon Steel Bolts and Studs, 60,000 PSI Tensile Strength.
- .3 Canada Green Building Council (CaGBC)
 - .1 LEED Canada-NC Version 1.0-[2004], LEED (Leadership in Energy and Environmental Design): Green Building Rating System for New Construction and Major Renovations (including Addendum [2007]).
 - .2 LEED Canada-NC-[2009], LEED (Leadership in Energy and Environmental Design): Green Building Rating System for New Construction and Major Renovations 2009.
 - .3 LEED Canada-CI Version 1.0-[2007], LEED (Leadership in Energy and Environmental Design): Green Building Rating System for Commercial Interiors.
 - .4 LEED Canada-EB: O&M-[2009], LEED (Leadership in Energy and Environmental Design): Green Building Rating System for Existing Buildings: Operations and Maintenance 2009.
- .4 Manufacturer's Standardization Society of the Valve and Fittings Industry
 - .1 MSS-SP-70-[11], Grey Iron Gate Valves, Flanged and Threaded Ends.
- .5 National Research Council Canada (NRC)
 - .1 National Plumbing Code of Canada [2015] (NPC).

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 33 14 16.13

MCKELVEY CREEK LANDFILL

INCOMING SITE WATER

704-SWM.SWOP04332-01

UTILITY DISTRIBUTION

PAGE 2 OF 3

PIPING**1.3 ACTION AND INFORMATIONAL SUBMITTALS**

- .1 Submit in accordance with Section [01 33 00 - Submittal Procedures].
- .2 Product Data:
 - .1 Submit manufacturer's instructions, printed product literature and data sheets for valves, couplings and mechanical joints and include product characteristics, performance criteria, physical size, finish and limitations.

1.4 DELIVERY, STORAGE AND HANDLING

- .1 Deliver, store and handle materials in accordance with Section with manufacturer's written instructions.
- .2 Delivery and Acceptance Requirements: deliver materials to site in original factory packaging, labelled with manufacturer's name and address.
- .3 Storage and Handling Requirements:
 - .1 Store materials in accordance with manufacturer's recommendations in clean, dry, well-ventilated area.
 - .2 Store and protect piping materials from nicks, scratches, and blemishes.
 - .3 Replace defective or damaged materials with new.

Part 2 Products**2.1 PIPE**

- .1 Service water pipe: polyethylene [PE] from under building as indicated.
 - .1 Polyethylene (PE) pipe: ANSI/AWWA C901.

2.2 FITTINGS

- .1 NPS 3 and larger mechanical joints: to ANSI/AWWA C110/A21.10.

2.3 JOINTS

- .1 Rubber gaskets for mechanical joints: to ANSI/AWWA C111/A21.11.
- .2 Bolts, nuts, hex head with washers: to ASTM A307, heavy series.

2.4 GATE VALVES

- .1 Rising stem: to MSS SP-70, class 125, 860 kPa, flat flange faces, cast-iron body, bronze trim, bolted bonnet.

2.5 PROTECTIVE COATING

- .1 N/A

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 33 14 16.13

MCKELVEY CREEK LANDFILL

INCOMING SITE WATER

704-SWM.SWOP04332-01

UTILITY DISTRIBUTION

PAGE 3 OF 3

PIPING**Part 3 Execution****3.1 EXAMINATION**

- .1 Verification of Conditions: verify that conditions of substrate previously installed under other Sections or Contracts are acceptable for distribution piping installation in accordance with manufacturer's written instructions.
 - .1 Visually inspect substrate in presence of Consultant.
 - .2 Inform Consultant of unacceptable conditions immediately upon discovery.
 - .3 Proceed with installation only after unacceptable conditions have been remedied and after receipt of written approval to proceed Consultant.

3.2 INSTALLATION

- .1 Install in accordance with local authority having jurisdiction and Provincial Plumbing Code.
- .2 Piping cut square, reamed, free of cuttings and foreign material.
- .3 Minimum depth of bury: 1.50m.
- .4 Lay buried piping in compacted washed sand in accordance with AWWA Class "B" bedding.
- .5 Assemble piping using fittings manufactured to ANSI standards and in accordance with manufacturer's instructions.

3.3 PRESSURE TESTING

- .1 Conform to AWWA M23.

3.4 DISINFECTION

- .1 Conform with AWA C651.

3.5 CLEANING

- .1 Progress Cleaning: clean in accordance with Section [01 74 00 - Cleaning].
 - .1 Leave Work area clean at end of each day.
- .2 Final Cleaning: upon completion remove surplus materials, rubbish, tools and equipment in accordance with Section [01 74 00 - Cleaning].
- .3 Protect newly graded areas from traffic and erosion and maintain free of trash or debris.

END OF SECTION

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 33 31 11

MCKELVEY CREEK LANDFILL

PUBLIC SANITARY

704-SWM.SWOP04332-01

SEWEARGE GRAVITY

PAGE 1 OF 8

PIPING**Part 1 General****1.1 RELATED REQUIREMENTS**

- .1 Section [31 23 33.01 - Excavating, Trenching and Backfilling].
- .2 Section [01 74 00 - Cleaning].

1.2 PRODUCTS INSTALLED BUT NOT SUPPLIED UNDER THIS SECTION

- .1 N/A

1.3 MEASUREMENT AND PAYMENT

- .1 Measure excavation and backfill under Section [31 23 33.01 - Excavating Trenching and Backfilling].
- .2 Measure [supply and] installation of sanitary sewer including testing [and including excavation and backfilling] [and granular bedding and surround] horizontally from manhole face to manhole face in metres of each size pipe and depth class installed.
- .3 Measure concrete bedding and encasement of pipes in cubic metres in place.
- .4 Measure granular bedding and surround in cubic metres compacted in place.
- .5 After video and photographic pipe inspections:
 - .1 If no defective work is found, [DCC Representative] [Owner] [Departmental Representative] [Consultant] will pay costs for inspectors, trained operators, equipment rental and materials.
 - .2 If defective Work is found, pay [Departmental Representative] [Owner] [DCC Representative] [Consultant] part of total inspection cost proportional to number of defective pipe sections of sewer to total number of pipe sections inspected.

1.4 REFERENCE STANDARDS

- .1 Departmental of Justice Canada (Jus)
 - .1 SOR/2018-196 Prohibition of Asbestos and Products Containing Asbestos Regulations.
- .2 American National Standards Institute/American Water Works Association (ANSI/AWWA)
 - .1 ANSI/AWWA C111/A21.11-[07], Rubber-Gasket Joints for Ductile-Iron Pressure Pipe and Fittings.
- .3 ASTM International (ASTM)
 - .1 ASTM C12-[09], Standard Practice for Installing Vitrified Clay Pipe Lines.
 - .2 ASTM C14M-[07], Standard Specification for Nonreinforced Concrete Sewer, Storm Drain and Culvert Pipe (Metric).

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 33 31 11

MCKELVEY CREEK LANDFILL

PUBLIC SANITARY

704-SWM.SWOP04332-01

SEWARGE GRAVITY

PAGE 2 OF 8

PIPING

- .3 ASTM C76M-[10a], Standard Specification for Reinforced Concrete Culvert, Storm Drain and Sewer Pipe (Metric).
- .4 ASTM C117-[04], Standard Test Method for Material Finer Than 75 [MU] m (No. 200) Sieve in Mineral Aggregates by Washing.
- .5 ASTM C136-[06], Standard Test Method for Sieve Analysis of Fine and Coarse Aggregates.
- .6 ASTM C425-[09], Standard Specification for Compression Joints for Vitrified Clay Pipe and Fittings.
- .7 ASTM C428-[05 (2006)], Standard Specification for Asbestos-Cement Nonpressure Sewer Pipe.
- .8 ASTM C443M-[07], Standard Specification for Joints for Concrete Pipe and Manholes, Using Rubber Gaskets (Metric).
- .9 ASTM C663-[98 (2008)], Standard Specification for Asbestos Cement Storm Drain Pipe.
- .10 ASTM C700-[09], Standard Specification for Vitrified Clay Pipe, Extra Strength, Standard Strength, and Perforated.
- .11 ASTM C828-[06], Standard Test Method for Low-pressure Air Test of Vitrified Clay Pipe Lines.
- .12 ASTM D698-[07e1], Standard Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft⁴-lb/ft³(600 kN-m/m³)).
- .13 ASTM D1869-[95 (2005)e1], Standard Specification for Rubber Rings for Asbestos Cement Pipe.
- .14 ASTM D2680-[01 (2009)], Standard Specification for Acrylonitrile-Butadiene-Styrene (ABS) and Poly (Vinyl Chloride) (PVC) Composite Sewer Piping.
- .15 ASTM D3034-[08], Standard Specification for Type PSM Poly (Vinyl Chloride) (PVC) Sewer Pipe and Fittings.
- .16 ASTM D3350-[10], Standard Specification for Polyethylene Plastics Pipe and Fittings Materials.
- .4 Canadian General Standards Board (CGSB)
 - .1 CAN/CGSB-8.1-[88], Sieves, Testing, Woven Wire, Inch Series.
 - .2 CAN/CGSB-8.2-[M88], Sieves, Testing, Woven Wire, Metric.
 - .3 CAN/CGSB-34.9-[M94], Pipe, Asbestos Cement, Sewer.
- .5 CSA Group (CSA)
 - .1 CSA A3000-[08], Cementitious Materials Compendium.
 - .2 CSA A257 Series-[09], Standards for Concrete Pipe and Manhole Sections.
 - .3 CAN/CSA-B70-[06], Cast Iron Soil Pipe, Fittings, and Means of Joining.
 - .4 CSA B1800-[11], Thermoplastic Non-pressure Pipe Compendium.
 - .1 CSA B182.1-[11], Plastic Drain and Sewer Pipe and Pipe Fittings.
 - .2 CSA B182.2-[11], PSM Type Polyvinylchloride PVC Sewer Pipe and Fittings.
 - .3 CSA B182.6-[11], Profile Polyethylene (PE) Sewer Pipe and Fittings for Leak-Proof Sewer Applications.

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 33 31 11

MCKELVEY CREEK LANDFILL

PUBLIC SANITARY

704-SWM.SWOP04332-01

SEWEARGE GRAVITY

PAGE 3 OF 8

PIPING

- .4 CSA B182.11-[11], Standard Practice for the Installation of Thermoplastic Drain, Storm, and Sewer Pipe and Fittings.

- .6 United States Environmental Protection Agency (EPA)/Office of Water
 - .1 EPA 833-R-06-004, Developing Your Stormwater Pollution Prevention Plan, A Guide for Construction Sites.

1.5 ADMINISTRATIVE REQUIREMENTS

- .1 Scheduling:
 - .1 Schedule Work to minimize interruptions to existing services and maintain existing sewage flows during construction.
 - .2 Submit schedule of expected interruptions for approval and adhere to approved schedule.
 - .3 Notify [Consultant] and building [manager] [superintendent] [24] hours minimum in advance of any interruption in service.

1.6 ACTION AND INFORMATIONAL SUBMITTALS

- .1 Submit in accordance with Section [01 33 00 - Submittal Procedures].
- .2 Product Data:
 - .1 Submit manufacturer's instructions, printed product literature and data sheets for [pipes, and backfill] and include product characteristics, performance criteria, physical size, finish and limitations.
- .3 Certificates:
 - .1 Certification to be marked on pipe.
- .4 Test and Evaluation Reports:
 - .1 Submit manufacturer's test data and certification [2] weeks minimum before beginning Work.

1.7 DELIVERY, STORAGE AND HANDLING

- .1 Deliver, store and handle materials in accordance with Section [with manufacturer's written instructions].
- .2 Delivery and Acceptance Requirements: deliver materials to site in original factory packaging, labelled with manufacturer's name and address.
- .3 Storage and Handling Requirements:
 - .1 Store materials in accordance with manufacturer's recommendations.
 - .2 Store and protect [pipes] from [damage].
 - .3 Replace defective or damaged materials with new.

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 33 31 11

MCKELVEY CREEK LANDFILL

PUBLIC SANITARY

704-SWM.SWOP04332-01

SEWARGE GRAVITY

PAGE 4 OF 8

PIPING**Part 2 Products****2.1 PLASTIC PIPE**

- .1 Type PSM Polyvinyl Chloride (PVC): to [CSA B182.2] [ASTM D3034].
 - .1 Standard Dimensional Ratio (SDR): [35].
 - .2 [Separate] gasket and integral bell system.
 - .3 Nominal lengths: [6] m.
- .2 Acrylonitrile - Butadiene - Styrene (ABS): to [ASTM D2680] [CSA B182.2].
- .3 Corrugated High Density Polyethylene (HDPE): to [CSA B182.6] [ASTM D3350].
 - .1 [320 kPa] [180 kPa] pipe stiffness.
 - .2 [Storm sewer] [Sewer] class.
 - .3 [Gasket and bell] [Mechanical non-gasket] coupling system.

2.2 SERVICE CONNECTIONS

- .1 Type PSM Poly (Vinyl) Chloride: to CSA B182.2.
- .2 Plastic pipe: to CSA B182.1, with push-on joints.
- .3 Vitrified clay pipe and fittings: to [ASTM C700], [standard] strength, [unglazed] bore, [bell and spigot] type with [flexible] type [] joints.
- .4 Asbestos-cement pipe: to [ASTM C428], class [] with rubber gasket joints to [ASTM D1869].
- .5 Cast iron pipe: to [CAN/CSA-B70], with rubber gasket push-on joints to [ANSI/AWWA C111/A21.11]. Fittings: to [CAN/CSA-B70].
- .6 Cast iron service saddles: with oil resistant gaskets, [bronze] [stainless steel] clamp and oil resistant "O" rings in branch end.

2.3 PIPE BEDDING AND SURROUND MATERIALS

- .1 Granular material to Section [31 05 16 - Aggregate Materials] and following requirements:
 - .1 Crushed or screened stone, gravel or sand.
 - .2 Gradations to be within limits specified when tested to [ASTM C136] [ASTM C117].
 - .1 Sieve sizes to [CAN/CGSB-8.1] [CAN/CGSB-8.2].

2.4 BACKFILL MATERIAL

- .1 As indicated.
- .2 Type [3], in accordance with Section [31 23 33.01 - Excavating, Trenching and Backfilling].
- .3 Unshrinkable fill: to Section [31 23 33.01 - Excavating, Trenching and Backfilling].

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 33 31 11

MCKELVEY CREEK LANDFILL

PUBLIC SANITARY

704-SWM.SWOP04332-01

SEWARGE GRAVITY

PAGE 5 OF 8

PIPING**Part 3 Execution****3.1 EXAMINATION**

- .1 Verification of Conditions: verify that conditions of substrate previously installed under other Sections or Contracts are acceptable for sewer pipe installation in accordance with manufacturer's written instructions.
 - .1 Inform [Consultant] of unacceptable conditions immediately upon discovery.
 - .2 Proceed with installation only after unacceptable conditions have been remedied [and after receipt of written approval to proceed from [Consultant]].

3.2 PREPARATION

- .1 Temporary Erosion and Sedimentation Control:
 - .1 Provide temporary erosion and sedimentation control measures to prevent soil erosion and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways, according to [requirements of authorities having jurisdiction].
 - .2 Inspect, repair, and maintain erosion and sedimentation control measures during construction until permanent vegetation has been established.
 - .3 Remove erosion and sedimentation controls and restore and stabilize areas disturbed during removal.
- .2 Clean pipes and fittings of debris and water before installation, and remove defective materials from site to approval of [Consultant].
- .3 Clean and dry pipes and fittings before installation.

3.3 TRENCHING

- .1 Do trenching Work in accordance with Section [31 23 33.01 - Excavating, Trenching and Backfilling].
- .2 Protect trench from contents of sewer or sewer connection.

3.4 GRANULAR BEDDING

- .1 Place bedding in unfrozen condition.
- .2 Place granular bedding materials in uniform layer[s] not exceeding [150] mm compacted thickness.
- .3 Shape bed true to grade and to provide continuous, uniform bearing surface for pipe.
 - .1 Do not use blocks when bedding pipe.
- .4 Shape transverse depressions as required to suit joints.
- .5 Compact each layer full width of bed to at least [95] % [maximum density to ASTM D698].
- .6 Fill excavation below bottom of specified bedding adjacent to manholes or structures with [compacted bedding material].

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 33 31 11

MCKELVEY CREEK LANDFILL

PUBLIC SANITARY

704-SWM.SWOP04332-01

SEWEARGE GRAVITY

PAGE 6 OF 8

PIPING**3.5 INSTALLATION**

- .1 Lay and join pipes to: [ASTM C12].
- .2 Lay and join pipes in accordance with manufacturer's recommendations.
- .3 Handle pipe using methods approved by manufactures instructions.
 - .1 Do not use chains or cables passed through rigid pipe bore so that weight of pipe bears upon pipe ends.
- .4 Lay pipes on prepared bed, true to line and grade, with pipe invert smooth and free of sags or high points.
 - .1 Ensure barrel of each pipe is in contact with shaped bed throughout its full length.
- .5 Begin laying at outlet and proceed in upstream direction with socket ends of pipe facing upgrade.
- .6 Joint deflection permitted within limits recommended by pipe manufacturer.
- .7 Water to flow through pipe during construction, only as permitted by [Consultant].
- .8 Whenever Work is suspended, install removable watertight bulkhead at open end of last pipe laid to prevent entry of foreign materials.
- .9 Install plastic pipe and fittings in accordance with [CSA B182.11].
- .10 Pipe jointing:
 - .1 Install gaskets [in accordance with manufacturer's written recommendations] [as indicated].
 - .2 Support pipes with hand slings or crane as required to minimize lateral pressure on gasket and maintain concentricity until gasket is properly positioned.
 - .3 Align pipes before joining.
 - .4 Maintain pipe joints free from mud, silt, gravel and foreign material.
 - .5 Avoid displacing gasket or contaminating with dirt or foreign material. Gaskets so disturbed to be removed, cleaned and lubricated and replaced before joining is attempted.
 - .6 Complete each joint before laying next length of pipe.
 - .7 Minimize joint deflection after joint has been made to avoid joint damage.
 - .8 At rigid structures, install pipe joints not more than [1.2] m from side of structure.
 - .9 Apply sufficient pressure in making joints to ensure that joint is complete as outlined in manufacturer's recommendations.
- .11 Cut pipes as required for special inserts, fittings or closure pieces as recommended by pipe manufacturer, without damaging pipe or its coating and to leave smooth end at right angles to axis of pipe.
- .12 Make watertight connections to manholes.
 - .1 Use shrinkage compensating grout when suitable gaskets are not available.

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 33 31 11

MCKELVEY CREEK LANDFILL

PUBLIC SANITARY

704-SWM.SWOP04332-01

SEWEARGE GRAVITY

PAGE 7 OF 8

PIPING

- .13 Use prefabricated saddles or field connections approved by [Consultant], for connecting pipes to existing sewer pipes.

- .1 Joints to be structurally sound and watertight.

3.6 PIPE SURROUND

- .1 Place surround material in unfrozen condition.
- .2 Hand place surround material in uniform layers not exceeding [150] mm compacted thickness as indicated.
 - .1 Do not dump material within 1.0 m of pipe.
- .3 Place layers uniformly and simultaneously on each side of pipe.
- .4 Compact each layer from pipe invert to [mid height] of pipe to at least [95] % [maximum density to ASTM D698].
- .5 Compact each layer from [mid height] of pipe to underside of backfill to at least [90] % [maximum density to ASTM D698].

3.7 BACKFILL

- .1 Place backfill material in unfrozen condition.
- .2 Place backfill material, above pipe surround in uniform layers not exceeding [150] mm compacted thickness up to grades as indicated.
- .3 Under paving and walks, compact backfill to at least [95] [maximum density to ASTM D698].
 - .1 In other areas, compact to at least [90] % [maximum density to ASTM D698].
- .4 Place unshrinkable fill in accordance with Section [31 23 33.01 - Excavating, Trenching and Backfilling].

3.8 FIELD TESTING

- .1 Repair or replace pipe, pipe joint or bedding found defective.
- .2 Remove foreign material from sewers and related appurtenances by flushing with water.
- .3 Television and photographic inspections:
 - .1 Carry out inspection of installed sewers by video camera, digital camera or by other related means.
 - .2 Provide means of access to permit [Departmental Representative] [Consultant] [DCC Representative] to do inspections.
 - .3 Payment for inspection services in accordance with Measurement and Payment in PART 1.

3.9 CLEANING

- .1 Progress Cleaning: clean in accordance with Section [01 74 00 - Cleaning].

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 33 31 11

MCKELVEY CREEK LANDFILL

PUBLIC SANITARY

704-SWM.SWOP04332-01

SEWEARGE GRAVITY

PAGE 8 OF 8

PIPING

- .1 Leave Work area clean at end of each day.
- .2 Final Cleaning: upon completion remove surplus materials, rubbish, tools and equipment in accordance with Section [01 74 00 - Cleaning].
- .3 Protect newly graded areas from traffic and erosion and maintain free of trash or debris.

END OF SECTION

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 33 41 00

MCKELVEY CREEK LANDFILL

STORM UTILITY

704-SWM.SWOP04332-01

DRAINAGE PIPING

PAGE 1 OF 7

Part 1 General**1.1 RELATED REQUIREMENTS**

- .1 Section [31 23 33.01 - Excavating, Trenching and Backfilling].
- .2 Section [01 74 00 - Cleaning].

1.2 PRODUCTS INSTALLED BUT NOT SUPPLIED UNDER THIS SECTION

- .1 N/A.

1.3 PRICE AND PAYMENT PROCEDURES

- .1 After photographic pipe inspections:
 - .1 If no defective work is found, [Owner] will pay costs for inspectors, trained operators, equipment rental and materials.
 - .2 If defective work is found, pay [Owner] a part of total inspection cost proportional to number of defective pipe sections of sewer to total number of pipe sections inspected.
- .2 Measurement procedures:
 - .1 Measure excavation and backfill under Section [31 23 33.01 - Excavating, Trenching and Backfilling].
 - .2 Measure [supply and] installation of storm sewer including testing [and granular bedding and surround] [and including excavation and backfilling] horizontally from manhole face to manhole face in metres of each pipe size and depth class installed.
 - .3 Measure concrete bedding and encasement of pipes in cubic metres in place.
 - .4 Measure granular bedding and surround in cubic metres compacted in place.

1.4 REFERENCE STANDARDS

- .1 Department of Justice Canada (Jus)
 - .1 SOR/2018-196 Prohibition of Asbestos and Products Containing Asbestos Regulations.
- .2 ASTM International (ASTM)
 - .1 ASTM C12-[09], Standard Practice for Installing Vitrified Clay Pipe Lines.
 - .2 ASTM C14M-[07], Standard Specification for Concrete Sewer, Storm Drain and Culvert Pipe (Metric).
 - .3 ASTM C76M-[10a], Standard Specification for Reinforced Concrete Culvert, Storm Drain and Sewer Pipe (Metric).
 - .4 ASTM C117-[04], Standard Test Method for Material Finer Than 0.075 mm (No. 200) Sieve in Mineral Aggregates by Washing.
 - .5 ASTM C136-[06], Standard Method for Sieve Analysis of Fine and Coarse Aggregates.

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 33 41 00

MCKELVEY CREEK LANDFILL

STORM UTILITY

704-SWM.SWOP04332-01

DRAINAGE PIPING

PAGE 2 OF 7

- .6 ASTM C425-[04 (2009)], Standard Specification for Compression Joints for Vitrified Clay Pipe and Fittings.
- .7 ASTM C428-[97 (06)], Standard Specification for Asbestos-Cement Nonpressure Sewer Pipe.
- .8 ASTM C443M-[10], Standard Specification for Joints for Concrete Pipe and Manholes, Using Rubber Gaskets (Metric).
- .9 ASTM C506M-[10b], Standard Specification for Reinforced Concrete Arch Culvert, Storm Drain and Sewer Pipe.
- .10 ASTM C507M-[10b], Standard Specification for Reinforced Concrete Elliptical Culvert, Storm Drain and Sewer Pipe (Metric).
- .11 ASTM C663-[98 (2008)], Standard Specification for Asbestos-Cement Storm Drain Pipe.
- .12 ASTM C700-[11], Standard Specification for Vitrified Clay Pipe, Extra Strength, Standard Strength, and Perforated.
- .13 ASTM D698-[07e1], Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft³(600 kN-m/m³)).
- .14 ASTM D1056-[07], Standard Specification for Flexible Cellular Materials- Sponge or Expanded Rubber.
- .15 ASTM D1869-[95 (2010)], Standard Specification for Rubber Rings for Asbestos-Cement Pipe.
- .16 ASTM D2680-[01 (2009)], Standard Specification for Acrylonitrile-Butadiene-Styrene (ABS) and Poly (Vinyl Chloride) (PVC) Composite Sewer Piping.
- .17 ASTM D3034-[08], Standard Specification for Type PSM Poly (Vinyl Chloride) (PVC) Sewer Pipe and Fittings.
- .18 ASTM F405-[05], Standard Specification for Corrugated Polyethylene (PE) Tubing and Fittings.
- .19 ASTM F667-[06], Standard Specification for Large Diameter Corrugated Polyethylene Tubing and Fittings.
- .20 ASTM F794-[03 (2009)], Standard Specification for Poly(Vinyl Chloride) (PVC) Profile Gravity Sewer Pipe and Fittings Based on Controlled Inside Diameter.
- .3 Canadian General Standards Board (CGSB)
 - .1 CAN/CGSB-8.1-[M89], Sieves, Testing, Woven Wire, Inch Series.
 - .2 CAN/CGSB-8.2-[M88], Sieves, Testing, Woven Wire, Metric.
 - .3 CAN/CGSB-34.9-[94], Asbestos-Cement Sewer Pipe.
- .4 CSA Group (CSA)
 - .1 CAN/CSA-A3000-[08], Cementitious Materials Compendium.
 - .2 CSA A257 Series-[M92 (R2009)], Standards for Concrete Pipe.
 - .3 CAN/CSA-B1800-[06], Thermoplastic Non-pressure Pipe Compendium - B1800 Series.
 - .4 CSA G401-[07], Corrugated Steel Pipe Products.
- .5 United States Environmental Protection Agency (EPA)/Office of Water

REGIONAL DISTRICT OF KOOTENAY BOUNDARY	SECTION 33 41 00
MCKELVEY CREEK LANDFILL	STORM UTILITY
704-SWM.SWOP04332-01	DRAINAGE PIPING
	PAGE 3 OF 7

- .1 EPA 833-R-06-004, Developing Your Stormwater Pollution Prevention Plan, A Guide for Construction Sites.

1.5 SCHEDULING

- .1 Schedule Work to minimize interruptions to existing services and to maintain existing flow during construction.
- .2 Submit schedule of expected interruptions for approval and adhere to approved schedule.

1.6 ACTION AND INFORMATIONAL SUBMITTALS

- .1 Submit in accordance with Section [01 33 00 - Submittal Procedures].
- .2 Product Data:
 - .1 Submit manufacturer's instructions, printed product literature and data sheets for [pipes, and backfill] and include product characteristics, performance criteria, physical size, finish and limitations.
- .3 Shop Drawings:
 - .1 Shop drawings to indicate proposed method for installing carrier pipe for undercrossings.
 - .2 Submit drawings stamped and signed by professional engineer registered or licensed in British Columbia, Canada.
- .4 Samples:
 - .1 Inform Consultant at least 4 weeks prior to beginning Work, of proposed source of bedding materials and provide access for sampling.
- .5 Certification to be marked on pipe.
- .6 Test and Evaluation Reports: submit manufacturer's test data and certification at least 2 weeks prior to beginning Work.
- .7 Manufacturer's Instructions: submit to Consultant 1 copy of manufacturer's installation instructions.

1.7 DELIVERY, STORAGE AND HANDLING

- .1 Deliver, store and handle materials in accordance with Section with manufacturer's written instructions.
- .2 Delivery and Acceptance Requirements: deliver materials to site in original factory packaging, labelled with manufacturer's name and address.
- .3 Storage and Handling Requirements:
 - .1 Store materials in accordance with manufacturer's recommendations.
 - .2 Store and protect pipes from damage.
 - .3 Replace defective or damaged materials with new.

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 33 41 00

MCKELVEY CREEK LANDFILL

STORM UTILITY

704-SWM.SWOP04332-01

DRAINAGE PIPING

PAGE 4 OF 7

Part 2 Products**2.1 PLASTIC PIPE**

- .1 Type PSM Poly Vinyl Chloride (PVC): to [CAN/CSA-B1800] [ASTM D3034].
 - .1 Standard Dimensional Ratio SDR: 35.
 - .2 [Separate] and integral bell system.
 - .3 Nominal lengths: 6 m.

2.2 PIPE BEDDING AND SURROUND MATERIAL

- .1 Granular material in accordance with the following requirements:
 - .1 Crushed or screened stone, gravel or sand.

2.3 BACKFILL MATERIAL

- .1 As indicated.
- .2 Type [3] in accordance with Section [31 23 33.01 - Excavating, Trenching and Backfilling].

Part 3 Execution**3.1 PREPARATION**

- .1 Temporary Erosion and Sedimentation Control:
 - .1 Provide temporary erosion and sedimentation control measures to prevent soil erosion and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways, according to [requirements of authorities having jurisdiction].
 - .2 Inspect, repair, and maintain erosion and sedimentation control measures during construction until permanent vegetation has been established.
 - .3 Remove erosion and sedimentation controls and restore and stabilize areas disturbed during removal.
- .2 Clean pipes and fittings of debris and water before installation, and remove defective materials from site to approval of Consultant.

3.2 TRENCHING

- .1 Do trenching Work in accordance with Section [31 23 33.01 - Excavating, Trenching and Backfilling].
- .2 Protect trench from contents of sewer.
- .3 Trench alignment and depth to approval of [Consultant] prior to placing bedding material and pipe.

3.3 GRANULAR BEDDING

- .1 Place bedding in unfrozen condition.

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 33 41 00

MCKELVEY CREEK LANDFILL

STORM UTILITY

704-SWM.SWOP04332-01

DRAINAGE PIPING

PAGE 5 OF 7

- .2 Place granular bedding material in uniform layer[s] not exceeding [150] mm compacted thickness [to depth as indicated] [to depth of []mm].
- .3 Shape bed true to grade and to provide continuous, uniform bearing surface for pipe.
 - .1 Do not use blocks when bedding pipes.
- .4 Shape transverse depressions as required to suit joints.
- .5 Compact each layer full width of bed to at least [95] % [maximum density to ASTM D698] [corrected maximum dry density].
- .6 Fill excavation below bottom of specified bedding adjacent to manholes or catch basins with [lean mix concrete] [compacted common backfill] [compacted bedding material].

3.4 INSTALLATION

- .1 Lay and join pipes to: [ASTM C12].
- .2 Lay and join pipe in accordance with manufacturer's recommendations.
- .3 Handle pipe using methods approved by manufacturer's recommendations:
 - .1 Do not use chains or cables passed through rigid pipe bore so that weight of pipe bears upon pipe ends.
- .4 Lay pipes on prepared bed, true to line and grade with pipe inverts smooth and free of sags or high points.
 - .1 Ensure barrel of each pipe is in contact with shaped bed throughout its full length.
- .5 Begin laying at outlet and proceed in upstream direction with socket ends of pipe facing upgrade.
- .6 Lay corrugated steel pipe:
 - .1 With outside circumferential laps facing upgrade and longitudinal laps or seams at side or quarter points.
 - .2 With longitudinal centre line of paved invert coinciding with flow line.
- .7 Joint deflection permitted within limits recommended by pipe manufacturer.
- .8 Water to flow through pipes during construction only as permitted by [Consultant].
- .9 Whenever Work is suspended, install removable watertight bulkhead at open end of last pipe laid to prevent entry of foreign materials.
- .10 Install plastic pipe and fittings in accordance with [CAN/CSA-B1800].
- .11 Cut pipes as required for special inserts, fittings or closure pieces, as recommended by pipe manufacturer, without damaging pipe or its coating and to leave smooth end at right angles to axis of pipe.
- .12 Make watertight connections to manholes and catch basins.
 - .1 Use shrinkage compensating grout when suitable gaskets are not available.
- .13 Use prefabricated saddles or approved field connections for connecting pipes to existing sewer pipes.

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

SECTION 33 41 00

MCKELVEY CREEK LANDFILL

STORM UTILITY

704-SWM.SWOP04332-01

DRAINAGE PIPING

PAGE 6 OF 7

.1 Joint to be structurally sound and watertight.

.14 Temporarily plug open upstream ends of pipes with removable watertight concrete, steel or plastic bulkheads.

3.5 PIPE SURROUND

.1 Place surround material in unfrozen condition.

.2 Hand place surround material in uniform layers not exceeding [150] mm compacted thickness as indicated.

.1 Do not dump material within 1.0 m of pipe.

.3 Place layers uniformly and simultaneously on each side of pipe.

.4 Compact each layer from pipe invert to [mid height] of pipe to at least [95] % [maximum density to ASTM D698].

.5 Compact each layer from [mid height] of pipe to underside of backfill to at least [90] % [maximum density to ASTM D698].

.6 When field test results are acceptable to [Consultant], place surround material at pipe joints.

3.6 BACKFILL

.1 Place backfill material in unfrozen condition.

.2 Place backfill material, above pipe surround, in uniform layers not exceeding [150] mm compacted thickness up to grades as indicated.

.3 Under paving and walks, compact backfill to at least [95] % [maximum density to ASTM D698]. In other areas, compact backfill to at least [90] % [maximum density to ASTM D698].

.4 Place unshrinkable backfill in accordance with Section [31 23 33.01 - Excavating, Trenching and Backfilling].

3.7 FIELD TESTS AND INSPECTIONS

.1 Repair or replace pipe, pipe joint or bedding found defective.

.2 Remove foreign material from sewers and related appurtenances by flushing with water.

.3 Television and photographic inspections:

.1 Carry out inspection of installed sewers by television camera, photographic camera or by other related means.

.2 Provide means of access to permit [Consultant] to do inspections.

.3 Payment for inspection services in accordance with Price and Payment Procedures in PART 1.

3.8 CLEANING

.1 Progress Cleaning: clean in accordance with Section [01 74 00 - Cleaning].

.1 Leave Work area clean at end of each day.

REGIONAL DISTRICT OF KOOTENAY BOUNDARYSECTION 33 41 00

MCKELVEY CREEK LANDFILL

STORM UTILITY

704-SWM.SWOP04332-01

DRAINAGE PIPINGPAGE 7 OF 7

- .2 Final Cleaning: upon completion remove surplus materials, rubbish, tools and equipment in accordance with Section [01 74 00 - Cleaning].
- .3 Protect newly graded areas from traffic and erosion and maintain free of trash or debris.

END OF SECTION



Agricultural Land Commission
 201 – 4940 Canada Way
 Burnaby, British Columbia V5G 4K6
 Tel: 604 660-7000
 Fax: 604 660-7033
www.alc.gov.bc.ca

October 2, 2020

ALC File: 61244

Brock Pendergraft
Pendergraft Land Surveying
DELIVERED ELECTRONICALLY

Dear Brock Pendergraft:

Re: Reasons for Decision - ALC Application 61244

Please find attached the Reasons for Decision of the Kootenay Panel for the above noted application (Resolution #468/2020). As agent, it is your responsibility to notify the applicant accordingly.

Under section 33.1 of the *Agricultural Land Commission Act* (ALCA), the Chair of the Agricultural Land Commission (the "Commission") has 60 days to review this decision and determine if it should be reconsidered by the Executive Committee in accordance with the ALCA. You will be notified in writing if the Chair directs the reconsideration of this decision. The Commission therefore advises that you consider this 60 day review period prior to acting upon this decision.

Under section 33 of the *Agricultural Land Commission Act* (ALCA), a person affected by a decision (e.g. the applicant) may submit a request for reconsideration. Please be advised however that on March 12th, 2020 the ALC Amendment Act ([Bill 15 – 2019](#)) was brought into force and effect, changing the reconsideration process.

A request to reconsider must now meet the following criteria:

- No previous request by an affected person has been made, and
- The request provides evidence not available at the time of the original decision that has become available, and that could not have been available at the time of the original decision had the applicant exercised due diligence, or
- The request provides evidence that all or part of the original decision was based on evidence that was in error or was false.

The amendments also propose a change to limit the time period for requesting a reconsideration to 90 days from the date of this decision – this change has not been brought into force and effect yet. As a result, a person affected by this decision will have one year from the date of this decision's release as per [ALC Policy P-08: Request for Reconsideration](#) to request reconsideration of the decision or 90 days from the date the legislative change takes effect (date unknown at this time), whichever comes sooner.

Please refer to the ALC's [Information Bulletin 08 – Request for Reconsideration](#) for more information. Please direct further correspondence with respect to this application to ALC.Kootenay@gov.bc.ca.

Page 1 of 2

Yours truly,

A handwritten signature in black ink, appearing to read 'Mike Bandy', written in a cursive style.

Mike Bandy, Land Use Planner

Enclosures: Reasons for Decision (Resolution #468/2020)
 Schedule A: Decision Map

cc: Regional District of Kootenay Boundary
 Michelle Ihas, Ministry of Transportation & Infrastructure

61244d1



**AGRICULTURAL LAND COMMISSION FILE 61244
REASONS FOR DECISION OF THE KOOTENAY PANEL**

Covenant Referral Submitted Under s. 22(2) of the *Agricultural Land Commission Act*

Applicant: Virginia Ferguson

Agent: Brock Pendergraft
Pendergraft Land Surveying

Properties:

Property 1:
Parcel Identifier: 012-477-541
Legal Description: Lot 61, District Lot 683,
Similkameen Division, Yale
District, Plan 378
Civic: 3605 Kettle Valley East Road, Rock Creek, BC
Area: 2.0 ha (2.0 ha within the ALR)

Property 2:
Parcel Identifier: 012-477-567
Legal Description: Lot 61A, District Lot 683,
Similkameen Division, Yale District, Plan 378
Civic: Kettle Valley East Road, Rock Creek, BC
Area: 1.9 ha (1.9 ha within the ALR)

Panel: Dave Zehnder, Kootenay Panel Chair



ALC File 61244 Reasons for Decision

Ian Knudsen
Jerry Thibeault



OVERVIEW

- [1] The Properties are located within the Agricultural Land Reserve (ALR) as defined in s. 1 of the *Agricultural Land Commission Act* (ALCA).
- [2] Section 22(2) of the ALCA states that a covenant that restricts or prohibits the use of agricultural land for farm purposes has no effect until approved by the Agricultural Land Commission (the "Commission").
- [3] Pursuant to s. 22(2) of the ALCA, the Applicant is submitting a request to the Commission to allow registration of an archaeological site preservation covenant (the "Covenant") over a ~0.4 ha area of the Properties (the "Proposal").
- [4] The Covenant is required by the Ministry of Transportation & Infrastructure as a condition of final approval for a proposed boundary adjustment involving the Properties. The proposed boundary adjustment can be approved by the Provincial Approving Officer under s. 10 of the ALR Transitional Regulation.
- [5] The proposed terms of the Covenant prohibit the landowner from removing soil, placing fill, and erecting structures within the Covenant area in order to preserve provincial Archaeology Site DgQr-27, and a surrounding ~0.4 ha area deemed to be of high archaeological potential (the "Proposal Area").
- [6] The issue the Panel considered is whether the Covenant would impact the agricultural utility of the Properties.
- [7] The Proposal was considered in the context of the purposes and priorities of the Commission set out in s. 6 of the ALCA:

6 (1) The following are the purposes of the commission:

- (a) to preserve the agricultural land reserve;



- (b) to encourage farming of land within the agricultural land reserve in collaboration with other communities of interest; and,
- (c) to encourage local governments, first nations, the government and its agents to enable and accommodate farm use of land within the agricultural land reserve and uses compatible with agriculture in their plans, bylaws and policies.

(2) The commission, to fulfill its purposes under subsection (1), must give priority to protecting and enhancing all of the following in exercising its powers and performing its duties under this Act:

- (a) the size, integrity and continuity of the land base of the agricultural land reserve;
- (b) the use of the agricultural land reserve for farm use.

EVIDENTIARY RECORD

- [8] The Proposal along with related documentation from the Applicant, Agent, third parties, and Commission is collectively referred to as the "Referral". All documentation in the Referral was disclosed to the Agent in advance of this decision.

EVIDENCE AND FINDINGS

- [9] The Referral was submitted to the Commission on August 7, 2020. On March 12, 2020, the ALCA was amended and changes were made to its regulations. The Applicant was given an opportunity to make written submissions relating to the amendment of the ALCA and changes to its regulations as it relates to this Referral.

Issue: Whether the Covenant would impact the agricultural utility of the Properties.

- [10] To assess agricultural capability on the Properties, the Panel referred to agricultural capability ratings. The ratings are identified using the Canada Land Inventory (CLI), 'Soil Capability Classification for Agriculture' system. The improved agricultural capability rating applicable to the Property, including the Proposal Area, is Class 5; more specifically



(5PM).

Class 5 - land is capable of production of cultivated perennial forage crops and specially adapted crops. Soil and/or climate conditions severely limit capability.

The limiting subclasses associated with this parcel of land are M (moisture deficiency), and P (stoniness).

[11] Based on the agricultural capability ratings, the Panel finds that the Property has secondary agricultural capability and is capable of supporting a limited range of soil-based crops and grazing use, in addition to non-soil based agricultural uses.

[12] The Proposal Area is located on a lower bench of the Property adjacent to the Kettle River. The Referral states that:

"The lower bench is only slightly above the Kettle River, and has the potential to flood often. ... [It] has never been cleared or used for farming, evidenced by the remaining large trees. If the lower bench were to be used for any farm purpose, its most likely use would be additional grazing area, as it is not suited for a field or crop. The grazing of animals would not appear to violate any of the covenant conditions. This would still allow it[s] farm use."

[13] The Panel finds that the Proposal Area is suited to grazing use due to its soil capability and proximity to the Kettle River. The Panel reviewed the terms of the Covenant and finds that the Proposal Area would remain available for farm use, as the Covenant would not restrict grazing. Additionally, the Panel finds that the Proposal Area has some utility in its current, natural state, as it acts as a buffer from the Kettle River, protecting existing farm infrastructure from potential future flooding and erosion. The Panel finds that, in this circumstance, the registration of the Covenant presents minimal negative impact to the agricultural utility of the Properties.



DECISION

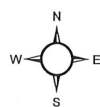
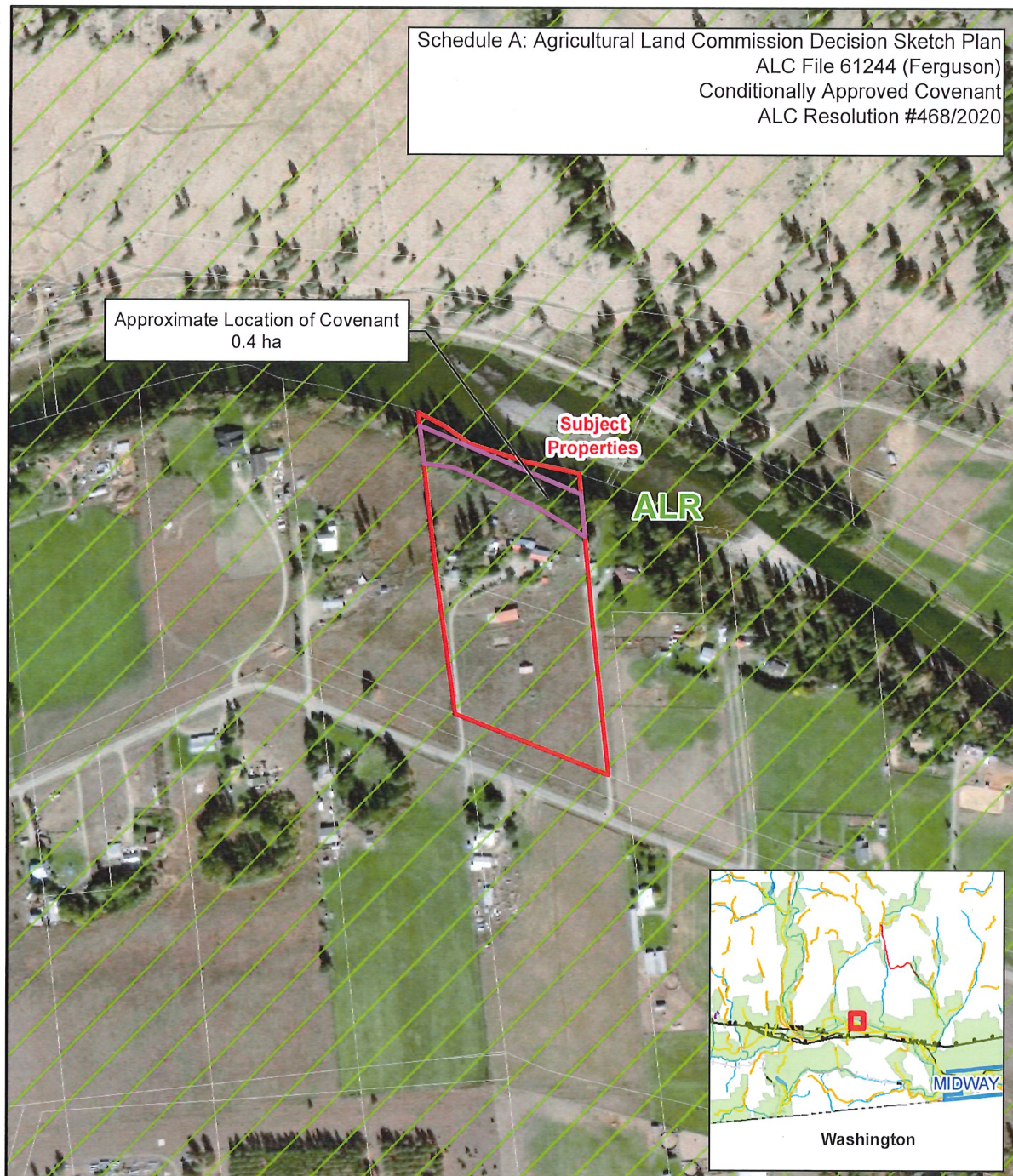
- [14] For the reasons given above, the Panel approves the Proposal to register the archaeological site preservation Covenant over a ~0.4 ha area of the Properties, subject to the following conditions:
- (a) The Covenant terms must be in substantial compliance with the template covenant and relevant information provided in the Referral;
 - (b) A survey plan denoting the area affected, and substantially compliant with Schedule A of this decision, must accompany and be referenced in the Covenant;
 - (c) The Covenant, survey plan, and a \$150 Administrative Fee for document approval under s. 33.1(2) of the ALR General Regulation, must be submitted to the Commission for review prior to registration, and within five (5) years of the date of release of this decision.
- [15] When the Commission confirms that all conditions have been met, it will authorize the Registrar of Land Titles to accept registration of the Covenant.
- [16] This decision does not relieve the owner or occupier of the responsibility to comply with applicable Acts, regulations, bylaws of the local government, and decisions and orders of any person or body having jurisdiction over the land under an enactment.
- [17] These are the unanimous reasons of the Panel.
- [18] A decision of the Panel is a decision of the Commission pursuant to s. 11.1(3) of the ALCA.
- [19] Resolution #468/2020
Released on October 2, 2020



A handwritten signature in black ink, appearing to read "Zehnder", is positioned above the printed name.

Dave Zehnder, Panel Chair

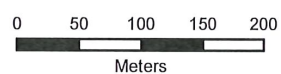
On behalf of the Kootenay Panel



Airphoto Map

2014 ESRI / Maxar Orthophoto

Map Scale: 1:5,000



ALC File #:	61244
Mapsheet #:	82E.006
Map Produced:	August 14, 2020
Regional District:	Kootenay Boundary



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September 11, 2020

ALC File: 60689

Richard Fillmore
DELIVERED ELECTRONICALLY

Dear Richard Fillmore:

Re: Reasons for Decision - ALC Application 60689

Please find attached the Reasons for Decision of the Kootenay Panel for the above noted application (Resolution #444/2020). As agent, it is your responsibility to notify the applicant accordingly.

Under section 33 of the *Agricultural Land Commission Act* (ALCA), a person affected by a decision (e.g. the applicant) may submit a request for reconsideration. Please be advised however that on March 12th, 2020 the ALC Amendment Act ([Bill 15 – 2019](#)) was brought into force and effect, changing the reconsideration process.

A request to reconsider must now meet the following criteria:

- No previous request by an affected person has been made, and
- The request provides evidence not available at the time of the original decision that has become available, and that could not have been available at the time of the original decision had the applicant exercised due diligence, or
- The request provides evidence that all or part of the original decision was based on evidence that was in error or was false.

The amendments also propose a change to limit the time period for requesting a reconsideration to 90 days from the date of this decision – this change has not been brought into force and effect yet. As a result, a person affected by this decision will have one year from the date of this decision's release as per [ALC Policy P-08: Request for Reconsideration](#) to request reconsideration of the decision or 90 days from the date the legislative change takes effect (date unknown at this time), whichever comes sooner.

Please refer to the ALC's [Information Bulletin 08 – Request for Reconsideration](#) for more information.

Please direct further correspondence with respect to this application to ALC.Kootenay@gov.bc.ca

Yours truly,

A handwritten signature in black ink, appearing to read 'Mike Bandy', is positioned above the printed name.

Mike Bandy, Land Use Planner

Enclosure: Reasons for Decision (Resolution #444/2020)

cc: Regional District of Kootenay Boundary (File A-1236-05538.031) Attention: Corey Scott

60689d1



**AGRICULTURAL LAND COMMISSION FILE 60689
REASONS FOR DECISION OF THE KOOTENAY PANEL**

Subdivision Application Submitted Under s. 21(2) of the Agricultural Land Commission Act

Applicants:

Richard Fillmore
Arleen Fillmore

Agent:

Richard Fillmore

Property:

Parcel Identifier: 007-256-230
Legal Description: Lot 2, District Lot 1236, Kootenay
District Plan 7883, Except Parts Included in Plans
9354 and 17448
Civic: 3347 Highway 3B, Fruitvale, BC
Area: 59.8 ha (53.8 ha within the ALR)

Panel:

Dave Zehnder, Kootenay Panel Chair
Ian Knudsen
Jerry Thibeault



OVERVIEW

- [1] The Property is located partially within the Agricultural Land Reserve (ALR) as defined in s. 1 of the *Agricultural Land Commission Act* (ALCA).

- [2] Pursuant to s. 21(2) of the ALCA, the Applicants are applying to the Agricultural Land Commission (the "Commission") to subdivide the Property into a ~10 ha lot and a ~50 ha lot (the "Proposal"). The Applicants intend to sell the proposed 50 ha lot containing the majority of the farm operation so that they can reside and farm at a smaller scale on the 10 ha lot.

- [3] The issue the Panel considered is whether the Proposal would impact the agricultural utility of the Property.

- [4] The Proposal was considered in the context of the purposes and priorities of the Commission set out in s. 6 of the ALCA:

6 (1) The following are the purposes of the commission:

- (a) to preserve the agricultural land reserve;
- (b) to encourage farming of land within the agricultural land reserve in collaboration with other communities of interest; and,
- (c) to encourage local governments, first nations, the government and its agents to enable and accommodate farm use of land within the agricultural land reserve and uses compatible with agriculture in their plans, bylaws and policies.

(2) The commission, to fulfill its purposes under subsection (1), must give priority to protecting and enhancing all of the following in exercising its powers and performing its duties under this Act:

- (a) the size, integrity and continuity of the land base of the agricultural land reserve;
- (b) the use of the agricultural land reserve for farm use,

**EVIDENTIARY RECORD**

- [5] The Proposal along with related documentation from the Applicants, Agent, local government, and Commission is collectively referred to as the “Application”. All documentation in the Application was disclosed to the Agent in advance of this decision.

BACKGROUND

- [6] In 1980, ALC Application 27619 was submitted to the Commission to subdivide a 2 ha lot from the Property’s parent parcel. By ALC Resolution #1705/80, the Commission refused the proposal on the grounds that the application proposed unwarranted fragmentation of agricultural land.
- [7] In 1987, ALC Application 36389 was submitted to the Commission to subdivide an 8 ha lot from the Property’s parent parcel. By ALC Resolution #800/85, the Commission refused the application but allowed an alternate subdivision that followed the ALR boundary. The proponent submitted a request for reconsideration claiming that subdivision along the ALR boundary would divide an existing hayfield. Upon reconsideration, the Commission approved the application as originally proposed by ALC Resolution #939/86. The subsequent registration of subdivision plan NEP17448 resulted in the current configuration of the Property.
- [8] In 1989, ALC Application 38843 was submitted to the Commission to subdivide an 8 ha lot from the northeast corner of the property. The Commission considered that the farm is the largest in the area, and that the Commission had already approved a previous subdivision involving the Property (ALC App. 36389). By ALC Resolution #332/89, the application was refused on the grounds that the Commission did not want to allow further erosion of the farm unit. Reconsideration requests were subsequently submitted by both the proponent and the Regional District of Kootenay Boundary (RDKB). In both cases, the Commission confirmed the original decision upon reconsideration.



- [9] In 2009, the Applicants submitted ALC Application 50201 to the Commission to subdivide the Property into a 25 ha lot and a 35 ha lot. By ALC Resolution #1485/2009, the Commission at the time approved the application based on the limited agricultural potential of the proposed 25 ha southern lot, which includes the 10 ha area proposed for subdivision in the current Application (the “2009 Decision”). The approval was subject to the subdivision being completed within three years of the decision. The subdivision was not completed and the approval expired in 2012.
- [10] In 2019, the Agent submitted a reconsideration request of ALC Resolution #1485/2009 requesting an extension to the approval. The request submitted that the subdivision was not completed due to the landowner having health problems. The Commission determined the request did not meet the criteria for reconsideration pursuant to s. 33(1) of the ALCA, and advised that a new application would be required to pursue the subdivision.
- [11] At its meeting of May 28, 2020, the RDKB Board resolved to forward the application to the Commission with support.

EVIDENCE AND FINDINGS

- [12] The Application was submitted on April 22, 2020 and was forwarded to the Commission by the RDKB on June 3, 2020. On March 12, 2020, the ALCA was amended and changes were made to its regulations. The Applicants were given an opportunity to make written submissions relating to the amendment of the ALCA and changes to its regulations as it relates to this application.

Issue: Whether the Proposal would impact the agricultural utility of the Property.

- [13] The Agent submits that:
- “the South East parcel is marginal (10 ha) with flooding in the spring and water retention for most of the year (clay soil). There is a swamp near the creek and many willow shrubs near the south boundary. The conditions encourage communities of swamp friendly grasses and is used for grazing horses. In 2009 I was granted ALC permission to*



subdivide 25 ha which was on the southern portion east and west of Beaver Creek. Due to my health issues at that time I could not proceed."

- [14] The Panel recognizes that the Commission approved a similar subdivision of the Property in the 2009 Decision. The Panel also notes that, prior to the 2009 Decision, the Commission expressed concern with allowing fragmentation of the land in previous subdivision applications involving the Property. The Panel must now consider the Proposal as a new application, and in accordance with the amended s. 6 of the ALCA, and in making a decision, also give priority to protecting and enhancing the size, integrity, and continuity of the ALR, and its use for agriculture.
- [15] To assess agricultural capability on the Property, the Panel referred to agricultural capability ratings. The ratings are identified using the Canada Land Inventory (CLI), 'Soil Capability Classification for Agriculture' system. The improved agricultural capability ratings applicable to the Property are Classes 3, 4, 5 and 6; more specifically, approximately 50 percent of the ALR portion of the Property is (7:5W-3:6WI) and 50 percent is (8:4PM-2:3M).

Class 3 - land is capable of producing a fairly wide range of crops under good management practices. Soil and/or climate limitations are somewhat restrictive.

Class 4 - land is capable of a restricted range of crops. Soil and climate conditions require special management considerations.

Class 5 - land is capable of production of cultivated perennial forage crops and specially adapted crops. Soil and/or climate conditions severely limit capability.

Class 6 - land is important in its natural state as grazing land. These lands cannot be cultivated due to soil and/or climate limitations.

The limiting subclasses associated with this parcel of land are I (inundation), M (moisture deficiency), P (stoniness), W (excess water).



- [16] Based on the agricultural capability ratings, the Panel finds that the Property has mixed prime and secondary agricultural capability and is capable of supporting a moderate range of soil-based crops and grazing use in addition to non-soil-based agricultural activities.
- [17] The Panel recognizes that some areas of the Property have agricultural capability limitations as referenced by the Commission in the 2009 Decision; however, the Panel finds that areas with lower agricultural capability still have utility for the farm, as it is noted in the Application that portions of the proposed 10 ha lot are used for grazing. Additionally, the Panel finds that areas of lower capability can be used for infrastructure that supports the farm operation, as to limit impact on the higher capability lands. The Panel finds that the presence of lower capability land does not justify the subdivision of the Property when the land has utility to the overall farm operation.
- [18] The Panel notes that the Property is one of the few remaining large ALR parcels in the Fruitvale area. The Panel finds that allowing the Proposal would erode the overall area available to the farm operation, and further fragment agricultural land in an area with a limited ALR land base. Additionally, in the Panel's experience, smaller lots with agricultural capability limitations are more likely to be used wholly for residential uses. In consideration of the purposes of the Commission under s. 6 of the ALCA and the priorities identified under s. 6(2) of the ALCA, the Panel finds that the size and integrity of the ALR and the Property's long-term use for agriculture is better preserved by retaining the Property in its current size and configuration.

DECISION

- [19] For the reasons given above, the Panel refuses the Proposal to subdivide the Property into a ~10 ha lot and a ~50 ha lot.
- [20] These are the unanimous reasons of the Panel.



[21] A decision of the Panel is a decision of the Commission pursuant to s. 11.1(3) of the ALCA.

[22] Resolution #444/2020
Released on September 11, 2020

A handwritten signature in black ink, appearing to read 'Zehnder', is positioned above the printed name of the signatory.

Dave Zehnder, Panel Chair
On behalf of the Kootenay Panel



Agricultural Land Commission
 201 – 4940 Canada Way
 Burnaby, British Columbia V5G 4K6
 Tel: 604 660-7000
 Fax: 604 660-7033
www.alc.gov.bc.ca

September 28, 2020

ALC File: 60087

John Moonen
KB Miller & Associates
DELIVERED ELECTRONICALLY

Dear John Moonen:

Re: Reasons for Decision - ALC Application 60087

Please find attached the Reasons for Decision of the Kootenay Panel for the above noted application (Resolution #462/2020). As agent, it is your responsibility to notify the applicant accordingly.

Under section 33 of the *Agricultural Land Commission Act* (ALCA), a person affected by a decision (e.g. the applicant) may submit a request for reconsideration. Please be advised however that on March 12th, 2020 the ALC Amendment Act ([Bill 15 – 2019](#)) was brought into force and effect, changing the reconsideration process.

A request to reconsider must now meet the following criteria:

- No previous request by an affected person has been made, and
- The request provides evidence not available at the time of the original decision that has become available, and that could not have been available at the time of the original decision had the applicant exercised due diligence, or
- The request provides evidence that all or part of the original decision was based on evidence that was in error or was false.

The amendments also propose a change to limit the time period for requesting a reconsideration to 90 days from the date of this decision – this change has not been brought into force and effect yet. As a result, a person affected by this decision will have one year from the date of this decision's release as per [ALC Policy P-08: Request for Reconsideration](#) to request reconsideration of the decision or 90 days from the date the legislative change takes effect (date unknown at this time), whichever comes sooner.

Please refer to the ALC's [Information Bulletin 08 – Request for Reconsideration](#) for more information.

Please direct further correspondence with respect to this application to ALC.Kootenay@gov.bc.ca

Yours truly,



Mike Bandy, Land Use Planner

Enclosures: Reasons for Decision (Resolution #462/2020)
Schedule A: Miller Springs Development Plan

cc: Regional District of Kootenay Boundary (File E-346-02630.000) Attention: Corey Scott

60087d1



**AGRICULTURAL LAND COMMISSION FILE 60087
REASONS FOR DECISION OF THE KOOTENAY PANEL**

Non-Farm Use Application Submitted Under s.20(2) of the Agricultural Land Commission Act

Applicant: Naturo Group Investments Inc. BC0936270

Agent: John Moonen, KB Miller & Associates

Property: Parcel Identifier: 007-496-664
Legal Description: District Lot 346, Similkameen
Division, Yale District, Except Plans H17963 and
KAP89411
Civic: 1450 Sidley-Camp McKinney Road, 6401
Sidley Mountain Road, Bridesville, BC
Area: 130.1 ha (130.1 ha within the ALR)

Panel: Dave Zehnder, Kootenay Panel Chair
Ian Knudsen
Jerry Thibeault



OVERVIEW

- [1] The Property is located within the Agricultural Land Reserve (ALR) as defined in s. 1 of the *Agricultural Land Commission Act* (ALCA).

- [2] Pursuant to s. 20(2) of the ALCA, the Applicant is applying to the Agricultural Land Commission (the "Commission") to expand the Miller Springs water bottling facility within its existing, approved 1.25 ha development footprint. The expansion would be done in accordance with a phased development plan, and would increase the capacity of the facility to produce, bottle, and store larger quantities of water, and would provide space to manufacture bottles on site (the "Proposal").

- [3] The previous owners of the Property (Daniel & Sonya Miller) (the "Previous Owners"), applied to the Commission for the same Proposal in 2015. The Commission approved the Proposal (the "2015 Decision") subject to a condition that stated: "Approval for non-farm use is granted for the sole benefit of the Applicant [Daniel & Sonya Miller] and is non-transferable" (The "Non-Transferable Clause").

- [4] The Property was transferred to the current ownership (Natuero Group Investments Inc.) on September 9, 2015, prior to release of the 2015 Decision. The Previous Owners are shareholders/partners in Natuero Group Investments Inc. Natuero Group Investments Inc. wishes to proceed with the expansion of the facility as approved by the 2015 Decision, but require Commission approval due to the Non-Transferable Clause.

- [5] The issue the Panel considered is whether the Proposal is consistent with the intent of the 2015 Decision.

- [6] The Proposal was considered in the context of the purposes and priorities of the Commission set out in s. 6 of the ALCA:
 - 6 (1) The following are the purposes of the commission:
 - (a) to preserve the agricultural land reserve;



- (b) to encourage farming of land within the agricultural land reserve in collaboration with other communities of interest; and,
- (c) to encourage local governments, first nations, the government and its agents to enable and accommodate farm use of land within the agricultural land reserve and uses compatible with agriculture in their plans, bylaws and policies.

(2) The commission, to fulfill its purposes under subsection (1), must give priority to protecting and enhancing all of the following in exercising its powers and performing its duties under this Act:

- (a) the size, integrity and continuity of the land base of the agricultural land reserve;
- (b) the use of the agricultural land reserve for farm use,

EVIDENTIARY RECORD

- [7] The Proposal along with related documentation from the Applicant, Agent, local government, third parties, and Commission is collectively referred to as the "Application". All documentation in the Application was disclosed to the Agent in advance of this decision.

BACKGROUND

- [8] In 2003, the Previous Owners submitted ALC Application 40880 to the Commission to subdivide the Property into two equal lots of ~63 ha. By ALC Resolution #147/2004, the Commission refused the application on the grounds that the Property should be retained at its present size to maintain its full agricultural potential. A site inspection was conducted on March 18, 2004, during which it was confirmed that an existing water bottling facility had been constructed on the west side of the Property and was operating without approval of the Commission. The Previous Owners were informed that this use was not permitted outright and that a non-farm use application was necessary.
- [9] In 2007, the Previous Owners submitted ALC Application 44576 to the Commission to allow the existing spring water bottling facility as a non-farm use on the Property and to



ALC File 60087 Reasons for Decision

subdivide the Property into two equal halves to separate the water source and bottling facility from the remainder of the Property. By ALC Resolution #118/2008, the Commission refused the proposed subdivision but approved the non-farm use of the water bottling facility subject to any future expansion of buildings or increase in water extraction be submitted for consideration and approval by the Commission. The Commission received a reconsideration request from the landowner proposing expansion of the facility with two additional buildings that were under construction. The Commission approved the proposed expansion as the buildings were within the footprint of the existing facility.

- [10] In 2012, the Previous Owners submitted ALC Application 52800 to the Commission to subdivide the Property into two 64 ha lots, or one 44 ha lot and one 84 ha lot. By ALC Resolution #3/2013, the Commission refused the application on the grounds that the Property has greater agricultural potential as a large, cohesive farm parcel and stated that the "Commission wishes to make it abundantly clear that the water bottling facility is considered subordinate to the agricultural use of the property; not as a standalone, commercial non-farm business."

- [11] In 2015, the Previous Owners submitted ALC Application 54030 to the Commission to expand the water bottling facility within the 1.25 ha footprint that had previously been approved by the Commission through Application 44576. By ALC Resolution #280/2015, the Commission conditionally approved the application, subject to the Non-Transferable Clause.

- [12] The Property is located within an area of the Regional District of Kootenay Boundary (RDKB) that is without the benefit of a local zoning bylaw or Official Community Plan bylaw. At its meeting of April 30, 2020, the RDKB Board resolved to forward the application to the Commission with a recommendation of non-support.

EVIDENCE AND FINDINGS

- [13] The Application was submitted on February 14, 2020, and was forwarded to the Commission by the RDKB on May 13, 2020. On March 12, 2020, the ALCA was amended



and changes were made to its regulations. The Applicant was given an opportunity to make written submissions relating to the amendment of the ALCA and changes to its regulations as it relates to this application. While the Application was submitted in the context of the former s. 6 of the ALCA, the Panel has considered it under s. 6(1) and s. 6(2) of the ALCA as amended by Bill 15.

[14] Issue: Whether the Proposal is consistent with the intent of the 2015 Decision.

- [15] The Panel reviewed the 2015 Decision, noting that current Kootenay Panel Commissioners Ian Knudsen and Jerry Thibeault were also members of the Kootenay Panel at the time. The Panel also reviewed related application material from the 2015 Decision, including a letter from the Commission dated July 18, 2016, in response to an inquiry from an area resident seeking clarification about the Non-Transferable Clause (the "2016 Letter"). The 2016 Letter states:

"Commission staff brought this matter forward before the Kootenay Panel at a Panel meeting on June 23, 2016 for further clarification on the Panel's intent. The Panel confirmed at the June 23, 2016 meeting that the intent of the Panel was not to limit the non-transferability of the entire water bottling operation, and the condition on Resolution #280/2015 that the "Approval for non-farm use is granted for the sole benefit of the Applicant and is non-transferable" was intended to limit the use of the additional 1.25 ha footprint under application only to the existing Miller Springs bottling facility."


- [16] Based on the 2016 Letter and the Panel's previous experience with the 2015 Decision, the Panel finds that the intent of the Non-Transferable Clause was not to limit the non-farm use approval to a specific landowner, but to ensure the approved expansion remained associated with the existing approved water bottling facility.
- [17] The Panel considered that the current proposed expansion plan remains unchanged from the plan approved by the 2015 Decision, and the Panel finds that the change in the Property's ownership does not result in any additional impacts to agriculture. As such, the Panel is amenable to approving the Proposal based on the expansion plans as submitted



ALC File 60087 Reasons for Decision

with ALC Application 54030 (The "Development Plan") and as approved by the 2015 Decision.

DECISION

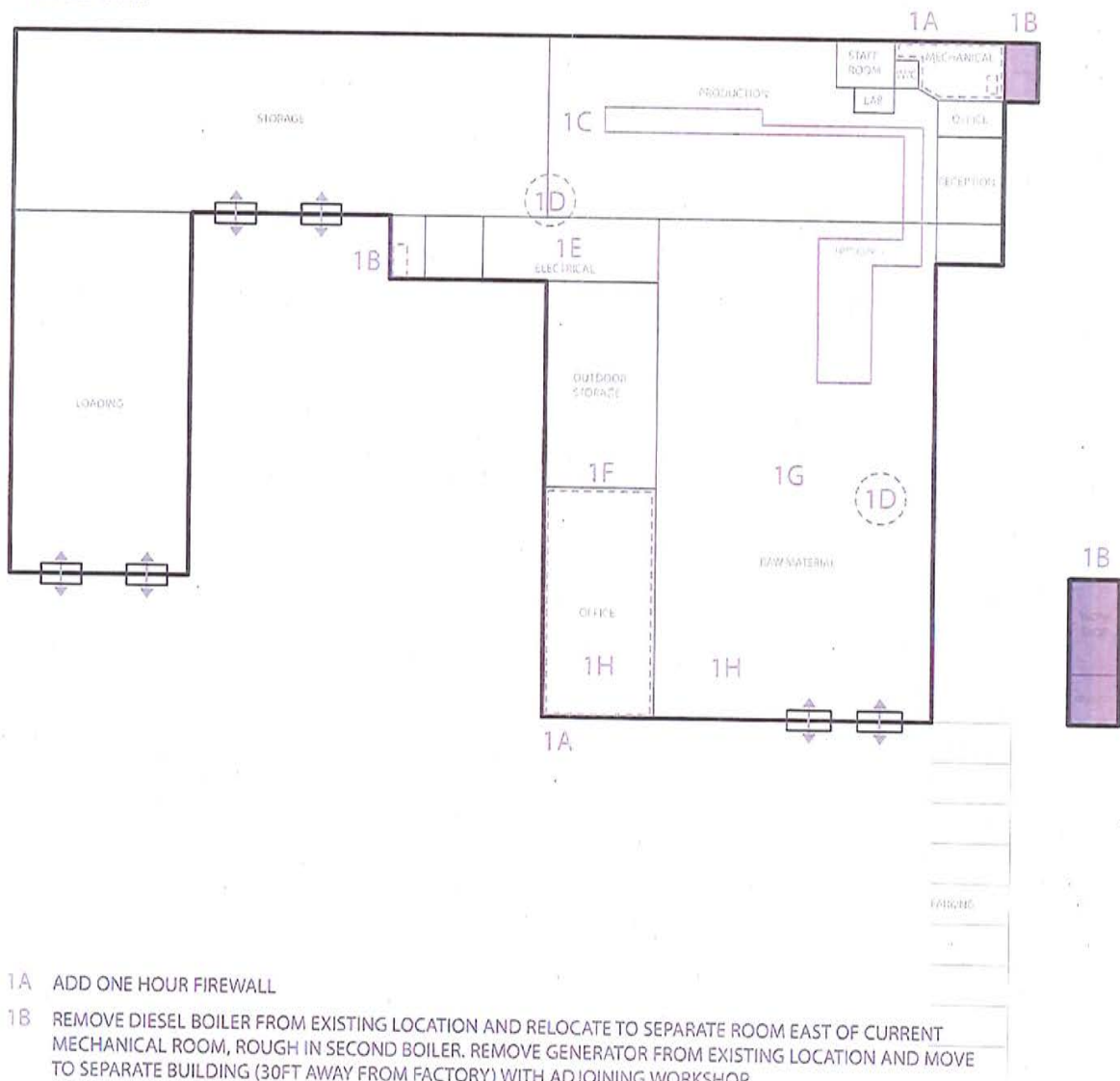
- [18] For the reasons given above, the Panel approves the Proposal to expand the Miller Springs water bottling facility within its existing, approved 1.25 ha development footprint subject to the following conditions:
- (a) The expansion footprint is substantially compliant with the Development Plan submitted with ALC Application 54030, and attached as Schedule A of this decision;
 - (b) The approval for non-farm use is granted for the benefit of, and in association with, the Miller Springs water bottling facility as approved by ALC Resolution #118/2008.
- [19] This decision does not relieve the owner or occupier of the responsibility to comply with applicable Acts, regulations, bylaws of the local government, and decisions and orders of any person or body having jurisdiction over the land under an enactment.
- [20] These are the unanimous reasons of the Panel.
- [21] A decision of the Panel is a decision of the Commission pursuant to s. 11.1(3) of the ALCA.
- [22] Resolution #462/2020
Released on September 28, 2020
- 
- Dave Zehnder, Panel Chair**
On behalf of the Kootenay Panel

Schedule A: Agricultural Land Commission Decision Sketch Plan
Miller Springs Bottling Facility Development Plan
ALC File 60087 (Natro Group Investments)
Conditionally Approved Non-Farm Use
ALC Resolution #462/2020

MASTER

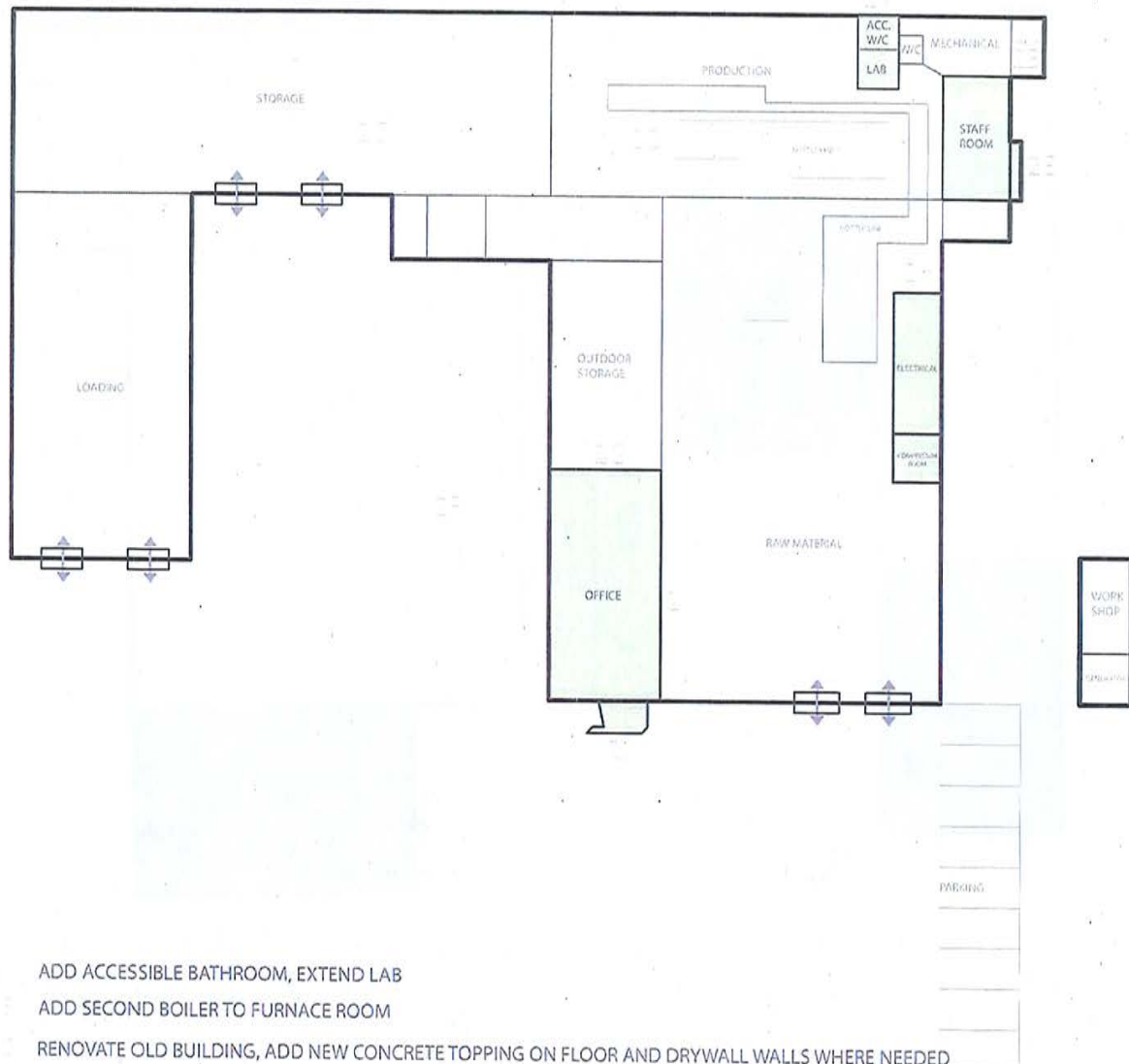


STAGE ONE



- 1A ADD ONE HOUR FIREWALL
- 1B REMOVE DIESEL BOILER FROM EXISTING LOCATION AND RELOCATE TO SEPARATE ROOM EAST OF CURRENT MECHANICAL ROOM, ROUGH IN SECOND BOILER. REMOVE GENERATOR FROM EXISTING LOCATION AND MOVE TO SEPARATE BUILDING (30FT AWAY FROM FACTORY) WITH ADJOINING WORKSHOP
- 1C ADD NEW BOTTLE LINE *ACTUAL LAYOUT AND DESIGN OF BOTTLE LINES TO BE DESIGNED BY CHINESE PROVIDER AND FLOOR MANAGER, COORDINATED BY ARCHITECT*
- 1D REPAIR LEAKS
- 1E REMOVE ALL MOLDY INSULATION, KILL LIVE MOLD, REPLACE INSULATION
PROVIDE NEW ROOF WHERE NEEDED
SEPARATE ELECTRICAL ROOM FROM BOTTLING AREA
CLEAN UP HAZARDOUS ELECTRICAL WIRING, CUT AWAY ROOF WHERE FORKLIFT TOUCHES LOADING BAY
- 1F ADD WATERPROOF MEMBRANE FROM A NEW SAW CUT INTO PRESENT CONCRETE AND 2' UP THE SIDING
- 1G REMOVE ALL MOLDY INSULATION, KILL LIVE MOLD, REPLACE INSULATION
PROVIDE NEW ROOF WHERE NEEDED, ADD FLASHING TO TOP OF BUILDING
- 1H REPAIR CROSS BRACING TO TRUSSES

STAGE TWO



ADD ACCESSIBLE BATHROOM, EXTEND LAB

ADD SECOND BOILER TO FURNACE ROOM

RENOVATE OLD BUILDING, ADD NEW CONCRETE TOPPING ON FLOOR AND DRYWALL WALLS WHERE NEEDED

REPLACE ORIGINAL BOTTLE LINE WITH GLASS BOTTLE LINE (PARTIALLY ENCLOSED) *ACTUAL LAYOUT AND DESIGN OF BOTTLE LINES TO BE DESIGNED BY CHINESE PROVIDER AND FLOOR MANAGER, COORDINATED BY ARCHITECT*

CONVERT TO STAFF ROOM W/ KITCHENETTE

SMOOTH OUT YARD, ADD BLACK TOP AND ROAD MULCH ACCORDINGLY

RELOCATE OFFICES AND RECEPTION AREA INCLUDING: RECEPTION AND WAITING AREA, OFFICES FOR ALL STAFF, BATHROOMS, LABELING/PRINTING ROOM, MEETING ROOM, AND SEPARATE TRUCKER'S LOUNGE ROOM AND BATHROOM

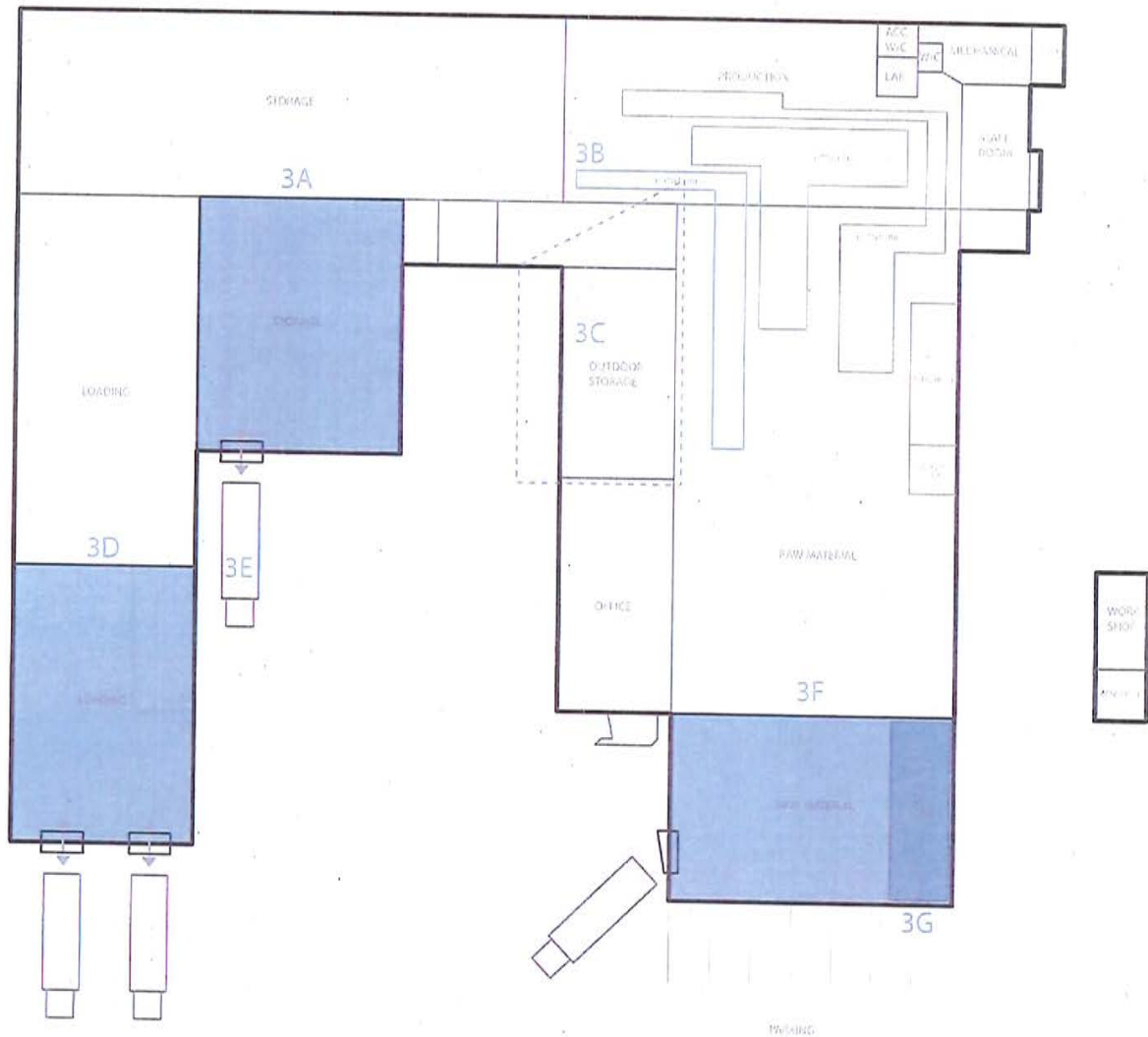
RELOCATE ELECTRICAL ROOM TO EAST AND ADD COMPRESSOR ROOM

MOVE FACTORY DOOR TO HALF LANDING AND REDIRECT STAIRS ACCORDINGLY

ADD NEW ENTRY VESTIBULE W/ TRACE LOGO

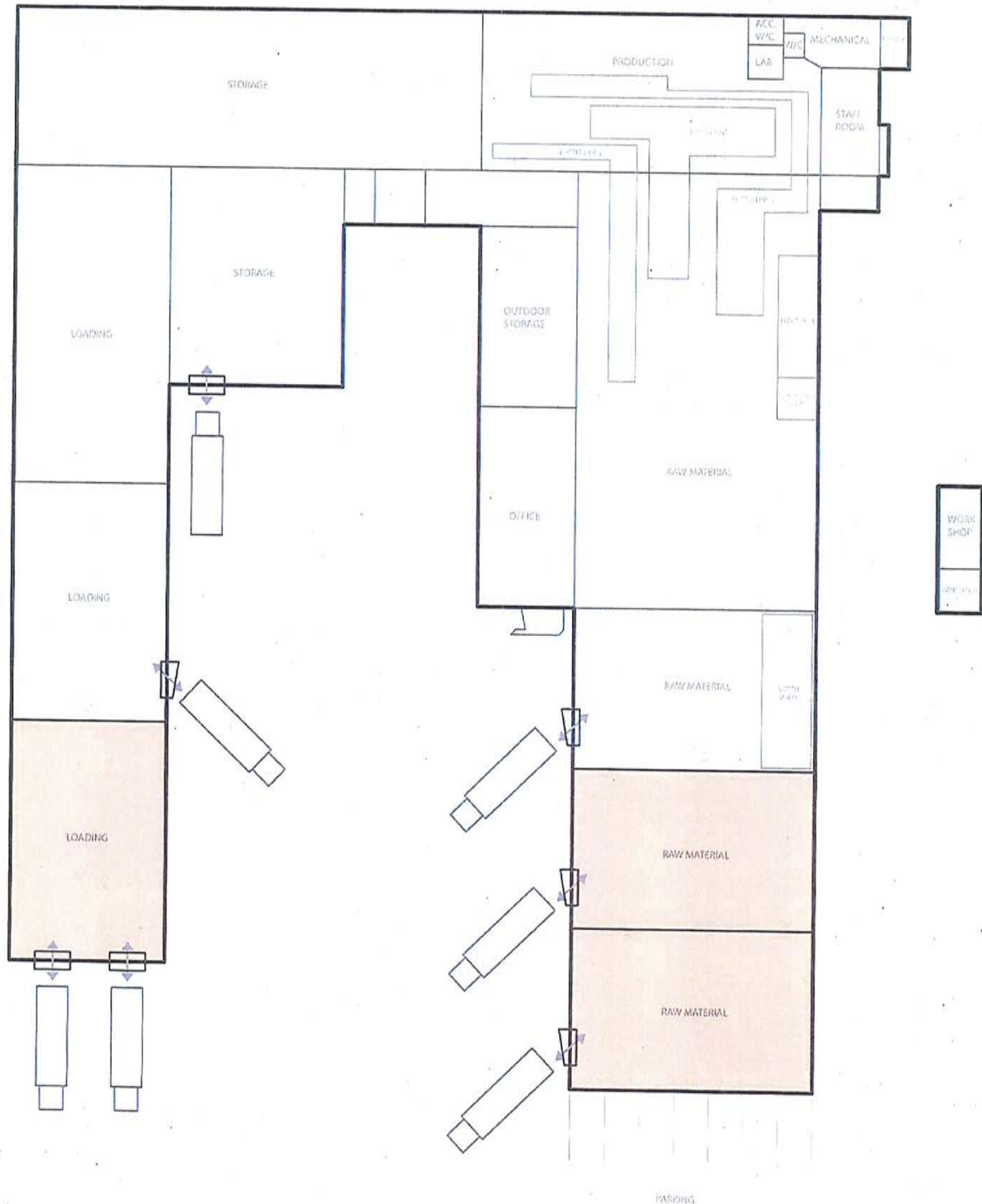
ADD SIGNAGE AT HIGHWAY TURNOFF

STAGE THREE

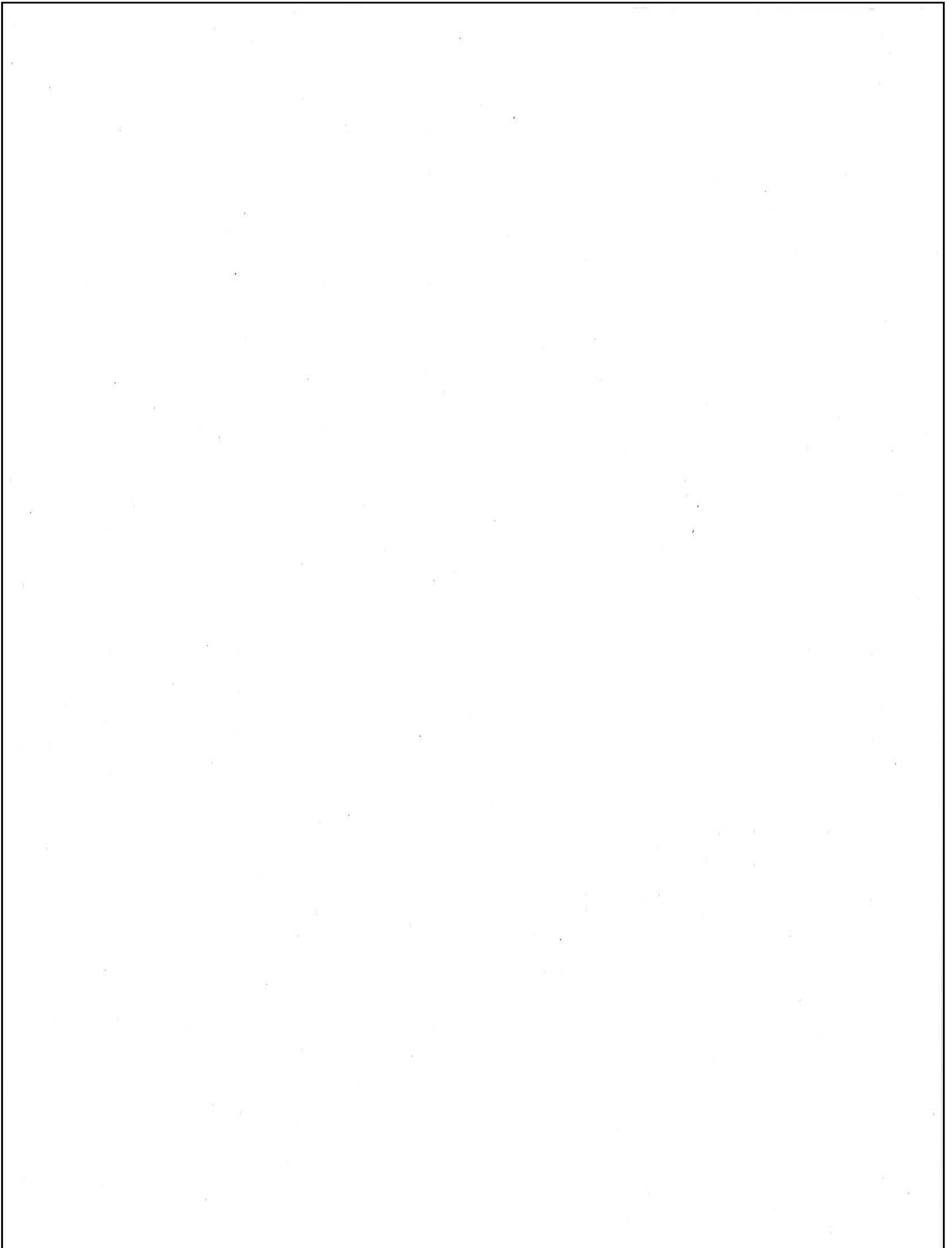


- 3A. ADD 2400 SQFT INFILL W/TWO PICK UP GATES
- 3B. ADD THIRD BOTTLE LINE *ACTUAL LAYOUT AND DESIGN OF BOTTLE LINES TO BE DESIGNED BY CHINESE PROVIDER AND FLOOR MANAGER, COORDINATED BY ARCHITECT*
- 3C. ADD ROOF OVER PALETTE STORAGE
- 3D. ADD 2400 SQFT TO CURRENT PICK UP LINE AND MOVE LOADING BAYS TO SOUTH END
- 3E. PURCHASE PICK UP/ DELIVERY TRUCKS (?)
- 3F. ADD 2400 SQFT TO EXISTING RAW MATERIAL AREA, MOVE LOADING BAYS TO WEST WALL FOR FUTURE EXPANSION
- 3G. PURCHASE AND INSTALL BOTTLE MAKER

STAGE FOUR



ADD 2400 SQFT INCREMENTALLY TO LOADING AREA AS NEEDED
 ADD 2400 SQFT INCREMENTALLY TO RAW MATERIAL AREA AS NEEDED





East End Services Committee

Minutes

Tuesday, September 15, 2020

Held via Zoom Online Video Conferencing

Committee members:

Director A. Grieve – Vice Chair
Director R. Cacchioni
Director M. Walsh
Director S. Morissette
Alternate Director A. Parkinson
Alternate Director B. Edwards

Staff and others present:

M. Andison, Chief Administrative Officer
M. Forster, Executive Assistant
D. Derby, Regional Fire Chief
G. Gallamore, Deputy Fire Chief
M. Daines, Manager of Facilities and Recreation
B. Reilly, Victims' Services Program Manager
K. Moore – Mayor of Rossland (observer) – left meeting – 11:15 am.

Call to Order

The Vice-Chair called the meeting to order at 10:30 am.

Land Acknowledgement

We acknowledge and appreciate that the land on which we gather is the converging, traditional and unceded territory of the Syilx, Secwepemc, Sinixt and Ktunaxa Peoples as well as the Metis Peoples whose footsteps have also marked these lands.

Acceptance of the Agenda (additions/deletions)

The agenda for the September 15, 2020 East End Services Committee meeting was presented.

Moved/Seconded

That the agenda for the September 15, 2020 East End Services Committee meeting be adopted as presented.

Carried.

Minutes

The minutes of the East End Services Committee meeting held on June 16, 2020 were presented.

Moved/Seconded

That the minutes of the East End Services Committee meeting held on June 16, 2020 be adopted as presented.

Carried.

Delegations

There were no scheduled delegations attending the meeting.

Unfinished Business

There was no unfinished business for discussion.

New Business

**J. Chandler, General Manager of Operations/Deputy CAO
Re: September 2020 Work Plan Update and 2021 Look Ahead - East
End Animal Control Service (070)**

The purpose of the report was to provide an update on the 2020 East End Animal Control Service Work Plan and look ahead to 2021 priorities.

Moved/Seconded

That the East End Services Committee receive the September 2020 Work Plan Update and 2021 Look Ahead Report for the East End Animal Control Service (070), as presented to the Committee on September 15, 2020.

Carried.

J. Chandler, General Manager of Operations/Deputy CAO
Re: September 2020 Work Plan Update and 2021 Look Ahead - East End Transit Service (900)

The purpose of the report was to provide an update on the 2020 East End Transit Service Work Plan and look ahead to 2021 priorities.

Discussion ensued on bus stop shelter replacements and the options available in terms of the numbers of shelters, and partial or full replacement of shelters. Direction will be sought, at the next meeting, from the Committee as to which option will be preferred.

The Committee directed staff to provide a report reviewing student transit ridership numbers in the Beaver Valley.

Moved/Seconded

That the East End Services Committee receive the September 2020 Work Plan Update and 2021 Look Ahead Report, for the East End Transit Service (900), as presented to the Committee on September 15th 2020.

Carried.

D. Derby, Regional Fire Chief
Re: September 2020 Work Plan Update and 2021 Look Ahead - Kootenay Boundary Regional Fire Rescue Service (050)

A progress update for the 2020 Work Plan and a look ahead for consideration to projects and priorities for 2021 was presented.

Moved/Seconded

That the East End Services Committee receive the September 2020 Work Plan Update Report and proposed 2021 projects for the Kootenay Boundary

Regional Fire Rescue Service (050) as presented to the Committee on September 15, 2020.

Carried.

M. Daines, Manager of Facilities and Recreation
Re: September 2020 Work Plan Update and 2021 Look Ahead -
Culture, Arts and Recreation Service - Lower Columbia (018)

A progress update for the 2020 Work Plan and a look ahead for consideration to projects and priorities for 2021 was presented.

Staff was directed to provide the Committee with a report on cost savings to the end of October 2020 under this service.

Staff sought direction from the Committee regarding possible grant funding opportunities for the 2021 proposed roof replacement project through the ICIP Program. The Committee recommended moving forward with the application.

Staff will schedule an in-camera East End Services Committee meeting in October.

Moved/Seconded

That the East End Services Committee receive the September 2020 Work Plan Update and proposed 2021 projects for the Culture, Arts and Recreation Service - Lower Columbia (018) as presented to the Committee on September 15th, 2020.

Carried.

Moved/Seconded

That the East End Services Committee directs staff to apply for grant funding through the ICIP Program for the proposed roof replacement project in 2021.

Carried.

B. Reilly, Victims Services Program Manager
Re: September 2020 Work Plan Update and 2021 Look Ahead for
Victim Services (009)

The purpose of the report was to provide an update on the 2020 Victim Services Work plan.

Moved/Seconded

That the East End Services Committee receive the September 2020 Work Plan Update and 2021 Look Ahead Report, for Victim Services (009) as presented to the Committee on September 15th, 2020.

Carried.

B. Reilly left the meeting at 11:07 am.

Director R. Cacchioni

Re: Discussion - BC Transit and Provincial Support

Director Cacchioni informed the Committee members of the upcoming BC Transit meeting on October 21, 2020. It is anticipated that areas running transit services will ask the Province for restitution of costs expended during the pandemic.

D. Dean, Manager of Planning and Development

Re: Lower Columbia Agricultural Area Plan - Project Introduction

A staff report to describe the pending project to create an Agricultural Area Plan for the Lower Columbia was presented.

Director Grieve informed the Committee members that letters of support will be requested from the East End stakeholders once more information is released on grant applications.

Moved/Seconded

That the staff report titled 'Lower Columbia Agricultural Area Plan – Project Introduction' prepared for the September 15, 2020 East End Services Committee be received.

Carried.

Late (Emergent) Items

There were no late (emergent) items for discussion.

Discussion of items for future agendas

Staff will invite Selkirk College representatives to the next East End Services Committee meeting in October.

Staff will provide a report on student transit ridership numbers in the Beaver Valley.

Question Period for Public and Media

A question period for public and media was not required.

Closed (In camera) Session

A closed (in camera) session was not required.

Adjournment

The meeting was adjourned at 11:15 am.



**Electoral Area Services Committee
Minutes**

Thursday, September 10, 2020
Via Zoom Video Conference

Directors Present

Chair Ali Grieve
Director Linda Worley
Director Grace McGregor
Director Roly Russell
Director Vicki Gee

Staff Present

James Chandler, General Manager of Operations/Deputy Chief Administrative Officer
Janine Dougall, General Manager of Environmental Services
Barb Ihlen, General Manager of Finance
Donna Dean, Manager of Planning and Development
Theresa Lenardon, Manager of Corporate Administration
Goran Denkovski, Manager of Infrastructure and Sustainability
Mark Stephens, Manager of Emergency Programs
Joe Geary, Christina Lake Fire Chief
Brandy Rafuse, Bylaw Enforcement Officer
Danielle Paterson, Planner
Maria Ciardullo, Recording Secretary

Delegates

Rob Gay, Regional Connectivity Committee Chair
Amy Ambrosone, Columbia Basin Broadband Corp

CALL TO ORDER

Chair Grieve called the meeting to order at 11:00 a.m.

ACCEPTANCE OF AGENDA (ADDITIONS/DELETIONS)

Moved/Seconded

That the September 10, 2020 Electoral Area Services Agenda be adopted as presented.

Carried.

MINUTES

Moved/Seconded

That the May 14, 2020 Electoral Area Services Committee meeting minutes be adopted as presented.

Carried.

ROUNDTABLE INTRODUCTIONS

Chair Grieve requested that everyone introduce themselves.

DELEGATIONS

**Rob Gay, Chair of RDEK Board of Directors/Director RDEK Electoral Area
C/Chair of the Columbia Basin Broadband Committee
RE: Memorandum of Understanding for broadband**

Rob Gay, Board Chair for the Regional District of East Kootenay, presented information regarding broadband service in the Kootenay region which included a vision for high speed connectivity; term length of service and a name change to 'Southeastern BC Regional Connectivity Committee'. There was discussion about this essential service and the associated costs. Mr. Gay stated he would forward the most recent Memorandum of Understanding to Theresa Lenardon, Manager of Corporate Administration.

UNFINISHED BUSINESS

There was no unfinished business to discuss.

NEW BUSINESS

Ben and Tersia DeJager

RE: MOTI Subidivision

RDKB File: A-Twp7A-1-519.100

Moved/Seconded

That the staff report regarding the Ministry of Transportation and Infrastructure referral for a proposed two lot boundary subdivision (conventional), for the parcels legally described as the Lot A, Plan NEP7089, TWP 7A, KD and Sublot 17, Plan NEPX66, KD, located in Electoral Area 'A', be received.

Carried.

City of Rossland

RE: Subdivision Referral

RDKB File: R-1

Moved/Seconded

That the staff report regarding the City of Rossland referral for a proposed 8 lot bare land strata at 1007 Mountain View Road, for the parcel legally described as Portion of Lot A Section 10 TWP 28 KD Plan EPP84853, the City of Rossland, be received.

Carried.

Allowable Expenses for Directors

Chair Grieve queried the committee members regarding allowable expenses. There were no questions or concerns from the members.

Impact of Emergency Operations Centre activations on work plans

There was discussion around staff time when the Emergency Operations Centre is activated. James Chandler, Deputy CAO/General Manager of Operations suggested this topic could be addressed when the Emergency Management Workplan for 2021 is discussed.

Use of Electoral Area Directors' Communication and Expense Budget

Some Directors expressed their wish for more flexibility and freedom with regard to their communication budget and the desire for transparency. Discussed was the creation of guidelines for clarity and a consistent approach.

Newsletters for Electoral Areas

Chair Grieve stated she would be interested in receiving other Electoral Area's newsletters/communications so they can be informed regarding each other's activities and support each other.

Planning Department Application Procedures and Applicant Attendance at Meetings

Chair Grieve expressed concern that applicants do not necessarily attend APC meetings to address questions and concerns the APC may have. She also would like staff to ensure that communication with applicants encourages them to attend meetings where their application is considered.

Grants in Aid

This item was deferred to a future meeting.

Noise Bylaws

There was a discussion regarding whether noise bylaws in rural areas can be enforced effectively and the fact that there is an existing noise bylaw at Big White. Director McGregor stated that she would like to do some public consultation to determine whether her community would like a noise control bylaw.

Gas Tax - threat to 3rd party applications

This item was deferred to a future meeting.

Statutory Exemptions (through BC Assessment) vs. Permissive Tax Exemption (RDKB)

This item was deferred to a future meeting.

Grant in Aid report

Moved/Seconded

That the Grant in Aid report be received.

Carried.

Gas Tax Report

Moved/Seconded

That the Gas Tax Report be received.

Carried.

Planning and Development (005) Work Plan Update

Moved/Seconded

That the Electoral Area Services Committee receive the September 10, 2020 staff report titled 'Work Plan Update and 2021 Look Ahead for the Planning and Development Department Service'.

Carried.

Parks & Trails - Electoral Area 'B' (014) Work Plan Update

Moved/ Seconded

That the Electoral Area Services Committee receive the September 2020 Work Plan Update Report and proposed 2021 projects for the Regional Parks & Trails Services – EA 'B' /Lower Columbia/Old Glory (014) as presented to the Committee on September 2, 2020.

Carried.

Regional Parks and Trails Service (045) Workplan Update

Moved/Seconded

That the RDKB Electoral Area Services Committee receive the 2020 Area 'D'/Rural Grand Forks – Regional Parks and Trails Service (045) Workplan Update and Look Ahead 2021 Report.

Carried.

Fire Protection - Christina Lake (051) Work Plan Update

Moved/Seconded

That the Regional District of Kootenay Boundary Electoral Area Services Committee receive the September 2020 Work Plan update and 2021 look ahead report, for the Christina Lake Fire Department, as presented to the committee on September 10th, 2020.

Carried.

Fire Protection - Beaverdell (053) Work Plan Update

Moved/Seconded

That the Regional District of Kootenay Boundary Electoral Area Services Committee receive the September 2020 Work Plan update and 2021 look ahead report, for the Beaverdell Fire Service, as presented to the committee on September 10th, 2020.

Carried.

Big White Fire - Specified Area (054) Work Plan Update

Moved/ Seconded

That the Regional District of Kootenay Boundary Electoral Area Services Committee receive the September 2020 Work Plan update and 2021 look ahead report, for the Big White Fire Department, as presented to the committee on September 10th, 2020.

Carried.

Weed Control - Christina Lake Milfoil (091) Work Plan Update

Moved/Seconded

That the Electoral Area Services Committee receive the September 2020 work plan update and 2021 proposed projects report for the Noxious Weed Control – Christina Lake Milfoil – Service 091 as presented to the Committee on September 10, 2020.

Carried.

LATE (EMERGENT) ITEMS

There no late or emergent items.

DISCUSSION OF ITEMS FOR FUTURE AGENDAS

The following items were deferred to a future meeting:

- Grants in Aid
- Gas Tax - threat to 3rd party applications
- Statutory Exemptions (through BC Assessment) vs. Permissive Tax Exemption (RDKB)

CLOSED (IN CAMERA) SESSION

A closed (in camera) meeting was not required.

ADJOURNMENT

There being no further business to discuss, Chair Grieve adjourned the meeting at 1:05 p.m.



Electoral Area C - Christina Lake Parks & Recreation Commission

Regular Meeting

Wednesday, July 8, 2020

Zoom Electronic Meeting

8:00 AM

Minutes

Commission Members Present:

Adam Moore
Brenda Auge
Paul Beattie
Randy Gniewotta
Tara Bobocel

Absent:

Erica McCluney
Josh Strzelec
Joe Sioga

Area Director

Grace McGregor

Staff Present:

Paul Keys
Melina Van Hoogevest

Alternate Area Director

Donna Wilchynski

Others Attending

1. Call to Order

- 1.a) The Chair called the meeting to order at 8:02am.

2. Land Acknowledgement

- 2.a) We acknowledge and appreciate that the land on which we gather is the converging, traditional and unceded territory of the Okanagan, Ktunaxa, Secwepemc Peoples as well as the Sinixt Peoples whose footsteps have also marked these lands.

3. Consideration of the Agenda (additions/deletions)

- 3.a) The agenda for the July 8, 2020 Electoral Area C - Christina Lake Parks & Recreation Commission meeting was presented.

The agenda was amended with the addition of two New Business items; 9.a) Grant Opportunities and 9.b) Illegal Parking at the Christina Lake Welcome Centre and it was;

21-20

Moved: Brenda Auge

Seconded: Randy Gniewotta

That the Agenda for the July 8, 2020 Electoral Area C - Christina Lake Parks & Recreation Commission meeting be adopted as presented.

Carried

4. Draft Minutes

- 4.a) The draft minutes of the Electoral Area C - Christina Lake Parks & Recreation Commission meeting held on June 10, 2020, were presented and it was;

22-20 Moved: Donna Wilchynski Seconded: Adam Moore

That the draft minutes for the Electoral Area C - Christina Lake Parks & Recreation Commission meeting held on June 10, 2020, be adopted as presented.

Carried

5. Delegation

- 5.a) There were no delegations to be made.

6. Unfinished Business

- 6.a) Dog Park Deadfall Cleanup – Staff Report

A written Staff Report was included in the agenda package and staff followed up with a verbal report.

Administration contacted contractors in the area this spring to remove standing dead trees and deadfall on the west side of the Christina Lake Dog Park. Quotes received ranged from \$6000 to \$13,200. The Christina Lake Stewardship Society recommended contact with BC Wildfire to enquire about training opportunities for their crews. BC Wildfire representative, James Ritco, thought it was a good training fit for their Initial Attack Crew, and agreed to take on the project at no cost. Paperwork has been sent to Administration that would permit BC Wildfire a two week block of time, July 13 – 17, to complete the project. This project is estimated to take BC Wildfire two days to complete, however, they need additional time in the event of the crew being called out to a wildfire. The west side of the park will be blocked off to visitors for safety reasons during this operation. Once the work is completed, the project will be reviewed to remove the wood.

7. Communications-Information Only

- 7.a) There were no communications for information to consider.

8. Reports**8.a) Financial Report**

The following income statements were submitted for review:

021-Programming, 023-Christina Lake Programming, 024-Christina Lake Facilities, 027-Area C Parks & Trail Funds.

The Pickleball Club is in need of funding to support the cost of liability insurance for the administrative positions. Allocating uncommitted funds to the Pickleball Club is not a normally approved action, however, due to unprecedented times, this has been approved. It is recommended that staff write a letter to the Pickleball Club to inform them of the financial support from the Electoral Area C - Christina Lake Parks & Recreation Commission.

8. b) Project Updates

Pickleball and Tennis Court Planning – Staff Report

A written Staff Report was included in the agenda package and staff followed up with a verbal report.

Due to the increasing numbers of recreational pickleball players in the community and the potential to host tournaments, there is a need for additional pickleball courts in Christina Lake. The Pickleball Club has several ideas for additional infrastructure and improvements to the court area, including shaded seating and permanent infrastructure facilities. There are also repairs needed for the existing Christina Lake tennis courts surfaces that are cracked and sinking into the ground. There is currently no long term plan for development at the courts, and no clear vision for what the area should look like when fully developed. RDKB Administration recently met with representatives of the Christina Lake Pickleball Club, as well as a representative of the tennis players, to discuss future development of the courts long term development plan. The process to develop the plan will require an architect, and allow for further engagement of user groups and other public members, to ultimately develop a plan that is both financially viable and suitable for Christina Lake. Administration will look to engage an architect and get started on the planning portion of this project as soon as possible. There is sufficient money in the budget earmarked for pickleball and tennis courts to pay for architectural services this year.

It was discussed that in 2018 Son Ranch Timber Co was contacted to create beams for a shade gazebo. It was requested that staff contact Son Ranch Timber Co. and enquire about the details of that project.

8. c) Sub Committee Report

Citizens on Patrol Report:

It was identified and reported to RCMP that the vehicle plates belonging to the vehicle of the Citizens on Patrol were missing. New plates have been requested and once the vehicle is insured, COP will resume their patrol this summer.

8. d) Staff Monthly Report

Nothing to report

8. e) Community Events Report

BCDC Aquatic Activity Reopening - Staff Report

A written Staff Report was included in the agenda package and staff followed up with a verbal report.

The plan to resume programming activities and the opening of the Aquatic Centre to the public is to be a gradual reopening over the course of the summer.

June 29 – Aquatic Centre individual showers were opened to support the vulnerable population in Grand Forks, in partnership with local Interior Health.

July 10 – Staff training is scheduled to bring staff up to speed with new life saving and swim instruction protocols, as well as any changes to safe work procedures, prior to programs being offered.

July 13 – The first of four outdoor swim lesson sets following new Covid-19 protocols set out by the Red Cross are scheduled to start at the Christina Lake Provincial Park beach.

July 20 – Dry land and aquatic based fitness programming resumes at the Christina Lake Provincial Park beach, and at the Dick Bartlett ball diamonds located behind the Aquatic Centre.

July 20 - Private use of the Aquatic Centre to begin with the Piranhas Swim Club, and Olympian James Dergousoff. Our work with Piranhas will allow us to test new flow of traffic around the pool, in the water during lane swims, and through the change rooms, in preparation for the general public to return.

August 4 – Public Lane Swim to return based on expected successes and learned processes from the Piranhas program. Swim time and numbers will be limited.

August 10 – Aquafit programming to return based on successes and learned processes from the Piranhas and public lane swim, particularly in managing traffic flow in and out of the water and through the change rooms. Class size will be limited.

Public Leisure Swims – return of public leisure swim time is expected in the fall. The guidelines around leisure swim will be based on successes from lane swim and aquafit, along with industry feedback on managing social distancing during public swims at outdoor pools. Maximum numbers will be greatly reduced, and the number of lifeguards needed on the pool deck is expected to increase during leisure swims under the new protocols set out by the Lifesaving Society, both for lifeguarding and for life saving reasons.

The Reports of the Electoral Area C - Christina Lake Parks & Recreation Commission held on July 8, 2020, were presented and it was;

23-20

Moved: Brenda Auge

Seconded: Randy Gniewotta

That the Reports for the Electoral Area C - Christina Lake Parks & Recreation Commission meeting held on July 8, 2020, be adopted as presented.

Carried

9. New Business

9. a) Grant Opportunities

It was discussed that there are opportunities to apply for numerous grants to aid in the completion of the Christina Creek Pedestrian Bridge. It was recommended that the Electoral Area C - Christina Lake Parks & Recreation Commission pursue 100% coverage for the Christina Creek Pedestrian Bridge project through a grant(s).

24-20 Moved: Brenda Auge

Seconded: Randy Gniewotta

That the Electoral Area C - Christina Lake Parks & Recreation Commission pursue 100% coverage for the Christina Creek Pedestrian Bridge project through a grant(s).

Carried

9. b) Illegal Parking at the Christina Lake Welcome Centre

There has been an increase in illegal parking overnight at The Christina Lake Welcome Centre. The Christina Lake Fire Department and RCMP have been assisting; however camping is allowed on crown land unless signage indicates otherwise. It was recommended that the Electoral Area C - Christina Lake Parks & Recreation Commission purchase the necessary signage to indicate that there is no illegal parking/camping overnight at the Christina lake Welcome Centre.

10. Late (Emergent) Items

10. a) There were no late emergent items to consider.

11. Discussion of Items for Future Meetings

11. a) A discussion was not necessary.

12. Question Period for Public and Media

12. a) There weren't any questions from the public or media.

13. Adjournment

13. a) The next scheduled meeting will be held on September 9, 2020. There being no further business to discuss, the meeting was adjourned (time: 9:21am).


25-20 Moved: Brenda Auge

Seconded: Randy Gniewotta

Carried

Melina Van Hoogevest,
Recording Secretary

Grace McGregor,
Chairperson

 <p>Regional District of Kootenay Boundary</p>	<p>ELECTORAL AREA 'C'/CHRISTINA LAKE</p> <p>ADVISORY PLANNING COMMISSION</p> <p>MINUTES</p>
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Tuesday, October 6, 2020 at the Christina Lake Community Hall, commencing at 7:00 p.m.

PRESENT: Peter Darbyshire, Terry Mooney, Dave Bartlett, Jeff Olsen, Annie Rioux, Jessica Coleman, Leanne Keys

ABSENT: Jason Patrick Taylor, Phil Mody, Butch Bisaro

RDKB DIRECTOR: Grace McGregor

RDKB STAFF:

GUESTS: Randy & Sandy Gniewotta, Renata & Raimund Wege, Lorne Garrett, Jim Benson, Heather Semeniuk, Mike & Erica Combs

1. CALL TO ORDER

The meeting was called to order at 703 p.m.

2. ADOPTION OF AGENDA (Additions/Deletions)

Recommendation: That the October 6, 2020 Electoral Area 'C'/Christina Lake Advisory Planning Commission Agenda be adopted as presented, by Dave / Jeff / carried by all

3. ADOPTION OF MINUTES

Recommendation: That the September 1, 2020 Electoral Area 'C'/Christina Lake Advisory Planning Commission Meeting Minutes be adopted as presented, with no comments by Jeff / Peter / carried by all

4. DELEGATIONS

Electoral Area 'C'/Christina Lake APC Agenda Items
October 6, 2020
Page 1 of 3

5. OLD BUSINESS & UPDATES TO APPLICATIONS AND REFERRALS

6. NEW BUSINESS

A. Michael Combs and Erica Boyco

RE: Development Variance Permit

RDKB File: C-4037s-07285.055

Discussion/Observations:

6 neighbors were present for this meeting, their main concerns for not supporting this application are:

- Water supplied to the properties does not seem to be approved by the proper authorities, and illegal connections seems to have been made, jeopardizing the whole community water, bringing concerns about future connections as well
- The issue about the applicant running an illegal campground there which was talked about to the neighbors by the applicants
- Property is used for storage of commercial vehicles by the applicants, including 3 trailers on the same property, not following zoning
- Applicants also seems to have a higher water usage (approx. 4 times) than anybody else in the neighborhood
- due to so many lies, threats and disputes, there is no support from the neighborhood regarding this subdivision and believe that the requested variances will be used for further uses.

Recommendation:

It was moved, seconded and resolved that the APC recommend to the Regional District that the application be **Not Supported** (with stated reasons if appropriate) by all due:

- concerns raised about where the applicants gets his water from, Deer Ridge Water or well
- the size of the variance requested exceed any variances ever presented to the board
- many unanswered questions about the illegal campground and accessory buildings
- lots of concerns about the shared easement as properties seems to be access from there instead of their road entrance on McRae Road (easement should be accessible by 5 surrounding properties to access Deer Ridge water system, and used to be maintained by them all)

B. Lorne Garrett
RE: Development Variance Permit
RDKB File: C-317-00273.010

Discussion/Observations:

- 2014 sceptic plan missing and should be part of the application package
- Concerns about heavy equipment on the lot and should be now stored as his gravel pit. There is no business run out of the lot, and everything is operated out of the gravel pit area. Some equipment may be used to block access to within the building as security to local thief.

Recommendation:

It was moved, seconded, and resolved that the APC recommend to the Regional District that the application be **Postponed** by all to (date) for the following reasons:

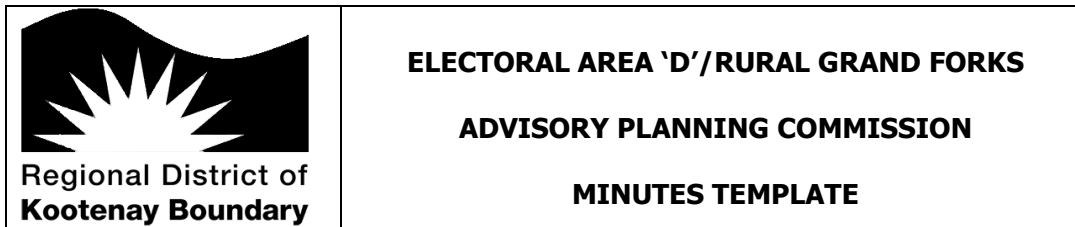
- Applicant will reassess location of new house plans to see if it could move to respect the required setback, without being too close to their sceptic field. Applicant will be in touch with planning if the need for the variance is no longer required

7. FOR INFORMATION

8. DISCUSSION

9. ADJOURNMENT

It was moved and seconded that the meeting be adjourned at 758PM, Peter/Jessica/carried by all.



Tuesday, October 6 2020 via tele-conference, commencing at 7:00 p.m.

PRESENT: Deb Billwiller, Kathy Hutton, Brian Noble, Della Mallette, Lynn Bleiler, John Thomas

ABSENT:

RDKB DIRECTOR:

RDKB STAFF:

GUESTS: Roly Russell

1. CALL TO ORDER

The meeting was called to order at 7:00 p.m.

2. ADOPTION OF AGENDA (Additions/Deletions)

Moved: Thomas; **seconded:** Mallette that the October 6, 2020 Electoral Area 'D'/Rural Grand Forks Advisory Planning Commission Agenda be adopted as presented. **Carried**

3. MINUTES

There being no errors or omissions, it was **moved:** Noble; **seconded:** Billwiller that the April 7, 2020 Electoral Area 'D'/Rural Grand Forks Advisory Planning Commission Minutes be adopted as presented. **Carried.**

4. DELEGATIONS

None.

5. OLD BUSINESS/UPDATES TO APPLICATIONS AND REFERRALS

None

6. NEW BUSINESS

A. Fortis BC Inc.

RE: Crown Land Tenure Referral

2050 Snowball Creek West Road

RDKB File: D-581s-03486.522

Discussion/Observations:

- It was noted that the red markings on the map don't appear to line up with property lines
- It would have been helpful if the application had shown exactly where the power pole is going to be situated.
- Pleased that it won't be interfering with riparian area
- Mostly a very thorough and straightforward application
- Pleased that the RDKB Watershed Planner also weighed in on the application.

Moved: Noble; **seconded:** Bleiler that the APC recommend to the Regional District that the referral be supported. **Carried**

7. FOR INFORMATION

Deb Billwiller informed the APC that she will be retiring at the end of the year.

8. ADJOURNMENT

Noble **moved** adjournment at 7:17 p.m.



ELECTORAL AREA 'E'/WEST BOUNDARY
ADVISORY PLANNING COMMISSION
MINUTES

Monday, October 5, 2020 @ Riverside Centre, 3990 Highway 3, Rock Creek, commencing at 6:00 p.m.

PRESENT: In person: Florence Hewer, Fred Marshall, Jamie Haynes, Via Zoom: Randy Trerise, Lynne Storm, Michael Fenwick-Wilson.

ABSENT with notification

Absent without notification Grant Harfman

RDKB DIRECTOR: Vicki Gee

RDKB STAFF: None

GUEST: None

1. **CALL TO ORDER** The meeting was called to order at 6 PM.

2. **ADOPTION OF AGENDA**

Recommendation: That the October 5, 2020 Electoral Area 'E'/West Boundary Planning Commission Agenda be adopted as presented. Moved and seconded. Motion carried.

3. **ADOPTION OF MINUTES**

Recommendation: That the August 31, 2020 Electoral Area 'E'/West Boundary Planning Commission Minutes be adopted as presented. Moved and seconded. Motion carried.

4. **DELEGATIONS:** None

5. **UPDATES TO APPLICATIONS AND REFERRALS:** None

6. **NEW BUSINESS**

A. Karen and Matthew Lewis
RE: MOTI Subdivision

Electoral Area E' APC Minutes
 October 5, 2020
 Page 1 of 3

RDKB File: E-2989s-07007.030

Discussion/Observations:

We discussed the application for subdivision. It was pointed out that the subdivision of 3 lots may trigger the requirement for parkland. Concerns were expressed about potential for site contamination and having the wells so close to the road. The APC has concerns about development in remote forested areas in regard to risk of forest fires and lack of services.

Recommendation:

It was moved, and seconded and resolved that the APC recommends to the Regional District that the referral be:

Supported with conditions (state the conditions): That the; contaminated site issues be resolved; that the septic fields and the wells be proven up; the wells be located a reasonable distance from the road; if there is a requirement for parkland the RDKB should receive cash; and the land owners be made aware of the danger of forest fires and the Firesmart program.

Motion carried.

B. Cowboy Forestry Ltd.

RE: MOTI Subdivision

RDKB File: E-1920s-04965.000

Discussion/Observations: The application was reviewed.

Recommendation:

It was moved, and seconded and resolved that the APC recommends to the Regional District that the referral be:

Supported with conditions (state the conditions): That the; the septic fields and the wells be proven up; access to the transfer station be accommodated; if there is a requirement for parkland the RDKB should receive cash; the land owners be made aware of the danger of forest fires and the Firesmart program. The APC has concerns about development in remote forested areas in regard to risk of forest fires and lack of services.

Motion carried.

C. Ken Harfman

RE: Front Counter Referral – Mining Lease

RDKB File: E-10

Discussion/Observations: It was pointed out that the application is confusing since it references both K and M Harfman. It was observed that no mining has occurred over the last for 10 years and we wonder whether this is a legitimate chance for a mining operation?

Recommendation:

It was moved, and seconded and resolved that the APC recommends to the Regional District that the referral be:

Supported with conditions (state the conditions): Clarify whether the application is from K or M Harfman and proof of assessment work be provided.

Motion carried.

7. FOR INFORMATION

8. FOR DISCUSSION:

9. ADJOURNMENT



Regional District of
Kootenay Boundary

ELECTORAL AREA 'E' (BIG WHITE)
ADVISORY PLANNING COMMISSION
MINUTES

Tuesday, October 6, 2020 via tele-conference, commencing at 4:00 p.m.
Minutes taken by: Deb Hopkinson

PRESENT: John Lebrun, Deb Hopkinson, Paul Sulyma, Anastasia Byrne,
Peter Hutchinson, Vicki Gee: Quorum achieved

ABSENT: Gerry Molyneaux, Rachelle Hawk

RDKB DIRECTOR: Vicki Gee

RDKB STAFF:

GUESTS:

1. CALL TO ORDER

The meeting was called to order at 4:01 p.m.

2. ADOPTION OF AGENDA (Additions/Deletions)

Recommendation: That the October 6, 2020 Electoral Area 'E' (Big White) Advisory Planning Commission Agenda be adopted.

3. ADOPTION OF MINUTES

Recommendation: That the July 7, 2020 Electoral Area 'E' (Big White) Advisory Planning Commission Minutes be amended to reflect that Deb Hopkinson was absent.

4. DELEGATIONS

No delegations

Electoral Area 'E'/BIG WHITE APC Minutes
October 6, 2020
Page 1 of 4

5. UPDATED APPLICATIONS AND REFERRALS

No new information

6. NEW BUSINESS

A. Joseph Gagnon and Sheri Anne Doyle
RE: Development Variance Permit
RDKB File: BW-4109s-07405.000

Discussion/Observations:

This application came to us for landscape approval previously and we were fine with it replacing original stairs with covered stairs.

Now the stairs are past the original foundations and well into the highway right of way, and are complete.

The stairs will have a significant impact on run off in the ditch.

The stairs will be a problem for snow removal and will in all likelihood be damaged by snow removal.

The stairs may have been sited on the neighbour's property line.

The sight line of the road may have been impacted as well.

Recommendation:

It was moved, seconded and resolved that the APC recommends to the Regional District that the application be: *(select one of the following options)*

1. Not Supported

Now the stairs are past the original foundations and well into the highway right of way, and are complete.

The stairs will have a significant impact on run off in the ditch.

The stairs will be a problem for snow removal and will in all likelihood be damaged by snow removal.

The stairs may have been sited on the neighbour's property line.

The sight line of the road may have been impacted as well.

See discussion points.

B. Development Permit – Mackenzie and Onyschuk
Re : File# BW4222-07499.008

Discussion and Observations:

On the landscape plan it appears that trees are to be planted at the bottom lot line, which would put them in the sewer easement.

The pitch of the roof may cause snow unloading to impact any future neighbouring building without some snow retention system.

Recommendation:

1. Supported

Without trees planted in Sewer easement.

7. FOR DISCUSSION

Big White Wildfire Risk Reduction Project

John trying to get clarification from contractors and from Provincial office of whether private land is part of program, as some clearing appears to be happening on private land.

Suggestions for mapping and rational might be available from former fire chief Jamie Svendsen and current chief Chris Cormack, as well as Darcy Arnold BWSR.

8. FOR INFORMATION

9. ADJOURNMENT

It was moved and seconded that the meeting be adjourned at 4:34 pm.



STAFF REPORT

Date: 22 October 2020 **File**
To: Chair Langman, and
 Members of the Board
From: Barb Ihlen,
 General Manager of Finance/CFO
Re: 2020 Third Quarter Budget Variance Report

Issue Introduction

A staff report from Barb Ihlen, General Manager of Finance/CFO, regarding the financial variance report for the third quarter of 2020.

Background Factors

September 30th represents the end of the third quarter of the Regional District of Kootenay Boundary (RDKB) fiscal year. Attached is a high level summary of each service showing their approved amended budget, revenue received and/or accrued, and costs expensed to the end of September 2020. Revenue items, like transfers from reserves and approved debt financing have been accrued and are reflected as revenue in some services.

At this point in time, most expenses should be tracking at around 75% since the RDKB is three quarters of the way through their fiscal year. Most services are tracking as expected and overall, revenue is at 80% received and expenses are at 51%. At this time of year the variances are growing but it should be noted that overall the revenue sources are where they are to be expected other than the expected reduction in user fees in the recreation services. There is considerable savings occurring on the expense side which is mainly due to a reduction in travel from both staff and directors and other operating costs in the recreation services. Of note, due to the virtual nature of Board and Committee meetings, the cost savings to the RDKB has been close to \$14,000. Please see attached graph for more information.

The same expense exception remains to be Emergency Preparedness. Additional expenses have been incurred due to the current emergency responses (COVID-19; Boundary Freshet), which are recoverable from the Province, and grant projects that were not included in the budget. The grant projects are funded through the Community Emergency Preparedness Fund administered by UBCM and all costs will be covered.

Additional analysis continues to determine the impact of closing some facilities and programs due to the pandemic, COVID-19. As at September 30th, there are no major changes from the first and second quarter expectations and there is not anticipation of any deficits as a result of the closure of facilities. The services impacted are the recreation services offered in the Beaver Valley, Grand Forks, and Christina Lake as well as the closure of the arts, culture and recreation facility in Trail. The analysis focused on the assumption that the facilities will not reopen for the remainder of the fiscal year. In every case, where revenue is anticipated to decrease, there are opportunities to mitigate the impact by reducing costs. These cost reductions include expenses such as related program costs (e.g. contract wages, supplies, equipment, advertising), maintenance costs, capital projects, and planned reserve contributions.

Implications

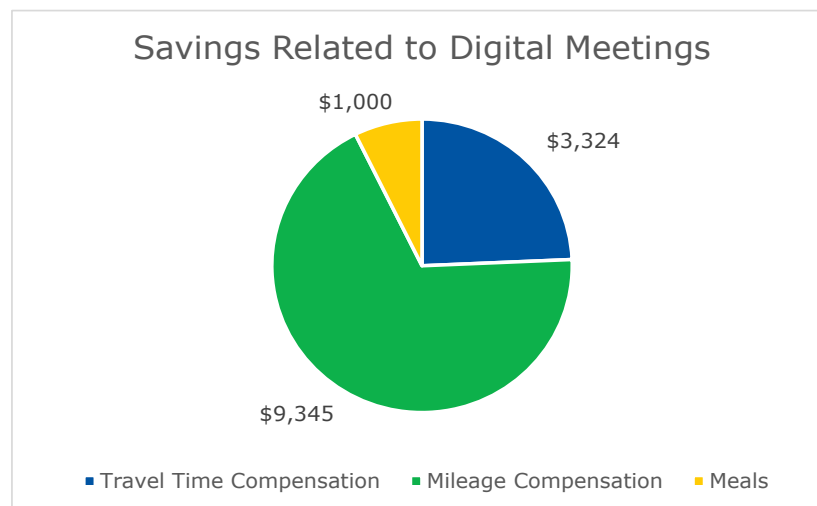
Overall, the RDKB financial variance is positive with the expectation that the facility and program closures due to the pandemic will be mitigated with minimal financial impact. Staff will continue to monitor the situation and report any significant variances.

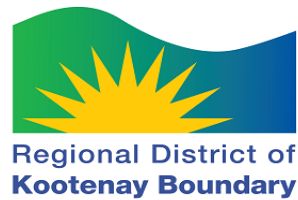
Recommendation

That the Regional District of Kootenay Boundary Board of Directors receive the 2020 Third Quarter Budget Variance report.

RDKB Virtual Meetings Savings
Board of Directors and Board Committees
For the months of April - September 2020

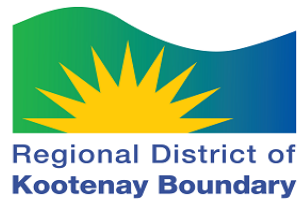
# of Meetings hosted virtually	41
# of Metric Tons of GhGs saved*	3.5
Monetary RDKB budget savings*	\$ 13,669





2020 Third Quarter Budget Variance
Revenues & Expenses listed by Committee
As at September 30, 2020

Reporting Committee		Revenue				Expenses				Surplus (Deficit)	Comments	
		Budget	YTD Actual	Variance Actual to Budget \$	Variance Actual to Budget %	Budget	YTD Actual	Variance Actual to Budget \$	Variance Actual to Budget %		Fiscal Year Progress: 75%	
Board of Directors/Committee of the Whole												
General Government Services	001	3,944,385	3,087,537	856,848	78%	3,944,385	2,216,015	1,728,370	56%	871,522	Expenses - related travel & expenses, consulting underspent	
MFA Debenture Debt	001MFA	2,403,635	1,566,858	836,777	65%	2,403,635	1,566,858	836,777	65%	-		
Building & Plumbing Inspection	004	1,189,958	1,152,364	37,594	97%	1,189,958	705,169	484,789	59%	447,196		
Reserve for Feasibility Studies	006	90,616	69,322	21,294	77%	90,616	16,385	74,231	18%	52,936	Expenses - underspent	
Regionalized Waste Management	010	5,706,828	4,164,483	1,542,345	73%	5,706,828	2,557,697	3,149,131	45%	1,606,786	Expenses - delay in billing, forecasting as budgeted	
Emergency Preparedness	012	590,582	614,225	(23,643)	104%	590,582	780,993	(190,411)	132%	(166,768)	Revenues/Expenses - includes flood response (recoverable)	
911 Emergency Communications	015	374,207	374,297	(90)	100%	374,207	139,090	235,117	37%	235,207	Expenses - timing, remaining expenses are as expected.	
Refuse Disposal - Big White	064	299,431	299,431	0	100%	299,431	172,215	127,216	58%	127,216		
Total Board		14,599,642	11,328,517	3,271,125		14,599,642	8,154,422	6,445,220		3,174,095	-	-
Beaver Valley Recreation Committee												
Beaver Valley Recreation & Arena	020	896,505	794,508	101,997	89%	896,505	479,802	416,703	54%	314,706		
Beaver Valley Parks & Trails	019	987,985	987,603	382	100%	987,985	795,616	192,369	81%	191,987		
Total BV Rec		1,884,490	1,782,111	102,379		1,884,490	1,275,418	609,072		506,693		
East End Services Committee												
Police Based Victims' Assistance	009	160,690	135,589	25,101	84%	160,690	101,236	59,454	63%	34,353		
Parks & Trails - Electoral Area 'B'	014	402,680	336,051	66,629	83%	402,680	301,265	101,415	75%	34,785		
East End Economic Development	017	129,273	129,478	(205)	100%	129,273	83,979	45,294	65%	45,499		
Culture Arts & Rec in the Lower Columbia	018	1,838,164	1,384,177	453,987	75%	1,838,164	872,066	966,098	47%	512,110	Expenses - capital projects delayed	
Kootenay Boundary Regional Fire Rescue	050	4,726,679	4,576,609	150,070	97%	4,726,679	2,695,015	2,031,664	57%	1,881,594		
Animal Control - East End	070	95,258	94,845	413	100%	95,258	70,958	24,300	74%	23,887		
Weed Control - 'A' - Columbia Gardens	090	27,670	27,645	25	100%	27,670	15,910	11,760	58%	11,734		
House Numbering - Area 'B'	122	3,000	3,000	(0)	100%	3,000	2,247	753	75%	753		
Cemeteries - East End	150	594,120	594,668	(548)	100%	594,120	592,824	1,296	100%	1,844		
East End Transit	900	1,777,536	1,556,179	221,357	88%	1,777,536	858,843	918,693	48%	697,336	Expenses - delay of billing from contractor	
Total EES		9,755,070	8,838,240	916,830		9,755,070	5,594,343	4,160,727		3,243,896		
Boundary Community Development Committee												
Boundary Economic Development	008	253,414	164,343	89,071	65%	253,414	76,005	177,409	30%	88,339	Expenses - planned projects not yet started	
Recreation - Grand Forks & Area 'D'	021	589,607	557,243	32,364	95%	589,607	414,223	175,384	70%	143,020		
Recreation - Greenwood, Midway , 'E'	022	67,783	67,783	(0)	100%	67,783	57,828	9,955	85%	9,955		
Recreation - Christina Lake	023	85,771	72,566	13,206	85%	85,771	32,989	52,782	38%	39,577	Expenses - underspent, reduced programming	
Recreation Facilities - Christina Lake	024	54,304	54,304	(0)	100%	54,304	2,463	51,841	5%	51,841	Expenses - delay of billing from contractor	
Boundary Museum Service	026	30,000	30,000	(0)	100%	30,000	30,000	-	100%	0		
Area 'C' Regional Parks & Trails	027	2,351,152	341,708	2,009,444	15%	2,351,152	155,006	2,196,146	7%	186,702	Revenues/Expenses - planned Pedestrian Bridge; delayed billing.	
Beaverdell Community Club Service	028	19,950	19,950	-	100%	19,950	19,950	-	100%	-		
Grand Forks Arena	030	710,907	561,887	149,020	79%	710,907	367,380	343,527	52%	194,507		
Grand Forks Curling Rink	031	46,387	45,095	1,292	97%	46,387	35,810	10,577	77%	9,285		
Grand Forks Aquatic Centre	040	980,116	865,606	114,510	88%	980,116	416,574	563,542	43%	449,032	Expenses - underspent, reduced programming	
Area 'D' Regional Parks & Trails	045	205,721	73,221	132,500	36%	205,721	34,459	171,262	17%	38,762	Expenses - planned projects not yet started	
Heritage Conservation - Area 'D'	047	10,229	10,229	(0)	100%	10,229	5,059	5,170	49%	5,170	Expenses - delay of billing from contractor	
Fire Protection - Christina Lake	051	851,706	550,679	301,027	65%	851,706	402,618	449,088	47%	148,062	Expenses - planned projects not yet started	
Fire Protection - Beaverdell	053	79,830	79,830	0	100%	79,830	29,705	50,125	37%	50,125	Expenses - underspent; similar to prior year	



2020 Third Quarter Budget Variance
Revenues & Expenses listed by Committee
As at September 30, 2020

Reporting Committee		Revenue				Expenses				Surplus (Deficit)	Comments
		Budget	YTD Actual	Variance Actual to Budget \$	Variance Actual to Budget %	Budget	YTD Actual	Variance Actual to Budget \$	Variance Actual to Budget %		
Fiscal Year Progress: 75%											
Big White Fire - Specified Area	054	2,171,159	1,527,566	643,593	70%	2,171,159	1,264,808	906,351	58%	262,758	
Rural Greenwood Fire Service	056	23,463	23,463	-	100%	23,463	23,097	366	98%	366	
Fire Protection - Grand Forks Rural	057	1,713,746	1,713,746	(0)	100%	1,713,746	1,019,020	694,726	59%	694,726	
Kettle Valley Fire Protection	058	178,283	178,283	0	100%	178,283	40,271	138,012	23%	138,011	Expenses - delay of billing from contractor
Area 'E' Regional Parks & Trails	065	86,463	86,463	(0)	100%	86,463	86,097	366	100%	366	
Animal Control - Boundary	071	159,363	159,230	133	100%	159,363	109,005	50,358	68%	50,224	
Big White Security Services	074	233,721	233,615	106	100%	233,721	154,051	79,670	66%	79,564	
Big White Noise Control Service	075	1,463	1,463	-	100%	1,463	1,097	366	75%	366	
Area 'C' Economic Development	077	150,463	150,463	0	100%	150,463	68,803	81,660	46%	81,660	Expenses - planned projects not yet started
Area 'D' & GF Economic Development	078	56,463	56,521	(58)	100%	56,463	1,097	55,366	2%	55,424	Expenses - planned projects not yet started
Area 'E' Economic Development	079	41,463	541,463	(500,000)	1306%	41,463	1,097	40,366	3%	540,366	Expenses - planned projects not yet started
Mosquito - Grand Forks, Area 'D'	080	88,885	66,444	22,441	74%	88,885	85,206	3,679	95%	(18,763)	Expenses - timing of expenses is over summer months
Mosquito Control - Chistina Lake	081	29,752	26,752	3,000	90%	29,752	19,659	10,093	66%	7,093	
Weed Control - Christina Lake Milfoil	091	360,812	353,188	7,624	98%	360,812	168,070	192,742	47%	185,118	Expenses - underspent (less wages)
Noxious Weed Control - Area 'D' & 'E'	092	266,131	236,559	29,572	89%	266,131	160,212	105,919	60%	76,348	
House Numbering - Area 'D'	121	3,000	3,000	0	100%	3,000	2,247	753	75%	753	
House Numbering - Area 'E'	123	3,000	3,000	-	100%	3,000	2,247	753	75%	753	
Library - Grand Forks, Area 'C' & 'D'	140	417,628	418,384	(756)	100%	417,628	313,222	104,407	75%	105,163	
Library - Specified Area 'E'	141	3,750	3,750	-	100%	3,750	3,750	-	100%	-	
Greenwood, Area 'E' Cemetery Service	145	30,363	20,363	10,000	67%	30,363	7,997	22,366	26%	12,366	Expenses - delay of billing from contractor
Boundary Integrated Watershed	170	328,741	283,620	45,121	86%	328,741	144,814	183,927	44%	138,805	Expenses - delay of billing from contractor
Boundary Transit	950	90,803	55,600	35,203	61%	90,803	42,527	48,276	47%	13,073	Expenses - delay of billing from contractor
Total BCDC		12,775,792	9,637,381	3,138,411		12,775,792	5,798,463	6,977,329		3,838,918	
Utilities Committee											
Street Lighting - Big White	101	31,201	31,201	0	100%	31,201	10,902	20,299	35%	20,298	Expenses - consistent spending to prior year
Street Lighting - Beaverdell	103	3,163	3,163	(0)	100%	3,163	949	2,214	30%	2,214	Expenses - consistent spending to prior year
Beaver Valley Water Supply	500	2,607,691	1,073,926	1,533,765	41%	2,607,691	400,982	2,206,709	15%	672,944	Revenues/Expnses - capital projects outstanding
Christina Lake Water Supply Utility	550	429,375	368,139	61,236	86%	429,375	194,214	235,161	45%	173,926	Expenses - underspent; similar to prior year
Columbia Gardens Water Supply Utility	600	54,033	32,725	21,308	61%	54,033	29,767	24,266	55%	2,958	
Rivervale Water & Street Lighting Utility	650	229,696	215,996	13,700	94%	229,696	116,076	113,620	51%	99,921	
East End Regionalized Sewer Utility	700	2,232,000	1,971,547	260,453	88%	2,232,000	1,080,056	1,151,944	48%	891,491	Expenses - consistent to PY
Oasis-Rivervale Sewer Utility	800	75,384	71,641	3,743	95%	75,384	46,047	29,337	61%	25,594	
Total Utilities Committee		5,662,543	3,768,339	1,894,204		5,662,543	1,878,993	3,783,550		1,889,347	
Electoral Area Services Committee											
Electoral Area Administration	002	663,921	536,199	127,722	81%	663,921	364,311	299,610	55%	171,888	
Electoral Grant - in - Aid	003	359,354	359,354	0	98%	359,354	169,287	190,067	46%	190,067	Expenses - less grant requests due to COVID-19
Planning & Development	005	1,131,485	1,080,984	50,501	96%	1,131,485	732,893	398,592	65%	348,091	
House Numbering - Areas 'A' & 'C'	120	6,000	6,000	(0)	100%	6,000	4,500	1,500	75%	1,500	
Total EAS		2,160,760	1,982,537	178,223		2,160,760	1,270,991	889,769		711,546	
Total Amended Budget		46,838,298	37,337,125	9,501,172	80%	46,838,298	23,972,630	22,865,667	51%	13,364,496	



STAFF REPORT

Date: 29 Oct 2020 **File**

To: **Chair Langman & Members of the
RDKB Board of Directors**

From: Goran Denkovski, Manager of
Infrastructure and Sustainability

Re: Beaver Valley Water Service (500)
System Upgrades Investing in Canada
Infrastructure Program – Rural and
Northern Communities Funding
Application

Issue Introduction

A Staff report from Goran Denkovski, Manager of Infrastructure and Sustainability regarding the Beaver Valley Water Service (500) system upgrades Investing in Canada Infrastructure Program – Rural and Northern Communities Funding Application.

History/Background Factors

The goals of Investing in Canada Infrastructure Program - Rural and Northern Communities (ICIP-RNC) is to create long-term economic growth, build inclusive, sustainable communities and support a low carbon, green economy. Under ICIP-RNC, the Program is focused on improving the quality of life in rural communities by responding to the specific needs of these communities. Investments in rural infrastructure will help build stronger, more inclusive communities, help safeguard the environment and the health of residents, and help support local, low-carbon green economies, as well as work towards reconciliation with Indigenous communities, both on and off-reserve.

The ICIP - RNC program targets capital infrastructure projects in communities with a population of 25,000 or less and provides additional funding towards projects in communities with populations of 5,000 or less. Eligible applicants are Local Governments, Indigenous Ultimate Recipients (both on and off-reserve), Not-for-

Profit organizations and For-Profit organizations (when partnered with a local government or Indigenous government).

The Beaver Valley Water Service completed a Long Term Water Strategy Update in December 2016. The top priority for the water system is to reduce pressure in the Village of Fruitvale zone. In 2020 Staff had a feasibility study completed on the water system upgrades and to update the estimate for the engineering and construction.

Implications

The IPICP-RNC program offers 100% funding for projects in communities/services with populations under 5,000 people. Therefore, the service would only use reserve funds to offset any cost overruns associated with the project.

Advancement of Strategic Planning Goals

Exceptional Cost Effective and Efficient Services

Background Information Provided

N/A

Alternatives

1. That the Regional District of Kootenay Boundary Board of Directors direct Staff to submit an application for grant funding application for the Beaver Valley Water Service (500) System Upgrades through the Investing in Canada Infrastructure Program – Rural and Northern Communities. **Further**, that the Board supports the project and commits to any cost overruns.
2. Not receive the report.

Recommendation(s)

That the Regional District of Kootenay Boundary Board of Directors direct Staff to submit an application for grant funding application for the Beaver Valley Water Service (500) System Upgrades through the Investing in Canada Infrastructure Program – Rural and Northern Communities. Further, that the Board supports the project and commits to any cost overruns.



STAFF REPORT

Date: 29 Oct 2020 **File**

To: **Chair Langman & Members of the
RDKB Board of Directors**

From: Goran Denkovski, Manager of
Infrastructure and Sustainability

Re: Christina Lake Water Utility (550)
System Upgrades Investing in Canada
Infrastructure Program – Rural and
Northern Communities Funding
Application

Issue Introduction

A Staff report from Goran Denkovski, Manager of Infrastructure and Sustainability regarding the Christina Lake Water Utility (550) system upgrades Investing in Canada Infrastructure Program – Rural and Northern Communities Funding Application.

History/Background Factors

The goals of Investing in Canada Infrastructure Program - Rural and Northern Communities (ICIP-RNC) is to create long-term economic growth, build inclusive, sustainable communities and support a low carbon, green economy. Under ICIP-RNC, the Program is focused on improving the quality of life in rural communities by responding to the specific needs of these communities. Investments in rural infrastructure will help build stronger, more inclusive communities, help safeguard the environment and the health of residents, and help support local, low-carbon green economies, as well as work towards reconciliation with Indigenous communities, both on and off-reserve.

The ICIP - RNC program targets capital infrastructure projects in communities with a population of 25,000 or less and provides additional funding towards projects in communities with populations of 5,000 or less. Eligible applicants are Local Governments, Indigenous Ultimate Recipients (both on and off-reserve), Not-for-

Profit organizations and For-Profit organizations (when partnered with a local government or Indigenous government).

Staff had a Christina Lake Water System Transition Study completed in March 2015 to consider transition of ownership from the Christina Waterworks District to the Regional District of Kootenay Boundary (RDKB). Ownership transitioned to the RDKB in 2017. The top priority and a regulatory requirement for the water system is to install a second barrier of water treatment for the service. In 2020 Staff had a feasibility study completed on the water system upgrades and to update the estimate for the engineering and construction.

Implications

The IPICP-RNC program offers 100% funding for projects in communities/services with populations under 5,000 people. Therefore, the service would only use reserve funds to offset any cost overruns associated with the project.

Advancement of Strategic Planning Goals

Exceptional Cost Effective and Efficient Services

Background Information Provided

N/A

Alternatives

1. That the Regional District of Kootenay Boundary Board of Directors direct Staff to submit an application for grant funding application for the Christina Lake Water Utility (550) System Upgrades through the Investing in Canada Infrastructure Program – Rural and Northern Communities. **Further**, that the Board supports the project and commits to any cost overruns.
2. Not receive the report.

Recommendation(s)

That the Regional District of Kootenay Boundary Board of Directors direct Staff to submit an application for grant funding application for the Christina Lake Water Utility (550) System Upgrades through the Investing in Canada Infrastructure Program – Rural and Northern Communities. **Further**, that the Board supports the project and commits to any cost overruns.



STAFF REPORT

Date: 29 Oct 2020 **File**

To: **Chair Langman & Members of the
RDKB Board of Directors**

From: Goran Denkovski, Manager of
Infrastructure and Sustainability

Re: Oasis Waterworks District System
Upgrades Investing in Canada
Infrastructure Program – Rural and
Northern Communities Funding
Application

Issue Introduction

A Staff report from Goran Denkovski, Manager of Infrastructure and Sustainability regarding the Oasis Waterworks District system upgrades Investing in Canada Infrastructure Program – Rural and Northern Communities Funding Application.

History/Background Factors

The goals of Investing in Canada Infrastructure Program - Rural and Northern Communities (ICIP-RNC) is to create long-term economic growth, build inclusive, sustainable communities and support a low carbon, green economy. Under ICIP-RNC, the Program is focused on improving the quality of life in rural communities by responding to the specific needs of these communities. Investments in rural infrastructure will help build stronger, more inclusive communities, help safeguard the environment and the health of residents, and help support local, low-carbon green economies, as well as work towards reconciliation with Indigenous communities, both on and off-reserve.

The ICIP - RNC program targets capital infrastructure projects in communities with a population of 25,000 or less and provides additional funding towards projects in communities with populations of 5,000 or less. Eligible applicants are Local Governments, Indigenous Ultimate Recipients (both on and off-reserve), Not-for-Profit organizations and For-Profit organizations (when partnered with a local government or Indigenous government).

Applications from improvement districts or water utilities must be made by the sponsoring regional district or municipality. If the application is successful in obtaining program funding, the ownership of the infrastructure and associated assets must be transferred to the sponsoring regional district or municipality.

In September 2016 the Oasis Waterworks District requested to transition to regional District of Kootenay Boundary (RDKB) ownership. The RDKB contracted an engineering firm to complete the Oasis Community Water System Transition Study, dated March 2019. The water system upgrades associated with this application cover the 1 to 5 year capital project recommendations.

Implications

The IPICP-RNC program offers 100% funding for projects in communities/services with populations under 5,000 people. The funding would allow for a transition of ownership to the RDKB with a reasonable annual user fee for the residents of the service. Should funding be approved, RDKB Staff will work with the province and the Oasis Waterworks District to finalize the RDKB Service Analysis Toolkit and develop a comprehensive plan for transition to RDKB ownership. Ultimately, the plan and transition of ownership would have to be approved by the RDKB Board of Directors as outlined in the RDKB Water Utility Acquisition and Sustainability Policies. Any associated cost overruns would be paid by the water service users.

Advancement of Strategic Planning Goals

Exceptional Cost Effective and Efficient Services

Background Information Provided

1. Water Utility Acquisition and Sustainability Policies

Alternatives

1. That the Regional District of Kootenay Boundary Board of Directors direct Staff to submit an application for grant funding application for the Oasis Waterworks District Water System Upgrades through the Investing in Canada Infrastructure Program – Rural and Northern Communities. **Further**, that the Board supports the project and commits to any cost overruns.
2. Not receive the report.

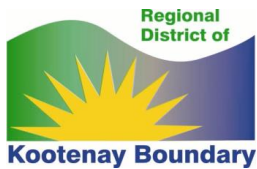
Recommendation(s)

That the Regional District of Kootenay Boundary Board of Directors direct Staff to submit an application for grant funding application for the Oasis Waterworks District Water System Upgrades through the Investing in Canada Infrastructure Program – Rural and Northern Communities. Further, that the Board supports the project and commits to any cost overruns.

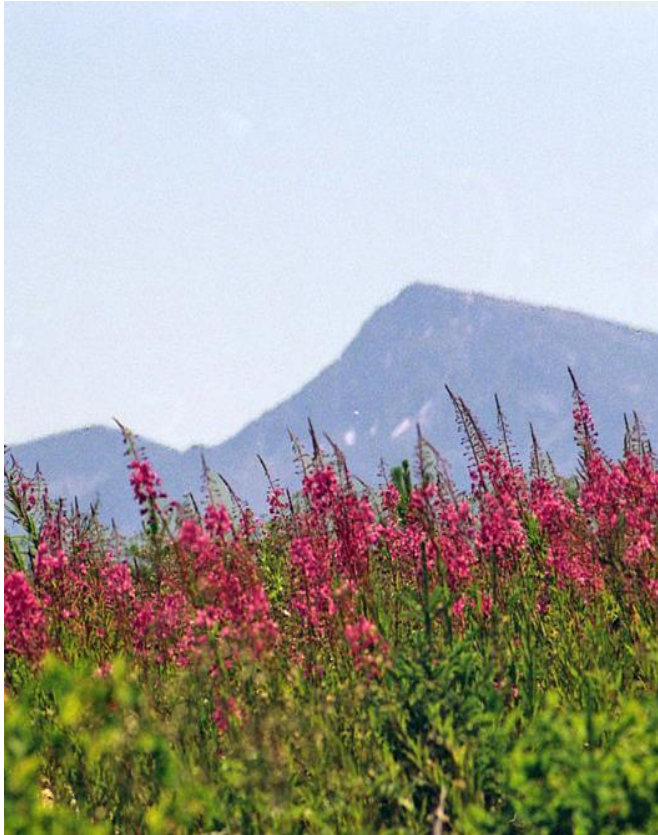
REGIONAL DISTRICT OF KOOTENAY BOUNDARY



Water Utility Acquisition and Sustainability Policies



February 2019



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Report Submitted to:

REGIONAL DISTRICT OF KOOTENAY BOUNDARY

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February 2019

This report is prepared for the sole use of the Regional District of Kootenay Boundary. No representations of any kind are made by Urban Systems Ltd. or its employees to any party with whom Urban Systems Ltd. does not have a contract.

URBAN
systems

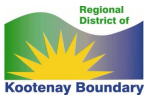


TABLE OF CONTENTS

1.0	INTRODUCTION	1
2.0	WATER SYSTEM MANAGEMENT, OPERATIONS AND MAINTENANCE	7
3.0	GOVERNANCE	9
4.0	COST RECOVERY	10
5.0	PRIORITY SETTING FRAMEWORK	12
6.0	WATER SYSTEM ACQUISITION POLICIES	13

APPENDICES

Appendix A Transition Study Detailed Requirements



PART 1

Service Delivery

1.0 INTRODUCTION

This collection of policies has been prepared to help the Regional District of Kootenay Boundary (RDKB) effectively guide the acquisition of additional community water systems, as well as sustain all RDKB water systems over the long term.

The policies are intended to support the RDKB's strategic priorities, which include:

- Exceptional Cost Effective and Efficient Services;
- Environmental Stewardship / Climate Preparedness;
- Improve and Enhance Communication; and
- Continue to Focus on Organizational Excellence.

This document is organized into the following parts.

Part 1 - Service Delivery

Policies to help ensure water services are delivered effectively and efficiently.

Part 2 – Water System Management, Operations and Maintenance

Policies to guide services that the RDKB will deliver itself, and where it may look to other public and private sector entities.

Part 3 - Cost Recovery Policies

Policies to ensure water service provision is financially sustainable.

Part 4 – Governance

Policies to establish who makes what decisions.

Part 5 – Priority Setting Framework

Policies to help prioritize recommended upgrades, projects and initiatives related to water service provision.

Part 6 – Water System Acquisition Policies

Policies for considering the potential acquisition of additional community water systems.

Report – Water Utility Acquisition and Sustainability Policies



The intent is for this document to be a “living document.” The policies should be reviewed regularly to ensure that they continue to support the RDKB’s objectives with respect to water service provision.

RELATIONSHIP OF THIS POLICY TO RDKB SERVICE ANALYSIS TOOL KIT

The RDKB has prepared a Service Analysis Tool Kit to guide communities and Board and staff members when contemplating the establishment of a new service to be delivered by the Regional District. Acquisition of an existing or newly-developed water utility which the RDKB does not currently own by the Regional District would constitute the establishment of a new service. This document will guide communities as well as RDKB Board members and staff through the process of consideration in relation to potentially transitioning a water utility to RDKB ownership. It is tailored specifically to these situations, and reflects all of the considerations contained in the RDKB’s Service Analysis Tool Kit.

POLICY NO. 1.1: Levels of Service

The RDKB will provide its water systems with a base level of service as defined in Table 1, and may provide levels of service above the base level in consultation with water users on a system-by-system basis. These levels of service will apply to all systems, including those components of systems which may be located within private development such as Bare Land Strata properties developed under the Strata Property Act.



Report – Water Utility Acquisition and Sustainability Policies



Table 1: Levels of Service

SERVICE DELIVERY COMPONENT	BASE LEVELS OF SERVICE	EXPANDED LEVELS OF SERVICE
Water Quantity	<p>a. Under normal supply conditions, adequate water will be supplied to meet the following needs:</p> <ol style="list-style-type: none"> 1) Residential; 2) Institutional; and 3) Commercial and Industrial. <p>b. Under drought conditions, adequate water will be supplied for indoor needs first, and not outdoor irrigation as an expanded level of service.</p> <p>c. Adequate water is defined as sufficient water to meet the reasonable needs of each user class. Water wastage by any user class will be discouraged.</p> <p>d. Water will be supplied at appropriate pressures for the above uses.</p> <p>e. Agricultural water systems are a special case. Please see Policy 1.2 in this document.</p>	<p>Outdoor irrigation for the user classes included in the base level of service will be considered as an expanded level of service.</p>
Water Quality	<p>a. Under normal operating conditions, water will be supplied in conformance with the operating permit for each water system as issued and updated by the Interior Health Authority.</p> <p>b. Chlorination to maintain a residual in the distribution system will be provided on all surface water systems and on any groundwater systems where there is a known risk of bacteriological contamination, and the water from these systems is being used for human consumption and related indoor needs.</p> <p>c. The RDKB will develop and implement a comprehensive water quality monitoring program for each water system in consultation with the Interior Health Authority. This monitoring program will not only address the requirements of the Drinking Water Protection Regulation but will also be used to provide the customers with an understanding of parameters that do not meet the aesthetic or health-based objectives found within the Guidelines for Canadian Drinking Water Quality.</p>	<p>a. Treatment over and above that required in the operating permit may be installed on systems to address water quality parameters where the customers are willing to pay the additional costs associated with this infrastructure.</p>

Report – Water Utility Acquisition and Sustainability Policies



SERVICE DELIVERY COMPONENT	BASE LEVELS OF SERVICE	EXPANDED LEVELS OF SERVICE
Fire Protection	There is no base level of service applicable to this category. Water system capacity for fire protection is an expanded level of service.	a. Capacity may be provided in community water systems to aid in providing fire protection to communities where the customers are willing to pay the additional costs associated with this infrastructure. For existing systems that do not currently have this service, alternative means of providing this protection may be reviewed prior to increasing the capacity of the current water system.
		b. The level of fire protection will be established with consideration of the Fire Underwriters Survey (FUS) as published by the Insurance Advisory Organization (or equivalent) and in consultation with the local fire department. This will include addressing issues such as hydrant spacing, and flow pressure and volume. Where the level of fire protection is not able to comply with the FUS recommendations, the RDKB will ensure that customers are aware of the level of service that is being delivered.
		c. For existing systems that do not have adequate water flows for fire protection, alternatives such as foam-based fire trucks and building sprinklers may be reviewed.
System Reliability	<ul style="list-style-type: none"> a. All systems will be designed and operated to account for predictable failure events with minimal interruption to water service delivery. b. Systems will be operated and maintained in accordance with condition levels established in the water utility Transition Study (see Part 6 of this document). c. Where systems are designed without reservoir storage, generator back-up power will be provided for source supply equipment. d. Systems which supply potable water will be equipped with generator back-up power. 	a. Additional reliability measures may be employed for systems where the risk warrants the cost or where customers are prepared to pay the additional cost for the infrastructure. This could include enhanced secondary source capacity, redundant equipment, building sprinklers, additional reservoir storage or other measures.

Report – Water Utility Acquisition and Sustainability Policies



POLICY NO. 1.2: Agricultural Water Systems

The RDKB recognizes that there are some non-Regional District water systems within the geographic boundaries of the RDKB which serve predominantly agricultural users to provide water for crop production. These systems will generally not be considered as potential acquisition candidates. Where these systems also supply potable water for human consumption, they will be considered as acquisition candidates. Consideration of these systems by the RDKB will include adherence with all of the policies in this document. Special consideration will be given to potential separation of agricultural irrigation from potable indoor use components of the system, conservation efforts for both agricultural and indoor uses, and ensuring that potable water is treated to applicable Regulations and operating permit requirements.

POLICY NO. 1.3: Water Quality – Meeting Health-Based Criteria

All RDKB water systems will provide water that meets the *Drinking Water Protection Act* and Regulations. To meet operating permit conditions, the RDKB may be required to take various actions, such as:

- upgrading treatment facilities and processes;
- developing and implementing source protection plans; and
- developing and implementing a cross connection control and backflow prevention program.

POLICY NO. 1.4: Water Quality – Aesthetic Criteria

The RDKB will establish appropriate aesthetic standards for drinking water on a system-by-system basis with reference to the Guidelines for Canadian Drinking Water Quality and through consultation with water users.

POLICY NO. 1.5: Water Quality – Treatment Approaches

The RDKB will discourage the use of point-of-use or point-of-entry (to an individual building) treatment options for water systems, and will not accept boiling water as a suitable long-term water treatment solution (boiling water will only be accepted as an emergency provision) for any system.



Report – Water Utility Acquisition and Sustainability Policies



POLICY NO. 1.6: Water Demand Management

The RDKB will generally encourage wise use of water, and will consider appropriate demand management approaches on a system-by-system basis. These approaches may include, for example, scheduling of permitted outdoor irrigation periods, education and awareness programs, and metering of use accompanied by a consumption-based rate structure.

POLICY NO. 1.7: Water Quantity – Potable Water

The RDKB will prioritize the provision of potable water for indoor consumption and related uses, and will not supply treated potable water for agricultural uses.

POLICY NO. 1.8: Water Quantity – Sizing Infrastructure

The RDKB will size infrastructure to supply quantities that adequately meet the needs of users and will not construct excess capacity to supply quantities that would encourage overuse.

POLICY NO. 1.9: Quality Design and Construction

The RDKB will endeavour to upgrade all of its existing water systems to meet the design standards established in the most recent version of the Master Municipal Construction Documents (MMCD), as system components are replaced or upgraded. The RDKB will also require all newly-acquired water systems to meet the MMCD design standards.

POLICY NO. 1.10: Operations and Maintenance

The RDKB will provide all of its water systems with the level of operation and preventative maintenance sufficient to meet desired levels of service.

POLICY NO. 1.11: Complying with Legislation

The RDKB will operate and maintain its water systems in compliance with Provincial and Federal legislation, directives, and applicable best practices.

POLICY NO. 1.12: Asset Management

The RDKB will effectively manage its water system assets to ensure the sustainability of water service provision by considering factors such as lifecycle costs, risk, and level of service.

POLICY NO. 1.13: Supervisory Control and Data Acquisition (SCADA)

The RDKB will prioritize the development and installation of a regional SCADA system to ensure efficient and effective service delivery to all of its community water systems.

All upgrades to existing water systems and all plans for new water systems must either include SCADA system components or accommodate the future installation of SCADA systems.

POLICY NO. 1.14: Coordinating Land-Use Planning

The RDKB will coordinate its land-use planning regulations and policies (e.g., Official Community Plans, zoning regulations and building regulations) with RDKB water service delivery objectives.

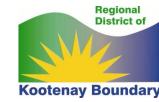
POLICY NO. 1.15: Expanding Service Delivery

The RDKB will extend or expand water services only if doing so is shown to be socially, economically and environmentally sustainable.

POLICY NO. 1.16: Managing Water Resources Holistically

The RDKB will manage its water resources holistically considering a comprehensive set of values associated with water such as environmental, social and economic. This includes awareness of water systems' contributions and vulnerability to climate change.

Report – Water Utility Acquisition and Sustainability Policies



POLICY NO. 1.17: Keeping Policies and Practices Up-to-Date

In accordance with Board policy, RDKB will review this document every four years to ensure that its approach to water service provision is effective and that it reflects current applicable best practices for water resource management, Provincial/Federal legislation and policies, environmental conditions, economic conditions, public expectations, and land uses.



PART 2

Water System Management, Operations and Maintenance

7

2.0 WATER SYSTEM MANAGEMENT, OPERATIONS AND MAINTENANCE

There are a number of activities which comprise the proper management, operations and maintenance of water systems. These activities are categorized in the following table.

Table 2
Summary of Water System Management, Operations and Maintenance Activities

Category	Key Activities
Legislative	Bylaw Enactment (for service establishment, borrowing, etc.)
General Management	Capital Planning, Budget Preparation, Design of Upgrades, Contract Preparation and Administration, Liaison with Approval Authorities
Administration	Billing and Collections, Purchasing, Accounts Payable
Operations and Maintenance	Day-to-Day Operations, Inspections, Sampling and Monitoring, Record Keeping and Regulatory Reporting
Emergency Response	Address Quality/Quantity Concerns

As of 2019, the Regional District of Kootenay Boundary carried out all of the activities shown in the above table, with two notable exceptions:

- Under 'General Management', the design of required water system upgrades and associated contract preparation and administration. These tasks are carried out by consulting engineering firms retained on an as-required basis;

Report – Water Utility Acquisition and Sustainability Policies



- Under 'Operations and Maintenance', there is an inter-municipal agreement wherein the RDKB owns the Beaver Valley water service, which is operated and maintained by the Village of Fruitvale.

In order to ensure the RDKB is managing, operating and maintaining the water systems it owns in the most efficient and effective manner, there is desire to continue to explore the manner in which related activities are carried out.

POLICY NO. 2.1: Focus Exploration of Alternative Approaches on Operations and Maintenance Activities

RDKB staff will continue to carry out legislative, administration and emergency response activities. Staff resources will be supplemented on an as-required basis for specific tasks and assignments, including water system design, contract preparation and administration.

Exploration of alternative approaches for carrying out operations and maintenance activities will be the focus of additional exploration. Discussions with CUPE Local 2254 will be an integral part of this process.

POLICY NO. 2.2: Alternative Approaches to be Explored

The RDKB will consider the following entities as potential candidates to deliver water utility operations and maintenance services:

- RDKB utility staff;
- Local governments;
- Private sector contractors; and
- Combinations of the above.

POLICY NO. 2.3: Evaluation Criteria for Alternative Approaches

The RDKB will use the following criteria in evaluating alternate approaches to delivering water system operations and maintenance services:

- Available capacity of RDKB staff;
- Availability of qualified and experienced local government and/or contractor;
- Travel and response time;
- Reliability and commitment of local government and/or contractor;
- Level of service provided;
- Assessment of risk and liability; and
- Financial considerations, including value provided, and cost of service.



PART 3

Governance

POLICY NO. 3.1: Decision-Making – Consistency, Transparency, and Integration

The RDKB will make all decisions regarding water service provision by carefully considering short- and long-term social, economic, and environmental impacts, and will strive for consistency, clarity, and transparency in all decisions.

POLICY NO. 3.2: Delegating Decision-Making Authority

The RDKB Board will not delegate any Bylaw, policy or similar governance-level decision-making authority regarding water service provision. No authority regarding such decisions will be granted to an alternative governance board of a water system.

POLICY NO. 3.3: Engaging Water Users

The RDKB will effectively engage RDKB water users to ensure they are kept up-to-date regarding RDKB initiatives (e.g., capital projects, planning and analysis, and policies) related to water service provision, have the opportunity to provide local input into water-related decisions, and have the necessary information to make decisions about their water services as required.

POLICY NO. 3.4: Technical Advice

The RDKB will seek advice from appropriate individuals and/or organizations regarding technical aspects of water service provision to ensure Board decisions on technical matters are well-informed.

PART 4

Cost Recovery

4.0 COST RECOVERY

This strategy deals with the possible acquisition of new water systems by the RDKB, as well as the sustainability of all systems owned by the Regional District. Given the breadth of the strategy, it follows that there are two major categories of cost recovery which must be considered:

- First, cost recovery policies which apply to those systems already owned by the RDKB;
- Second, cost recovery policies which apply to systems which are acquisition candidates.

These two policy sets are presented below.

It is also important to define the types of costs accrued by water systems. The following points provide definitions used in the context of this document:

- Capital costs are those expenditures associated with water system physical infrastructure, such as intakes, pumps, treatment works, storage facilities and pipe distribution networks; and
- Operating and maintenance costs are those expenditures required to run the water utility and undertake on-going repairs. There are different forms of operation and maintenance costs - power, chemicals, regular repairs, licences, permits, insurance, lab testing, routine operation and maintenance, and related administrative costs are all examples of operating and maintenance costs.

GENERAL POLICIES

POLICY NO. 4.1: Financial Sufficiency and Certainty

The RDKB will take proactive measures and enact Bylaws to ensure sufficient funding is available to provide the desired level of water services for current

Report – Water Utility Acquisition and Sustainability Policies

and future generations. Implementation steps in relation to individual RDKB water utilities may include:

- developing an asset management plan;
- limiting dependence on grant funding, while still pursuing funding when considered appropriate; and
- establishing taxes and other fees and charges based on full cost recovery.
- limiting borrowing to capital projects (not operations and maintenance); and
- establishing a reserve fund for long-term capital replacement.

POLICY NO. 4.2: Benefiter-Pay Principle

The RDKB will adopt the benefiter-pay principle for recovering costs associated with water service provision, including the use of taxes and/or fees.

POLICY NO. 4.3: Financing New Development and Growth

The RDKB will use various development financing tools (e.g., development cost charges, excess and extended servicing (latecomer) agreements, other fees and charges) to ensure that new development pays its fair share of water system infrastructure costs.

POLICY NO. 4.4: Extension or Reduction of Service Area Boundaries

The RDKB will extend service boundaries only if the cost of doing so is financed exclusively by the new area being serviced. Prior to considering extension of service area boundaries, the RDKB will review the capacity of the system to supply current and anticipated future demands within the existing service area.

Reduction of service area boundaries will not generally be encouraged. The owner(s) of a parcel(s) within a service area boundary can apply for removal, and the removal will only be considered if it benefits the remainder of the service area and/or the parcel(s) involved cannot feasibly be serviced from the utility. No rebates for past taxes, fees and charges shall be paid to owners of removed parcels, except the prorated portion of those paid in the current year. If a parcel(s) applies to rejoin the service area in the future, all taxes, fees and charges shall apply, and no credit given for past contributions.

POLICIES FOR CURRENT RDKB SYSTEMS

POLICY NO. 4.5: Allocation of Capital, Operating and Maintenance Costs for Current RDKB Systems

The RDKB will allocate all capital, operating and maintenance costs for current RDKB systems such that each individual water system will be responsible for its own costs.

POLICIES FOR ACQUISITION CANDIDATES

POLICY NO. 4.6: Financial Viability of Acquisition Candidates

The RDKB will only acquire those water systems (existing or newly-developed) that have the proven ability to be financially viable, including consideration of grants. This policy applies to existing systems which may fall under various private and public ownership structures (such as Improvement or Irrigation Districts), as well as newly-developed systems (such as private utility). This viability will include sufficient revenue to cover all capital and operation and maintenance costs, as well as the ability to sustain the utility in perpetuity.

PART 5

Priority Setting Framework

5.0 PRIORITY SETTING FRAMEWORK

The RDKB may encounter situations where one water system initiative must be weighed against another, and priorities established. Examples of these situations include challenges faced by systems already owned by the RDKB, limited availability of senior government grant programs, and multiple requests for acquisition by candidate systems being advanced to the RDKB.

POLICY NO. 5.1: Overall Water Utility Priority Setting Framework

In general, the RDKB will prioritize the dedication of resources to water initiatives that provide the greatest benefit to the greatest number of people. In fulfilling this policy, the RDKB will consider the following:

- health impacts and risks;
- environmental integrity;
- financial need;
- social impacts and risks; and
- potential to secure senior government grants.

As a matter of principle, priority will be given to addressing challenges being faced by systems already owned by the RDKB.

PART 6

Water System Acquisition Policies

6.0 WATER SYSTEM ACQUISITION POLICIES

The following set of policies applies to water systems which are not currently owned by the RDKB, and are interested in potentially transitioning ownership to the RDKB. These systems may fall under various private and public ownership structures (such as Improvement or Irrigation Districts or other form of water user community) and may also include newly-developed systems.

RDKB CONSIDERATION OF CAPACITY TO POTENTIALLY ACQUIRE WATER SYSTEMS

POLICY NO. 6.1: Assessing Capacity to Acquire Additional Systems

The RDKB will assess its capacity (e.g., operational, administrative and financial) to investigate and potentially acquire any existing or newly-developed water systems prior to doing so. If required, potential acquisitions could be phased-in over multiple years.

POLICY NO. 6.2: Status of Existing RDKB Systems

The RDKB will acquire additional water systems only if:

- All water systems owned by the RDKB at that time are compliant with the levels of service set out in Table 1 in Part 1 of this document; or
- System assessments have been completed and corresponding financial plans are in place to upgrade any non-compliant RDKB system to meet the levels of service in Table 1.

As a matter of principle, priority will be given to addressing challenges being faced by systems already owned by the RDKB.



PRIORITIZATION OF ACQUISITION CANDIDATES

POLICY NO. 6.3: Prioritizing Systems for Acquisition

The RDKB will prioritize the acquisition of existing or newly-developed water systems for which Transition Studies have been completed generally to provide the greatest benefit for the greatest number of people in a timely manner. To do so, the RDKB will consider the following with respect to each candidate system:

- the degree of public health risk;
- the degree of environmental risk;
- the system's financial position;
- the likelihood that the system will receive grant funding;
- the degree of Provincial support for RDKB ownership of the system (e.g., support for acquisition of escheated systems);
- the system's growth potential;
- the anticipated time horizon to complete needed upgrades; and
- the number of water users (existing and potential future).

INITIATING THE ACQUISITION PROCESS

POLICY NO. 6.4: Initiating the Acquisition of Water Systems

The RDKB will entertain requests to assume ownership of existing or newly-developed water systems from:

- Water users; or
- Water system owners (including developers);

provided that the Electoral Area Director concludes there is sufficient local support for the potential acquisition. Support is often provided by an informal petition signed by those served by the water system requesting the RDKB investigate the feasibility of acquiring a water system. If water users

Report – Water Utility Acquisition and Sustainability Policies



approach the RDKB directly to request acquisition, the RDKB will consult with the water system owner to obtain the owner's consent prior to initiating the potential acquisition process.

Alternatively, the RDKB may initiate a water system acquisition process itself if the owner of the existing or newly-developed water system agrees, and such an acquisition would:

- Result in measurable improvements to water service provision;
- Likely be supported by the water users of that system;
- Enable the RDKB to realize economies of scope or scale, which would result in cost savings relative to the water systems meeting the same standards on its own; and
- Support broader RDKB objectives.

THE TRANSITION STUDY

POLICY NO. 6.5: Transition Study – Scope

The RDKB will not acquire a water system until a Transition Study has been carried out by qualified professionals consistent with the requirements established by the RDKB. These requirements are summarized below, with additional detail provided in Appendix A.

- General Description of Utility
- Assessment of Utility Infrastructure - Current Condition, and Conformance with RDKB and Senior Government Requirements.
- Financial Status
- Operation and Maintenance Considerations (including RDKB staff costs)
- Land Use Plans and Growth Projections
- Future Plans and Programs to Meet RDKB and Senior Government Requirements

POLICY NO. 6.6: Transition Study – Funding

Upon receipt of an expression of interest made by an **existing system**, RDKB staff will request from the RDKB Board access to funding from the Feasibility Study Fund for a contribution toward the Transition Study, along with approval to seek funding from the Province's Infrastructure Planning Grant Program (IPGP). If approved, these funds will be used to prepare the Transition Study. If the water system is ultimately taken over by the RDKB, the RDKB's contributed amount is to be repaid by the new function in its first fiscal year, net of grants. If the **existing system** wishes to provide funding for the Transition Study itself with no financial assistance from the RDKB or Provincial IPGP, it may do so.

For a **newly-developed** system, however, the developer will be required to pay the costs of the Transition Study.

POLICY NO. 6.7: Financial Viability of Water Systems

The RDKB will acquire only those water systems (existing or newly-developed) expected to be financially viable to own and operate, and with a proven plan in place to achieve this viability. This will include formal acceptance of required taxes, fees and other charges by the water system users. Financial viability will be determined by considering, at a minimum, the following:

- Capital costs;
- Operation and maintenance costs;
- Long-term capital replacement;
- System upgrades;
- Anticipated growth (with timeline);
- Operating and emergency reserves.

Report – Water Utility Acquisition and Sustainability Policies



POLICY NO. 6.8: Timing

The RDKB will work with relevant regulatory agencies to promote the timely completion of required assessment and regulatory processes related to the acquisition of water systems by the RDKB

POLICY NO. 6.9: Advisory Committee

Where a community organization exists, the RDKB will create an Advisory Committee to represent the community through the potential acquisition process, and for 1 year following the acquisition if it comes to fruition. This Committee would be advisory only, and decision-making ability would continue to rest with the RDKB Board.

PUBLIC ASSENT TO DISCHARGE SYSTEM AND FUND IMPROVEMENTS

POLICY NO. 6.10: Public Assent Process for Acquiring Systems

The RDKB will assume ownership of an existing or newly-developed water system only upon a successful public assent process. Part of a successful public assent process includes the approval of proposed tax, fee and other charge increases, to be paid for by the service area to achieve required levels of service.

POLICY NO. 6.11: Loan Authorization Bylaw

If borrowing is required, the RDKB will advance the loan authorization bylaw (in the amount of the total improvements less committed grants, if relevant) for elector assent at the same time as the establishing bylaw.

POLICY NO. 6.12: Payment for Water Systems

It is the policy of the RDKB to not pay more than a consideration of \$1.00 for the acquisition of any water system.



Report – Water Utility Acquisition and Sustainability Policies



FUNDING OF TRANSITION STUDIES AND OTHER COSTS

POLICY NO. 6.13: Feasibility Study Fund

The RDKB will establish a Feasibility Study Fund for determining whether or not a given water system is suitable for acquisition. Further details on the use and conditions of repayment to that fund are set out in Policy 6.6.

POLICY NO. 6.14: Assessment and Acquisition Costs

The cost of the Transition Study to assess the feasibility of converting ownership of an **existing** water system to the RDKB will be financed in accordance with Policy 6.6.

Any other costs associated with transferring ownership of an **existing** water system to the RDKB will be paid for from suitable RDKB sources (other than the Feasibility Study Fund) and will be repaid in full by the service area, post-acquisition and net of grants.

For a **newly-developed** water system, both the costs of the Transition Study as well as any other costs associated with the acquisition process will be paid for by the developer (whether or not the acquisition process is successful).

TRANSFER OF ASSETS AND RELATED MATTERS

POLICY NO. 6.15: Transfer of all Financial Assets, Easements, Water Licences and Permits at Conversion

The transfer of a water system to RDKB ownership will be conditional on the transfer to the RDKB of all of the financial assets related to the water system including all pertinent reserve and trust funds, performance reserve funds in place as a requirement of the Comptroller of Water Rights for private utilities, bonds or other securities, as well as any pre-servicing or other prepaid commitments. Any easements, licences and other relevant permits that may be held by the system must also be transferred.

POLICY NO. 6.16: Constructed Works Protected By Rights-of-Way, Easements, Leases or Fee Simple Ownership

The RDKB will generally not assume ownership or responsibility for a water system where **major** facilities, trunk mains and other constructed works are not located within registered rights-of-way or easements held by the owner of the system or within legal parcels owned or leased by the owner. There may be some flexibility in this policy if the RDKB deems that it, rather than the existing owner, is in a better position to acquire the required rights-of-way, easements or parcels.

POLICY NO. 6.17: Existing Debt and Reserves

A water system's existing debt and reserves will remain with that service.

POLICY NO. 6.18: Tangible Capital Asset Information

For **newly-developed** systems, tangible capital asset information will be provided to the RDKB by the system owner as a condition of acquisition at no cost to the RDKB. For **existing** water systems, the cost of assessing the system's tangible capital assets will be borne by the new function.

SPECIAL CASES

POLICY NO. 6.19: First Right-of-Refusal

The RDKB would like the first right-of-refusal for ownership of all proposed newly-developed water systems that have initiated the Certificate of Public Convenience and Necessity process through the Comptroller of Water Rights.

POLICY NO. 6.20: Transfer of Systems and Legal Risk

The RDKB will not acquire or assume responsibility for a water system if the RDKB determines there is undue legal risk associated with doing so.

Report – Water Utility Acquisition and Sustainability Policies



POLICY NO. 6.21: Transfer of Systems without Valid Permits or Licenses

The RDKB will not acquire or assume responsibility for a water system if the RDKB determines that there is substantial risk that it will not be able to obtain valid permits for the construction or operation of the system or valid licenses (e.g., water licenses).

POLICY NO. 6.22: Shared-Interest Developments

The RDKB will not consider acquiring any water system owned by a shared-interest development. The shared-interest development must be converted to bareland strata or fee simple status prior to the RDKB considering acquisition.

GRANTS AND INFRASTRUCTURE RENEWAL FUNDING

POLICY NO. 6.23: Grants

Where possible, the RDKB will apply for senior government grants for capital projects, as well as non-capital initiatives, to help support its water systems.

POLICY NO. 6.24: Infrastructure Renewal Funding

As a condition of acquisition of a newly-developed system, the RDKB will require the developer to provide 10% of the value of the system or \$50,000, whichever is greater. This amount will be deposited into a reserve fund for long-term capital replacement.



Appendix A

Transition Study Detailed Requirements



Report – Water Utility Acquisition and Sustainability Policies



APPENDIX A – TRANSITION STUDY DETAILED REQUIREMENTS

- General Description of Utility
 - Location, History and Service Area
 - Governance
 - Administration
 - Risk Management
 - Permits, Licences, Registrations and Certificates
- Assessment of Utility Infrastructure - Current Condition, and Conformance with RDKB and Senior Government Requirements.
 - Source
 - Source Protection
 - Intake (if surface source)
 - Well (if groundwater source)
 - Treatment
 - Storage
 - Distribution System (including pumps and pressure reducing valves)
 - Communications Systems
 - Protection of Infrastructure by Easements / Rights-of-Ways
 - Service Area Boundary Assessment
 - Health and Safety Considerations
 - Legal Liabilities and Risks
- Financial Status
 - Revenue
 - Expenditures
 - Asset Value
 - Reserves
- Operation and Maintenance Considerations (including RDKB staff costs)
 - Maintenance Activities
 - Sampling and Reporting
 - Emergency Response Procedures
- Land Use Plans and Growth Projections
 - Official Community Plan
 - Zoning Bylaw
- Future Plans and Programs to Meet RDKB and Senior Government Requirements
 - Infrastructure Upgrading Plan
 - Operations and Maintenance Plan

A-1



STAFF REPORT

Date: 29 Oct 2020 **File**

To: **Chair Langman & Members of the
RDKB Board of Directors**

From: Goran Denkovski, Manager of
Infrastructure and Sustainability

Re: Anaconda Community Water System
Upgrades Investing in Canada
Infrastructure Program – Rural and
Northern Communities Funding
Application

Issue Introduction

A Staff report from Goran Denkovski, Manager of Infrastructure and Sustainability regarding the Anaconda Community water system upgrades Investing in Canada Infrastructure Program – Rural and Northern Communities Funding Application.

History/Background Factors

The goals of Investing in Canada Infrastructure Program - Rural and Northern Communities (ICIP-RNC) is to create long-term economic growth, build inclusive, sustainable communities and support a low carbon, green economy. Under ICIP-RNC, the Program is focused on improving the quality of life in rural communities by responding to the specific needs of these communities. Investments in rural infrastructure will help build stronger, more inclusive communities, help safeguard the environment and the health of residents, and help support local, low-carbon green economies, as well as work towards reconciliation with Indigenous communities, both on and off-reserve.

The ICIP - RNC program targets capital infrastructure projects in communities with a population of 25,000 or less and provides additional funding towards projects in communities with populations of 5,000 or less. Eligible applicants are Local Governments, Indigenous Ultimate Recipients (both on and off-reserve), Not-for-Profit organizations and For-Profit organizations (when partnered with a local government or Indigenous government).

Applications from improvement districts or water utilities must be made by the sponsoring regional district or municipality. If the application is successful in obtaining program funding, the ownership of the infrastructure and associated assets must be transferred to the sponsoring regional district or municipality.

In 2014 the RDKB contracted an engineering firm to complete the Anaconda Water System Assessment. The assessment was updated in 2019. The water system upgrades associated with this application cover the 1 to 5 year capital project recommendations.

The area of Anaconda is located within the RDKB directly south of the City of Greenwood. The Anaconda water system provides service to 49 units and approximately 100 residents. Water supply is provided to the area from wells within Greenwood via a single-feed watermain. Based on the findings of the Greenwood Water Master Plan 2010 (Master Plan), it is understood that the Anaconda system is adequate to meet domestic supply demands but cannot provide the required fire flows. This is due to the single-feed watermain, as well as an undersized system composed of dead-end mains without internal looping. Furthermore, a lack of asset management and capital investment has led to the deterioration of the system over the last 50 years. Most of the infrastructure is nearing or exceeding its life expectancy. In addition, there are known health concerns with the materials of some of the pipes that are currently in place. As such, it is evident that this system is in need of significant upgrades.

Currently, the infrastructure of the Anaconda water system is not owned by any level of government. The system is operated and maintained by the City of Greenwood and funded (partially or wholly) by utility fees that are collected from the residents of Anaconda. Due to the fact that the Anaconda system has different associated costs than the Greenwood system, it is possible that Greenwood may be subsidizing Anaconda in some way.

Implications

The IPICP-RNC program offers 100% funding for projects in communities/services with populations under 5,000 people. The funding would allow for a transition of ownership to the RDKB with a reasonable annual user fee for the residents of the service. Should funding be approved, RDKB Staff will work with the province and the Anaconda community to finalize the RDKB Service Analysis Toolkit and develop a comprehensive plan for transition to RDKB ownership. Ultimately, the plan and transition of ownership would have to be approved by the RDKB Board of Directors as outlined in the RDKB Water Utility Acquisition and Sustainability Policies. Any associated cost overruns would be paid by the water service users.

Advancement of Strategic Planning Goals

Exceptional Cost Effective and Efficient Services

Background Information Provided

N/A

Alternatives

1. That the Regional District of Kootenay Boundary Board of Directors direct Staff to submit an application for grant funding application for the Anaconda Water System Upgrades through the Investing in Canada Infrastructure Program – Rural and Northern Communities. **Further**, that the Board supports the project and commits to any cost overruns.
2. Not receive the report.

Recommendation(s)

That the Regional District of Kootenay Boundary Board of Directors direct Staff to submit an application for grant funding application for the Anaconda Water System Upgrades through the Investing in Canada Infrastructure Program – Rural and Northern Communities. **Further**, that the Board supports the project and commits to any cost overruns.



Regional District of
Kootenay Boundary

Staff Report

RE:	FrontCounter BC – Placer Lease Term Extension – Harfman		
Date:	October 29, 2020	File #:	DL 1894s and E-10
To:	Chair Langman and members of the Board of Directors		
From:	Danielle Patterson, Planner		

Issue Introduction

FrontCounter BC sent an invitation to comment to the Regional District of Kootenay Boundary on an application for a 10 year placer lease term extension submitted by K. Harfman (lease 389741). The area under consideration is located south-east of Mount Baldy (see Site Location Map and Subject Property Map). A response is required from the RDKB for the consideration of the extension to forward.

Property Information	
Owner:	Crown
Applicant	FrontCounter BC Inc.
Location:	Unaddressed
Electoral Area:	Electoral Area E/West Boundary
Legal Description:	Portions of District Lots 1888 and 1894s
Area:	21.37 ha (52.81 ac)
Current Use(s):	Placer lease (loose earth mining, excluding talus rock)
Land Use Bylaws	
OCP Bylaw No.:	NA
DP Area:	NA
Zoning Bylaw No.:	NA
Other	
ALR:	An approximately 0.80 ha (1.98 ac) portion of lease area (north-east corner)
Waterfront / Floodplain:	NA
Service Area:	NA
Planning Agreement Area:	NA

History / Background Information

The subject property is Crown land for which K. Harfman has held a placer lease for at least 10 years. To continue this lease, an extension must be requested every 10 years. The RDKB does not have more detailed records on how long the placer lease has been held by the applicant or prior leasees. The application area is approximately 150 metres away from the closest privately owned property and contains lands located in the

Page 1 of 3

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Agricultural Land reserve (see ALR Map in attachments). An unnamed creek runs through the easterly portion of the subject property.

Placer leases serve a similar purpose to a mining lease. The major difference is that mining leases are for hard rocks minerals, including talus rock¹, while placer leases are for loose surface minerals. Gold panning is a well-known example of a type of mineral production done on a placer lease. These leases do not authorize the mining activity itself but give the lease holder exclusive rights to the minerals in the lease area.

Proposal

A 10 year placer lease extension is being applied for under Section 45(4) of the *Mineral Tenure Act*, subject to the satisfaction of the Chief Gold Commissioner for lands with an area of 21.37 ha (52.81 ac). This placer lease area crosses two District Lots and unsurveyed Crown land. Neither the types of minerals nor the potential extraction process(es) are disclosed in the application. K. Harfman holds a valid free miner certificate, which must be renewed annually.

Advisory Planning Commission (APC)

The Electoral Area E/West Boundary APC considered this application at their October 5, 2020 meeting. The APC commented that the applicant's was referred to as both "K." and "M." Harfman in the report. Further the APC stated they believe "no mining has occurred over the last for 10 years," and wondered "whether this is a legitimate chance for a mining operation?"

The APC recommends to the Board of Directors that the referral be supported with the following conditions: *"clarify whether the application is from K or M Harfman and proof of assessment work be provided"*.

The APC staff report had a typo referring to the applicant as "M. Harman". Staff have can confirm the applicant is "K. Harman". While neither staff nor the APC were provided with documentation as to whether or not "mining" has occurred on the subject properties, requesting such information is outside of the scope of consideration for this application as placer leasees are not for actual mining activities but the exclusive rights to the minerals in the lease area.

Implications

Electoral Area E/West Boundary does not have any land use bylaws, policy directions, or regulations for this area with regard to land use. Without these planning tools, evaluation of the proposed placer lease extension is limited. Some available information for consideration includes the following:

¹ The [United States Geologic Survey](#) defines *talus* to be "[a]n outward sloping and accumulated heap or mass of rock fragments of any size or shape (usually coarse and angular) derived from and lying at the base of a cliff or very steep, rocky slope, and formed chiefly by gravitational falling, rolling, or sliding."

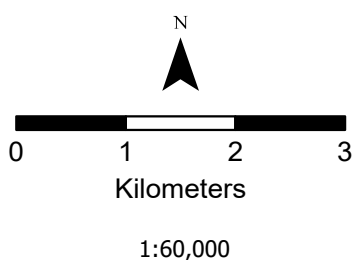
1. This application has no known impact on the legislated responsibilities of the RDKB;
2. The only permit required by the RDKB for this project is a building permit (if the applicant builds structures);
3. Ongoing monitoring is not a legislated responsibility of the RDKB; and
4. It is not known if public use of the crown land will be affected.

Recommendation

That the Regional District of Kootenay Boundary Board of Directors direct staff to forward the staff report 'FrontCounter BC – Placer Lease Term Extension – Harfman application', which includes information regarding the limited land use regulations in the Electoral Area E/West Boundary pertaining to this proposal, to FrontCounter BC.

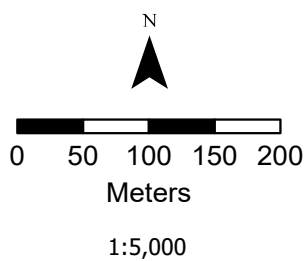
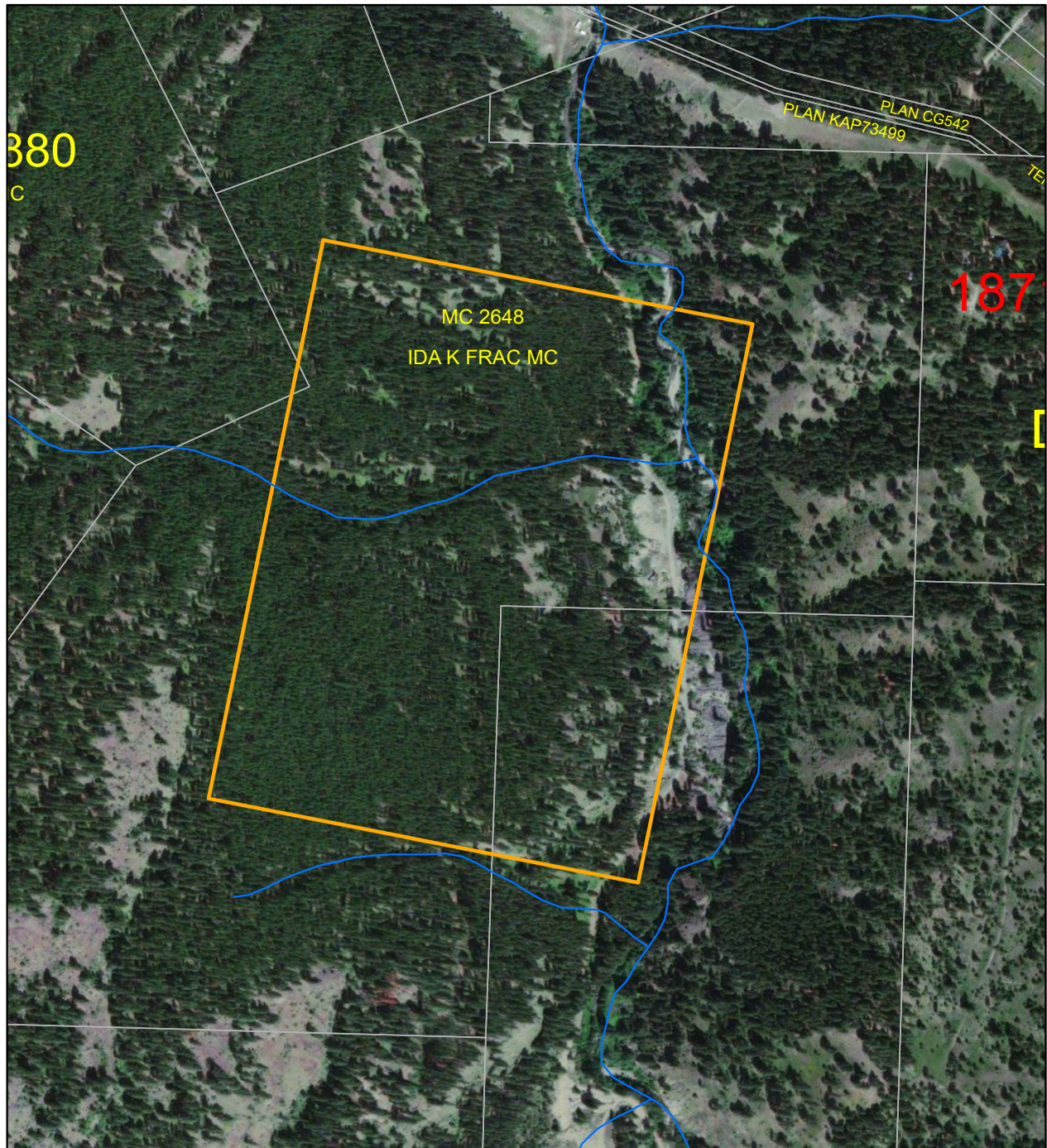
Attachments

1. Site Location Map
2. Subject Property Map
3. ALR Map
4. FrontCounter BC Submission



Site Location Map
 Lease of Placer Minerals
 Tenure #389741
 In vicinity of Rock Creek, BC



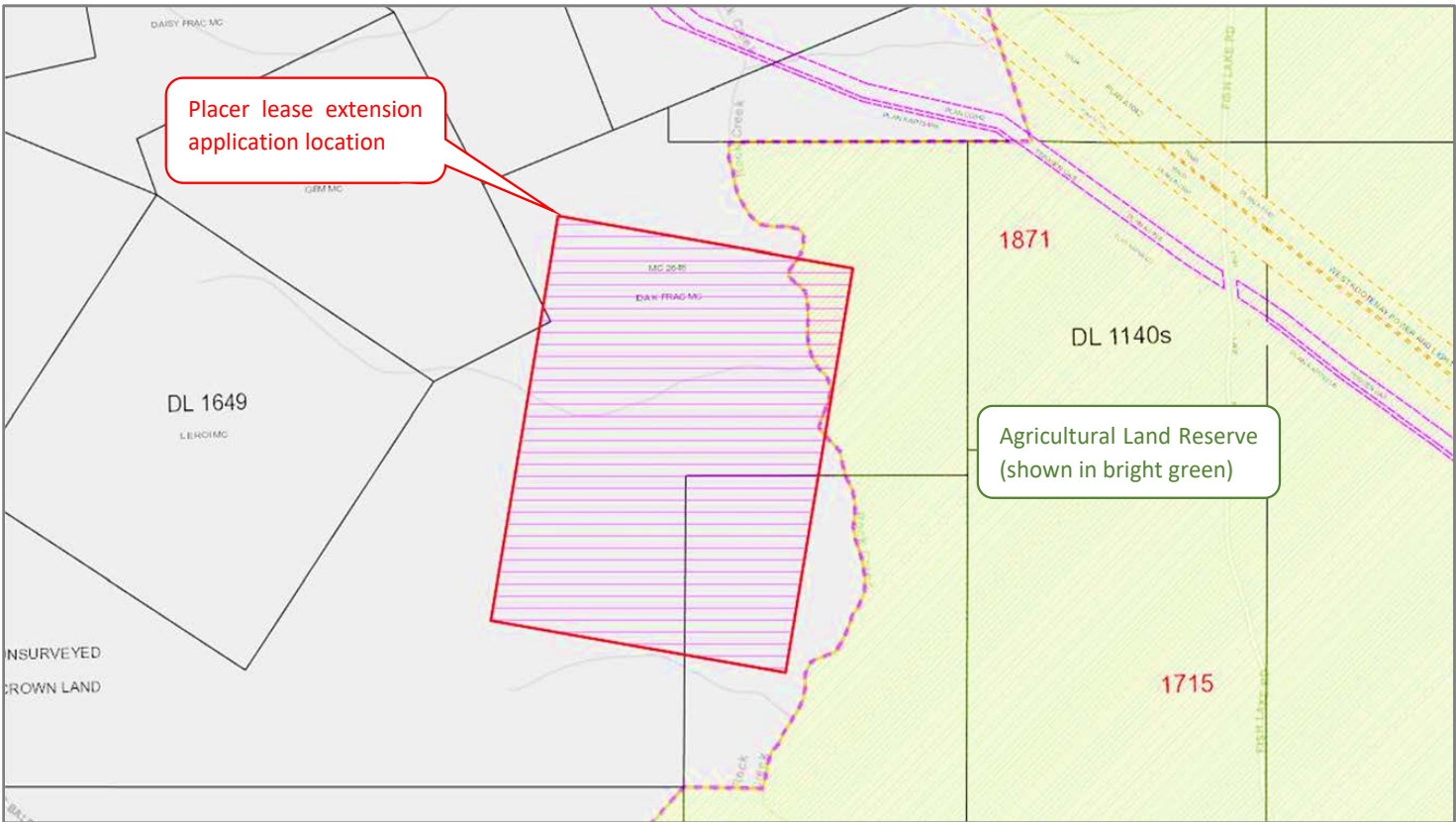


Subject Property Map

Lease of Placer Minerals
Tenure #389741
In vicinity of Rock Creek, BC



Attachment #3: Agricultural Land Reserve Boundary



Danielle Patterson

From: FrontCounterBC@gov.bc.ca
Sent: September 17, 2020 11:34 AM
To: Donna Dean
Cc: Planning Department; Planning Department; Danielle Patterson
Subject: Province of BC Referral Request on Placer Lease application
Attachments: Free_Miner_Certificate_111098_-_KenHarfman.pdf; Placer_Lease_389741.pdf; 389741.dbf; 389741.kml; 389741.prj; 389741.shp; 389741.shx; LTEA-P~1.MSG.msg; Placer_Lease_389741.docx; Mining_and_Placer_Leases_Explained_Jan_2015.pdf

Regional District of Kootenay Boundary - Planning & Development
 Donna Dean

Placer Lease
 Referral Number: 125724558 - 007
 Reference Number: 568450
 Request Sent: September 17, 2020
 Response Due: October 17, 2020

You are invited to comment on the following Placer Lease application or Placer Lease extension. A response is required in order for the application and adjudication process to move ahead.

We are seeking comments or concerns related to potential impacts these term extension applications may have from your agencies perspective. Referrals to government agencies are an important part of our application review process.

With respect to term extensions, section 45(4) of the Mineral Tenure Act provides for a term extension of a placer lease subject to the Chief Gold Commissioner being satisfied that the lease is required for a placer mining activity beyond the expiry of the current term.

The initial term of a placer lease must not exceed 10 years and the lessee has the right to one or more further terms not exceeding 10 years. The Province has a duty to consult and where required, accommodate First Nations whenever it proposes a decision or activity that could impact treaty or aboriginal rights.

Please [Click Here](#) to respond to this referral. You must be logged in using your BCeID account to view associated information. Note that forwarding or otherwise distributing this email will provide access to the associated information only if the receiver has a corresponding account.

For "how-to" instructions on how to respond to this request, please visit <http://www.frontcounterbc.gov.bc.ca/ereferrals.html> for instructional videos. To obtain a BCeID, please visit <https://www.bceid.ca/>

For technical assistance with e-Referrals, please contact FrontCounter BC at 1-877-855-3222.

For more information regarding this referral, please contact the "Email Coordinator" given within the referral.

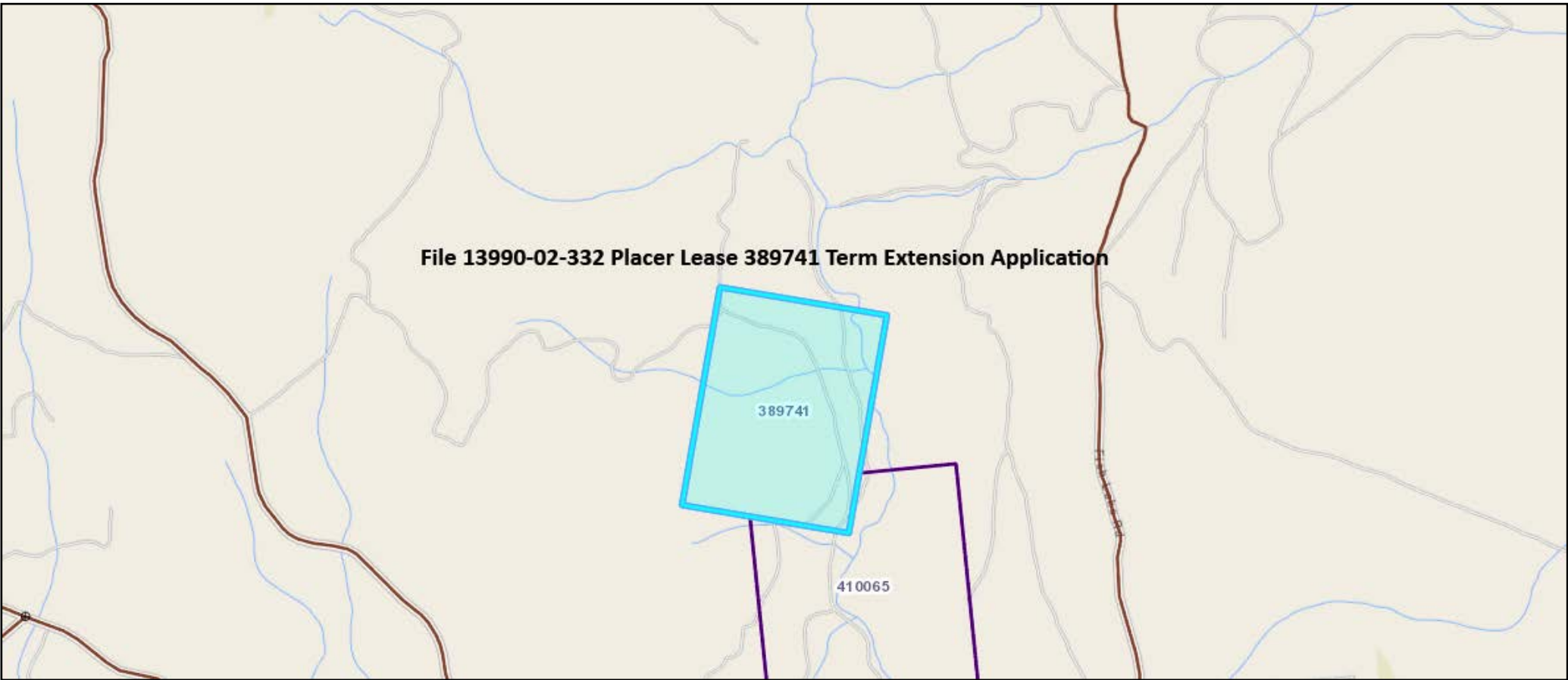
Note that it can take an extended period of time to connect from the BCeID login to the e-Referrals website, this is normal. Avoid re-clicking the "Next" button or you could extend this connection time.

Please do not reply to this email.

Christy Cattermole

FrontCounter BC
Natural Resource Specialist - Mineral Titles Branch

() -
christy.cattermole@gov.bc.ca



December 30, 2014

Mining and Placer Leases Explained

What is a Mining Lease? What is a Placer Lease?

A mining lease is a form of mineral title that effectively removes the limit on production of ore from a mineral claim. A mineral claim allows the recorded holder to explore for and develop minerals up to a production limit of 1,000 tonnes of ore in a year from each unit of a claim. A bulk sample of up to 10,000 tonnes of ore may be extracted from a mineral claim not more than once every five years. Production of ore, as one would encounter in a fully operational mine, beyond these limits requires a mining lease. Each adjoining mineral claim from which minerals will be extracted at mine production levels must be converted to a single mining lease. To apply for a mining lease, a recorded holder applies to have their mineral claim replaced with a mining lease under Section 42 of the *Mineral Tenure Act*.

The decision to issue a mining lease is a statutory decision made by the Chief Gold Commissioner under Section 42(5) of the *Mineral Tenure Act*. Mining leases are issued according to a survey plan and for a pre-defined term of no more than 30 years, and on conditions the Chief Gold Commissioner considers necessary. A mining lease is maintained by payment of annual rent of \$20 per hectare. There are no exploration work requirements to maintain a lease in good standing as exist for a mineral claim. The presumption is that the lessee will be engaged in mine production and/or mine reclamation subsequent to production. Royalties under the Mineral Tax Act are paid on the volume of ore and/or minerals produced from a lease.

A placer lease serves essentially the same purpose as a mining lease but it differs in several ways:

- A placer claim may be converted to a placer lease and a mineral claim may be converted to a mining lease.
- Placer claims and leases confer a right to placer minerals, whereas mining claims and leases confer rights to hard rock minerals.
- Production on a placer claim or lease is expressed in cubic meters of “pay dirt”. The annual production limit on a placer claim is 20,000 cubic meters. If more than 20,000 m³/year of pay dirt will be processed, the recorded holder must apply to convert the claim to a lease.
- Placer leases are issued pursuant to section 45 of the *Mineral Tenure Act*. Placer leases are issued for a term of no more than 10 years, and the term may be extended for additional terms up to 10 years each.
- As part of the application for a placer lease, the applicant may submit either a survey plan or a technical survey plan as described in Section 18 of the Mineral Tenure Act Regulation.

When a mining or placer lease expires, the area subject to the lease may become available to a recorded holder of a cell claim if some portion of the lease area overlaps some portion of an existing cell claim. Once a lease expires, it is not eligible for renewal unless an application has been made to extend the term. If no such application is made, the area may become available for subsequent staking of a claim.

A lease does not authorise any mining activity but does ensure the recorded holder has the exclusive right to all minerals on the lease area. A claim is a chattel interest; whereas a lease is considered an

Page 1 of 3

Ministry of
Energy and Mines

Mineral Titles Branch

Location & Mailing Address:

300-865 Hornby Street
Vancouver, BC V6Z 2G3

Phone: 1 (866) 616-4999

Fax: (604) 660-2653

Em: mineral.titles@gov.bc.ca<http://www.mineraltitles.gov.bc.ca>

December 30, 2014

interest in land as per Section 48 of the *Mineral Tenure Act*. Section 48 also notes that if a lease is issued over a mineral claim or group of mineral claims, the title of those claims is extinguished.

Leases can be bought and sold. Any sale transaction must be registered in the Mineral Titles Online registry.

Application for a Lease

The recorded holder or authorized agent of a claim may register an application for a lease online using the Mineral Titles Online registry. There is a registration fee of \$100 per application.

One or more adjoining claims may be replaced with a lease, and the claims may be legacy claims, cell claims or a combination of the two types, provided all claims are adjoining. A definition of adjoining is provided in Section 1 of the *Mineral Tenure Act*.

Upon registration of a lease application, Mineral Titles contacts the applicant respecting the type of survey that must be completed. Upon approval of the survey, the lease application must be advertised according to the requirements in section 42(2) of the *Mineral Tenure Act* for a mining lease, or section 18 of the Mineral Tenure Act Regulation for a placer lease. As the issuance of both mineral and placer leases are statutory decisions, the province is required to consult with and if necessary accommodate First Nations. Lease applications are also referred to other provincial ministries and agencies as well as to municipal and local government agencies. More detailed information may be obtained from Mineral Titles staff.

Payment of Annual Rent on a Lease

A lease is maintained by payment of the annual rent of \$20 per hectare for a mining lease or \$20 per hectare for a placer lease. The recorded holder or authorized agent registers the payment in Mineral Titles Online. Payment is due at the start of the anniversary year of the lease. If payment is not made on or before the anniversary date, Mineral Titles staff will send a notice requiring payment within 30 days. If no payment is made after notification that payment is due, the Chief Gold Commissioner may order the forfeiture of the lease.

A term extension application may be registered at any time prior to the date of expiry of the lease. Leases may also include a condition that the lessee applies for a renewal of the term of the lease at least one year prior to the expiry date of the lease.

Registering a Term Extension Application for a Lease

A mining lease is issued for a specific term up to maximum of 30 years while placer leases are issued for maximum 10 year terms. The recorded holder of a lease may register a term extension at any time prior to the expiry of the lease, but typically the application for an extension is made during the last year of the existing term. If this is not done, the lease automatically terminates on the anniversary date ending the last year of the current term.

Page 2 of 3

**Ministry of
Energy and Mines**

Mineral Titles Branch

Location & Mailing Address:

300-865 Hornby Street
Vancouver, BC V6Z 2G3

Phone: 1 (866) 616-4999

Fax: (604) 660-2653

Em: mineral.titles@gov.bc.ca

<http://www.mineraltitles.gov.bc.ca>

December 30, 2014

When applying for an extension of the term of a lease the Chief Gold Commissioner must be satisfied that the lease is required for a mining activity. It is recommended that application for a term renewal be registered early in the last anniversary year. Mineral Titles Branch will contact the recorded holder following registration of the application for a term extension in order to obtain the necessary information to evaluate the application.

Any questions regarding the content of this document, may be directed to the Mineral Titles Branch at 1-866-616-4999 or at mineral.titles@gov.bc.ca

In the event of a discrepancy between the information in this document and the *Mineral Tenure Act* and regulations under the Act, the provisions in the statute and regulations apply.

Page 3 of 3

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Regional District of
Kootenay Boundary

Staff Report

RE:	Front Counter Referral – Fortis Statutory Right of Way		
Date:	October 29, 2020	File #:	D-581s-03486.522
To:	Chair Langman and members of the Board of Directors		
From:	Danielle Patterson, Planner		

Issue Introduction

The Regional District of Kootenay Boundary (RDKB) received a FrontCounter BC referral for a proposed Statutory Right of Way in Electoral Area D/Rural Grand Forks, near the intersection of Granby Road and Snowball Creek West Road (see Site Location Map).

Property Information	
Owner:	Crown
Applicant:	FortisBC Inc.
Location:	2050 Snowball Creek West Road
Legal Description:	Lot 1 Plan KAP66479 Crossing Snowball Creek
Area:	1.01 ha (2.50 ac)
Current Use:	Access
Land Use Bylaws	
OCP Bylaw No. 1555	Rural Resource 1 Designation
DP Area	NA
Zoning Bylaw No. 1299	Rural Resource 1 Zone
Other	
ALR:	NA
Waterfront/Floodplain	Snowball Creek

History/Background Information

The subject lands are along Snowball Creek, north of Grand Forks and are in a watershed reserve (see Applicant Submission). The applicant stated the subject lands are in an area where species at risk have been known to occur (Western Yellow-bellied Racer, Western Screech Owl, and American Badger).

Proposal

The applicant is requesting a Statutory Right of Way over Crown land to install an overhead electric power line extension to service a private property at 2050 Snowball Creek West Road. The line would extend over Snowball Creek, which runs through the private property (see Subject Property Map).

Page 1 of 3

C:\Users\MCiardullo\Desktop\VPN Uploads\Board Items\October 29, 2020\2020-10-29_Referral_Fortis_Board.docx

Advisory Planning Commission (APC)

The Electoral Area D/West Boundary APC considered this application at their October 6, 2020 meeting. The APC recommends to the Regional District that the referral be supported.

Discussion took place regarding the exact location of the proposed utility pole but that it was *"mostly a very thorough and straightforward application"*. The APC commended positively that the proposal will not interfere with the riparian area and that there was feedback from the RDKB Watershed Planner.

Implications

Section 302 of the Electoral Area 'D'/Rural Grand Forks Zoning Bylaw states utility poles, *"may be sited on any portion of a parcel at the sole responsibility of the owner and utility company."*

The Floodplain Bylaw does not apply to this project as the proposed installation does not have a floor system, nor will it be used for dwelling or storage of goods.

Section 18 of the Official Community Plan (OCP) for Electoral Area D/Rural Grand Forks focuses on utility corridors, recognizing these corridors as a necessary land use. The OCP policies include consideration of the impacts of utility corridors, such as their impact on the natural environment and settlement patterns. Furthermore, the OCP policies discourage placement of new utility corridors in environmentally sensitive areas.

The subject lands are located within the Kettle River watershed. During September 16, 2020 telephone communications with Kristina Anderson, RDKB Watershed Planner, K. Anderson encouraged minimizing ground disturbance and vegetation removal. If feasible, no vegetation should be removed in the riparian zone. Furthermore, K. Anderson commented that keeping machinery clean to avoid invasive plants or contaminants from entering the creek was highlighted.

The applicant states that the extension across the subject Crown land, which uses an existing power line, is the most direct route for an electric power line to service the private property. The applicant states structures will not be placed within the riparian area or high water mark of the Snowball Creek.

FortisBC has provided an Environmental Management Plan for the proposed electric power line installation. This Plan includes identifying, managing, and mitigating environmental and heritage impacts of the proposal, including working near water, species at risk, and invasive plant prevention.

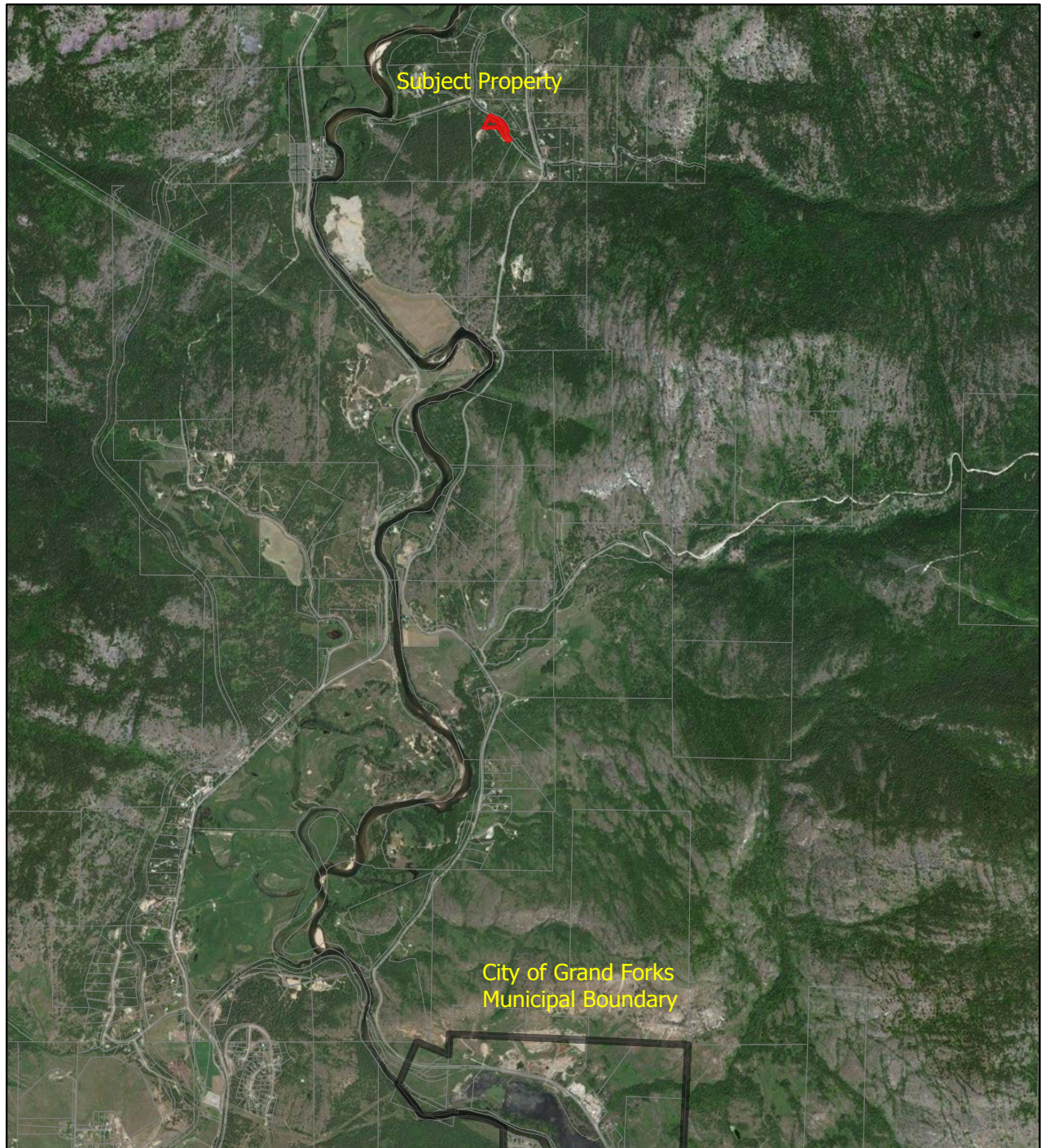
Recommendation

That the Regional District of Kootenay Boundary Board of Directors advise FrontCounter BC that the referral regarding FortisBC's proposed Statutory Right of Way on Lot 1 Plan KAP66479 Crossing Snowball Creek, in Electoral Area 'D'/Rural Grand Forks be received and further that The Regional District of Kootenay Boundary Board of Directors direct

staff to forward this staff report, which includes comments from the Watershed Planner to FrontCounter BC for consideration.

Attachments

- Site Location Map
- Subject Property Map
- Applicant Submission

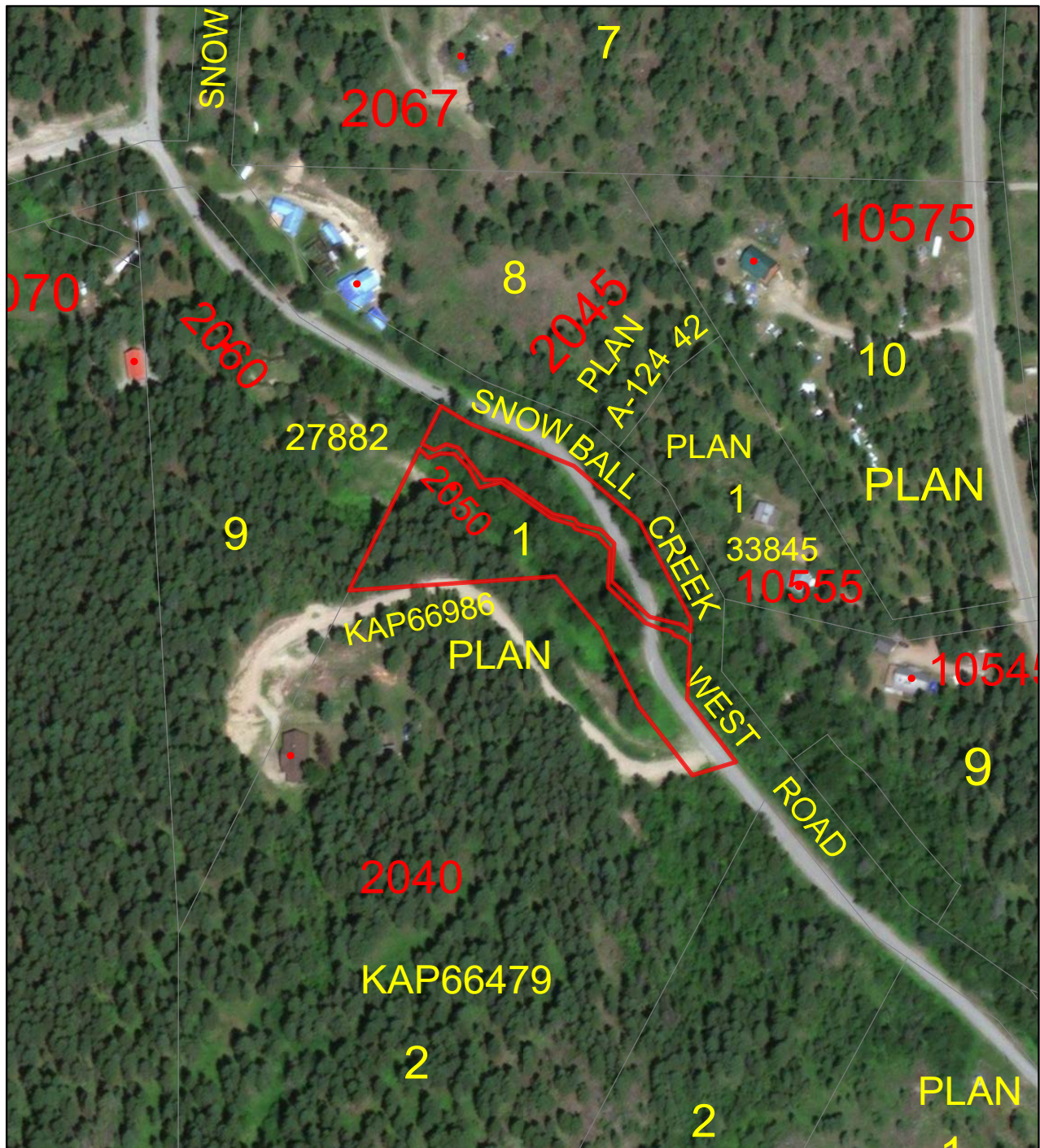


0 500 1,000 1,500 2,000
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Site Location Map

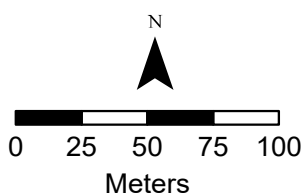
Lot 1, Plan KAP66479, District Lot 581S
Similkameen Div of Yale Land District





Subject Property Map

Lot 1, Plan KAP66479, District Lot 581S
Similkameen Div of Yale Land District





Crown Land Tenure Application

Tracking Number: 100314272

Applicant Information

If approved, will the authorization be issued to
an Individual or Company/Organization? Company/Organization

What is your relationship to the
company/organization? Agent

APPLICANT COMPANY/ORGANIZATION CONTACT INFORMATION

Applicant is an Individual or an Organization to whom this authorization Permit/Tenure/Licence will be issued, if approved.

Name: FortisBC Inc.
Doing Business As: FortisBC
Phone: 604-576-7253
Fax: 604-592-7620
Email: Lorne.Sandstrom@fortisbc.com
BC Incorporation Number: PA-0000087
Extra Provincial Inc. No:
Society Number:
GST Registration Number: R105645642
Contact Name: Lisa McCarthy
Mailing Address: - redacted -

REFERRAL / PUBLIC COMMENT CONTACT INFORMATION

Company / Organization: FortisBC Inc.
Contact Name: Lorne Sandstrom
Contact Address: 2850 Benvoulin Road
Kelowna, BC V1W 2E3
Contact Phone: 604-576-7253
Contact Email: lorne.sandstrom@fortisbc.com

AGENT INFORMATION

Please enter the contact information of the Individual/Organization who is acting on behalf of the applicant.

Name: FortisBC Inc.
Doing Business As: FortisBC
Phone: 604-576-7253
Fax: 866-636-6171
Email: Lorne.Sandstrom@fortisbc.com
BC Incorporation Number: PA-0000087
Extra Provincial Inc. No:
Society Number:
GST Registration Number: R105645642
Contact Name: Lisa McCarthy
Mailing Address: 2850 Benvoulin Road
Kelowna BC V1W 2E3
Letter(s) Attached: Yes (Letter of Agency.pdf)

CORRESPONDENCE E-MAIL ADDRESS

If you would like to receive correspondence at a different email address than shown above, please provide the correspondence email address here. If left blank, all correspondence will be sent to the above given email address.

Email: lisa.mccarthy@fortisbc.com
Contact Name: Lisa McCarthy

ELIGIBILITY

Question	Answer	Warning
Do all applicants and co-applicants meet the eligibility criteria	Yes	

for the appropriate category as listed below?

Applicants and/or co-applicants who are Individuals must:

1. be 19 years of age or older and
2. must be Canadian citizens or permanent residents of Canada. (Except if you are applying for a Private Moorage)

Applicants and/or co-applicants who are Organizations must either:

1. be incorporated or registered in British Columbia (Corporations also include registered partnerships, cooperatives, and non-profit societies which are formed under the relevant Provincial statutes) or
2. First Nations who can apply through Band corporations or Indian Band and Tribal Councils (Band or Tribal Councils require a Band Council Resolution).

TECHNICAL INFORMATION

Please provide us with the following general information about you and your application:

EXISTING TENURE DETAILS

Do you hold another Crown Land Tenure?

Yes

Please specify your file number:

3413330, 4405645 and others

If you have several file numbers, please make a note of at least one of them above. Example numbers: 1234567, 153245, others

ALL SEASONS RESORTS

The All Seasons Resorts Program serves to support the development of Alpine Ski and non-ski resorts on Crown land. For more detailed information on this program please see the operational policy and if you have further questions please contact FrontCounter BC.

Are you applying within an alpine ski resort? No

WHAT IS YOUR INTENDED USE OF CROWN LAND?

Use the "Add Purpose" button to select a proposed land use from the drop down menu.

If you wish to use Crown land for a short term, low impact activity you may not need to apply for tenure, you may be authorized under the Permissions policy or Private Moorage policy.

To determine if your use is permissible under the Land Act please refer to either the Land Use Policy - Permissions or Land Use Policy - Private Moorage located here.

Purpose	Tenure	Period
Utilities	Statutory Right of Way	More than thirty years
Electric Power Line		

ACCESS TO CROWN LAND

Please describe how you plan to access your proposed crown land from the closest public road:

Access to the Crown land will be from Snowball Creek West Rd from Granby Rd.

UTILITIES

Applications are accepted for Crown land used for linear public and private utilities, including aquatic land within Provincial Forests and land subject to regulation under the Park Act.

Specific Purpose: Electric Power Line
Period: More than thirty years
Tenure: Statutory Right of Way

TOTAL APPLICATION AREA

Please give us some information on the size of the area you are applying for.

Specify Length: 10 meters
Specify Width: 15 meters

PROJECT DETAILS

Please provide further information on your application as it may affect your application fee.

Are you providing service to a single residential lot or individual general commercial site? Yes

Length of utility line: .01 kilometers

ADDITIONAL QUESTIONS

In many cases you might require other authorizations or permits in order to complete your project. In order to make that determination and point you in the right direction please answer the questions below. In addition, your application may be referred to other agencies for comments.

Is the Applicant or any Co-Applicant or their Spouse(s) an employee of the Provincial Government of British Columbia? No

Are you planning to cut timber on the Crown Land you are applying for? Unknown

To cut timber on the Crown Land once your tenure has been issued you will require an Occupant Licence to Cut. Check out the website of the forest district responsible for more information or contact them if you have any questions.

Are you planning to use an open fire to burn timber or other materials? No

Do you want to transport heavy equipment or materials on an existing forest road? No

Are you planning to work in or around water? Yes

1. If you will be working in or around fresh water, you will require a Water Sustainability Act Change Approval or Notification from the Province. 2. The federal Department of Fisheries and Oceans might need to review your project. 3. Review the Transport Canada website if the Navigation Protection Act applies.

Does your operation fall within a park area? No

LOCATION INFORMATION**LAND DETAILS****DRAWINGS**

Please provide information on the location and shape of your Crown land application area. You can use one or more of the tools provided.

☒ I will upload a PDF, JPG or other digital file(s)

MAP FILES

Your PDF, JPG or other digital file must show your application area in relation to nearby communities, highways, railways or other land marks.

Description	Filename	Purpose
General Location	Location Map 1 75000.pdf	Utilities

☒ I will upload files created from a Geographic Information System (GIS)

SPATIAL FILES

Do you have a spatial file from your GIS system? You can upload it here.

NOTE: If uploading a .shp, please ensure that it is a polygon that has been projected in BC Albers in NAD83 format.

Description	Filename	Purpose
North Crossing	North Crossing.dbf	Utilities
North Crossing	North Crossing.prj	Utilities
North Crossing	North Crossing.shp	Utilities
North Crossing	North Crossing.shx	Utilities
South Crossing	South Crossing.dbf	Utilities
South Crossing	South Crossing.prj	Utilities
South Crossing	South Crossing.shp	Utilities
South Crossing	South Crossing.shx	Utilities

ATTACHED DOCUMENTS

Document Type	Description	Filename
General Location Map	General Location Map	Location Map 1 75000.pdf
Management Plan	Management Plan	Management Plan.pdf
Other	Environmental Mgmt Plan	Snowball Creek EMP March 20...
Other	Subdivision Plan	Subdivision Plan KAP66479.pdf
Other	Title PID 024-743-640	TITLE-CA7655810-PID-024-743...
Other	Working Agreement Around Water	WAW_Operating Agreement_Fin...
Site Plan	Site Plan	Site Plan.pdf

PRIVACY DECLARATION

☒ Check here to indicate that you have read and agree to the privacy declaration stated above.

IMPORTANT NOTICES

- Once you click 'Next' the application will be locked down and you will NOT be able to edit it any more.

DECLARATION

☒ By submitting this application form, I, declare that the information contained on this form is complete and accurate.

APPLICATION AND ASSOCIATED FEES

Item	Amount	Taxes	Total	Outstanding Balance
Crown Land Tenure Application Fee	\$250.00	GST @ 5%: \$12.50	\$262.50	\$0.00

OFFICE

Office to submit application to: Kamloops

PROJECT INFORMATION

Is this application for an activity or project which
requires more than one natural resource
authorization from the Province of BC? No

OFFICE USE ONLY

Office Kamloops	File Number	Project Number
	Disposition ID	Client Number

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:

FortisBC has received a request to provide power to a private landowner at 2050 Snowball Creek West Rd, Grand Forks, for overhead electrical service to their property. The majority of the new line will be located on the customer's property, extending from Snowball Creek West Road onto the customer's property and will cross Snowball Creek which is Crown owned. The scope of the project includes the installation of one pole with anchor and a span of overhead conductor on Lot 1 Plan KAP66479 (PID 024-743-640). Overhead conductor will cross Snowball Creek as part of the new extension. The shape files for this crossing are referred to as the North Crossing. Also included in this application is a second, existing creek crossing on Lot 1 Plan KAP66479. The shape files for this crossing are referred to as the South Crossing. This second crossing of overhead conductor extends across the creek to a customer's property at 2040 Snowball Creek West Rd (Lot 2 Plan KAP66479). This conductor was installed in approximately 2004.

FortisBC will obtain a statutory right of way for its existing facilities on 2050 Snowball Creek West Rd before the facilities are installed.

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. Please provide comments on any archaeological work, new technology or any First Nations agreements undertaken.



Activity	Brief Description of Activity	Status (e.g. Complete, incomplete, ongoing)	Comments / Milestones
Preliminary investigative work-desk review of FortisBC facilities; field review of existing lines in area	Review of existing facilities	Complete	
Add Row			

1.4 First Nations Consultation

Describe any contact you may have had, including the name of the First Nation(s) and representatives contacted including a description of any discussion of potential adverse effects from the proposed activity and any discussed mitigation measures.



FortisBC has not contacted First Nations regarding this application.

2.0 Location

2.1 Description

Provide a general description of the location of the project. Include activities such as traffic patterns and volume; parking; drilling and sampling etc.



The project is located at Snowball Creek West Road, approximately 0.5 km northwest of the intersection of Snowball Creek West Rd and Granby Rd in Grand Forks, BC. The application area is located within a Notation of Interest (Crown File 0092275) for a Watershed Reserve.

2.2 Location Justification

Provide your reasons/justification of the need for this type of project at this location. For example, is the activity close to a main highway for truck access purposes; or adjacent to other examples of this use - ie. is the proposed marina close to an existing marina



The location of the works will best serve the needs of the adjacent landowners. The alignment across Crown Lands is the most direct route from Snowball Creek West Rd to the customer's property and through the customer's property to the neighbor.

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 and indicate seasons or full year activities. Please reference [reduced risk fish windows](#) as required by DFO:



Project Phase (Construction / Operations)	Brief Description of Activity / Works	Season
Construction	Installation of Distribution Facilities	Upon issuance of Crown tenure

Project Phase (Construction / Operations)	Brief Description of Activity / Works	Season
Operation of electrical facilities	Periodic maintenance of the electrical facilities as required	May occur at any time throughout the year. Works will be constructed in accordance with the Regional Operating Agreement for FortisBC-Riparian Work Practices for Routine Works on Electrical Rights of Way in the Service Area (Agreement between FortisBC, Ecosystems Branch, MFLNRO; Habitat Branch, MFLNRO and Ecosystems Management Branch, Fisheries and Oceans Canada (2013))

Add Row

3.0 Infrastructure and Improvements

3.1 Facilities and Infrastructure

Detail any new and existing 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
New facilities-overhead electrical lines necessary to operate electrical service	Standard powerline construction methods and materials will be employed (ACSR wire-Aluminum conductor, steel reinforced).	Upon issuance of a Crown tenure.
Add Field		

3.2 Access

Identify existing and proposed roads used for access and their use by season. Include any proposed connections that require either a Ministry of Transportation and Infrastructure permit for connection or use of a Forest Service Road and what type of FS road and types of vehicles expected. Include information on any road use agreements and include the 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	
Snowball Creek West Rd	Existing-the proposed electrical extension will extend from an existing pole on the road edge, east of Snowball Creek. The road will be used during the construction phase and for periodic maintenance. The aerial extension will exceed the minimum height requirement of 5.0 meters from the road surface. There will be no new poles within the road.	Dedicated by subdivision	Blanket agreement with MOTI for powerline infrastructure located within MOTI managed roadways	Minimal	Minimal-for periodic maintenance only	Flagging and standard measures as required. There should be no interruption of traffic flow

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	
Granby Rd	Existing	Dedicated by subdivision		Minimal	Minimal	
Add Field						

3.3 Utility Requirements and Sources

Describe utility requirements and sources, include agreements in place or underway allowing access to utilities. Utilities include power generation, electrical or gas transmission or distribution lines, telecommunications.



The proposed facilities will connect to the existing FortisBC facilities on Snowball Creek West Rd. Blanket permitting with MOTI is in place for the facilities located on the road.

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, 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
There is no requirement for a water supply					
Add Field					

3.5 Waste Collection Treatment and Disposal

Identify any waste disposal (note septic system required), sewage, sanitation facilities and refuse disposal proposed. Include agreements in place or underway such as Health Regional Board Sewage Disposal Permits etc.



Project Phase (Construction/Operation)	Is there a water requirement (e.g. Surface water or ground water, etc)	Discharge distance to closest body of water (well, lake, etc)	Volume of daily discharge	Infrastructure Description	Existing Agreements
There is no requirement for waste water collection					
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

Removal Type	Impacts	Proposed Mitigation
Brushing of vegetation will be required to clear the limits of approach for the proposed overhead conductor	Clearing of the powerline right of way is required to ensure safe operation	Clearing of vegetation within the riparian area or below the high water mark of Snowball Creek will be in accordance with the Regional Operating Agreement for FortisBC-Riparian Work Practices for Routine Works on Electrical Rights of Way in the Service Area (Agreement between FortisBC, Ecosystems Branch, MFLNRO; Habitat Branch, MFLNRO and Ecosystems Management Branch, Fisheries and Oceans Canada (2013))
Add Field		

4.1.2 Soil Disturbance

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

☐ Yes ☒ No

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

4.1.3 Riparian Encroachment

Will any works be completed within or adjacent to the riparian zone of any water body? If your project is within 30 meters of a watercourse and you intend to: disturb soil, remove plants, construct, install works for flood protection, develop drainage systems or service sewer or water systems the Riparian Areas Regulation may affect your development.



☒ Yes ☐ No

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

Work Type	Impacts	Proposed Mitigations
Aerial stream crossing	Stream crossing is aerial with no structures within the riparian area or below the high water mark.	Clearing of vegetation within the riparian area or below the high water mark of Snowball Creek will be in accordance with the Regional Operating Agreement for FortisBC- Riparian Work Practices for Routine Works on Electrical Rights of Way in the Service Area (Agreement between FortisBC, Ecosystems Branch, MFLNRO; Habitat Branch, MFLNRO and Ecosystems Management Branch, Fisheries and Oceans Canada (2013)
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

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
The construction on Crown Land will be limited to installation of the aerial conductor crossing.	The route for the aerial line will be cleared of any vegetation which could potentially interfere with the energized conductor.	Clearing will be limited to that required for the safe operation of the line.
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:

Sound? ☒ Yes ☐ No

Explain the current conditions, source, type and range of emission. Provide a description of atmospheric effects from proposed construction, operation, and decommissioning phases. Also include proposed mitigation measures to manage or mitigate adverse effects.

Emission Source	Current Conditions	Project Impacts	Proposed Mitigations / Management
Equipment used in the installation of the facilities	The conductor will be installed adjacent to public road	Temporary-related to the construction phase only	Construction will be undertaken for a short duration during a timeframe which will minimize disturbance

Add Field

Odor? ☐ Yes ☒ No

Gas? ☐ Yes ☒ No

Fuel Emissions? ☐ Yes ☒ No

4.3 Aquatic Lands

4.3.1 Drainage Effects

Will the project result in changes to land drainage?

☐ Yes ☒ No

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
Temporary interruption of public access on road during construction phase	Temporary slowing of traffic controlled by flagging crew during construction phase	Road access will be controlled by flagging crew on Snowball Creek West Road during construction phase temporarily

Add Field

4.3.3 Flood Potential

Will the project result in a potential for flooding?

☐ Yes ☒ No

4.4 Fish and Wildlife Habitat

4.4.1 Disturbance to Fish/Wildlife and Fish/Wildlife Habitat

Will the project result in adverse effects to wildlife or wildlife habitat?

([BC Wildlife Act](#))

☐ Yes ☒ No

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 of aerial crossing over Snowball Creek	Stream crossing is aerial with no structures within the riparian area or below the high water mark	Works will be constructed in accordance with the Regional Operating Agreement for FortisBC-Riparian Work Practices for Routine Works on Electrical Rights of Way in the Service Area (Agreement between FortisBC, Ecosystems Branch, MFLNRO; Habitat Branch, MFLNRO and the Service Area (Agreement between FortisBC, Ecosystems Branch, MFLNRO; Habitat Branch, MFLNRO and Ecosystems Management Branch, Fisheries and Oceans Canada (2013). See also Snowball Creek EMP March 2020.
Add Field		

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

☐ Yes ☒ No

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

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 application is located in a rural area; the closest community is Niagra, BC. The closest First Nations community is located in the vicinity of Osoyoos (Osoyoos IR #1).

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:

Regional District of Kootenay Boundary - Electoral Area 'D'/Rural Grand Forks-Zoning Bylaw No. 1675-Rural Resource 1 Zone - There are no limitations to utility installation as "Free standing...utility poles, wires...may be sited on any portion of a parcel at the sole responsibility of the owner and utility company".

Regional District of Kootenay Boundary - Electoral Area 'D'/Rural Grand Forks-OCP Bylaw No. 1555-The bylaw indicates "Place new utility corridors without impacting environmentally sensitive areas and connectivity between those areas". The proposed aerial crossing will not detrimentally impact environmentally sensitive areas.

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.

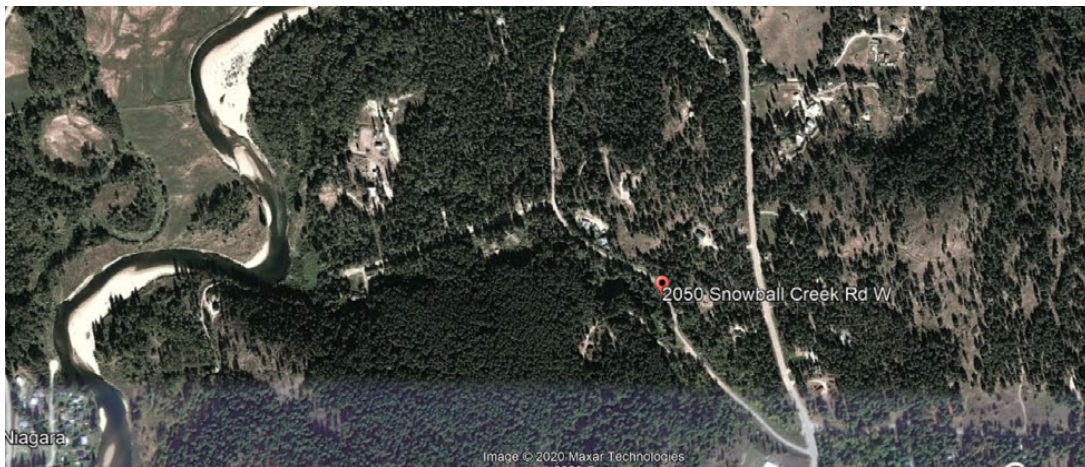


N/A

END OF FORM



Snowball Creek Crown Land Application



Environmental Management Plan

March 2020



Table of Contents

FortisBC Environment Contacts:	3
1.0 FortisBC Safety and Environmental Policy	4
1.1 Environmental Responsibility	4
1.2 Scope of Environmental Management Plan	5
1.3 Preventative Measures	5
1.4 Communications	6
2.0 Project Overview.....	6
Figure 1: Snowball Creek Distribution Line Extension Work Location	6
Map 1: Watershed Reserve Boundaries	7
3.0 Risk Areas and Regulatory Requirements	7
3.1 Heritage Conservation Act	8
Figure 2: Location of Known Heritage Sites Near Snowball Creek	8
3.2 Migratory Birds	9
3.3 Species at Risk.....	9
Figure 3: Map Showing Locations of Federally and/or Provincially Listed Species near Snowball Creek	9
Figure 4: Federally and/or Provincially Listed Species in vicinity of Snowball Creek.....	10
3.4 Noxious Weed and Invasive Plant Control.....	10
Table 1: Invasive Plants and Noxious Weeds Found in the Boundary Region	11
3.5 Working near water	12
3.6 Wildfire Prevention and Suppression	13
3.7 Spill Response and Reporting.....	14
3.8 Waste Management and Disposal	15
3.9 Environmental Incidents and Spills	15



FortisBC Environment Contacts:

Contact Name	Position	Contact Number
Serina Swanson	FortisBC Environmental Specialist	250-809-7148
Maureen Grainger	FortisBC Environment Lead	250-304-9805 (cell)
System Control	T&D	1-844-544-0722 Option2
Provincial Environmental Emergency Program	Spill Report	1-800-663-8156



1.0 FortisBC Safety and Environmental Policy

The company is committed to delivering safe, reliable energy in an environmentally responsible manner to all of the communities that we serve.

The company shall:

- comply with safety and environmental legislation, and operate in accordance with accepted industry practices and standards, and require the same of our contractors
- commit to injury and incident prevention, the conservation of resources, and the prevention of pollution
- identify and manage operational hazards, and minimize risks that have the potential for adverse consequences
- train employees to be aware of and meet their responsibilities in the areas of safety and environmental stewardship
- communicate openly with employees, the general public, and all stakeholders about our activities and the potential impacts on our safety and environment
- support community-oriented safety and environmental initiatives and programs
- review the safety and environmental policy on a regular basis, regularly monitor our safety and environmental performance, and strive for continual improvement

1.1 Environmental Responsibility

FortisBC (FBC) is committed to meeting its Policy commitments during all stages of a project. This effort involves identifying, managing and mitigating environmental risks associated with operations, including project works. FBC has an ISO 14001 compliant Environmental Management System (EMS) focused on managing eight key risk areas as shown below.





FBC's EMS provides the framework for identifying environmental aspects and potential impacts associated with operations and project works. FBC utilizes established work practices and management controls to ensure work is performed in an environmentally responsible and sustainable manner.

These established work practices include but are not limited to the following:

- Environmental awareness training for employees;
- Integration of environmental protection measures into all elements of business;
- Open communication with stakeholders;
- Working with industry associations, governments and other stakeholders to establish standards for the environment appropriate for our business, and;
- Efficient and effective use of resources.

The purpose of the Environmental Management Plan (EMP) is to identify project-specific environmental risk areas and outline preventative measures and controls for the minimization of these risks.

1.2 Scope of Environmental Management Plan

This EMP applies to all FBC crews and contractors involved with the construction of the new 1 phase overhead crossing of Snowball Creek north of Grand Forks, BC (the project). Topics included in this EMP:

- Project Overview;
- Environmental Risk and Associated Regulatory Requirements Summary;
 - Archaeological Sites;
 - Migratory Birds;
 - Species at Risk;
 - Noxious Weed Control;
 - Working Around Water;
 - Wildfire Prevention and Suppression;
 - Spill Management;
 - Waste Management

The guidelines and procedures addressed in this EMP apply to all activities associated with the Project.

1.3 Preventative Measures

All activities associated with the Project will include preventative measures to protect against harm to the environment. The Project Manager will consult with the FBC Environmental Program Lead (or designate) to confirm that the proposed preventative measures will provide adequate environmental protection.

If, at any time, the planned measures do not meet the requirements of environmental protection, work will stop. The Environmental Program Lead will be informed, and in collaboration with the Project Manager (or designate) and the Project crew, corrective action will be taken as soon as possible. In the event that projects require environmental permitting, such documents will be obtained by FortisBC prior to project commencement and will be kept onsite.

This EMP is not intended to address health and safety issues and should be applied in conjunction with a project-specific health and safety plan. All work must be conducted in accordance with WorkSafeBC standards.



1.4 Communications

Minimizing risks to the environment requires maintaining excellent communication between all members of the Project team. The contractor will communicate any aspects of the project that potentially pose a risk to the environment not previously identified. The FortisBC Project Manager (or designate) will maintain communication with FBC's Environment Program Lead (or designate) in case of incidents, or to obtain advice to reduce risks to the environment.

If unforeseen changes in environmental conditions occur on the project site, the contractor will contact the FBC Project Manager or Construction Manager for guidance. The contractor will notify the FBC Project Manager or Construction Manager in advance of any work of moderate to high environmental risk. The FBC Project Manager or Construction Manager will inform the FBC Environmental Program Lead (or designate) of any work of moderate to high environmental risk. All environmental incidents must be reported to the FBC Environmental Program Lead (or designate) verbally, as soon as reasonably possible, and in writing, within 24 hours.

2.0 Project Overview

The Project involves the extension of the Distribution line on Snowball Creek Road north of Grand Forks, BC. All activities are planned to occur off the roadway. Project activities include the installation of an electrical distribution line

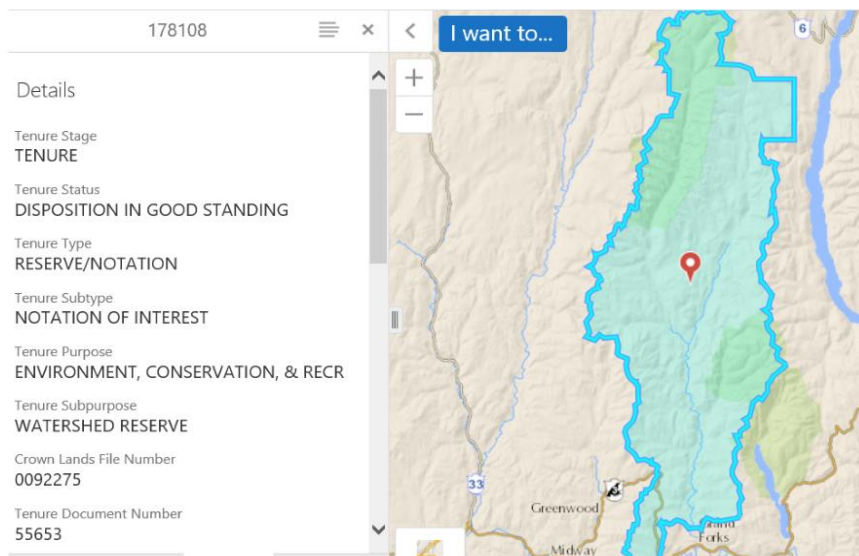
The Project is located in the Ponderosa Pine (PP) biogeoclimatic zone, the driest in the Province and one that provides ideal ungulate habitat as well as rangeland for cattle. Proper management of riparian areas is important to sustaining healthy ecosystems in the PP. Figure 1 below shows the location of the Project work.



Figure 1: Snowball Creek Distribution Line Extension Work Location



The project area is located within a designated watershed reserve and as such all conditions associated with the reserve must be adhered to.



Map 1: Watershed Reserve Boundaries

3.0 Risk Areas and Regulatory Requirements

The Environmental risk associated with project work along with the pertinent regulatory requirements are summarized in the following sections. If during the commencement of work, the FortisBC crew and/or contractors should have any questions or concerns regarding risks and/or regulations, project activities are to stop (if possible) or work in the area in question avoided ~ a call is to be made to FBC Environment and any required remedial work is to be completed prior to continuation of work. In the event of a non-compliance with any of the below listed acts or regulations Project activities will stop immediately and the FBC Environment contacted. FBC Environment will work in collaboration with the Project Manager (or designate) and the Project crew to develop and implement corrective action as soon as possible.



3.1 Heritage Conservation Act

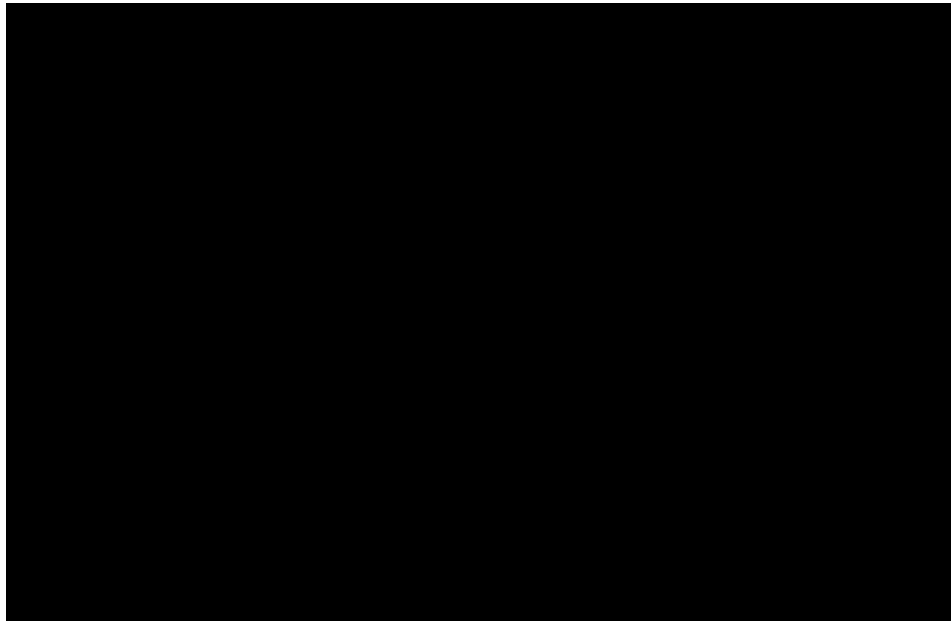
British Columbia's archaeological and heritage sites are protected under the provincial *Heritage Conservation Act* (HCA). The provisions of the HCA apply whether sites are located on public or private land. Known sites are mapped and documented by the Archaeology Branch. Chance finds are also protected under the HCA. Heritage sites and artifacts that are protected under by the HCA include:

Burial places ; Aboriginal rock paintings or carvings; and sites that contain artifacts, features, materials or other physical evidence of human habitation or use before 1846 such as cultural depressions and culturally modified trees.

FortisBC manages this risk under **Chance Find Procedure 1136** which requires FortisBC crews and/or contractors to take the following actions in the event that an artifact is discovered:

- Step 1: If intact or disturbed archaeological deposits or potential human remains are encountered, immediately stop construction in the vicinity of the archaeological site
- Step 2: The Project Manager (or designate) will contact FortisBC Environment. They will contact external stakeholders and a professional archaeologist for further guidance.
- Step 3: The archaeologist will advise further action.

██████████ there are no known Archaeological Sites in the immediate vicinity of the project site, ██████████. It is incumbent upon FortisBC crews and/or contractors to follow the Chance Find Procedure 1136 and exercise due diligence with respect to potentially undiscovered sites.





3.2 Migratory Birds

The federal *Migratory Birds Convention Act* (MBCA) is administered through Environment Canada by the Canadian Wildlife Service. The MBCA prohibits “the killing, capturing, injuring, taking or disturbing of migratory birds or the damaging, destroying, removing or disturbing of nests.” Project activities are to be conducted in a manner such that disturbance to migratory birds and their nests is minimized. Any activity such as vegetation removal, road construction or any other ground disturbance is to be completed outside the migratory bird nesting season. According to the MBCA, the project area is located within Bird Conservation Region A2 which means the following periods are identified as nesting seasons for migratory birds and disturbance is prohibited:

- Open Areas: 07 April to 18 August
- Forest Areas: 03 April to 13 August

Contact FortisBC Environment if an active nest is identified during project activities.

3.3 Species at Risk

Species at risk include plant and wildlife species whose populations are considered to be of special concern, threatened, endangered, extirpated or extinct under the *Species at Risk Act* (SARA), Red or Blue listed by the BC Conservation Data Centre (BC CDC), or are Identified Wildlife under the *Forest and Ranges Practices Act* (BC FRPA). SARA prohibits the killing, harming, or harassing of listed species and damaging or destroying the residence of an individual of a listed species. Critical Habitat is designated for species at risk listed under Schedule 1 of SARA.

Vehicles will stay on identified access roads and trails to minimize disturbance to adjacent vegetation and habitat features. Riparian vegetation and loose soils are important to a variety of species at risk in the project area. Through the Environmental Awareness Training provided for this project, FortisBC crew and contractors will be familiar with the species at risk with potential to occur in the project area. Figure 3 below shows the areas where federally and/or provincially listed species have been known to occur in the vicinity of Snowball Creek.

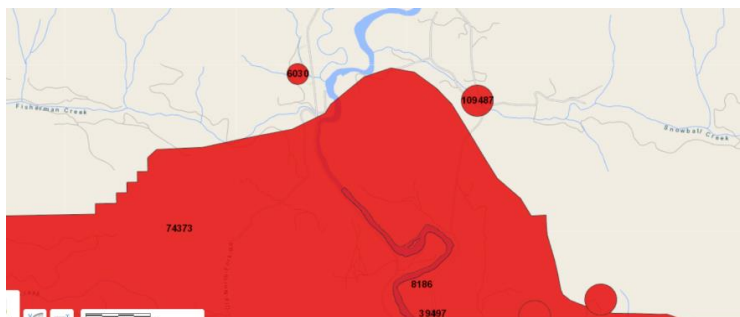


Figure 3: Map Showing Locations of Federally and/or Provincially Listed Species near Snowball Creek



Figure 4 below provides photos of the listed species in the vicinity of Snowball Creek.




 <p>Western Yellow-bellied Racer (subspecies of the North American Racer (<i>Coluber constrictor</i>)) Photo retrieved from Canadian Herpetology Society website 24 March 2020 http://canadianherpetology.ca/</p>	 <p>Western Screech Owl Photo retrieved from Sierra Club BC website 24 March 2020 https://sierraclub.bc.ca/western-screech-owl/</p>
 <p>American Badger Photo retrieved from Badgers in BC Recovery Team website 24 March 2020 http://badgers.bc.ca/</p>	

Figure 4: Federally and/or Provincially Listed Species in vicinity of Snowball Creek

3.4 Noxious Weed and Invasive Plant Control

Noxious weeds (invasive plants) must be controlled according to the Weed Control Regulation B.C Reg. 66/85 or as per Section 15 of the Environmental Protection and Management Regulation B.C. Reg. 200/2010 (ALC & BC. OGC, 2013). **FortisBC Guideline 1496 Invasive Plant Management** provides protection measures to help minimize the spread of noxious weeds and invasive plants. Invasive plants are known to be present along rights-of-way and along all existing access roads. Invasive plants currently identified and managed in this area are included in the table below.

 <p>Common bugloss</p>	 <p>Common teasel</p>	 <p>Field scabious</p>
---	--	--
















 Baby's breath	 Common tansy	 Invasive hawkweeds
 Hoary alyssum	 Hoary cress	 Japanese knotweed
 Knapweed	 Leafy spurge	 Longspine sandbur
 Plumeless thistle	 St. John's wort	 Bluesweed
 Sulphur cinquefoil	 Toadflax	<p>Photos from the Boundary Invasive Species Society website accessed 24 March 2020 https://www.boundaryinvasives.com/plants-on-land</p>

Table 1: Invasive Plants and Noxious Weeds Found in the Boundary Region



FortisBC Noxious Weed and Invasive Plant Spread Prevention Measures:

- Cleaning (pressure washing) all equipment and trucks before mobilizing to site;
- Checking vehicles and clothing prior to entering the ROW. Inspect the undercarriage and tires of all vehicles and remove any plant material or large clumps of soil found.
- Limiting access to all designated/marked accesses. Vehicles will only use designated pull outs and parking areas;
- Minimizing the construction footprint;
- Re-vegetating all disturbed areas immediately following project completion.

Re-vegetation disturbed areas with a regionally appropriate seed mix immediately following the completion of the rehabilitation activities.

3.5 Working near water

FortisBC has an Operating Agreement (OA) with DFO and MFLNRO for Works in and About a Stream on Electrical Rights-of-Way for the Okanagan and Kootenay Regions. Activity-specific conditions are listed in the OA. No further permits are required for this work. Applicable OA conditions include:

- Riparian vegetation removal will be minimized.
- Vegetation maintenance techniques will allow the root systems to stay intact.
- Re-fueling of equipment or fuel storage will take place greater than 30 m from the creek.

Contact FortisBC Environment if you have any questions.



3.6 Wildfire Prevention and Suppression

The Wildfire Act and regulations classifies many of FortisBC operations as “industrial activities” or “high risk” activities under the Wildfire Act and therefore must conform to statutory requirements.

Contractors will be required to undertake a wildfire hazard assessment if they are undertaking industrial or high-risk activities. All equipment, apparatus, and materials must be maintained in a manner to reduce the likelihood of starting a fire, that the site is maintained in a manner that prevents any fire from spreading off the site, and that they are prepared to act in the event of a fire starting.

Immediately report all fires, operational or otherwise, to 911 if it is a residential/urban fire or to the local Ministry of Forests or to 1-800-663-5555 or cell *5555 and to the FortisBC representative.



3.7 Spill Response and Reporting

The *Spill Reporting Regulation* requires the reporting of spills over specified quantities to Emergency Management BC (EMBC). It also requires reasonable and practical action to stop, contain and minimize the effects of a spill.

Action: All spills of any amount shall be reported to the FBC Environmental Program Lead (or designate) as soon as reasonably possible (250) 304 9805

The Environmental Program Lead will be responsible for external reporting to the agencies if required and will assist the Project team in preparing and filing a URM incident report.

Contract requirements

Contractors will follow best practices as identified by FortisBC and outlined in contract documents. If unforeseen changes in environmental conditions occur on the project site, the contractor will contact the FBC Project Manager or Construction Manager, who will in turn contact the FBC Environmental Program Lead (or designate).

Spill kits

Spill kits must be available on the project site. All spill kits must be fully stocked and restocked as soon as possible if used.

In the event that an environmental incident or spill occurs the response procedures should be followed. See FortisBC Spill Response Card (Green Card) for details on spill response.

Step 1. Ensure personal and public safety.

Step 2. Notify and get help.

Step 3. Control and contain the incident or spill.

Step 4. Cleanup the spill and site.

Step 5. Spill reporting

Step 6. Monitor site and ensure spill kits replenished.

Spill prevention

Contractors will identify potential hazards (*i.e.*, refuelling equipment on uneven or sloped surfaces), determine the level of risk for activities that could result in a spill, and take measures to reduce the potential of a spill. All efforts will be taken to minimize the risk of spills, including:

- Maintenance of equipment on the project site will occur in manner that prevents spills to the environment;
- Absorbent pads will be placed underneath areas of the equipment or vehicles that require maintenance;
- Contractors will ensure that any equipment left on the project site overnight are secure and any fluid (*i.e.*, oil, engine coolant) containers are locked within the equipment or facility compound;
- Before operation of equipment, operators will check for leaks and hydraulic hose connections for excess lubricants;
- All fuels and lubricants brought onto the project site will be stored in properly labelled containers and used in a manner that avoids potential spills.



3.8 Waste Management and Disposal

Regular project work leads to the generation of garbage and waste. In the event that unanticipated waste is generated during project construction, or if hazardous materials are discovered, the contractor will immediately contact the FBC Environmental Program Lead (or designate) for appropriate containment and disposal measures.

Work related sources of waste generation include:

- Construction waste and garbage
- Tool and parts packaging;
- Food wrappers and scraps;
- Fluid containers (*e.g.*, oils, antifreeze)

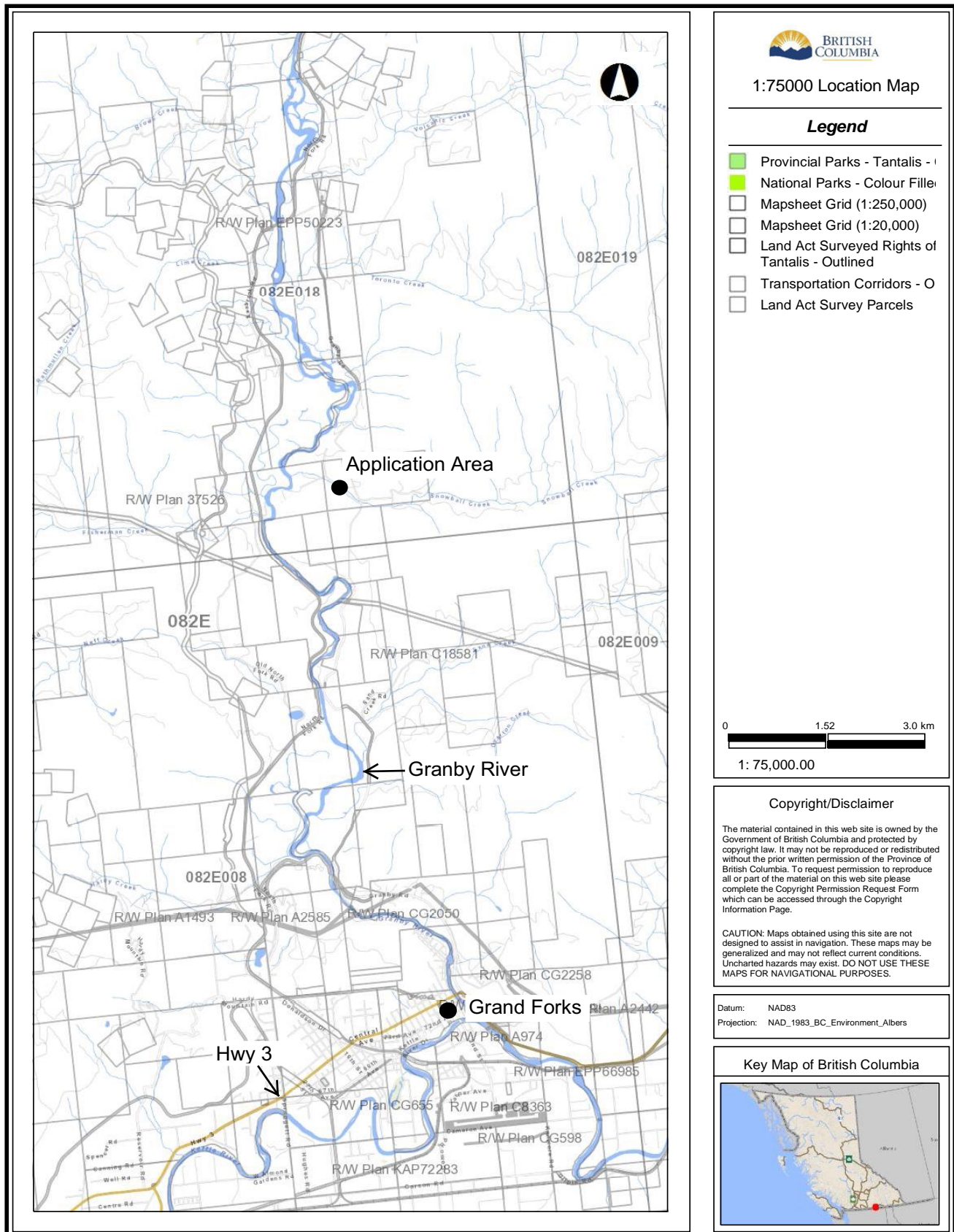
Waste and litter have a negative impact on the environment and may injure fish and wildlife if not handled properly. The contractor will employ good housekeeping requirements and identify potential sources of waste generation and will confirm with a FBC Environmental Program Lead (or designate) the appropriate containment and disposal procedures.

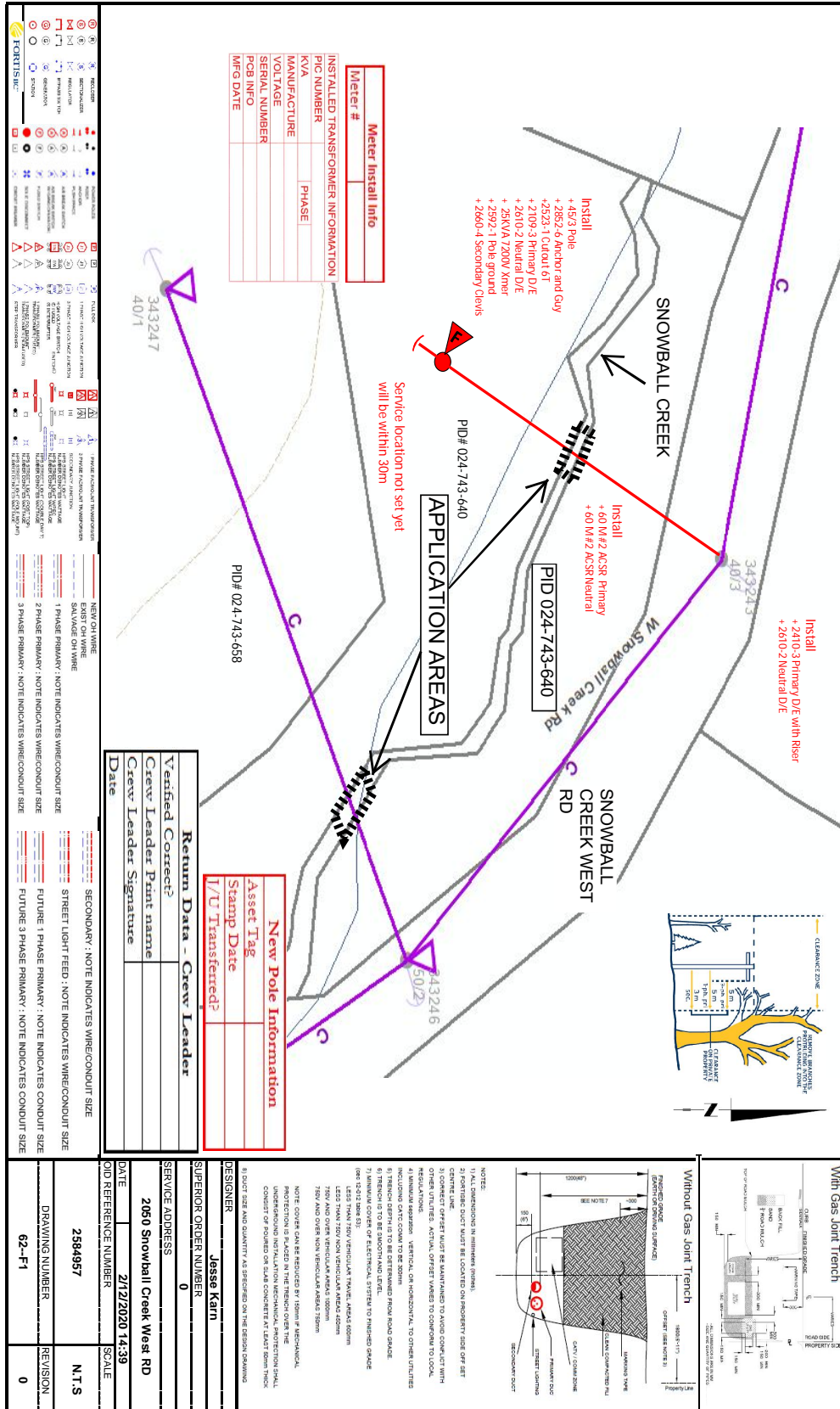
3.9 Environmental Incidents and Spills

An environmental incident is an accident or deleterious event that has caused or has the potential to cause harm to the environment. These events include, but are not limited to:

- An environmental regulatory non-compliance (*i.e.*, completing work without a permit, when a permit was required or not meeting the terms and conditions of the permit);
- Damage to fish or fish habitat;
- Damage to wildlife and/or wildlife habitat;
- Discovery or disturbance of an archaeological or heritage site; and
- Spills (an unauthorized release or discharge of a substance that is not immediately contained and has the potential to harm human health or the environment).

Contact FortisBC Environment (250) 304 9805 for support with dealing with Environmental Incidents.





Google Map and Geomark

Geomark: [gm-FEC35D5B44F54A3389FD9D33BF516D94](https://www.google.com/maps/@49.108290,-118.456837,15z)



Jennifer Kuhn

From: is@rdkb.com
Sent: October 22, 2020 3:32 PM
To: Theresa Lenardon; Information Services; Jennifer Kuhn; Melissa Zahn
Subject: Grant-in-Aid Form submitted by United Way of Trail & District - BV Food Action Initiative , email address - naomi@uwtraildistrict.org

Online Grant-in-Aid Application**Electoral Area(s) Applied to:**

Electoral Area 'A' Director Ali Grieve

Applicant Information:

Applicant: United Way of Trail & District - BV Food Action Initiative

Address: 855 Farwell St.Trail BC V1R 3T9

Phone: 250-364-0999

Fax:

Email: naomi@uwtraildistrict.org

Representative: Naomi McKimmie

Make Cheque Payable To: United Way Trail District -BVFAI

Other Expenses:

Total Cost of Project: \$10,000

Amount Requested from
RDKB Director(s):~~\$1,500~~\$2,000 Approved Director Grieve
October 22, 2020

What is the Grant-in-Aid for?

To assist with costs for the BV Christmas Hamper Program, 2019 saw the program assist 105 households, which includes 65 youth 0-16 yrs of age. We feel that these numbers may be higher this year due to these

unprecedented times we are in. As there are no fundraising events happening we have seen a loss in a few large donations to the hamper program.

List of Other Organizations Applied to for Funding

Name of Organization Village of Montrose

Amount Requested 500.00

Amount Secured

Name of Organization Village of Fruitvale

Amount Requested 500.00

Amount Secured

Name of Organization Atco Lumber

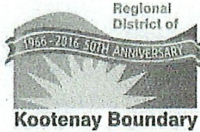
Amount Requested 1,500.00

Amount Secured

Documents uploaded with Submission?

☐

I:\Portals\0\Documents\GIA-Attachments\



Grant-in-Aid Request

The personal information you provide on this RDKB document is being collected in accordance with the Freedom of Information and Protection of Privacy Act and will be used only for the purpose of processing RDKB business. This document may become public information. If you have any questions about the collection of your personal information, please contact Theresa Lenardon, Manager of Corporate Administration/Corporate Officer and Freedom of Information Protection of Privacy Officer at 250-368-9148 or fo@rdkb.com.

Please check all Electoral Area Boxes You Are Making Application To:

<input type="checkbox"/> Electoral Area 'A' Director Ali Grieve	<input type="checkbox"/> Electoral Area 'B/' Lower Columbia-Old Glory Director Linda Worley	<input type="checkbox"/> Electoral Area 'C/' Christina Lake Director Grace McGregor	<input type="checkbox"/> Electoral Area 'D/' Rural Grand Forks Director Roly Russell	<input checked="" type="checkbox"/> Electoral Area 'E/' West Boundary Director Vicki Gee
---	---	---	--	--

Applicant:	* Big White Mountain Community Development Association				
Address:	* 101 - 1865 Dilworth Road, suite 215				
Phone:	* 250-469-2425	Fax:		E-Mail:	* info@ourbigwhitemountain.com
Representative:	* Leath Strench, Community Development Officer				
Make Cheque Payable To:	* Big White Mountain Community Development Association - BWMCDA				

*Starred items, including contact information, must be completed in full.

****GIA Requests of \$5,000.00 or more may require official receipt. The Electoral Area Director may ask for additional information.

What is the total Cost of the Project? \$ 6,357 What amount are you requesting from this RDKB Director(s)? \$ 5,000

What is the Grant-in-Aid for? (attach an extra sheet if necessary)

We have been fortunate to have some office space donated to our association. We need to furnish it, in order to be able to use it. We have 10 board of directors which meets on a monthly basis. With COVID-19, it is also important for us to be able to conduct our meetings via video conferencing & be able to have audio/visual equipment to host presentations. Our Bookkeeper and Community Development Officer will work out of this office; they will share the desk space. The smart lock will enable us to keep our area secure and not have excess keys distributed. We will be able to enter temporary codes for short term community use. The addition of an office provides us the ability to have a physical community board and an electronic community message board in our own space! Another indoor meeting place too.

Please list all other organizations you have applied to for funding (attach an extra sheet if necessary)

Name of Organization _____	Amount Requested: \$ _____	Amount Secured: \$ _____
Name of Organization _____	Amount Requested: \$ _____	Amount Secured: \$ _____
Name of Organization _____	Amount Requested: \$ _____	Amount Secured: \$ _____

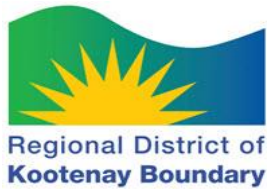
Date: _____ Applicant Signature _____ Print Name _____

Office Use Only

Grant approved by Electoral Area Director: _____

Approved by Board: _____

SUBMIT



STAFF REPORT

Date: 20 Oct 2020

File ADMN-Bylaw 1739

To: Chair Langman & Members of the
RDKB Board of Directors

From: Theresa Lenardon, Corporate Officer

Re: Proposed Draft Bylaw No. 1739 Administration
of the *Freedom of Information & Protection of
Privacy Act*

Issue Introduction

A staff report from Theresa Lenardon, Manager of Corporate Administration/Corporate Officer presenting a proposed revised bylaw for the administration of the *Freedom of Information and Protection of Privacy Act* (FoIPPA) and rescinding the previous bylaw.

History/Background Factors

- *Freedom of Information*: The idea that people ought to have access to records held by public bodies (with a few limited exceptions).
- *Protection of Privacy*: The idea that a person has the right to expect that information about oneself will not be collected, used or disclosed without their consent.

The general right of access to records is restricted by certain specified and limited exceptions. The *Freedom of Information and Protection of Privacy Act* (FoIPPA) is provincial legislation which balances an individual's right to information and privacy as follows:

- To make public bodies more open and accountable by providing the public with a legislated right of access to government records (freedom of information).
- To prevent the unauthorized collection, use or disclosure of personal information by public bodies (protection of privacy).

The Act sets out the formal process for access and privacy rights of individuals as they relate to the public sector.

There are certain exceptions to access records. For example, a public body cannot disclose information that would be harmful to law enforcement, a third-party business, personal privacy or public safety. The Act also excludes the disclosure of policy and legal advice. However, public institutions are held accountable for their information practices. FoIPPA requires that public bodies be transparent with their

information, and at the same time, protect personal information and or procurement information by making reasonable security arrangements against unauthorized access, collection, use, disclosure or disposal.

In addition to the FoIPPA requirements relating to the release of information and the protection of privacy, Division 2-Public Access to Records of the *Local Government Act* allows a Board, by bylaw to provide for public access to its records. The bylaw also designates the Corporate Officer as the FOI Head and Administration support staff as the FOI Coordinators as designated by the Head.

The RDKB's current bylaw to administer the *Freedom of Information and Protection of Privacy Act* regulations, Bylaw No. 842 was adopted in 1994 and is out of date. Based on legal advice, best practices learned and other local government FOI bylaws, staff has simplified Bylaw No. 842, revised the fee schedule and expanded on the list of routinely released records. The final bylaw presented to the Board of Directors has been vetted by the RDKB Solicitors. Some of the substantive changes to the original bylaw proposed in the new bylaw include:

- A limit on the specific references to the FoIPPA, so that if the Act is amended it will not necessitate amendments to the RDKB bylaw.
- In most B.C. local governments, the Corporate Officer is designated as the FOI Head (the "Head") and it is typical for the Head to designate someone as the Information and Privacy Coordinator (the "Coordinator"), as noted above. Section 66 of the Act authorizes the Head to delegate "to any person any duty, power of function of the Head under the Act, except the power to delegate under that section". This designation must be in writing and is included in the proposed revised bylaw.
- As the FOI Head, the Corporate Officer designates the position of the Information and Privacy Coordinator to the RDKB Administration Clerk Secretary Receptionist position(s) who assist the RDKB FOI Head with administering the FOI Act and processing the requests for records.
- Bylaw Schedule "A" -Maximum Fees has been revised to ensure that the RDKB's fees are current and comply with the legislation.
- Minor amendments have been made to Schedule "B"-Records Available to the Public on Demand without a legislative and formal "Request for Records". Staff has also expanded on the list with including several other typical RDKB records that may be routinely released. Given land use and building inspection applications and supporting documents usually contain personal information or sensitive third party business information, staff has confirmed with the RDKB Solicitors that it is more common for this information be released through a formal legislative FOI request. That way, the Head has an opportunity to consider first whether redacting information is necessary before releasing the document. However, the RDKB includes disclaimers on most of its building and land use applications. This disclaimer advises the applicant that their application will be made public via the RDKB's public agendas. Should someone request a copy of these applications, they can be considered "routinely released" but only once the personal and or third party information has been severed from the record.

Complying with the Freedom of Information and Protection of Privacy Act

Page 2 of 4
Staff Report-Bylaw No. 1739-FOI
Board of Directors-October 29, 2020

- Other than the employee designated in the RDKB FOI Bylaw as the FOI Head, it is an offence for any other employee or an elected official to release records which are not routinely released and which require a legislative review by the FOI Head.
- Part 2-S. 7 of the FOIPP Act sets out the time limit for responding. The Head of the public body must respond no later than 30 days after receiving a request.
- The FOIPPA provides FOI Heads with some discretion in deciding what personal information can be disclosed and that which must be redacted (discretionary vs mandatory exceptions for disclosure). In general, S. 6 of the Act requires local governments to make efforts to search for, locate and prepare for disclosure records which are not routinely released. The local government FOI Head must undertake a legislative review of the records so that the discretionary vs mandatory exceptions for disclosure test can be applied.
- All requests for records must be done so in writing (Part 2-S.5; How to Make a Request).
- Part 2-S. 6(1) Duty to Assist Applicants – The Head of the public body must make every reasonable effort to assist applicants and to respond openly, accurately and completely within the 30 day legislative deadline
- There are some records, such as medical records, BC Ambulance MVA health reports, etc., that will not be released unless the owner of those records has provided the requester with written permission and the FOI Head has received the written permission as part of the request.
- After the legislative review, existing records that match the request, and that are releasable under the Act are disclosed under a cover letter from the FOI Head. These records may have to be severed / redacted to protect personal privacy (Part 2-S.22; Disclosure Harmful to Personal Privacy) and or to protect procurement/third party trade secrets before disclosure (Part 6; Section 21; Disclosure Harmful to Business Interests of a Third Party). There are other reasons for redacting, but these are the two most common.

FoIPPA & the Federal Copyright Act

Building plans, architectural drawings/plans, engineered drawings/plans and survey plans etc. are not routinely released records. However, these can be disclosed under FoIPPA as well as the *Federal Copyright Act* after the FOI Head has undertaken a legislative review. The *Copyright Act* permits the release of one copy of the plans under the FoIPP Act. Hence, even though the information contained in the plans is not protected from disclosure, the release of these plans should be done pursuant to a formal request for access to the record. Building plans and architectural/registered professional illustrations, which may include the location of a security alarm will be reviewed by the FOI Head. Before disclosure of the record, the security alarm pieces are redacted. These types of records are released with a cover letter that sets out the legislation and also advises that these types of records are not to be shared or loaned to other individuals and they must not to be sold. As well as the cover letter, a label is placed on the plans before disclosure. The label advises that the information provided is subject to the *Federal Copyright Act* and in accordance with the Provincial *Freedom of Information and Protection of Privacy Act*.

Implications

A local government bylaw that administers the *Freedom of Information and Protection of Privacy Act* illustrates local government's commitment to transparency and in consideration of the protection of privacy and third party procurement information.

Advancement of Strategic Planning Goals

Adopting a bylaw to administer the *Freedom of Information and Protection of Privacy Act* meets the RDKB's strategic objective to

- improve and enhance RDKB communication with the bylaw providing a clear message as to the rules around the public's access to copies of RDKB records and the Board's commitment to transparency and to the protection of personal privacy and third party business interests and information.

Background Information Provided

1. Proposed draft Bylaw No. 1739, 2020.
2. Original FOI Bylaw No. 842, 1994.

Alternatives

1. Receive the staff report with no action.
2. Refer back to staff for changes.
3. Give RDKB FOI Bylaw No. 1739, 2020 First, Second and Third Readings and Adoption.

Recommendation(s)

That Regional District of Kootenay Boundary Administration of the *Freedom of Information and Protection of Privacy Act* Bylaw No. 1739, 2020 be given First, Second and Third Readings.

That Regional District of Kootenay Boundary Administration of the *Freedom of Information and Protection of Privacy Act* Bylaw No. 1739, 2020 be Adopted.



RDKB

BYLAW NO. 1739

**A Bylaw for the Administration of the
*Freedom of Information and Protection of Privacy Act***

WHEREAS, the *Freedom of Information and Protection of Privacy Act*, RSBC 1996, c. 165, as amended, requires a regional district to designate the Head and set any fees for services;

AND WHEREAS, the *Freedom of Information and Protection of Privacy Act*, RSBC 1996, c. 165, (the Act) as amended, authorizes the FOI Head to delegate to any person any duty, power or function of the Head under the *Freedom of Information and Protection of Privacy Act*, RSBC 1996, c. 165, as amended;

NOW THEREFORE, the Board for the Regional District of Kootenay Boundary, in open meeting assembled, enacts as follows:

Citation

1. This Bylaw may be cited for all purposes as the "Regional District of Kootenay Boundary Administration of the Freedom of Information and Protection of Privacy Act Bylaw No. 1739, 2020".

Definitions and Interpretation

2. The definitions contained in Schedule 1 of the Act shall apply to this Bylaw.
3. In this Bylaw:
 - (a) "**Act**" means the *Freedom of Information and Protection of Privacy Act*, R.S.B.C. 1996, Chapter 165;
 - (b) "**Commercial Applicant**" means a person who makes a request for access to a record to obtain information for use in connection with a trade, business, profession or other venture for profit;
 - (c) "**Coordinator**" means the person or group of persons designated by the FOI Head as the Information and Privacy Coordinator under section 5 of this Bylaw;
 - (d) "**Board**" means the Board of Directors of the Regional District of Kootenay Boundary;

- (e) **"Head"** means the person designated as the FOI Head of the Regional District under Section 4 of this Bylaw.
- (f) **"Regional District"** means the Regional District of Kootenay Boundary;
- (g) **"Request"** means a request under Section 5 of the Act.

Administration

- 4. The Manager of Corporate Administration/Corporate Officer is designated as the RDKB FOI Head for the purposes of the Act.
- 5. The RDKB Administration position(s) of Clerk Secretary Receptionist is/are designated as the Information and Privacy Coordinators; and
- 6. For the purposes of the Act, the Head and the Coordinator(s) shall act in their respective capacities for all Boards, Commissions and Committees of the Regional District.

Powers of Coordinator

- 7. The FOI Head may, when deemed appropriate, delegate any of the Head's duties under the Act to the Coordinator(s).

Fees

- 8. When required, an applicant making a Request shall pay to the Regional District the fees set out in Schedule "A" to this Bylaw for the purpose of:
 - (a) locating, retrieving and producing the record;
 - (b) preparing the record for disclosure;
 - (c) shipping and handling the record; and
 - (d) providing a copy of the record.

Repeal

- 9. The Regional District of Kootenay Boundary "Administration of the *Freedom of Information and Protection of Privacy Act* Bylaw No. 842, 1994" is hereby repealed.

Read a First, Second and Third Time this 29th day of October 2020.

I, Theresa Lenardon, Manager of Corporate Administration/Corporate Officer of the Regional District of Kootenay Boundary, do hereby certify the foregoing to be a true and correct copy of Regional District of Kootenay Boundary Bylaw No. 1739 cited as "Regional District of Kootenay Boundary Administration of the *Freedom of Information and Protection of Privacy Act* Bylaw No. 1739, 2020" as read a Third Time this 29th day of October 2020.

Corporate Officer

Adopted this 29th day of October, 2020.

Chair

Corporate Officer

I, Theresa Lenardon, Manager of Corporate Administration/Corporate Officer of the Regional District of Kootenay Boundary, do hereby certify the foregoing to be a true and correct copy of Regional District of Kootenay Boundary Bylaw No. 1739 cited as "Regional District of Kootenay Boundary Administration of the *Freedom of Information and Protection of Privacy Act* Bylaw No. 1739, 2020" as Adopted this 29th day of October 2020.

Corporate Officer

SCHEDULE "A"
SCHEDULE OF MAXIMUM FEES

1. For applicants other than Commercial Applicants:

- | | | |
|------|---|--|
| (a) | For locating and retrieving a record | \$7.50 per ¼ hour after the first 3 hours |
| (b) | For producing a record manually | \$7.50 per ¼ hour |
| (c) | For producing a record from a machine readable record from a server or computer | \$7.50 per ¼ hour for developing a computer program to produce the record |
| (d) | For preparing a record for disclosure and handling a record | \$7.50 per ¼ hour |
| (e) | For shipping copies | actual cost of shipping method chosen by applicant |
| (f) | For copying records | |
| i) | floppy disks | \$2.00 per disk |
| ii) | CDs and DVDs, recordable or rewritable | \$4.00 per disk |
| iii) | computer tapes | \$40.00 per tape up to 2,400 feet |
| iv) | microfiche | \$3.00 per fiche |
| v) | microfilm duplication | \$25.00 per roll for 16 mm of microfilm
\$40.00 per roll for 35 mm microfilm |
| vi) | microfiche or microfilm to paper duplication | \$0.50 per page (8.5" x 11") |
| vii) | photographs (colour or black and white) | \$5.00 to produce a negative
\$12.00 each 16" x 20" photograph
\$9.00 each 11" x 14" photograph
\$4.00 each 8" x 10" photograph
\$3.00 each 5" x 7" photograph |

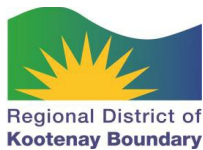
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|-------|--|---|
| viii) | photographic print of textual, graphic or cartographic record, black and white | \$12.50 each (8" x 11") |
| ix) | dot matrix, ink jet, laser print or photocopy, black or white | \$0.25 per page (8.5" x 11", 8.5" x 14" or 11" x 17") |
| x) | dot matrix, ink jet, laser print or photocopy, colour | \$1.65 per page (8.5" x 11", 8.5" x 14" or 11" x 17") |
| xi) | scanned electronic copy of a paper record | \$0.10 per page |
| xii) | photomechanical reproduction of 105 mm cartographic record/plan | \$3.00 each |
| xiii) | slide duplication | \$0.95 each |
| xiv) | audio cassette tape (90 minutes or fewer) duplication | \$5.00 per cassette plus \$7.00 per ¼ hour of recording |
| xv) | video cassette recorder (VHS) tape (120 minutes or fewer) duplication | \$5.00 per cassette plus \$7.00 per ¼ hour of recording |
| 2. | For Commercial Applicants for each service listed in Item 1 | the actual cost of providing that service |

SCHEDULE "B"**FREQUENTLY ROUTINELY RELEASED RECORDS****Records Available to the Public upon Demand
Without a Written Request for Access & FOI Head Review**

1. Bylaws.
2. Resolutions of the Regional District adopted at a meeting from which the public was not excluded.
3. Copies of meeting agendas of Board of Directors, Committees and Commissions of the Regional District from which the public was not excluded.
4. Copies of minutes of meetings of Board of Directors, Committees and Commissions of the Regional District from which the public was not excluded.
5. Copies of RDKB staff reports, briefing notes etc. included on open public meeting agendas.
6. Budgets and Five Year Financial Plan.
7. Copies of Grant-in-Aid requests with disclaimer on application.
8. Copies of applications for Building Permits and issued Building Permits (*personal information excluded or disclaimer on application*).
9. Copies of applications for, and issued Development Permits (*personal information excluded or disclaimer on application*).
10. Copies of applications for, and issued Development Variance Permits (*personal information excluded or disclaimer on application*).
11. Copies of Decisions of the Board of Variance.
12. Copies of internal studies and reports, which have been authorized by the Board for public release.
13. Copies of policy manuals available to the public under section 70 of the Act.
14. Copies of accounts payable and receivable (general).
15. Financial Statements.
16. Purchase Orders.
17. Remuneration (elected officials and staff).
18. Requests for Proposals document (excluding the proposals and or bids submitted in response).
19. Copies of legal advertising, notices, communications (e.g. RDKB meetings, public hearings, election and referenda communications etc.).
20. Final Collective Agreement.
21. Board financial disclosure forms, indemnities, remuneration (excluding personal information not related to local government).
22. Election campaign financing, disclosure forms, nomination papers etc.

23. Expense claims and expense accounts (staff and Board).

24. Maps and GIS information (general information for databases, mapping but not property ownership information).



Regional District of Kootenay Boundary

BYLAW NO. 842XXX

A Bylaw for the Administration of the
Freedom of Information and Protection of Privacy Act

WHEREAS, under Section 76.1 of the *Freedom of Information and Protection of Privacy Act*, RSBC 1996, c. 165, as amended, requires a local government:

must regional district to designate a person or group of persons as the head of the municipality Head and set any fees for the purposes of services;

a) **AND WHEREAS**, the *Freedom of Information and Protection of Privacy Act*, and

may authorize, RSBC 1996, c. 165, as amended, authorizes the Head to delegate to any person to perform any duty, power or exercise any function of the Head under the Freedom of Information and Protection of Privacy Act of the person or group of persons designated as the head of the municipality; and, RSBC 1996, c. 165, as amended;

b) may set any fees the local public body requires to be paid under Section 75 of the Freedom of Information and Protection of Privacy Act.

NOW THEREFORE BE IT RESOLVED that, the Board for the Regional District of Kootenay Boundary Board of Directors, in open meeting assembled, enacts as follows:

Citation

1. This Bylaw may be cited for all purposes as the "Regional District of Kootenay Boundary "Administration of the Freedom of Information and Protection of Privacy Act Bylaw No. 842, 1994XXX, 2020".

Definitions and Interpretation

2. The definitions contained in Schedule 1 of the Act shall apply to this Bylaw except where the context requires otherwise.

3. In this Bylaw:

- (a) **"Act"** means the *Freedom of Information and Protection of Privacy Act*, Stats R.S.B.C. 1992, C. 61 1996, Chapter 165;
- (b) **"Commercial Applicant"** means a person who makes a request for access to a record to obtain information for use in connection with a trade, business, profession or other venture for profit;
- (c) **"Coordinator"** means the person or group of persons designated in Section 3.3 as the Information and Privacy Coordinator under section 5 of this Bylaw;
- (d) **"Board"** means the Board of Directors for the Regional District of Kootenay Boundary;
- (e) **"Head"** means the person or group of persons designated as the Head of the municipalityRegional District under Section 3section 4 of this Bylaw.
- (f) **"Regional District"** means the Regional District of Kootenay Boundary;
- (g) **"Request"** means a request under Section 5 of the Act.

Administration

4. The ~~Administrator~~ Manager of Corporate Administration is designated as the Head for the purposes of the ~~Freedom of Information and Protection of Privacy Act~~.

~~1.1 The Duties and Functions of Head which remain those of the Head are set out for reference in Appendix 1.~~

~~[] is designated as~~

5. ~~The Board hereby designates the Deputy Secretary to be~~ the Information and Privacy Coordinator; and

6. For the purposes of the Act, the Head and the Coordinator shall act in their respective capacities for all Boards, Commissions and Committees of the Regional District.

Powers of Coordinator

- ~~6.7.~~ The Board hereby authorizes the ~~Coordinator to perform the following duties or exercise the following functions of the Head~~ may delegate any of the Head's duties under the Act to the Coordinator.

~~4.2 Responding to Requests~~

- ~~(a) The duty to create a record from a machine readable record in the custody or under the control of the municipality using its normal computer hardware and software and technical expertise if creating the record would not unreasonably interfere with the operations of the municipality;~~

- ~~(b) The power to respond to a request except where the Head has the discretion under the Act to determine whether a record shall be released or withheld from disclosure;~~

- ~~(c) The power to respond to a request after the Head has made a decision regarding the disclosure or non-disclosure of a record;~~

- ~~(d) The power to refuse in a response to confirm or deny the existence of:~~

- ~~(i) a record containing information described in Section 15 of the Act (information harmful to law enforcement) or~~

- ~~(ii) a record containing personal information of a third party if disclosure of the existence of the information would be an unreasonable invasion of that party's personal privacy.~~

- ~~(e) The duty to:~~

- ~~(i) provide an applicant with a copy of a record or part of a record with a response where the record can reasonably be reproduced, or~~

- ~~(ii) to give reasons for the delay in providing the record.~~

~~4.3 Extension of Time~~

- ~~(a) The power to extend the time for responding to a request for up to 30 days.~~

- ~~(b) The power to apply to the Information and Privacy Commissioner for a longer time period for response to a request where:~~

- ~~i) the applicant does not give enough detail to enable the municipality to identify a requested record;~~

~~ii) a large number of records is requested or must be searched and meeting the time limit would unreasonably interfere with the operations of the municipality;~~

~~iii) more time is needed to consult with a third party or other public body before the Head can decide whether, or not to give the applicant access to a requested record, or;~~

~~iv) a third party asks for a review under Section 52(2) or 62(2) of the Act.~~

~~(c) The power to tell the applicant the reason for an extension, when a response can be expected and that the applicant may complain about the extension under Section 42(2) (b) or 60(1) (a) of the Act where the time for a response to a request has been extended under Section 10 (1) of the Act.~~

~~1.4 Transfer Request~~

~~(a) The power to transfer a request and, if necessary, the records to another public body if:~~

~~(i) the record was produced by or for the other public body;~~

~~(ii) the other public body was the first to obtain the record, or~~

~~(iii) the record is in the custody or under the control of the other public body.~~

~~(b) The power to notify the applicant of the transfer.~~

~~1.5 Information to be Released Within 60 Days~~

~~(a) The power to refuse to disclose information that is available for purchase by the public under Section 20(1) (a) of the Act.~~

~~(b) The power to notify an applicant of the publication or release of information that the Head has refused to disclose under Section 20(1)(b) of the Act on the basis that the information is to be published or released to the public, within 60 days after the applicant's request is received.~~

~~1.6 Business Interests~~

~~(a) The power to refuse to disclose to an applicant information:~~

~~(i) that would reveal~~

~~1. trade secrets of a third party, or~~

~~2. commercial, financial, labour relations, scientific or technical information of a third party;~~

~~(ii) that is supplied, implicitly or explicitly, in confidence, and~~

~~(iii) the disclosure of which could reasonably be expected to~~

~~1. harm significantly the competitive position or interfere significantly with the negotiating position of the third party;~~

~~2. result in similar information no longer being supplied to the public body when it is in the public interest that similar information continue to be supplied;~~

~~3. result in undue financial loss or gain to any person or organization, or~~

~~4. reveal information supplied to, or the report of, an arbitrator, mediator,~~

~~labour relations officer or other person or body appointed to resolve or inquire into a labour relations dispute.~~

~~(b) The duty to refuse to disclose to an applicant information that was collected on a tax return or gathered for the purpose of determining tax liability or collecting a tax.~~

~~(c) The duty set out in paragraphs (a) and (b) is subject to Section 21(3) of the Act which provides that the duty to refuse disclosure does not apply if a third party consents to the disclosure or the information is in a record that is in the custody or control of the British Columbia Archives and Records Service or the archives of a public body and that has been in existence for 50 or more years.~~

~~4.7 Notification~~

~~(a) The power to notify a third party that the municipality intends to give access to a record that the Coordinator has reason to believe contains information that might be excepted from disclosure under Section 21 (information harmful to business interests of a third party) or Section 22 (information harmful to personal privacy) of the Act.~~

~~(b) The power to give a notice under Section 23(1.2) of the Act where the Coordinator does not intend to give access to a record that contains information excepted from disclosure under Section 21 (information harmful to business interests of a third party) or Section 22 (information harmful to personal privacy) of the Act.~~

~~(c) The power to give written notice of the decision whether or not to give access to a record that the Coordinator has reason to believe contains information that might be excepted from disclosure under Section 21 or 22 of the Act to the applicant and a third party.~~

~~4.8 Public Interest~~

~~The power to disclose information in accordance with Section 25 of the Act to the public, to an affected group of people or to an applicant:~~

~~(a) about a risk of significant harm to the environment or to the health or safety of the public or a group of people, or~~

~~(b) the disclosure of which is, for any other reason, clearly in the public interest.~~

~~4.9 Information Protection~~

~~(a) The power to protect personal information by making reasonable security arrangements against such risks as unauthorized access, collection, use, disclosure or disposal.~~

~~(b) The duty to refuse to disclose information to an applicant, if the disclosure is prohibited or restricted by or under another Act.~~

~~4.10 Commissioner's Orders~~

~~The power to comply with an order of the Information and Privacy Commissioner.~~

Fees

~~7.8.~~ A
n applicant making a ~~request~~Request shall pay to the ~~municipality~~Regional District the fees set out in Schedule "A" to this Bylaw for the purpose of:

- (a) locating, retrieving and producing the record;
- (b) preparing the record for disclosure;

- (c) shipping and handling the record; and
- (d) providing a copy of the record.

Repeal

~~2. The This bylaw shall come into force and effect upon proclamation of Stats B.C. 1992 c.46.~~

Citation:

~~8.9. This bylaw may be cited as "Regional District of Kootenay Boundary "Administration of the Freedom of Information and PreventionProtection of Privacy Act Administration Bylaw No. _____, 2020'842, 1994" is hereby repealed.~~

Read a First and Second

~~READ A FIRST TIME~~ this ____ day of _____, 2020.

~~Read a Third Time~~READ A SECOND TIME this _____ day of _____, 2020.

~~I, Theresa Lenardon, Manager of Corporate Administration/Corporate Officer of the Regional District of Kootenay Boundary, hereby certify the foregoing to be a true and correct copy of Bylaw No. cited as the "Regional District of Kootenay Boundary Freedom of Information and Prevention of Privacy Act Administration Bylaw No." as read a third time this th day of 2020.~~

Manager of Corporate Administration/Corporate Officer

~~Reconsidered and Adopted~~READ A THIRD TIME this ____ day of _____, 2020.

ADOPTED this ____ day of _____, 2020.

~~I, Theresa Lenardon, Manager of Corporate Administration/Corporate Officer of the Regional District of Kootenay Boundary, hereby certify the foregoing to be a true and correct copy of Bylaw No. cited as the "Regional District of Kootenay Boundary Freedom of Information and Prevention of Privacy Act Administration Bylaw No." as Reconsidered and Adopted this th day of 2020.~~

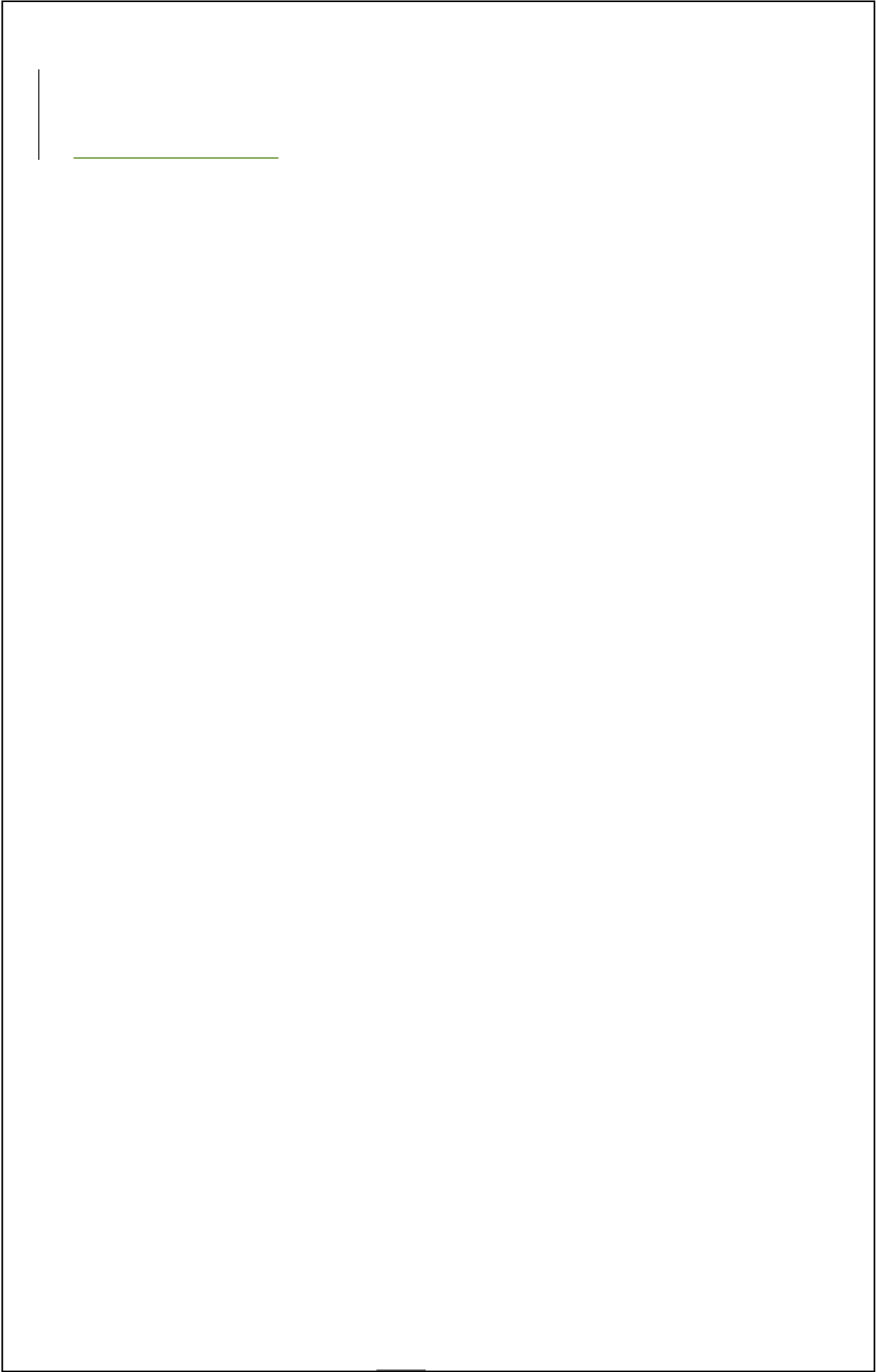
Manager of Corporate Administration/Corporate Officer

Chair

Corporate Officer

SCHEDULE "A"		
SCHEDULE OF MAXIMUM FEES		
1.	For applicants other than commercial applicants <u>Commercial Applicants</u> :	
(a)	for <u>For</u> locating and retrieving a record	\$7.50 per ¼ hour after the first 3 hours
(b)	for <u>For</u> producing a record manually	\$7.50 per ¼ hour
(c)	for <u>For</u> producing a record from a machine readable record <u>from a server or computer</u>	\$16.50 per minute for cost of use of central mainframe processor and all locally attached devices plus \$7.50 per 1 1/4 <u>¼</u> hour for developing a computer program to produce the record
(d)	for <u>For</u> preparing a record for disclosure and handling a record	\$7.50 per ¼ hour
(e)	for <u>For</u> shipping copies	actual cost of shipping method chosen by applicant
(f)	for <u>For</u> copying records	
	to <u>floppy disks</u> photocopies and computer printouts	\$.25 <u>\$2.00</u> per page (8.5" x 11", 8.5" x 14")
	ii) i) <u>CDs and DVDs, recordable or rewritable floppy disks</u>	\$.30 per page (11" x 17") <u>disk</u>
	iv) iii) <u>computer tapes</u>	\$40.00 per disk
	v) iv) <u>microfiche</u>	\$40.00 per fiche
	vi) v) <u>16 mm microfilm duplication</u>	\$25.00 per roll <u>for 16 mm of microfilm</u> \$40.00 per roll for 35 mm microfilm
	vii) 35 mm microfilm duplication	\$40.00 per roll
	viii) vi) <u>microfiche or microfilm to paper</u> _____ duplication	\$.50 per page \$(8.5.00 to produce a negative" x 11")
	ix) vii) <u>photographs (colour or black and white)</u>	\$5.00 to produce a negative \$12.00 each 16" x 20" <u>photograph</u> \$9.00 each 11" x 14" <u>photograph</u> \$4.00 each 8" x 10" <u>photograph</u> \$3.00 each 5" x 7" <u>photograph</u>
	x) viii) <u>photographic print of textual, graphic or cartographic record</u> (8" x 10", black and white)	\$12.50 each <u>(8" x 11")</u>

	ix) hard copy dot matrix, ink jet, laser print, b/w 300 dots/inch or photocopy, black or white	\$.25 each <u>\$0.25 per page (8.5" x 11", 8.5" x 14" or 11" x 17")</u>
	xi) hard copy laser print, b/w 1200 dots/inch	\$.40 each
	x) hard copy dot matrix, ink jet, laser print or photocopy, colour	\$1.65 each <u>\$1.65 per page (8.5" x 11", 8.5" x 14" or 11" x 17")</u>
	xi) scanned electronic copy of a paper record	\$0.10 per page
	xii) photomechanical reproduction of 105 mm cartographic record/plan	\$3.00 each
	xiii) slide duplication	\$. <u>\$0.95 each</u>
	xiv) plans	\$1.00 per square meter
	xv) audio cassette duplication	\$10.00 plus \$7.00 per ¼ hour of recording
	xvi) xv) video audio cassette (1/4" tape (90 minutes or 8 mm fewer) duplication	\$115.00 per 60 minute cassette plus \$7.00 per ¼ hour of recording; \$20.00 per 120 minute cassette plus \$7.00 per ¼ hour of recording
	xvii) xv) video cassette (1/2" recorder (VHS) tape (120 minutes or fewer) duplication	\$155.00 per cassette plus \$117.00 per ¼ hour of recording
	xviii) video cassette (3/4") duplication	\$40.00 per cassette plus \$11.00 per ¼ hour of recording
2.	For commercial applicants <u>Commercial Applicants</u> for each service listed in item <u>Item 1</u>	the actual cost of providing that service



SCHEDULE "B"

RECORDS AVAILABLE TO THE PUBLIC ON DEMAND WITHOUT A REQUEST FOR ACCESS

1. Bylaws.
- | 2. Resolutions of the ~~Municipality~~Regional District adopted at a meeting from which the public was not excluded.
- | 3. Copies of Minutes of meetings of ~~Council~~the Board from which the public was not excluded.
- | 4. Copies of issued Business Licenses.
- | 5. Copies of issued Building Permits~~—(personal information excluded).~~
- | 6. Copies of issued Development Permits~~—(personal information excluded).~~
- | 7. Copies of issued Development Variance Permits (personal information excluded).
8. Copies of Decisions of the Board of Variance.
- | 9. Copies of Minutes of meetings of committees and commissions of the ~~Municipality~~Regional District from which the public was not excluded.
- | 10. Copies of studies and reports which have been authorized by the ~~Council~~Board for public release.
11. Copies of policy manuals available to the public under section 70 of the Act.
- | ~~12. Copies of applications for rezoning, development permits and development variance permits and information supplied in support of such applications.~~

APPENDIX 1

DUTIES AND FUNCTIONS OF THE HEAD WHICH REMAIN THOSE OF THE HEAD

SECTION — DESCRIPTION

- ~~6(1) — The duty to assist applicants~~
- ~~12.1 — The power to refuse to disclose to an applicant information that would reveal:
 - ~~a) a draft of a resolution, bylaw or other legal instrument by which the local public body acts or a draft of a private bill, or~~
 - ~~b) the substance of deliberations of a meeting of its elected officials or of its governing body or a committee of its governing body, if an Act or a regulation under this Act authorizes the holding of that meeting in the absence of the public.~~~~
- ~~13 — The power to refuse to disclose information that would reveal advice or recommendations developed by or for a public body.~~
- ~~14 — The power to refuse to disclose information subject to solicitor/client privilege.~~
- ~~15 — The power to refuse to disclose information if the disclosure could reasonably be expected to harm a law enforcement matter or that would have any of the other results set out in Section 15 of the Act.~~
- ~~16 — The power to refuse to disclose information if the disclosure could reasonably be expected to be harmful to intergovernmental relations or negotiations in accordance with Section 16 of the Act.~~
- ~~17(1) — The power to refuse to disclose information which could reasonably be expected to harm the financial or economic interests of a local public body or the government of British Columbia or the ability of that government to manage the economy including the matters set out in Section 17(1) of the Act.~~