BRITISH COLUMBIA

Environmental Appeal Board

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Decision No. 2016-WAT-006(b)

ENVIRONMENTAL APPEAL BOARD
IN THE MATTER OF THE *WATER SUSTAINABILITY ACT*,
S.B.C. 2014, c. 15

Between:

Kulwinder Singh Gill and Avninderjit Kaur Gill

Appellants

And:

Assistant Water Manager

Respondent

And:

Fraser Valley Regional District,
Nachahatter Singh Jhulley and Baljit Kaur Jhulley, and
Agricultural Land Commission

Participants

CONSENT ORDER

ON THE APPLICATION of the parties, without a hearing and by consent;

THE BOARD ORDERS under Section 16 of the *Administrative Tribunals Act*, S.B.C. 2004, c. 45 that:

1. Pursuant to Section 17 of the *Administrative Tribunals Act*, S.B.C. 2004, c. 45, the appeal assigned EAB File No. 2016-WAT-006 is dismissed.

2. The unauthorized fill placed in the riparian area along Lagace Creek as identified in yellow on Appendix "A" (the "Unauthorized Fill") is to be left undisturbed in its current state.

3. To mitigate the loss of riparian and aquatic area of the Unauthorized Fill, 20% of the total of 1,800 square meters as calculated in the Habitat Balance table at Appendix "B" must be compensated by planting within the Unauthorized Fill area and more specifically in accordance with the Pinchin Remediation Plan dated September 3, 2020 at pages 2-4 at Appendix "C".

4. The unauthorized lock-block wall, identified in red on Appendix "D" (the "Unauthorized Lock-Block Wall"), is to be removed and reconstructed a minimum ten (10) meters from the top of Lagace Creek (the "Relocated Lock-Block"), on the appellant's private property in accordance with the design set out in the stamped and sealed Out of the Box Engineering drawing at Appendix "E". The reconstruction of the area shall include a minimum of two (2) meters of instream habitat to restore the top of bank. The total area for restoration will be a minimum of twelve (12) meters.

5. A private dike may be constructed behind the riparian area of the Unauthorized Fill on the Appellant's property (the "Dike").

6. The plan for construction of the Relocated Lock-Block Wall as described in paragraph four (4) of this Order and Appendix E shall be supervised by C.S. Johnson of Out of Box Engineering.

7. After the removal of the Unauthorized Lock-Block Wall and the construction of the Relocated Lock-Block Wall the instream and riparian area impacted by the Unauthorized Lock-Block Wall shall be restored and replanted. Restoration must include at least 88 square meters of instream habitat and 440 square meters of riparian habitat and more specifically the restoration required is contained at pages 4 and 5 at Appendix C (Pinchin Remediation Plan).

8. Remediation for the infill of approximately 226.96 linear meters of instream habitat and average of 3 meters of riparian habitat of UT5 shall be by restoration of 2,1567 square meters, with a minimum of 710 square meters of aquatic habitat, and the remainder riparian habitat as set out at pages 7-9 and 24 at Appendix C (Pinchin Remediation Plan).

9. The appellant shall at least 14 days prior to the commencement of the restoration and remediation work contemplated in paragraph 3, 4, 7 and 8 of this Order provide written notice of the proposed work to the respondent.

10. The appellant must submit a three (3) year riparian planting monitoring plan (the "Plan") for the planting set out in Appendix C to achieve the planting described in in paragraph 7 and eight 8 of this Order prepared by a Pinchin Ltd. The Plan as submitted shall report on the survival of the planted vegetation and record observations related to flows and the function of channel features. The Plan must achieve a survival rate for the planting of at least 80%. If survival rates for the plants are below 80% replanting is required to achieve 80%. The appellant must also submit annual reports prepared by Pinchin Ltd. summarizing monitoring observations and recommendations. The annual reports shall be submitted to James Davies at James.Davies@gov.bc.ca, by December 1 of each year for three (3) consecutive years after the planting contemplated in paragraph 7 and 8 of this Order has been completed.

11. Works contemplated in this Order shall occur as soon as practicable after entry of this Order. The instream channel works contemplated in this Order must occur during the risk reduced instream work window, and more specifically, between July 15 to September 15, 2021.

12. If the work required by the appellant pursuant to this Order, beyond the instream channel work contemplated in paragraph eleven (11) of this Order can not be completed by end of 2021 due to a material change in circumstances not caused or contributed to by the appellant, such as a significant economic impact from crop loss, or COVID-19, the appellant may seek to vary the completion date for works beyond the instream channel work contemplated in paragraph eleven (11) of this Order to a completion date of no later than December 31, 2022 by application to the respondent, submitted by the appellant to the respondent no later than September 15, 2021. The respondent will vary the appellant's completion date for non-instream works required in this Order as requested, provided the requirements of this paragraph have been met. The respondent will provide a response to a request for an extension by no later than November 31, 2021. If the respondent concludes the appellant has not met the requirements of this paragraph, a new right of appeal will exist with respect to the respondent's decision not to vary the completion date for non-instream channel works.
13. Sediment and Erosion Control measures to prevent the release of silt, sediment or sediment-laden water must be in place before starting works that may result in sediment mobilization. Care shall be exercised during all phases of the work to prevent the release of silt, sediment, sediment-laden water, raw concrete, concrete leachate or any deleterious substances. All control measures must meet or surpass the Provincial "Standards and Best Practices for In-stream Works" (2004) and the "Land Development Guidelines for the Protection of Aquatic Habitat" (Fisheries and Oceans Canada and the British Columbia, 1993).

14. The Appellant must receive and submit a detailed post-construction report within 90 days of completion of any Pinchin Ltd. and Out of Box Engineering works described in paragraph 4 and 7 of this Order to James Davies at James.Davies@gov.bc.ca (the "Post-Construction Reports").

15. The Post-Construction Reports described in paragraph 14 of this Order shall include a signed statement from the, project biologist and project geotechnical engineer summarizing: the instream works undertaken, the timing of those works, the total instream area directly affected, the volume of gravel or sediment removed (if applicable), the frequency of monitoring; the turbidity reporting and accompanying data along with a description of any levels higher than the authorization and what immediate steps were taken (if applicable), representative site photographs; whether or not they observed or were otherwise aware of any non-compliance with the terms and conditions of this Order; and a description of any environmental incidents, non-compliance or other difficulties, and how these were addressed and reported.

16. The project biologist and project geotechnical engineer shall for two (2) years after the Post-Construction Reports are prepared carry out monitoring of the instream works described in paragraph 15 of this Order and shall submit a monitoring report on an annual basis summarizing the monitoring observations. The annual reports shall be submitted to James Davies at James.Davies@gov.bc.ca, by December 1 of each year for two (2) consecutive years after delivery of the Post-Construction Report.

17. Each party shall bear their costs of this appeal.

18. This Order may be endorsed by the parties in counterpart.

THE FOLLOWING PARTIES APPROVE THE FORM OF THIS ORDER AND CONSENT TO EACH OF THE ORDERS NOTED ABOVE ON THIS 18th DAY OF NOVEMBER, 2020:

"Delwen Stander"

Signature of **Delwen Stander**
Lawyer for the Appellants

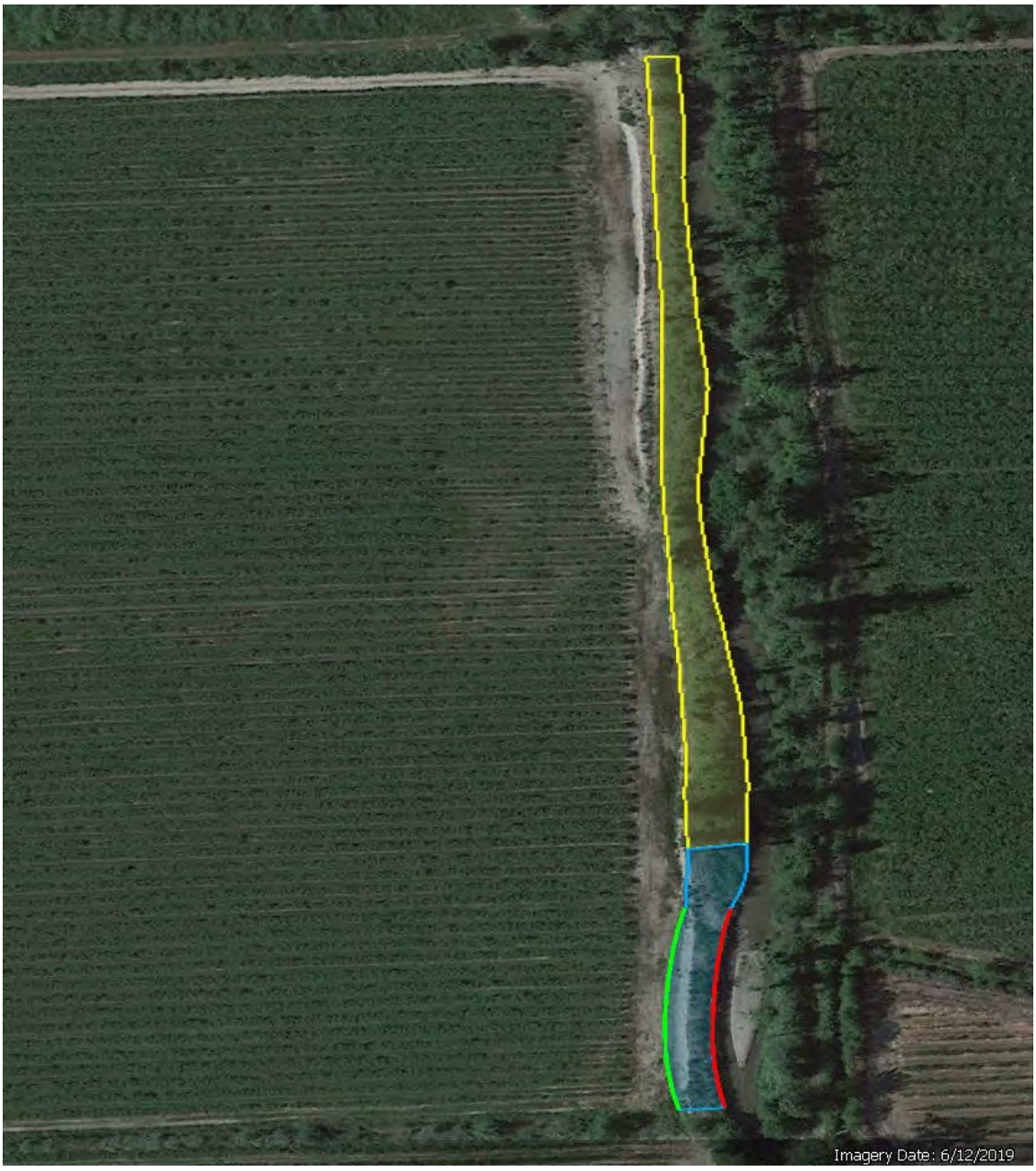
"Stephen E. King"

Signature of **Stephen E. King**
Lawyer for the Respondent

"Darrell LeHouillier"

Signature of **Darrell LeHouillier**
Chair, Environmental Appeal Board

Appendix A
“Unauthorized fill” along Lagace Creek



Appendix B
Habitat Balance for all instream and riparian impacts on the property

HABITAT BALANCE for 11428 STAVE LAKE ROAD

PREPARED BY: Sandra Jensen					DATED: November 19, 2019			11428 STAVE LAKE ROAD		
Stream (Please indicate each stream channel and/or reach of the stream)	Description of Works (Please describe type of works for indicated stream)	Stream Channel			Instream Impacts			Riparian Impacts		
		Length (m)	Width (m)	Riparian Setback (m)	Loss (m2)	Gain (m2)	Net (Loss-Gain) (m2)	Loss (m2)	Gain (m2)	Net (Loss-Gain) (m2)
UT5 - from UT3 south up to and including the former road and culvert crossing	Infill up to July 14, 2014	83.64	2.25	3.00	187.88	0.00	187.88	501.00		501.00
UT5 - south of former road and culvert crossing up to end of 2014 infill	Infill up to July 14, 2014	61.50	4.82	3.00	296.43	0.00	296.43	369.00		369.00
UT5 - small ponded area south at the end of the July 2014 infill	Infill from July 14, 2014 to July 2, 2015	16.15	4.82	3.00	87.48	0.00	87.48	108.90		108.90
UT5 - from bottom of small ponded area infilled July 2, 2015 to Oct 15, 2015	Infill from July 2, 2015 to Oct 15, 2015	52.67	4.82	3.00	253.87	0.00	253.87	316.02		316.02
UT5 - from end of Oct 15, 2015 infill to road crossing	Riparian loss	89.16	4.82	3.00	0.00	0.00	0.00	445.80		445.80
UT5 new road crossing culvert	Infill and unauthorized culvert	13.00	4.82	3.00	62.66	0.00	62.66	78.00		78.00
	Total impact to UT5:	**316.12**	**26.35**	**18.00**	**888.32**	**0.00**	**888.32**	**1818.72**	**0.00**	**1818.72**
Unauthorized Fill along Lagace Creek	Approx. 180m length, riparian habitat reduced from approx. 20m to 10m. Calculation based on establishment of a 10m setback. Total initial riparian impact was 1,800m2. Consent Order requests 20% compensation for initial impact.							360.00		360.00
	Total impact to Riparian and Stream Channel from Berm:	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**360.00**	**0.00**	**360.00**
Unauthorized Lock-Block Wall	44m lockblock wall, within 20m former setback and low estimate 2m instream habitat loss. Calculation based on a 10m setback. Note: this inlcludes the habitat loss north of the Unathorized Lock-Block Wall.	44.00			88.00	0.00	88.00	600.00		600.00
	Total impact from Lock Block wall:	**44.00**	**0.00**	**0.00**	**88.00**	**0.00**	**88.00**	**600.00**	**0.00**	**600.00**
INSTREAM AND RIPARIAN NET LOSS/GAIN						**INSTREAM:**	**976.32**		**RIPARIAN:**	**2778.72**

September 3, 2020

Allcan Holdings Ltd.
35593 Jade Drive
Abbotsford, British Columbia V3G 3E7

E-mail: allcan@shaw.ca

Attention: Kulwinder Gill
Project Owner

Re: REVISION 1 - Proposed Environmental Measures
11428 Stave Lake Road, Mission, British Columbia
Pinchin File: 216109.000

1.0 INTRODUCTION

Pinchin Ltd. (Pinchin) was retained by Allcan Holdings Ltd. (Client) to provide a report detailing Qualified Environmental Professional (QEP) prescribed measures to respond to measures proposed in the Draft Consent Order (Draft Order) from the Province of British Columbia (the Province) provided to legal counsel for the Client on November 26, 2019. This letter has been updated with consideration of the letter from the Province to our Client's legal counsel on May 20, 2020 and August 4, 2020.

The Draft Order refers to the property identified by civic address 11428 Stave Lake Road, Mission, BC (Site).

The Draft Order is presented in Appendix I for reference. Specific numbered items from the Draft Order that require QEP input to address at this time are reproduced below for reference:

1. In order to mitigate the loss of riparian and aquatic area of the Unauthorized Fill, 20% of the total of 1,800 square metres must be compensated by planting within the Unauthorized Fill area and as calculated in the Habitat Balance in Appendix "B". A Qualified Professional, experienced in channel restoration, shall submit a planting plan to the Crown by [date] for review and written approval prior to commencement of the proposed restoration work;
2. The unauthorized lock-block wall, identified in red on Appendix "C" (the "Unauthorized Lock-Block Wall"), is to be removed and reconstructed in a similar manner a minimum ten (10) meters from the top of Lagace Creek (the "Relocated Lock-Block, [sic] on the appellant's private property and no closer to Lagace Creek than the green line on Appendix "C". The reconstruction of the area shall include a minimum of two (2) meters of instream habitat to restore the top of bank. The total area for restoration will be a minimum of twelve (12) meters;

3. After the removal of the Unauthorized Lock-Block Wall and the construction of the Relocated Lock-Block Wall the instream and riparian area impacted by the Unauthorized Lock-Block Wall shall be restored and replanted. Restoration must include at least 88 square metres of instream habitat and 600 square metres of riparian habitat and more specifically the area set out in blue on the Appendix "C". A comprehensive restoration plan prepared by a Qualified Professional, experienced in channel restoration, shall submitted [sic] to Sandra Jensen at Sandra.Jensen@gov.bc.ca by [date] for review and written approval prior to commencement of the restoration work;
4. Remediation for the infill of approximately 226.96 linear meters of instream habitat and average of 3 meters of riparian habitat of UT5 as identified in purple on Appendix "D" shall be by restoration of 888.32 square meters of instream habitat and 1,819.72 square meters of riparian habitat on UT5. The appellant shall submit a restoration plan by a Qualified Professional, experienced in channel restoration to Sandra Jensen at Sandra.Jensen@gov.bc.ca by [date] for review and written approval prior to commencement of the proposed works; and
5. The Appellant must submit a three (3) year riparian planting monitoring plan (the "Plan") for the planting set out in paragraph seven (7) and eight (8) of this Order prepared by a Qualified Professional. The Plan as submitted shall report on the survival of the planted vegetation and record observations related to flows and the function of channel features. The Plan must achieve a survival rate for the planting of at least 80%. The appellant must also submit annual reports prepared by a Qualified Professional summarizing monitoring observations and recommendations. The annual reports shall be submitted to Sandra Jensen at Sandra.Jensen@gov.bc.ca, by December 1 of each year for three (3) consecutive years, commencing from 2020.

2.0 RESTORATION PLAN

2.1 Unauthorized Fill (Item 3)

Per the Draft Order Item 3, to mitigate impacts associated with the unauthorized placement of fill (i.e., the construction of the gravel berm), 20% of the total 1,800 square metres of impacted area must be enhanced or restored through riparian plantings. As such, to address Item 3, the area to be planted will be 360 square metres.

The gravel berm consists of sand and gravel which have been moved from inland towards Lagace Creek. Sand and gravels have been placed up to the high-water mark of Lagace Creek. The berm has steep slopes on both sides with a varying flat area/crest at the top of the berm. Exposed soils were observed throughout the berm. The riparian vegetation on the west bank of the northern portion of Lagace Creek includes red alder (*Alnus rubra*) and willow (*Salix* spp.). Invasive plant species observed include scotch broom (*Cytisus scoparius*) and Himalayan blackberry (*Rubus armeniacus*).

Prescribed plantings consist of native species, primarily woody shrubs, to facilitate development of a robust understory that promotes slope stabilization and does not require extensive digging within the disturbed soils. The proposed planting assemblage will provide habitat values for small mammals and local bird populations while contributing to fish habitat through provision of nutrients to Lagace Creek.

The planting density was calculated at one shrub per square metre for 360 square metres for a total of 360 shrubs. These shrubs are to be planted throughout the entirety of the gravel berm as directed by a QEP. In lieu of providing mapped locations for each individual shrub, the plantings will be required to be completed under the guidance of a QEP in the field at the time of planting who will determine the individual planting locations based on the location of existing vegetation, soil composition, and bank stability.

Prescribed plantings to address Item 3 requirements are presented in Table 1 below:

Table 1: Unauthorized Fill Planting Prescription

Common Name	Scientific Name	Plant Size	Quantity of Plants
Red osier dogwood	*Cornus sericea*	#2 pot	100
Hardhack	*Spiraea douglasii*	#2 pot	50
Pacific willow	*Salix lucida* ssp. *lasiandra*	#2 pot	50
Ocean spray	*Holodiscus discolor*	#2 pot	50
Common snowberry	*Symphoricarpos albus*	#2 pot	50

Table 1: Unauthorized Fill Planting Prescription

Common Name	Scientific Name	Plant Size	Quantity of Plants
Beaked hazelnut	*Corylus cornuta*	#2 pot	20
Sword fern	*Polystichum munitum*	#1 pot	40
Total amount of plants			360

2.2 Unauthorized Lock-Block Wall (Item 4 and Item 7)

Per the Draft Order, the unauthorized lock-block wall is to be removed, relocated and reconstructed a minimum of ten metres from the top of bank of Lagace Creek. Out of the Box Engineer Ltd. Drawing No.2018-0660-01 (dated 2020-03-03) is presented in Appendix II and depicts the proposed relocation and reconstruction of the lock-block wall. Pinchin has annotated this drawing to show associated proposed riparian restoration areas.

Please note, the reconstructed lock-block wall is to be tied into existing bank protection works to the north and south of the lock-block wall and as such does not maintain a ten-metre setback from Lagace Creek at the north and south extents.

In addition, it is Pinchin's understanding that the required extent of riparian restoration detailed in the Draft Order was to be adjusted to 440 square metres.

It is Pinchin's understanding that the requirement for the restoration of 88 square metres of instream habitat is addressed through the implementation of the Out of the Box Engineering Ltd. design (i.e., through removal of the existing wall). The design incorporates round boulders and rock to act as energy and water velocity dissipaters as well as providing aquatic and riparian habitat complexity.

With regard to the required 440 square metres of riparian habitat, plantings are to be completed in an approximate 10-metre-wide band on the east side of the relocated lock-block wall in an area totalling 314 square metres with the balance of the riparian habitat (i.e., 126 square metres) completed to the west of the relocated lock-block wall at either end. The objective of the prescribed riparian plantings is to establish a rapidly developing assemblage of native trees and shrubs. The prescribed assemblage will provide habitat values for small mammals and birds while contributing to fish habitat within Lagace Creek through provision of woody debris, nutrients, and shade.

The planting density was calculated at one plant per square metre for a total of 440 plants. In lieu of providing mapped locations for each individual plant, the plantings will be required to be completed under the guidance of a QEP in the field at the time of planting who will determine the individual planting locations based on the location of existing vegetation, soil composition, and bank stability.

Prescribed plantings to address Item 7 requirements are presented in Table 2 below:

Table 2: Relocated Lock-Block Wall Planting Prescription

Common Name	Scientific Name	Plant Size	Quantity of Plants
Red alder	*Alnus rubra*	#2 pot	70
Red osier dogwood	*Cornus sericea*	#2 pot	30
Hardhack	*Spiraea douglasii*	#2 pot	30
Pacific willow	*Salix lucida* ssp. *lasiandra*	#2 pot	30
Ocean spray	*Holodiscus discolor*	#2 pot	30
Common snowberry	*Symphoricarpos albus*	#2 pot	30
Thimbleberry	*Rubus parviflorus*	#2 pot	20
Willow stakes	*Salix* sp.	Stakes	200
Total amount of plants			440

2.3 Unnamed Tributary 5 (Item 8)

Per the Draft Order Item 8, to remediate impacts to UT5 and its associated riparian habitat, there is to be restoration of 888.32 square metres of aquatic habitat and 1,819.72 square metres of riparian habitat.

It is Pinchin's understanding from the August 4, 2020 letter that the Province is willing to consider alternative measures to address the remediation of impacts to riparian habitat but that a minimum target of 2,156.62 square metres with a minimum of 710 square meres of aquatic habitat.

To address Item 8, Pinchin has calculated a total restoration area of 710 square metres of aquatic habitat and 1,447 square metres of riparian habitat (i.e., a total of 2,157 square metres of habitat) as depicted by Figures 1 through 2, presented in Appendix III.

The 710 square metres of aquatic habitat will be realized through an expansion of the remnant reach of UT5 to the south and west. The objectives of the aquatic habitat construction are to expand existing aquatic habitat, to improve aquatic habitat complexity and to increase the interface with adjacent riparian habitat (i.e., both existing riparian habitat and proposed riparian habitat). The location of the aquatic and riparian habitat works was selected based, in part, on its proximity to the wetland on the neighbouring property to the immediate south. The goal of this location selection was to better integrate the created habitat values with existing habitat values in the local area.

Please note, multiple design options were put forward by Pinchin for review by the Client. The design options were developed and modified with consideration given to Client requirements, primarily the ongoing agricultural use of the Site.

The 1,447 square metres of riparian habitat will be realized through planting of areas adjacent to UT5 (1508 m^2) primarily to the east and south. The existing farm road will be relocated to the north and west outside perimeter of the proposed habitat enhancement area (outside but bordering the enhancement area).

Prescribed riparian plantings consist of native species, primarily woody shrubs, to facilitate development of a robust assemblage of plants that will resist colonization by invasive plants. The planting density was calculated at approximately one plant per square metre for a total of 1,440 plants. Plantings are prescribed within the banks of UT5 to provide bank stabilization, nutrient contribution and habitat complexity to the aquatic habitat.

Please note that the existing riparian habitat is characterized by sparse vegetation generally consisting of reed canarygrass (*Phalaris arundinacea*). However, the prescribed planting prescription will result in a significantly more complex assemblage of riparian plants than previous existed within the riparian habitat. Based on aerial photograph analysis and field assessments, the previous riparian vegetation consisted primarily of low-growing grasses and rushes. The prescribed riparian plantings will provide greater habitat

values to small mammals and birds (i.e., through increasing opportunities for foraging and perching) while also providing greater contributions of nutrients and shading to UT5.

In lieu of providing mapped locations for each individual shrub, the plantings will be required to be completed under the guidance of a QEP in the field at the time of planting who will determine the individual planting locations based on the location of existing vegetation, soil composition, and bank stability.

A native seed mix is also prescribed to further increase habitat complexity and biodiversity while also mitigating the risk of surface erosion.

Prescribed plantings to address Item 8 requirements are presented in Table 3 below:

Table 3: Unnamed Tributary 5 Planting Prescription

Common Name	Scientific Name	Plant Size	Quantity of Plants
Willow	*Salix* sp.	Stakes	450
Red osier dogwood	*Cornus sericea*	Stakes	450
Common snowberry	*Symphoricarpos albus*	#2 pot	170
Indian plum	*Oemleria cerasiformis*	#2 pot	50
Hardhack	*Spiraea douglasii*	#2 pot	100
Common rush	*Juncus effuses*	#1 pot	227
Native seed mix	N/A	N/A	Per manufacturer's specification
Total amount of plants			1,447

2.4 Restoration Plan Notes

Plants supplied by the Contractor for these works must comply with the following criteria:

- All plants must be of guaranteed nursery stock;
- Botanical names are to be used in purchasing;
- Shrubs must be at least specified pot size; and
- Stock should be planted during the appropriate planting window (i.e., either fall or spring) following QEP input.

The plants must comply with the B.C. Landscape and Nursery Association standards for nursery stock. The plants must be healthy with well-developed root systems and top growth, and be free of:

- Disease;
- Insect infestation;
- Broken tops, torn roots, and abrasions of bark on the trunk and branches;
- Weak root or branch systems;
- Dried out root systems;
- Prematurely opened or damaged buds;
- Dry, loose, or broken ball of earth;
- Damage from heating, freezing or moulding, and
- Abnormal leaf colour.

The planting contractor and the QEP are responsible for checking the plants prior to installation to ensure they meet the criteria outlined in this section.

Prior to installation of the plants, preparation work may be required in some of the planting areas, specifically the relocated lock-block wall and UT5 planting areas. It is recommended that the following activities occur prior to planting:

- Remove any invasive species (e.g., Himalayan blackberry) that may be present;
- Scarify the soil if necessary, at the discretion of the QEP; and
- Remove any construction debris from the area.

During all restoration plan works, the following erosion and sediment control best management practices should be adhered to:

- The construction boundary must be clearly delineated to identify the limits of disturbance and the approved work area. Construction activities must not occur beyond this boundary;
- Work should be constructed in the dry wherever possible. Asandbag berm, or equivalent, may need to be constructed to keep the construction area dry during works and prevent river infiltration into the works area;
- If applicable, water should be released into the newly constructed riparian area slowly to limit/prevent erosion of the newly constructed area.
- Silt fencing is to be installed as required (i.e., at the discretion of the QEP) to prevent mobilization of sediment from the work area to any watercourses;
- All exposed soil surfaces that could contribute sediment laden water into nearby watercourses, or otherwise outside of the works area, during precipitation events must be protected from erosion as required (i.e. polyethylene sheeting, erosion control blankets, straw mulch, seeded/planted); and
- Trees and shrubs are not to be damaged or disturbed beyond the footprint of the proposed works. If trees or shrubs outside of the project footprint are removed during works, then they should be replaced at a ratio consistent with industry standard best management practices.

If the client is able to employ alternative natural revegetation techniques to achieve an equivalent result of an appropriate native plant community (e.g. native shrubs and trees), then these plants may replace nursery stock on a 1:1 equivalent basis as the intention and objective of the planting plan would be met.

3.0 MONITORING PLAN

Per Item 9 of the Draft Order, a minimum three-year monitoring plan for prescribed works is required. Specifically, the monitoring plan must address riparian plantings adjacent to the relocated lock-block wall and UT5 as well as the function of Lagace Creek and UT5 as conveyances of flow following implementation of channel restoration and/or remediation works.

A QEP must be retained to complete monitoring inspections at a minimum of once per year for three years. Annual reports documenting the results of the monitoring inspections are to be submitted by December 1 of each year.

3.1 Riparian Plants

Inspections are to be completed of riparian plantings completed adjacent to the relocated lock-block wall and to UT5. Riparian plantings are to be assessed for survivorship, health and vigour. At the conclusion of the three-year monitoring period, the target for survivorship is 80%. If survivorship is less than 80% then additional plantings to achieve of a survivorship of 80% will be required. The QEP monitor may amend the species and location of prescribed plantings as adaptive management to address factors impacting survivorship as needed.

3.2 Channel Features

Inspections are to be completed of Lagace Creek, adjacent to the relocated lock-block wall, and UT5 to document function of the channel features as conveyances of flow. The channel features are to be assessed for bank and substrate stability and conveyance of surface water.

4.0 CONCLUSIONS

It is Pinchin's understanding that the information addresses the restoration prescription requirements presented in the Draft Order.

I trust that this report meets your needs at this time. If you have any questions, please contact the undersigned.

Sincerely,

Pinchin Ltd.

Prepared by:

Reviewed by:

Jeremy Nilson, R.P. Bio.
Project Biologist
604.425.1927
jnilson@pinchin.com

Brennan Anstey, P.Eng.
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604.425.1920
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Encl.: Appendix I – Draft Consent Order

Appendix II – Annotated Out of the Box Engineer Ltd. Drawing No.2018-0660-01 (dated 2020-03-03)

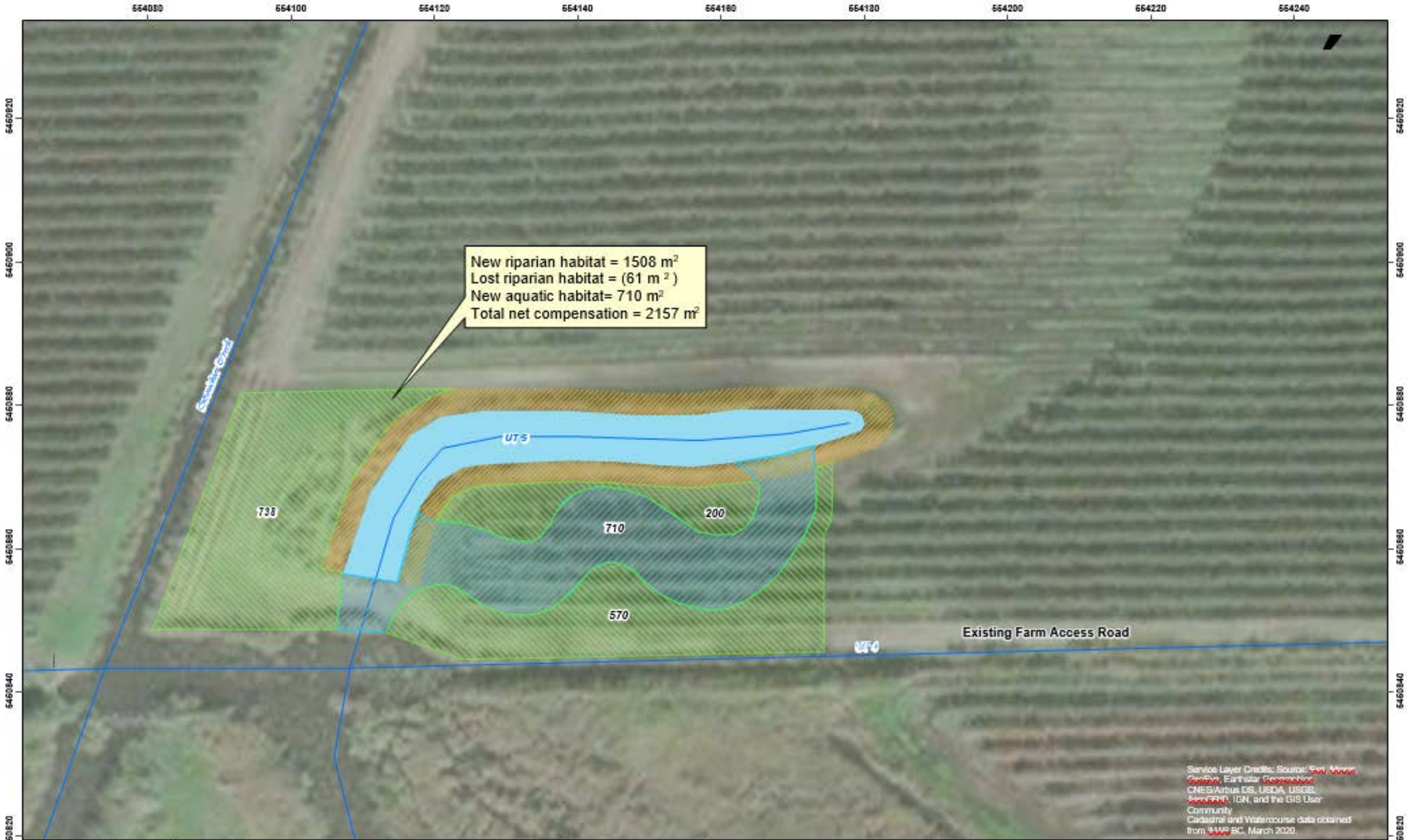
Appendix III – Pinchin UT5 Figure 1 and Figure 2

5.0 LIMITATIONS

The work performed by Pinchin Ltd. was conducted in accordance with generally accepted engineering or scientific practices current in this geographical area at the time the work was performed. No warranty is either expressed or implied by furnishing written reports or findings. The Client acknowledges that subsurface and concealed conditions may vary from those encountered or inspected. Pinchin Ltd. can only comment on the environmental conditions observed on the date(s) the assessment is performed. The work is limited to those areas of concern identified by the Client or outlined in our proposal. Other areas of concern may exist but were not investigated within the scope of this assignment.

Pinchin Ltd. makes no other representations whatsoever, including those concerning the legal significance of its findings, or as to other legal matters touched on in this report, including, but not limited to, ownership of any property, or the application of any law to the facts set forth herein. With respect to regulatory compliance issues, regulatory statutes are subject to interpretation and these interpretations may change over time. Pinchin Ltd. accepts no responsibility for consequential financial effects on transactions or property values, or requirements for follow-up actions and costs.

The liability of Pinchin Ltd. or its staff will be limited to the lesser of the fees paid or actual damages incurred by the Client. Pinchin Ltd. will not be responsible for any consequential or indirect damages. Pinchin Ltd. is only liable for damages resulting from negligence of Pinchin Ltd. All claims by the Client shall be deemed relinquished if not made within two years after last date of services provided. Information provided by Pinchin Ltd. is intended for Client use only but can be relied upon by the Attorney General under the same limitations as the Client. Pinchin Ltd. will not provide results or information to any party unless disclosure by Pinchin Ltd. is required by law. Any use by a third party of reports or documents authored by Pinchin Ltd. or any reliance by a third party on or decisions made by a third party based on the findings described in said documents, is the sole responsibility of such third parties. Pinchin Ltd. accepts no responsibility for damages suffered by any third party.



PINCHIN

PROJECT NAME:	HABITAT COMPENSATION
CLIENT NAME:	ALLCAN HOLDINGS LTD.
PROJECT LOCATION:	11428 STAVE LAKE ROAD, FRASER VALLEY, BC
FIGURE NAME:	UT 5 HABITAT COMPENSATION DESIGN
PROJECT NO.	216109
DATE:	AUG. 2020
SCALE:	1:500
FIGURE NO.	1

LEGEND

- Approximate Site Boundary
- Watercourses
- UT 5 (Existing)
- Proposed UT 5 Expansion
- Existing Riparian Area
- Proposed Riparian Areas

Note: All measurements shown in square metres (m²)

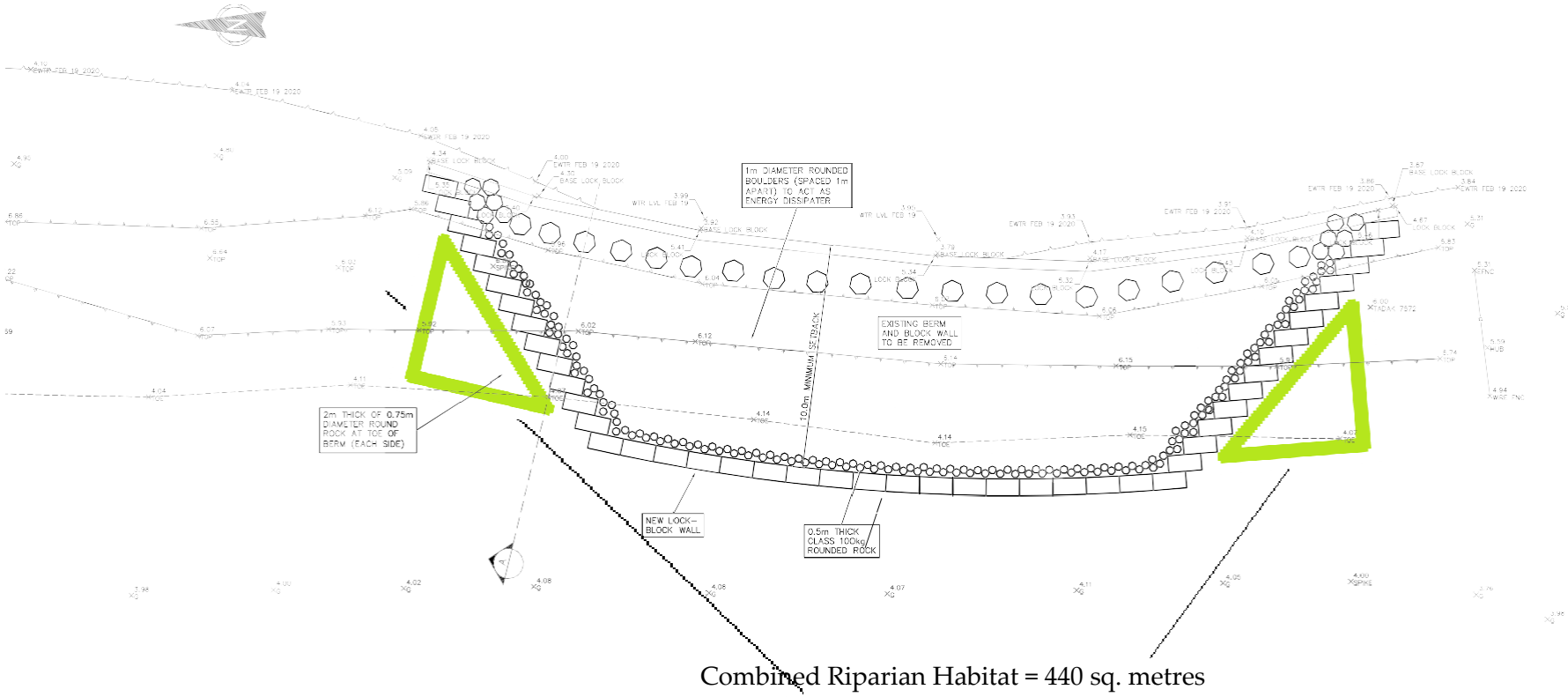
0 5 10 20 Metres

Coordinate System: WGS 1984 UTM Zone 10N
Projection: Transverse Mercator
Datum: WGS 1984

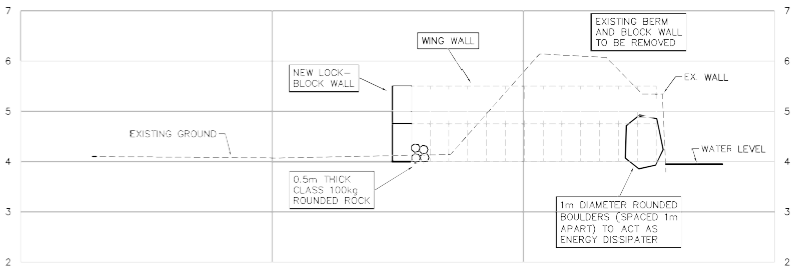
Appendix D
Unauthorized Infill of UT5

Appendix E

Out of the Box Engineering's stamped and sealed drawing



Combined Riparian Habitat = 440 sq. metres



SECTION A
1:100H 1:50V

Note: Original drawing annotated by Pinchin Ltd, July, 2020.
Annotated areas shown are approximate.

out of the box ENGINEERING

OUT OF THE BOX ENGINEERING
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NO.	ISSUE / REVISION	YYYY/MM/DD	BY
B	BERM ARMOURING	2020/03/10	CSJ
A	ISSUED FOR REVIEW	2020/03/03	CSJ

SEAL

PROPOSED CREEKSIDE WORKS
11428 STAVE LAKE ROAD
MISSION, BC
PROJECT/LOCATION

CLIENT: KULWINDER SINGH GILL

TITLE: BERM ARMOURING AND LOCK BLOCK WALL PROTECTION

PROJ. ENG. CSJ | DESIGNED CSJ | DRAWN CSJ

SCALE 1:100
DATE 2020-03-03
JOB NO. 2018-0660
DRAWING NO. 2018-0660-01
OF 1 | ISSUE/REV. A