



City of
Richmond

Report to Development Permit Panel

To: Development Permit Panel

Date: June 23, 2020

From: Wayne Craig
Director, Development

File: DP 18-820689

**Re: Application by Integrated Construction for a Development Permit at
1600 Savage Road
(Re: Referral from April 27, 2020 Council Meeting)**

Staff Recommendation

That a Development Permit be issued which would permit the construction of a warehouse building at 1600 Savage Road on a site zoned "Light Industrial (IL)" and partially designated as Environmentally Sensitive Area (ESA).

Wayne Craig
Director, Development
(604-247-4625)

WC:sds
Att. 5

Staff Report

Origin

Integrated Construction has applied to the City of Richmond for permission to develop a 2,918 m² (31,415 ft²) warehouse building at 1600 Savage Road on a site zoned “Light Industrial (IL)” and partially designated as Environmentally Sensitive Area (ESA).

The Development Permit application was endorsed by the Development Permit Panel at the meeting on October 17, 2019 (original Staff Report is provided as Attachment A). On April 27, 2020, the application was considered by Council and referred back to the Development Permit Panel under the following referral motion:

That Development Permit Application (DP 18-820689) by Integrated Construction, located at 1600 Savage Road, be referred back to the Development Permit Panel to:

- a) assess construction activity occurring on site;*
- b) investigate alternative site plans that would allow for the retention of the central Environmentally Sensitive Area; and*
- c) review the Environmentally Sensitive Area restoration plans as it relates to the scope of work involved with invasive species removal and tree replacement planting species.*

This supplementary Report provides a response to the referral and presents the Development Permit for consideration by the Development Permit Panel.

Development Information

Please refer to the original Staff Report dated September 25, 2019 (Attachment A) for information regarding development information, background, staff comments and analysis, including the Environmentally Sensitive Area (ESA).

Please refer to this supplementary Report and the Development Permit plans (Plan #1-5) that accompany this Report for the response to the Council referral motion. Staff worked with the applicant to provide additional information to address the Council referral motion, and after a comprehensive assessment of alternatives, no changes were made to the Development Permit plans previously endorsed by the Development Permit Panel on October 17, 2019.

Staff Comments

Staff comments are provided in ***bold italics*** describing the response to each component of the referral motion.

Council referral item (a): *assess construction activity occurring on site.*

Response:

- ***Staff conducted site inspections, identified construction activities were conducted without a Permit, and ensured a stop work order was placed to prohibit any further construction. The applicant had proceeded with form works for the building’s footings without receiving Council approval and issuance of the Development Permit or issuance of the associated***

Building Permit. Future construction activity on-site will require a Council issued Development Permit and issued Building Permit.

- ***As a result of staff inspections, the City's Tree Preservation Officer also identified that six trees (tag# 726, 727, 728, 729, 730 & 731) were removed prior to Development Permit issuance and without Permits (Attachment B). The property owner and applicant were each fined \$6,000 for the removal of the trees, for a total of \$12,000 in fines, which have been paid. Staff note that the trees which were removed without a Permit were located outside of the ESA and had been identified for removal through the Development Permit application process.***
- ***The project Arborist and Qualified Environmental Professional (QEP) have confirmed the remaining trees and ESA have not been impacted by the construction activities and all tree and ESA protection fencing has been installed. A memorandum from the Project QEP confirming this information is provided in Attachment C.***
- ***Tree Preservation staff have also conducted a site visit and confirmed tree and ESA protection fencing has been installed.***

Council referral item (b): *investigate alternative site plans that would allow for the retention of the central Environmentally Sensitive Area.*

Response:

- ***As part of the original staff review process for the Development Permit application, alternative site planning was considered to allow for the retention of the central ESA. It was determined that retention of the central ESA was not feasible to accommodate the proposed building envelope, vehicle access and required vehicle parking and circulation.***
- ***In response to the referral, the applicant has investigated alternatives to retain the central ESA. An assessment of these alternatives demonstrated that the retention of the central ESA does not allow the proposal to achieve the desired floor area and lot coverage, required vehicle parking and circulation, and results in conflicts with the existing shared access private easement agreement with the property to the south.***
- ***The applicant has also provided a letter from the property owner (Attachment D), who will be relocating his existing businesses in Richmond into the proposed building. The letter indicates that the alternative options to retain the central ESA would not serve the operational needs of the businesses, including issues regarding dock loading and circulation, floor space and building orientation.***
- ***In addition, the retention of the central ESA would also result in the removal of the currently proposed additional habitat area in the northern ESA. The project QEP has provided confirmation that the proposed addition and remediation of habitat in the northern ESA will have a higher value in terms of habitat function relative to retaining the existing central ESA. A memo from the Project QEP confirming this information is provided in Attachment E. The existing chainlink fence will be removed and new split rail fencing will be installed to delineate the northern ESA, including the proposed additional area.***

Council referral item (c): *review the Environmentally Sensitive Area restoration plans as it relates to the scope of work involved with invasive species removal and tree replacement planting species.*

Response:

- *As identified in the memo from the project QEP provided in Attachment C, the QEP has confirmed that the removal of invasive English Ivy (along with removal of other invasive species) from affected areas will be part of the ESA compensation plan, including the ivy climbing the trees.*
- *All restoration work must be conducted under the supervision of the project QEP and monitoring requirements will ensure the invasive species removal is successful. The applicant has provided a contract with the QEP to monitor and provide annual reporting to the City on the ESA for three years following completion.*
- *The applicant was also asked to investigate the planting of Lodgepole Pines as part of the ESA compensation plan. The project QEP has recommended not to include Lodgepole Pines as a replacement tree species, due to the following:*
 - *Lodgepole Pines are not listed as one of the trees endemic to the coastal biogeoclimatic zone.*
 - *Although Lodgepole Pines are currently present in the central ESA, it is likely these were planted rather than occurring naturally.*
 - *The canopy cover within the northern ESA would likely shade out the Lodgepole Pines, limiting growth and potentially long term survival.*
- *Proposed tree species to be planted in the ESA were recommended by the project QEP and are generally consistent with the “Upland Forest (UPFO)” ESA designation and the “Suitable Trees for Replanting in the City of Richmond” list.*

Conclusions

The applicant has applied to the City of Richmond for permission to develop a 2,918 m² (31,415 ft²) warehouse building at 1600 Savage Road on a site zoned “Light Industrial (IL)” and partially designated as Environmentally Sensitive Area (ESA).

The applicant has provided supplemental information in order to address the issues identified in the referral and direction by Council at the meeting of April 27, 2020. Staff recommend that the Development Permit be endorsed, and issuance by Council be recommended.



Steven De Sousa
Planner 1
(604-204-8529)

SDS:blg

- Attachment A: Original Staff Report to Development Permit Panel (dated September 25, 2019)
- Attachment B: Trees removed without a Permit
- Attachment C: Memo from the Project QEP regarding construction impacts
- Attachment D: Letter from the Proposed Tenant
- Attachment E: Memo from the Project QEP regarding ESA



**City of
Richmond**

Report to Development Permit Panel

To: Development Permit Panel

Date: September 25, 2019

From: Wayne Craig
Director of Development

File: DP 18-820689

Re: **Application by Integrated Construction for an Environmentally Sensitive Areas
Development Permit at 1600 Savage Road**

Staff Recommendation

That an Environmentally Sensitive Area (ESA) Development Permit be issued at 1600 Savage Road in order to allow construction of a warehouse building on a site partially designated as an ESA.

Wayne Craig
Director of Development

WC:je
Att. 6

Staff Report

Origin

Integrated Construction has applied to the City of Richmond for an Environmentally Sensitive Area (ESA) Development Permit to construct a 2,918 m² (31,415 ft²) warehouse building at 1600 Savage Road (Attachment 1). As the construction would impact an ESA, a Development Permit is required prior to Building Permit approval.

The site is currently developed as a paved parking lot. No rezoning is needed as the proposed use is consistent with the 'Light Industrial (IL)' zone.

Development Information

Please refer to the attached Development Application Data Sheet (Attachment 2) for a comparison of the proposed development data with the relevant Bylaw requirements.

Background

Development surrounding the subject site is as follows:

- to the north across River Road, City-owned land zoned Light Industrial (IL) and designated as Environmentally Sensitive Area (ESA);
- to the east, an industrial building on a lot zoned 'Light Industrial (IL)' and partially designated as ESA;
- to the south, an industrial building with outdoor storage on a lot zoned 'Light Industrial (IL)'; and
- to the west across Savage, an industrial building on a lot zoned 'Light Industrial (IL)'.

Staff Comments

The proposed scheme attached to this report has satisfactorily addressed the significant Environmentally Sensitive Area (ESA) issues and other staff comments identified as part of the review of the subject Development Permit application (DP Plans 1, 2, 3, 4.a, 4.b and 5). In addition, it complies with the intent of the applicable sections of the Official Community Plan and is generally in compliance with the Light Industrial (IL) zone. No variances are being sought through this ESA Development Permit application.

Advisory Design Panel

As the scope of this Development Permit does not involve any building design components, the application has not been reviewed by the Advisory Design Panel.

Analysis

Site Planning

1600 Savage Road is a 5,257 m² (1.3 acre) parcel zoned Light Industrial (IL) and designated Industrial in the Official Community Plan. An Environmentally Sensitive Area (ESA)

designation is present on portions of the property and requires that a Development Permit be issued prior to construction. There are two distinct ESA on site: the northern ESA (approximately 788 m²/8,482 ft²), which is predominantly 'Upland Forest' with a small sliver of 'Shoreline' ESA along the northern property line; and a central, disconnected ESA (approximately 198 m²/2,131 ft²) that is entirely classified as 'Upland Forest' (Attachment 3).

The applicant proposes to remove the Upland Forest ESA at the centre of the site to enable development of a warehouse with associated office space, loading and surface parking. The proposed two storey warehouse is 2,918 m² (31,415 ft²) and 11.1 m (36.5 ft) in height. The proposal includes four loading bays: two located on either side of the front elevation in order to serve separate operational requirements of the business. Two vehicle driveways are proposed from Savage Road to facilitate loading from each of the loading areas; one at the southern corner of the site (currently existing) and a second access to the north near River Road.

To compensate for removing the central ESA area, the applicant proposes to establish two new ESA areas on-site (DP Plan 1):

- 305 m² (3,283 ft²) of new ESA contiguous with the existing northern portion of Upland ESA; and
- 109 m² (1,173 ft²) of new, discontinuous ESA along the western property boundary adjacent Savage Road.

Net gain in total ESA over the site would be 216 m² (2,325 ft²). Additional compensation measures proposed include the removal of invasive species and replanting of native species within the existing ESA to be retained and within the new ESA to be established.

ESA Environmental Inventory

The City of Richmond identifies the Environmentally Sensitive Area (ESA) on this site as predominantly 'Upland Forest' with a small sliver of 'Shoreline' ESA along the northern property line. The northern portion of Upland Forest ESA is contiguous with ESA designated on the neighbouring parcel to the east (totalling approximately 1,900 m²/20,451 ft²). Both are contiguous with the Shoreline and Intertidal ESAs associated with the Fraser River to the north, which form a 'hub' in the Ecological Network Management Strategy.

An environmental inventory and assessment report was submitted by Aquaterra Environmental Ltd. (July, 2019). The environmental inventory, completed in the winter of 2018 and spring of 2019, found the site to be primarily disturbed and generally flat with no defining geological or topographical features. No watercourses were found on site, although a dry ditch was observed immediately north of the site within the City road dedication, and a Riparian Management Area (RMA) protected watercourse was observed to the west across Savage Road. The Fraser River is located less than 50 m north of the site.

Within the small portion of on-site Shoreline ESA, vegetation was found to consist of riparian vegetation, including: mature black cottonwood, red alder, red-osier dogwood and paper birch trees.

The areas classified as Upland Forest, both the northern and the central ESA areas, were found to be degraded habitat with established invasive species throughout. The northern ESA, which is proposed to be protected, consists of non-native Norway maple, as well as native Western red cedar, black cottonwood, lodgepole pine, Western red pine and red alder, with an understory impacted by invasive species and dominated by Himalayan blackberry. Invasive species cover was found to be approximately 60%. The trees were found to be generally intact and providing cover and habitat for terrestrial species such as birds and small mammals.

The central ESA, which is proposed to be removed, consists of 15 conifer trees, including lodgepole pine, Western red cedar and Western red pine. The understory consists of large cleared areas with invasive Himalayan blackberry and cherry laurel. Invasive species cover was found to be approximately 50%. The central ESA was found to have little habitat value as a result of its small size and isolation from other habitat areas, marginal understory cover and anthropogenic disturbance from being situated within a parking lot.

Limited bird activity was observed during the field assessments; direct observations were limited to Northwestern crow, with one inactive crow's nest observed within a row of off-site trees to the west. One bald eagle site was observed approximately 300 m east of the site along the Fraser River. According to Aquaterra, site redevelopment is not anticipated to impact bald eagles or their nesting success.

No mammals, amphibians, reptiles or invertebrates were directly observed.

Tree Inventory

The applicant has submitted a Certified Arborist's report which identifies on-site and off-site tree species, assesses tree structure and condition, and provides recommendations for tree retention and removal relative to the proposed development. The report assesses 54 bylaw-sized trees on the subject property, 4 trees on the neighbouring property, and 5 trees on City property. (Attachment 4).

Tree Removal

30 on-site trees are proposed to be removed, including 15 trees from the central ESA area and 15 trees located on-site but outside the ESA. The City's Tree Preservation Coordinator has reviewed the arborist report and has the following comments:

- 1 tree (tag# 704), a 48 cm Norway maple, exhibits a significant crack in the main trunk and is now a high hazard. This tree should be removed as soon as possible.
- 4 trees (tag# 728, 729, 730 and 731), all Norway maples ranging from 20 – 25 cm, are in poor condition (sparse canopy) and conflict with the proposed development. Remove and replace.
- 15 trees (tag# 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724 and 725) located in the central ESA are in good condition but conflict with the proposed development. Remove and replace.
 - 6 are lodgepole pines ranging from 30 – 60 cm (#711, 719, 720, 721, 724 and 725);

- 8 are Western redcedars, ranging from 40 – 50 cm (#712, 713, 714, 715, 716, 717, 722 and 723); and
- 1 is a 25 cm Western red pine (#718).
- 10 trees (tag# 701, 702, 703, 705, 706, 707, 708, 709, 726 and 727), all Norway maples in good condition, ranging from 30 – 48 cm, conflict with the proposed development. Design alternatives were assessed to protect tree tag #701, 702, 703, 705, 706, 707, 708, and 709, however, insufficient area is available to accommodate trees as well as the required parking and drive aisle. The applicant has committed to replacing trees closer to the western property line. Tree tag #726 and 727 conflict with the proposed building footprint.
- Replacement trees should be provided at a 2:1 ratio as per the OCP.
- If required replacement trees cannot be accommodated on-site, a cash-in-lieu contribution in the amount of \$500/tree to the City's Tree Compensation Fund for off-site planting is required.

Tree Retention

24 on-site trees and 4 off-site trees are proposed to be retained and protected on site. The City's Tree Preservation Coordinator has reviewed the arborist report and has the following comments:

- 2 trees (tag # 710 and 737), are located on-site but outside the ESA. Tree tag #737 is a significant tree in good condition. These are to be retained and protected.
- 22 trees (tag # 738, 739, 740, 741, 742, 743, 744, 745, 746, 749, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, and 763) located in the northern ESA are in good condition. These are to be retained and protected.
- 4 trees (tag # 747, 748, 450, and 751) located on the neighbouring site are to be retained and protected.
- Retained trees should be protected as per City of Richmond Tree Protection Information Bulletin Tree-03.

City Trees

5 trees (tag # 732, 733, 734, 735, 736) located on City property were assessed by Parks Arboriculture staff.

- 4 trees (tag # 732, 733, 734 and 736) are to be retained.
- 1 tree (tag # 735) is a 10 cm caliper tree that has been pruned for hydro lines and conflicts with development. Compensation of \$650 is required to remove the tree for the City to plant two new trees at or near the development site.

Tree Protection

The applicant is to submit a tree management plan showing the trees to be retained and the measures taken to protect them during development stage (Attachment 4). To ensure that the

trees identified for retention are protected at the development stage, the applicant is required to complete the following items:

- Prior to approval of the Development Permit, the applicant is required to submit a tree security of \$10,000 for the four City trees to be protected.
- Prior to issuance of the Development Permit, the applicant is to register legal agreements on title to ensure protection and retention of the modified ESA, including protection of trees be retained on-site (tag # 710, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 749, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, and 763) and submit landscape security for the restoration works
- Prior to issuance of the Development Permit, the applicant is to submit to the City a contract with a Certified Arborist for the supervision of all works conducted within or in close proximity to tree protection zones. The contract must include the scope of work required, the number of proposed monitoring inspections at specified stages of construction, any special measures required to ensure tree protection, and a provision for the arborist to submit a post-construction impact assessment to the City for review.
- Prior to any works on the subject site, the applicant is to ensure installation of tree protection fencing around all trees to be retained. Tree protection fencing must be installed to City standard in accordance with the City’s Tree Protection Information Bulletin Tree-03 prior to any works being conducted on-site, and remain in place until construction and landscaping on-site is completed.

Tree Replacement

The applicant wishes to remove 30 on-site trees (tag #701, 702, 703, 704, 705, 706, 707, 708, 709, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730 and 731). The 2:1 replacement ratio would require a total of 60 replacement trees. The applicant has proposed to plant 26 trees in the proposed development. The required replacement trees are to be of the following minimum sizes, based on the size of the trees being removed as per Tree Protection Bylaw No. 8057.

Table 1: Tree Replacement Calculation

No. of Replacement Trees	Minimum Caliper of Deciduous Replacement Tree	Minimum Height of Coniferous Replacement Tree
2	8 cm	4 m
14	9 cm	5 m
8	10 cm	5.5 m
2	11 cm	6 m

To satisfy the 2:1 replacement ratio established in the OCP, the applicant will contribute a total of \$17,000 to the City’s Tree Compensation Fund for the remaining thirty-four trees that cannot

be accommodated on the subject property after redevelopment. An additional \$650 is required in compensation for one City tree to be removed.

As part of the Development Permit application, the applicant must provide a Landscape Plan prepared by a registered Landscape Architect, which must include the agreed upon replacement trees. The City will collect a Landscape Security prior to issuance of the Development Permit based on the cost estimate for the works, including a 10% contingency, provided by the Landscape Architect.

Proposed Environmentally Sensitive Area Compensation

To compensate for removal of 198 m² of ESA, the applicant proposes to add 414 m² (4,456 ft²) of new ESA, and complete landscape restoration and enhancement as follows (DP Plans 1, 2, 3, 4.a, 4.b and 5):

- removal of Himalayan blackberry and other invasive plant species within the existing northern ESA to be protected (approximately 788 m² /8,482 ft² of the site) and within the new ESA to be created, Attachment 5;
- expansion of the northern ESA by 305 m² (93,283 ft²) and enhancing both the new and existing ESA at the north of the site (totalling 1,093 m²/11,765 ft²). Proposed plant species include:
 - 4 large western redcedar trees (5.0 - 5.5 m in height);
 - 10 large Douglas fir trees (5.5 - 6.0 m in height);
 - 345 native shrubs including 54 salal, 67 Oregon grape, 47 baldhip rose, 55 oceanspray, 58 salmonberry, 64 common snowberry plants; and
 - 1059 perennial plants, including 120 vanilla leaf, 160 pacific bleeding heart, 214 sword fern, 284 small flowered alumroot, 80 large leaved lupine, and 201 pink fawn lily.

Plant density is proposed to be 1.3 plants/m² in addition to the existing trees to be retained.

- designation, enhancement and protection of 109 m² (1,173 ft²) of non-contiguous ESA with native plant species, including:
 - 6 large western redcedar trees (5.0 m in height);
 - 5 large Douglas fir trees (5.0 m in height);
 - 87 native shrubs including 42 salal, 35 Oregon grape, 4 baldhip rose, 2 salmonberry, 4 common snowberry plants.

Plant density is proposed to be 0.9 plants/m².

Table 2: Balance Sheet

ESA Area	ESA Existing	ESA Loss	ESA Gain	FINAL ESA
Northern ESA	788 m ² (8482 ft ²)	0	305 m ² (3,283 ft ²)	1,093 m ² (11,765ft ²)
Central ESA	198 m ² (2,135 ft ²)	198 m ² (2,135 ft ²)	0	0
New ESA along Savage Road	0	0	109 m ² (1,177 ft ²)	109 m ² (1,177 ft ²)
TOTAL	986 m² (10,613 ft²)	198 m² (2,135 ft²)	414 m² (4,456 ft²)	1,202 m² (12,938 ft²)

The proposal represents a net gain of 216 m² (2,325 ft²) in habitat area (ratio of 2:1), with a net gain in function by augmenting the upland forest with a new densely planted, natural area to be protected as ESA. Enhancement will support utilization by a variety of terrestrial species, including small and medium-sized mammals, birds and invertebrates. Improvements are anticipated to improve foraging potential, cover, nesting, and direct and indirect utilization by wildlife as a home range for resident and migratory species.

To ensure that the proposed enhancements have the best chance of survival and that invasive species are controlled, monitoring and annual reporting by a Qualified Environmental Professional will occur for three years following completion of the landscape restoration plan.

Development Permit Considerations include bonding for the landscape restoration costs and success monitoring, installation of temporary tree and ESA protective fencing, and the registration of legal agreements to ensure protection and retention of the modified ESA (Attachment 6).

An existing covenant (BP 245419), associated with a previously issued Development Permit (DP 99-170971) and registered over the existing, northern ESA for the protection of the native vegetation, is to be discharged as a condition of this Development Permit. The new legal agreement, noted above, will reflect updated conditions, including the proposed modified ESA boundary and enhancements.

Engineering Comments

A Servicing Agreement will not be required for this development. Utility connections and frontage improvements will be addressed through a Work Order at the time of Building Permit, including completing new water and stormwater connections. At the time of future installation of any private utilities, all above-ground utility boxes (transformers, kiosk, etc) required to service the development will be situated within the development site. Utility alignments and connections must be approved by Engineering.

Registration of a new 13 m Statutory Right of Way for access, construction and maintenance of future road, dike and utility works is a consideration of the Development Permit. The dyke SRW will overlap with the ESA protective covenant. The covenant will prohibit any excavation or construction within the SRW and provide the City with unrestricted vehicular and man access to all areas of the SRW. Any future impacts to ESA as a result of the ultimate dyke cross section will be addressed at that time.

An existing flood plain covenant (BP 245434), associated with a previously issued Development Permit (DP 99-170971), is to be discharged as a condition of this Development Permit. A new flood protection covenant agreement reflecting current City standards is a condition of this Development Permit.

Financial Impact

The application results in an insignificant Operational Budget Impact (OBI) for off-site City infrastructure (such as road works, waterworks, storm sewers, sanitary sewers, street lights, street trees and traffic signals).

Conclusion

The applicant proposes to remove a total of 198m² (2,325 ft²) from the Environmentally Sensitive Area (ESA) to allow development of a warehouse and associated parking, loading and office. Compensation is proposed through a combination of additional ESA designation on-site, planting of 414 m² of newly established ESA area with native trees, shrubs and plants, and invasive species management and replanting of 788 m² (8,482 ft²) of existing ESA. The total net gain in area would be 216 m² (2,325 ft²) with a total of 1,202 m² (12,938 ft²) of enhanced ESA (new and existing).

As the proposed landscape restoration plan would result in a net gain in ESA area and function, staff recommend that the Development Permit be endorsed, and issuance by Council be recommended.

Jeanette Elmore
Planner 2

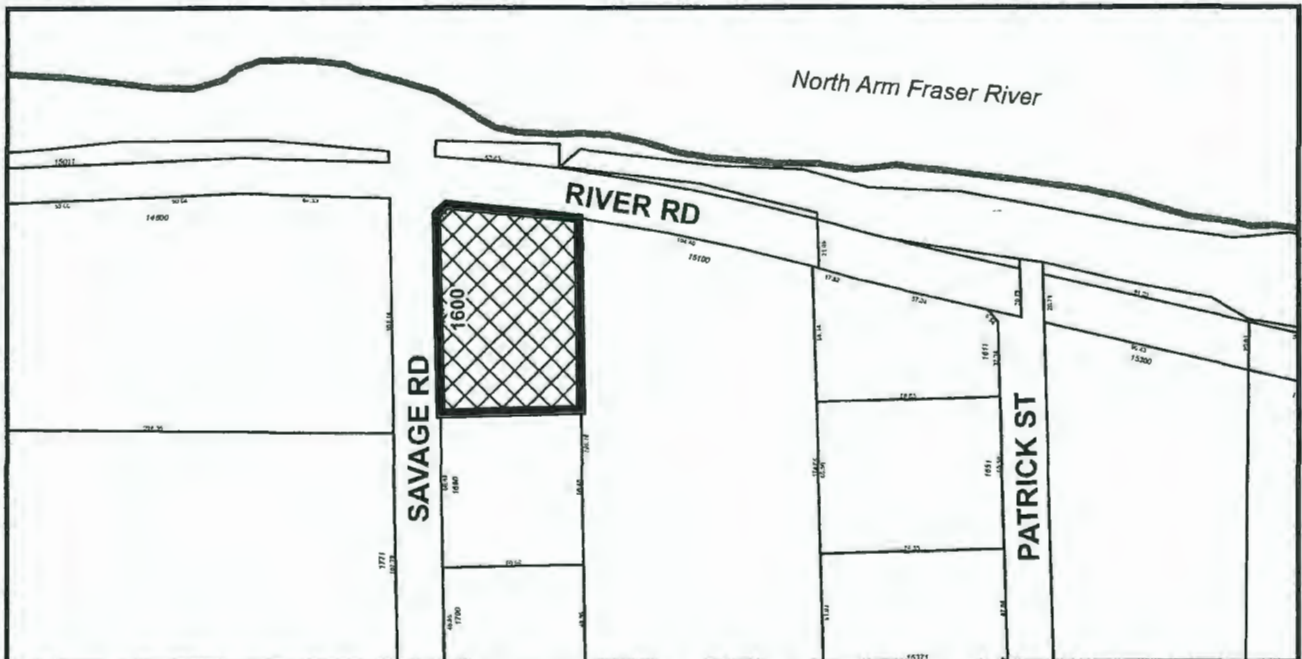
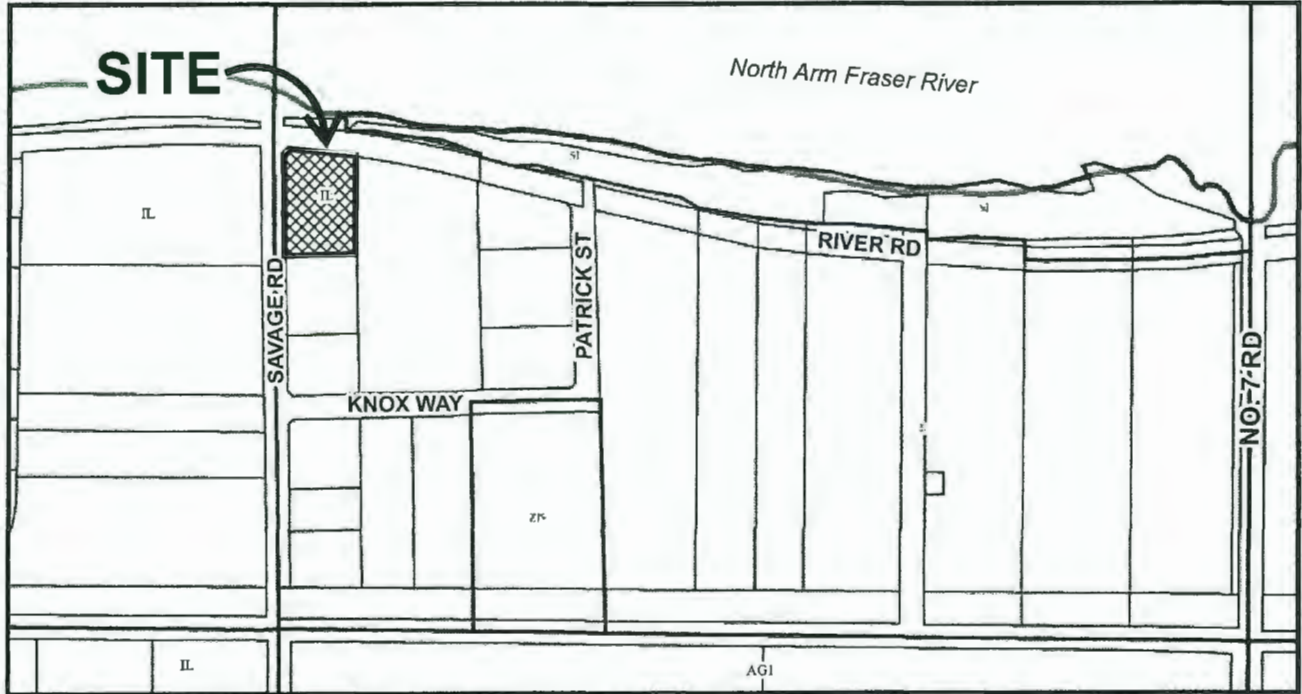
JE:cas

Attachments:

- Attachment 1: Location Map
- Attachment 2: Data Sheet
- Attachment 3: ESA Context Plan
- Attachment 4: Tree Management Plan
- Attachment 5: Location of Invasive Plant Species
- Attachment 6: Development Permit Considerations



City of
Richmond



DP 18-820689

Original Date: 05/22/18

Revision Date: 05/23/18

Note: Dimensions are in METRES



DP 18-820689

Attachment 2

Address: 1600 Savage Road

Applicant: Integrated Construction

Owner: 10647462 Canada Ltd.

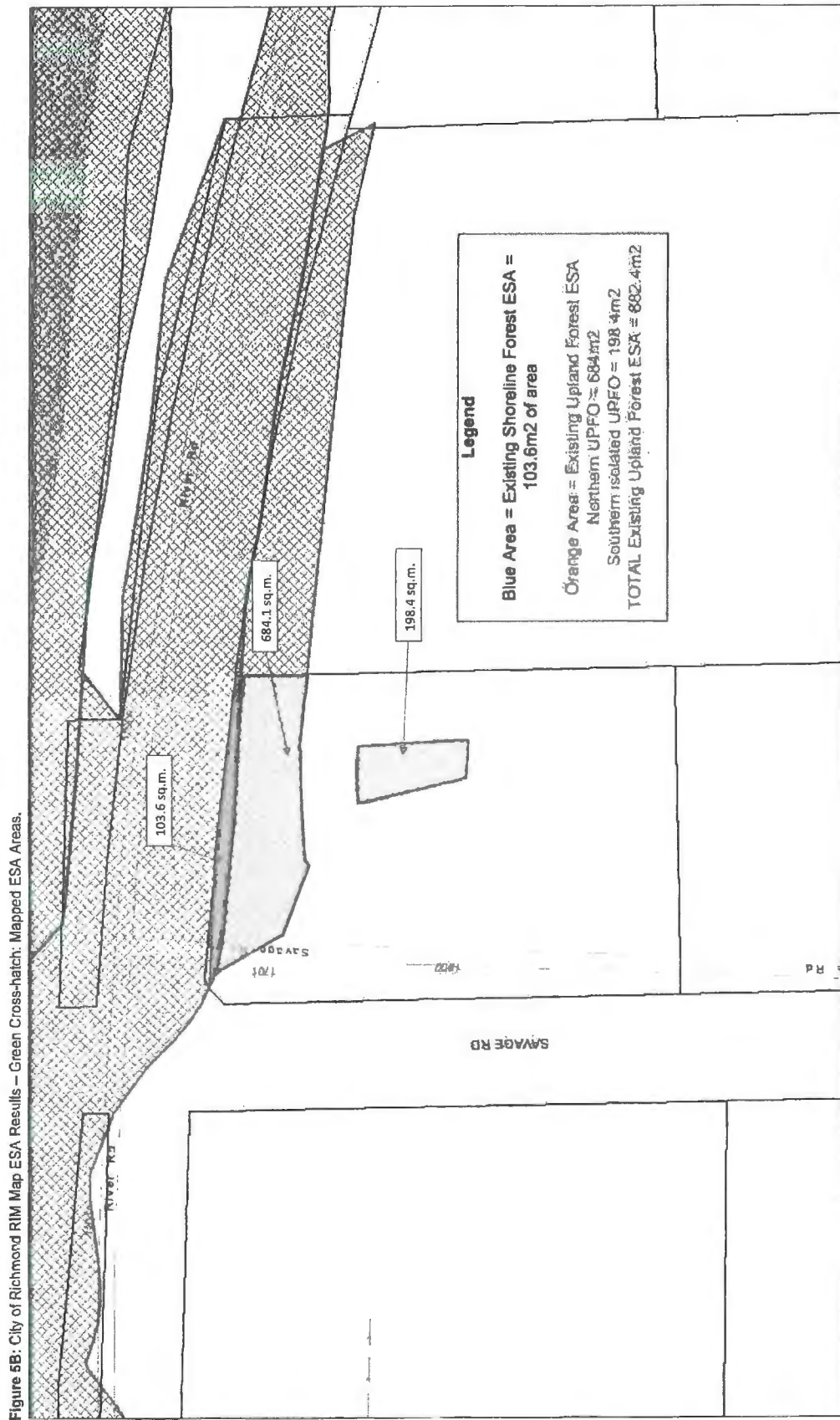
Planning Area(s): Bridgeport

Floor Area: Gross: 2,918m²

Net: 2,918 m²

	Existing	Proposed
Site Area:	5,257 m ²	5,257 m ²
Land Uses:	Surface parking lot	Warehouse
OCP Designation:	Industrial	No change
Zoning:	Light Industrial (IL)	No change

	Bylaw Requirement	Proposed	Variance
Floor Area Ratio:	Max. 1.0	0.55	none permitted
Lot Coverage:	Max. 60%	42%	none
Setback – Front Yard:	Min. 3.0 m	Min. 3.0 m	none
Setback – Exterior Side Yard:	Min. 3.0 m	Min. 3.0 m	none
Setback – Interior Side Yard:	No minimum	0.3 m	none
Setback – Rear Yard:	No minimum	0.32 m	none
Height (m):	Max. 12.0 m	Max. 11.12	none
Off-Street Parking Spaces:	Min. 30	30	none
Off-Street Parking Spaces (accessible):	Min. 1	1	none
Total Off-Street Parking Spaces:	Min. 31	31	none
Loading Spaces:	Min: 1 large/1 Medium	2 Large/2 medium	none
Bicycle Parking Spaces:	Class 1: 8 spaces Class 2: 8 spaces	Class 1: 8 spaces Class 2: 8 spaces	none





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- LEGEND
- SOFTWOOD TREE PROTECTED FOR REMOVAL
 - SOFTWOOD TREE TO BE MAINTAINED
 - TREE PROTECTION FENCING
 - 19 TREE TAGS

NO.	DESCRIPTION	DATE
1	ISSUED FOR PERMIT	02/07/2018
2	REVISIONS	
3	REVISIONS	
4	REVISIONS	
5	REVISIONS	
6	REVISIONS	
7	REVISIONS	
8	REVISIONS	
9	REVISIONS	
10	REVISIONS	
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1000 Lakeside Drive, Suite 200, Northbrook, IL 60062
 847.480.1000
 www.krahn.com



SAVE ROAD SPEC

PROPERTY OWNER:
 1000 LAKESIDE ROAD,
 NORTHBROOK, IL 60062

DATE:
 02/07/2018

PROJECT NO.:

T-1

1000 Lakeside Drive, Suite 200, Northbrook, IL 60062
 847.480.1000
 www.krahn.com

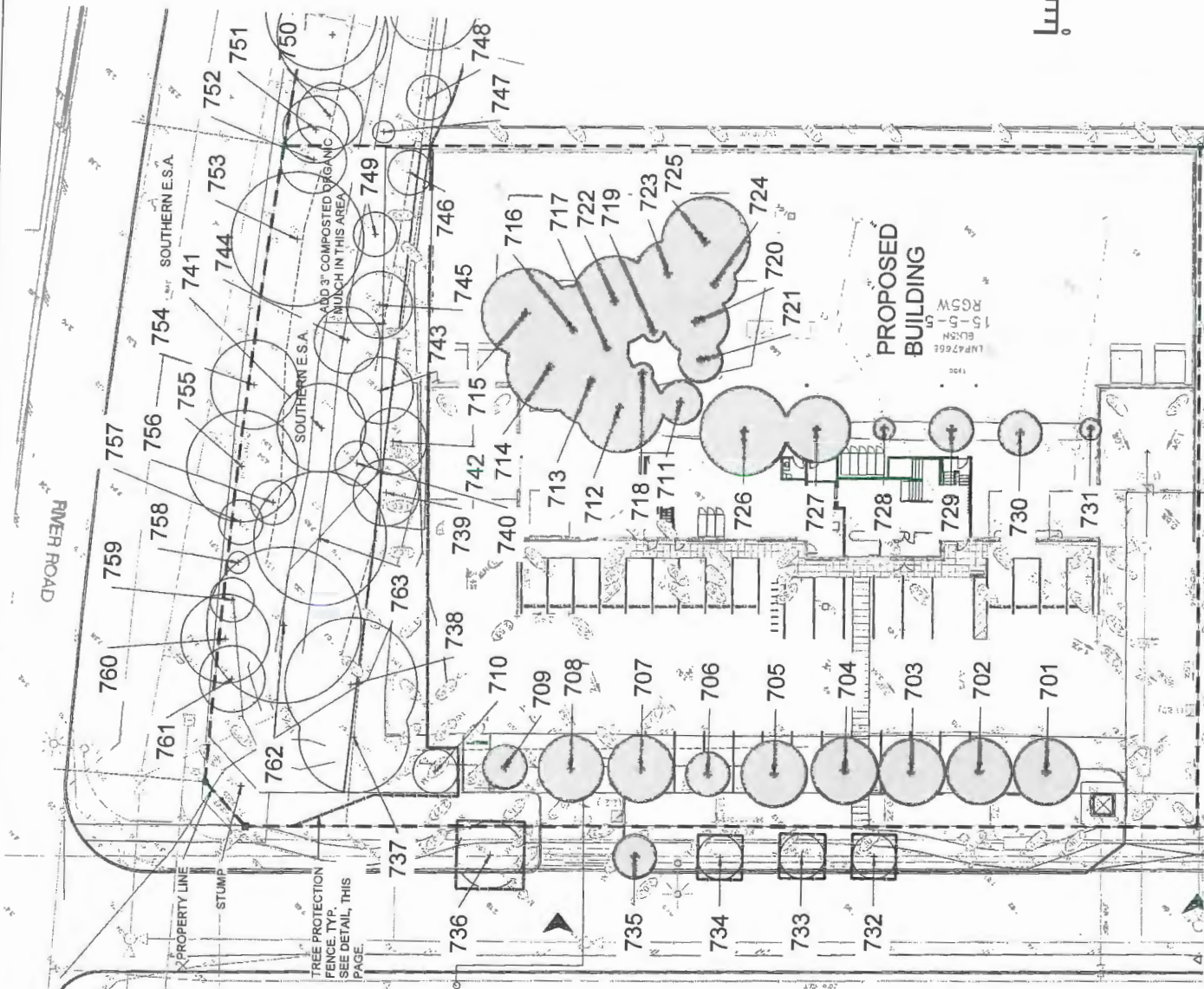


TABLE 1. TREE INVENTORY - SAVAGE ROAD PROPERTY

*The tree health and structural condition ratings are as follows and are based on factors that could include one or a combination of:

Poor Condition – Severe Canopy dieback, significant lean, decayed, missing leader, significant disease or parasitic plant presence

Fair Condition – Moderate Canopy dieback and/or lean, limb defects, multiple stems, moderate foliage damage from stress, moderate damage from disease or parasite.

Good condition – Healthy vigorous growth, no or minor visible defects or damage

TREE OR TAG #	BOTANICAL NAME	COMMON NAME	DBH (cm)	CANOPY RAD. (m)	STEMS	CONDITION*	COMMENTS	RECOMMENDATION
701	Acer platanoides	Norway Maple	39	3	1	Good-Fair	Pruned	Remove for Development
702	Acer platanoides	Norway Maple	34	3	1	Good	Pruned, slight lean	Remove for Development
703	Acer platanoides	Norway Maple	48	3	1	Good	Pruned, slight lean	Remove for Development
704	Acer platanoides	Norway Maple	48	3	1	Poor	Crack in trunk, pruned	Remove for Cond'n/Development
705	Acer platanoides	Norway Maple	38	3	1	Fair	Pruned, dieback	Remove for Development
706	Acer platanoides	Norway Maple	35	2	1	Fair	Pruned, dieback	Remove for Development
707	Acer platanoides	Norway Maple	49	3	1	Fair	Pruned, dieback, has birds nest	Remove for Development
708	Acer platanoides	Norway Maple	44	3	1	Fair	Pruned, dieback, corrected lean, broken branches	Remove for Development
709	Acer platanoides	Norway Maple	37	2	1	Fair	Pruned, dieback on one side, uncorrected lean	Remove for Development
710	Acer platanoides	Norway Maple	15	2	4	Fair	Pruned, dieback, growing into tree wire and rebar	Retain and Protect
711	Pinus contorta	Lodgepole Pine	40	2	1	Good-Fair	Shaded dieback one side	Remove for Development
712	Thuja plicata	Western Red Cedar	45	4	1	Good		Remove for Development
713	Thuja plicata	Western Red Cedar	45	4	1	Good		Remove for Development
714	Thuja plicata	Western Red Cedar	50	4	1	Good	Minor shaded dieback	Remove for Development
715	Thuja plicata	Western Red Cedar	50	4	1	Good		Remove for Development
716	Thuja plicata	Western Red Cedar	45	4	1	Good	Shaded dieback	Remove for Development
717	Thuja plicata	Western Red Cedar	40	2	1	Good		Remove for Development
718	Pinus resinosa	Western Red Pine	25	1	1	Poor	Shaded dieback	Remove for Development
719	Pinus contorta	Lodgepole Pine	35	1	1	Poor	Shaded dieback, corrected lean	Remove for Cond'n/Development
720	Pinus contorta	Lodgepole Pine	45	3	1	Fair-Poor	Shaded dieback	Remove for Cond'n/Development
721	Pinus contorta	Lodgepole Pine	30	2	1	Poor	Leader missing, dieback, leaning	Remove for Development
722	Thuja plicata	Western Red Cedar	52	4	1	Good	Shaded dieback	Remove for Development
723	Thuja plicata	Western Red Cedar	40	3	1	Poor	Some canopy dieback, fruiting bodies, holes in trunk indicate insect infestation, likely internal decay	Remove for Cond'n/Development
724	Pinus contorta	Lodgepole Pine	60	2	1	Fair	Shaded dieback, one stem removed, corrected lean	Remove for Development
725	Pinus contorta	Lodgepole Pine	55	4	1	Good-Fair	Shade dieback, corrected lean	Remove for Development
726	Acer platanoides	Norway Maple	40	4	1	Good	Pruned	Remove for Development
727	Acer platanoides	Norway Maple	30	3	1	Fair	Pruned, Dieback	Remove for Development
728	Acer platanoides	Norway Maple	25	1	1	Fair	Pruned	Remove for Development
729	Acer platanoides	Norway Maple	25	2	1	Fair	Dieback, Leaning	Remove for Development
730	Acer platanoides	Norway Maple	25	2	1	Poor	Missing leader, broken limbs, dieback, large trunk cavity	Remove for Cond'n/Development
731	Acer platanoides	Norway Maple	20	1	1	Poor	Broken limbs, dieback, heavily pruned	Remove for Cond'n/Development
732	Acer freemanii	Freeman's Maple	10	2	1	Good-Fair	Leaders all pruned due to hydro lines	Retain and Protect
733	Acer freemanii	Freeman's Maple	10	2	1	Good-Fair	Leaders all pruned due to hydro lines	Retain and Protect
734	Acer freemanii	Freeman's Maple	10	2	1	Good-Fair	Leaders all pruned due to hydro lines	Retain and Protect
735	Acer freemanii	Freeman's Maple	10	2	1	Good-Fair	Leaders all pruned due to hydro lines	Remove for Development
736	Acer freemanii	Freeman's Maple	17	3	1	Good-Fair	Leaders all pruned due to hydro lines	Retain and Protect
737	Acer species	Maple	40	5	1	Good	Pruned on one side	Retain and Protect
738	Acer platanoides	Norway Maple	45	6	1	Good		Retain and Protect
739	Pseudotsuga menziesii	Douglas fir	50	3	1	Good	Shaded dieback	Retain and Protect
740	Pseudotsuga menziesii	Douglas fir	45	2	1	Fair-Poor	Significant dieback	Retain and Protect
741	Pseudotsuga menziesii	Douglas fir	30	4	1	Fair	Shaded dieback, slight lean	Retain and Protect
742	Pseudotsuga menziesii	Douglas fir	45	3	1	Good	Shaded dieback on one side	Retain and Protect

TREE OR TAG #	BOTANICAL NAME	COMMON NAME	DBH (cm)	CANOPY RAD. (m)	STEMS	CONDITION*	COMMENTS	RECOMMENDATION
743	Pseudotsuga menziesii	Douglas fir	50	3	1	Good-Fair	Shaded dieback on one side	Retain and Protect
744	Pseudotsuga menziesii	Douglas fir	60	3	1	Good-Fair	Dieback, one sided growth	Retain and Protect
745	Pseudotsuga menziesii	Douglas fir	60	3	1	Good-Fair	Dieback, one sided growth	Retain and Protect
746	Populus trichocarpa	Black Cottonwood	75	2	1	Fair	Ivy on trunk	Retain and Protect
747	Populus trichocarpa	Black Cottonwood	70	1	1	Poor	Ivy on trunk	Retain and Protect
748	Pseudotsuga menziesii	Douglas fir	70	2	1	Good-Fair	Ivy on trunk, some dieback	Retain and Protect
749	Populus trichocarpa	Black Cottonwood	75	2	1	Fair	Shaded dieback	Retain and Protect
750	Alnus rubra	Red Alder	50	3	1	Good-Fair	Ivy on trunk	Retain and Protect
751	Alnus rubra	Red Alder	1 Broken, 1@ 45, 1@ 40	3	3	Good-Fair	Shaded dieback, ivy on trunk	Retain and Protect
752	Alnus rubra	Red Alder	1@ 10, 1@ 15, 1@ 20, 1@ 35	3	4	Good-Fair	Shaded dieback, ivy on trunk	Retain and Protect
753	Alnus rubra	Red Alder	60	6	1	Good		Retain and Protect
754	Acer macrophyllum	Big Leaf Maple	45	4	1	Good	Dieback	Retain and Protect
755	Acer macrophyllum	Big Leaf Maple	70	5	1	Good-Fair	Dieback	Retain and Protect
756	Alnus rubra	Red Alder	20.5	2	1	Good		Retain and Protect
757	Alnus rubra	Red Alder	22	2	1	Poor	Missing leader	Retain and Protect
758	Alnus rubra	Red Alder	20.5	1	1	Good-Fair	Dieback	Retain and Protect
759	Alnus rubra	Red Alder	1@ 22, 1@ 15	2	2	Good-Fair	Corrected lean	Retain and Protect
760	Alnus rubra	Red Alder	41	4	1	Good	Shaded dieback	Retain and Protect
761	Populus trichocarpa	Black Cottonwood	22	2	1	Good		Retain and Protect
762	Acer platanoides	Norway Maple	55	7	1	Good		Retain and Protect
763	Acer platanoides	Norway Maple	50	6	1	Good-Fair	Shaded Dieback, Pruned	Retain and Protect

Figure 9: 1600 Savage Road - May 2019 Invasive Plant Mapping



5/28/2019, 9:54:33 AM

- Street Names
- Air Parcels
- Strata
- Parcels (black line)
- City Hall
- Fire Stations
- Police Stations
- Ambulance Stations

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

AquaTerra Environmental Ltd.
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Development Permit Considerations

Development Applications Department
6911 No. 3 Road, Richmond, BC V6Y 2C1

Address: 1600 Savage Road

File No.: DP 18-820689

Prior to approval of the Development Permit, the developer is required to complete the following:

1. Receipt of a Letter of Credit for landscaping and tree retention security in the amount of \$36,247.20 based on the cost estimate provided in the Environmental Impact Assessment (Aquaterra Environmental, July 30, 2019) including 10% contingency.
2. City acceptance of the developer's offer to voluntarily contribute \$17,650 to the City's Tree Compensation Fund for the planting of replacement trees within the City.
3. Submission of a Contract entered into between the applicant and a Certified Arborist for supervision of any on-site works conducted within the tree protection zone of the trees to be retained. The Contract should include the scope of work to be undertaken, including: the proposed number of site monitoring inspections, and a provision for the Arborist to submit a post-construction assessment report to the City for review.
4. Submission of a Tree Survival Security to the City in the amount of \$10,000 for the four City trees to be retained.
5. Installation of appropriate tree protection fencing around all trees to be retained as part of the development prior to any construction activities, including building demolition, occurring on-site.
6. Installation of appropriate Environmentally Sensitive Area (ESA) protection fencing and silt control fencing at the boundary of the ESA as proposed by the Development Permit, per the ESA Changes Plan L2.2 (August 22, 2019) prior to any construction activities, including building demolition, occurring on-site.
7. Submission of a Contract entered into between the applicant and a Qualified Environmental Professional to monitor and provide annual reporting to the City on the ESA for three years following City approval of substantial completion.
8. The granting of a 13 m wide statutory right-of-way along the northern property line for the purpose of access, construction, and maintenance of future road, dike, and utility works by the City. The SRW shall prohibit any excavation or construction within the SRW and provide the City with unrestricted vehicular and man access to all sections of the SRW.
9. Registration of a flood plain covenant on title identifying a minimum habitable elevation of 3.0 m GSC.
10. Registration of a legal agreement on title to identify the modified ESA and to ensure that landscaping is retained and planted as identified within the Environmental Impact Assessment (Aquaterra Environmental, July 30, 2019) and will not be abandoned or removed.
11. Registration of a legal agreement on title to allow City access to the property in case the works identified within the Environmental Impact Assessment (Aquaterra Environmental, July 30, 2019) are not completed, maintained or monitored as proposed.
12. Discharge of Covenant BP245419.
13. Discharge of Covenant BP245434.

Prior to Building Permit Issuance, the developer must complete the following requirements:

1. Submission of a Construction Parking and Traffic Management Plan to the Transportation Department. Management Plan shall include location for parking for services, deliveries, workers, loading, application for any lane closures, and proper construction traffic controls as per Traffic Control Manual for works on Roadways (by Ministry of Transportation) and MMCD Traffic Regulation Section 01570.
2. Incorporation of accessibility measures in Building Permit (BP) plans as determined via the Rezoning and/or Development Permit processes.
3. Complete works to be done at the developer's sole cost via City Work Order:
 - *Water Works:*

Initial: _____

- a) Using the OCP Model, there is 424 L/s of water available at a 20 psi residual at the Savage Road frontage. Based on your proposed development, your site requires a minimum fire flow of 250 L/s.
- b) The Developer is required to:
 - i) Submit Fire Underwriter Survey (FUS) or International Organization for Standardization (ISO) fire flow calculations to confirm development has adequate fire flow for onsite fire protection. Calculations must be signed and sealed by a Professional Engineer and be based on Building Permit Stage building designs.
 - ii) Provide a right-of-way for the water meter. Minimum right-of-way dimensions to be the size of the meter box (from the City of Richmond supplementary specifications) + any appurtenances (for example, the bypass on W2o-SD) + 0.5 m on all sides. Exact right-of-way dimensions to be finalized during the building permit process.
 - iii) Install a water meter on the existing water service connection. Water meter to be located onsite in a right-of-way.

• *Storm Sewer Works:*

- a) The Developer is required to:
 - i) Confirm the capacity and condition (via video inspection) of the existing storm connection near the south property line. If the existing storm connection is adequate to serve the proposed development, at the City's digression, the existing connection may be retained to serve the proposed development. A new inspection chamber will be required. If the existing storm connection is not adequate to serve the proposed development, the existing connection shall be capped and a new storm connection complete with inspection chamber shall be installed by the City at the developer's cost.

• *Sanitary Sewer Works*

- a) The Developer is required to:
 - i) Confirm the capacity and condition (via video inspection) of the existing sanitary connection at the south property line. If the existing connection is adequate to serve the proposed development, at the City's digression, the existing connection may be retained to serve the proposed development. If the existing connection is not adequate to serve the proposed development, the existing connection shall be replaced by the City at the developer's cost.
- b) At Developer's cost, the City is to:
 - i) Replace the sanitary inspection chamber at the south property line with a 1050 mm manhole.

• *Frontage Works*

- a) The Developer is required to:
 - i) Coordinate with BC Hydro, Telus and other private communication service providers:
 - (1) To pre-duct for future hydro, telephone and cable utilities on all road frontages.
 - (2) Before relocating/modifying any of the existing power poles and/or guy wires within the property frontages.
 - (3) To underground overhead service lines.
 - (4) To locate/relocate all above ground utility cabinets and kiosks required to service the proposed development, and all above ground utility cabinets and kiosks located along the development's frontages, within the developments site (see list below for examples). A functional plan showing conceptual locations for such infrastructure shall be included in the development design review process. Please coordinate with the respective private utility companies and the project's lighting and traffic signal consultants to confirm the requirements (e.g., statutory right-of-way dimensions) and the locations for the aboveground structures. If a private utility company does not require an aboveground structure, that company shall confirm this via a letter to be submitted to the City. The following are examples of statutory right-of-ways that shall be shown on the architectural plans/functional plan:
 - BC Hydro PMT – 4.0 x 5.0 m
 - BC Hydro LPT – 3.5 x 3.5 m
 - Street light kiosk – 1.5 x 1.5 m
 - Traffic signal kiosk – 2.0 x 1.5 m
 - Traffic signal UPS – 1.0 x 1.0 m

- Shaw cable kiosk – 1.0 x 1.0 m
- Telus FDH cabinet – 1.1 x 1.0 m

4. If applicable, payment of latecomer agreement charges associated with eligible latecomer works.
5. Obtain a Building Permit (BP) for any construction hoarding. If construction hoarding is required to temporarily occupy a public street, the air space above a public street, or any part thereof, additional City approvals and associated fees may be required as part of the Building Permit. For additional information, contact the Building Approvals Department at 604-276-4285.

Note:

* This requires a separate application.

- Where the Director of Development deems appropriate, the preceding agreements are to be drawn not only as personal covenants of the property owner but also as covenants pursuant to Section 219 of the Land Title Act.

All agreements to be registered in the Land Title Office shall have priority over all such liens, charges and encumbrances as is considered advisable by the Director of Development. All agreements to be registered in the Land Title Office shall, unless the Director of Development determines otherwise, be fully registered in the Land Title Office prior to enactment of the appropriate bylaw.

The preceding agreements shall provide security to the City including indemnities, warranties, equitable/rent charges, letters of credit and withholding permits, as deemed necessary or advisable by the Director of Development. All agreements shall be in a form and content satisfactory to the Director of Development.

- Additional legal agreements, as determined via the subject development's Servicing Agreement(s) and/or Development Permit(s), and/or Building Permit(s) to the satisfaction of the Director of Engineering may be required including, but not limited to, site investigation, testing, monitoring, site preparation, de-watering, drilling, underpinning, anchoring, shoring, piling, pre-loading, ground densification or other activities that may result in settlement, displacement, subsidence, damage or nuisance to City and private utility infrastructure.
- Applicants for all City Permits are required to comply at all times with the conditions of the Provincial *Wildlife Act* and Federal *Migratory Birds Convention Act*, which contains prohibitions on the removal or disturbance of both birds and their nests. Issuance of Municipal permits does not give an individual authority to contravene these legislations. The City of Richmond recommends that where significant trees or vegetation exists on site, the services of a Qualified Environmental Professional (QEP) be secured to perform a survey and ensure that development activities are in compliance with all relevant legislation.

Signed

Date



- LEGEND
- ⊕ EXISTING TREE PROPOSED FOR REMOVAL
 - ⊙ EXISTING TREE TO BE RETAINED
 - ⊞ TREE PROTECTION FENCING
 - 19 TREE TAGING

2006/07/19	ISSUED FOR PERMIT
2008/02/19	ISSUED FOR PERMIT
2008/02/19	ISSUED FOR PERMIT
17/04/2019	ISSUED FOR PERMIT
13/04/2019	ISSUED FOR PERMIT
28/11/2018	ISSUED FOR SP
29/04/2018	ISSUED FOR DP
13/02/2018	ISSUED FOR REVIEW

Assessment Done Feb. 07, 2018
 By Shan Terryson,
 I.S.A. # ON-0959A

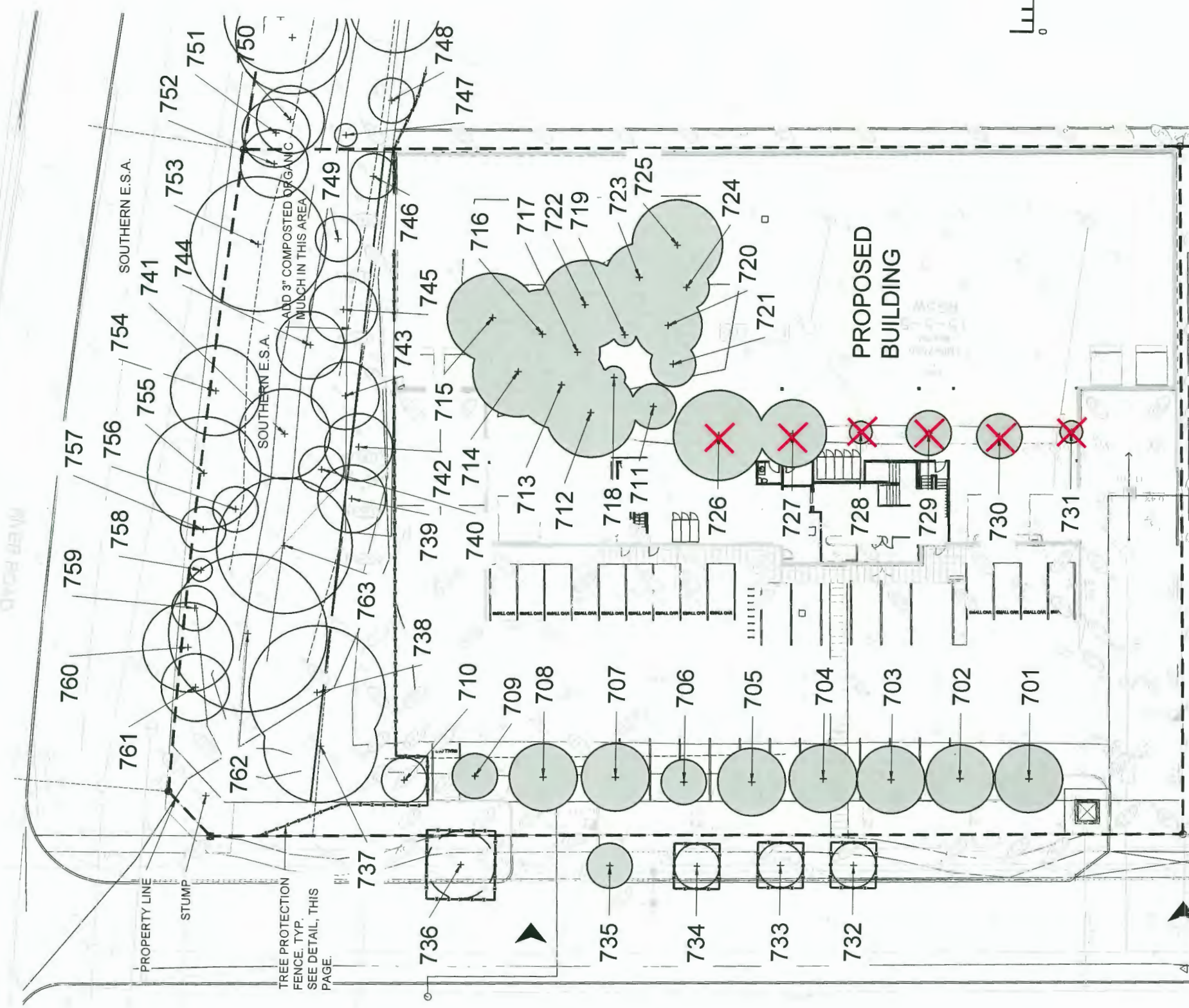


SAVE ROAD SPEC

1600 SAVAGE ROAD,
 RICHMOND, B.C.

TREE MANAGEMENT
 PLAN

1"=20' AT ARCHITECT SIZE	
MM	IN
FT	FT
10000	10000



X Trees removed without a permit



1600 SAVAGE ROAD MONITORING MEMORANDUM

TO: Adrian Botez
#3 - 13680 Bridgeport Road
Richmond, BC V6V 1V3



FROM: Chris Lee, M.Sc., R.P. Bio., QEP, BC-CESCL

CC: Integrated Construction, City of Richmond, Orion Construction

DATE: 13 May 2020

RE: 1600 SAVAGE ROAD ENVIRONMENTAL INSPECTION #2 (11 May 2020) – MONITORING
MEMORANDUM

1 ENVIRONMENTAL MONITORING MEMORANDUM OBJECTIVE

On 11 May 2020, Mr. Chris Lee, RPBio, QEP of AquaTerra Environmental Ltd. ('AquaTerra') attended the site, referenced as 1600 Savage Road in the City of Richmond (**Figure 1**). The monitoring event was conducted in response to concerns raised by the City of Richmond relating to alleged Environmentally Sensitive Area (ESA) disturbance. Representative monitoring photographs are attached to this memorandum.

Figure 1: Site Location (Outlined in Red).



2 ENVIRONMENTAL MONITORING EVENT – COMPLIANCE EVALUATION

2.1 *Erosion & Sediment Control Compliance*

No run-off, surface water quality issues, or erosion & sediment control (ESC) issues were noted on-site at the time of the site monitoring event. Additional preload had been placed near the southern portion of the site. Catchbasin (CB) inlet protection remained in place and was functioning, as intended.

2.2 *Environmentally Sensitive Area Protection Compliance*

The blue temporary fencing had been relocated from the southern ESA treed area to the western site boundary. Orange snow fencing and wood framing had been installed in place of the relocated blue temporary fencing around the southern ESA boundary. No impacts to the ESAs on-site were observed. AquaTerra personnel noted that three (3) tree stumps had been recently deposited in the southern ESA. This ESA is to be removed as part of site re-development. Three additional tree stumps had been temporarily placed to the northeast of the southern ESA. The City of Richmond may have inadvertently assumed that trees had been cut within the southern ESA as a result of stump placement; however the number of trees (15) within the southern ESA remained intact with no evidence of impact (i.e., no injury or damage to the trees or their root systems). The trees and resulting stumps had been reportedly removed by the contractor from a narrow parking boulevard to the south, which was not part of the ESA. Trees within the Savage Road boulevard remain protected with tree protection fencing with the exception of one tree, and no encroachment or impact to the northern WSA were observed.

AquaTerra personnel thoroughly traversed the northern ESA to address the City of Richmond English Ivy infestation concerns of trees within the area. English Ivy ground cover was prevalent within the eastern portion of the northern ESA and a total of six (6) trees had been affected – 2 moderate infestations and 4 severe infestations, primarily affecting Red Alder and Douglas-fir. AquaTerra discussed English Ivy management with the contractor and owner during the monitoring event and confirmed the intent to grub affected area and to cut the ivy climbing the trees will occur when the contractor is restoring the northern ESA.

3 ENVIRONMENTAL COMPLIANCE ASSESSMENT SUMMARY AND CLOSURE

In summary, during the 11 May 2020 monitoring event of 1600 Savage Road, AquaTerra verified compliance with ESC measures prescribed in the project drawings and did not identify any construction-related impacts to any of the ESAs on-site.

We trust this provides the information you currently require. Should you have any questions, please feel free to contact the undersigned.

Respectfully submitted,



Digitally signed by Chris Lee
DN: cn=Chris Lee,
o=AquaTerra Environmental
Ltd., ou,
email=chris@aquaterra.ca,
c=CA
Date: 2020.05.14 09:22:40
-07'00'

Chris Lee, M.Sc., R.P. Bio., QEP, BC-CESCL
AquaTerra Environmental Ltd.

Attachments:

Photographs

Photographs:

Photo 1: Southern ESA Fencing Protection looking northeast.



Photo 2: Deposited stumps within the ESA.



Photo 3: Stumps stored to the north of the southern ESA.



Photo 4: Northern ESA boundary and fencing.



Photo 5: Southern ESA boundary and minor erosion around footing excavation; no exposed roots were observed.



Photo 6: Minor English Ivy infestation – Red Alders.



Photo 7: English Ivy Infestation within the northern ESA.





#3 - 13680 Bridgeport Road,
Richmond, BC
sales@open-windows.ca
604.971.6736 | www.open-windows.ca

June 6th, 2020

Planning and Development Division
Development Applications
City of Richmond
6911 No 3 Rd,
Richmond, BC, V6Y 2C1

Re: ALTERNATIVE SITE PLAN

My name is Adrian Botez and I am the owner of Open Windows Inc. As you are aware, Open Window has submitted applications to the City of Richmond for the construction of a new industrial and office facility located at 1600 Savage Road.

In order to fully understand why the alternative site plan is not feasible solution for my business, let me please explain the business model we run.

I am currently run my operations in (3) buildings in the City of Richmond. The new facility at 1600 Savage Road will be used to consolidate all my operations into one building. There will be (2) separate companies that I own, that will operate out of this building. One company – Open Windows Inc. involves selling preassembled vinyl windows shipped from Europe. A portion of the warehouse will be used for the storage of these vinyl windows prior to shipping to sites. The second company – Nordica Aluminum Inc. involves aluminum windows manufacturing. The balance of the warehouse area will be used to fabricate these aluminum windows, it is a totally separate business and runs under separate permit and under different work safety rules than the vinyl windows company. The workers from Open Windows' storage area cannot and must not have access to the Nordica's production area due to safety hazards, a fence will be placed to separate the two areas. The ancillary office and showroom area of our proposed building will be utilized for both companies.

I will details some of the biggest issues with the Alternative Site Plan:

Dock loading:

It is imperative that we have (2) separate dock loading points that can accommodate 40' long containers, placed on opposite ends of the building, in order to separate our deliveries and operations of the two companies, within the building. We receive weekly containers for both our companies, Open Windows and Nordica Aluminum.

The two separate operations taking place in the warehouse area of our building need to be separated (including separate loading areas for deliveries and shipping) for the operations of each business to work efficiently and safely.

It is impossible in the alternative plan to accommodate unloading 40' containers, on opposite ends.

Floor space:

On the alternative site plan, the main floor space is reduced under our minimum requirements.

On the alternative plan we have 19,462 sqf vs 23,909 sqf on the plan initially submitted with the full application package. That translates in almost 23% reduction of the floor area. Even on the initial plan we were forced to find solutions to accommodate all the production line for our aluminum products and the storage space needed.

With this square footage reduction, we will not be able to run any operation for production of our structural glazed aluminum products. Structural glazed windows are the future in the windows business as they offer minimal frame exposure and more visible glass. To achieve this, glass needs to be structural glued on the aluminum frame using structural silicones. Doing so, the window panel needs to be kept horizontally until glue dries, in same position for 24 hours, it cannot be vertically stacked. Even with our designed racks for horizontal storage, we cannot pile more than 5 panels horizontally, therefore the storage space needs are much higher for the finished product.

Adding together all the space we need for Open Windows to store the already made vinyl frames received from Europe and for Nordica Aluminum to run the production operations with all the space needed for raw material storage, production line, finished product to be stored horizontally for 24 hours and finished product vertically stored, it is impossible to fit all these in such a small building.

Building shape:

With the odd shape of the building due to shared access with neighbours next door, dividing of the building in between the two business, Open Windows and Nordica Aluminum, will make the floor space boundaries in very irregular shape, wasting lots of space that cannot be used efficiently for production line or storage with proper forklift access.

That will further reduce the usable floor space to ridiculous small numbers.

Windows and daylight flow:

Comparing to submitted application where all the windows are facing West and lots of natural light will be available, the alternate plan has all the windows facing North, and most of them will be covered by the ESA that is in the middle of the lot and the one on the north boundary of the lot that has also high trees. That will translate in low natural lighting in our showroom and offices, making the use of artificial light a necessity, affecting the people working in the building.

Scientific research has proven that people seek out sunlit places and enjoy spending time in natural light. Research has also proven that there are real benefits associated with spending time in spaces that offer abundant natural light. The benefits of natural lighting are numerous and can affect a person's health, the environment and energy usage.

Survey by HR advisory firm Future Workplace called "The Employee Experience" reveals the reality is that employees crave something far more fundamental and essential to human needs. In a research poll of 1,614 North American employees, it was found that access to natural light is the number one attribute of the workplace environment, outranking stalwarts like onsite cafeterias, fitness centers, and premium perks including on-site childcare (only 4-8% of FORTUNE 100 companies offer on-site child care).

The study also found that the absence of natural light hurts the employee experience. Over a third of employees feel that they don't get enough natural light in their workspace. 47% of employees admit they feel tired or very tired from the absence of natural light or a window at their office, and 43% report feeling gloomy because of the lack of light.

I thank you for taking the time to read my letter. We are pleased with the fact that our new project will be a productive component of the City of Richmond and will continue to contribute to the community in which we have been a part of for so long.

We target to be an innovative company, offering our employees that most are Richmond residents, a safe and enjoyable place to work. We grew up so much in such a sort time, but now with all these delays to get into our modern and remarkable new head office and manufacturing shop puts a lot of financial pressure on the companies I run.

Please advise if you require any further information on this subject.

Yours truly,

Adrian Botez



OPEN WINDOWS Inc.
#3 - 13680 Bridgeport Road
Richmond, BC V6V 1V3
phone: 604.971.OPEN (6736)
www.open-windows.ca

1600 SAVAGE ROAD ESA COMMENTARY

TO: Adrian Botez
#3 - 13680 Bridgeport Road
Richmond, BC V6V 1V3



FROM: Chris Lee, M.Sc., R.P. Bio., QEP, BC-CESCL

CC: Integrated Construction, City of Richmond, Orion Construction


DATE: 04 June 2020

RE: **1600 SAVAGE ROAD ENVIRONMENTALLY SENSITIVE AREA COMMENTARY FOR CITY OF RICHMOND**

As requested by the City of Richmond, this letter briefly re-affirms AquaTerra Environmental Ltd.'s position that the addition and remediation of habitat within the northern Environmentally Sensitive Area (ESA) will have a higher value in terms of habitat function relative to the existing central ESA at the site (referenced as 1600 Savage Road). The central ESA is a landscaped area with planted trees with an understorey comprised of invasive Himalayan Blackberry. The central ESA is not contiguous, being isolated geographically from other habitat areas. As such, habitat value will be limited to mobile species such as foraging and potentially nesting birds. It does not confer high habitat value for other species, including sensitive species / species-at-risk. Given the small size of the ESA, there is a large boundary effect, with a high potential for disturbance. In contrast, expansion and enhancement of the northern ESA will improve habitat function relative to existing conditions and provide increased foraging, nesting and movement opportunities through contiguous areas off-site and fronting the Fraser River. Additional detail to this effect is clearly referenced in the Environmental Assessment (EA) document issued by AquaTerra and can be reviewed for any supplementary details.

We trust this provides the information you currently require. Should you have any questions, please feel free to contact the undersigned.

Respectfully submitted,

 Digitally signed by Chris Lee
DN: cn=Chris Lee, o=AquaTerra
Environmental Ltd., ou,
email=chris@aquaterra.ca, c=CA
Date: 2020.06.04 15:24:04 -07'00'

Chris Lee, M.Sc., R.P. Bio., QEP, BC-CESCL
AquaTerra Environmental Ltd.



No. DP 18-820689

To the Holder: INTEGRATED CONSTRUCTION
Property Address: 1600 SAVAGE ROAD
Address: C/O UNIT 310 - 12960 84th AVENUE
SURREY, BC V3W 1K7

1. This Development Permit is issued subject to compliance with all of the Bylaws of the City applicable thereto, except as specifically varied or supplemented by this Permit.
2. This Development Permit applies to and only to those lands shown cross-hatched on the attached Schedule "A" and any and all buildings, structures and other development thereon.
3. Subject to Section 692 of the Local Government Act, R.S.B.C.: buildings and structures; off-street parking and loading facilities; roads and parking areas; and landscaping and screening shall be constructed generally in accordance with Plans #1 to #5 attached hereto.
4. Sanitary sewers, water, drainage, highways, street lighting, underground wiring, and sidewalks, shall be provided as required.
5. As a condition of the issuance of this Permit, the City is holding the security in the amount of \$36,247.20 to ensure that development is carried out in accordance with the terms and conditions of this Permit. Should any interest be earned upon the security, it shall accrue to the Holder if the security is returned. The condition of the posting of the security is that should the Holder fail to carry out the development hereby authorized, according to the terms and conditions of this Permit within the time provided, the City may use the security to carry out the work by its servants, agents or contractors, and any surplus shall be paid over to the Holder. Should the Holder carry out the development permitted by this permit within the time set out herein, the security shall be returned to the Holder. The City may retain the security for up to one year after inspection of the completed landscaping in order to ensure that plant material has survived.
6. If the Holder does not commence the construction permitted by this Permit within 24 months of the date of this Permit, this Permit shall lapse and the security shall be returned in full.

Development Permit
No. DP 18-820689

To the Holder: INTEGRATED CONSTRUCTION
Property Address: 1600 SAVAGE ROAD
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7. The land described herein shall be developed generally in accordance with the terms and conditions and provisions of this Permit and any plans and specifications attached to this Permit which shall form a part hereof.

This Permit is not a Building Permit.

AUTHORIZING RESOLUTION NO.
DAY OF , .

ISSUED BY THE COUNCIL THE

DELIVERED THIS DAY OF , .

MAYOR

LEGEND

- TURF GRASS
- CONCRETE SIDEWALK PAVING
- EXISTING TREE TO REMAIN
- EXISTING TREE TO BE REMOVED
- SPLIT RAIL FENCE
- TREE PROTECTION FENCING
- SILT FENCING

20/06/2019	ISSUED FOR RESUBMISSION
20/06/2019	ISSUED FOR TENDER REVIEW
22/06/2019	ISSUED FOR RESUBMISSION
13/07/2019	ISSUED FOR RE-CDP
14/09/2019	ISSUED FOR RE-CDP
17/04/2019	ISSUED FOR RE-CDP
09/01/2019	ISSUED FOR REVIEW
19/02/2019	ISSUED FOR PRICING
08/03/2019	ISSUED FOR REVIEW
29/11/2018	ISSUED FOR SP
29/11/2018	ISSUED FOR REVIEW
09/11/2018	ISSUED FOR REVIEW
25/02/2018	ISSUED FOR CD
05/04/2018	ISSUED FOR REVIEW

B.C.S.L.A. #565



OPEN WINDOWS

1600 SAVAGE ROAD
RICHMOND, BC

E.S.A. PLANTING
PLAN

1:100
RM
ST
100965L

L2.1

DP 18-820689
June 23, 2020
Plan #4.B

NEW TREE PLANTING NOTES: E.S.A.

NEW TREE PLANTING IS PROPOSED IN THE ENVIRONMENTALLY SENSITIVE AREA (E.S.A.) SHOWN ON THIS PLAN BY AQUATERIA ENVIRONMENTAL LTD. IN THEIR REPORT DATED APRIL 6, 2019.

26 NEW TREES ARE PROPOSED IN THE E.S.A. COMPENSATION AREA ON THE SOUTH SIDE OF THE ROAD. THE PROPOSED TREES ARE TO BE PLANTED AT A MINIMUM 10 METERS FROM THE EXISTING SIDEWALK AND 10 METERS FROM THE EXISTING CURB AT MIN. 2m. 10 CONIFERS AT MIN. 2m HT UNDER POWER LINES.

- NEW TREES ARE TO BE OFFSET FROM BUILDING A MINIMUM OF 4m FROM PROPERTY LINE 1.5m NOT PLANTED UNDER POWER LINES.
- TREE LOCATIONS, NUMBERS AND SPECIES ARE TO BE AS PER THE PLANT LIST ONLY.
- NEW TREE PLANTING LOCATIONS ARE TO BE MARKED ON SITE BY THE ARBORIST PRIOR TO PLANTING TO FORM FIT THEM AROUND EXISTING TREES AND VEGETATION.
- NEW TREES ARE TO BE CARED FOR WITH REGULAR WATERING UNTIL THEY ARE ESTABLISHED AND GROWING IN A HEALTHY STATE.
- EXISTING TREES TO BE REMOVED OR DAMAGED BY THE PROPOSED PLANTING WITH CHANGES AS FOLLOWS: STAGES ARE NOT REQUIRED AND MOISTURE GUARD ARE TO BE ADDED.
- 75% OF COMPOSTED ORGANIC MULCH IS TO BE ADDED WITHIN THE TREE CANOPY AREAS WHERE THE ROOTS WILL BE AFFECTED BY BUILDING FOOTING AND PAVING WORKS ADJACENT TO THE E.S.A.

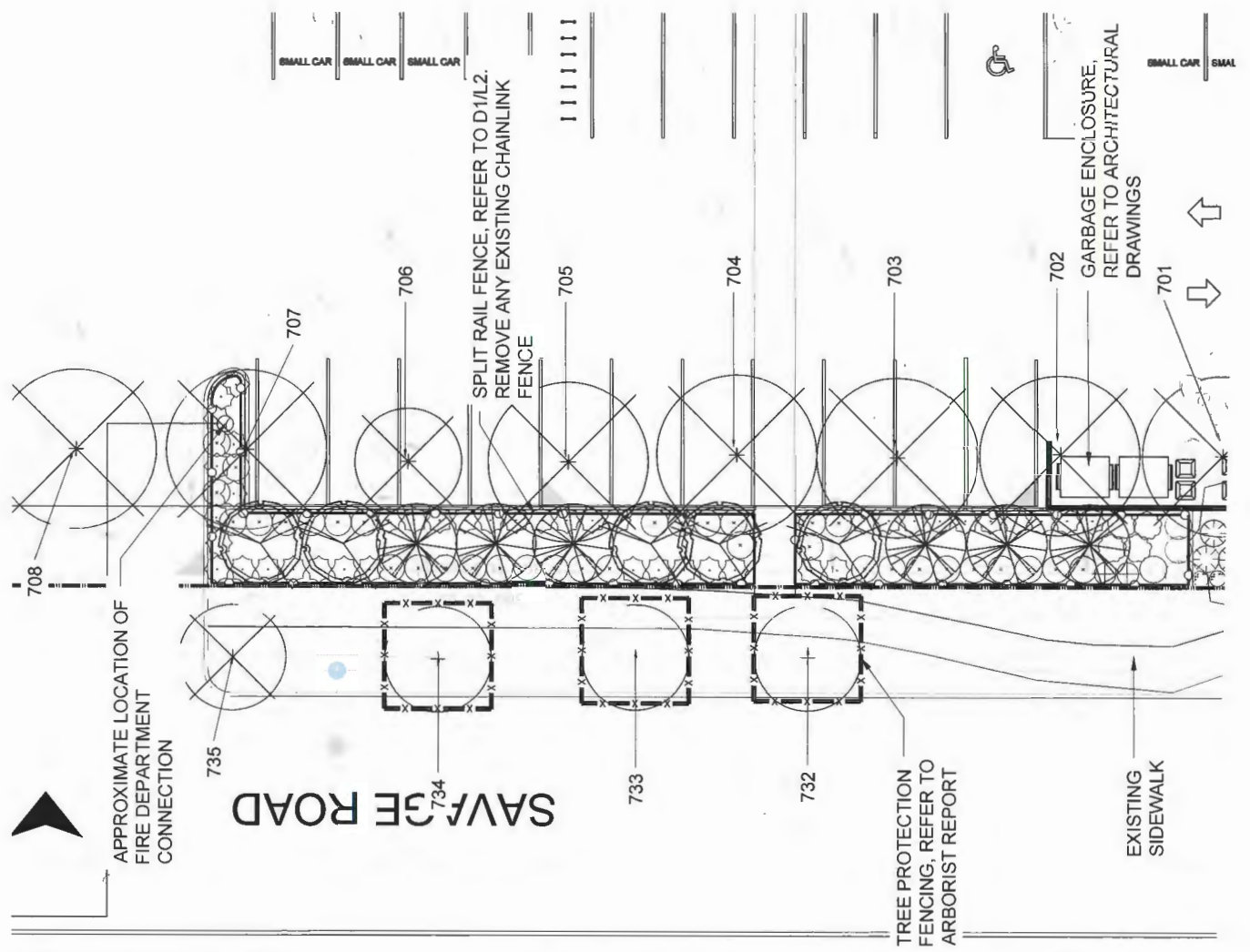
E.S.A. HABITAT MANAGEMENT:

HABITAT MANAGEMENT IS PROPOSED IN THE E.S.A. BY AQUATERIA ENVIRONMENTAL LTD. IN THEIR REPORT DATED APRIL 6, 2019.

- INVASIVE SPECIES MANAGEMENT IS TO BE UNDERTAKEN THROUGHOUT THE REMOVAL AND DISPOSAL OF INVASIVE SPECIES. DURING PROJECT CONSTRUCTION, THE METHODS ARE TO BE UNDERTAKEN IN THE E.S.A. AREAS. SPECIFICALLY, THE INVASIVE SPECIES HIMALAYAN BLACKBERRY WAS FOUND WITHIN THE E.S.A.
- THE HEALTH OF THE NEW TREES PLANTED WITHIN THE E.S.A. ARE TO BE MONITORED ANNUALLY FOR THREE YEARS FOLLOWING PLANTING. TREES THAT HAVE NOT SURVIVED ARE TO BE REPLACED AND MONITORED FOR THREE YEARS FOLLOWING PLANTING. TREES THAT ARE DAMAGED OR NOT ESTABLISHED WITHIN THE E.S.A. ARE TO BE REPLACED AND MONITORED FOR THREE YEARS FOLLOWING PLANTING. TREES THAT ARE DAMAGED OR NOT ESTABLISHED WITHIN THE E.S.A. ARE TO BE REPLACED AND MONITORED FOR THREE YEARS FOLLOWING PLANTING.
- DO NOT REMOVE OR ALTER VEGETATION DURING THE TYPICAL SENSITIVE PERIOD (BIRD BREEDING PERIOD) BETWEEN MARCH 15 AND AUGUST 15. CHECK THE CANADIAN WILDLIFE SERVICE WEBSITE FOR UPDATES BEFORE.
- DO NOT REMOVE OR ALTER VEGETATION WITHIN THE E.S.A. UNLESS A QUALIFIED ENVIRONMENTAL PROFESSIONAL (E.S.A. ASSESSOR) HAS BEEN CONSULTED AND APPROVED. ANY REMOVAL OF VEGETATION WITHIN THE E.S.A. IS TO BE UNDERTAKEN WITHIN THE E.S.A. AND TO ESTABLISH BUFFER ZONES FOR ACTIVE USES AND SPECIFICALLY HUMAN USES.

PLANT LIST SOUTHERN E.S.A.

SYMBOL	QTY	BOTANICAL NAME	COMMON NAME	SIZE	SPACING	CONDITION
	6	Thuja plicata	Western Red Cedar	5m h. of 30m Cal	2m	W/B of Pk
	5	Pseudotsuga mucronata	Douglas Fir	5m h. of 30m Cal	2m	W/B of Pk
	42	Gaultheria phillyifolia	Salm	30cm h.	1m	#2 Pot
	35	Malva moschata	Old Fashioned Mallow	40cm h.	1m	#2 Pot
	2	Rubus spectabilis	Subshrub	40cm h.	1m	#2 Pot
	4	Symphoricarpos albus	Common Snowberry	40cm h.	1m	#2 Pot





- LEGEND**
- TURF GRASS
 - CONCRETE SIDEWALK PAVING
 - EXISTING TREE TO REMAIN
 - EXISTING TREE TO BE REMOVED
 - SPLIT RAIL FENCE
 - TREE PROTECTION FENCING
 - SILT FENCING

13/07/2019	ISSUED FOR RESUBMISSION
13/07/2019	ISSUED FOR REC'D
14/07/2019	ISSUED FOR REC'D
17/08/2019	ISSUED FOR REC'D
09/09/2019	ISSUED FOR REVIEW
15/09/2019	ISSUED FOR REVIEW
08/10/2019	ISSUED FOR REVIEW
20/11/2019	ISSUED FOR REC'D
20/11/2019	ISSUED FOR REC'D
19/11/2019	ISSUED FOR REVIEW
08/11/2019	ISSUED FOR REVIEW
25/04/2018	ISSUED FOR CP
05/01/2018	ISSUED FOR REVIEW

B.C.S.L.A. #565



OPEN WINDOWS

1600 SAVAGE ROAD
RICHMOND, BC

OVERALL E.S.A.

NTS
RM
ET
100%BL

L3

DP 18-820689
June 23, 2020
Plan #5

NEW TREE PLANTING LOCATIONS

NEW TREE PLANTING IS PROPOSED IN THE ENVIRONMENTALLY SENSITIVE AREA (E.S.A.) SHOWN ON THIS PLAN BY AQUATERRA ENVIRONMENTAL LTD. IN THEIR REPORT DATED APRIL 6, 2019.

29 NEW TREES ARE PROPOSED IN THE E.S.A. TO BE PLANTED ON THE SOUTH SIDE OF THE PROPERTY. 13 NEW TREES TO BE PLANTED IN THE E.S.A. TO BE PLANTED ON THE WESTERN END OF THE PROPERTY. 16 NEW TREES TO BE PLANTED IN THE E.S.A. TO BE PLANTED ON THE EASTERN END OF THE PROPERTY.

- NEW TREES ARE TO BE OFFSET FROM BUILDING A MINIMUM OF 4m FROM PROPERTY LINE 1.5m NOT PLANTED UNDER POWER LINES
- TREE LOCATIONS, NUMBER AND SPECIES ARE TO BE AS PER THE PLANT LIST ON L2
- NEW TREE PLANTING LOCATIONS ARE TO BE MARKED ON SITE BY THE ARBORIST PRIOR TO PLANTING TO FORM A TRIP AND TO BE MAINTAINED THROUGHOUT THE PLANTING PERIOD
- IN A HEALTHY STATE, BE CAREFUL FOR WITH REGULAR WATERING UNTIL THEY ARE ESTABLISHED AND GROWING
- NEW TREES ARE TO BE PLANTED USING OUR TREE PLANTING DETAIL WITH CHANGES AS FOLLOWS: STAKES ARE NOT REQUIRED AND ROCKET GUARDS ARE TO BE ADDED
- 75% OF COMPOSTED ORGANIC MULCH IS TO BE ADDED WITHIN THE TREE CANOPY AREAS WHERE THE ROOTS WILL BE AFFECTED BY BUILDING FOOTING AND PAVING WORKS ADJACENT TO THE E.S.A.

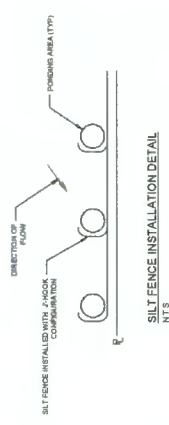
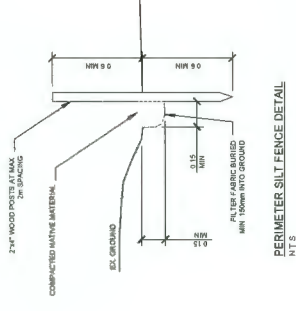
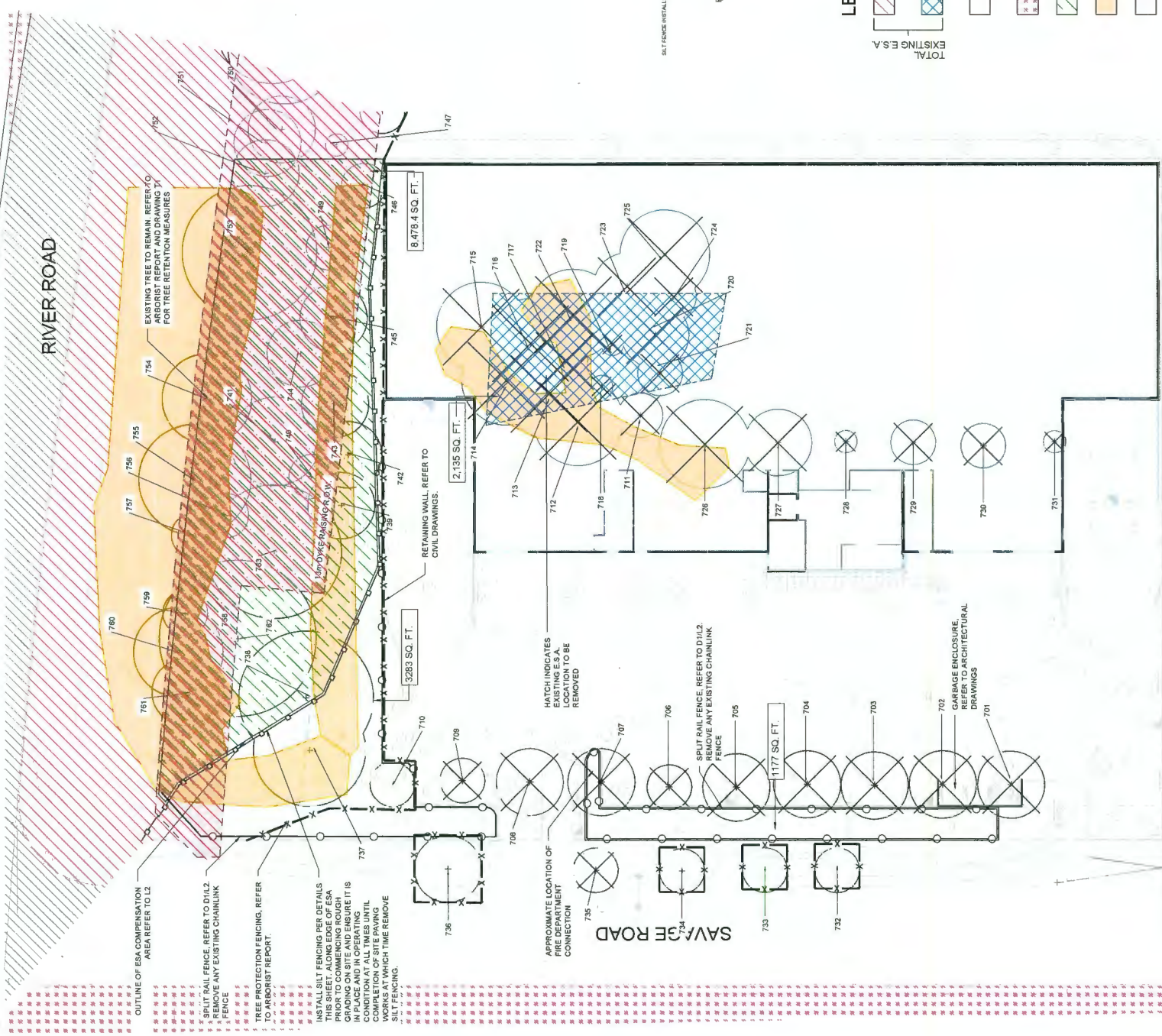
E.S.A. HABITAT MANAGEMENT

HABITAT MANAGEMENT IS PROPOSED IN THE E.S.A. BY AQUATERRA ENVIRONMENTAL LTD. IN THEIR REPORT DATED APRIL 6, 2019.

- INVASIVE SPECIES MANAGEMENT IS TO BE UNDERTAKEN THROUGH THE REMOVAL AND DISPOSAL OF INVASIVE SPECIES WITHIN THE E.S.A. TO BE PLANTED ON THE SOUTH SIDE OF THE PROPERTY AND THE PLANT COMBINATION WITH THE INVASIVE PLANT COUNCIL OF BC AND THE FRASER VALLEY FARM AND VEGETATION SOCIETY. SPECIFICALLY, THE INVASIVE SPECIES THAT AN BLACKBERRY AND FOUND WITHIN THE E.S.A. ARE TO BE REMOVED.
- THE HEALTH OF THE NEW TREE PLANTING WITHIN THE E.S.A. ARE TO BE MONITORED ANNUALLY FOR SURVIVAL. WE RECOMMEND THE MONITORING TO BE UNDERTAKEN FOR A PERIOD OF 3 YEARS. TREES ARE NOT TO BE REMOVED UNTIL THEY ARE ESTABLISHED AND GROWING IN A HEALTHY STATE.
- DO NOT REMOVE OR ALTER VEGETATION DURING THE TYPICAL ENVIRONMENTAL BREWERY PERIOD BETWEEN BEGINNING AND END OF THE GROWING SEASON UNLESS THE GROWING PERIOD IS EXTENDED ABOVE BEGINNING AND ENDING DATES.
- FOR TREE CLEANING WITHIN THE JOB SITE, A QUALIFIED ENVIRONMENTAL PROFESSIONAL SHOULD ASSESS THE SITE FOR ANY INVASIVE SPECIES AND TAKE APPROPRIATE MEASURES TO REMOVE THEM. THERE ARE NO NESTS OR NESTING ACTIVITY WITHIN THE SITE AND TO ESTABLISH BUFFER ZONES FOR ACTIVE NESTS AND SPECIFICALLY RAPTORS NESTS

PLANTING NOTES

- SOIL IN THE AREA SHOULD HAVE A MINIMUM ORGANIC SOIL DEPTH OF 0.6m (1.8 ft) WHERE THE SOIL DEPTH IS NOT SUFFICIENT TO SUPPORT THE PLANTING OF TREES. SOIL SHOULD BE AMENDED TO A MINIMUM OF 0.6m (1.8 ft) INTO DEEPER AREAS TO ACHIEVE THE APPROPRIATE SOIL DEPTH. COMPOST PLANTING SHOULD OCCUR AS SOON AS POSSIBLE FOLLOWING SOIL AMENDING TO MINIMIZE THE COLONIZATION AND ESTABLISHMENT OF INVASIVE SPECIES.
- REFER TO ENVIRONMENTAL REPORT PREPARED BY AQUATERRA, DATED MAY 22, 2019



- LEGEND:**
- ENVIRONMENTAL SENSITIVE AREA (E.S.A.) - existing
 - E.S.A. TO BE REMOVED - existing
 - PROPOSED NEW E.S.A.
 - GREEN BELT
 - PROPOSED REVIVAL OF EXISTING E.S.A.
 - AREA OF INVASIVE SPECIES
 - RESTRICTED COVENANT BP24518 AREA = 2334 sq.m
- TOTAL EXISTING E.S.A. 10,613.4 SQ. FT.