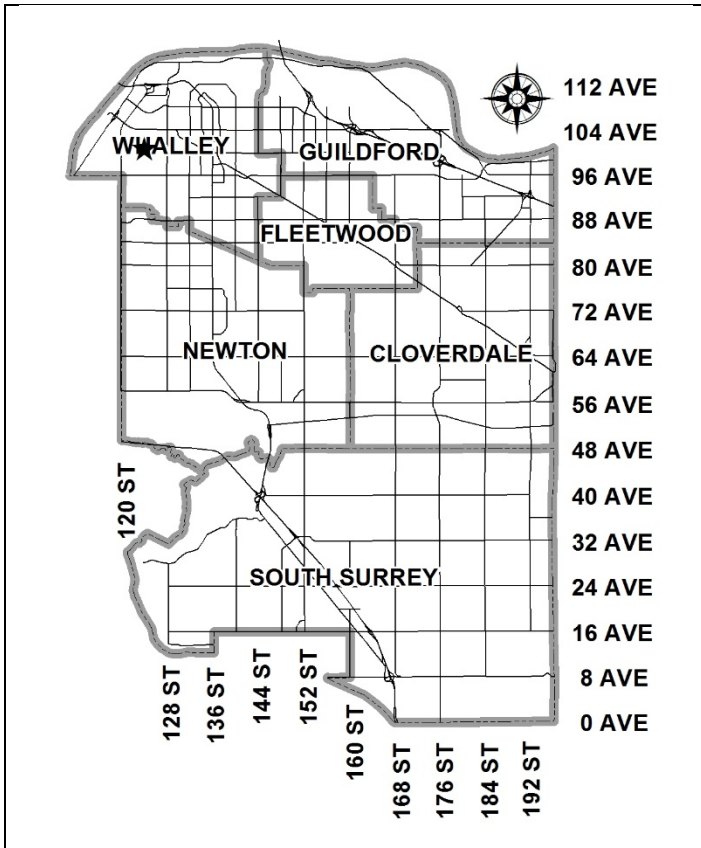


City of Surrey
PLANNING & DEVELOPMENT REPORT

File: 7916-0336-00

Planning Report Date: June 10, 2019



PROPOSAL:

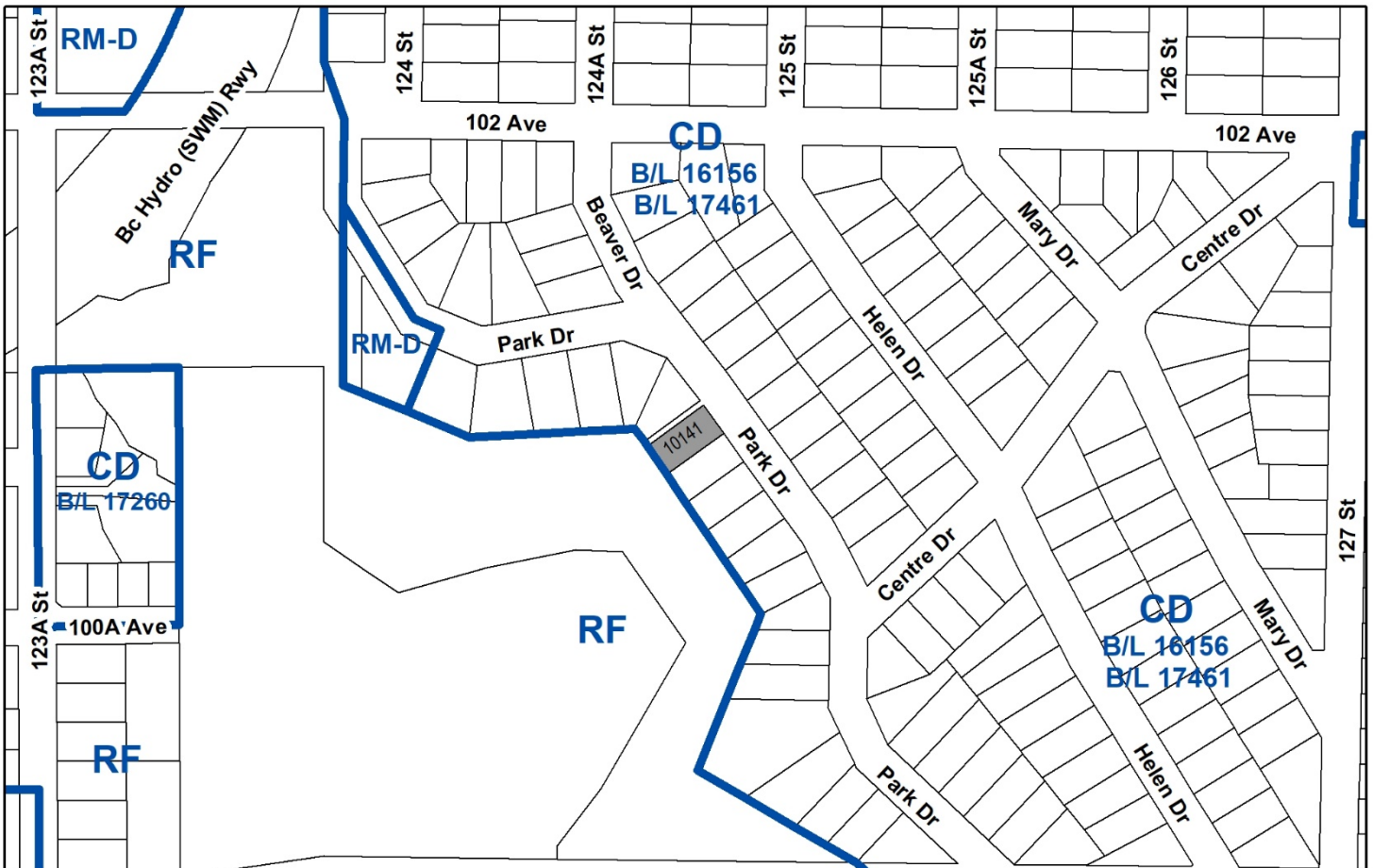
- **Development Permit**
- **Development Variance Permit**

to reduce the minimum front yard setback of CD By-law No. 16156 and the minimum streamside setback to facilitate construction of a single family dwelling on the lot. Development Permit for Sensitive Ecosystems and Hazard Lands.

LOCATION: 10141 - Park Drive

ZONING: CD (By-law No. 16156, amended by By-law No. 17461)

OCP DESIGNATION: Urban



RECOMMENDATION SUMMARY

- Approval to draft Sensitive Ecosystems (Streamside) and Hazard Lands (Steep Slopes) Development Permit.
- Approval for Development Variance Permit to proceed to Public Notification.

DEVIATION FROM PLANS, POLICIES OR REGULATIONS

- Seeking a variance to reduce the minimum streamside setback area for a Class A Natural Stream (Robson Creek) from 15 metres (50 ft), as measured from the top-of-bank, to a minimum of 21.5 metres (70 ft) from the high water mark (equivalent to a maximum of approximately 19 metres (62 ft.) below top-of-bank).
- Seeking to vary CD By-law No. 16156 by reducing the front yard setback from 7.5 metres (25 ft.) to 6.0 metres (20 ft.) for 100% of the width of the principal building, including the attached garage in order to accommodate a new single family dwelling on the lot.

RATIONALE OF RECOMMENDATION

- A Class A (red-coded) Natural Stream (Robson Creek) runs east-to-west through the City-owned lot (Robson Ravine Park) to the immediate south-west of the subject property. Furthermore, the subject property is encumbered by steep slopes in excess of 20% gradient.
- Adhering to the required streamside setback under the Zoning By-law would render approximately 99% of the subject property undevelopable, leaving approximately 10 square metres (107 sq.ft.) available for house construction.
- The project Qualified Environmental Consultant (QEP) submitted a detailed Riparian Areas Regulations (RAR) Assessment which recommends an RAR Streamside Protection and Enhancement Area (SPEA) setback of 15 metres (50 ft.), as measured from the high water mark of Robson Creek (equivalent to a maximum of 30 metres / 100 ft. below the established top-of-bank). The RAR Assessment was peer-reviewed by an independent, third-party QEP and audited by the Ministry of Forests, Lands and Natural Resource Operations (MFLNRO) and deemed to be acceptable.
- In order to provide for additional on-site riparian area and buffering between the proposed retaining wall and existing pedestrian pathway in the park, the project QEP has recommended an 8.5-metre (28-ft.) wide Streamside Protection Area between the proposed retaining wall and rear property line, between 21.5 to 30 metres (68 to 100 ft.) from the high water mark of Robson Creek.

- The project QEP has provided an Ecosystem Development Plan (EDP) and Impact Mitigation Plan (IMP), which proposes the following measures:
 - The proposed 8.5-metre (28-ft) wide Streamside Protection Area will be protected through the registration of a combined Restrictive Covenant and Statutory Right-of-Way for 'No-Build' and access;
 - The proposed Streamside Protection Area will consist of a 5.5-metre (18 ft.) wide 'No-Build/No Encroachment' area and a 3-metre (10 ft.) wide 'No-Build' area directly adjacent to the proposed retaining wall to allow for ongoing maintenance access;
 - Fencing and signage will be added along the top of the retaining wall identifying the Streamside Protection Area as an environmentally sensitive area;
 - The proposed Streamside Protection Area will be improved through the removal of invasive species and the planting of native trees and shrubs. The proposed works are to be monitored and maintained by the applicant's QEP for a minimum of five (5) years; and
 - Securities will be held by the City to ensure that the recommendations of the accepted EDP and IMP are followed.
- The applicant has provided a comprehensive geotechnical report in support of the proposed variance to the streamside setback. The geotechnical report has been peer-reviewed by an independent, third-party Qualified Professional and deemed to be acceptable. The accepted geotechnical requirements and recommendations, as well as a copy of the accepted site plan and retaining wall plans, will be incorporated into both the Hazard Lands Development Permit and a Section 219 Restrictive Covenant, which will be registered against the subject property.
- At the building permit stage, a separate permit will be required for the construction of the proposed retaining wall and the Building Division will require Letters of Assurance from a Geotechnical Engineer to ensure that the re-development of the subject site complies with the recommendations of the accepted geotechnical report.

RECOMMENDATION

The Planning & Development Department recommends that:

1. Council authorize staff to draft Sensitive Ecosystems (Streamside Areas) and Hazard Lands (Steep Slopes) Development Permit No. 7916-0336-00, generally in accordance with the Environmental Report, prepared by Envirowest Consultants and dated May 8, 2019, and the Geotechnical Report, prepared by Terran Geotechnical and dated November 27, 2018, respectively.
2. Council approve Development Variance Permit No. 7916-0336-00 (Appendix V) varying the following, to proceed to Public Notification:
 - (a) to reduce the minimum streamside setback area for a Class A Natural Stream (Robson Creek) from 15 metres (50 ft.), as measured above top-of-bank, to a minimum of 21.5 metres (70 ft) from the high water mark (equivalent to a maximum of approximately 19 metres (62 ft.) below top-of-bank); and
 - (b) to reduce the minimum front yard setback of CD By-law No. 16156 from 7.5 metres (25 ft.) to 6.0 metres (20 ft.) for 100% of the width of the principal building, including the attached garage.
3. Council instruct staff to resolve the following issues prior to approval:
 - (a) ensure that all engineering requirements and issues including restrictive covenants, dedications, and rights-of-way where necessary, are addressed to the satisfaction of the General Manager, Engineering;
 - (b) submission of a finalized Ecosystem Development Plan and Impact Mitigation Plan, including a landscape plan and cost estimate, to the satisfaction of the Planning and Development Department;
 - (c) registration of a combined Restrictive Covenant and Statutory Right-of-Way over the identified Streamside Protection Area;
 - (d) registration of a Section 219 Restrictive Covenant to ensure that all on-site preparation and construction complies with the recommendations of the accepted geotechnical report;
 - (e) registration of a Section 219 Restrictive Covenant for the proposed pumped storm connection and to inform current and future Owners of their obligations to monitor and maintain the side yard storm connection to the existing storm main; and
 - (f) submission of a finalized tree survey and a statement regarding tree preservation to the satisfaction of the City Landscape Architect.

REFERRALS

- Engineering:** The Engineering Department has no objection to the project subject to the completion of Engineering servicing requirements as outlined in Appendix II.
- Parks, Recreation & Culture:** Parks supports the proposed reduction to the minimum streamside setback area, provided that the resultant Streamside Protection Area is enhanced and protected through the registration of a combined Statutory Right-of-Way/Restrictive Covenant and installation of permanent protection fencing.

SITE CHARACTERISTICS

Existing Land Use: Vacant residential lot.

Adjacent Area:

Direction	Existing Use	OCP Designation	Existing Zone
North-east (Across Park Drive):	Single family dwelling.	Urban	CD (By-law No. 16156)
East :	Single family dwelling.	Urban	CD (By-law No. 16156)
South-west:	City-owned natural area (Robson Ravine Park).	Urban	RF
North-West (Across right-of-way):	Single family dwelling.	Urban	CD (By-law No. 16156)

DEVELOPMENT CONSIDERATIONSBackground and Current Proposal

- The 672-square metre (7,240-sq.ft.) subject property is located at 10141 Park Drive in the St. Helen's Park neighbourhood of Whalley. The subject property is designated "Urban" in the Official Community Plan (OCP) and is currently zoned "Comprehensive Development Zone (CD)" (By-law No. 16156).
- No buildings or structures have been constructed on the subject property since the time of its creation in 1955 under Plan of Subdivision No. 16043.

- The subject property, together with 415 additional lots in the St. Helen's Park neighbourhood, was downzoned from "Single Family Residential Zone (RF)" to "Comprehensive Development Zone (CD)" (By-law No. 16156) in December 2006, in response to a request for zoning changes from the South Westminster Ratepayer's Association in order to retain the existing character of the neighbourhood (Corporate Report No. Loog; 2006).
- A Class A (red-coded) Natural Stream (Robson Creek) runs east-to-west through the City-owned lot (Robson Ravine Park) to the immediate south-west of the subject property. Furthermore, the subject property is encumbered by steep slopes in excess of 20% gradient as Robson Creek is located within a ravine with steep slopes between 35% to 75% gradient.
- Adhering to the required streamside setback under the Zoning By-law would render approximately 99% of the property undevelopable, leaving only approximately 10 square metres (107 sq.ft.) available for house construction.
- The applicant proposes variances to the front yard building setback and streamside setback in order to construct a new single family dwelling, of approximately 297 square metres (3,200 sq.ft.) in size, as well as a retaining wall approximately 8.5 metres (27 ft.) from the rear property line in order to provide for a modest area of relatively flat rear yard.

Hazard Lands (Steep Slopes) Development Permit

- The subject property is within a Hazard Lands Development Permit Area for Steep Slopes, due to the presence of slopes in excess of 20% gradient.
- The applicant has provided a comprehensive geotechnical report, prepared by Terran Geotechnical Consultants Limited, which provides recommendations on site preparation, structural fill, seismic design of foundations, site drainage as well as a slope stability assessment. The report recommends a 2.0-metre (6.5-ft.) habitable building setback, as measured from top-of-slope, which roughly corresponds to the 66-metre geodetic contour (see Appendix I).
- In addition, the project Qualified Professional provided structural and lot grading/drainage plans for the proposed rear yard lock-block retaining wall. The proposed retaining wall has a length of approximately 15 metres (50 ft.), a maximum depth of 7.5 metres (25 ft.) and a variable height of between 2.5 to 4.3 metres (8 to 14 ft.)(see Appendix I). Both a gravity and pumped stormwater connection to the existing stormwater main to the north of the subject property is proposed, and a Section 219 Restrictive Covenant required to indicate that monitoring and maintenance of these connections is entirely the responsibility of the property owner.
- Provided that the recommendations detailed in the accepted geotechnical report are adhered to, the project Geotechnical Engineer has indicated that the site is considered safe for the intended use. The geotechnical report also confirms that the proposed engineered retaining wall can be constructed within the 2.0-metre (6.5-ft.) habitable building setback.
- The geotechnical report was peer reviewed by an independent, third-party Qualified Professional who deemed the report generally acceptable, subject to clarification of erosional issues and minor revisions. A revised comprehensive geotechnical report, dated November 27, 2018, was subsequently submitted and deemed acceptable by the peer reviewer.

- As a condition of issuance for the subject Development Variance Permit, the applicant will be required to register a Section 219 Restrictive Covenant against the property to ensure that the subsequent development of the property occurs in accordance with the recommendations and locational requirements of the accepted geotechnical report.
- A stand-alone Building Permit will be required for both the proposed single family dwelling as well as the proposed retaining wall.

Sensitive Ecosystems (Streamside Areas) Development Permit

- Robson Creek, a Class A (red-coded) Natural Stream runs east-west within the City-owned lot (Robson Ravine Park) to the immediate south-west of the subject property.
- In accordance with Table B.2 of Part 7A Streamside Protection of the Surrey Zoning By-law, for single family lots that existed prior to September 12, 2016, the minimum required streamside setback area of a Class A Natural Stream is 15 metres (50 ft.), as measured from top-of-bank.
- The applicant has provided an Ecosystem Development Plan (EDP) and Impact Mitigation Plan (IMP), prepared by Envirowest Consultants Limited and dated May 8, 2019, as well as a detailed Riparian Areas Regulation (RAR) Assessment in support of the proposed development.
- The RAR Assessment report recommends a Streamside Protection and Enhancement Area (SPEA) setback of 15 metres (50 ft.), as measured from the high water mark of Robson Creek (equivalent to a maximum of 30 metres / 100 ft. below the established top-of-bank). The RAR Assessment was peer-reviewed by an independent, third-party QEP and audited by the Ministry of Forests, Lands and Natural Resource Operations (MFLNRO) and deemed to be acceptable.
- In order to provide for additional on-site riparian area and buffering between the proposed retaining wall and existing pedestrian pathway, the project QEP has recommended an 8.5-metre (28-ft.) wide Streamside Protection Area between the proposed retaining wall and rear property line, between 21.5 to 30 metres (68 to 100 ft.) from the high water mark of Robson Creek.
- A variance is required to reduce the minimum streamside setback area from 15 metres (15 ft.), as measured from the top-of-bank, to a minimum of 21.5 metres (70 ft) from the high water mark (equivalent to a maximum of approximately 19 metres (62 ft.) below top-of-bank).

TREES

- Ian MacLachlan, ISA Certified Arborist of Diamond Head Consulting Ltd., prepared an Arborist Assessment for the subject property. The table below provides a summary of the tree retention and removal by tree species:

Table 1: Summary of Tree Preservation by Tree Species:

Tree Species	Existing	Remove	Retain
Alder and Cottonwood Trees			
Alder	6	6	0
Cottonwood	3	3	0
Deciduous Trees (excluding Alder and Cottonwood Trees)			
Maple	12	11	0
Coniferous Trees			
Douglas Fir	2	2	0
Western Red Cedar	5	5	0
Total (excluding Alder and Cottonwood Trees)	19	19	0
Total Replacement Trees Proposed (excluding Boulevard Street Trees)		0	
Total Retained and Replacement Trees		0	
Contribution to the Green City Fund		\$18,800.00	

- The Arborist Assessment states that there is a total of nineteen (19) protected trees on the site, excluding Alder and Cottonwood trees. Nine (9) existing trees, approximately 32% of the total trees on the site, are Alder and Cottonwood trees.
- The Arborist Assessment found that the majority of on-site trees had poor health and structure ratings on account of previous partial failures, structural defects, poor growth form or species characteristics. It was determined that no trees can be retained as part of this development proposal. The proposed tree retention was assessed taking into consideration the location of services, building footprints, road dedication and proposed lot grading.
- As the three (3) on-site trees within the proposed Streamside Protection Area (identified as Tree Nos. 375, 376 and 377 on Appendix III) were found to be in poor condition by the project Arborist and of moderate risk to pedestrians on the adjacent Parks trail, all three have been proposed for removal.

- For those trees that cannot be retained, the applicant will be required to plant trees on a 1 to 1 replacement ratio for Alder and Cottonwood trees, and a 2 to 1 replacement ratio for all other trees. This will require a total of forty-seven (47) replacement trees on the site. Since no replacement trees are proposed for the site, the deficit of 47 replacement trees will require a cash-in-lieu payment of \$18,800, representing \$400 per tree, to the Green City Fund, in accordance with the City's Tree Protection By-law.
- In summary, no trees are proposed to be retained or replaced on the site with a contribution of \$18,800 to the Green City Fund.
- New trees planted within the proposed Streamside Protection Area will consist of native species, such as Broadleaf Maple and Western Red Cedar.

BY-LAW VARIANCES AND JUSTIFICATION

(a) Requested Variance:

- To reduce the minimum streamside setback area for a Class A Natural Stream (Robson Creek) from 15 metres (50 ft), as measured from the top-of-bank, to a minimum of 21.5 metres (70 ft) from the high water mark (equivalent to a maximum of 19 metres (62 ft.) below top-of-bank); and
- To reduce the minimum front yard setback of CD By-law No. 16156 from 7.5 metres (25 ft.) to 6.0 metres (20 ft.) for 100% of the width of the principal building, including the attached garage.

Applicant's Reasons:

- Adhering to the required streaming setbacks under the Zoning By-law would render approximately 99% of the property undevelopable, leaving only approximately 10 square metres (107 sq.ft.) available for house construction.

Staff Comments:

- The applicant has provided a Geotechnical Report, an Ecosystem Development Plan (EDP) and Impact Mitigation Plan (IMP), as well as a Riparian Areas Regulation (RAR) Assessment in support of the proposed variance to the streamside setback.
- The accepted EDP and IMP proposes the following measures:
 - The proposed 8.5-metre (28-ft) wide Streamside Protection Area will be protected through the registration of a combined Restrictive Covenant and Statutory Right-of-Way for 'No-Build' and conveyance access. Encroachment within the 3 metres (10 ft.) adjacent to the proposed retaining wall will be permitted for maintenance, with the understanding that this may require shrub removal and replacement over time;

- Although the proposed retaining wall will restrict access to the proposed Streamside Protection Area, fencing and signage will be added along the top of the retaining wall identifying it as an environmentally sensitive area;
 - The proposed Streamside Protection Area will be improved through the removal of invasive species and the planting of native trees and shrubs. The proposed works are to be monitored and maintained by the applicant's QEP for a minimum of five (5) years; and
 - Securities, equal to 100% of the total landscaping costs, will be held by the City to ensure that the recommendations of the accepted EDP and IMP are followed. The project QEP will be required to submit yearly monitoring reports with security release tied to the successful installation, inspection and establishment of the enhancement planting in a "free-growing" state.
- The EDP and IMP were reviewed by staff and deemed to be acceptable. Protection of the Streamside Protection Area, through the registration of a combined Restrictive Covenant and Statutory Right-of-Way and permanent fencing conforms to the minimum acceptable safeguarding requirements of the Sensitive Ecosystem Development Permit Area guidelines.
 - The accepted Ecosystem Development Plan (EDP) and Impact Mitigation Plan (IMP) will form part of the subject Development Permit to ensure compliance with the accepted recommendations of the project Qualified Environmental Professional (QEP).
 - The proposed front yard variance will allow for an additional portion of the proposed building footprint to be located within the north-east portion of the subject property, which consists of a relatively flat area between the established top-of-bank and the Park Drive road right-of-way.
 - Off-street parking will not be affected by the proposed reduction to the minimum front yard setback. Following construction of the proposed single family dwelling, the subject property will be able to accommodate a minimum of four (4) off-street parking spaces, two (2) in the garage and two (2) in the driveway, which exceeds the minimum requirements of the Zoning By-law.
 - Staff support the proposed variances to proceed to Public Notification.

INFORMATION ATTACHED TO THIS REPORT

The following information is attached to this Report:

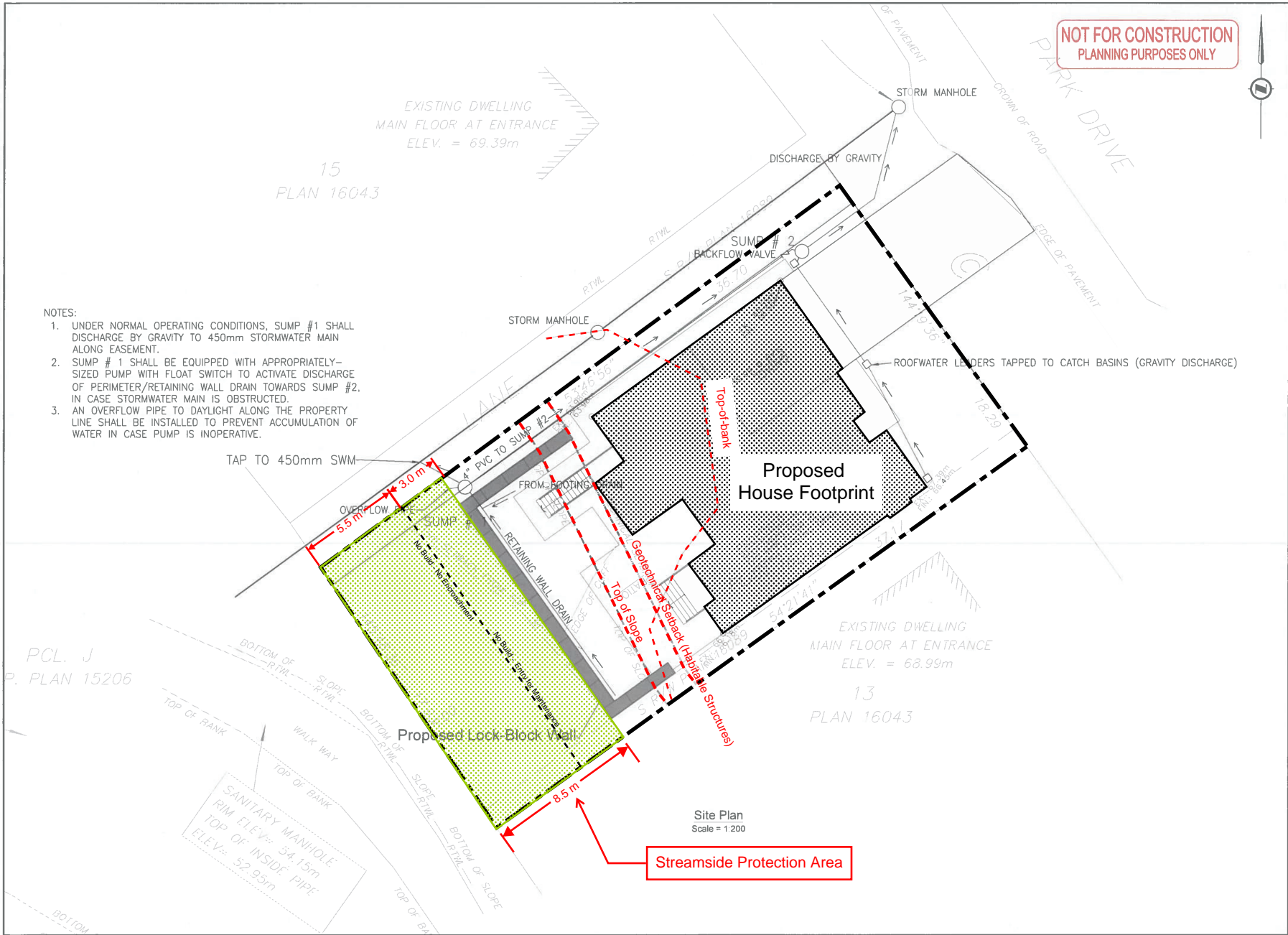
Appendix I.	Site Plans and Elevations (Geotechnical and Environmental)
Appendix II.	Engineering Summary
Appendix III.	Summary of Tree Survey and Tree Preservation
Appendix IV.	Neighbourhood Context Photo (COSMOS, April 2018 Aerial)
Appendix V.	Development Variance Permit No. 7916-0336-00

INFORMATION AVAILABLE ON FILE

- Geotechnical Study, prepared by Terran Geotechnical Consultants Limited and dated November 27, 2018.
- Environmental Report, prepared by Envirowest Consultants Limited and dated May 8, 2019.

original signed by Ron Gill

Jean Lamontagne
General Manager
Planning and Development



TERRAN GEOTECHNICAL

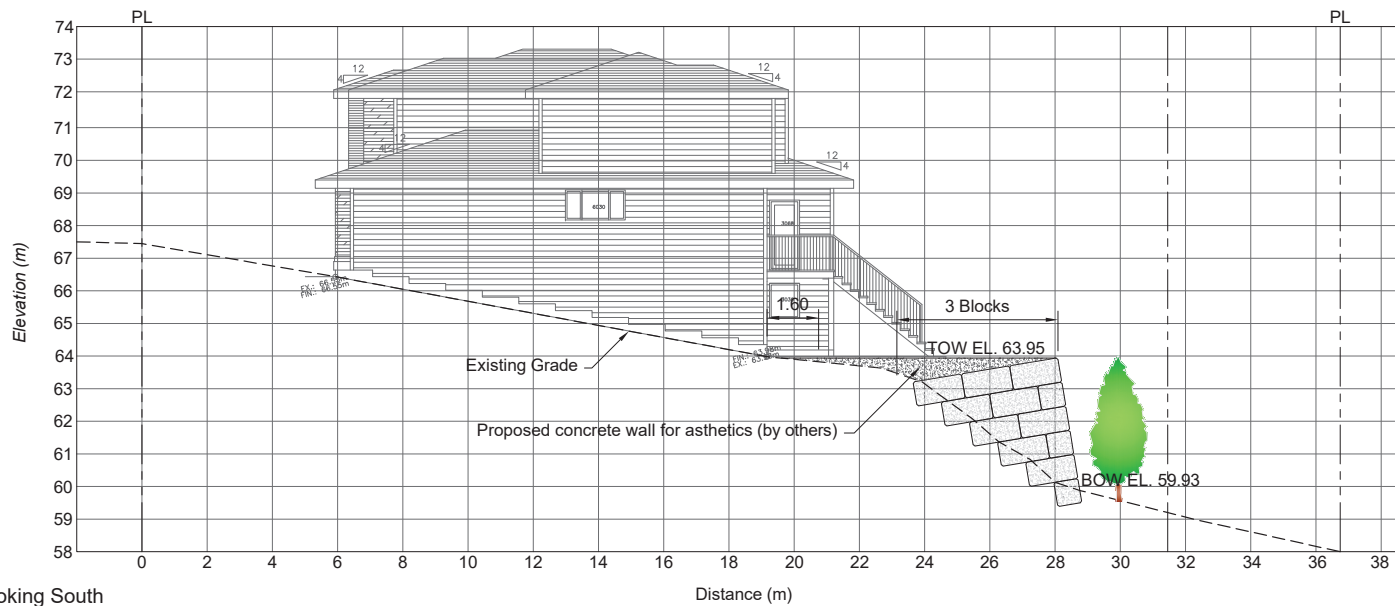
PROFESSIONAL SEAL

PROVINCE OF
T. V. LE
37452
C. BRITISH COLUMBIA
ENGINEER 1-1-2019

Design Drawings
Site Plan

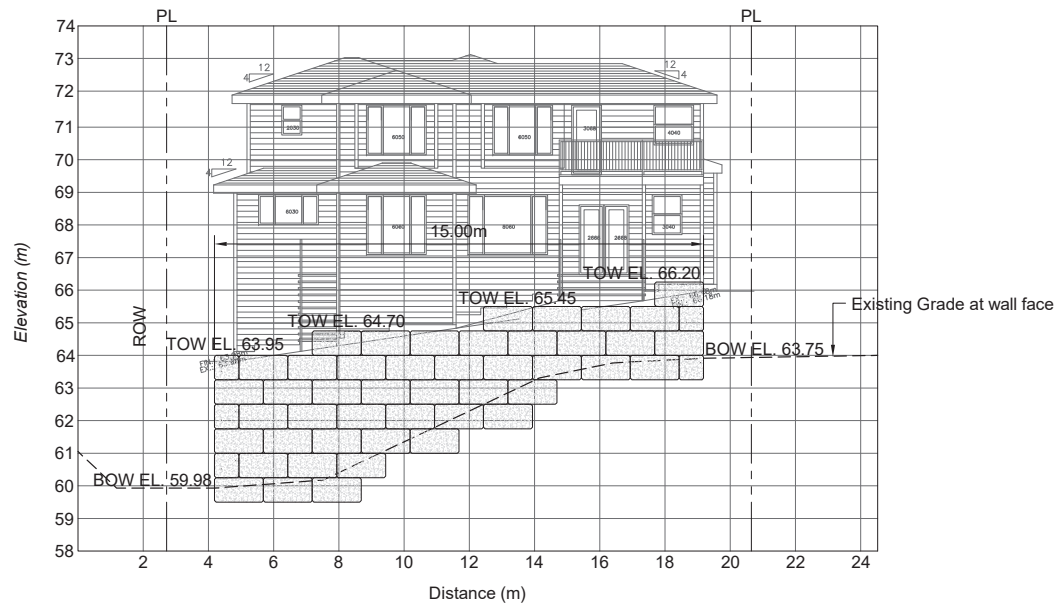
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Date Created: 2017-06-16
Date Revised: 2019-03-13
Drawn By: E. de Castro
Reviewed By: T. Le
Scale: 1:200

5057-LBW-SH-01 A



North Profile - Looking South

Scale = 1:150



West Profile - Looking East

Scale = 1:150



TERRAN
GEOTECHNICAL

PROFESSIONAL SEAL

PRELIMINARY
FOR DISCUSSION ONLY

PREPARED FOR

Design Drawings
North & West Profiles

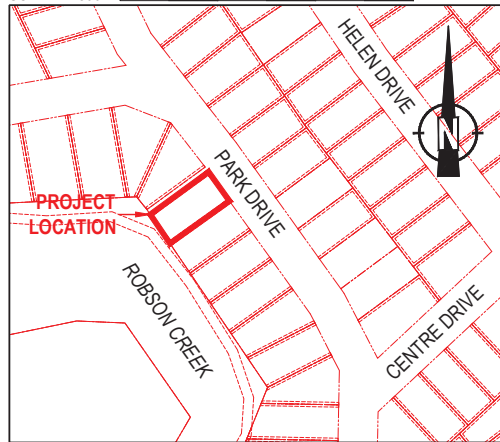
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Date Created: 2017-06-16
Date Revised: 2017-07-06
Drawn By: J. Simihag
Reviewed By: T. Le
Scale: 1:150

5057-LBW-SH-03

1

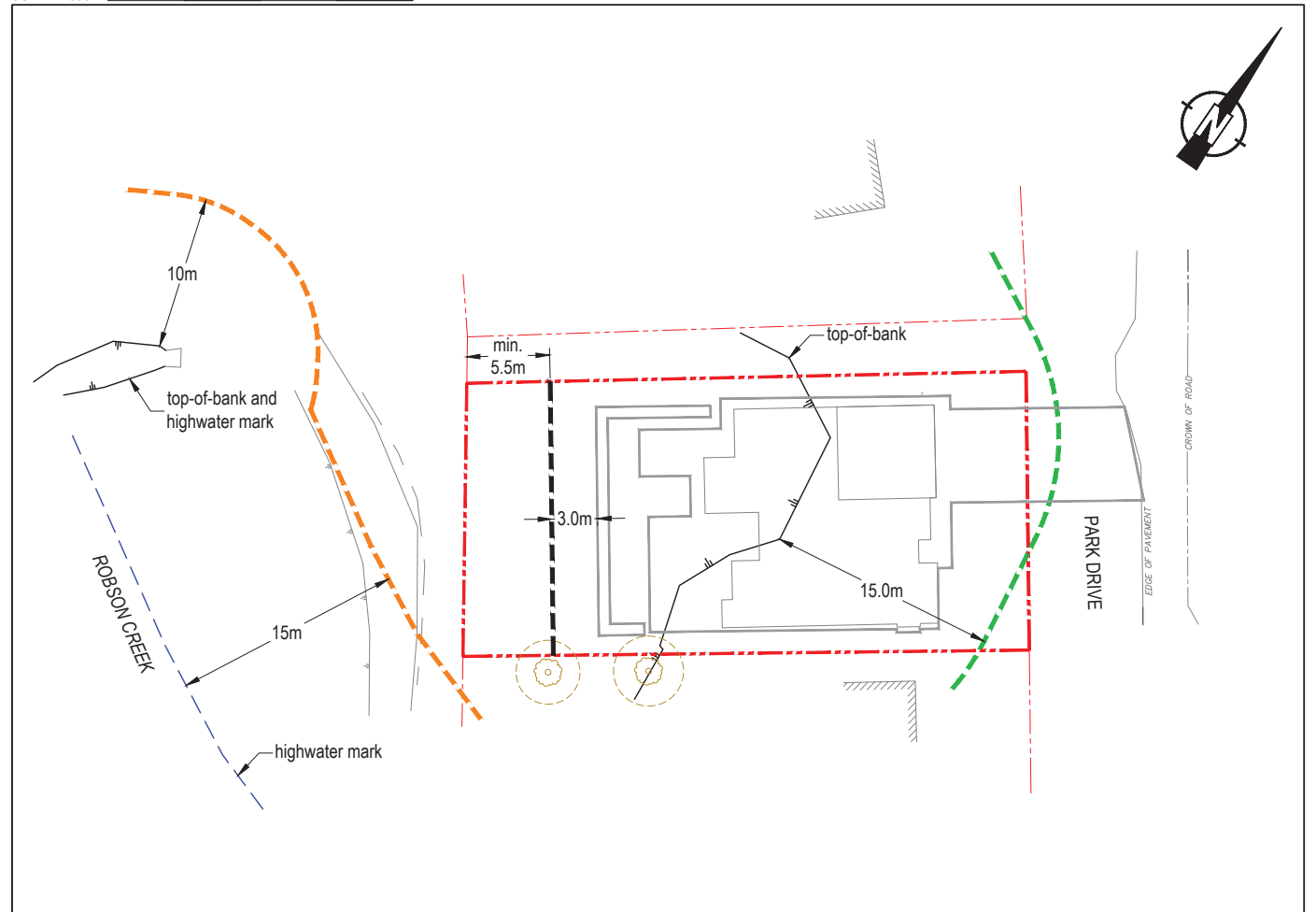
LOCATION

SCALE 1:2500



PLAN

SCALE 1:300



LEGEND

- Property Line
- City of Surrey Bylaw Setback
- RAR SPEA Setback
- Proposed Setback

REFERENCE DRAWINGS

1. Drawing No.5057-LBW-SH02. "Design Drawings Site Plan". July 28, 2017. Terran Geotechnical Consultants Ltd.
2. Email: 10141-PARK-DR-SRY.dwg. Received January 26, 2018 ; Bhupinder Litt.
3. Email: 10141-PARK-DR-SRY.dwg. Received January 31, 2017; D.Mand Design and Drafting Services.
4. 2017 Legal Base from City of Surrey.

10141 PARK DRIVE
Surrey, BC



envirowest consultants inc.

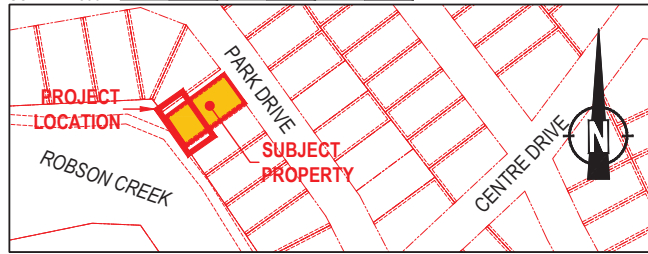
Suite 101 - 1515 Broadway Street
Port Coquitlam, British Columbia
Canada V3C 6M2
office: 604-944-0502
facsimile: 604-944-0507

www.envirowest.ca

ZONING BYLAW SETBACK

DESIGN: PH	DRAWN: CEV/SCM	CHECKED: IWW	REVISION: 07	REVISION DATE: May 08, 2019
SCALE: As Shown			DRAWING NUMBER: 2037-02-01	
DATE: March 08, 2017				

LOCATION
SCALE 1:2500



PLANT SPECIES LIST AND SPECIFICATIONS

SYMBOL	COMMON NAME	LATIN NAME	NUMBER	COMMENTS
Am	broadleaf maple	<i>Acer macrophyllum</i>	3	2.0m container grown (min. no. 7 pot); densely branched; well established
Tp	western redcedar	<i>Thuja plicata</i>	3	2.0m container grown (min. no. 7 pot); densely branched; well established
Oc	Indian plum	<i>Osmaronia cerasiformis</i>	42	no. 2 pot; densely branched; well established
Us	salal	<i>Gaultheria shallon</i>	32	no. 1 pot; multi-branched; well established
Rs	salmonberry	<i>Rubus spectabilis</i>	58	no. 2 pot; multi-stemmed; densely branched; well established
Pf	sword fern	<i>Polystichum munitum</i>	108	no. 1 pot; well established

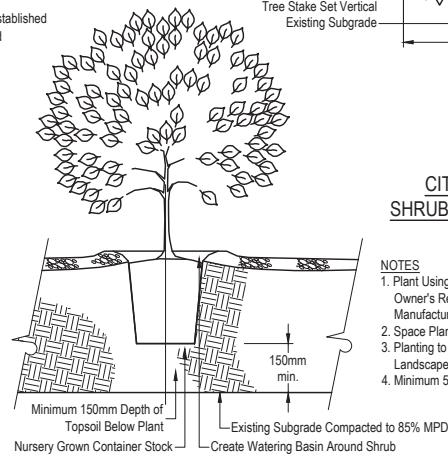
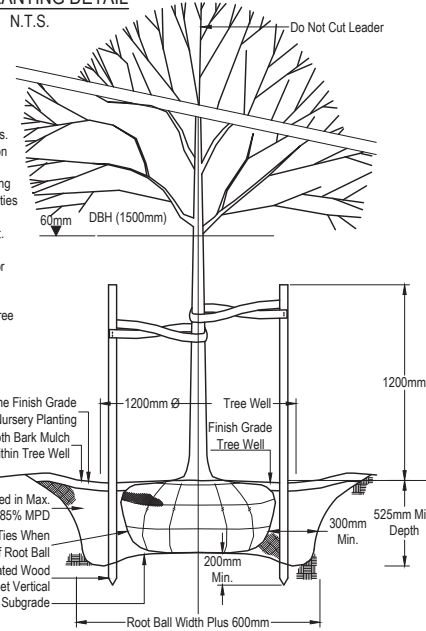
GENERAL LANDSCAPE SPECIFICATIONS

- Plant material and the planting of such material are to be in accordance with the British Columbia Landscape Standard (latest edition) jointly published by the British Columbia Society of Landscape Architects and the British Columbia Landscape Nursery Association.
- All works are to be conducted in accordance with the sediment control provisions of the "Standards and Best Practices for Instream Works" (Ministry of Water, Land & Air Protection, 2004).
- Works is to be inspected by a qualified Environmental Professional.
- Work is to conform to the City of Surrey Parks Standard Construction Documents (2011) available at http://www.surrey.ca/files/City_of_Surrey_Spec_2011.pdf.
- All plant material is to be inspected and approved by Envirowest prior to installation.
- Growing medium is to be free of any subsoils, roots, noxious grass, weeds, toxic materials, stone over 30 mm diameter, foreign objects, and possess an acidity range (pH) of 5.5 to 7.5. Growing medium is to be inspected by Envirowest prior to placement.
- All debris and/or excess material from landscape operations are to be collected and disposed offsite in accordance with all regulatory requirements.
- Disturbed areas to be seeded with City of Surrey reclamation seed mixture.
- All invasive plant species must be removed off-site. The site must be free of invasive plant species at end of maintenance term. Invasive plant species include but are not limited to Himalayan blackberry (*Rubus discolor*), evergreen blackberry (*R. laciniatus*), Scotch broom (*Cytisus scoparius*), English Ivy (*Hedera helix*), morning glory (*Convolvulus arvensis*), and deadnettle (*Lamium* spp.).
- All western redcedar (*Thuja plicata*) must be of native stock; any cultivars, such as *T. plicata* var. *excelsa*, are not to be planted.
- 150mm of imported topsoil to COS standards to be filled into native soil throughout the area of disturbance / replanting where augmentation only is required. All areas lacking suitable planting medium shall have 400mm of imported top soil installed.
- In the critical root zone (8X DBH) of trees to be retained (regardless of size), all invasive removal to be completed by hand or under direct arborist supervision.
- No fill is to be added into the CRZ of retained trees, unless under direct arborist supervision.
- No machines or storage of materials is permitted inside the CRZ of trees to be retained.
- All CWD is to be installed manually.
- Any activities supervised by a consulting arborist require follow up letters.
- City of Surrey Parks Development Inspector to be contacted for onsite preconstruction meeting and upon completion of the construction of the works at (604) 501-5166.
- The contractor is to provide five (5) years of plant maintenance. Plant maintenance is to include watering, selective pruning and clearing of all invasive species. Species survivorship is to equal one-hundred (100) percent five (5) years from planting. Replacement of dead stock may be required to fulfill this specification. Replacement stock is also subject survivorship five (5) years from planting.

CITY OF SURREY TREE PLANTING DETAIL

NOTES

- Refer to Specifications for Composition of Tree Pit Planting Medium.
- Tree to be Selected From Appendix A List of Recommended Plant Material City of Surrey Parks Division Standard Construction Documents.
- Protect Tree From Damage During Transportation and Planting.
- Locate and Flag all Buried Utilities in Tree Planting Site Prior to Digging Tree Pits - Ensure That Utilities are During Construction.
- Do Not Expose Tree Roots to Direct sun or Frost.
- Scarify Tree Pit Prior to Placing Tree.
- If Tree is to be Staked in Place do not Damage or Penetrate Root Ball While Placing Tree Stakes.
- Use 50mm Wide Fabric Belt in Figure 8 Pattern Attached to Tree Stakes with Shingle Nails for Tree Support.
- Prune Only in Accordance with Standard Construction Documents.

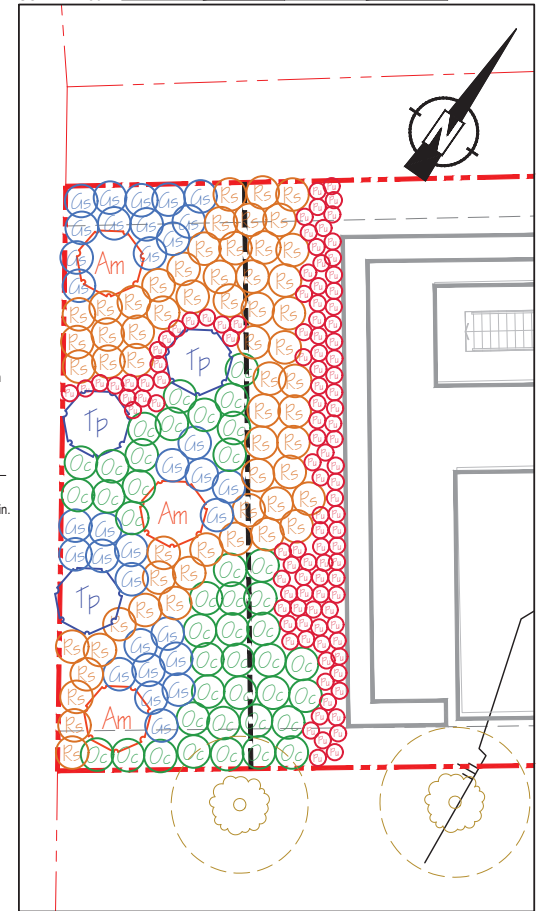


CITY OF SURREY SHRUB PLANTING DETAIL

NOTES

- Plant Using Rooting Powder Approved by Owner's Representative According to Manufacturer's Recommendations.
- Space Plants as Indicated in Planting Plan.
- Planting to Conform to BCSLA/BCNTA Landscape Standard - Current Edition.
- Minimum 50mm Bark Mulch Settled Depth.

PLAN
SCALE 1:150



REFERENCE DRAWINGS

- Drawing No. 5057-LBW-SH02, "Design Drawings Site Plan", July 28, 2017. Terran Geotechnical Consultants Ltd.
- Email: 10141-PARK-DR-SRY.dwg. Received January 26, 2018; Bhupinder Litt.
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facsimile: 604-944-0507
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LANDSCAPE PLAN			
LANDSCAPE DETAILS AND SPECIFICATIONS			
DESIGN: IWW	DRAWN: CEV/SCM	CHECKED: IWW	REVISION DATE: May 08, 2019
SCALE: As Shown	DRAWING NUMBER: 2037-02-02		
DATE: January 30, 2018			

**TO: Manager, Area Planning & Development
- North Surrey Division
Planning and Development Department**

FROM: Development Engineer, Engineering Department

DATE: May 10, 2019 **PROJECT FILE: 7816-0336-00**

**RE: Engineering Requirements
Location: 10141 Park (124A St) Drive**

DEVELOPMENT PERMIT/DEVELOPMENT VARIANCE PERMIT

The applicant is proposing to construct a new singly family dwelling on the subject property. The Development Permit for Sensitive Ecosystems (Streamside) and for Hazard Lands (Steep Slopes) will be required for the new dwelling. The applicant is also proposing a Development Variance Permit to reduce the minimum front yard setback from 7.5m to 6.0m and to reduce the minimum streamside setback for a Class A Natural Stream (Robson Creek) from 15.0m to a maximum of approximately 14.0m below top of the bank.

The following issues are to be addressed as a condition of issuance of the Development Permit and the Development Variance Permit:

- Register restrictive covenant for storm pumped connection and for the maintenance of storm connection from the property line all the way to the storm main.
- Register combined statutory rights-of-way/restrictive covenant for the identified streamside protection area.

BUILDING PERMIT

The following issues are to be addressed as a condition of issuance of the Building Permit:

- Provide lot with new metered water, storm and sanitary service connections.

A Servicing Agreement is not required for the proposed Development Permit and Development Variance Permit. A processing fee of \$1,627.50 is needed to administer the legal documentation requirements. The new service connections can be constructed subject to issuance of a City Road and Right-of-way Permit (CRRP) obtainable at the Engineering front counter upon payment of securities and permit fees.



Tommy Buchmann, P.Eng.
Development Services Manager

HB4

4.0 Tree Preservation Summary

Table 2: City of Surrey tree preservation summary table for on-site and off-site trees, including the number of replacement trees proposed.

Surrey Project Number

Site Address 10141 Park Drive, Surrey, BC

Registered Arborist Ian MacLachlan (PN-8643A)

On-Site Trees	Number of Trees
Protected Trees Identified (On-site and shared trees, including trees within boulevards and proposed streets and lanes, but excluding trees in proposed open space or riparian areas)	28
Protected Trees to be Removed	28
Protected Trees to be Retained (excluding trees within proposed open space or riparian areas)	0
Total Replacement Trees Required: - Alder & Cottonwood Trees Requiring 1 to 1 Replacement Ratio 9 X one (1) = 9 - All other Trees Requiring 2 to 1 Replacement Ratio 19 X two (2) = 38	47
Replacement Trees Proposed	TBC
Replacement Trees in Deficit	TBC
Protected Trees to be Retained in Proposed Open Space / Riparian Areas	NA

Off-Site Trees	Number of Trees
Protected Off-Site Trees to be Removed	0
Total Replacement Trees Required: - Alder & Cottonwood Trees Requiring 1 to 1 Replacement Ratio 0 X one (1) = 0 - All other Trees Requiring 2 to 1 Replacement Ratio 0 X two (2) = 0	0
Replacement Trees Proposed	NA
Replacement Trees in Deficit	NA

Summary, report and plan prepared and submitted by

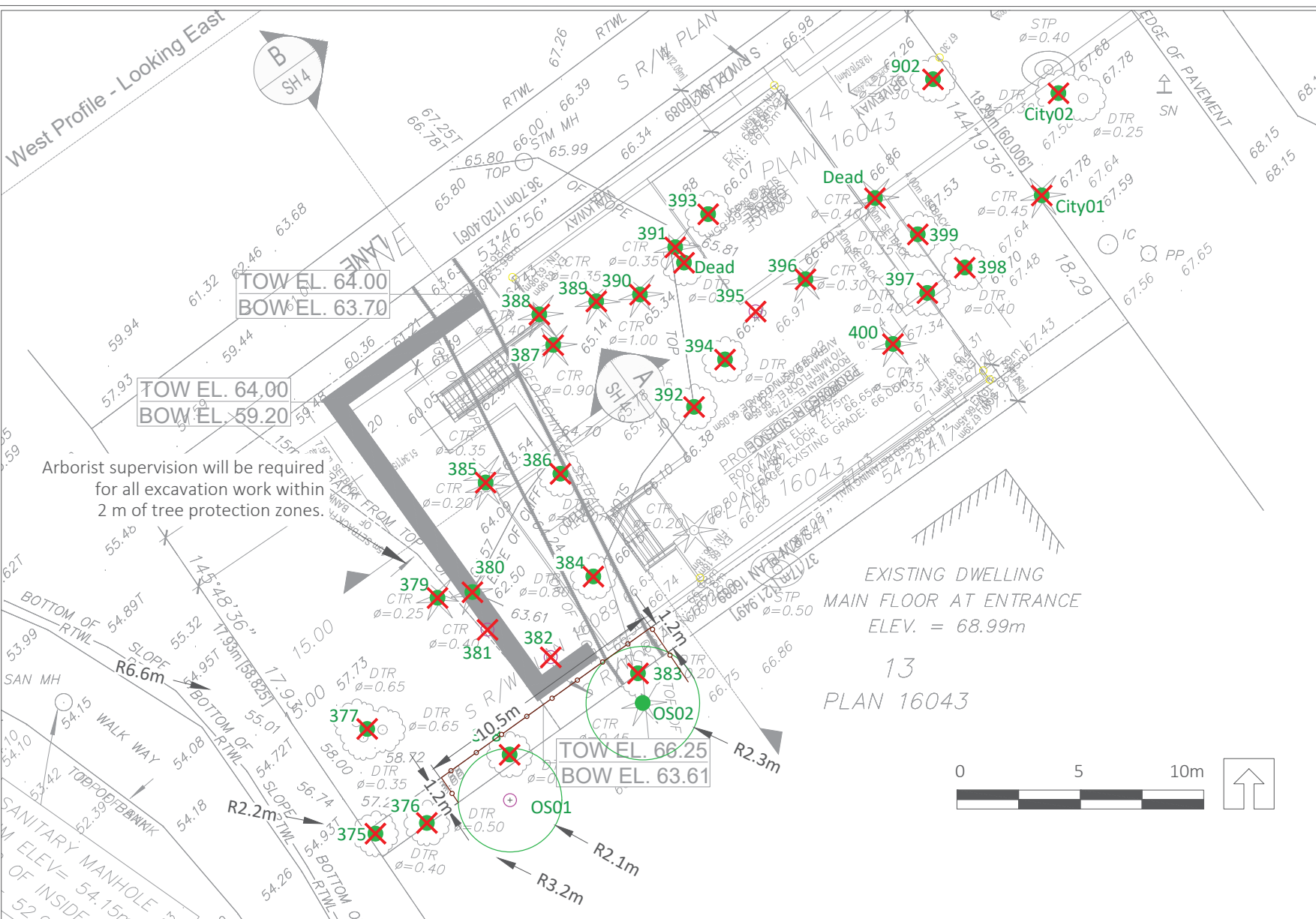


Signature of Arborist

January 29th, 2019

Date

West Profile - Looking East



LEGEND

- CRITICAL ROOT ZONE
- NO-BUILD ZONE
- TREE PROTECTION ZONE AND FENCING
- SURVEYED TREE TO BE RETAINED
- UN-SURVEYED TREE TO BE RETAINED
- ✗ TREE TO BE REMOVED

NOTES

1. The location of un-surveyed trees on this plan is approximate. Their location and ownership cannot be confirmed without being surveyed by a Registered BC Land Surveyor.
2. All tree protection fencing must be built to the relevant municipal bylaw specifications. The dimensions shown are from the outer edge of the stem of the tree.
3. The tree protection zone shown is a graphical representation of the critical root zone, measured from the outer edge of the stem of the tree. (The trees diameter was added to the graphical tree protection circles to accommodate the survey point being in the center of the tree)
4. No work is permitted within the Tree Protection Zone with the exception of swales. Swale construction is only permitted under the direct supervision of an arborist.
5. The 1.5m area No Build Zone does not allow for any building foundation wall encroachment. Excavation is permitted within this area under the direct supervision of an arborist.
6. Drainage works such as lawn basins, associated piping or services are permitted within the No Build Zone under the direct supervision of an arborist.
7. This plan is based on a topographic and tree location survey provided by the owners' Registered British Columbia Land Surveyor (BCLS) and layout drawings provide by the owners' Engineer (P Eng).
8. This plan is provided for context only, and is not certified as to the accuracy of the location of features or dimensions that are shown on this plan. Please refer to the original survey plan and engineering plans.

REFERENCE DRAWINGS

1. Base Survey by: Grewal & Associates Land Surveyors
Date: November 23rd, 2016



3559 COMMERCIAL STREET
VANCOUVER BC | V5N 4E8
T 604.733.4886 | F 604.733.4879

Drawing title: Tree Management Plan
Project address: 10141 Park Drive, Surrey, BC
Client: Sunraj Gadhri

Drawing No: 001
Date: January 29th, 2018
Drawn by: IM
Page Size: TABLOID 11"x17"



CITY OF SURREY

(the "City")

DEVELOPMENT VARIANCE PERMIT

NO.: 7916-0336-00

Issued To:

(the "Owner")

Address of Owner:

1. This development variance permit is issued subject to compliance by the Owner with all statutes, by-laws, orders, regulations or agreements, except as specifically varied by this development variance permit.
2. This development variance permit applies to that real property including land with or without improvements located within the City of Surrey, with the legal description and civic address as follows:

Parcel Identifier: 010-167-366

Lot 14 Block "H" Section 29 Block 5 North Range 2 West New Westminster District Plan 16043

10141 - Park Drive

(the "Land")

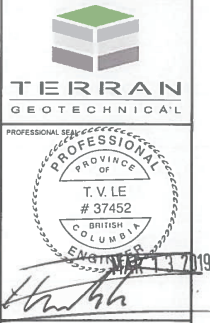
3. Surrey Zoning By-law, 1993, No. 12000, as amended is varied as follows:
 - (a) In Table B.2 of Part 7A "Streamside Protection", the minimum streamside setback area for a "Natural Class A Stream" is reduced from 15 metres (50 ft.), as measured from the top-of-bank, to a minimum of 21.5 metres (70 ft) from the high water mark (equivalent to a maximum of 19 metres (62 ft.) below top-of-bank).
4. Surrey Zoning By-law, 1993, No. 12000, Amendment By-law, 2006, No. 16156, as amended, is varied as follows:
 - (a) In Section F Yards and Setbacks, the minimum front yard setback is reduced from 7.5 metres (25 ft.) to 6.0 metres (20 ft.) for 100% of the width of the principal building, including the attached garage.

5. This development variance permit applies to only the portion of the Land and that portion of the buildings and structures on the Land shown on Schedule A which is attached hereto and forms part of this development variance permit.
6. The Land shall be developed strictly in accordance with the terms and conditions and provisions of this development variance permit.
7. This development variance permit shall lapse if the Owner does not substantially start any construction with respect to which this development variance permit is issued, within two (2) years after the date this development variance permit is issued.
8. The terms of this development variance permit or any amendment to it, are binding on all persons who acquire an interest in the Land.
9. This development variance permit is not a building permit.

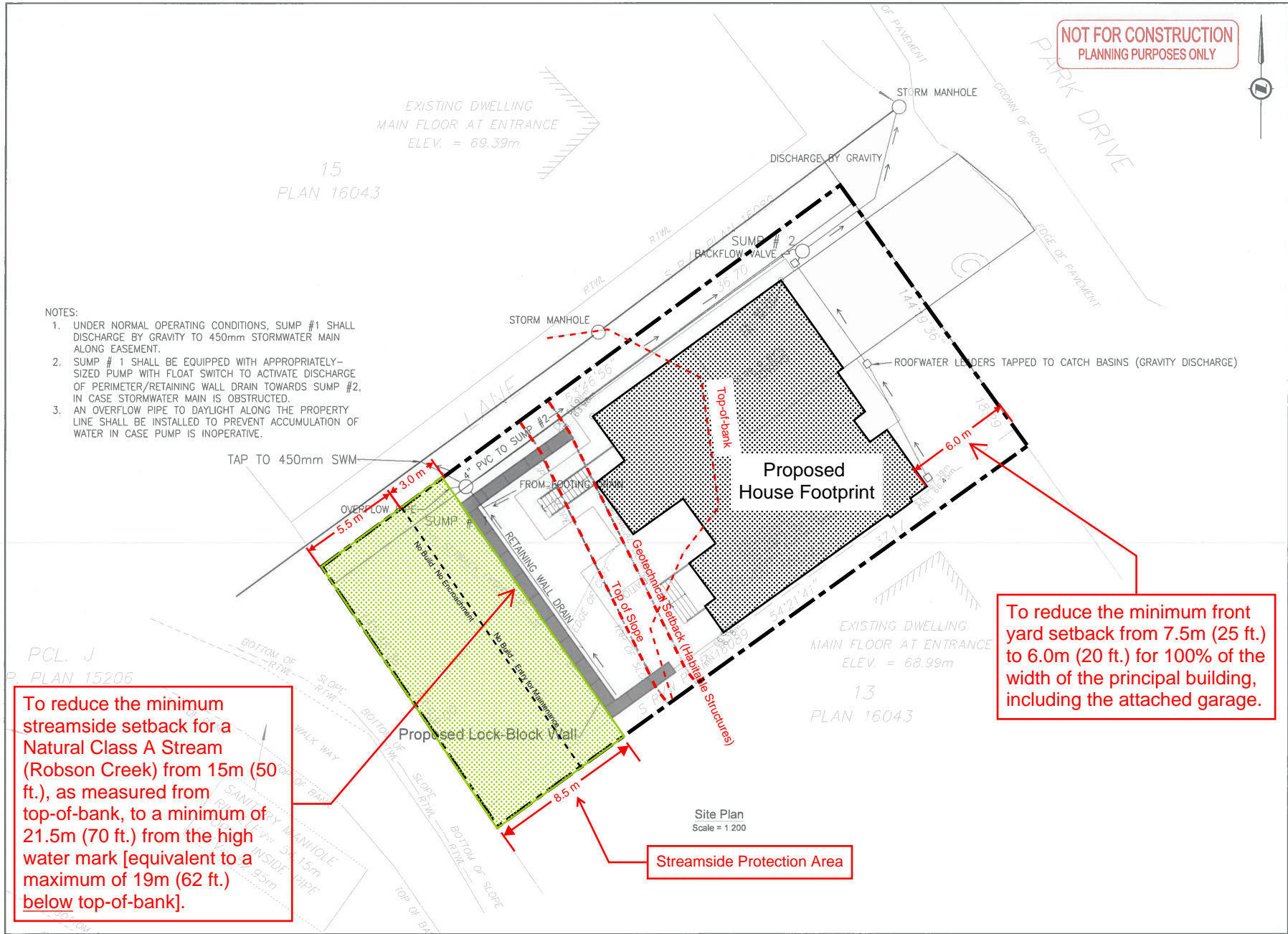
AUTHORIZING RESOLUTION PASSED BY THE COUNCIL, THE DAY OF , 20 .
ISSUED THIS DAY OF , 20 .

Mayor – Doug McCallum

City Clerk – Jennifer Ficocelli



NOT FOR CONSTRUCTION
PLANNING PURPOSES ONLY



- NOTES:
1. UNDER NORMAL OPERATING CONDITIONS, SUMP #1 SHALL DISCHARGE BY GRAVITY TO 450mm STORMWATER MAIN ALONG EASEMENT.
 2. SUMP # 1 SHALL BE EQUIPPED WITH APPROPRIATELY-SIZED PUMP WITH FLOAT SWITCH TO ACTIVATE DISCHARGE OF PERIMETER/RETAINING WALL DRAIN TOWARDS SUMP #2. IN CASE STORMWATER MAIN IS OBSTRUCTED.
 3. AN OVERFLOW PIPE TO DAYLIGHT ALONG THE PROPERTY LINE SHALL BE INSTALLED TO PREVENT ACCUMULATION OF WATER IN CASE PUMP IS INOPERATIVE.

To reduce the minimum streamside setback for a Natural Class A Stream (Robson Creek) from 15m (50 ft.), as measured from top-of-bank, to a minimum of 21.5m (70 ft.) from the high water mark [equivalent to a maximum of 19m (62 ft.) below top-of-bank].

To reduce the minimum front yard setback from 7.5m (25 ft.) to 6.0m (20 ft.) for 100% of the width of the principal building, including the attached garage.

Streamside Protection Area

Site Plan
Scale = 1:200

Design Drawings Site Plan	
Sheet Number: 1	Date Created: 2017-06-16
Date Revised: 2019-03-13	Drawn By: E. de Castro
Reviewed By: T. Le	Scale: 1:200
5057-LBW-SH-01	A