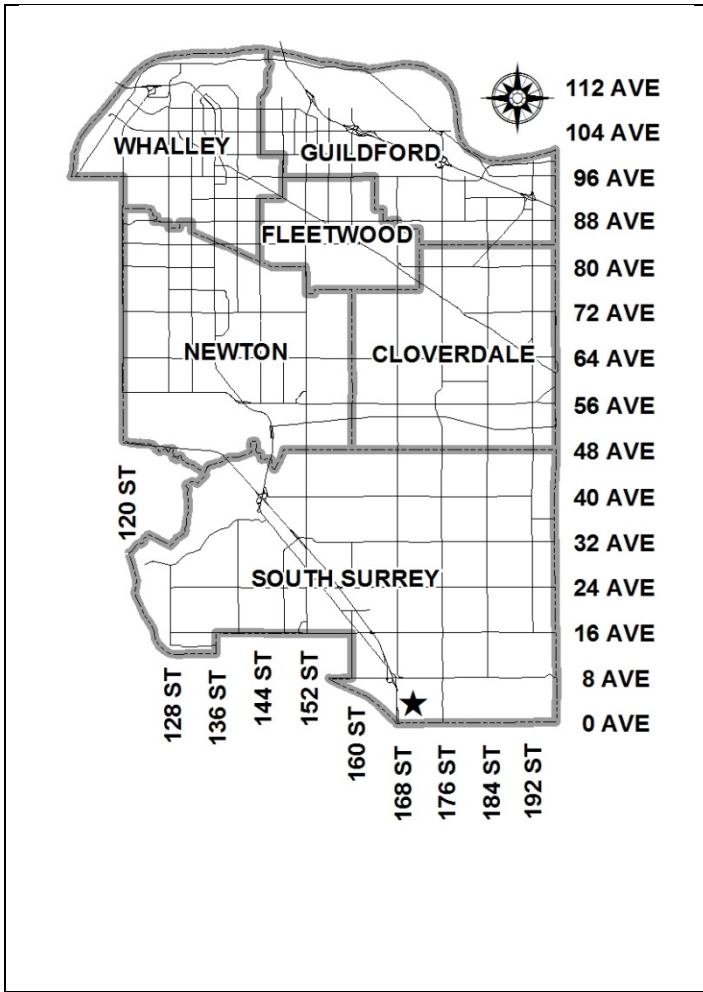


City of Surrey
PLANNING & DEVELOPMENT REPORT

File: 7913-0286-00

Planning Report Date: March 31, 2014



PROPOSAL:

- **NCP Amendment** from "Townhouses 15 upa" to "Townhouses 30 upa" and "Open Space"
- **Rezoning** from RA to RM-30
- **Development Permit**
- **Development Variance Permit**

in order to permit the development of 67 townhouse units.

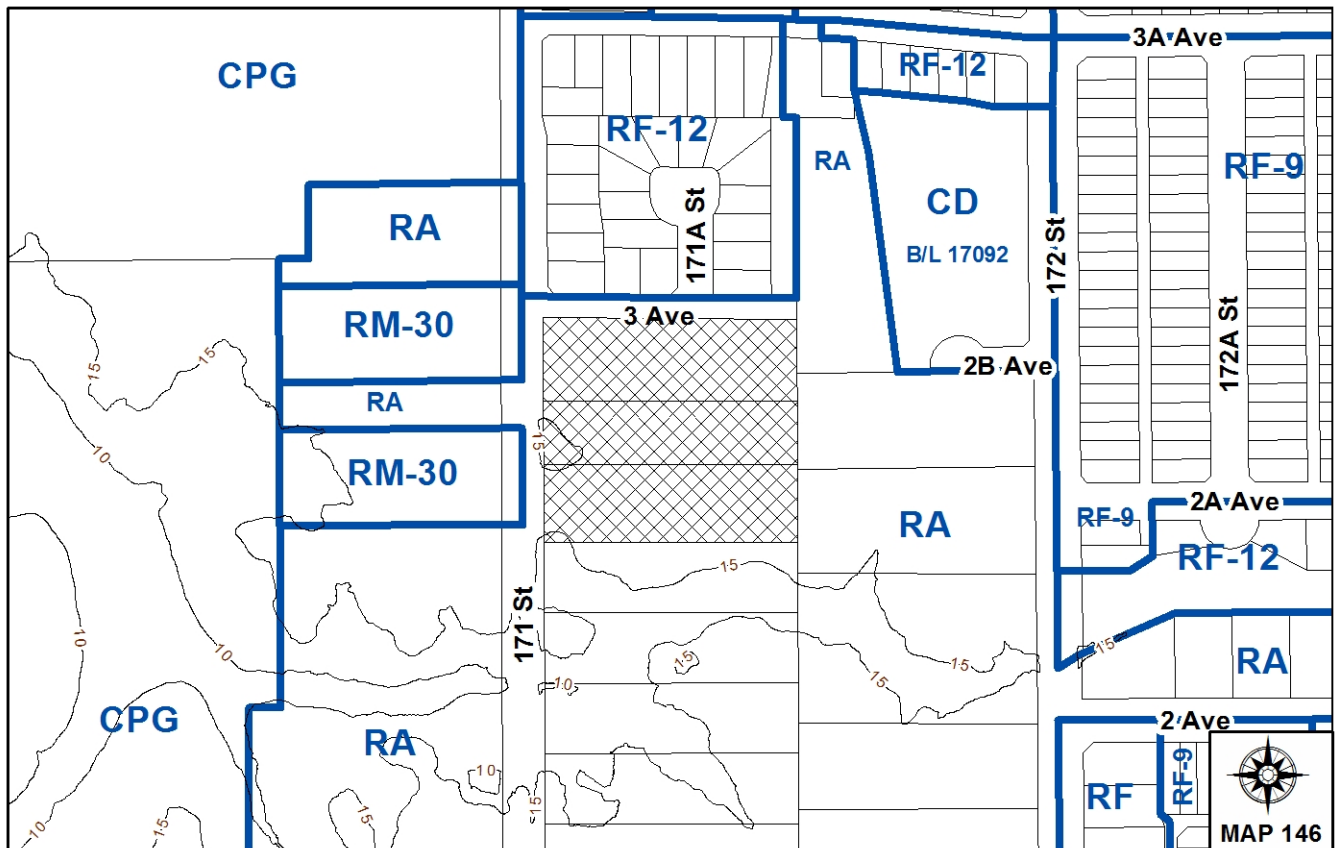
LOCATION: 276, 260 and 246 - 171 Street

OWNERS: Sandra M Carpenter
 Robert W Byers
 Sandra J Byers
 Joseph R Connolly

ZONING: RA

OCP DESIGNATION: Urban

NCP DESIGNATION: Townhouses 15 upa



RECOMMENDATION SUMMARY

- By-law Introduction and set date for Public Hearing for:
 - Rezoning
- Approval to reduce indoor amenity space.
- Approval to draft Development Permit.
- Approval for Development Variance Permit to proceed to Public Notification.

DEVIATION FROM PLANS, POLICIES OR REGULATIONS

- An amendment to the Douglas Neighbourhood Concept Plan (NCP) is required to amend the land use designation from "Townhouse 15 upa" to "Townhouse 30 upa" and "Open Space".
- Relaxations to the RM-30 Zone are sought to permit:
 - reduced setbacks along all lot lines;
 - an unenclosed tandem parking space for each of the units with tandem parking; and
 - one (1) visitor parking within the south side yard setback.

RATIONALE OF RECOMMENDATION

- The proposed NCP amendment and proposed townhouse density is generally consistent with other townhouse projects approved in the Douglas NCP area.
- The applicant has agreed to convey 1,000 square metres (10,764 sq. ft.) of land to the City, without compensation, for riparian protection and to enhance this area with native riparian planting, via a P-15 agreement.
- The applicant is proposing to build 29 2-bedroom townhouse units averaging 1,265 sq. ft. in size. This is a new product type in the Douglas area, which would add to the housing diversity and housing affordability in the neighbourhood.
- The applicant has consolidated all three (3) properties on the east side of 171 Street between 3 Avenue to the north and the neighbourhood park to the south. Therefore, the applicant is able to plan for a comprehensively designed townhouse project, which takes into consideration its neighbourhood context adjacent to streets and parkland.
- The proposed indoor amenity space shortfall is supportable given that the space provided is functional, and that the remaining shortfall will be addressed through a cash-in-lieu contribution in accordance with City policy.
- The proposed setback relaxations are supportable given that they are consistent with adjacent townhouse projects and that they allow for a desirable streetscape and interface with existing and proposed parkland.

RECOMMENDATION

The Planning & Development Department recommends that:

1. a By-law be introduced to rezone the subject site from "One-Acre Residential Zone (RA)" (By-law No. 12000) to "Multiple Residential 30 Zone (RM-30)" (By-law No. 12000) and a date be set for Public Hearing.
2. Council approve the applicant's request to reduce the amount of required indoor amenity space from 201 square metres (2,164 square feet) to 58.5 square metres (629 square feet).
3. Council authorize staff to draft Development Permit No. 7913-0286-00 generally in accordance with the attached drawings (Appendix II).
4. Council approve Development Variance Permit No. 7913-0286-00 (Appendix VII) varying the following provisions of the RM-30 Zone, to proceed to Public Notification:
 - (a) to reduce the minimum front (west) yard setback from 7.5 metres (25 ft.) to 4.68 metres (15 ft.) fronting 171 Street and 3.0 metres (10 ft.) fronting City parkland ;
 - (b) to reduce the minimum rear (east) yard setback from 7.5 metres (25 ft.) to 5.0 metres (16 ft.);
 - (c) to reduce the minimum side (north) yard setback from 7.5 metres (25 ft.) to 4.5 metres (15 ft.);
 - (d) to reduce the minimum side (south) yard setback from 7.5 metres (25 ft.) to 5.0 metres (16 ft.) for proposed Building Nos. 8 and 9 and 4.0 metres (13 ft.) for proposed Building 10;
 - (e) to vary the parking requirements to allow one (1) visitor parking space within the side (south) yard setback; and
 - (f) to vary the tandem parking requirements to allow one (1) tandem parking space to be unenclosed for each of the 44 units with tandem parking.
5. Council instruct staff to resolve the following issues prior to final adoption:
 - (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 subdivision layout to the satisfaction of the Approving Officer;
 - (c) approval from the Ministry of Transportation & Infrastructure;
 - (d) approval from the Ministry of the Environment;
 - (e) submission of a finalized tree survey and a statement regarding tree preservation to the satisfaction of the City Landscape Architect;

- (f) submission of a landscaping plan and landscaping cost estimate to the specifications and satisfaction of the Planning and Development Department;
 - (g) resolution of all urban design issues to the satisfaction of the Planning and Development Department;
 - (h) demolition of existing buildings and structures to the satisfaction of the Planning and Development Department;
 - (i) registration of a Section 219 Restrictive Covenant to adequately address the City's needs with respect to public art, to the satisfaction of the General Manager Parks, Recreation and Culture;
 - (j) registration of a P-15 license agreement for riparian enhancement works and monitoring and maintenance on dedicated land;
 - (k) the applicant satisfy the deficiency in tree replacement on the site, to the satisfaction of the Planning and Development Department; and
 - (l) the applicant adequately address the impact of reduced indoor amenity space.
6. Council pass a resolution to amend Douglas NCP to redesignate the land from "Townhouses 15 upa" to "Townhouses 30 upa" and "Open Space" when the project is considered for final adoption.

REFERRALS

Engineering: The Engineering Department has no objection to the project [subject to the completion of Engineering servicing requirements] as outlined in Appendix III.

School District: **Projected number of students from this development:**

14 Elementary students at Hall's Prairie Elementary School
7 Secondary students at Earl Marriott Secondary School

The applicant has advised that the dwelling units in this project are expected to be constructed and ready for occupancy by January 2016.

(Appendix IV)

Parks, Recreation & Culture:	Parks has no objection to the project. A P-15 agreement is required for monitoring and maintenance of replantings in the conveyed riparian area, and the units adjacent to parkland should incorporate CPTED design principles.
Department of Fisheries and Oceans (DFO):	No concerns. The Department of Fisheries and Oceans has confirmed that the proposal has been identified as a project where a <i>Fisheries Act</i> authorization is not required given that serious harm to fish can be avoided by following standard measures.
Ministry of Transportation & Infrastructure (MOTI):	Preliminary approval is granted for the rezoning for one year pursuant to section 52(3)(a) of the <i>Transportation Act</i> .
Surrey Fire Department:	No concerns.
Ministry of Environment (MOE):	The applicant has made an application to the Ministry of Environment for approval under Section 9 of the <i>Water Act</i> . Water Act approval is required prior to final adoption.

SITE CHARACTERISTICS

Existing Land Use: Single family homes on large lots.

Adjacent Area:

Direction	Existing Use	OCP/NCP Designation	Existing Zone
North (Across 3 Avenue):	Small lot single family	Urban/Single Family Residential Flex (6-14.5 upa)	RF-12
East:	Parkland and large lot single family	Urban/Open Space and Townhouses 15 upa	RA
South:	Parkland	Urban/Open Space	RA
West (Across 171 Street):	Townhouses under Building Permit application and under construction and large lot single family	Urban/Townhouses 15 upa, Townhouses 20 upa, and Townhouses 30 upa	RA and RM-30

JUSTIFICATION FOR PLAN AMENDMENT

- The Douglas Neighbourhood Concept Plan (NCP) identifies the three (3) subject properties as "Townhouses 15 upa". The applicant proposes to amend the Douglas NCP to change the land use designation from "Townhouses 15 upa" to "Townhouses 30 upa" in order to permit a townhouse project with a density of 25 upa and an FAR of 0.87.

- The proposed NCP amendment and proposed townhouse density at 25 upa is generally consistent with other townhouse projects approved in the Douglas NCP area. These projects include:
 - The townhouse portion of Development Application No. 7906-0001-00, located to the east of the subject site on 172 Street. The unit density approved for this townhouse development is 23 upa, and the FAR is 1.03;
 - Development Application No. 7912-0055-00, located across the street from the subject site, on the west side of 171 Street. The unit density approved for this townhouse development is 22 upa, and the FAR is 0.85; and
 - Development Application No. 7912-0283-00, also located across the street from the subject site, on the west side of 171 Street. The unit density approved for this townhouse development is 18 upa, and the FAR is 0.74.
- The applicant has agreed to dedicate 1,000 square metres (10,764 sq. ft.) of land to the City, without compensation, for riparian protection. This area is also proposed to be enhanced by re-constructing an existing unnamed Class B watercourse with a new stream within this area, which will connect with the existing watercourse on City parkland to the south of the site. In doing so, a large portion of the watercourse will be day-lighted where it was previously enclosed by a concrete pipe. Further, the land surrounding the channel will be planted with native vegetation, as illustrated in the riparian planting plan attached as Appendix VIII. The riparian land proposed to be conveyed to the City would be re-designated to "Open Space" when the project is considered for Final Adoption.
- If the riparian area was included in the density calculation, the project would have a unit density of 23 upa and an FAR of 0.79. This is within the same range as the neighbouring townhouse projects, as discussed above.
- While 3 Avenue ends at 171A Street, staff requested that the applicant provide an 8.5 metre (28 ft.) wide dedication along the entire north property line. This dedication has been requested in order to facilitate a sidewalk/pathway connection to the existing and future parkland and trail system to the east of the site. If this additional road dedication area was included in the density calculation, the project would have a unit density of 22.3 upa and an FAR of 0.77.
- The proposal includes a number of small 2-bedroom units, including 24 units with a total floor area of 117 square metres (1,260 sq. ft.), and 5 units with a total floor area of 120 square metres (1,290 sq. ft.). Having a higher number of smaller townhouse units increases the proposed unit density. However, this is a new product type in the Douglas area and therefore the proposal would increase the range of housing choices and provide a more affordable housing option in this area.
- The applicant has consolidated all three (3) properties on the east side of 171 Street between 3 Avenue to the north and the neighbourhood park to the south. Therefore, the applicant is able to plan for a comprehensively designed townhouse project which takes into consideration its neighbourhood context adjacent to streets and parkland.

DEVELOPMENT CONSIDERATIONS

Background

- The subject site is designated "Urban" in the Official Community Plan (OCP) and "Townhouses 15 upa" in the Douglas NCP. The site is comprised of three (3) properties zoned One-Acre Residential

Zone (RA), on the east side of 171 Street south of 3 Avenue. The gross site area is 1.287 hectares (3.18 acres).

- The applicant, Dawson & Sawyer Developments Ltd., is in the process of developing land for townhouses on the west side of 171 Street, across the street from the subject site. Projects include Surrey Project No. 7912-0055-00, a 26-unit townhouse project at 253 171 Street, and Surrey Project No. 7912-0283-00, a 22-unit townhouse project at 277 171 Street. The former project is nearing completion of construction and building occupancy, and the latter has a Building Permit issued and construction is ready to commence.
- There is existing parkland to the south of the site, and existing and future parkland and riparian protection area located to the east of the site. The Parks, Recreation and Culture Department plans to construct an east-west multi-use pathway (the Douglas Greenway) within parkland to the south of the site, and a north-south pathway to the east of the site through existing and future parkland.

Proposal

- The proposal includes a rezoning from "One-Acre Residential Zone (RA)" to "Multiple Residential 30 Zone (RM-30)" and a Development Permit in order to allow for 67 townhouse units. A Development Variance Permit is also required in order to accommodate reduced setbacks from all property lines, to allow 44 units to have unenclosed parking, and to allow one (1) visitor parking stall to be located within the side (south) yard setback. These variances are discussed further in the "By-law Variance and Justification" section of this report.
- The unit density proposed is 25 upa and the Floor Area Ratio (FAR) proposed is 0.87. The maximum FAR permitted in the RM-30 Zone is 0.90.
- The outdoor amenity area proposed is 240.5 square metres (2,589 sq. ft.) in area, which exceeds the requirement of 201 square metres (2,164 sq. ft.) under the RM-30 Zone.
- The indoor amenity area proposed is 58.4 square metres (629 sq. ft.), which is less than the required 201 square metres (2,164 sq. ft.) under the RM-30 Zone. The shortfall in indoor amenity space must be addressed prior to final adoption.

PRE-NOTIFICATION

Pre-notification letters were sent out on February 19, 2014. Staff received six (6) responses to the pre-notification letters, as summarized below:

- The Little Campbell Watershed Society (LCWS) submitted a letter on March 12, 2014 requesting additional information about the proposed stormwater management strategy for the development. The LCWS's prime concern is current and future habitat protection of streams and creeks feeding into the Little Campbell River. The Engineering Department and the applicant's civil engineering consultant provided the requested information to the LCWS on March 20 and 21, 2014. The LCWS provided a follow-up letter on March 24, 2014 indicating that the Society is satisfied with the proposed stormwater management strategy and Low Impact Development measures that will be utilized.

- Five (5) residents from the newly constructed single family developments to the north of the subject site responded to the pre-notification mail-out. One (1) respondent asked for more information but did not provide any comments or concerns on the proposal. The remaining four (4) respondents expressed concerns regarding the following issues:

- Concern that the proposed density is too high.

(As discussed above, there are a variety of factors which contribute to the argument for permitting a higher density at this location. These include: (a) the proposal is consistent with neighbouring townhouse projects which have been approved by Council; (b) the applicant is providing additional dedication on 3 Avenue and a riparian dedication along 171 Street without compensation, along with riparian enhancements, which will benefit the community; (c) the proposal includes a number of smaller 2-bedroom units which will increase the housing choice and diversity in the Douglas neighbourhood; and (d) the applicant has consolidated all of the properties between 3 Avenue and the neighbourhood park, allowing for a comprehensive townhouse design.)

- Concerns regarding increased traffic and lack of parking.

(The proposal meets the by-law requirements for both resident and visitor off-street parking. The proposed units with tandem parking have 1 parking space enclosed and 1 unenclosed. While this does require a variance to the RM-30 Zone, variances to this requirement are typically supported as it has been found that people are less likely to convert their garage into storage or livable space when they have only 1 unenclosed space as opposed to 2. Further, through the development, 3 Avenue would be completed, and 171 Street upgraded; both streets will accommodate on-street parking.)

- Concern regarding inadequate road infrastructure.

(The proposed development would improve the road infrastructure. On 3 Avenue, the remaining road dedication would be provided, and the road would be constructed to a local road standard, including a sidewalk, boulevard, street trees and street lighting. On 171 Street, the road would be constructed to a local road standard including a sidewalk, boulevard, street trees and street lighting.)

- A request for a green buffer on 3 Avenue to buffer the townhomes on the south side of the street from the single family homes on the north side of the street.

(For the street-facing units on 3 Avenue, a 4.5 metre (15 ft.) setback is proposed, with townhouse units fronting the street. Landscaping in the front yard on 3 Avenue is proposed to include tree and shrub planting. Street trees would also be planted within the City road allowance on 3 Avenue in the boulevard strip between the sidewalk and the street, which would provide a double-row of trees along the street. This interface is considered appropriate with the existing single family homes on the north side of 3 Avenue.)

DESIGN PROPOSAL AND REVIEW

- The development consists of 67 townhouse units in 11 buildings. There are 29 two-bedroom units, 15 three-bedroom units, and 23 four-bedroom units proposed. All of the townhouses are 3-storeys.
- 23 of the proposed units (34%) have double, side-by-side garages, and 44 (66%) have tandem garages.
- The street-fronting units on 3 Avenue and 171 Street have doors facing the street, a walkway connecting each residence to the street, windows and living space on the street-facing side that provide casual surveillance of the street and interaction with the public realm.
- To the south of the site is City-owned parkland, and to the east of the site is existing and anticipated future parkland/riparian area. The Parks, Recreation and Culture Department is planning for an east-west multi-use path (the Douglas Greenway) to the south of the site, and a north-south path to the east of the site. The units along the south and east edges of the site have been treated to front the existing and future parkland, with the entrance/door on the park-facing side, windows and living space on the street-facing side that provide casual surveillance of the park and interaction with the public realm.
- An on-site pathway is proposed along the south and east edges of the site. The park-facing units all have walkways from the path to their front doors. The on-site path will connect with the future parks pathways when they are constructed.
- The proposed townhouse units will be constructed using duroid shingles as the roofing material, and a combination of cedar shingle siding, hardi board siding and vinyl siding as the primary cladding materials.
- The outdoor amenity area has been located at the northeast corner of the site in order to preserve a cluster of mature trees.
- The landscaping plan incorporates a variety of shrubs and trees and hard surface materials.

TREES

- Peter Mennel, ISA Certified Arborist of Mike Fadum & Associates 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	4	4	0
Cottonwood	4	4	0
Deciduous Trees (excluding Alder and Cottonwood Trees)			
Apple	2	2	0
Aspen, Trembling	6	6	0
Ash	1	1	0

Tree Species	Existing	Remove	Retain
Birch, Paper	6	6	0
Cherry	1	1	0
Dogwood,	2	1	1
Hazelnut	3	3	0
Katsura	1	1	0
Maple,	3	3	0
Maple, Red	2	2	0
Walnut	1	0	1
Coniferous Trees			
Cedar,	1	1	0
Cedar, Western Red	46	42	4
Douglas-fir	18	12	6
Falsecypres	4	4	0
Fir, Grand	1	1	0
Hemlock,	3	3	0
Spruce Sitka	7	4	3
Total (excluding Alder and Cottonwood Trees)	108	93	15
Additional [Estimated] Trees in the proposed Riparian Area	6	0	6
Total Replacement Trees Proposed (excluding Boulevard Street Trees)		126	
Total Retained and Replacement Trees		141	
Contribution to the Green City Fund		\$20,400.00	

- The Arborist Assessment states that there are a total of 108 protected trees on the site, excluding Alder and Cottonwood trees. 8 existing trees, approximately 7% of the total trees on the site, are Alder and Cottonwood trees. It was determined that 15 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.
- Table 1 includes an additional 6 protected trees that are located within the proposed riparian area, which is proposed to be conveyed to the City as parkland. The trees within the riparian area will be retained, except where removal is required due to hazardous conditions. This will be determined at a later time, in consultation with the Parks, Recreation and Culture Department.
- A detailed planting plan prepared by a Registered Professional Biologist (R.P. Bio.) and an associated P-15 agreement are required for the monitoring and maintenance of the proposed trees to be planted in the conveyed riparian area.

- 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 194 replacement trees on the site. Since only 126 replacement trees can be accommodated on the site, the deficit of 68 replacement trees will require a cash-in-lieu payment of \$20,400, representing \$300 per tree, to the Green City Fund, in accordance with the City's Tree Protection By-law.
- In addition to the replacement trees, boulevard street trees will be planted on 3 Avenue and 171 Street. This will be determined at the servicing agreement stage by the Engineering Department.
- The new trees on the site will consist of a variety of species including Red Japanese Maples, Columnar Red Maples, October Glory Maples, Nootka Cypress, Royal Star Magnolia, Serbian Spruce and Zelkova Serrata.
- In summary, a total of 141 trees are proposed to be retained or replaced on the site with a contribution of \$20,400 to the Green City Fund.

SUSTAINABLE DEVELOPMENT CHECKLIST

The applicant prepared and submitted a sustainable development checklist for the subject site on March 17, 2014. The table below summarizes the applicable development features of the proposal based on the seven (7) criteria listed in the Surrey Sustainable Development Checklist.

Sustainability Criteria	Sustainable Development Features Summary
1. Site Context & Location (A1-A2)	<ul style="list-style-type: none"> • Located within the Douglas Neighbourhood Concept Plan (NCP) area.
2. Density & Diversity (B1-B7)	<ul style="list-style-type: none"> • An increase in density is proposed. • A range of 2, 3 and 4-bedroom units are proposed. The smaller units will increase affordability in the area, as well as the diversity of the housing stock.
3. Ecology & Stewardship (C1-C4)	<ul style="list-style-type: none"> • The development uses Low Impact Development Standards (LIDS) including absorbent soils, and on-site infiltration trenches or sub-surface chambers. • A 1,000 square metre riparian area is proposed to be conveyed to the City as parkland. The existing watercourse is proposed to be re-constructed within this area, and riparian plantings are proposed. This work is considered an enhancement and benefit to the community. The riparian area represents approximately 8% of the entire site area. • Recycling pick-up will be made available.

4. Sustainable Transport & Mobility (D1-D2)	<ul style="list-style-type: none"> • Bicycle parking is proposed. • Pedestrian connectivity is well thought-out on the site, and connections will be made to future off-site paths within City parkland.
5. Accessibility & Safety (E1-E3)	<ul style="list-style-type: none"> • Units are oriented toward the street and park and provide territorial reinforcement and natural surveillance of the street and park. • The proposal includes playground space and outdoor and indoor community gathering space.
6. Green Certification (F1)	<ul style="list-style-type: none"> • N/A
7. Education & Awareness (G1-G4)	<ul style="list-style-type: none"> • Area residents are involved in the planning process through the typical development application review process, including pre-notification letters and a development proposal sign.

BY-LAW VARIANCE AND JUSTIFICATION

(a) Requested Variance:

- To reduce the minimum front (west) yard setback of the RM-30 Zone from 7.5 metres (25 ft.) to 4.68 metres (15 ft.) adjacent to 171 Street and 3.0 metres (10 ft.) adjacent to the riparian area.

Applicant's Reason(s):

- Units fronting 171 Street directly address the public realm of the sidewalk encouraging neighbourhood interaction and 'eyes on the street'.

Staff Comments:

- The proposed setback reduction is reasonable and allows for a human scale streetscape. The units fronting 171 Street have been designed to have a presence along the street with windows and living space facing the street, which is in keeping with CPTED design principles.
- The 3 metre (10 ft.) setback proposed for the units adjacent to the riparian / watercourse area. This is considered a reasonable setback.

(b) Requested Variance:

- To reduce the minimum rear (east) yard setback and the minimum side (south) yard setback of the RM-30 Zone from 7.5 metres (25 ft.) to 5.0 metres (16 ft.) for all buildings except for Building No. 10, for which a variance to 4.0 metres (13 ft.) is proposed.

Applicant's Reason(s):

- Future east-west and north-south paths are planned in the existing and future parkland to the east and south. Homes fronting onto these paths will increase safety in these parks. The proposed setback encourages neighbourhood interaction and 'eyes on the park'.

Staff Comments:

- The units along the eastern and southern edges of the site front onto existing and future parkland and a future trail network within the parkland. CPTED design principles have been considered in the design of these units. As a result, the setback relaxations are considered appropriate and are acceptable.
- The 4.0 metre (13 ft.) setback along the south property line to proposed Building No. 10 is considered appropriate as it is a side yard condition on the south side.

(c) Requested Variance:

- To reduce the minimum side (north) yard setback of the RM-30 Zone from 7.5 metres (25 ft.) to 4.5 metres (15 ft.).

Applicant's Reason(s):

- Units fronting 3 Avenue directly address the public realm of the sidewalk encouraging neighbourhood interaction and 'eyes on the street'.
- Architectural significance is encouraged on the front façade via a layering effect of hedging, front yard rail fencing, thoughtfully designed entry gates and clearly defined entries creating a rich transition from public to private space while also creating homes with pedestrian-oriented character and charm. Trees and shrubs of different varieties will be planted to enhance the pedestrian friendly streetscape.

Staff Comments:

- The proposed setback reduction is reasonable and allows for a human scale streetscape. The units fronting 3 Avenue have been designed to have a presence along the street, and have taken into consideration CPTED design principles.

(d) Requested Variance:

- To vary the parking requirements in order to allow one (1) visitor parking space to be located partially within the southerly setback.

Applicant's Reasons:

- The proposed variance will have no impact on the livability of the adjacent homes or the neighbouring park to the south. The location of this visitor parking stall allows for more open space along the internal pedestrian mews and allocates visitor parking more appropriately throughout the site.

Staff Comments:

- Due to the site constraints as a result of road and riparian dedications, and the internal location of the parking space adjacent to City parkland, the variance is considered acceptable.

(e) Requested Variance:

- To vary the tandem parking requirements of the RM-30 Zone to allow one (1) tandem space to be unenclosed for each of the 44 units with tandem parking.

Applicant's Reasons:

- The proposed parking configuration allows for the creation of habitable floor space on the ground floor of these homes. All of the homes front the future park or pedestrian mews improving CPTED in these areas.
- The proposed parking configuration also allows for the diversification of the housing stock in the Douglas NCP. A total of 29 two-bedroom homes are proposed.

Staff Comments:

- The unenclosed tandem parking space for each of the units with tandem parking will help to ensure that parking spaces are not converted into habitable space or storage space in the future.
- The unenclosed parking space allows for each unit to have an entry foyer and living space on the ground floor. For the tandem units adjacent to existing and future parkland, having living space at the street level is a desirable urban design and CPTED objective, as it promotes interaction with the public realm and casual surveillance of the park space.

INFORMATION ATTACHED TO THIS REPORT

The following information is attached to this Report:

Appendix I.	Lot Owners, Action Summary and Project Data Sheets
Appendix II.	Site Plan, Building Elevations, Landscape Plans and Perspective
Appendix III.	Engineering Summary
Appendix IV.	School District Comments
Appendix V.	Summary of Tree Survey and Tree Preservation
Appendix VI.	NCP Plan
Appendix VII.	Development Variance Permit No. 7913-0286-00
Appendix VIII.	Riparian Planting Plan

original signed by Nicholas Lai

Jean Lamontagne
General Manager
Planning and Development

HK/da

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DEVELOPMENT DATA SHEET

Proposed Zoning: RM-30

Required Development Data	Minimum Required / Maximum Allowed	Proposed
LOT AREA* (in square metres)		
Gross Total		12,867.61 m ²
Road Widening area		1,032.54 m ²
Undevelopable area		1,000 m ²
Net Total		10,835.07 m ²
LOT COVERAGE (in % of net lot area)		
Buildings & Structures	45%	44%
Paved & Hard Surfaced Areas		
Total Site Coverage		
SETBACKS (in metres)		
North	7.5 m	4.5 m (DVP req'd)
South	7.5 m	5.0 m and 4.0 m (DVP req'd)
East	7.5 m	5.0 m (DVP req'd)
West (from 171 Street)	7.5 m	4.68 m (DVP req'd)
West (from riparian area)	7.5 m	3.05 m (DVP req'd)
BUILDING HEIGHT (in metres/storeys)		
Principal	13 m	9.9 m
Accessory		
NUMBER OF RESIDENTIAL UNITS		
Bachelor		
One Bed		
Two Bedroom		
Three Bedroom +		
Total		
FLOOR AREA: Residential		9,412 m ²
FLOOR AREA: Commercial		
Retail		
Office		
Total		
FLOOR AREA: Industrial		
FLOOR AREA: Institutional		
TOTAL BUILDING FLOOR AREA		9,412 m ²

** If the development site consists of more than one lot, lot dimensions pertain to the entire site.*

Development Data Sheet cont'd

Required Development Data	Minimum Required / Maximum Allowed	Proposed
DENSITY		
# of units/ha /# units/acre (gross)		52 uph / 21 upa
# of units/ha /# units/acre (net)		61.8 uph / 25 upa
FAR (gross)		0.73
FAR (net)		0.87
AMENITY SPACE (area in square metres)		
Indoor	201 m ²	58.5 m ²
Outdoor	201 m ²	240.5 m ²
PARKING (number of stalls)		
Commercial		
Industrial		
Residential Bachelor + 1 Bedroom		
2-Bed		58
3-Bed		30
4-Bed		46
Residential Visitors		13
Institutional		
Total Number of Parking Spaces		147
Number of disabled stalls		2
Number of small cars		2
Tandem Parking Spaces: Number / % of Total Number of Units		66%
Size of Tandem Parking Spaces width/length		

Heritage Site	NO	Tree Survey/Assessment Provided	NO
---------------	----	---------------------------------	----

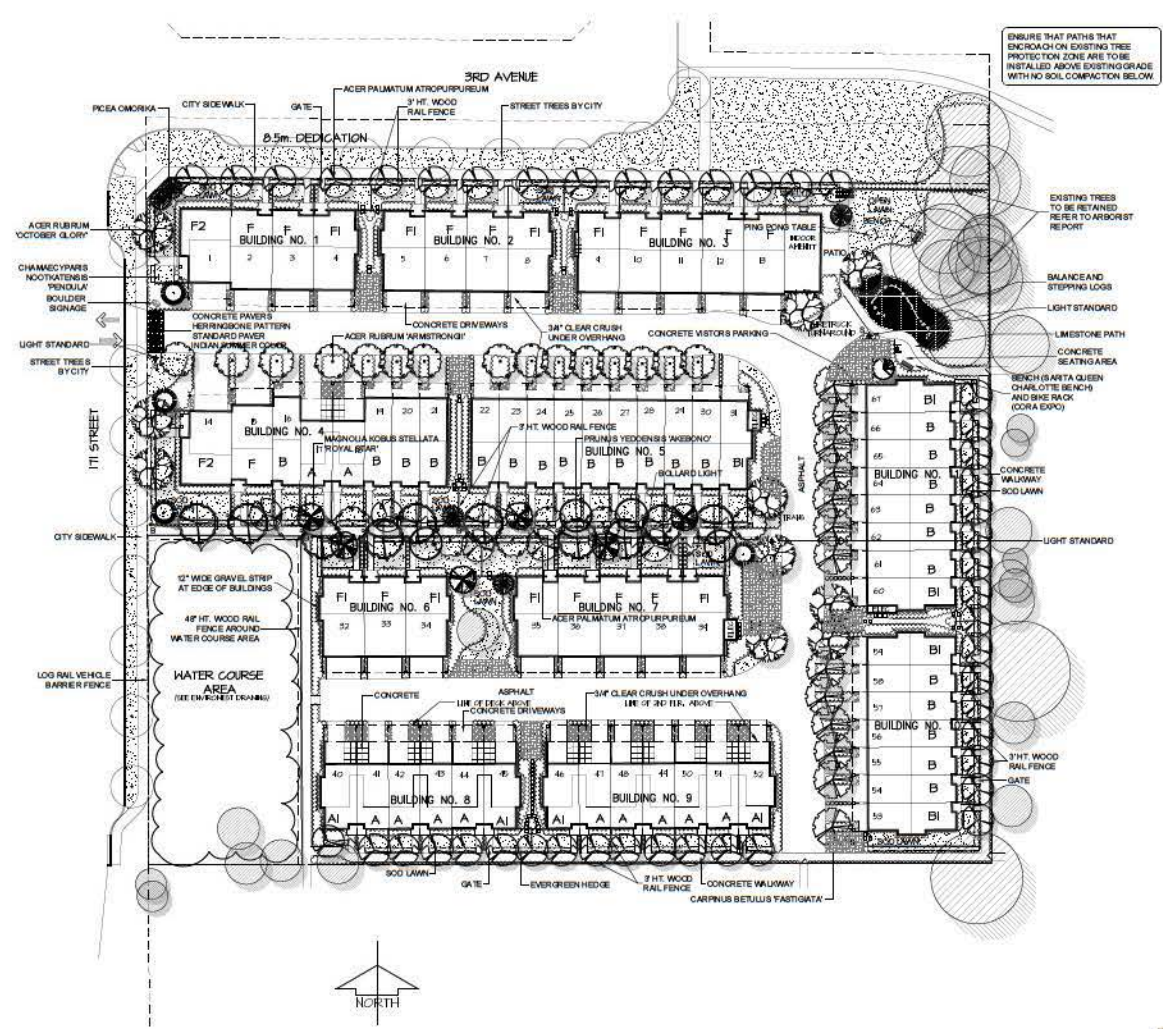


PAST PROJECTS

REAL:

PLANT SCHEDULE			PMG PROJECT NUMBER: 13-173
KEY	BOTANICAL NAME	COMMON NAME	PLANTED SIZE / REMARKS
10	ACER PALMATUM ATROPURPUREUM	RED JAPANESE MAPLE	6CM CAL, B&B
20	ACER RUBRUM 'ARMSTRONGI'	COLUMNAR RED MAPLE	6CM CAL, 2M STD, B&B
30	ACER RUBRUM 'OCTOBER GLORY'	OCTOBER GLORY MAPLE	6CM CAL, 2M STD, B&B
13	CARPINUS BETULUS 'FASTIGIATA'	PYRAMIDAL EUROPEAN HORNBEAM	6CM CAL, B&B
4	CHAMAECYPARIS NODIFLORUS 'PENDULA'	WEISSING NODOSA CYPRESS	3M HT, B&B
6	MAGNOLIA KOBUS STELLATA 'ROYAL STAR'	ROYAL STAR MAGNOLIA	6CM CAL, 2M HT, B&B
4	POCEA OMCORNSA	SERBIAN SPRUCE	3M HT, B&B
1	PRINUS NERA	AUSTRIAN BLACK PINE	3M HT, B&B
4	PRINUS YEDONENSIS 'WIKEDON'	DAVIDSBARK CHERRY	6CM CAL, B&B
1	THUJA PLICATA 'EXCELSA'	WESTERN RED CEDAR	3M HT, B&B
10	ZELKOVA SERRATA	SAMBAF ZELKOVA	6CM CAL, 1.8M STD, B&B

NOTES: * PLANT SIZES IN THIS LIST ARE SPECIFIED ACCORDING TO THE BC LANDSCAPE STANDARD, LATEST EDITION. CONTAINER SIZES SPECIFIED AS PER CNTA STANDARDS. BOTH PLANT SIZE AND CONTAINER SIZE ARE THE MINIMUM ACCEPTABLE SIZES. * REFER TO SPECIFICATIONS FOR DEFINED CONTAINER MEASUREMENTS AND OTHER PLANT MATERIAL REQUIREMENTS. * SEARCH AND REVIEW MAKE PLANT MATERIAL AVAILABLE FOR OPTIONAL REVIEW BY LANDSCAPE ARCHITECT AT SOURCE OF SUPPLY. AREA OF SEARCH TO INCLUDE LOWER MAINLAND AND FRASER VALLEY. * SUBSTITUTIONS OBTAIN WRITTEN APPROVAL FROM THE LANDSCAPE ARCHITECT PRIOR TO MAKING ANY SUBSTITUTIONS TO THE SPECIFIED MATERIAL. UNAPPROVED SUBSTITUTIONS WILL BE REJECTED. ALLOW A MINIMUM OF FIVE DAYS PRIOR TO DELIVERY FOR REQUEST TO SUBSTITUTE. SUBSTITUTIONS ARE SUBJECT TO BC LANDSCAPE STANDARD - DEFINITION OF CONDITIONS OF A VALUABILITY. ALL LANDSCAPE MATERIAL AND WORKMANSHIP MUST MEET OR EXCEED BC LANDSCAPE STANDARD'S LATEST EDITION. ALL PLANT MATERIAL MUST BE PROVIDED FROM CERTIFIED DISEASE FREE NURSERY.



NO.	DATE	REVISION DESCRIPTION	DR.
1		SUBMITALS	DR
2		NEW SITE PLAN / CITY COMMENTS	DR
3		NEW SITE PLAN	DR
4		SUBMITALS	DR
5		NEW SITE COMMENTS	DR

CLIENT:

PROJECT:
RESIDENTIAL DEV.
171st STREET & 3rd AVENUE
SURREY, BC

DRAWING TITLE:
LANDSCAPE PLAN

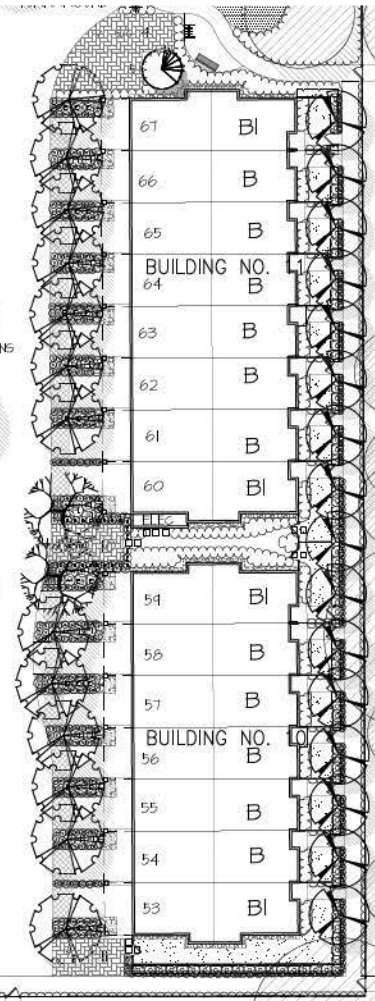
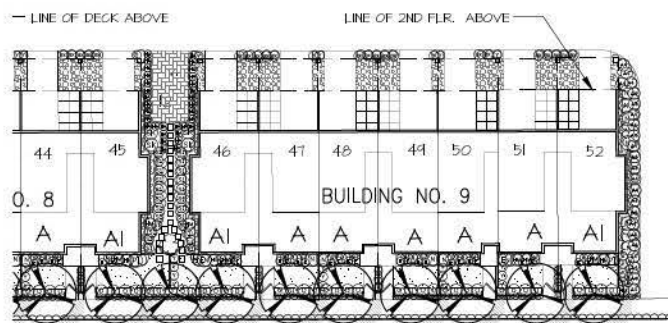
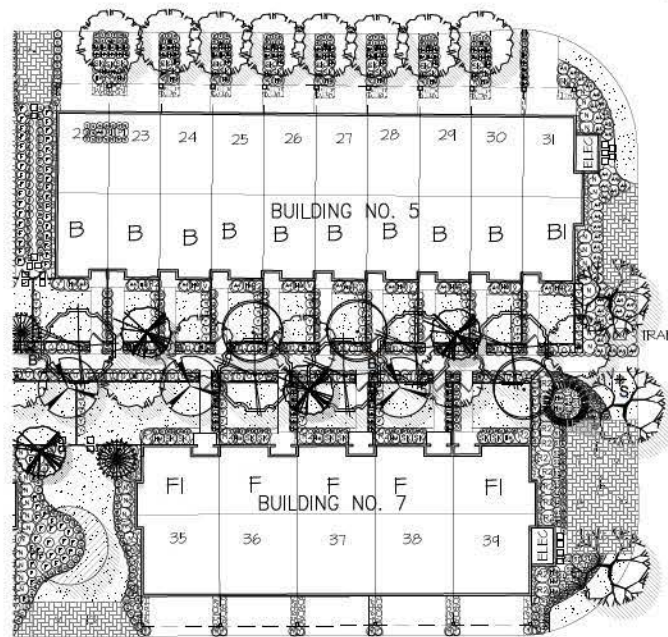
DATE: 13.06.04 DRAWING NUMBER:
SCALE: 1"=30'-0"
DRAWN: DR
DESIGN: DR
CHK'D: MCV

L1
OF 3

PLANT SCHEDULE

KEY	QTY	BOTANICAL NAME	COMMON NAME	PLANTED SIZE / REMARKS
SHRUB				
(C)		AZALEA JAPONICA 'HARCOZER'S BEAUTY'	AZALEA LIGHT PINK	#2 POT, 25CM
(C)		BUXUS SEMPERVIRENS 'SUFFRUTICOSA'	DWARF ENGLISH BOWWOOD	#3 POT, 40CM
(C)		ENKANTHUS CAMPANULATUS	ENKANTHUS	#3 POT, 50CM
(C)		HYDRANGEA MACROPHYLLA 'NIRKO BLUE'	BIQUEL' HYDRANGEA (BLUE)	#3 POT, 60CM
(C)		NANDINA DOMESTICA	HEAVENLY BAMBOO	#3 POT
(C)		PIERIS JAPONICA 'MOUNTAIN FIRE'	JAPANESE ANDROMEDA	#3 POT, 50CM
(C)		PRUNUS LAUROCERASUS 'REYNOLDS'	RUBUS AN LAUREL	#7 POT, 90CM
(C)		RHOODODENDRON 'ANAKI RUSCHKE'	RHOODODENDRON, BLUE	#3 POT, 50CM
(C)		RHOODODENDRON 'BOOM BELLE'	RHOODODENDRON	#3 POT, 50CM
(C)		SHIMMIA JAPONICA (10% MALE)	JAPANESE SHIMMIA	#2 POT, 30CM
(C)		SPIRAEA JAPONICA 'LITTLE PRINCESS'	LITTLE PRINCESS SPIRAEA, PINK	#2 POT, 40CM
(C)		TAXUS MEDIA 'HILL'	HILL'S YEW	8 GAL, 10M
(C)		VIBURNUM TINDUS 'DWARF'	SPRING BOUQUET	#3 POT, 50CM
GRASS				
(D)		CAREX 'OSHIMENSI' EVERGOLD'	SILVER VARIEGATED SEDGE	#1 POT
(D)		HAKONECHLOA MACRA 'AUREOLA'	GOLD VAREGATED JAPANESE FOREST GRASS	#1 POT
(D)		HELIOTROPIS SEMPERVIRENS	BLUE OAT GRASS	#2 POT
(D)		IMPERATA CYLINDRICA 'RED BARON'	BLOOD GRASS	#1 POT
(D)		MISCANTHUS SINENSIS 'YAKUJIMA'	YAKUJIMA JAP. SILVER GRASS	#3 POT
(D)		PENNISETUM ALPICOLOIDES 'HAMELIN'	DWARF MOUNTAIN GRASS	#1 POT
(D)		STIPA TENISSIMA	MEXICAN FEATHER GRASS	#1 POT
PERENNIAL				
(E)		HEMEROCALLIS 'YELLOW STONE'	DAYLILY, LIGHT YELLOW	#1 POT, 1.2 FAN
(E)		HEUCHERA 'PALACE PURPLE'	HEUCHERA	15CM POT
(E)		ERICA CARNEA 'SPRINGWOOD WHITE'	WINTER HEATH WHITE	#1 POT
(E)		GAULTHERIA SHALLOON	SALAL	#1 POT, 20CM
(E)		POLYSTICHUM MUNITUM	WESTERN SWORD FERN	#1 POT, 20CM

NOTES: *PLANT SIZES IN THIS LIST ARE SPECIFIED ACCORDING TO THE BC LANDSCAPE STANDARD, LATEST EDITION. CONTAINER SIZES SPECIFIED AS PER ONTA STANDARDS. BOTH PLANT SIZE AND CONTAINER SIZE ARE THE MINIMUM ACCEPTABLE SIZES. *REFER TO SPECIFICATIONS FOR DEFINED CONTAINER MEASUREMENTS AND OTHER PLANT MATERIAL REQUIREMENTS. *SEARCH AND REVIEW MAKE PLANT MATERIAL AVAILABLE FOR OPTIONAL REVIEW BY LANDSCAPE ARCHITECT AT SOURCE OF SUPPLY. AREA OF SEARCH TO INCLUDE LOWER MAINLAND AND PRABER VALLEY. *SUBSTITUTIONS OBTAIN WRITTEN APPROVAL FROM THE LANDSCAPE ARCHITECT PRIOR TO MAKING ANY SUBSTITUTIONS TO THE SPECIFIED MATERIAL. UNAPPROVED SUBSTITUTIONS WILL BE REJECTED. ALLOW A MINIMUM OF FIVE DAYS PRIOR TO DELIVERY FOR REQUEST TO SUBSTITUTE. SUBSTITUTIONS ARE SUBJECT TO BC LANDSCAPE STANDARD, DEFINITION OF CONDITIONS OF AVAILABILITY. ALL LANDSCAPE MATERIAL AND WORKMANSHIP MUST MEET OR EXCEED BC LANDSCAPE STANDARD, LATEST EDITION. ALL PLANT MATERIAL MUST BE PROVIDED FROM CERTIFIED DISEASE FREE NURSERY.



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Suite C100 - 4185 Still Creek Drive
Burnaby, British Columbia, V5G 6G9
p: 604 294-0011 : f: 604 294-0022

REAL:

NO.	DATE	REVISION DESCRIPTION	DR.
1		SUBMITTAL	DR
2		NEW SITE PLAN / OTR COMMENTS	DR
3		NEW SITE PLAN	DR
4		SUBMITTAL	DR
5		NEW SITE COMMENTS	DR

CLIENT:

PROJECT:

RESIDENTIAL DEV.
171st STREET & 3rd AVENUE
SURREY, BC

DRAWING TITLE:
LANDSCAPE PLAN ENLARGEMENT

DATE: 13 DEC 04 DRAWING NUMBER:
SCALE: 1/8" = 1'-0"
DRAWN: DR
DESIGN: DR/MM
CHKD: MCV

L2
OF 3

PMG PROJECT NUMBER: 13-173

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

FROM: **Development Services Manager, Engineering Department**

DATE: **March 21, 2014** PROJECT FILE: **7813-0286-00**

RE: **Engineering Requirements
Location: 246/260/276 171 Street**

NCP AMENDMENT

There are no engineering requirements relative to the NCP Amendment.

REZONE/SUBDIVISION

Property and Right-of-Way Requirements

- Dedicate 8.500 metres along 3 Avenue for the ultimate 20.0 metre Local road Standard.
- Dedicate a 3.0 x 3.0 metre corner cut at the intersection of 171 Street and 3 Avenue.
- Provide a 0.500 Statutory Right-of-Way along the frontages of 171 Street and 3 Avenue.

Works and Services

- Construct east half of 171 Street to the 20.0 metre Through Local Road Standard.
- Construct south half of 3 Avenue to the Limited Local Road Standard.
- Construct a 7.3 metre concrete driveway letdown.
- Construct a flow control manhole and outfall/headwall to maintain baseflows in riparian area.
- Construct storm, water, and sanitary infrastructure to service the development.
- Pay Drainage Latecomer relative to 5812-0055-00-1.
- Pay Development Works Agreement charges 8407-0041-00-1, 8507-0041-00-1, 8607-0041-00-1.
- 100% cash payment of Drainage/Water/Sanitary DCC.

A Servicing Agreement is required prior to Rezone/Subdivision.

DEVELOPMENT PERMIT

There are no engineering requirements relative to issuance of the Development Variance Permit.

DEVELOPMENT VARIANCE PERMIT

There are no engineering requirements relative to issuance of the Development Variance Permit.



Rémi Dubé, P.Eng.
Development Services Manager

CE

NOTE: Detailed Land Development Engineering Review available on file



Wednesday, February 19, 2014
 Planning

School Enrolment Projections and Planning Update:

The following tables illustrate the enrolment projections (with current/approved ministry capacity) for the elementary and secondary schools serving the proposed development.

A new Douglas Area elementary school site has recently been acquired but construction of a new school is subject to Ministry approval in the future. Priority and timing for funding approval may depend upon actual enrolment growth from the Douglas neighbourhood. The School District has purchased a new secondary school site in the Grandview Heights area and has submitted a proposal for a construction of a new secondary school, which is priority #3 in the 2013 - 2017 Five Year Capital Plan. A new secondary school when completed will relieve projected long term capacity shortfall at Earl Marriott Secondary and Semiahmoo Secondary. The proposed development is consistent with projected residential build out of Douglas NCP and will not have an impact on these projections.

THE IMPACT ON SCHOOLS

APPLICATION #: 13 0286 00

SUMMARY

The proposed 68 townhouse units are estimated to have the following impact on the following schools:

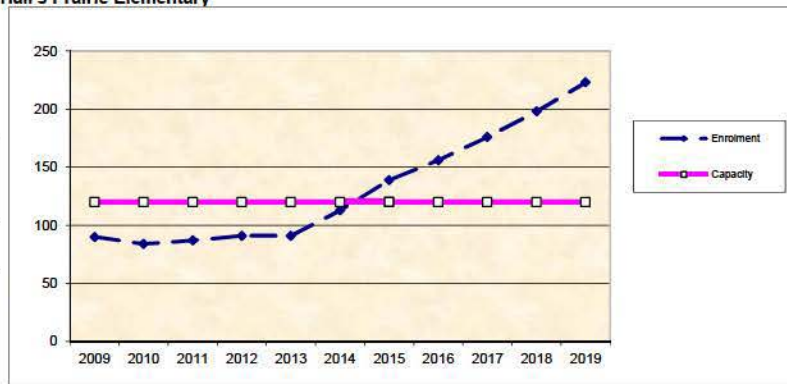
Projected # of students for this development:

Elementary Students:	14
Secondary Students:	7

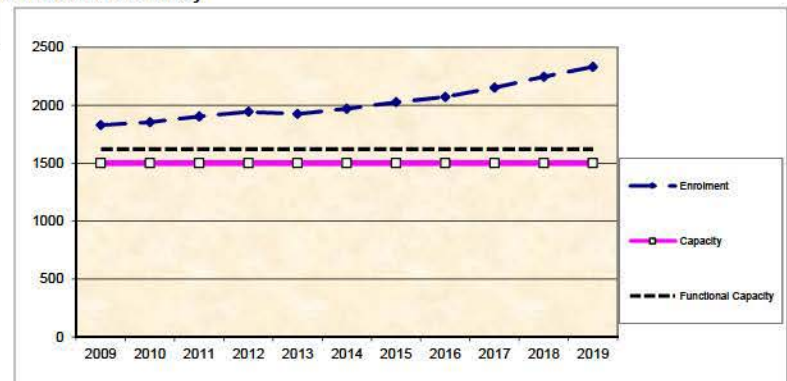
September 2013 Enrolment/School Capacity

Hall's Prairie Elementary	
Enrolment (K/1-7):	11 K + 80
Capacity (K/1-7):	20 K + 100
Earl Marriott Secondary	
Enrolment (8-12):	1927
Nominal Capacity (8-12):	1500
Functional Capacity*(8-12):	1620

Hall's Prairie Elementary



Earl Marriott Secondary



*Functional Capacity at secondary schools is based on space utilization estimate of 27 students per instructional space. The number of instructional spaces is estimated by dividing nominal facility capacity (Ministry capacity) by 25.

MIKE FADUM AND ASSOCIATES LTD.
VEGETATION CONSULTANTS

Tree Preservation Summary

Surrey Project No: 13-0286-00

Address: 246 / 60 / 76 - 171 Street, Surrey, BC

Registered Arborist: Peter Mennel

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)	116
Protected Trees to be Removed	101
Protected Trees to be Retained (excluding trees within proposed open space or riparian areas)	15
Total Replacement Trees Required: <ul style="list-style-type: none"> - Alder & Cottonwood Trees Requiring 1 to 1 Replacement Ratio $8 \quad \times \quad \underline{\text{one (1)}} = 8$ - All other Trees Requiring 2 to 1 Replacement Ratio $93 \quad \times \quad \underline{\text{two (2)}} = 186$ 	194
Replacement Trees Proposed	126
Replacement Trees in Deficit	68
Protected Trees to be Retained in Proposed [Open Space / Riparian Areas]	6

Off-Site Trees	Number of Trees
Protected Off-Site Trees to be Removed	0
Total Replacement Trees Required: <ul style="list-style-type: none"> - Alder & Cottonwood Trees Requiring 1 to 1 Replacement Ratio $\quad \times \quad \text{one (1)} = 0$ - All other Trees Requiring 2 to 1 Replacement Ratio $\quad \times \quad \text{two (2)} = 0$ 	0
Replacement Trees Proposed	0
Replacement Trees in Deficit	0

Summary report and plan prepared and submitted by: Mike Fadum and Associates Ltd.

Signature of Arborist:

Date: March 14, 2014



Mike Fadum and Associates Ltd.
#105, 8277-129 Street, Surrey, BC, V3W 0A6
Phone 778-593-0300 Fax 778-593-0302



CITY OF SURREY

(the "City")

DEVELOPMENT VARIANCE PERMIT

NO.: 7913-0286-00

Issued To: SANDRA CARPENTER

Address of Owner: 9006 - Ben Nevis Crescent
Surrey, BC V3V 6K5Issued To: ROBERT BYERS
SANDRA BYERSAddress of Owner: 246 - 171 Street
Surrey, BC V3S 9P5

Issued To: JOSEPH RAYMOND CONNOLLY

Address of Owner: 13885 - 18 Avenue
Surrey, BC V4A 1W6

(collectively referred to as "the 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: 011-253-941
Lot 22 Section 6 Township 7 New Westminster District Plan 7418

276 - 171 Street

Parcel Identifier: 010-320-784
Lot "A" Section 6 Township 7 New Westminster District Plan 17785

260 - 171 Street

Parcel Identifier: 010-320-806
Lot "B" Section 6 Township 7 New Westminster District Plan 17785

246 - 171 Street

(the "Land")

3. (a) As the legal description of the Land is to change, the City Clerk is directed to insert the new legal description for the Land once title has been issued, as follows:

Parcel Identifier:

- (b) If the civic address changes, the City Clerk is directed to insert the new civic address for the Land, as follows:
-

4. Surrey Zoning By-law, 1993, No. 12000, as amended is varied as follows:

- (a) In Section F. of Part 22 Multiple Residential 30 Zone (RM-30) the minimum front (west) yard setback of the RM-30 Zone is reduced from 7.5 metres (25 ft.) to 4.68 metres (15 ft.) fronting 171 Street and 3.0 metres (10 ft.) fronting City parkland;
- (b) In Section F. of Part 22 Multiple Residential 30 Zone (RM-30) the minimum rear (east) yard setback of the RM-30 Zone is reduced from 7.5 metres (25 ft.) to 5.0 metres (16 ft.);
- (c) In Section F. of Part 22 Multiple Residential 30 Zone (RM-30) the minimum side (north) yard setback of the RM-30 Zone is reduced from 7.5 metres (25 ft.) to 4.5 metres (15 ft.);
- (d) In Section F. of Part 22 Multiple Residential 30 Zone (RM-30) the minimum side (south) yard setback of the RM-30 Zone is reduced from 7.5 metres (25 ft.) to 5.0 metres (16 ft.) for Building Nos. 8 and 9, and 4.0 metres (13 ft.) for Building No. 10, as shown on Schedule A;
- (e) Sub-section H.2 of Part 22 Multiple Residential 30 Zone (RM-30) is varied to allow one (1) visitor parking space to be partially located within the south yard setback, as shown on Schedule A; and
- (f) Sub-section H.5(b) of Part 22 Multiple Residential 30 Zone (RM-30) is varied to allow one unenclosed tandem parking space for each of the 44 units with tandem parking, as shown on Schedule A.

5. The siting of buildings and structures and the visitor parking space located within the south side yard setback shall be in accordance with the site plan as 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 – Dianne L. Watts

City Clerk – Jane Sullivan



DEVELOPMENT DATA

GROSS SITE AREA:	138,505.80 S.F.	12,867.61 m ²
	3.18 Ac.	1.287 Ha
LESS:		
ROAD DEDICATION:	11,114.19 S.F.	1,032.54 m ²
	0.26 Ac.	0.103 Ha
WATERCOURSE AREA:	10,763.93 S.F.	1,000.00 m ²
	0.25 Ac.	0.100 Ha
NET SITE AREA:	116,627.68 S.F.	10,835.07 m ²
	2.68 Ac.	1.084 Ha
BUILDING HEIGHT:		
ALLOWABLE:	43.0 FT.	13.0 M.
PROPOSED:	32.5 FT.	9.9 M.
DENSITY:		
ALLOWABLE:	80 UNITS	30.0 U.P./Ac 75.0 U.P./Ha
PROPOSED:	67 UNITS	25.0 U.P./Ac 61.8 U.P./Ha
F.A.R.:		
ALLOWABLE:	0.90	104,964.9 S.F. 9,751.6 m ²
PROPOSED:	0.87	101,416.0 S.F. 9,421.9 m ²
SITE COVERAGE:		
ALLOWABLE:	45%	52,482.5 S.F. 4,875.78 m ²
PROPOSED:	44%	51,299.0 S.F. 4,765.83 m ²
AMENITY:		
INDOOR: REQUIRED:	32.2 S.F./UNIT	2,157.4 S.F. 200.4 m ²
PROVIDED:		630.0 S.F. 58.5 m ²
OUTDOOR: REQUIRED:	32.2 S.F./UNIT	2,157.4 S.F. 200.4 m ²
PROVIDED:		2,588.8 S.F. 240.5 m ²
PARKING:		
REQUIRED:	2.0 / UNIT	134.0 SPACES
	0.2 / UNIT	13.4 VISITORS
TOTAL:		147.4 SPACES
PROVIDED:		134 COVERED
		13 VISITORS
		(INCLUDES 2 SMALL AND 2 H/C CARPARK)
TOTAL:		147 SPACES

UNIT BREAKDOWN

UNIT TYPE A	3 BED TANDEM GARAGE	1,428.0 x 11 UNITS =	15,708.0 S.F.
UNIT TYPE A1	3 BED TANDEM GARAGE	1,458.0 x 4 UNITS =	5,832.0 S.F.
UNIT TYPE B	2 BED GARAGE/CARPARK	1,260.0 x 24 UNITS =	30,240.0 S.F.
UNIT TYPE B1	2 BED GARAGE/CARPARK	1,290.0 x 5 UNITS =	6,450.0 S.F.
UNIT TYPE F	4 BED DOUBLE GARAGE	1,860.0 x 13 UNITS =	24,180.0 S.F.
UNIT TYPE F1	4 BED DOUBLE GARAGE	1,890.0 x 7 UNITS =	13,230.0 S.F.
UNIT TYPE F2	4 BED DOUBLE GARAGE	1,890.0 x 1 UNITS =	1,890.0 S.F.
UNIT TYPE F3	4 BED DOUBLE GARAGE	1,943.0 x 2 UNITS =	3,886.0 S.F.
TOTAL		67 UNITS =	101,416.0 S.F.
			9,421.85 m ²

NOTHING SHALL BE CONSIDERED AS A GUARANTEE OF ACCURACY OR AS A WARRANTY OF FITNESS FOR ANY PARTICULAR PURPOSE. THE USER SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE APPROPRIATE AGENCIES. THE USER SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE APPROPRIATE AGENCIES. THE USER SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE APPROPRIATE AGENCIES.

NO.	DATE	BY	REVISION

DESIGN: DANIEL SHAW
 DRAWN: []
 DATE: MAR 24 14
 SCALE: P. 30'-0"

PROJECT: 111 STA 3 AVE, SURREY, BC
 SHEET CONTENT: CONCEPTUAL SITE PLAN AND DEVELOPMENT DATA

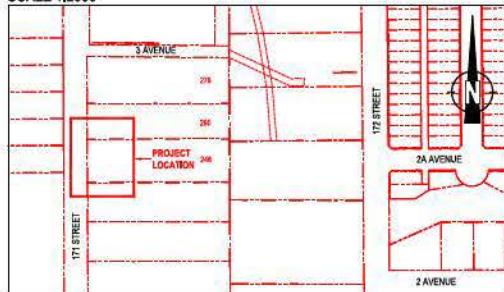
barnett dembek

UNIT 135,
 7538 130 STREET,
 SURREY, B.C.
 V3W 1H8

PHONE: (604) 597-7100
 FAX: (604) 597-2099
 EMAIL: info@barnett-dembek.com

CLIENT NO.	SHEET NO.
601	AC-3
PROJECT NO.	REV. NO.
BO4B	

LOCATION
SCALE 1:2000



PLAN
SCALE 1:200



PLANT SPECIES LIST AND SPECIFICATIONS

SYMBOL	COMMON NAME	LATIN NAME	NUMBER	COMMENTS
	Douglas fir	<i>Pseudotsuga menziesii</i>	5	2.0m BAB; densely branched; well established
	grand fir	<i>Abies grandis</i>	3	2.0m BAB; densely branched; well established
	western redcedar	<i>Thuja plicata</i>	7	2.0m BAB; densely branched; well established
	vine maple	<i>Acer glabrum</i>	23	1.0m container grown (no. 5 prof. densely branched; well established)
	baldy rose	<i>Rosa gymnocarpa</i>	160	no. 2 prof. densely branched; well established
	Hooker's willow	<i>Salix hookeriana</i>	58	no. 2 prof. densely branched; well established
	Indian plum	<i>Omanosea canadensis</i>	68	no. 2 prof. densely branched; well established
	ocean spray	<i>Hebecladon dixonii</i>	71	no. 2 prof. densely branched; well established
	Pacific rhododendron	<i>Rhododendron canadense</i>	40	no. 2 prof. densely branched; well established
	red elderberry	<i>Sambucus racemosa</i>	51	no. 2 prof. densely branched; well established
	red cedar dogwood	<i>Cornus alternifolia</i>	63	no. 2 prof. densely branched; well established
	spicebush	<i>Ligustrum sinense</i>	230	no. 2 prof. medium-diameter; densely branched; well established
	snowberry	<i>Symphoricarpos alba</i>	120	no. 2 prof. densely branched; well established
	solid	<i>Gaultheria shallon</i>	127	no. 1 prof. medium-diameter; well established
	snag	Mix. 15% composition of the following: <i>Taxus heterophylla</i> <i>Pseudotsuga menziesii</i> <i>Populus trichocarpa</i> <i>Acer macrophyllum</i>	7	400mm Ø min. 5.0m min. in length 1/5 below ground; 2/3 above ground
	woody debris		22	3.0m - 5.0m in length; 300mm Ø min.

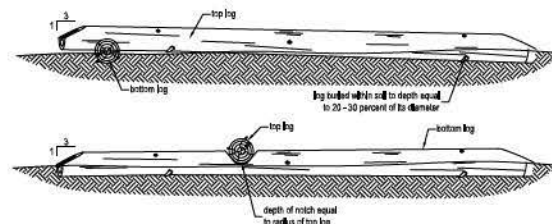
GENERAL LANDSCAPE SPECIFICATIONS

- Plant material and the planting of such material are to be in accordance with the British Columbia Landscape Standard (seventh 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 "Land Development Guidelines for the Protection of Aquatic Habitat" jointly published by BC Ministry of Environment and Fisheries and Oceans Canada.
- All plant material is to be inspected and approved by Envirowest prior to installation.
- Growing medium is to be free of any substrate, roots, noxious grass, weeds, toxic materials, stone over 30 mm diameter, foreign objects, and passes an acidity range (pH) of 5.5 to 7.5. Growing medium is to be inspected by Envirowest prior to placement.
- All blackberry (*Rubus discolor* and *R. lasiocarpus*) is to be cleared and grubbed from project site.
- All debris and/or excess material from landscape operations are to be collected and disposed offsite in accordance with all regulatory requirements.
- All exposed soil is to be seeded with "meadow mix" as per City of Surrey Parks Recreation and Culture Standards Construction Documents.
- All western redcedar (*Thuja plicata*) must be kept in stock any cuttings, such as 7. plicata var. excelsa, are not to be planted.
- The contractor is to provide three (3) years of plant maintenance. Plant maintenance is to include watering, selective pruning and clearing of blackberry. Species survival is to equal one-hundred (100) percent three (3) years from planting. Replacement of dead stock may be required to meet this specification. Replacement stock is also subject to one-hundred (100) percent survival three (3) years from planting.

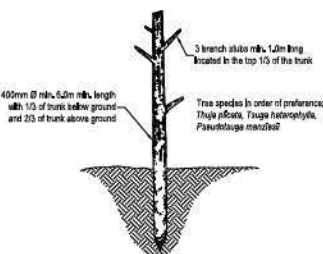
REFERENCE DRAWINGS

- File No. JS13123_PER, "Survey Plan of Riparian Areas and Legal Lot Boundaries of Lot 22 Plan 7418 and Lot "A" and "B" Plan 17785 Section 6 Township 7 New Westminster District", November 26, 2013. Underwater Land Surveying Ltd.
- Email: Douglas Phase 3 - Civil Onsite Servicing CAD (Preliminary).dwg, Received December 05, 2013; Aplin and Martin Consultants Ltd.
- 2011 Legal Base from City of Surrey.

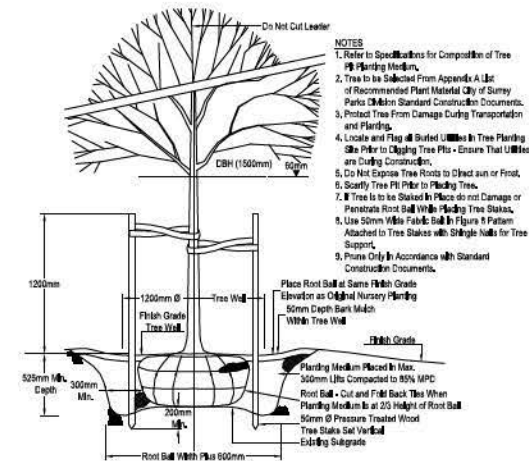
LOG ON LOG DETAIL
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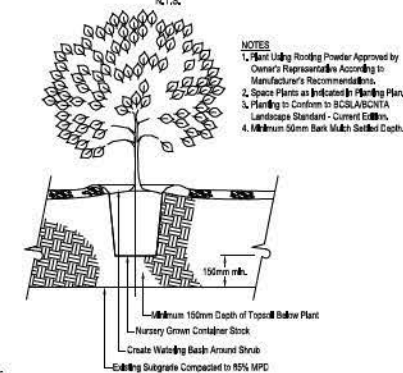
TYPICAL SNAG PLACEMENT DETAIL
N.T.S.



CITY OF SURREY
TREE PLANTING DETAIL
N.T.S.



CITY OF SURREY
SHRUB PLANTING DETAIL
N.T.S.



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LANDSCAPE PLAN
DETAILS AND SPECIFICATIONS

DESIGNED RWS	DRAWN CEV	CHECKED	REVISION 00	REVISION DATE
SCALE As Shown	DRAWING NUMBER		1686-06-02	
DATE December 16, 2013				