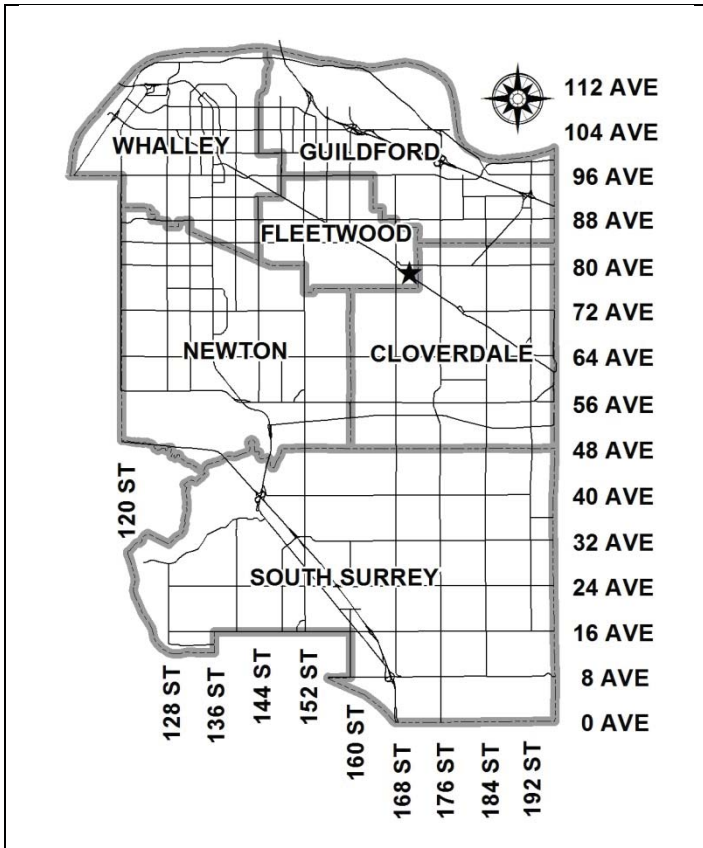


City of Surrey
PLANNING & DEVELOPMENT REPORT

File: 7916-0235-00

Planning Report Date: February 6, 2017



PROPOSAL:

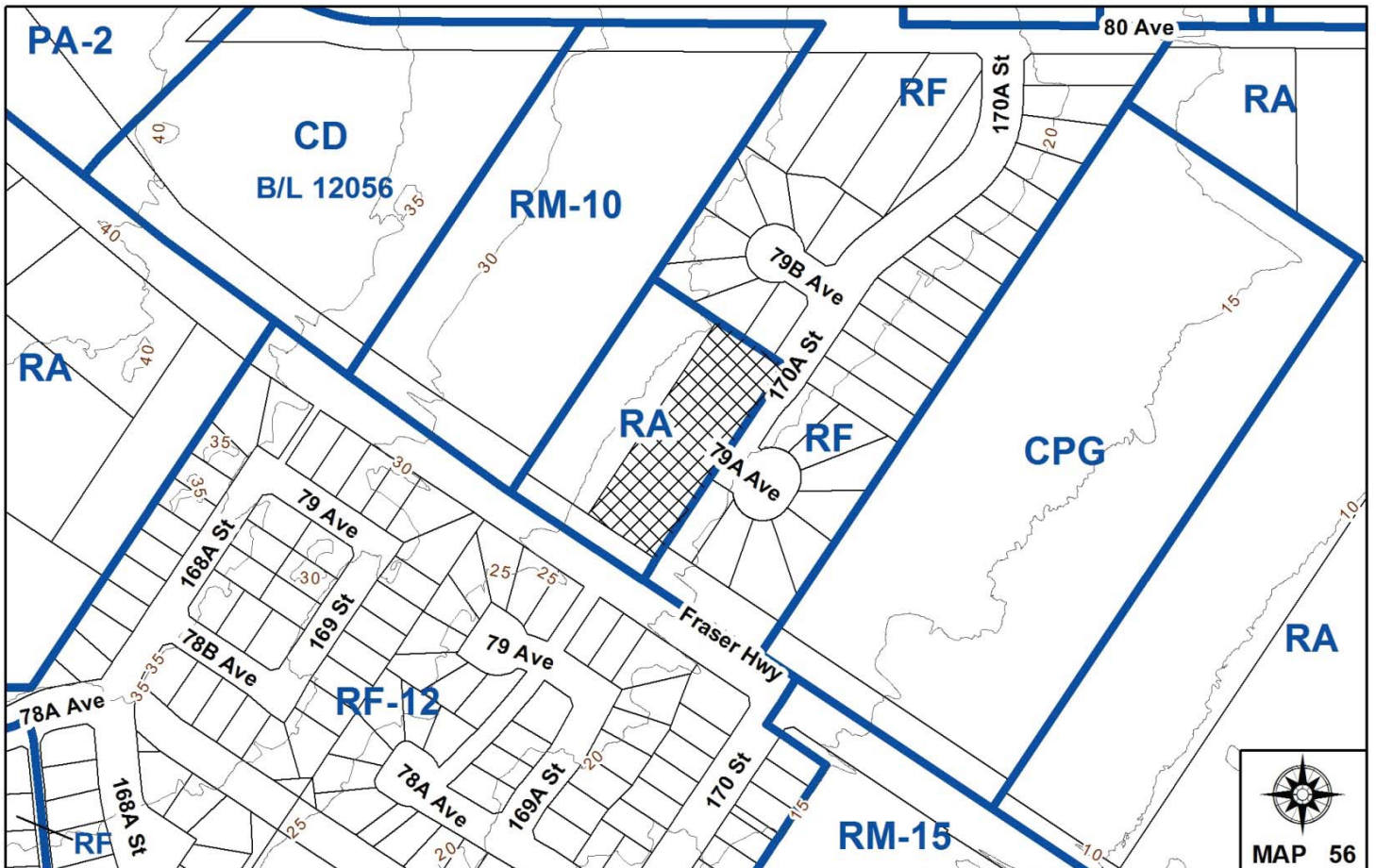
- **Rezoning** from RA to RF to allow subdivision into 4 single family lots.

LOCATION: 16971 - Fraser Highway

OWNER: Simarjit S Pahal

ZONING: RA

OCP DESIGNATION: Urban



MAP 56

RECOMMENDATION SUMMARY

- By-law Introduction and set date for Public Hearing for Rezoning.

DEVIATION FROM PLANS, POLICIES OR REGULATIONS

- None.

RATIONALE OF RECOMMENDATION

- Complies with the Urban designation in the Official Community Plan (OCP).
- The proposed density and building form are appropriate for this part of Fleetwood.
- The proposal is consistent with the pattern of development established to the east and north (Development Application Nos. 7903-0225-00 and 7905-0404-00).
- The proposed development will provide a pedestrian walkway to Fraser Highway, a frequent transit corridor which is planned to accommodate future light rail transit.

RECOMMENDATION

The Planning & Development Department recommends that:

1. a By-law be introduced to rezone the subject site from "One-Acre Residential Zone (RA)" to "Single Family Residential Zone (RF)" and a date be set for Public Hearing.
2. 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) submission of a finalized tree survey and a statement regarding tree preservation to the satisfaction of the City Landscape Architect;
 - (d) submission of a finalized landscape plan and cost estimate for the landscape buffer along the south lot line of proposed Lots 3 and 4 to the satisfaction of the City Landscape Architect;
 - (e) the applicant address the concern that the development will place additional pressure on existing park facilities to the satisfaction of the General Manager, Parks, Recreation and Culture;
 - (f) demolition of existing buildings and structures to the satisfaction of the Planning and Development Department;
 - (g) submission of an acoustical report for the units adjacent to Fraser Highway and registration of a Section 219 Covenant to ensure implementation of noise mitigation measures;
 - (h) registration of a Section 219 Covenant to ensure the installation and maintenance of the 3-metre (10-ft.) wide landscape buffer at the rear of proposed Lots 3 and 4; and
 - (i) the applicant satisfy the deficiency in tree replacement on the site, to the satisfaction of the Planning and Development Department.

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:**

1 Elementary student at Coast Meridian Elementary School
1 Secondary student at North Surrey Secondary School

(Appendix IV)

The applicant has advised that the dwelling units in this project are expected to be constructed and ready for occupancy by March 2018.

Parks, Recreation & Culture: Parks have some concerns about the pressure this project will place on existing Parks, Recreation and Culture facilities in the neighbourhood. The applicant will be required to address these concerns prior to consideration of final adoption of the rezoning by-law.

SITE CHARACTERISTICS

Existing Land Use: Residential acreage parcel with existing house, to be demolished.

Adjacent Area:

| Direction | Existing Use | OCP Designation | Existing Zone |
|--------------------------------|---|-----------------|---------------|
| North: | Single family dwellings. | Urban | RF |
| East (Across 170A Street): | Single family dwellings. | Urban | RF |
| South (Across Fraser Highway): | Single family dwellings on small lots. | Urban | RF-12 |
| West: | Single family dwelling on acreage parcel. | Urban | RA |

DEVELOPMENT CONSIDERATIONS

Background

- The subject site is 0.43 hectare (1 acre) in size and is located on Fraser Highway at 170A Street in Fleetwood.
- The subject site is designated Urban under the Official Community Plan (OCP) and is zoned "One-Acre Residential Zone (RA)".
- The adjacent lands to the east and north were rezoned to "Single Family Residential Zone (RF)" as part of Development Application Nos. 7903-0225-00 and 7905-0404-00, respectively.
- There is an existing 6.0-metre (20-ft.) wide sanitary trunk main right-of-way which runs along the southeast property line.

Current Application

- The subject proposal is to rezone the site from "One-Acre Residential Zone (RA)" to "Single Family Residential Zone (RF)", in order to allow subdivision into four (4) single family lots.
- The proposed lots will front onto a new 79A Avenue cul-de-sac and meet the area and dimensional requirements of the RF Zone.
- The proposed lots range in area from 564 square metres (6,071 sq. ft.) to 683 square metres (7,352 sq. ft.), in depth from 35.2 metres (115 ft.) to 40.8 metres (134 ft.), and in width from 15.87 metres (52 ft.) to 17.37 metres (57 ft.).
- The applicant has provided a concept for future development of the adjacent property to the west to complete the 79A Avenue cul-de-sac (Appendix II).

Private Landscape Buffer

- Proposed Lots 3 and 4 back onto Fraser Highway, as per the lot orientation established to the east. Similarly, the applicant will provide a 3.0-metre (10-ft.) wide landscape buffer along Fraser Highway (Appendix VII).
- The intent of the landscape buffer on private property is to mitigate the potential noise and visual impacts of Fraser Highway and the future proposed light rail transit. The landscape buffer will be installed prior to the issuance of building permits on these lots and will be comprised of coniferous and deciduous trees and native vegetation. A corresponding Section 219 Restrictive Covenant is to be registered on proposed Lots 3 and 4 to secure installation and maintenance of these buffers. See Trees Section for details regarding the proposed landscape buffer.
- The applicant will also be required to submit an acoustical report and building recommendations outlined in that report will be secured by way of a restrictive covenant registered on title.

Road Construction Requirements

- The applicant will be required to construct the remaining portion of 170A Street to the Limited Local Road standard.
- The applicant proposes to provide access to all proposed lots via a new cul-de-sac (79A Avenue). The applicant will be required to dedicate and construct 79A Avenue and a portion of the cul-de-sac fronting the site to the Limited Local Road standard. The remainder of the cul-de-sac will be delivered when the neighbouring property to the west redevelops.
- The applicant will also be required to dedicate and construct a 4.0-metre (13-ft.) walkway over the existing sanitary main right-of-way along the southeast lot line, which will provide a pedestrian connection to Fraser Highway.

Neighbourhood Character Study and Building Scheme

- The applicant for the subject site has retained Mike Tynan of Tynan Consulting Ltd. as the Design Consultant. The Design Consultant conducted a character study of the surrounding homes and based on the findings of the study, which suggest that the existing housing stock in the area, which reflects design standards from the early 2000's, does not provide suitable architectural context in terms of massing design, construction materials, and trim and detailing standards. The Design Consultant has therefore proposed a set of building design guidelines that recommend an updated (post-2015) design standard (Appendix V).

Proposed Lot Grading

- Preliminary lot grading plans were prepared by H.Y. Engineering Ltd. The plans have been reviewed by staff and are acceptable.
- Basements are proposed for all lots. Final confirmation on whether in-ground basements are achievable will be determined once final Engineering drawings have been reviewed and accepted by the City's Engineering Department.

PRE-NOTIFICATION

Pre-notification letters were sent out on November 9, 2016 to a total of 157 addresses and the development sign was installed on October 25, 2016. Staff received one email from a resident who requested to see the proposed layout but had no concerns.

TREES

- Glenn Murray, ISA Certified Arborist of Froggers Creek Tree Consultants 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 |
|--|-----------|------------|-----------|
| Deciduous Trees | | | |
| Willow | 1 | 1 | 0 |
| Coniferous Trees | | | |
| Douglas Fir | 13 | 5 | 8 |
| Western Redcedar | 4 | 2 | 2 |
| Deodar Cedar | 2 | 2 | 0 |
| Blue Atlas Cedar | 1 | 1 | 0 |
| Total | 21 | 11 | 10 |
| Total Replacement Trees Proposed (excluding Boulevard Street Trees) | | 11 | |
| Total Retained and Replacement Trees | | 21 | |
| Contribution to the Green City Fund | | N/A | |

- The Arborist Assessment states that there are a total of 21 mature trees on the site. There are no Alder or Cottonwood trees on the site. It was determined that 10 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.
- Approximately 26 additional trees are proposed to be planted within the landscape buffer on private property at the southwest end of the subject site (located at the rear of proposed Lots 3 and 4). The project landscape architect is proposing a double row of trees be planted along the rear fence line, primarily low maintenance indigenous species including Compact Norway Maple and Western Red Cedar.
- For those trees that cannot be retained, the applicant will be required to plant trees on a 2 to 1 replacement ratio. This will require a total of twenty-two (22) replacement trees on the site. The applicant is proposing eleven (11) replacement trees, plus the proposed twenty-six (26) trees in the landscape buffer, for a total of thirty-seven (37) replacement trees, meeting City requirements.
- In addition to the replacement trees, boulevard street trees will be planted on 170A Street and 79A Avenue. This will be determined by the Engineering Department during the servicing design review process.
- In summary, a total of forty-seven (47) trees are proposed to be retained or replaced on the site.

SUSTAINABLE DEVELOPMENT CHECKLIST

The applicant prepared and submitted a sustainable development checklist for the subject site on May 16, 2016. 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 along Fraser Highway, within 400 metres of the edge of Fleetwood Town Centre. |
| 2. Density & Diversity (B1-B7) | <ul style="list-style-type: none"> • N/A |
| 3. Ecology & Stewardship (C1-C4) | <ul style="list-style-type: none"> • The development incorporates Low Impact Development Standards. • Some existing trees are proposed for retention. |
| 4. Sustainable Transport & Mobility (D1-D2) | <ul style="list-style-type: none"> • The development is adjacent to Fraser Highway which is a future light rail transit corridor. |
| 5. Accessibility & Safety (E1-E3) | <ul style="list-style-type: none"> • The development incorporates CPTED principles, such as providing "eyes on the street". |
| 6. Green Certification (F1) | <ul style="list-style-type: none"> • N/A |
| 7. Education & Awareness (G1-G4) | <ul style="list-style-type: none"> • N/A |

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. | Proposed Subdivision Layout |
| Appendix III. | Engineering Summary |
| Appendix IV. | School District Comments |
| Appendix V. | Building Design Guidelines Summary |
| Appendix VI. | Summary of Tree Survey and Tree Preservation |
| Appendix VII. | Proposed Landscape Buffer Plan |

original signed by Judith Robertson

Jean Lamontagne
General Manager
Planning and Development

Information for City Clerk

Legal Description and Owners of all lots that form part of the application:

1. (a) Agent: Name: Theresa Rawle
 H.Y. Engineering Ltd.
 Address: 9128 - 152 Street, Unit 200
 Surrey, BC V3R 4E7

2. Properties involved in the Application
 - (a) Civic Address: 16971 - Fraser Highway

 - (b) Civic Address: 16971 - Fraser Highway
 Owner: Simarjit S Pahal
 PID: 010-006-907
 Lot 4 Section 19 Township 8 New Westminster District Plan 14789

3. Summary of Actions for City Clerk's Office
 - (a) Introduce a By-law to rezone the site.

SUBDIVISION DATA SHEET

Proposed Zoning: RF

| Requires Project Data | Proposed |
|--|------------------------------|
| GROSS SITE AREA | |
| Acres | 1.059 acres |
| Hectares | 0.429 hectares |
| NUMBER OF LOTS | |
| Existing | 1 |
| Proposed | 4 |
| SIZE OF LOTS | |
| Range of lot widths (metres) | 15.87 – 17.37 m |
| Range of lot areas (square metres) | 564 – 683 m ² |
| DENSITY | |
| Lots/Hectare & Lots/Acre (Gross) | 9.32 lots/ha & 3.77 lots/ac |
| Lots/Hectare & Lots/Acre (Net) | 16.10 lots/ha & 6.51 lots/ac |
| SITE COVERAGE (in % of gross site area) | |
| Maximum Coverage of Principal & Accessory Building | 22% |
| Estimated Road, Lane & Driveway Coverage | 46% |
| Total Site Coverage | 68% |
| PARKLAND | |
| Area (square metres) | N/A |
| % of Gross Site | N/A |
| Required | |
| PARKLAND | |
| 5% money in lieu | YES |
| TREE SURVEY/ASSESSMENT | |
| | YES |
| MODEL BUILDING SCHEME | |
| | YES |
| HERITAGE SITE Retention | |
| | NO |
| FRASER HEALTH Approval | |
| | NO |
| DEV. VARIANCE PERMIT required | |
| Road Length/Standards | NO |
| Works and Services | NO |
| Building Retention | NO |
| Others | NO |



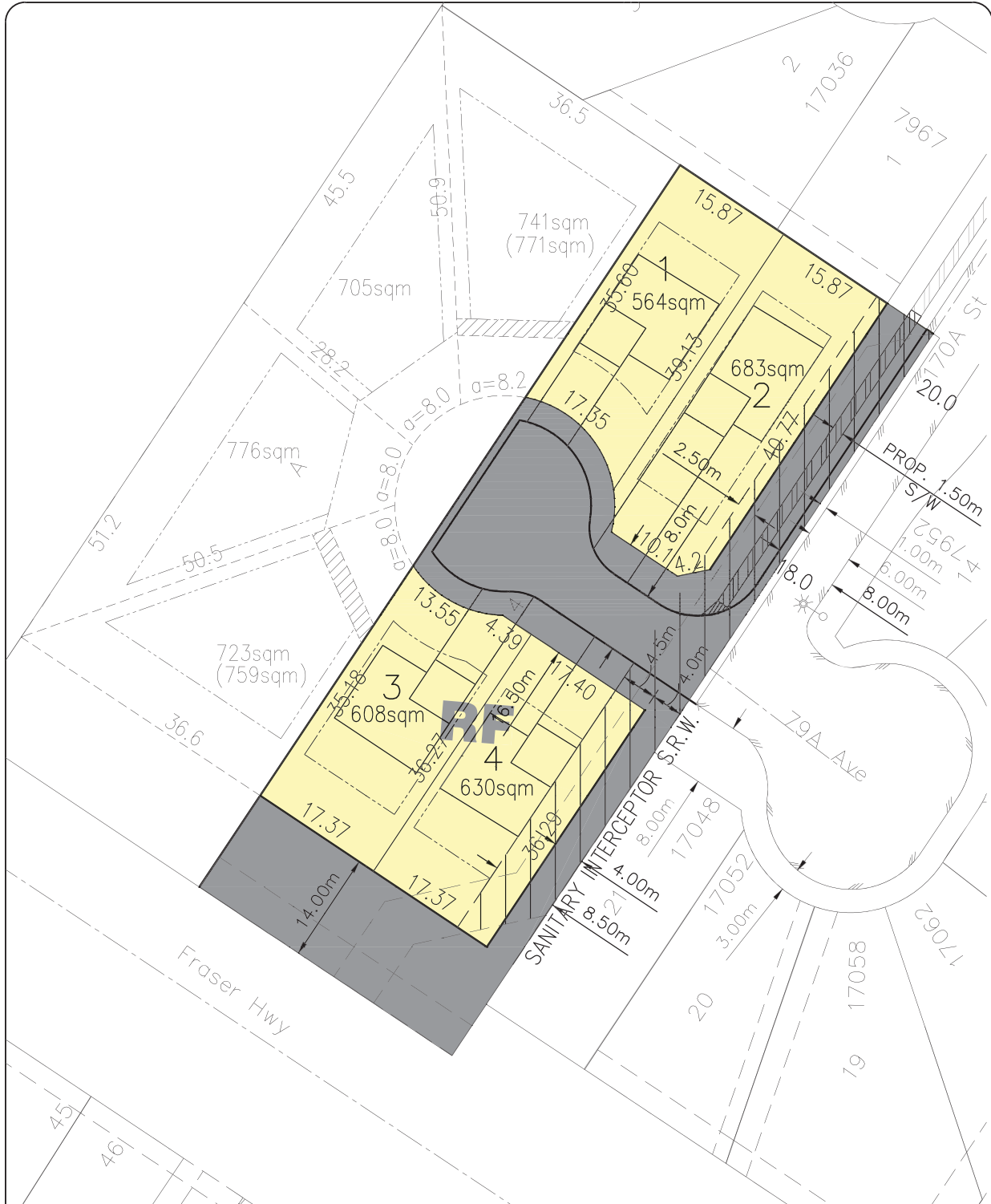
Planning & Development Department
 13450 - 104th Avenue, Surrey
 British Columbia, Canada V3T 1V8
 Tel. (604) 591-4441 Fax. (604) 591-2507

PROPOSED SUBDIVISION LAYOUT

File No: _____
 MAP #: _____
 EXIST. ZONE: RA
 PROP. ZONE: RF



CIVIC ADDRESS: 16971 FRASER HIGHWAY, SURREY, BC V4N 0E6
 LEGAL: LOT 4, SECTION 19, TOWNSHIP 8, N.W.D., PLAN 14789



HY. ENGINEERING LTD.

GROSS SITE AREA: 4285.93m²
 PARK DEDICATION: 214.30m² CASH-IN-LIEU

• #200-9128-152nd. St. Surrey, BC V3R 4E7 • TEL 604-583-1616
 • Website: www.hyengineering.com • FAX 604-583-1737

NOTE: ALL EXISTING ONSITE STRUCTURES ARE TO BE REMOVED UNLESS NOTED OTHERWISE

H.Y.#: 143967 | ALTERNATIVE# 03 | DATE: 29 SEPT/16 | SCALE: 1:500

Please dimension lot frontages & areas, name existing roads and indicate north
 Preferred scales: 1:500, 1:1000, 1:2500, 1:10,000 Metric
 Larger format drawings may be attached as required

H.Y. DWG. No. E:\PROJECTS\143967\PLANNING\ALT03.DWG

INTER-OFFICE MEMO

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

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

DATE: **January 31, 2017** PROJECT FILE: **7816-0235-00**

RE: **Engineering Requirements
Location: 16971 Fraser Highway**

REZONE/SUBDIVISION***Property and Right-of-Way Requirements***

- Dedicate approximately 14.0 m along Fraser Highway toward 36.5 m Arterial Road allowance from the existing south curb.
- Dedicate approximately 7.0 m along 170A Street toward Limited Local Road allowance.
- Dedicate 16.5 m along 79A Avenue toward Limited Local Road allowance.
- Dedicate to complete 14.0 m radius cul-de-sac bulb along 79A Avenue.
- Dedicate 4.0 m walkway allowance over portion of existing sanitary SRW to Fraser Hwy.
- Dedicate 3.0 m x 3.0 m corner cut at 79A Avenue and 170A Street.
- Register 0.5 m SRW for inspection chambers and sidewalk maintenance along Fraser Highway.

Works and Services

- Construct 170A Street and 79A Avenue to Limited Local Road standard, including 11.0 m radius pavement cul-de-sac.
- Construct 4.0 m walkway from 79A Avenue to Fraser Highway.
- Construct sanitary, drainage, and water facilities along 79A Avenue to service proposed lots.
- Provide on-site stormwater mitigation features in accordance with the Fleetwood – Greenway – North Creek ISMP.
- Construct water, storm, and sanitary service connections to service the development.
- Abandon existing service connections no longer required to the proposed lot.

A Servicing Agreement is required prior to rezoning and subdivision.



Rémi Dubé, P.Eng.
Development Services Manager

P206358



Thursday, December 01, 2016
Planning

THE IMPACT ON SCHOOLS

APPLICATION #: 16 0235 00

SUMMARY

The proposed 4 single family lots are estimated to have the following impact on the following schools:

Projected # of students for this development:

| | |
|----------------------|---|
| Elementary Students: | 1 |
| Secondary Students: | 1 |

September 2016 Enrolment/School Capacity

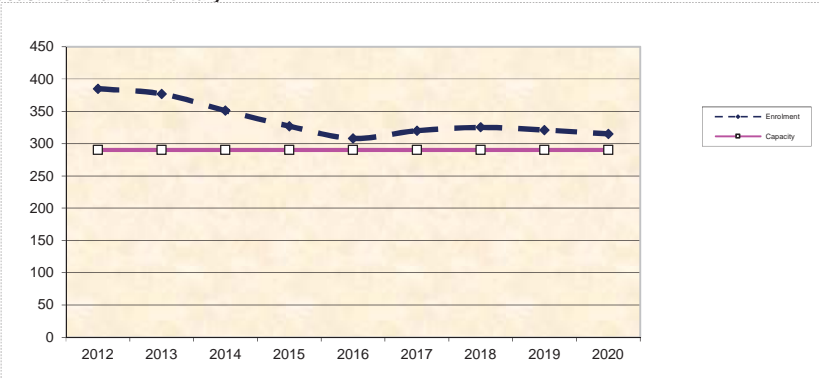
| | |
|----------------------------------|------------|
| Coast Meridian Elementary | |
| Enrolment (K/1-7): | 24 K + 284 |
| Capacity (K/1-7): | 40 K + 250 |
| North Surrey Secondary | |
| Enrolment (8-12): | 1348 |
| Nominal Capacity (8-12): | 1175 |
| Functional Capacity*(8-12): | 1269 |

School Enrolment Projections and Planning Update:

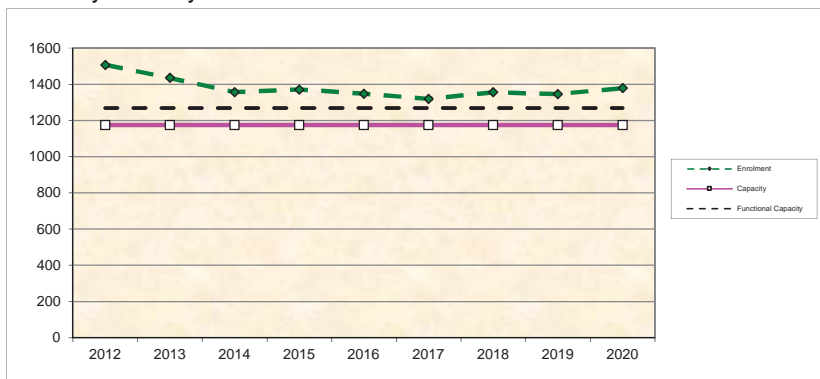
The following tables illustrate the enrolment projections (with current/approved ministry capacity) for the elementary and secondary schools serving the proposed development.

In the district's 5-Year Capital Plan there is a request for an addition to North Surrey Secondary and no capital project requests for Coast Meridian Elementary.

Coast Meridian Elementary



North Surrey 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.

BUILDING GUIDELINES SUMMARY

Surrey Project no: 7916-0235-00
 Project Location: 16971 Fraser Highway, Surrey, B.C.
 Design Consultant: Tynan Consulting Ltd., (Michael E. Tynan)

The draft Building Scheme proposed for this Project has been filed with the City Clerk. The following is a summary of the Residential Character Study and the Design Guidelines which highlight the important features and form the basis of the draft Building Scheme.

1. Residential Character

1.1 General Description of the Existing and/or Emerging Residential Character of the Subject Site:

The subject site is located within a new growth area characterized by 10 - 15 year old modern urban homes situated on 15 metre wide RF zone lots. Most homes have an 8:12 main common gable or common hip roof with several street facing common gable projections; some articulated with feature materials, and some not. Roofs are surfaced in either shake profile concrete tiles or asphalt shingles. Massing designs are mid-scale, typically featuring a 1 ½ storey front entrance portico, double garage, with upper floors set back in accordance with RF zone requirements. Homes are clad in stucco or horizontal Hardiplank siding, and most homes have a stone accent. Driveways are exposed aggregate or interlocking masonry pavers. Landscapes are "average modern urban", featuring 8 - 20 shrubs.

1.2 Features of Surrounding Dwellings Significant to the Proposed Building Scheme:

- 1) **Context Homes:** There are a few homes in this area that could be considered to provide acceptable architectural context. However, massing design, construction materials, and trim and detailing standards for new homes constructed in RF zone subdivisions now exceed standards evident on the context homes. The recommendation therefore is to adopt standards commonly found in post year 2015 RF zoned subdivisions, rather than to specifically emulate any of the aforesaid context homes.
- 2) **Style Character :** Existing surrounding homes are "Neo-Traditional" style, typical of those found in modern urban developments in Surrey in the early 2000's. Styles recommended for this site include "Neo-Traditional" and "Neo-Heritage" and other styles determined to be compatible by the consultant. Note that style range is not restricted in the building scheme. However, the consultant refers to the character study when reviewing plans for meeting style-character intent.
- 3) **Home Types :** All surrounding homes are Two-Storey type, and it is expected that all new homes constructed at the subject site will be Two-Storey type. However, home type (Two-Storey, Bungalow, Basement Entry, Split Level, etc..) will not be regulated in the building scheme.

- 4) **Massing Designs** : Massing designs should meet new standards for RF zoned subdivisions. New homes should exhibit "mid-scale" massing. Various elements and projections on the front of the home should be interesting architecturally, and should be in pleasing natural proportions to one another. These elements and projections should be located so as to create balance across the façade.
- 5) **Front Entrance Design** : Front entrance porticos range from one to 1 ½ storeys in height. The recommendation is to limit the range of entrance portico heights to between one storey and 1 ½ storeys to ensure there is not proportional overstatement of this one element.
- 6) **Exterior Wall Cladding** : A wide range of cladding materials have been used in this area, including stucco, vinyl, cedar, fibre cement board, brick, and stone. Reasonable flexibility should therefore be permitted, including the use of vinyl siding, provided the overall quality of wall cladding materials meets or exceeds common standards for post 2015 RF zone developments. The recommendation for this site is that vinyl be permitted, but not cover more than 25% of the front wall face.
- 7) **Roof surface** : Roof surfacing materials used in this area include shake profile concrete roof tiles and asphalt shingles. The roof surface is not a uniquely recognizable characteristic of this area and so some flexibility in roof surface materials is warranted. The recommendation is to permit cedar shingles, shake profile concrete roof tiles, shake profile asphalt shingles with a raised ridge cap, and new environmentally sustainable roof products that have a strong shake profile.
- 8) **Roof Slope** : The recommendation is to set the minimum roof slope at 7:12. Steeper slopes will be encouraged, especially on street facing roof projections. However, a relatively low 7:12 slope may be required to meet maximum height as specified in the RF bylaw. A provision is also recommended to allow slopes less than 7:12 where it is determined by the consultant that the design is of such high architectural integrity that the roof slope reduction can be justified, or that lower slopes are needed on feature projections or at the front entrance veranda to ensure adequate depth upper floor windows can be installed without interference with the roof structure below.

Streetscape: Surrounding homes are 10 - 15 year "Neo-Traditional" Two-Storey type homes situated on 15 metre wide RF zone lots. Most homes have an 8:12 main common gable or common hip roof with several street facing common gable projections; some articulated with feature materials, and some not. Roofs are surfaced in either shake profile concrete tiles or asphalt shingles. Massing designs are mid-scale, typically featuring a 1 ½ storey front entrance portico, double garage, with upper floors set back in accordance with RF zone requirements. Homes are clad in stucco or horizontal Hardiplank siding, and most homes have a stone accent. Driveways are exposed aggregate or interlocking masonry pavers. Landscapes are "average modern urban", featuring 8 - 20 shrubs.

2. Proposed Design Guidelines

2.1 Specific Residential Character and Design Elements these Guidelines Attempt to Preserve and/or Create:

- the new homes are readily identifiable as one of the following styles: "Traditional", "Heritage", "Neo-Traditional", "Neo-Heritage", or compatible styles as determined by the design *consultant*. Note that the proposed style range is not contained within the building scheme, but is contained within the residential character study which forms the basis for interpreting building scheme regulations.
- a new single family dwelling *constructed* on any *lot* meets year 2015's design standards, which include the proportionally correct allotment of mass between various street facing elements, the overall balanced distribution of mass within the front facade, readily recognizable style-authentic design, and a high trim and detailing standard used specifically to reinforce the style objectives stated above.
- trim elements will include several of the following: furred out wood posts, articulated wood post bases, wood braces and brackets, louvered wood vents, bold wood window and door trim, highly detailed gable ends, wood dentil details, stone or brick feature accents, covered entrance verandas and other style-specific elements, all used to reinforce the style (i.e. not just decorative).
- the development is internally consistent in theme, representation, and character.
- the entrance element will be limited in height (relative dominance) to 1 to 1 ½ storeys.

2.2 Proposed Design Solutions:

Interfacing Treatment with existing dwellings)

There are homes in this area that could be considered to provide acceptable architectural context. However, massing design, construction materials, and trim and detailing standards for new homes constructed in most new (post year 2015) RF zone subdivisions now exceed standards evident on the context homes. The recommendation therefore is to adopt standards commonly found in post year 2015 RF zoned subdivisions, rather than to specifically emulate the aforesaid two context homes.

Exterior Materials/Colours:

Stucco, Cedar, Vinyl (max 25% on front of home), Fibre-Cement Board, Brick, and Stone.

"Natural" colours such as browns, greens, clays, and other earth-tones, and "Neutral" colours such as grey, white, and cream are permitted. "Primary" colours in subdued tones such as navy blue, colonial red, or forest green can be considered providing neutral trim colours are used, and a comprehensive colour scheme is approved by the consultant. "Warm" colours such as pink, rose, peach, salmon are not permitted. Trim colours: Shade variation of main colour, complementary, neutral, or subdued contrast only.

Roof Pitch:

Minimum 7:12, with exceptions to prevent roof ridges from becoming too high (overshadowing of neighbouring lots), to allow for veranda roofs that do not cover upper floor windows, to allow for artistic expression in feature roofs, and to provide a path for exceptional designs with lower slope roofs to be approved subject to consultant approval.

Roof Materials/Colours: Cedar shingles, shake profile concrete roof tiles, shake profile asphalt shingles with a raised ridge cap, and new environmentally sustainable roofing products should be permitted, providing that the aesthetic properties of the new materials are equal to or better than that of the traditional roofing products. Greys, black, or browns only. Membrane roofs permitted where required by B.C. Building Code.

In-ground basements: In-ground basements are subject to determination that service invert locations are sufficiently below grade to permit a minimum 50 percent in-ground basement to be achieved. If achievable, basements will appear underground from the front.

Treatment of Corner Lots: Significant, readily identifiable architectural features are provided on both the front and flanking street sides of the dwelling, resulting in a home that architecturally addresses both streets. One-storey elements on the new home shall comprise a minimum of 40 percent of the width of the front and flanking street elevations of the single family dwelling. The upper floor is set back a minimum of 0.9 metres [3'- 0"] from the one-storey elements.

Landscaping: *Moderate modern urban standard:* Tree planting as specified on Tree Replacement Plan plus minimum 20 shrubs of a minimum 3 gallon pot size. Corner lots shall have an additional 10 shrubs of a minimum 3 gallon pot size, planted in the flanking street sideyard. Sod from street to face of home. Driveways: exposed aggregate, interlocking masonry pavers, stamped concrete, or coloured concrete in dark earth tones or medium to dark grey only.

Compliance Deposit: \$5,000.00

Summary prepared and submitted by: Tynan Consulting Ltd. **Date:** December 9, 2016

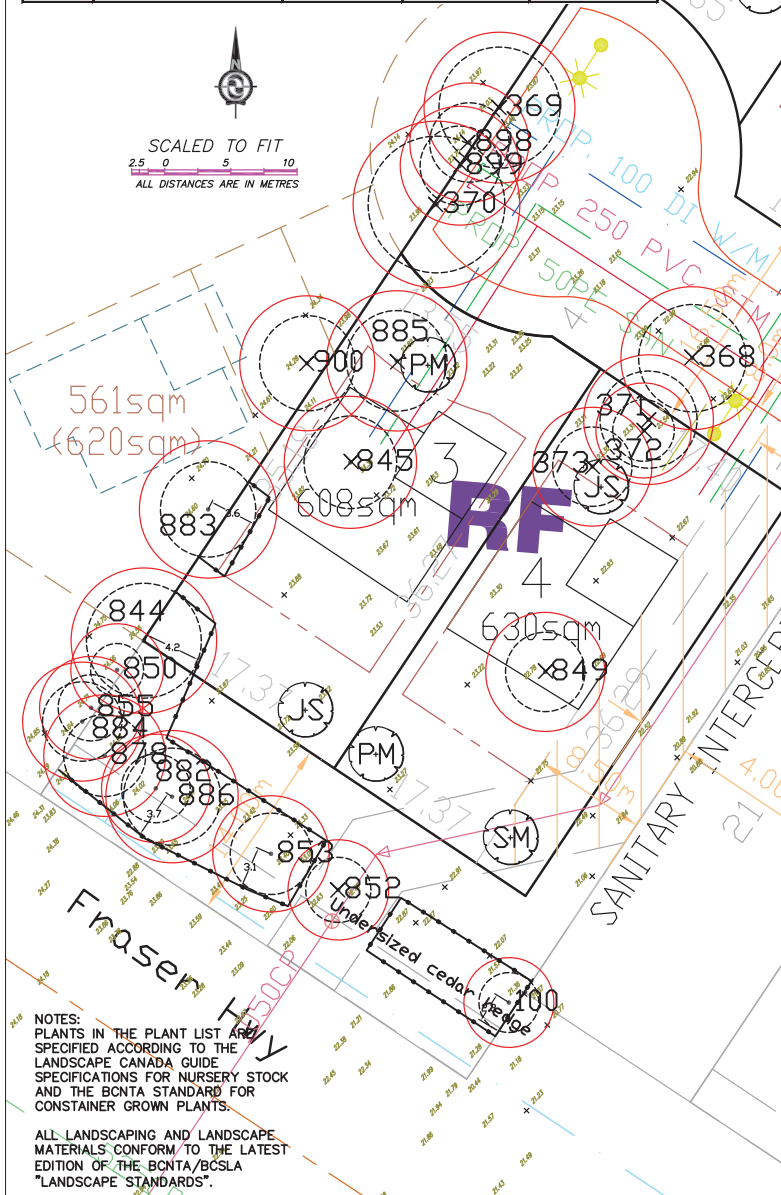
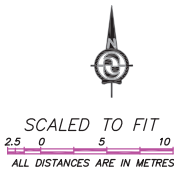
Reviewed and Approved by:  **Date:** December 9, 2016

APPENDIX 3
TREE PROTECTION PLAN

TREE PROTECTION FENCING

Minimum Radial Distance from trunk

| # | Type | DBH | Metres | Feet |
|-----|-------------|------|--------|--------|
| 100 | Redcedar | 32cm | 1.9m | 6.3ft |
| 844 | Douglas Fir | 67cm | 4.0m | 13.2ft |
| 844 | Douglas Fir | 67cm | 4.0m | 13.2ft |
| 850 | Douglas Fir | 34cm | 2.0m | 6.7ft |
| 853 | Redcedar | 48cm | 2.9m | 9.4ft |
| 855 | Douglas Fir | 40cm | 2.4m | 7.9ft |
| 878 | Douglas Fir | 52cm | 3.1m | 10.2ft |
| 882 | Douglas Fir | 43cm | 2.6m | 8.5ft |
| 883 | Douglas Fir | 55cm | 3.3m | 10.8ft |
| 884 | Douglas Fir | 50cm | 3.0m | 9.8ft |
| 886 | Douglas Fir | 58cm | 3.5m | 11.4ft |



NOTES:
PLANTS IN THE PLANT LIST ARE SPECIFIED ACCORDING TO THE LANDSCAPE CANADA GUIDE SPECIFICATIONS FOR NURSERY STOCK AND THE BCNTA STANDARD FOR CONTAINER GROWN PLANTS.

ALL LANDSCAPING AND LANDSCAPE MATERIALS CONFORM TO THE LATEST EDITION OF THE BCNTA/BCSLA "LANDSCAPE STANDARDS".

TREE INVENTORY

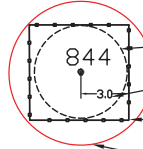
| # | Type | Action | DBH | MPZ | NBZ |
|-----|-------------|--------|----------|------|------|
| 100 | Redcedar | Retain | 32cm | 1.9m | 3.4m |
| 366 | Douglas Fir | Remove | 53cm | 3.2m | 4.7m |
| 367 | Redcedar | Remove | 50/35/25 | 4.0m | 5.5m |
| 368 | Douglas Fir | Remove | 65cm | 3.9m | 5.4m |
| 369 | Poplar | Remove | 70cm | 4.2m | 5.7m |
| 370 | Poplar | Remove | 80cm | 4.8m | 6.3m |
| 371 | D. Cedar | Remove | 57cm | 3.4m | 4.9m |
| 372 | D. Cedar | Remove | 35cm | 2.1m | 3.6m |
| 373 | Atlas Cedar | Remove | 45cm | 2.7m | 4.2m |
| 844 | Douglas Fir | Retain | 67cm | 4.0m | 5.5m |
| 844 | Douglas Fir | Retain | 67cm | 4.0m | 5.5m |
| 845 | Douglas Fir | Remove | 58cm | 3.5m | 5.0m |
| 849 | Willow | Remove | 40/35/25 | 3.0m | 4.5m |
| 850 | Douglas Fir | Retain | 34cm | 2.0m | 3.5m |
| 851 | Douglas Fir | Remove | 50cm | 3.0m | 4.5m |
| 852 | Redcedar | Remove | 38cm | 2.3m | 3.8m |
| 853 | Redcedar | Retain | 48cm | 2.9m | 4.4m |
| 855 | Douglas Fir | Retain | 40cm | 2.4m | 3.9m |
| 878 | Douglas Fir | Retain | 52cm | 3.1m | 4.6m |
| 882 | Douglas Fir | Retain | 43cm | 2.6m | 4.1m |
| 883 | Douglas Fir | Retain | 55cm | 3.3m | 4.8m |
| 884 | Douglas Fir | Retain | 50cm | 3.0m | 4.5m |
| 885 | Douglas Fir | Remove | 64cm | 3.8m | 5.3m |
| 886 | Douglas Fir | Retain | 58cm | 3.5m | 5.0m |
| 898 | Poplar | Remove | 50cm | 3.0m | 4.5m |
| 899 | Poplar | Remove | 50cm | 3.0m | 4.5m |
| 900 | Douglas Fir | Remove | 60cm | 3.6m | 5.1m |

DBH-trunk diameter, MPZ-protection zone, NBZ-no build zone

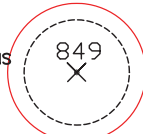
LEGEND

TREE PROPOSED FOR RETENTION

TREE PROPOSED FOR REMOVAL



PROTECTION ZONE (MPZ)
FENCING DIMENSIONS IN METRES
PROTECTION FENCING
NO FOUNDATION ZONE (NFZ)



| REPLACEMENT TREES | | |
|-------------------|-----------------|--------|
| QTY | Type | Size |
| 4 | Stewartia | 6cm JS |
| 4 | Paperbark Maple | 6cm PM |
| 3 | Saucer Magnolia | 6cm SM |

NOTES:
1. SITE LAYOUT INFORMATION AND TREE SURVEY DATA PER SUPPLIED DRAWING

2. REFER TO ATTACHED TREE PROTECTION REPORT FOR INFORMATION CONCERNING TREE SPECIES, STEM DIAMETER, HEIGHT, CANOPY SPREAD AND CONDITION.

3. ALL MEASUREMENTS ARE METRIC

Froggers Creek
Tree Consultants Ltd

7763 McGregor Avenue Burnaby BC V5J 4H4
Telephone: 604-721-6002 Fax: 604-437-0970

16971 Fraser Hwy Surrey

TREE PROTECTION DRAWING
THE DRAWING PLOTS ALL TREES, PROPOSED FOR RETENTION, REMOVAL, THEIR PROTECTION ZONES AND PROTECTION FENCING IN RELATION TO PROPOSED LAYOUT

October 19, 2016

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pmg
LANDSCAPE
ARCHITECTS

Suite C100 - 4185 Still Creek Drive
Burnaby, British Columbia, V5C 6G9
p. 604-294-0011 - f. 604-294-0022

SEAL:

| NO. | DATE | REVISION DESCRIPTION | DR. |
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1. STATION NO. FENCE LOCATION

NO. DATE REVISION DESCRIPTION DR.

CLIENT:

PROJECT:

BUFFER PLANTING

16971 FRASER HIGHWAY,
SURREY, BC

DRAWING TITLE:

**LANDSCAPE
PLAN**

DATE: 16.DEC.07 DRAWING NO.

SCALE:

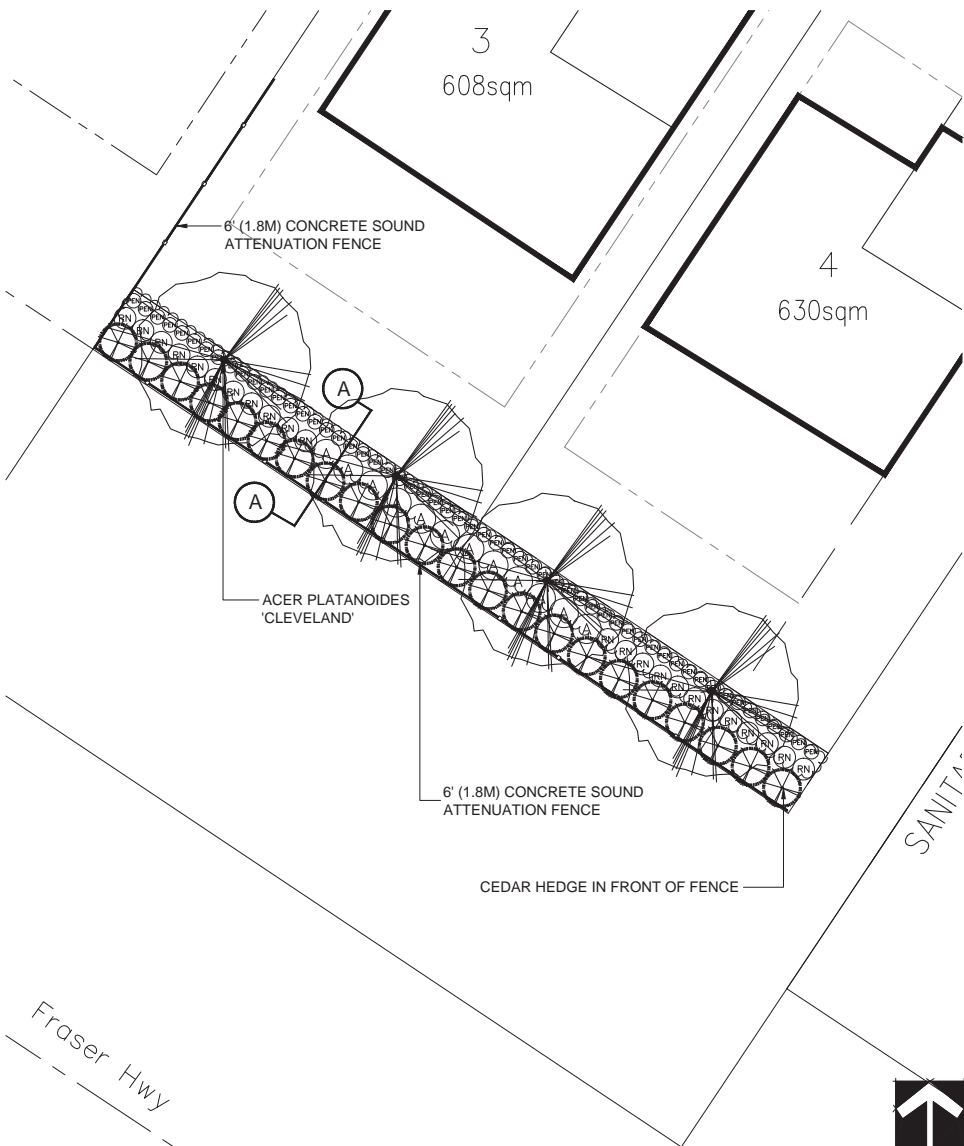
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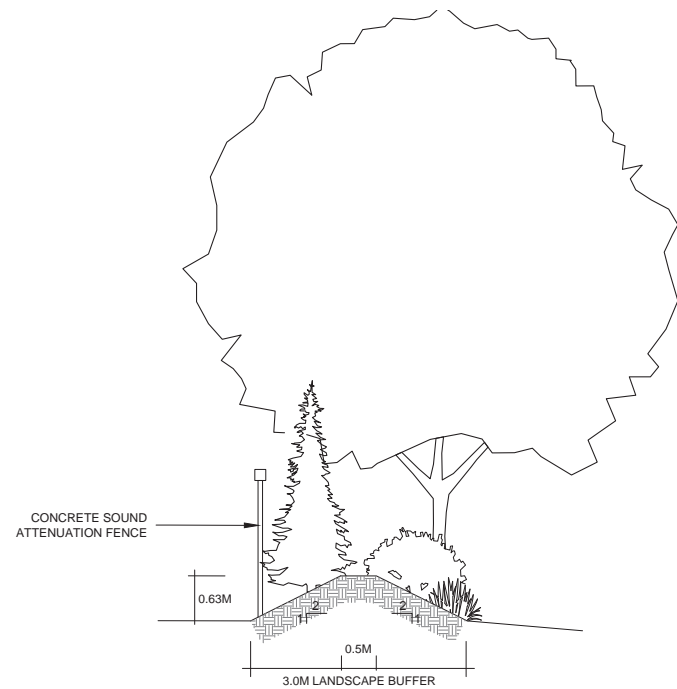
CHK'D: MCV

PMG PROJECT NUMBER: 16229

APPENDIX VII



LANDSCAPE PLAN 1/8"=1'-0"



A-A SECTION 3/8"=1'-0"

| PLANT SCHEDULE | | | | PMG PROJECT NUMBER: 16229 |
|----------------|-----|------------------------------------|-------------------------|---------------------------|
| KEY | QTY | BOTANICAL NAME | COMMON NAME | PLANTED SIZE / REMARKS |
| TREE | 4 | ACER PLATANOIDES 'CLEVELAND' | COMPACT NORWAY MAPLE | 6CM CAL; 2M STD; B&B |
| SHRUB | 22 | THUJA PLICATA 'EXCELSA' | WESTERN RED CEDAR | 2.5M HT; B&B |
| SHRUB | 12 | ARBUTUS UNEDO COMPACTA | COMPACT STRAWBERRY BUSH | #3 POT; 80CM |
| SHRUB | 23 | ROSA NUTKANA | NOOTKA ROSE | #2 POT; 40CM |
| GRASS | 57 | PENNISETUM ALOPECUROIDES 'HAMELIN' | DWARF FOUNTAIN GRASS | #1 POT |

NOTES: * PLANT SIZES IN THIS LIST ARE SPECIFIED ACCORDING TO THE CANADIAN LANDSCAPE STANDARD, LATEST EDITION. * CONTAINER SIZES SPECIFIED AS PER CNLA 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 CANADIAN LANDSCAPE STANDARD - DEFINITION OF CONDITIONS OF AVAILABILITY. ALL LANDSCAPE MATERIAL AND WORKMANSHIP MUST MEET OR EXCEED CANADIAN LANDSCAPE STANDARD'S LATEST EDITION. ALL PLANT MATERIAL MUST BE PROVIDED FROM CERTIFIED DISEASE FREE NURSERY

16229-2.ZIP