



**POLICY REPORT
DEVELOPMENT AND BUILDING**

Report Date: June 5, 2018
Contact: Karen Hoese
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VanRIMS No.: 08-2000-20
Meeting Date: June 19, 2018

TO: Vancouver City Council
FROM: General Manager of Planning, Urban Design and Sustainability
SUBJECT: CD-1 Rezoning: 4175 West 29th Avenue (St. George's Senior School)

RECOMMENDATION

- A. THAT the application by Perkins and Will on behalf of the St. George's School Foundation, the registered owner, to rezone 4175 West 29th Avenue [PID: 025-453-254; Parcel 100, Block 292, District Lot 140, Group 1, New Westminster District Plan BCP420] from RS-5 (One-Family Dwelling) to CD-1 (Comprehensive Development) District, to permit the redevelopment of the St. George's Senior School campus, increase the height from 10.7 m (35 ft.) to 18.9 m (62 ft.), allow for accessory staff and student housing, and introduce a maximum student enrolment, be referred to a Public Hearing together with:
- (i) plans prepared by Perkins and Will, received on January 12, 2017;
 - (ii) draft CD-1 By-law provisions, generally as presented in Appendix A; and
 - (iii) the recommendation of the General Manager of Planning, Urban Design and Sustainability to approve the application, subject to the conditions contained in Appendix B;
- FURTHER THAT the Director of Legal Services be instructed to prepare the necessary CD-1 By-law generally in accordance with Appendix A for consideration at Public Hearing.
- B. THAT, at the time of enactment of the CD-1 By-law, the General Manager of Development Services be instructed to bring forward for approval the CD-1 Design Guidelines, generally as presented in Appendix F.
- C. THAT, subject to enactment of the CD-1 By-law, the Subdivision By-law be amended generally as set out in Appendix C.

- D. THAT Recommendations A to C be adopted on the following conditions:
- (i) THAT the passage of the above resolutions creates no legal rights for the applicant or any other person, or obligation on the part of the City and any expenditure of funds or incurring of costs is at the risk of the person making the expenditures or incurring the cost;
 - (ii) THAT any approval that may be granted following the Public Hearing shall not obligate the City to enact a by-law rezoning the property, and any costs incurred in fulfilling requirements imposed as a condition of rezoning are at the sole risk of the property owner; and
 - (iii) THAT the City and all its officials, including the Approving Officer, shall not in any way be limited or directed in the exercise of their authority or discretion regardless of when they are called upon to exercise such authority or discretion.

REPORT SUMMARY

This report evaluates an application to rezone 4175 West 29th Avenue from RS-5 (One-Family Dwelling) to CD-1 (Comprehensive Development) District to permit the redevelopment of the St. George's Senior School campus in accordance with a phased master plan. School improvements proposed include new academic, performing arts and athletics buildings, as well as staff and student housing on the site. Underground parking and space for school bus pick-up and drop-off are proposed as part of the new campus plan. No increase to student enrolment is proposed and the application, if approved, would include a maximum enrolment of 775 as part of the CD-1 By-law.

It is recommended that the application be referred to Public Hearing, with the recommendation of the General Manager of Planning, Urban Design and Sustainability to approve it, subject to the Public Hearing and to the conditions in Appendix B.

COUNCIL AUTHORITY/PREVIOUS DECISIONS

Relevant Council policies for this site include:

- Dunbar Community Vision (1998)
- Rezoning Policy for Sustainable Large Developments (2010, last amended 2014)
- Green Buildings Policy for Rezoning (2010, last amended 2017)
- Community Amenity Contributions - Through Rezoning (1999, last amended 2017)
- Greenest City 2020 Action Plan (2012, last amended 2016)
- Vancouver Neighbourhood Energy Strategy (2012)
- Renewable City Strategy (2015)

REPORT

Background/Context

1. Site and Context

This 57,056.3 sq. m (14.1 acre) site is located at the northwest corner of Camosun Street and 29th Avenue (see Figure 1). The site is composed of a single irregularly shaped lot with a frontage of 264.3 m (867.1 ft.) along 29th Avenue and a depth of 252.2 m (827.4 ft.) along Camosun Street. The surrounding areas are primarily developed with single-family houses under RS-5 zoning to the east and west. BC Hydro's Camosun Substation abuts the site to the north and across Camosun Street to the northeast is Queen Elizabeth Annex, a public elementary school. To the south of the site, across 29th Avenue and the boundary of the City of Vancouver, is Pacific Spirit Regional Park.

Figure 1 – Site and surrounding zoning (including notification area)



2. Background

St. George's School For Boys was founded in 1930 and currently includes two campus locations: the Junior School, at 3851 West 29th Avenue, three blocks east of the subject site; and, the Senior School (the "school") which has been located at 4175 West 29th Avenue since 1965. Following an audit of existing facilities in 2011, the school created a Campus Master Plan to guide future development of the subject site.

The site is currently developed with the main school building in the southwest corner of the parcel, and a smaller field house building including a caretaker suite at the northeast corner

(see Figure 2). School playing fields are located north of the main school building and south of the field house, along Camosun Street.

Figure 2 – St. George's Senior School (site outlined in blue)



The Senior School currently offers boarding for approximately 120 students in a residence building, Harker Hall, located on the Junior School site at 3851 West 29th Avenue.

3. Policy Context

Dunbar Community Vision — In September 1998, Council approved the *Dunbar Community Vision*. The *Dunbar Community Vision* includes the St. George's Senior School site within its boundaries and includes considerations for rezoning of institutional sites focusing on their expansion, downsizing or reuse.

Rezoning Policy for Sustainable Large Developments — In December 2010, Council approved the *Rezoning Policy for Sustainable Large Developments*. The policy sets out criteria that large sites (defined as those larger than 8,000 sq. m (1.98 acres) or containing more than 45,000 sq. m (484,375 sq. ft.) of new floor area) must address as part of a rezoning application. The policy requires defined plans or studies on eight different areas (as outlined in the Environmental Sustainability section) to demonstrate how the proposal will achieve the City's sustainability goals. The St. George's Senior School, at 14.1 acres, is considered a large development and the criteria set out in the *Rezoning Policy for Sustainable Large Developments* have been addressed as part of the application and staff review.

4. Application Revisions

The original application, submitted on August 6, 2014, proposed to rezone the site to allow for a phased development with a maximum height of 17.4 m (57 ft.) and a density of 0.62 FSR, with:

- Two new three-storey academic buildings;
- Additions to the existing main school building; and
- Four new three-storey student housing buildings, accommodating up to 240 beds and including associated staff residences,

Figure 2 – Site Plan (August 6, 2014 Rezoning Application)



Following engagement with the neighbourhood on this proposal, and in response to community and advisory committee feedback, as well as staff advice, a revised rezoning application was submitted.

The revised application, received on January 12, 2017, with supplementary application materials provided on January 11, 2018, includes a maximum height of 18.9 m (62 ft.) and a density of 0.70 FSR, along with the following changes:

- To address concerns about privacy for neighbouring residents, setbacks were increased as follows:
 - From 10.7 m (35 ft.) to 12.2 m (40 ft.) along 29th Avenue, at the southern edge of the site; and
 - From 4.6 m (15 ft.) to 12.2 m (40 ft.) along Camosun Street, at the eastern edge of the site.

- To address concerns about building height and massing:
 - Taller buildings, including boarding facilities, were located closer to the centre of the site rather than spread out along the perimeter; and
 - Playing fields were relocated to the northwest corner of the property to provide a buffer between school buildings and neighbourhood residences.
- To address concerns about traffic impacts, space for bus drop-off, pick-up and parking was proposed on campus.

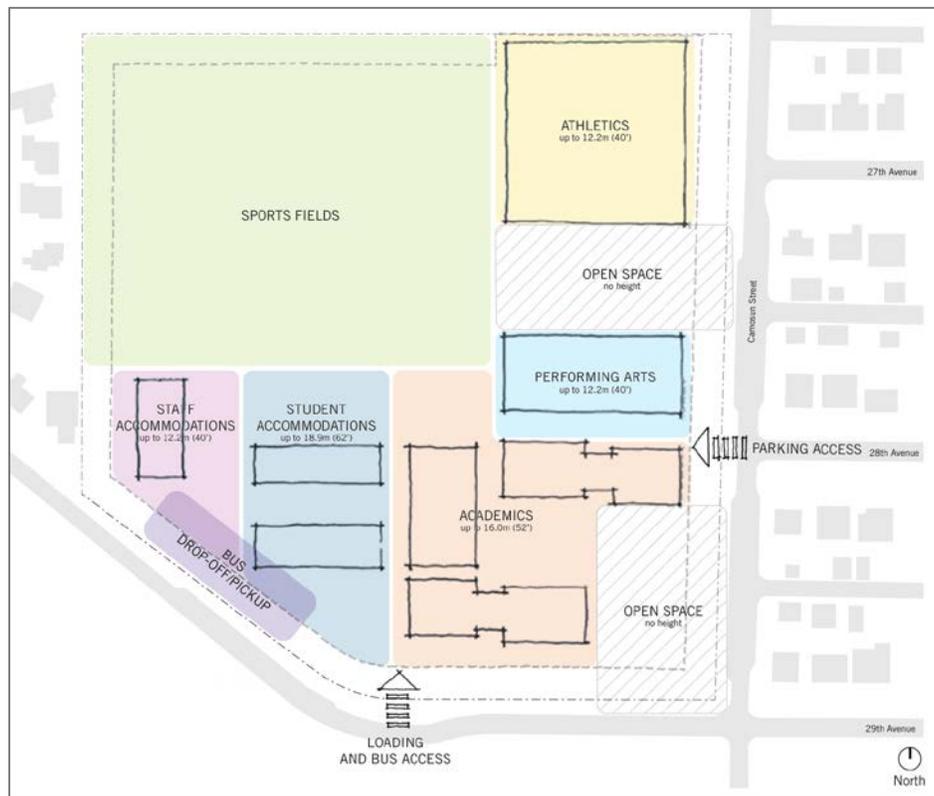
For a more detailed summary of the application timeline, please refer to Appendix D.

Strategic Analysis

1. Proposal

This report evaluates an application to rezone 4175 West 29th Avenue from RS-5 (One-Family Dwelling) to CD-1 (Comprehensive Development) District to permit the development of a campus master plan for the St. George's Senior School. School improvements proposed include new academic, performing arts and athletics buildings, as well as staff and student housing on the site. Underground parking and space for school bus pick-up and drop-off are proposed as part of the new campus plan. No increase to student enrolment is proposed and the application, if approved, would include a maximum enrolment of 775 as part of the CD-1 By-law.

Figure 3 – Site Plan



2. Land Use

The intent of the site's existing RS-5 zoning is generally to maintain the single-family residential character of the district, but also to conditionally permit appropriate cultural, recreational and institutional uses. Schools have continuously been a permitted use within Vancouver's residential zones and the St. George's Senior School campus has been located on the subject site since 1965.

The proposal includes a total floor area of 39,939 sq. m (429,918 sq. ft.). This includes approximately 30,257 sq. m (325,700 sq. ft.) of school facilities, allowing for new academic, performing arts and athletics buildings. A total of 9,681 sq. m (104,203 sq. ft.) is proposed as student dormitories and staff residences, to be used by up to 120 student boarders, as well as accommodation for school staff, faculty, and their families.

The Zoning and Development By-law does not currently include a definition for either staff or student housing. Staff support the proposal to add staff and student accommodation as part of the school campus. Definitions for staff and student housing are included in the draft CD-1 By-law for the subject site.

The new definitions are as follows:

Staff Housing means providing accommodation through dwelling units intended for families where at least one individual is employed as staff or faculty at St. George's School; and

Student Housing means providing accommodation through sleeping units intended for students or other individuals attending programs at St. George's School, except that the sleeping units may contain a sink, and accommodation may be provided for a period of less than one month.

New staff and student housing on the site would be limited to use by staff and faculty employed by St. George's School, and their families, and to students or other individuals attending programs at the school.

The draft CD-1 By-law (refer to Appendix A) introduces sub-areas which limit these uses to the southwest quadrant of the site, in response to neighbourhood concerns about height and privacy. Uses included in the draft CD-1 By-law are limited to "School – Elementary or Secondary" and accessory uses, including staff housing and student housing.

No increase to student enrolment at St. George's Senior School is proposed and the application, if approved, would introduce a maximum enrolment of 775 as part of the CD-1 By-law.

3. Form of Development (refer to drawings in Appendix E)

Built Form — The application envisions a long-term master plan to replace and expand the existing St. George's Senior School facilities. An increase in building height, a revision to the the building massing and an updated site plan are sought to provide new academic, performing arts, athletics buildings, and also on-site housing for staff and students.

The proposed massing is schematic in nature and indicative of building and open space location(s), building envelope(s), building height(s) and massing. Architectural details for individual buildings will be determined at the time of development application(s). Subject to Council approval of the rezoning application and CD-1 By-law, staff recommend that accompanying *CD-1 Design Guidelines for 4175 West 29th Avenue (St. George's Senior School)* (refer to Appendix F) be adopted to provide further detailed direction for future development permit applications.

Height — The conditional height limit under the site's current RS-5 zoning is 10.7 m (35.1 ft.) measured above base surface. For schools, Section 11 of the Zoning and Development By-law allows the Director of Planning to permit a greater height than set out in the District Schedule, if they first consider the effect of the additional height on the neighbourhood. The existing academic building has a maximum height of 12.2 m (40 ft.).

The application proposes a maximum height of 18.9 m (62 ft.) measured above base surface, with higher buildings massed towards the centre of the site, transitioning down to 12.2 m (40 ft.) toward the residential uses at the edges of the property. The base surface is a hypothetical plane determined by connecting the existing elevations at the corners of the property, and on a large site with a grade change, may result in a sloping building envelope. Institutional buildings, such as schools, generally have large, level floor plates that are not conducive to a stepped building form. This may create a challenge where height, as measured from base surface, results in a sloping height envelope over a large site.

Given the schematic nature of the master plan material, and to minimize future technical issues, staff recommend that the CD-1 By-law provisions (see Appendix A) include geodetic height, which is measured above sea level, instead of a height measured above base surface. Staff further recommend the use of sub-areas within the CD-1 By-law, to ensure taller buildings are located towards the centre of the site, and to better define areas proposed as open space. Table 1 (below) summarizes the proposed height, from base surface and as geodetic height, and maximum number of storeys for each sub-area.

Table 1: Maximum Number of Storeys and Permitted Height

Sub-area	Maximum numbers of storeys	Maximum building height (geodetic datum)	Proposed building height (from base surface)
1	4	96.7 m	16.0 m (52 ft.)
2	3	93.1 m	12.2 m (40 ft.)
3	3	93.1 m	12.2 m (40 ft.)
4	6	99.5 m	18.9 m (62 ft.)
5	4	92.1 m	12.2 m (40 ft.)
6	0	-	

The location of the proposed school buildings and playing fields mean that no shadow impacts on the neighbouring residential properties will occur at the equinox (refer to shadow diagrams, Appendix E). Trees along the site perimeter at Camosun Street and 29th Avenue will also serve to mediate the visual impression of height. Taking the above into account, staff support the proposed height relative to the adjacent context, subject to further work to ensure the retention of existing landscaping as noted in the Landscape conditions (Appendix B).

Density — The application proposes a total floor area of 39,939 sq. m (429,918 sq. ft.), equivalent to a total density of 0.7 FSR, or to the conditional density permitted by the site's existing RS-5 zoning. Staff support the proposed density, subject to the Urban Design conditions (Appendix B), including responding to the *CD-1 Design Guidelines for 4175 West 29th Avenue (St. George's Senior School)* (Appendix F). The proposed density, given this site planning, open space, setbacks at edges and tree retention, is an appropriate response to the site.

Views and Privacy — Privacy impacts for surrounding residents are proposed to be mitigated through provision of setbacks as outlined below:

Table 2: Proposed Setbacks

	Street frontage	Setback from existing property line
North setback	n/a	12.2 m (40 ft.) with zero setback adjacent to the Camosun Substation
East setback	Camosun Street	12.2 m (40 ft.)
South setback	29th Avenue	12.2 m (40 ft.)
West setback	n/a	12.2 m (40 ft.)

A consistent setback of 12.2 m (40 ft.) is proposed, aside from the athletics building at the northeast corner of the site. To mitigate safety and security concerns about a narrow strip of unsupervised property between the proposed athletics building and the BC Hydro property to the north, no setback is proposed adjacent to the Camosun substation. With the proposed setback and existing street right-of-way, school buildings along Camosun Street would be at least 32.3 m (106 ft.) from the residential property lines on the east side of Camosun Street.

To further address concerns about views and privacy, and to provide a porous and welcoming interface, the application proposes an open space approximately 0.4 hectare (one acre) in size, on the Camosun Street edge of the site, across from 29th Avenue, with another 0.4 hectare (one acre) entry plaza at Camosun Street and 29th Avenue. These spaces are secured through the CD-1 By-law provisions, which restrict height in these areas of the site, as well as in the proposed design guidelines, which require 50% open space on the Camosun Street edge of the site (see Appendix A and Appendix F).

The Urban Design Panel reviewed and supported this application on December 10, 2014 (see Appendix B). Staff support this application, subject to the conditions outlined in Appendix B, and the direction provided in the *CD-1 Design Guidelines for 4175 West 29th Avenue (St. George's Senior School)* (see Appendix F).

4. Transportation and Parking

Currently, the site includes 101 surface parking spaces, three Class B loading spaces and 40 covered Class B bicycle parking spaces, distributed across the campus, with parking access and egress from 29th Avenue. The nearest bus stop is located on Dunbar Street, approximately 1 km to the east, and the school operates daily school bus service with eight routes serving Vancouver, UBC, Burnaby, New Westminster, the North Shore, Richmond, Surrey and White Rock. Pick-up and drop-off for school buses has been located along Camosun Street since April 2017, with vehicle pick-up and drop-off along 29th Avenue.

Parking and Loading: Parking and loading for the proposed master plan are based on recommendations of the applicant's transportation consultant, WSP, and contained in a transportation study submitted as part of the rezoning application. The study provides an analysis of both current and proposed traffic patterns and pick-up/drop-off activity, as well as parking. Transportation demand management (TDM) measures are also reviewed in the study.

Required parking for schools is based on the number of full time equivalent (FTE) staff. With no increase in the number of students attending the campus, the number of staff and faculty at St. George's Senior School would remain at 133 FTE, requiring 166 parking spaces to meet the *Parking By-law* provisions. The application proposes a relaxation to 100 vehicle parking spaces in an underground parking structure and three Class B loading spaces, and would meet or exceed the *Parking By-law* for bicycle parking, providing 39 Class A and 47 Class B spaces. The requested parking and loading relaxations are not supported by Engineering Services. Staff recommend that the application meet *Parking By-law* requirements for parking and loading.

Space for school bus parking, pick-up and drop-off is proposed on the school site, removing these activities from Camosun Street and 29th Avenue. Bus access to the site is proposed from 29th Avenue, with vehicle parking access proposed from Camosun Street to minimize congestion at the southeast corner of the site.

The rezoning application also proposes an Operations Management Plan to provide a protocol for communication with neighbours, a transportation management plan, facilities use plan, and a construction management plan. The Operations Management Plan was revised based on staff and community responses. A finalized version of the Operations Management Plan has been included in Appendix G.

Engineering Services has reviewed the rezoning application and has no objection to the proposed rezoning, provided that the applicant satisfies the rezoning conditions included in Appendix B, and meets the vehicle parking and loading requirements of the *Parking By-law*.

5. Environmental Sustainability

This application is subject to the following policies that contain environmental sustainability objectives and targets.

Green Building Policy for Rezoning — The *Green Buildings Policy for Rezoning* (last amended February 7, 2017) requires that rezoning applications satisfy either the near zero emissions buildings or low emissions green buildings conditions within the policy. These new requirements are mandatory for all rezoning applications received after May 1, 2017. Applications received prior to May 1, 2017 may choose to meet this updated version of the policy or the preceding version.

This application was received prior to May 1, 2017 and the applicant has opted to satisfy the preceding version of the *Green Buildings Policy for Rezoning*, which requires rezoning applications achieve a minimum of LEED® Gold rating, with targeted points for water efficiency and stormwater management and a 22% reduction in energy cost as compared to ASHRAE 90.1 2010, along with registration and application for certification of the project. Given the schematic nature of the master plan material, a preliminary LEED® scorecard has not been required as part of the rezoning application material. Sustainability conditions in Appendix B

require the applicant to meet the applicable *Green Buildings Policy for Rezoning* provisions at the time of each development permit application.

Rezoning Policy for Sustainable Large Developments – This rezoning policy applies to rezoning proposals having either a minimum site size of 8,000 sq. m (1.98 acres) or containing more than 45,000 sq. m (484,375 sq. ft.) of new floor area. The intent of this policy is to achieve higher sustainability outcomes through strategies that implement opportunities for low carbon energy, sustainable site design, green mobility, sustainable rainwater management, enhanced solid waste diversion, and, where applicable, housing affordability and mix.

- *Sustainable Site Design*
The applicant proposes to achieve this through retention of existing trees on site and using compact, efficient building forms.
- *Access to Nature*
The retention of the existing large street trees and canopy in the rezoning application also satisfies the access to nature requirement, with conditions included in Appendix B to maximize retention of existing trees.
- *Sustainable Food Systems*
The application proposes to include edible landscaping, shared garden plots and on-site organics management. Staff review supports edible landscaping, including opportunities for children to learn with garden plots, and connections with the school kitchen and cafeteria. Conditions in Appendix B reflect that school programs should build on educational opportunities to provide students with education on food literacy and cooking skills.
- *Green Mobility*
This requirement is addressed through the transportation study submitted as part of the rezoning application, which includes measures being taken to encourage more sustainable modes of travel to the school, and conditions in Appendix B direct the school to provide a Green Mobility Plan.
- *Rainwater Management*
Conditions in Appendix B require the school to provide a Rainwater Management Plan at the time of the initial Development Permit and updated with each new development phase.
- *Zero Waste Planning*
Conditions in Appendix B instruct the school to provide a Zero Waste Design and Operations Plan, including components pertaining to site infrastructure design and ongoing maintenance and operations. The Operations Plan should include an education and outreach element; a recycling, organics and waste collection system; and it should consider deconstruction opportunities and practices, to reduce landfilled waste material and create opportunities for building material re-use and recycling.

- *Affordable Housing*
The affordable housing requirement is not applicable for the St. George's Senior School rezoning application, as no residential development is proposed, aside from accessory staff and student housing limited to use by the school.
- *Low Carbon Energy Supply*
Staff review has determined that the redevelopment's surrounding context is not dense enough to support a practical district energy solution. In lieu of conducting a feasibility study, the applicant has agreed to commit to developing a low-carbon energy solution for the site. Conditions of rezoning are included in Appendix B which support the development of a low-carbon energy system for St. George's Senior School.

Staff have reviewed the applicant's overall response to the *Rezoning Policy for Sustainable Large Developments* and, in some instances, recommend improvements in order for the proposal to have a more fulsome response to the policy. Conditions to secure delivery of these features at the Development Permit stage are included in Appendix B.

PUBLIC INPUT

Public Notification — A rezoning information sign was installed on the site on September 8, 2014. Approximately 767 notifications were distributed within the neighbouring area on or about September 8, 2014. Notification and application information, as well as an online comment form, was provided on the City of Vancouver Rezoning Centre webpage (vancouver.ca/rezapps).

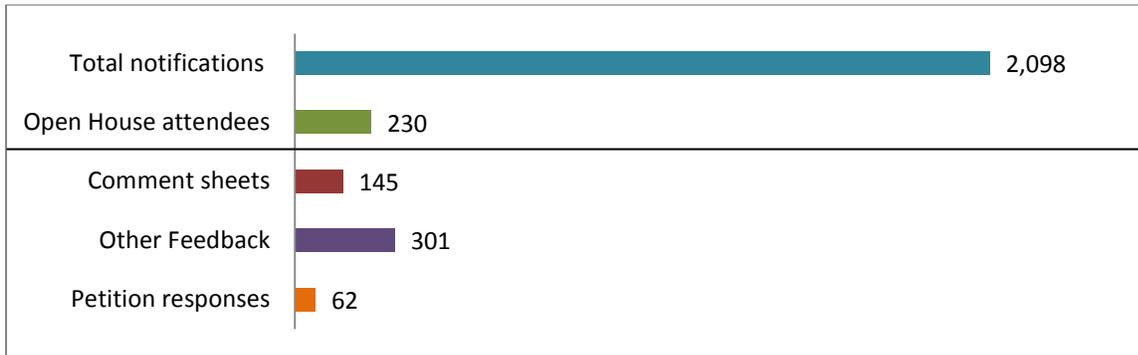
Following receipt of the revised rezoning application on January 12, 2017, an updated rezoning information sign was installed on the site on March 14, 2017. Approximately 2098 notifications were distributed within the neighbouring area on or about March 14, 2017. Notification and application information, as well as an online comment form, was provided on the City of Vancouver Rezoning Centre webpage (vancouver.ca/rezapps).

September 22, 2014 Community Open House

A community open house was held from 5:00-8:00 pm on September 2, 2014, at St. George's Senior High School, 4175 West 29th Avenue. Staff, the applicant team, and a total of approximately 117 people attended the Open House. A detailed summary of public comments in response to the original rezoning application may be found in Appendix D.

March 28, 2017 Community Open House

A community open house was held from 5:00-8:00 pm on March 28, 2017, at St. George's Senior High School, 4175 West 29th Avenue. Staff, the applicant team, and a total of approximately 230 people attended the Open House.

Figure 7 – Notification and Public Response**Public Response and Comments –**

Public responses to this proposal have been submitted to the City as follows:

- 145 comment sheets, submitted in response to the March 28, 2017 open house.
- 301 letters, e-mails, and online comment forms.
- A petition with 62 responses in opposition to the rezoning application.

The following is a summary of the major themes of support for the revised application, organized by topic and ordered by frequency:

- **General Support:** Respondents indicated a general support for the proposal, including support for improving learning opportunities for students, and support for a revised application which responds to community feedback provided on the original proposal.
- **Parking and Traffic:** Respondents believed that the proposed circulation plan and provision of underground parking would improve the traffic situation around the school.
- **Site Design:** The overall site design was praised as attractive and functional, with some respondents stating that the proposal fits well into the character of the neighbourhood, and would increase the appeal of the area.
- **Green Spaces:** Respondents supported the provision of new green spaces in the revised proposal, and appreciated the landscaping and sustainable design elements.

The following is a summary of the major themes of concern for the revised application, organized by topic and ordered by frequency:

- **Parking and Traffic:** Parking, traffic, and related safety issues were recognized in comments as a major concern from the community. There are concerns that streets, particularly 29th Avenue, are already overburdened as a result of school activity and that the impact will be intensified by this proposal. There was also concern that locating the underground parking access at Camosun Street and West 28th Avenue would negatively impact adjacent residents.

- **Neighbourhood Impact:** Respondents expressed concerns about the impact an expanded school would have on the surrounding neighbourhood. In particular, respondents were concerned that an influx of people resulting from the school expansion would infringe on the residents' privacy and quiet enjoyment of the neighbourhood.
- **Built Form:** Respondents stated that the school design is too large and does not fit into the character of the single-family neighbourhood, which is zoned RS-5.
- **Public Access to Green Spaces:** Some respondents believed that site layout would close off the green spaces at the school to the public. Some respondents stated that views of the open green space of the school fields were important to them, and that these would be lost under the proposal.

Response to Public Comments — Public feedback has assisted staff with assessment of the application. Response to key feedback is as follows:

- **Parking and Traffic:** One of the primary concerns of nearby residents was traffic, predominantly based on student pick-up and drop-off activities. St. George's Senior School has commissioned a transportation study and provided an Operations Management Plan (see Appendix G) to reflect both the current state and the future conditions related to the school.

A number of transportation improvements are included as part of the conditions in Appendix B. School bus parking, drop-off and pick-up is proposed on site, with access from 29th Avenue, removing these activities from the existing street network, and allowing for distributed vehicle pick-up and drop-off along Camosun Street and 29th Avenue. Vehicle parking would be provided underground, with access from Camosun Street.

Staff have also included conditions providing for transportation demand management measures and to monitor the ongoing traffic situation for the area surrounding the school. Measures identified in the Operations Management Plan would support a mode shift to active transportation, public transportation and the use of school bus routes for travel to and from the campus. The new CD-1 By-law would include a maximum enrollment, with no increase proposed to the number of students attending the campus.

These recommendations, if approved, are intended to improve on the existing site condition with respect to parking and traffic during school pick-up and drop-off.

- **Neighbourhood Impact:** To address concerns about views, privacy and noise impacts, design guidelines for the site would secure a 12.2 m (40 ft.) setback around the majority of the site, aside from the athletics building proposed at the northeast corner. With the proposed setback and existing street right-of-way, school buildings along Camosun Street would be at least 32.3 m (106 ft.) from the residential property lines on the east side of Camosun Street. Conditions of approval (Appendix B) seek to maximize retention of existing trees along the perimeter of the site.

No increase to student enrolment is proposed and the application, if approved, would include a maximum enrolment of 775 students attending the campus as part of the CD-1 By-law, equivalent to the current student population.

- **Built Form:** In response to concerns about fit with neighbourhood character, staff recommend the use of sub-areas within the CD-1 By-law, to ensure taller buildings are located towards the centre of the site, transitioning down in height towards the adjoining residential context. Design guidelines and conditions of approval would be used to secure the proposed 12.2 m (40 ft.) setbacks, open space and tree retention, in response to the neighbouring context.
- **Public Access to Green Spaces:** Residents noted that views of the open green space of the school fields were important to them, noting concern that the site layout would close off green spaces to the public. In response to this feedback, and to provide a porous and welcoming interface, two open spaces are proposed along the Camosun Street edge of the site. These include an open space approximately 0.4 hectare (one acre) in size, across from 29th Avenue, with another 0.4 hectare (one acre) entry plaza at Camosun Street and 29th Avenue.

These spaces are secured through the CD-1 By-law provisions, which restrict height in these areas of the site, as well as in the proposed design guidelines, which also require 50% open space on the Camosun Street edge of the site (see Appendix A and Appendix F). As outlined in the Operations Management Plan (Appendix G) the school will continue to welcome community members to visit the site and walk the grounds.

PUBLIC BENEFITS

In response to City policies concerning changes in land use and density, this application addresses public benefits as follows.

Public Benefits – Required by By-law or Policy

Development Cost Levies (DCLs) — Development Cost Levies (DCLs) collected from development help pay for facilities made necessary by growth, including parks, childcare facilities, replacement housing (social/non-profit housing) and engineering infrastructure. This site is subject to the City-wide DCL rate, which is currently \$5.49 per sq. m (\$0.51 per sq. ft.) for new school floor space, which is applied to the proposed floor area of 39,939.4 sq. m (429,918.3 sq. ft.). On this basis, a DCL of approximately \$219,267 is expected, noting that DCLs will be paid out incrementally based on the new floor area approved for each phase of the master plan implementation, at the rate in effect at that time.

DCLs are payable at building permit issuance and are subject to an annual inflationary adjustment which takes place on September 30th each year. When a DCL By-law with higher rates is introduced, a number of rezoning, development permit and building permit applications may be at various stages of the approval process. An application may qualify as an in-stream application and therefore may be exempt from DCL rate increases for a period of 12 months from the date of DCL By-law rate adjustments provided that it has been submitted prior to the adoption of such DCL By-law rate adjustment. If a related building permit application is not issued within the 12-month period, the rate protection expires and the new DCL By-law rate will apply. See the City's [DCL Bulletin](#) for details on DCL rate protection.

Public Art — The *Public Art Policy and Procedures for Rezoned Developments* requires rezoning applications having a floor area of 9,290 sq. m (100,000 sq. ft.) or greater to commission public art or provide cash in lieu. Public art budgets are based on a formula (effective September 30, 2016) of \$21.31 per sq. m (\$1.98 per sq. ft.) for areas contributing to

the total FSR calculation. With 39,939.4 sq. m (429,918.3 sq. ft.) of proposed floor area, a public art budget of approximately \$851,109 is anticipated. The Public Art Rate is finalized at the development permit stage and is subject to Council approval of periodic adjustments to address inflation.

Public Benefits – Offered by the Applicant

Community Amenity Contributions (CAC) — Within the context of the City's *Financing Growth Policy*, an offer of a Community Amenity Contribution (CAC) to address the impacts of the rezoning can be anticipated from the owner of a rezoning site. CACs typically include either the provision of on-site amenities or a cash contribution toward other public benefits and they take into consideration community needs, area deficiencies and the impact of the proposed development on City services.

In this case, since the overall density proposed does not exceed the conditional density permitted by the site's existing RS-5 zoning, a CAC would not be anticipated through this rezoning application

FINANCIAL IMPLICATIONS

As noted in the section on Public Benefits, there is no CAC associated with this rezoning application.

If a rezoning application is approved, the applicant will be required to provide new public art on site or make a cash contribution to the City for off-site public art, at an estimated value of \$851,109.

The site is within the City-wide DCL district and it is anticipated the project will generate approximately \$219,267 in DCLs.

CONCLUSION

Staff assessment of this rezoning application has concluded that the proposed form of development is an appropriate urban design response to the site and its context, and that the application is consistent with the *Dunbar Community Vision* directions and the *Rezoning Policy for Sustainable Large Developments*. The proposed conditions of approval respond to public feedback by reducing potential privacy and noise impacts through building setbacks, landscaping and tree retention, as well as the requirement for open space along the Camosun Street edge of the site. No increase to student enrolment is proposed and the application, if approved, would include a maximum enrolment of 775 students attending the campus as part of the CD-1 By-law

The General Manager of Planning, Urban Design and Sustainability recommends that the rezoning application be referred to a Public Hearing, together with a draft CD-1 By-law generally as set out in Appendix A. Further it is recommended that, subject to the Public Hearing, the application including the form of development, as shown in the plans in Appendix E, be approved in principle, subject to the applicant fulfilling the conditions of approval in Appendix B.

* * * * *

**4175 West 29th Avenue (St. George's School)
DRAFT CD-1 BY-LAW PROVISIONS**

Note: A By-law will be prepared generally in accordance with the provisions listed below, subject to change and refinement prior to posting.

Zoning District Plan Amendment

- 1.1 This By-law amends the Zoning District Plan attached as Schedule D to By-law No. 3575, and amends or substitutes the boundaries and districts shown on it, according to the amendments, substitutions, explanatory legends, notations, and references shown on the plan marginally numbered Z-() attached as Schedule A to this By-law, and incorporates Schedule A into Schedule D, of By-law No.3575.

[Note: Schedule A, not attached to this appendix, is a map that amends the City of Vancouver zoning map. Should the rezoning application be referred to Public Hearing, Schedule A will be included with the draft by-law that is prepared for posting.]

Definitions

- 2.1 Words in this By-law have the meanings given to them in the Zoning and Development By-law, except that:

Geodetic Datum means the current vertical reference surface adopted and used by the City of Vancouver;

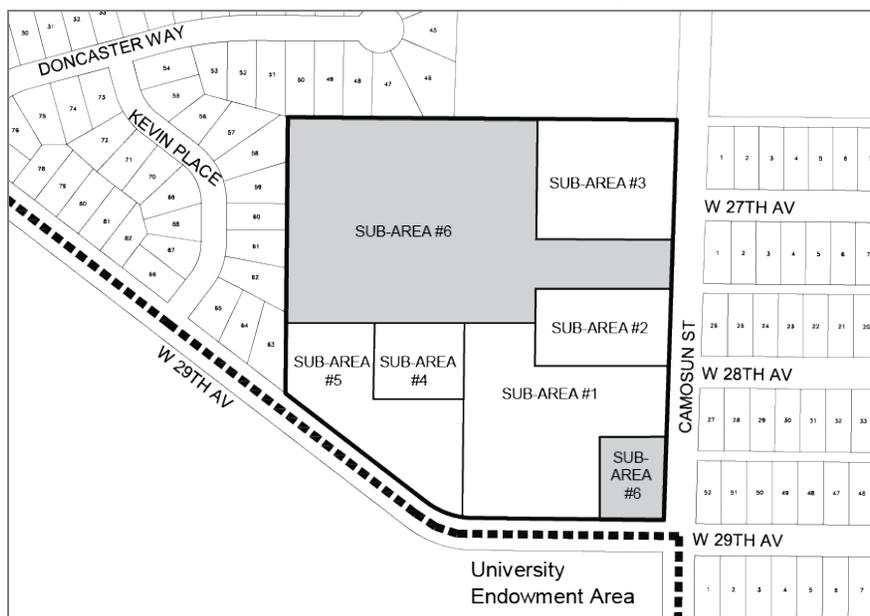
Staff Housing means providing accommodation through dwelling units intended for families where at least one individual is employed as staff or faculty at St. George's School; and

Student Housing means providing accommodation through sleeping units intended for students or other individuals attending programs at St. George's School, except that the sleeping units may contain a sink, and accommodation may be provided for a period of less than one month.

Sub-areas

- 3.1 The site is to consist of 6 sub-areas generally as illustrated in Figure 1, solely for the purpose of establishing maximum permitted height and establishing permitted uses.

Figure 1: Sub-Areas for Maximum Permitted Height and Permitted Uses



Uses

- 5.1 The description of the area shown within the heavy black outline on Schedule A is CD-1 ().
- 5.2 Subject to Council approval of the form of development, to all conditions, guidelines and policies adopted by Council. And to the conditions set out in this By-law or in a development permit, the only uses permitted within CD-1 (), and the only uses for which the Director of Planning or Development Permit Board will issue development permits are:
 - (a) Institutional Uses, limited to School – Elementary or Secondary, provided that the enrolment of students attending the school on campus does not exceed 775; and
 - (b) Accessory Uses customarily ancillary to the uses listed in this section, including Staff Housing and Student Housing, except that Staff Housing and Student Housing uses are permitted only in sub-areas 4 and 5 as shown in Figure 1.

Floor area and density

- 5.1 Computation of floor space ratio must assume that the site consists of 57,056.3 m² being the site size at the time of the application for the rezoning evidenced by this By-law, prior to any dedications.
- 5.3 The floor space ratio for all uses combined must not exceed 0.70.
- 5.3 Computation of floor area must include all floors having a minimum ceiling height of 1.2 m, including earthen floor, both above and below ground level, to be measured to the extreme outer limits of the building.
- 5.4 Computation of floor area must exclude:

- (a) open balconies or sundecks as part of Staff Housing or Student Housing uses and any other appurtenances which, in the opinion of the Director of Planning, are similar to the foregoing, except that:
 - (i) the total area of all such exclusions must not exceed 12% of the Staff Housing or Student Housing floor area in any sub-area, and
 - (ii) no enclosure of balconies is permissible for the life of the building;
- (b) patios and roof gardens, only if the Director of Planning first approves the design of sunroofs and walls; and
- (c) where floors are used for off-street parking and loading, the taking on or discharging of passengers, bicycle storage, heating and mechanical equipment or uses which in the opinion of the Director of Planning are similar to the foregoing, those floors or portions thereof so used, which are at or below the base surface, except that the exclusion for a parking space must not exceed 7.3 m in length.

5.5 Computation of floor area may exclude, at the discretion of the Director of Planning or Development Permit Board:

- (a) amenity areas for Staff Housing, except that the total exclusion for amenity areas must not exceed 10% of the permitted floor area for that use; and
- (b) covered outdoor areas providing weather protection or pedestrian connection between buildings, provided they are at grade level, except that they must remain unenclosed for the life of the building.

5.6 The use of floor area excluded under sections 5.4 and 5.5 must not include any use other than that which justified the exclusion.

Building Heights and Number of Storeys

- 6.1 Building height on the site must be measured in metres referenced to Geodetic Datum.
- 6.2 Building height, measured from the top of the roof slab above the uppermost floor, excluding parapet wall, must not exceed the maximum heights and number of storeys set out in Table 1 below.

Table 1: Maximum Number of Storeys and Permitted Height

Sub-area	Maximum Number of Storeys	Maximum building height (Geodetic Datum)
1	4	96.7 m
2	3	93.1 m
3	3	93.1 m
4	6	99.5 m
5	4	92.1 m
6	0	-

Horizontal Angle of Daylight

- 8.1 Each habitable room must have at least one window on an exterior wall of a building.
- 8.2 The location of each such exterior window must allow a plane or planes extending from the window and formed by an angle of 50 degrees, or two angles with a sum of 70 degrees, to encounter no obstruction over a distance of 24.0 m.
- 8.3 Measurement of the plane or planes referred to in section 7.2 must be horizontally from the centre of the bottom of each window.
- 8.4 If:
- (a) the Director of Planning or Development Permit Board first considers all the applicable policies and guidelines adopted by Council; and
 - (b) the minimum distance of the unobstructed view is not less than 3.7 m;
- the Director of Planning or Development Permit Board may relax the horizontal angle of daylight requirement.
- 8.5 An obstruction referred to in section 7.2 means:
- (a) any part of the same building including permitted projections; or
 - (b) the largest building permitted under the zoning on any site adjoining CD-1 (___).
- 8.6 A habitable room referred to in section 7.1 does not include:
- (a) a bathroom; or
 - (b) a kitchen whose floor area is the lesser of:
 - (i) 10 % or less of the total floor area of the dwelling unit, or
 - (ii) 9.3 m².

* * * * *

**4175 West 29th Avenue (St. George's Senior School)
PROPOSED CONDITIONS OF APPROVAL**

Note: Recommended approval conditions will be prepared generally in accordance with the draft conditions listed below, subject to change and refinement prior to finalization of the agenda for Public Hearing.

CONDITIONS OF APPROVAL OF THE FORM OF DEVELOPMENT

- (a) That the proposed form of development be approved by Council in principle, generally as prepared by Perkins and Will on behalf of the St. George's School Foundation, and stamped "Received Planning and Development Services (Rezoning Centre), January 12, 2017", provided that the Director of Planning may allow minor alterations to this form of development when approving the detailed scheme of development as outlined in (b) below.
- (b) That, prior to approval by Council of the form of development, the applicant shall obtain approval of a development application by the Director of Planning, who shall have particular regard for the following:

Urban Design

- 1. Design development to provide and include a phasing plan for proposed future development including staging and sequencing of projects, and a timeline for ultimate completion.
- 2. Design development at the time of the first Development Application to include the provision of landscape improvements for edge treatments, sidewalk improvements and open spaces. In the event that any of the foregoing are at odds with construction methods, provision of a design for interim conditions of public realm must be provided.

Note to Applicant: See draft *CD-1 Design Guidelines for 4175 West 29th Avenue (St. George's Senior School)*. This condition is to ensure that the site is generally maintained in a reasonable and finished state to ensure that the impact of construction and staging has controlled and limited impact on the neighbourhood and adjacent sites.

- 3. Submission of a bird-friendly strategy for the design of the building is encouraged in the application for a development permit from the standpoint of both architectural, building design, in addition to landscape design methods that support positive environment for bird habitat.

Note to Applicant: Refer to the *Bird-Friendly Design Guidelines* for examples of built features that may be applicable. For more information, see the guidelines at <http://former.vancouver.ca/commsvcs/guidelines/B021.pdf>.

Crime Prevention through Environmental Design (CPTED)

- 4. Design development to respond to CPTED principles, having particular regard for the following:

- (i) Theft in the underground parking;
- (ii) Residential break and enter;
- (iii) Mail theft; and
- (iv) Mischief in alcoves and vandalism, such as graffiti.

Note to Applicant: Building features proposed in response to this condition should be noted on the plans and elevations. Consider use of a legend or key to features on the drawings.

Landscape Design

5. Provision of master plan document updates at time of the first development permit, and at each successive development permit application, as follows:
 - (i) Updated master plan(s) to depict new buildings and open space, demolition/ removal of existing structures, temporary uses (for example, sports fields), construction staging, traffic/parking, tree removal protection and timelines for phasing (where possible);
 - (ii) Updated rainwater management plan/calculations for the complete site and applicable requirements for each development permit;
 - (iii) Updated arborist report and tree management plan;
 - (iv) Updated construction management plans, including access, storage, temporary uses;
 - (v) Updated utility plans (utility planning should be proactive to avoid conflicts with tree protection zones and open space); and
 - (vi) Updated LEED score sheet and necessary rainwater management reports.
6. Consideration to create accessible, functional green roofs used for educational opportunities, respite, access to nature and sunlight.
7. Design development to maximize at grade tree planting and to integrate habitat and rainwater strategies within the grading and open space plan.
8. Further proactive coordination with regard to area wide watershed management, such as Musqueam Creek watershed and Metro Vancouver.
9. Design development to maximize the retention of trees to the perimeter of the site, with particular attention to avoiding impacts to established trees.

Note to Applicant: While the drawings indicate that established mature trees have been integrated into the proposal, further consideration at the development permit stage will be needed to ensure that all mitigating options for retention have been explored. Further arborist information and detailed plans will be needed to inform decisions. Measures may be needed to mitigate impacts to offsite trees,

such as tree # 263. There should be very limited interventions proposed in the root protection zones of mature tree stands. To respect tree root zones and to avoid canopy pruning, alterations to built form and limitations to re-landscaping may be requested. Coordination with Park Board/ Engineering will be needed for retention decisions on City property.

10. Design development to locate, integrate and fully screen utilities in a manner which minimizes the impact to the open space design and public realm.
11. Design development to the Integrated Rainwater Management Strategy to explore opportunities for onsite rain water infiltration, as follows:
 - (i) Maximize landscape based best management practices;
 - (ii) Minimize the necessity for hidden mechanical water storage, except where this may be co-located beneath a sports field or a roof surface;
 - (iii) Increase the amount of planting to the rooftop areas, where possible;
 - (iv) Consider linear infiltration bio-swales along property lines;
 - (v) Use permeable paving on slabs and at grade;
 - (vi) Employ treatment chain systems (gravity fed, wherever possible); and
 - (vii) Use grading methods to direct water to soil and storage areas.

Note to applicant: refer to the City of Vancouver *Integrated Rainwater Management Plan (IRMP) Volume I and Volume II* for further information. A consulting engineer (subject matter expert) will need to be engaged and early phase soil analysis will be needed. Further comments may be outstanding at the development permit stage.

12. At the development permit submission stage:
 - (i) Provide plans, plan details and documentation/calculations that support integrated rainwater management, including absorbent landscapes, soil volumes and detention systems, as follows:
 - a. Detailed storm water report with calculations describing how the various best management practices contribute to the quality and quantity targets;
 - b. A separate soil volume overlay plan with schematic grading indicating intent to direct rainwater to infiltration zones;
 - c. A detailed landscape grading/drainage plan; and
 - d. An overlay plan that shows amount and ratio of vegetative cover (green roof), permeable/impermeable hardscaping and notations

describing the storage location of rainwater falling on each surface, including roofs.

Note to Applicant: Water balance calculations that assume soil volumes are receiving rainwater will only be valid if water falls directly on the soil or is directed from hard surfaces to the respective infiltration zones.

- (ii) Provision of a detailed Landscape Plan illustrating soft and hard landscaping.

Note to Applicant: The plans should be at 1/8": 1 ft. scale minimum. The Plant List should include the common and botanical name, size and quantity of all existing/ proposed plant material. Plant material should be clearly illustrated on the Plan and keyed to the Plant List. The landscape plan should include the public realm treatment (to the curb) and all existing or proposed street trees, adjoining walkways, surface materials, PMT/Vista transformers and public utilities such as lamp posts, hydro poles, fire hydrants.

- (iii) Provision of detailed architectural and landscape cross sections (minimum 1/4" inch scale) through common open spaces, rooftop patio areas, tree protection zones and the public realm.

Note to Applicant: For landscapes on buildings, the sections should illustrate the structure design, soil profile, tree root ball, tree canopy and any associated landscaping. For rooftop amenity areas, illustrate and dimension planters on slab, planter sizes (inside dimension), soil, root ball, retaining walls, steps, patios and portions of the adjacent building.

- (iv) Provision of a phased Tree Management Plan.

Note to applicant: It is preferred that the arborist tree management plan (rather than a separate tree removal plan created by the landscape architect) become the primary document for tree removal/ protection related matters. Attach the large scale tree management sheet (at the same size sheet as the architectural plans) to the landscape plan submissions for each phase at the development permit stage.

- (v) Provision of an arborist "letter of undertaking" to include signatures by the owner, contractor and arborist.

Note to Applicant: The signatures confirm that all parties are aware of the roles and responsibilities and that the project is on track to satisfy the steps and recommendations outlined by the arborist, as needed. For example, advanced planning will be needed to ensure that certain works, such as site supervision checkpoints, are coordinated.

- (vi) Submission of construction phase arborist reports, as needed, submitted to the Chief Building Official and the Landscape Planner in a timely manner subsequent to pre-scheduled arborist supervision visits.

- (vii) Provision of high efficiency irrigation for all planted areas on slab, including urban agriculture areas and individual hose bibs for green roof areas.

Note to Applicant: provide a separate irrigation plan (one sheet size only) that illustrates symbols for hose bib and stub out locations. There should be accompanying written notes on the same plan and/or landscape plan describing the intent and/or standards of irrigation.

- (viii) Provision of new street trees adjacent to the development site, where applicable.

Note to Applicant: Street trees to be shown on the development permit plans and confirmed prior to the issuance of the building permit. Contact Eileen Curran, Streets Engineering (604.871.6131) to confirm tree planting locations and Park Board (604.257.8587) for tree species selection and planting requirements. Provide a notation on the plan as follows, "Final spacing, quantity and tree species to the satisfaction of the General Manager of Engineering Services. New trees must be of good standard, minimum 6 cm caliper, and installed with approved root barriers, tree guards and appropriate soil. Root barriers shall be 2.4 m (8 ft.) long and 0.5 m (1.5 ft.) in. Planting depth of root ball must be below sidewalk grade. Call Park Board for inspection after tree planting completion".

- (ix) Provision of enlarged detailed elevations/sections for all vertical landscape structures and features (i.e. green walls, trellis).

- (x) Provision of an outdoor Lighting Plan.
Note to Applicant: Consider "CPTED" principles and avoid any lighting that can cause glare to residences. Refer also to the *CD-1 Design Guidelines for 4175 West 29th Avenue (St. George's Senior School)*.

- (xi) Incorporation of the principles of the City of Vancouver *Bird-Friendly Design Guidelines* for the protection, enhancement and creation of bird habitat and reduction of potential threats to birds.

Note to Applicant: Refer also to Condition 3.

Sustainability

13. Provision of a Recycling and Reuse Plan for Green Demolition/Deconstruction, for the demolition of existing buildings on site, to recycle/reuse at least 75% of demolition waste (excluding hazardous materials).

Note to Applicant: The Recycling and Reuse Plan for Green Demolition/Deconstruction should be provided at the time of each development permit application.

14. Any new building in the development will meet the requirements of the preceding *Green Buildings Policy for Rezoning*s (as amended up to January 14, 2016),

including a minimum of 63 points (LEED® Gold rating), with 1 point for water efficiency and stormwater management and a 22% reduction in energy cost as compared to ASHRAE 90.1 2010, along with registration and application for certification of the project.

Note to Applicant: A Sustainable Design Strategy must be submitted as part of each development permit that articulates which credits the applicant will be pursuing and how their building application, as submitted, incorporates strategies, features or technologies that will help achieve these credits. The strategy, along with the LEED checklist, must be incorporated into the drawing submission. A letter from a LEED Accredited Professional or Administrator must confirm that the proposed strategy aligns with the applicable goals of the rezoning policy. Proof of registration of the CaGBC must be provided with the application and the project registration number incorporated into the drawings. Application for Certification will be required at a subsequent stage.

15. In lieu of the requirements outlined in Condition 21, the applicant may choose to meet the requirements of the *Green Buildings Policy for Rezoning* (amended February 7, 2017), including all requirements for Near Zero Emissions Buildings (i.e. Passive House certified or alternate near zero emissions standard approved by the Director of Sustainability), or Low Emissions Green Buildings. The requirements for Low Emissions Green Buildings are summarized at: <http://guidelines.vancouver.ca/G015.pdf>.

Engineering

16. Provision of a Green Mobility Plan to the satisfaction of the General Manager of Engineering Services. Provide the following measures or other items as part of the Green Mobility Plan:
 - (a) Subsidized transit passes for students and staff;
 - (b) Cycling education and training for staff and students on an ongoing annual basis;
 - (c) Bicycle repair station;
 - (d) Enhanced cycling end of trip facilities;
 - (e) Reserved Carpooling spaces for staff;
 - (f) Rapid charging station for electric vehicles;
 - (g) Shuttle buses; and
 - (h) School buses.

17. Provision of any gas service to connect directly to the building without any portion of the service connection above grade within the road right of way.
18. Provision of construction details to determine ability to meet municipal design standards for shotcrete removal (*Street Restoration Manual* Section 02596 and *Encroachment By-law No. 4243*, Section 3A) and access around existing and future utilities adjacent your site. Current construction practices regarding shotcrete shoring removals have put City utilities at risk during removal of encroaching portions of the shoring systems. Detailed confirmations of these commitments will be sought at the building permit stage with final design achievements certified and confirmed with survey and photographic evidence of removals and protection of adjacent utilities prior to building occupancy. Provision of written acknowledgement of this condition is required. Please contact Engineering Services for details.

Note to Applicant: The owner or representative is advised to contact Engineering to acquire the project's permissible street use. Prepare a mitigation plan to minimize street use during excavation and construction (i.e. consideration to the building design or sourcing adjacent private property to construct from) and be aware that a minimum 60 days lead time for any major crane erection / removal or slab pour that requires additional street use beyond the already identified project street use permissions.

19. Provision of an adjusted crossing location on Camosun Street to avoid removal of any existing street trees. A crossing application is required and design approval of the crossing is required prior to issuance of the related development permit.
20. A pedestrian connection is required from the school bus drop-off area to the new school buildings.
21. Provision of a detailed landscape plan that reflects the off-site improvements sought for this site as part of the full development application.
22. Provide automatic door openers on the doors providing access to the bicycle room(s) and note on plans.
23. Design development to provide 'stairs free' loading access from the loading spaces to the elevator cores and the various uses within the buildings.
24. Design development to provide all Class A bicycle spaces to be located on the P1 parking level or at grade.
25. Provision of an improved plan showing the access route from the Class A bicycle spaces to reach the outside and note on plans.

Note to Applicant: The route must be 'stairs free' and confirm the use of the parking ramp, if required.

26. Design development to provide on-site bus drop-off spaces that do not require the buses to back up.

27. Provision of improved plans showing the required maneuvering for the Class B loading and school bus drop-off spaces.
28. Design development to provide parking, loading and bicycle spaces that meet the requirements of the *Parking By-law* and the *Parking and Loading Design Supplement*.

Note to Applicant: As there is no detailed information in the rezoning package, please ensure that the future development permit plans meet these by-law and design requirements.

29. Provision of updated transportation studies at future development permit applications for the site.

Low Carbon Strategy

30. The proposed approach to site heating and cooling, developed in collaboration with the City, shall be provided prior to the issuance of any development permit, to the satisfaction of the General Manager of Engineering Services.
31. Design of the development shall adhere to the following general requirements:
 - (i) Prior to issuance of development permit, the applicant must demonstrate, to the satisfaction of the General Manager of Engineering Services, that the approach to site heating and cooling will reduce the development's greenhouse gas emissions at buildout by a minimum of 50% relative to a business as usual ("BAU") (where BAU assumes high-efficiency natural gas boilers for space heating, ventilation, and domestic hot water heating, and chillers and/or cooling towers for any space cooling requirements).

Note to Applicant: The applicant will be required to demonstrate that the development is on track to achieve the above GHG reduction requirement at each stage of permit.

- (ii) The applicant must provide the following for approval by the General Manager of Engineering Services, prior to issuance of building permit:
 - (a) Detailed Design of any Low Carbon Energy System(s) including but not limited to building HVAC, mechanical heating system and domestic hot water system;
 - (b) Demonstrated compliance with minimum design requirements outlined in the *Performance Monitoring & Reporting Requirements for Low Carbon Energy Systems* (updated February 2014 or later), to enable energy metering and the monitoring of performance metrics during system operation for the purpose of optimizing system performance and preparing system performance reports; and

Note to Applicant: A proposed energy system *Performance Monitoring and Reporting Plan* shall be submitted at the time of building permit application for approval by the General Manager of Engineering Services prior to building permit issuance. The applicant shall refer to the City of Vancouver *Performance Monitoring and Reporting Requirements for Renewable Energy Systems* for further instructions on performance monitoring and reporting.

- (c) Written verification by a qualified engineer, confirming that the energy system is designed to provide low carbon energy such that the development will meet the mandated GHG performance limits.

Zero Waste Planning

- 32. Provide a Zero Waste Design and Operations Plan at the time of development permit, and updated with each successive development permit application, to the satisfaction of the General Manager of Engineering Services, as described in the *Rezoning Policy for Sustainable Large Developments*.

Note to Applicant: The Zero Waste Design and Operations Plan should have a site/development infrastructure design component and an ongoing operations/maintenance component. The document should be structured so as to replicate all of the numbered headings and sub-headings of the Zero Waste Design and Operations Plan and meaningfully address each of these headings.

Social Policy

- 33. Provide a Sustainable Food System Plan to include a minimum of three food systems assets as described in the *Rezoning Policy for Sustainable Large Developments*, to the satisfaction of the Director of Social Policy.

Note to Applicant: The application identifies the following food assets that can count towards the required three food assets that must be delivered as part of the development. The three identified food assets are (1) edible landscaping, (2) community gardens, and (3) on-site organics management. The following comments outline ways to strengthen the submission:

- (i) Edible landscaping:
 - a. Provide more details on the location and design of the edible landscaping.
 - b. Explore education and training opportunities in the gardens for students and connect such programs to the school kitchen/cafeteria.
- (ii) Shared garden plots:
 - a. Provide more details on the location and design of shared garden plots.

- b. Student shared gardening areas should reference and be designed to adhere to Council's *Urban Agriculture Guidelines for the Private Realm* and should provide maximum solar exposure, universal accessibility and provide amenities such as raised beds, water for irrigation, potting benches, tool storage, and composting.
- (iii) On-site organics management:
 - a. Additional details will be required, including, at a minimum: location, type of machine, and management structure.

CONDITIONS OF BY-LAW ENACTMENT

- (c) That, prior to enactment of the CD-1 By-law, the registered owner shall on terms and conditions satisfactory to the Director of Legal Services, the General Manager of Planning, Urban Design and Sustainability, the General Manager of Arts, Culture and Community Services, the General Manager of Engineering Services and the Approving Officer, as necessary, and at the sole cost and expense of the owner/developer, make arrangement for the following:

Engineering Services

1. Provision of a minimum 1.83 m (6.00 ft.) wide statutory right of way (SRW) adjacent to the entire east property line of the site to accommodate a public use sidewalk. The final location and SRW width to be determined at the development permit stage.
2. Provision of a Services Agreement to detail the on-site and off-site works and services necessary or incidental to the servicing of the site (collectively called the "services") such that they are designed, constructed and installed at no cost to the City and all necessary street dedications and rights of way for the services are provided. No development permit for the site will be issued until the security for the services are provided.
 - (a) Provision of a 1.83 m (6.00 ft.) CIP light broom finish concrete sidewalk with saw cut joints located on private property on the west side of Camosun Street along the site, including curb ramps at West 27th Avenue and West 28th Avenue.
 - (b) Provision of upgraded street lighting adjacent the site on West 29th Avenue and Camosun Street. A review of the existing lighting is required to determine its adequacy and upgraded lighting is to be provided where required.

Note to Applicant: The proposed sidewalk on Camosun Street may require separate lighting given its proximity to the existing lighting on Camosun Street.

- (c) Provision of new or replacement duct banks adjacent the development site that meet current City standards. Duct banks are to consist of electrical and communication ducts sized to meet City needs in a configuration acceptable by the General Manager of Engineering Services and in conformance with applicable electrical codes and regulations. A detailed design will be required prior to the start of any associated street work.

Note to Applicant: As-constructed documentation will be required that includes photographic and measured evidence of the installed number of conduits, their final locations and depths.

- (d) Provision of geometric and parking regulation changes adjacent to St. George's Senior School to the satisfaction of the General Manager of Engineering Services. The Traffic Study recommends that all school drop-off by private vehicles be facilitated on 29th Avenue and Camosun Street, where currently some student drop-off occurs on site. The Traffic Study is also proposing changes to allow additional pick-up and drop-off on 29th Avenue by the eastern driveway crossing. A further detailed review of the parking signage and geometric changes, including the potential removal of the existing midblock bulge on 29th Avenue, is required to see if additional on-street drop-off spaces can be achieved.
- (e) Provision of adequate water service to meet the fire flow demands of the project. The current application lacks the details to determine if water main upgrading is required. Please supply project details including projected fire flow demands, sprinkler demand, hydrant load, and domestic water demands to determine if water main upgrading is required. Should upgrading be necessary then arrangements to the satisfaction of the General Manager of Engineering Services and the Director of Legal Services will be required to secure payment for the upgrading. The developer is responsible for 100% of any water system upgrading that may be required.

3. Provision of all utility services to be underground from the closest existing suitable service point. All electrical services to the site must be primary with all electrical plant, which include but not limited to System Vista, Vista switchgear, pad mounted transformers, LPT and kiosks (including non-B.C. Hydro kiosks) are to be located on private property with no reliance on public property for placement of these features.

In addition, there will be no reliance on secondary voltage from the existing overhead electrical network on the street right-of-way. Any alterations to the existing overhead/underground utility network to accommodate this development will require approval by the Utilities Management Branch.

Note to Applicant: Please ensure that in your consultation with B.C. Hydro that an area has been defined within the development footprint to accommodate such electrical plant. Please confirm that this space has been allocated and agreement between both parties has been met.

4. Provision of a Traffic Management Strategy to the satisfaction of the General Manager of Engineering Services, including a letter of commitment from the school is required for the following items:
 - (a) Provision of \$300,000 towards traffic calming in the neighborhood to address impacts of the school traffic within the first five years of occupancy of the final phase of construction.
 - (b) Provision of all Class B bicycle spaces to be covered.
 - (c) Provide notifications to students and staff on a semi-annual basis (two times per year) of transportation demand management (TDM) measures being provided by the school as part of the Green Mobility Plan.
 - (d) Provide a limited Transportation Management Plan (TMP) update after each phase of the schools development plan outlining the following:
 - (i) Travel mode survey for the entire school students and staff with a minimum 90% response rate to be completed annually for three years post-occupancy.
 - (ii) Current and future TDM measures being implemented at the school.
 - (iii) Number of students and staff utilizing the various TDM measures.
 - (iv) Outline whether the school is meeting the previously set travel mode targets and to set new targets for the future.
 - (v) Include any neighbourhood concerns regarding the school traffic.
 - (vi) Submit a copy of the limited TMP to the School Liaison at the City of Vancouver for review.
 - (vii) Designate a TMP administrator at the school that will be responsible for conducting the mode surveys, dealing with traffic concerns around the school and implementing the TDM measures.
 - (viii) Provide an Internal Traffic Management Plan in brochure form that is to be distributed to all families.
 - (ix) Consider additional strategies to reduce vehicle trips and congestion around the school, such as:
 - a. Carpool strategies
 - b. Walking school bus
 - c. Bicycle train
 - d. Walking Wednesdays
 - e. Park and Walk a Block

Neighbourhood Energy Utility

5. Enter into such agreements as the General Manager of Engineering Services and the Director of Legal Services determine are necessary for securing the low carbon energy requirements of the development, which may include but are not limited to, agreements which require the developer to undertake and share with the City performance monitoring of the thermal energy system for the development on a reporting schedule, containing information, and prepared in a form as requested by the General Manager of Engineering Services.

Public Art

6. Execute an agreement satisfactory to the Directors of Legal Services and Cultural Services for the provision of public art in accordance with the City's Public Art Policy, such agreement to provide for security in a form and amount satisfactory to the aforesaid officials; and provide development details to the satisfaction of the Public Art Program Manager.

Note to Applicant: Please call Karen Henry, Cultural Planner, 604-673-8282, to discuss your application.

Environmental Contamination

7. If applicable:
 - (i) Submit a site profile to the Environmental Protection Branch (EPB);
 - (ii) As required by the Manager of Environmental Protection and the Director of Legal Services in their discretion, do all things and/or enter into such agreements deemed necessary to fulfill the requirements of Section 571(B) of the Vancouver Charter; and
 - (iii) If required by the Manager of Environmental Protection and the Director of Legal Services in their discretion, enter into a remediation agreement for the remediation of the site and any contaminants which have migrated from the site on terms and conditions satisfactory to the Manager of Environmental Protection, City Engineer and Director of Legal Services, including a Section 219 covenant that there will be no occupancy of any buildings or improvements on the site constructed pursuant to this rezoning until a Certificate of Compliance satisfactory to the City for the on-site and off-site contamination, issued by the Ministry of Environment, has been provided to the City.

Note to Applicant: Where the Director of Legal Services deems appropriate, the preceding agreements are to be drawn, not only as personal covenants of the property owners, but also as registered charges pursuant to the Land Title Act.

The preceding agreements are to be registered in the appropriate Land Title Office, with priority over other such liens, charges and encumbrances affecting the subject site as is considered advisable by the Director of Legal Services, and otherwise to the satisfaction

of the Director of Legal Services prior to enactment of the By-law and at no cost to the City.

The preceding agreements shall provide security to the City including indemnities, warranties, equitable charges, letters of credit and withholding of permits, as deemed necessary by and in a form satisfactory to the Director of Legal Services. The timing of all required payments, if any, shall be determined by the appropriate City official having responsibility for each particular agreement, who may consult other City officials and City Council.

* * * * *

**4175 West 29th Avenue (St. George's School)
DRAFT CONSEQUENTIAL AMENDMENTS**

DRAFT AMENDMENTS TO THE SUBDIVISION BY-LAW NO.5208

A consequential amendment is required to delete Parcel 100, Block 292, District Lot 140, Group 1, New Westminster District Plan BCP420, PID: 025 453-254, from the RS-5 maps forming part of Schedule A of the Subdivision By-law.

4175 West 29th Avenue (St. George's School)
ADDITIONAL INFORMATION

1. Urban Design Panel

The Urban Design Panel (UDP) reviewed this application on December 10, 2014. The application was supported.

EVALUATION: SUPPORT (6-0)

Introduction: Grant Miler, Rezoning Planner, introduced the proposal for an application to rezone the site of St. George's Senior School from RS-5 to CD-1 to facilitate the implementation of the school's long-range plan in three phases. The goal is to upgrade outdated classrooms and facilities and to accommodate residential students on site. Currently, senior school residential students are housed in dormitories at the St. George's Junior School site two blocks to the east. The current student enrollment is approximately 750 of which 120 are residents. The school does not intend to increase total enrollment, but rather to create a world class campus with potential to accommodate up to 240 residential students.

Phasing is proposed as follows.

Phase 1:

- 3-storey boarding house including 120 dormitory units with associated staff residences (maximum height 49 feet);
- Two 3-storey academic buildings (maximum height 57 feet).

Phase 2:

- Addition to the Main building (maximum height 42 feet).

Phase 3:

- 3-storey boarding house including 120 dormitory units with associated staff residences (maximum height 49 feet).

Parking:

- 54 surface parking spaces;
- 111 underground parking spaces.

Mr. Miller described the policy context for the site noting that the *Dunbar Community Vision* supports consideration of rezoning applications on institutional sites for purposes of expansion, downsizing or reuse. Further, the *Rezoning Policy for Sustainable Large Developments* applies to this 14 acre site. This policy complements the standard *Green Buildings Policy for Rezonings* intending to realize the potential of large redevelopment sites. However, in this case the proposed use is of modest density and is therefore not deemed a viable candidate for a neighbourhood energy utility.

Colin King, Development Planner, further described the proposal and mentioned that the proposal is to put in place a master plan guide for future development of the St. George's Senior School Campus on the corner of West 29th Avenue and Camosun Street. Mr. King noted that the school is located within the western quadrant of the site, and is predominately one and 2-storey buildings. In describing the context he noted that currently there are playfields and an undeveloped edge on the Camosun Street frontage and then single family residences to the east.

As well there are mature trees on the West 29th Avenue frontage with vehicular access to the site and single family residences to the west. On the north of the site there are single family residences along half of the frontage and a substation to the east. Mr. King explained that from a form of development point of view, the rezoning aims in terms of height and density are broadly possible under current zoning using relaxations available to schools to reconcile their land-use with the predominately single-family dwelling districts in which they are located. The master plan through rezoning is a tool that facilitates broad agreement of the form of future development of the site. If agreed, it gives the school security in fund raising by demonstrating a vision for their operation. For the neighbourhood, it gives security in terms of knowing what to expect in the future. The alternative is to pursue each of the buildings or phases under zoning seeking relaxation of the Director of Planning in each and every case.

The proposal plans to address deficiencies of existing academic spaces and the off-site location of senior boarders at the junior school. As well there is a provision of new academic spaces, decanting of school uses with renovation of existing academic spaces and the development of residential dorms. Mr. King mentioned that parking is currently surface parking accessed from West 29th Avenue. The proposal will reduce the surface parking and provide an underground parking area beneath the academic houses accessed from Camosun Street. The proposed dorms are envisioned as 3-storey residences for 60 students in each house with common areas. They will be split into two phases: the first in the northwest corner to the rear of the existing dwellings and the second to the northeast adjacent to the substation.

Mr. King mentioned that the site is large enough that the City's sustainable large sites policy will apply. As the project moves forward through the development permit application stage, additional information will be required to confirm the proposed LEED™ points are achievable under the Sustainable Sites category and to provide detailed information, confirming the performance of the site design under this policy direction.

Advice from the Panel on this application is sought on the following:

- Is the Panel in support of the form of development as it relates to height, density and massing?
- Provide commentary around the athletic hall volume within the west elevation as it relates to contextual fit with surrounding residential uses.
- Commentary on the neighbourliness of proposed development along the north property line as it relates to both form of development and proposed phasing.

Mr. King took questions from the Panel.

Applicant's Introductory Comments: Tom Matthews, St. George's School's Headmaster gave a brief introduction on the school. He mentioned that the Plan will help improve the quality of teaching and learning spaces. Some of the classrooms do not have windows so the plan is to relocate that space into more spacious surroundings with better light.

Randy Fielding, Architect, further described the proposal and mentioned that the way they are looking at the site is to have better connections. The original building had more daylight and connections to the site originally and over time pieces were added and made it more closed off to the community. They are preserving the big lawn and trying to make it feel more significant and as well they are taking out a piece of the building to increase indoor connections. Mr.

Fielding mentioned that they have a path that is open to the public with edible gardens. The way the massing was done was to be able to relate to the adjacent residential and soften the edge to create small outdoor spaces. He mentioned that the gym building has been located 75 feet from the property line and set a level below grade in order to respect the adjacent residential. There will be 110 new underground parking spaces that will reduce a lot of the traffic on West 29th Avenue. Part of the Plan is working with the City to reduce traffic for people accessing and exiting the school property. Mr. Fielding mentioned that there was some concern in the neighbourhood regarding phasing the proposal. He said that if the residential halls weren't constructed the space would probably end up being playing fields with lights. In meetings with the City, residential to residential was the best use for the area and will be the quietest use for the neighbours.

The applicant team took questions from the Panel.

Panel's Consensus on Key Aspects Needing Improvement:

- Design development through phasing to allow for more room between the new academic building and the existing building;
- Design development to improve the expression of the west elevation;
- Consider noise mitigation measures for the work shop;
- Consider adding pathways and weather protection around the edge of the property;

Related Commentary: The Panel supported the height, density and massing in the proposal.

The Panel supported the separation between the athletic hall and the residential area. They thought it would be a strong move to frame the green space with the residences. They did however have a concern regarding the general massing and layout and through the new academic building pinched up against the existing building on the corner. They liked the grand feel to the entrance but through the new building being taller than the existing buildings, crowded them a little. One Panel member suggested shifting the massing in the wing to give it more space. Another Panel member noted that the west elevation had a long run with a flat elevation whereas the other buildings have a grain and scale that fits well with the surrounding neighbourhood. It was suggested that some breaking up and articulation of the façade was warranted.

Regarding the landscaping, it was noted that the site design strategy needs to be more comprehensive and acknowledge the quad. As well there should be some acoustic control for the wood shop. It was suggested that the landscaping was not developed as there is still a need to look at having pathways along the property line as well as screening and fencing for privacy. There could also be a strategy regarding circulation through the site. One Panel member suggested screening the parking area to the neighbours.

The Panel thought the level of sustainability was well thought out but there needed to be weather protection on the new buildings. As well one Panel member suggested the applicant consider renewal energy across the site. Another Panel member thought this was an opportunity to look at storm water planning and to ensure that the storm water coming off the site feeds into a cistern and then into the water shed. He also suggested the school work with the First Nations for a water stewardship management plan.

Applicant’s Response: Mr. Fielding said he appreciated all the comments and thought they were thoughtful and helpful.

2 Public Consultation Summary

Original Rezoning Application: August 6, 2014

Public Notification

A rezoning information sign was installed on the site on September 8, 2014. Approximately 767 notifications were distributed within the neighbouring area on or about September 8, 2014. Notification and application information, as well as an online comment form, was provided on the City of Vancouver Rezoning Centre webpage (vancouver.ca/rezapps).

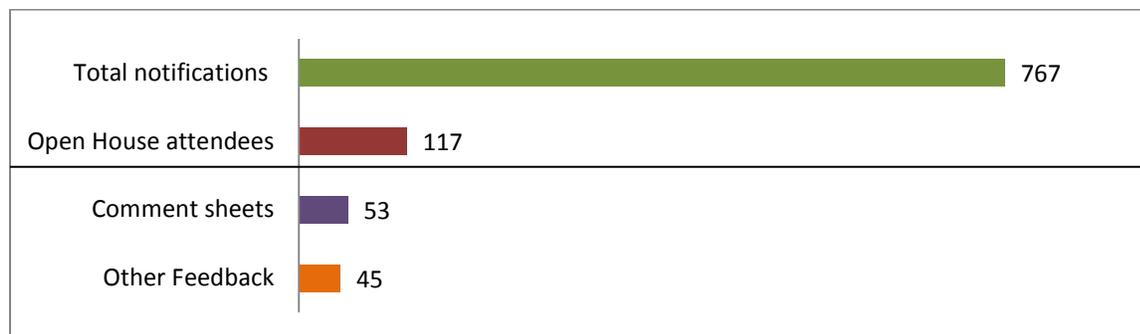
September 22, 2014 Community Open House

A community open house was held from 5:00-8:00 pm on September 2, 2014, at St. George’s Senior High School, 4175 West 29th Avenue. Staff, the applicant team, and a total of approximately 117 people attended the Open House.

Public Response

Public responses to this proposal have been submitted to the City as follows:

- 53 comment sheets, submitted in response to the September 22, 2014 open house.
- 45 letters, e-mails, and online comment forms.



The following is a summary of the major themes of support for the original application, organized by topic and ordered by frequency:

- **General Support:** Respondents indicated a general support for the school’s proposed redevelopment, with comments specifying the process as inclusive and thoughtful.

Local Character: Some respondents indicated that the design of the proposal is mindful of the surrounding context.

School Improvements: Some respondents cited the importance of having improved educational facilities at the school, enabled by this rezoning.

Parking and Traffic: Some felt that the proposed design and inclusion of underground parking would improve the existing traffic congestion during school pick-up and drop-off.

The following is a summary of the major themes of concern for the original application, organized by topic and ordered by frequency:

- **Parking and Traffic:** Parking, traffic, and related safety issues were recognized in comments as a major concern from the community. There are concerns that neighbourhood streets, particularly 29th Avenue, are already overburdened as a result of school activity and that the impact will be intensified by this proposal. There was also criticism that the transportation study included in the submission is insufficient and not representative of the situation experienced regularly.
- **Noise:** Concerns were expressed about quality of life impacts stemming from increased noise at the school site, both during any construction phases and in the course of daily operations after the proposed expansion
- **Built Form and Local Character:** Respondents indicated that three storeys is too high for the character of the area. Some felt that the density and use, perceived as commercial, were not appropriate or fitting for the Dunbar neighbourhood. There were also concerns that privacy for adjacent neighbours would be reduced and that private views may be impacted.
- **Green Space:** Respondents expressed concerns about the retention and protection of larger site trees, with some expressing fear over loss of the trees. There were also worries about diminishment of access and enjoyment of Pacific Spirit Park by the public stemming from the proposal. Some felt that higher forms on the St. George's site would preserve more green space through reduced building footprints.
- **School Expansion:** There are concerns that school enrollment will increase over time and that future rezoning applications may be brought forth by St. George's School. There were also questions about use of the dormitory buildings during summer months and if there was a use plan for that period. Some stated that the current site is an inappropriate location for an expanded facility, and does not benefit the immediate community.
- **Light Pollution:** Comments reflected a concern that more intensive uses such as residence dorms would lead to more intense, proximate, and persistent light pollution for neighbours.
- **Property Values:** Respondents expressed concern that the proposal would harm homeowners as the property values of nearby Dunbar homes would decline were the school to be expanded.

Staff received the following miscellaneous comments regarding the original application:

- The proposal is acceptable if the school does not increase enrolment.

- More information is required on the phasing of the development, and neighbours should be kept apprised of any elements moving forward in the future.
- It was felt that St. George's School had inconsistencies within their presentation of the proposal.
- There was also the desire to preserve and maintain the pathway between King Edward Avenue and the tennis courts.

Revised Rezoning Application: January 12, 2017

Public Notification

A rezoning information sign was installed on the site on March 14, 2017. Approximately 2,098 notifications were distributed within the neighbouring area on or about March 14, 2017. Notification and application information, as well as an online comment form, was provided on the City of Vancouver Rezoning Centre webpage (vancouver.ca/rezapps).

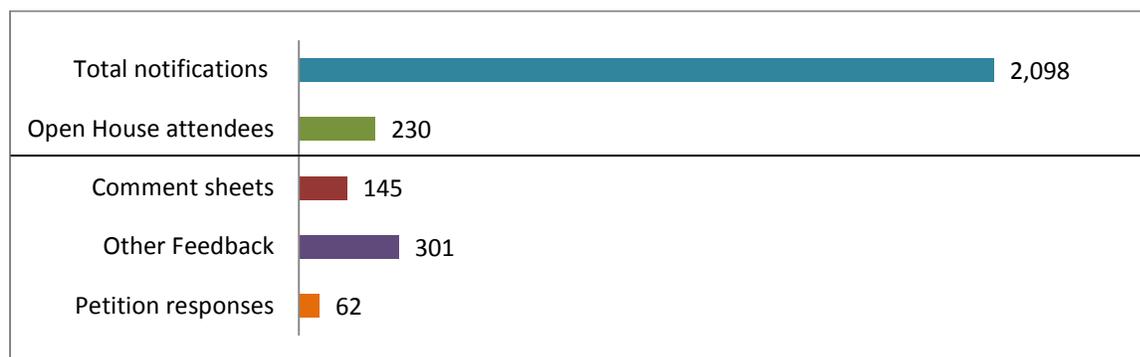
March 28, 2017 Community Open House

A community open house was held from 5:00-8:00 pm on March 28, 2017, at St. George's Senior High School, 4175 West 29th Avenue. Staff, the applicant team, and a total of approximately 230 people attended the Open House.

Public Response

Public responses to this proposal have been submitted to the City as follows:

- 145 comment sheets, submitted in response to the March 28, 2017 open house.
- 301 letters, e-mails, and online comment forms.
- A petition with 62 responses in opposition to the rezoning application.



The following is a summary of the major themes of support for the revised application, organized by topic and ordered by frequency:

- **General Support:** Respondents indicated a general support for the proposal.
- **School Improvements:** Respondents supported the proposal for improving learning opportunities for students, stating that it would enable a world class facility that would support students' success.

- **Responding to Community Feedback:** Respondents felt that the revised application responds well to community feedback received during the public consultation for the original proposal. They believed the process was inclusive and led to a well thought-out application.
- **Parking and Traffic:** Respondents believed that the proposed circulation plan and provision of underground parking would improve the traffic situation around the school.
- **Site Design:** The overall site design was praised as attractive and functional, with some respondents stating that the proposal fits well into the character of the neighbourhood, and would increase the appeal of the area.
- **Green Spaces:** Respondents supported the provision of new green spaces in the revised proposal, and appreciated the landscaping and sustainable design elements.
- **Community Benefit:** Some respondents supported the proposal by citing the positive benefit the St. George's school has had for the broader community. They believe that an expanded school would further benefit the neighbourhood.

The following is a summary of the major themes of concern for the revised application, organized by topic and ordered by frequency:

- **Parking and Traffic:** Parking, traffic, and related safety issues were recognized in comments as a major concern from the community. There are concerns that streets, particularly 29th Avenue, are already overburdened as a result of school activity and that the impact will be intensified by this proposal. There was also concern that locating the underground parking access at Camosun Street and West 28th Avenue would negatively impact adjacent residents.
- **Neighbourhood Impact:** Respondents expressed concerns about the impact an expanded school would have on the surrounding neighbourhood. In particular, respondents were concerned that an influx of people resulting from the school expansion would infringe on the residents' privacy and quiet enjoyment of the neighbourhood.
- **Built Form:** Respondents stated that the school design is too large and does not fit into the character of the single-family neighbourhood, which is zoned RS-5.
- **Public Access to Green Spaces:** Some respondents believed that site layout would close off the green spaces at the school to the public. Some respondents stated that views of the open green space of the school fields were important to them, and that these would be lost under the proposal.
- **General Opposition:** Some respondents indicated general opposition to the proposal.

- **Original Rezoning Application:** Some respondents expressed concern that the proposal has changed from the original application, and believe that the original plans should be maintained.

Staff received the following miscellaneous comments regarding the revised application, ordered by frequency:

- The current building is functional and there is no need for expansion.
- An upgrade to the school is necessary as the current buildings are old and an eyesore to the community.
- The increased setbacks in the revised application improve the visual appeal of the site.
- There was a lack of public notification regarding the consultation process.
- The long term construction will exacerbate the disruption experienced by neighbours of the school.
- The access to the underground parking should be off of West 29th Avenue.
- An increase in students at an expanded school will lead to an increase in noise and crime. For example, students smoke marijuana in residential areas.
- An alternative location for a large school should be identified that is not near or burdensome to a residential community.
- Aspects of the application package require further clarification, such as specifics of the exterior design, shadowing, and parking.
- An expanded school will cause property values in the adjacent Dunbar neighbourhood to decline.
- The school may not adhere to the proposed Operational Management Plan.
- More height should be allowed on the site.
- More housing should be provided for students and staff.
- The buildings should operate entirely on green energy.
- To reduce impacts from trucks removing debris off-site, the debris should be used on-site to raise the sports field.
- The proposed guidelines are too vague; specific plans are necessary to provide feedback.
- The project should ensure that the existing trees are retained.
- The rezoning should be supported because it commits the site to being a school use, as opposed to an RS-5 use.
- 100 ft. setbacks should be required from the property line.
- The site should be rearranged, with the theatre and gym located underground and the tennis courts above them.
- A cul-de-sac should be located at West 26th Avenue and Camosun Street.
- A bike path should be installed on Imperial Drive, along with traffic counts.
- A 75% reduction in property tax for an adjacent resident is requested as compensation if the rezoning is approved.

3 Application Timeline and Consultation

The following is a summary of the application timeline and consultation, including pre-application meetings led by the applicant team.

Pre-application meetings led by St. George's Senior School:

- Good Neighbour Committee Meetings: November 22, 2011 and June 27, 2012
- Community Master Planning Process meeting: March 8, 2012
- Community Master Plan concepts meeting: June 19, 2012
- Open House with Dunbar Community: November 28, 2012
- Dunbar Residents' Association meetings: March 1, 2012, January 15, 2013 and February 18, 2014
- Pre-application Open House with Dunbar Community: October 28, 2013

Rezoning application:

- Application submitted: August 6, 2014
- City-led open house: September 22, 2014

Revised rezoning application

- Revised application submitted: January 12, 2017
- City-led open house: March 28, 2017

* * * * *

4175 West 29th Avenue (St. George's School)
FORM OF DEVELOPMENT

Figure 1: Site Plan and Potential Building Footprints



Figure 2: View looking west from Camosun Street between 28th Avenue and 29th Avenue



Figure 3: View looking west from Camosun Street between 27th Avenue and 28th Avenue



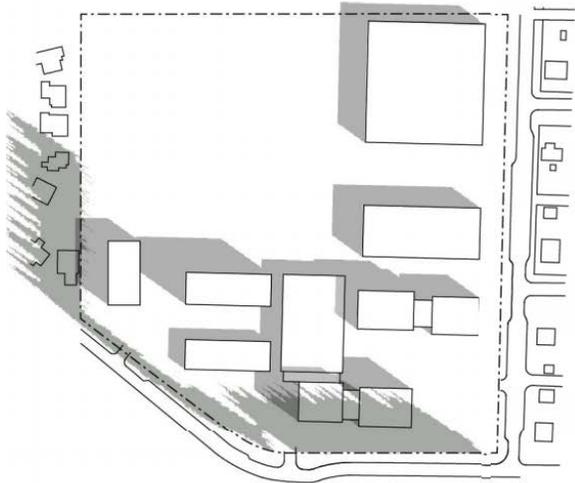
Figure 4: View looking northwest from 29th Avenue and Camosun Street



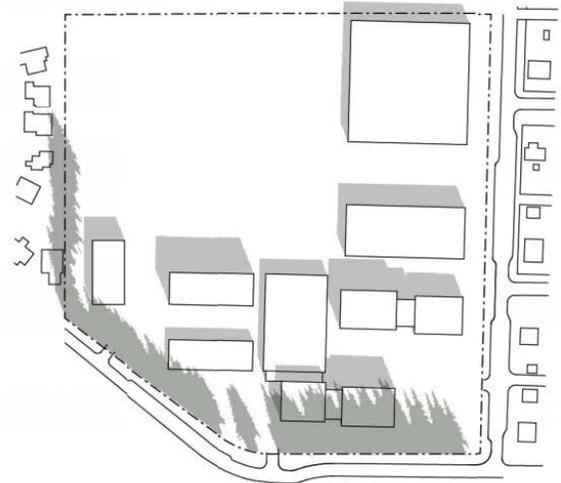
Figure 5: View looking southeast from northwest of campus



Figure 6: Shadow Studies (Equinox)



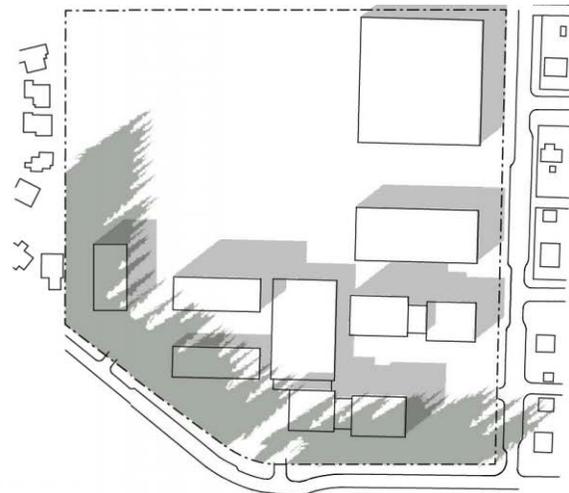
MAR/SEPT 21 - 10:00



MAR/SEPT 21 - 12:00



MAR/SEPT 21 - 14:00

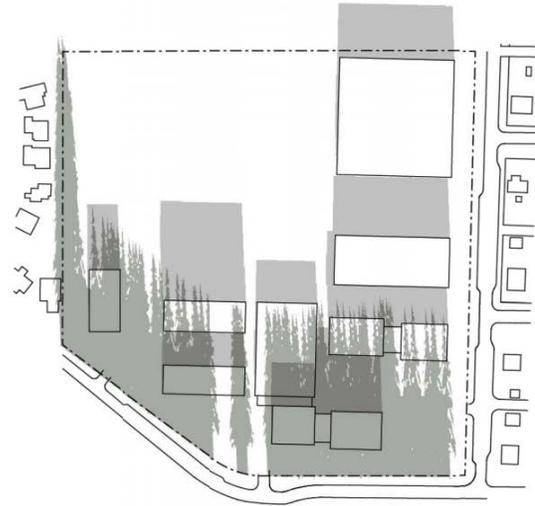


MAR/SEPT 21 - 16:00

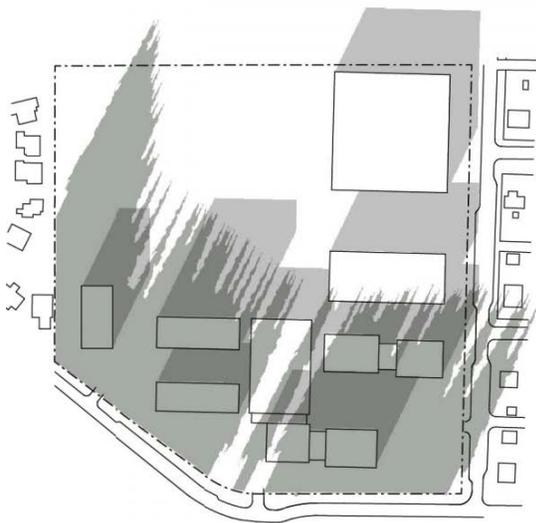
Figure 7: Shadow Studies (Winter Solstice)



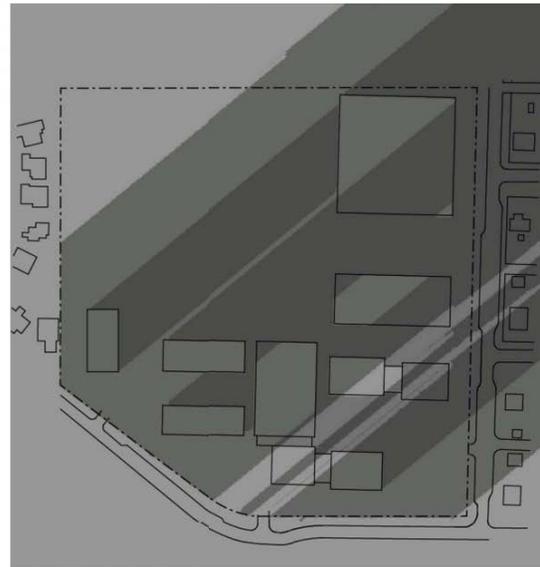
DEC 21 - 10:00



DEC 21 - 12:00



DEC 21 - 14:00

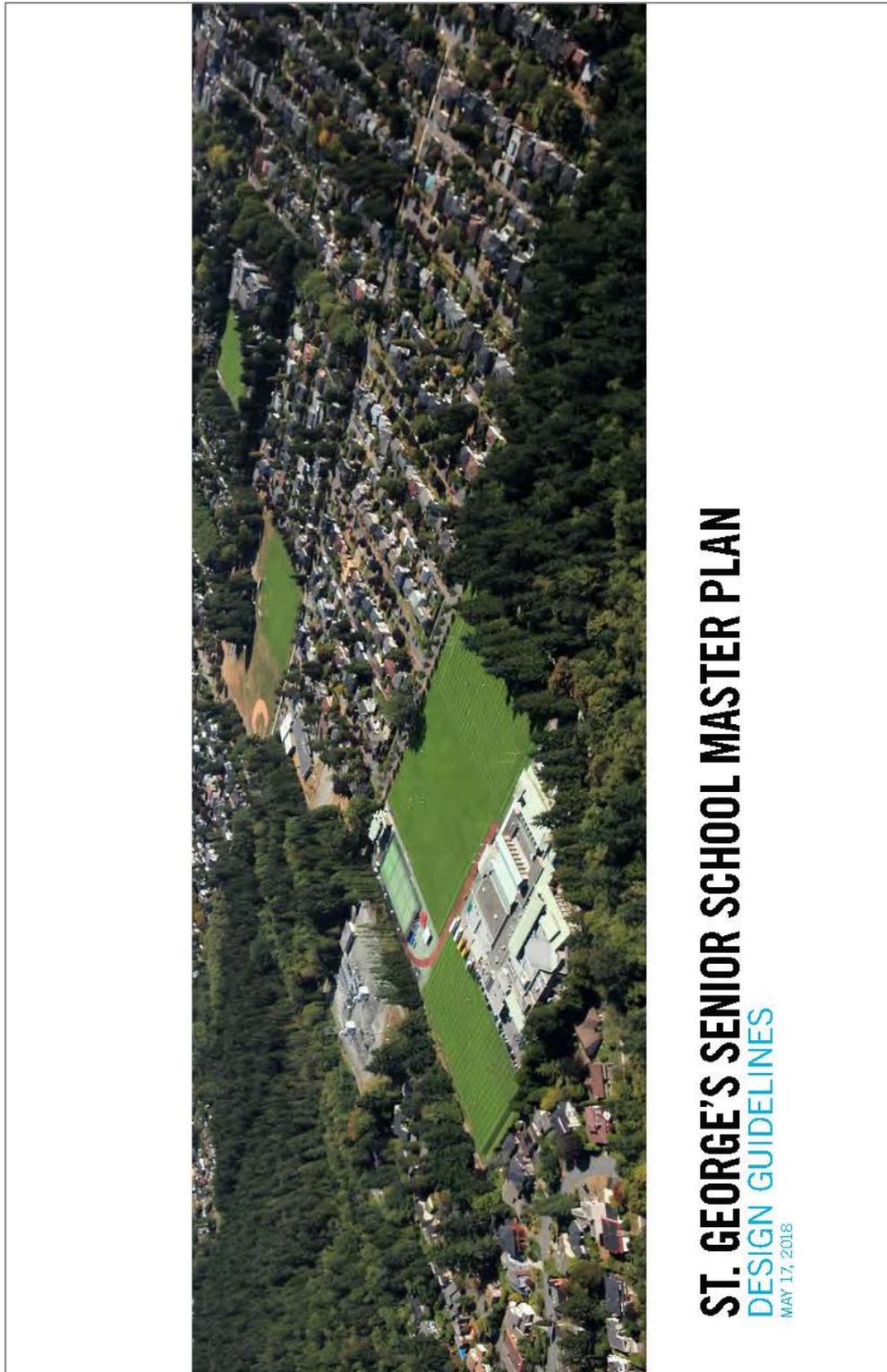


DEC 21 - 16:00

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4175 West 29th Avenue (St. George's School)
CD-1 DESIGN GUIDELINES

Please see <http://rezoning.vancouver.ca/applications/4175w29th/index.htm> for a full-size PDF.



ST. GEORGE'S SENIOR SCHOOL MASTER PLAN
DESIGN GUIDELINES
MAY 17, 2018

ST. GEORGE'S SENIOR SCHOOL

4175 W 29TH AVENUE, VANCOUVER

PROJECT CONTACT

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PROJECT TEAM

PERKINS+WILL HAPA



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1.0 APPLICATION + INTENT

1.1 APPLICATION + INTENT

The intent is to rezone the Senior School campus from RS-5 One Family Dwelling District to CD-1 Comprehensive Development District to establish a long-term Master Plan. By providing a comprehensive strategy that allows for future growth and flexibility, while replacing outdated and seismically vulnerable buildings, the new Master Plan will meet the future educational needs of the school and provide a campus of buildings and open space that responds to the neighbourhood context.

The Design Guidelines are intended to guide development in terms of height, massing, density, site access, and landscape design.

The Guidelines will be used by staff in evaluating proposed developments by ensuring each proposal meets criteria in the Guidelines; is well-integrated with the surrounding neighbourhood; parks, open spaces, and mobility networks; and achieves excellence in architecture and urban design.

2.1 SITE DESCRIPTION

St. George's School For Boys was founded in 1930 and continues to play an important role in the Dunbar community. Located at the intersection of West 29th Avenue and Camosun Street, the school is situated on the edge of Pacific Spirit Park within a residential neighbourhood that has grown up around the school over the last 87 years. The 5.7 hectare (14.1 acre) site is bordered on the

ST. GEORGE'S SENIOR SCHOOL MASTER PLAN | DESIGN GUIDELINES

2.0 OVERVIEW + CONTEXT

St. George's Senior School campus is located at the northwest corner of Camosun Street and West 29th Avenue, on the western edge of the City of Vancouver. The campus is located in a single-family residential area of Vancouver's Dunbar neighbourhood. The site abuts the Camosun Substation on its northern edge, single-family residential homes to the east and west and Pacific Spirit Regional Park to the south.

east, west and partially on the north by single detached dwellings, on the south by Pacific Spirit Park, and the Camosun Substation on the north-east portion of the site.



Aerial photograph of the property



Edge of Pacific Spirit Park to the south of campus, along West 29th Avenue



East edge of campus looking west from Camosun Street



View of campus from the intersection of West 29th Avenue and Camosun Street

2.0 OVERVIEW + CONTEXT

2.2 ACCESS

PEDESTRIAN

Many students approach the school on foot from the surrounding neighbourhood, from the St. George's Junior School Campus, and from public transit routes. Three of the trails in Pacific Spirit Park terminate at the school.

BICYCLE

There is an extensive network of bicycle routes throughout Dunbar, including designated routes along both Camosun Street and West 29th Avenue, adjacent to the site. End-of-trip facilities are currently provided for staff and students and will continue to be provided in the future.

PUBLIC TRANSIT

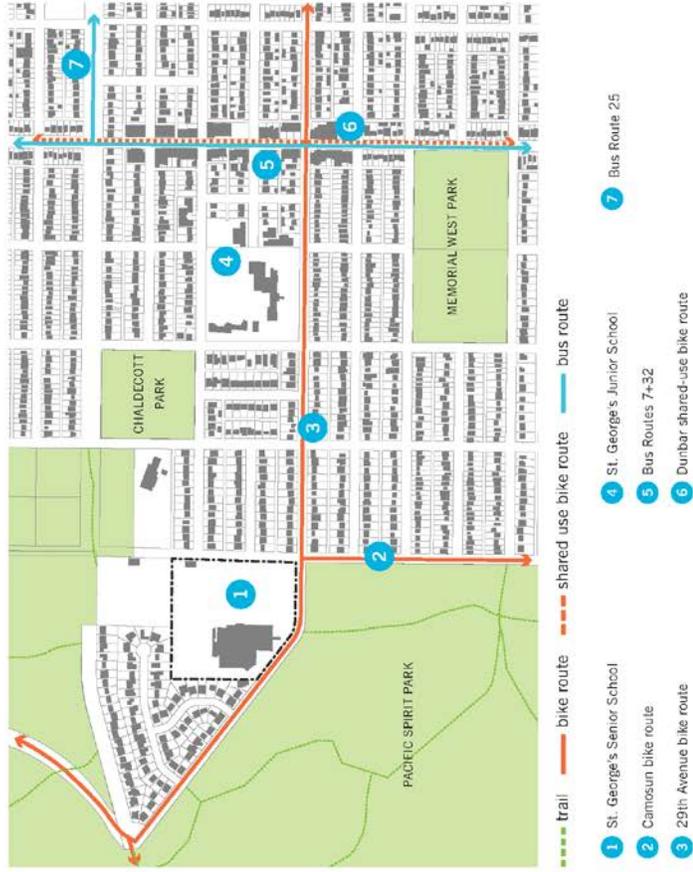
This section of Dunbar is served by bus routes connecting users to the rest of the City including the #7 and #32 along Dunbar and the #25 along King Edward Avenue.

SCHOOL BUS

St. George's operates eight school bus routes to minimize single occupant vehicle trips. These buses currently park on the street. To improve traffic congestion and free up parking spaces, the school's Master Plan will relocate bus drop-off and pick-up functions on-site.

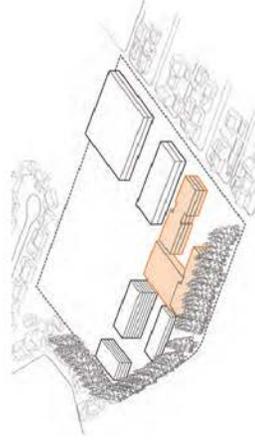
VEHICLE

The site is surrounded by residential roads and is located near to the West King Edward Avenue and Dunbar Street arterials. Traffic congestion occurs in the immediate vicinity of the school during the morning pick-up period and, to a lesser extent, during the afternoon pick-up period. With no increase to enrollment, and a proactive approach to transportation demand management, vehicle volume is projected to decrease over time. By distributing drop-off and pick-up along the perimeter of the site, traffic congestion is projected to be eased. Parking spaces will be provided on-site for faculty and staff and for evening and weekend events.



3.0 SITE PLANNING

The Master Plan for St. George's Senior School recognizes the important role that the school plays within the larger community. The Master Plan aims to replace and update academic facilities to meet the demands of 21st-century learning, while at the same time creating a cohesive campus of buildings that respond to the context and create a stronger relationship between outdoor and indoor spaces.

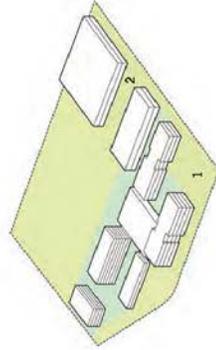


Buildings that frame outdoor spaces

BUILDINGS

INTENT: ESTABLISH A NEW ACADEMIC HEART OF THE CAMPUS.

- Create a campus of buildings with active spaces in between.
- Cluster active ground-floor uses around the courtyard and other outdoor spaces to create a vibrant and active environment for students and staff.
- Design buildings in a way that is appropriate to an academic institution of this scale and that respects the neighbourhood context around the school.



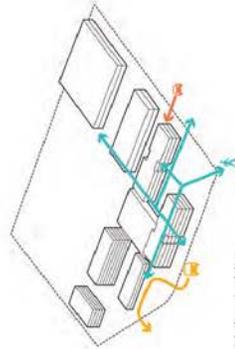
Abundance of open spaces

OPEN SPACES

INTENT: MAXIMIZE CONNECTIONS TO THE OUTDOORS, BOTH PHYSICAL AND VISUAL.

- Establish an entrance plaza of at least 0.4 hectare to create intuitive wayfinding to the front door and present a welcoming face to the community (see 1 on the diagram above).
- Create an enhanced public realm along Camosun Street by providing a new sidewalk and designing a community-oriented open space of at least 0.4 hectare along the east edge of the site (see 2 on the diagram above).
- Provide ample outdoor spaces throughout the campus, including places for outdoor learning, study, relaxation, play and reflection.
- Respect and enhance the site ecology by increasing the tree canopy and habitat area.
- Encourage opportunities for growing food.
- Create a comprehensive stormwater management plan and integrate strategies, such as bioswales and infiltration ponds, into the landscape design for the campus.

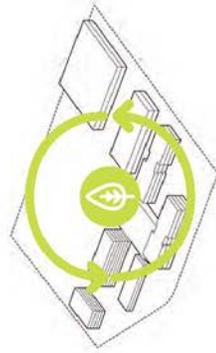
3.0 SITE PLANNING



Safe and intuitive circulation

CIRCULATION INTENT: SIMPLIFY AND CLARIFY CIRCULATION WITHIN AND AMONG BUILDINGS.

- Provide safe, comfortable and convenient walking and cycling connections and minimize on-site roadways.
- Create clear and intuitive on-site pedestrian circulation that is universally accessible and provides weather protection where appropriate.
- Ensure vehicular access points for underground parking, bus drop-off and pick-up areas, and loading area are clearly delineated and provide minimal disruption to the pedestrian realm and to the bike route on West 29th Avenue.
- Distribute vehicular drop-off areas around the site perimeter to reduce congestion.
- Accommodate school bus drop-off, pick-up, and parking on school property.



Site-wide sustainability strategies

SUSTAINABILITY INTENT: DEMONSTRATE LEADERSHIP IN SUSTAINABILITY

- Consider building and site-wide strategies for sustainability, including water and energy use, greenhouse gas emissions, health, materials and waste reduction.
- Integrate didactic and interactive features into the design to encourage learning about sustainability across the campus.
- Encourage alternative modes of transportation such as biking, walking and school-run bus services.
- Retain existing trees on site where possible.
- Integrate rainwater management strategies to maximize pervious cover and on-site infiltration opportunities, and to manage rainwater runoff quality. Refer to section 4.3 Working Landscapes for further detail.

4.0 OPEN SPACE

The guidelines outlined in the following section establish an open space strategy for the St. George's Senior School Campus. The campus landscape should honour the site's history, embrace the unique natural context of its surroundings, and provide engaging elements for both students and visitors.

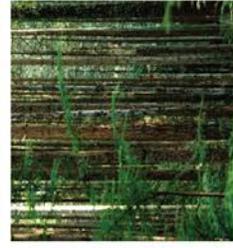


4.1 NATURAL CONTEXT

INTENT: REFLECT THE UNIQUE LANDSCAPE OF BRITISH COLUMBIA'S TEMPERATE RAINFOREST IN THE CAMPUS MASTER PLAN AND PUBLIC REALM

Located on a peninsula surrounded by Pacific Spirit Park, St. George's School has a rich and diverse natural context. The stands of mature cedar, spruce, and hemlock trees extend onto the campus from the park. Camosun Bog is an important ecosystem to the north, as is the Musqueam Creek watershed to the west and south.

- Develop a campus that is informed by the diverse ecosystems of the region.
- Retain existing trees along campus edges and enhance with new plantings, especially along the Camosun edge.
- Explore the opportunity for an ethnobotanical landscape along West 29th Avenue, to reinforce the natural and cultural history of the site.
- Add wildlife habitat, potentially on green roofs.



- Existing Trees
- Potential for New Coniferous Trees
- Potential for New Deciduous Trees
- Potential Ethnobotany Zones

4.0 OPEN SPACE



Existing view along West 29th Avenue



Enhanced connections to the forest.

- More direct physical connection through new pedestrian crossing.
- Enhanced relationship between the on-site landscape and the forest across the street.
- Ethnobotanical plantings appropriate and specific to the region.
- New habitat.
- Preservation of existing mature trees and addition of new trees as appropriate.

4.0 OPEN SPACE

4.2 WELCOMING THE COMMUNITY INTENT: CELEBRATE ST. GEORGE'S PLACE IN THE COMMUNITY WITH WELCOMING EDGES, OPEN SPACES, AND VIEWS INTO THE CAMPUS

For 87 years, St. George's School has been a key part of the Dunbar community. The school has strived to be a good neighbour and has worked hard to instill a sense of civic responsibility in students. The school has never built a perimeter wall or erected large chain link fences to contain students or keep neighbours out. Community members are invited to visit the school and walk the school's grounds. Visitors are generally welcome on the site, although the school maintains the right to request them to leave if necessary. The school's redevelopment envisions creating a generous tree-lined promenade on Camosun Street and a forest trail through the trees along the south perimeter. It is hoped that these areas will provide a gentle and welcoming transition to the site that builds the sense of community and place. Respectful visitors will continue to be welcomed to the site.

EDGES THAT WELCOME

- Use generous setbacks to create diverse, porous, and usable edges.
- Establish an entry plaza of at least 0.4 hectare adjacent to the intersection of 29th Avenue and Camosun Street.
- Enhance the existing streetscape along Camosun Street through the provision of a tree-lined promenade running parallel to the street.
- Provide a community-oriented open space of at least 0.4 hectare to allow visual and physical access to sports fields from Camosun Street.
- Create a walking path among the mature trees along West 29th Avenue.

THRESHOLDS

- Use landscape and design elements to indicate thresholds in key areas to differentiate between semi-public and semi-private spaces.
- Low walls, changes in grade, changes in paving materials, or screening elements are examples of elements that may be used to create these thresholds.
- Consider using landscape elements that can function both as thresholds and as seating to ensure the welcoming disposition is maintained.



EDGES THAT WELCOME



THRESHOLDS

○ Welcoming Point
■ Thresholds (semi-public and semi-private spaces)



Concordia Junior School, Sydney, Australia
ASPECT Studios



Frei Universität Campus, Berlin, Germany



Construction Avenue, Canberra, Australia
JARA Team Landscape Architects



Criff R. Sage Estate
Dan Gordon Landscape Architects



Long Meadow, Dunbar, MA
Stephan Stinson Associates Landscape Architects

4.0 OPEN SPACE



Existing view south along Camosun Street



New tree-lined promenade

- Generous 12 m setback from property line creates a 47.19 m open space between the curb and the buildings.
- New sidewalk.
- Existing line of trees is duplicated.

ST. GEORGE'S SENIOR SCHOOL MASTER PLAN | DESIGN GUIDELINES

4.0 OPEN SPACE

OPEN SPACE

- Maintain a 0.4 hectare (1 acre) open space at the corner of West 29th Avenue and Camosun Street to create a welcoming entrance to the school.
- Establish at least 0.4 hectares (1 acre) of additional semi-public open space adjacent to Camosun Street.
- Develop a hierarchy of open spaces (semi-public, semi-private, and private), which creates a clarity of movement between the community and the campus.
- Consider solar exposure in the design of plazas, outdoor gathering spaces, and courtyards so people have opportunities to gather in sunny spaces.
- Create landscaped areas adjacent to buildings to provide amenities for staff, students, and visitors and to create connections between indoor and outdoor spaces.

TOPOGRAPHY

- Use grading to create outdoor "rooms" and define boundaries by creating soft edges.
- Look for opportunities to create raised areas for overlook and seating, such as adjacent to the sports fields.



OPEN SPACE



TOPOGRAPHY

- Semi-public Open Space
- Semi-private Open Space
- Private Open Space
- Relative Elevation
- Cut
- Fill
- Hill Slope



Underwood Family Sorority Landscape Laboratory, Arizona
Bar Clark Landscape Architects



Pavilions Commons, University of British Columbia
Hija Collaborative



Boomer Plaza, Boston
Kogler Alamin Design Group



Sunrise Garden - College of William and Mary
Graham Construction Corps

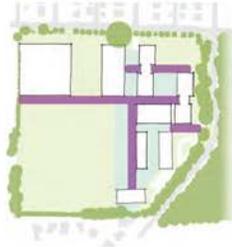


Alumni Plaza, Arizona
Hagerstrand Associates

4.0 OPEN SPACE

OUTDOOR HALLWAYS

- Embrace weather protection as a design feature.
- Use canopies and covered walkways to create outdoor hallways to connect buildings within the campus.
- Canopies should have a light, elegant structure, and should not be enclosed.
- Apart from protection from rain, they may also provide shade from the sun.
- Weather protection need not be continuous, nor should canopies be overused in the campus design.



OUTDOOR HALLWAYS



Psychiatric Campus, Arizona State University
Jan Cyck Landscape Architects



The Brochman Pavilion, Rice University
GJB

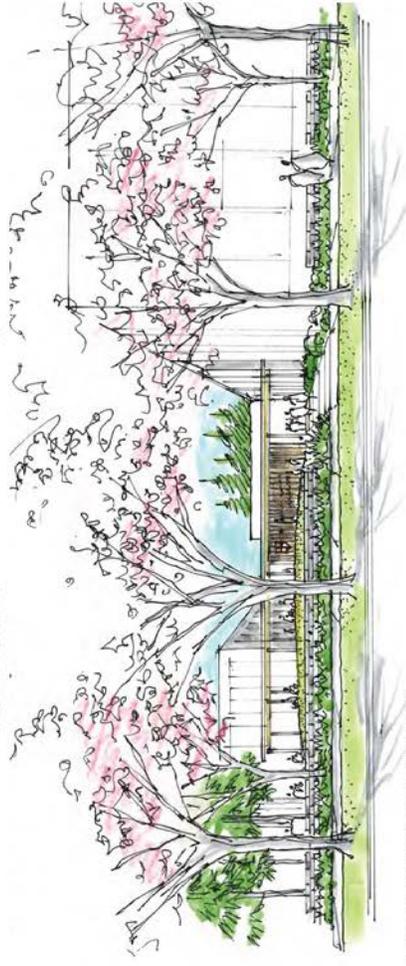


Illustration of entry plaza looking west from Camoan Street

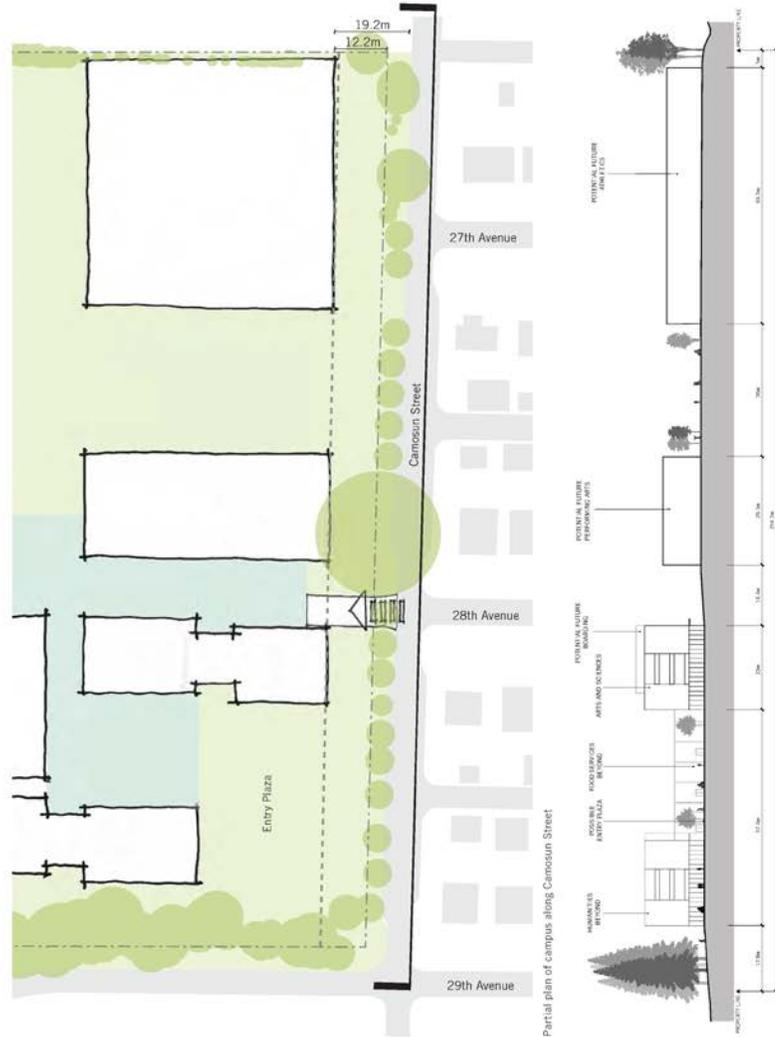
ST. GEORGE'S SENIOR SCHOOL MASTER PLAN | DESIGN GUIDELINES

4.0 OPEN SPACE

VIEWS

St. George's School's Senior School campus is visually and physically connected to the community that has grown up around it, and intends to maintain these connections in the future. In order for the school to bring new facilities online prior to demolishing the existing facilities, the new buildings must be located to the east of the school, along Camosun Street. These buildings will not, however, form a solid wall along that street. In order to maintain visual and physical connections among the community, the school buildings, and the sports fields, a minimum of 50% of the eastern edge of the campus will be open space at the proposed setback. In addition to this, the setback along Camosun Street has been increased from the 4.57 m (15 ft) previously proposed to 12.0 m (40 ft) from the property line. This creates a generous open space between future buildings and the street along the entire east edge of the campus.

- Respect the surrounding neighbourhood and park context, and design with particular attention paid to creating generously landscaped and aesthetically pleasing views into the site.
- Ensure a visual connection is maintained between Camosun Street and the sports fields.



Partial plan of campus along Camosun Street

Example of possible configuration of buildings at east setback.

4.0 OPEN SPACE



View looking west from Camosian Street into the campus. This image shows the existing conditions with an overlay of the approximate sizes and locations of buildings. These translucent grey boxes are not meant to suggest the character or architectural expression of the buildings.

- Generous 12 m setback from property line creates a 4- to 19 m open space between the curb and the buildings.
- Buildings will not form a solid wall along the street. 50% open space at setback line will maintain physical and visual connections between the campus and the community.
- A view from Camosian Street to the sports fields will be maintained.

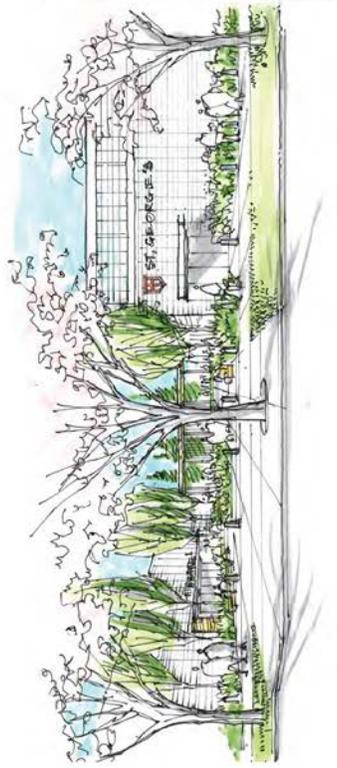


Illustration of the potential scale and character of the open spaces around and between future buildings in this location.

- Generously landscaped, aesthetically pleasing, and welcoming outdoor spaces.
- Human scale landscape elements.
- Outdoor furniture.
- Native plant species.
- Existing trees retained and additional trees provided.

4.0 OPEN SPACE

4.3 WORKING LANDSCAPE INTENT: DEVELOP COMPREHENSIVE STORMWATER MANAGEMENT, INCORPORATE DIDACTIC OPPORTUNITIES, AND INTEGRATE FOOD PRODUCTION ON CAMPUS

STORMWATER MANAGEMENT

- Retain healthy trees and build upon existing vegetation. Retaining trees along West 29th Ave and Camosun and as water sink for stormwater will help minimise stormwater runoff.
- Prioritize the use of porous materials, allowing for maximum stormwater infiltration.
- Direct stormwater flow using grading and topographical features.
- Utilize bioretention swales, detention tanks, and/or raingardens to retain and filter stormwater on site.
- Explore, with Metro Vancouver and the Musqueam First Nation, the possibility of integrating site runoff into the Musqueam Creek watershed.
- Design buildings to provide stormwater management.

DIDACTIC LANDSCAPE

- Incorporate opportunities to engage students, faculty, and members of the community in learning about sustainability and the landscape. This may include learning about on-site storm water systems, sustainability initiatives, ecosystems, and the ethnobotanical history of the area.

EDIBLE LANDSCAPE

- Incorporate food production gardens on campus.
- Choose edible landscaping where possible, showing a preference for native species.
- Explore viability of on-site organics management.
- Add pollinator support, potentially on green roofs.



STORMWATER MANAGEMENT



DIDACTIC SPACES



EDIBLE LANDSCAPE



Bili & Marinda Gibra Foundation, Seattle
Gardener: Oshiro Nishi Landscape Architecture



Wenka Research Centre, China
Z+T Studio



Minah Hill, Salem State University
Wagner Hoggan Landscape Architecture



Outdoor classroom, Druy University



Stormwater Education, Delaware



Bethairé Chénier, France
Atelier des paysages Struel-Belmer



Woodsmill Apple Orchard



Novartis Physic Cancer - Switzerland, Thornton
Anderson + Swaco Architects

5.0 BUILT FORM

The guidelines outlined below establish some basic architectural standards and will serve as the foundation for the built form strategy moving forward. New buildings should reflect their unique program requirements, but also aim to create a unified expression with the rest of the buildings on the campus to enhance St. George's vision as Canada's World School for Boys.



5.1 SITING + ORIENTATION

INTENT: SITE BUILDINGS TO CREATE A WELCOMING INTERFACE WITH THE COMMUNITY AND MAXIMIZE CONNECTIONS TO OPEN SPACE

- New buildings should be designed to present a welcoming frontage to the community and a clear entrance to the heart of campus.
- Locate new sports fields in the northwest corner of the property.
- Consolidate boarding facilities away from the edges of the site to minimize impact on neighbours and preserve open space.
- Locate and orient buildings to retain meaningful open space connecting the playing fields to the community.
- Establish a generous setback from the property line to minimize overlook and shadowing of adjacent properties and create a usable open space buffer.
- Set tallest buildings further back from the property line to transition from the scale of an institution to that of a residential neighbourhood.



5.3 VIEWS

INTENT: LOCATE AND DESIGN BUILDINGS TO MAINTAIN AND ENHANCE VIEWS AMONG BUILDINGS AND FROM BUILDINGS TO THE SURROUNDING NATURAL CONTEXT

5.0 BUILT FORM

5.2 MASSING

INTENT: ESTABLISH BUILDING HEIGHTS AND SETBACKS IN RESPONSE TO THE EXISTING CONTEXT TO CREATE APPROPRIATELY SCALED DEVELOPMENT

SETBACKS

Use setbacks to gracefully transition from the single-family neighbourhood to the academic institution. Higher buildings will be massed towards the centre of the campus. These generous setbacks will create meaningful open spaces surrounding the campus. Localized variations in setbacks may be permitted at the discretion of the Director of Planning.

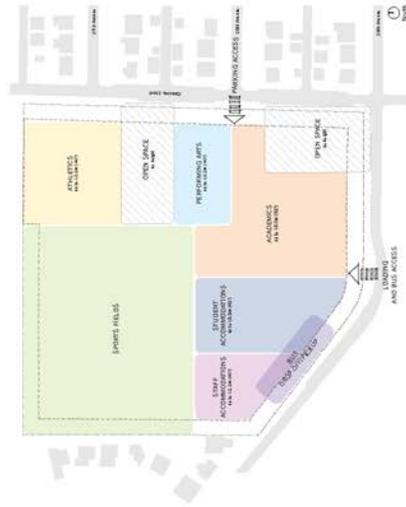
- Provide a front yard setback of 12.20m (40 ft) from the property line along 25th Avenue.
- Provide side yard setbacks of 12.20m (40 ft) from the east and west property lines.
- Provide a rear yard setback of 12.20m (40 ft) from the north property line, except where the property line is adjacent to the substation, in which case the setback may be reduced to 0.0m.

The setback along Camosun has been increased from the 4.57m (15 ft) previously proposed to 12.0m (40 ft) from the property line. This creates a generous open space between future buildings and the street along the entire eastern edge of the campus.

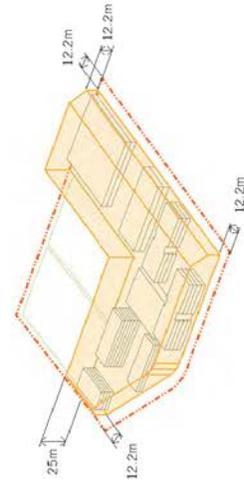
HEIGHTS

The Revised Rezoning Application describes an envelope within which development may occur, and a limit to the total density for the site. Within this envelope, sub-areas are described, with each sub-area having its own maximum building height. Select built elements may be permitted to exceed sub-area limit, at the discretion of the Director of Planning.

- The Revised Rezoning Application proposes to apply the Vertical Angle of Daylight only along the east and west edges of the property due to the stand of mature conifers along the south and the playing fields and substation to the north.
- Building heights will vary across the site but massing should be responsive to context and provide transitions to adjacent buildings on site and neighbouring properties.
- Architectural appearances, roofs, and constructed elements not containing floor space (for example bell or clock towers, flag poles, etc.) shall not exceed the development envelope height limit of 25.0 m (82') defined on page 10 of the Revised Rezoning Application.



Building heights by sub-area



Development envelope showing an example of a possible scenario of building locations and massing

5.0 BUILT FORM

- Buildings should be designed to maximize visual connections between indoor and outdoor spaces to enhance safety, visibility, and comfort for pedestrians.
- Position glazing to ensure casual overlook of outdoor spaces, walkways, and streets.
- Ensure that views from buildings and campus open spaces to surrounding forest and the North Shore mountains are preserved and enhanced.
- Screen parking entrances and loading areas from buildings and from neighbouring residences.

VISUAL CONNECTIONS BETWEEN INDOOR + OUTDOOR SPACES



Earth Sciences Building - University of British Columbia, Perkins + Will Architects



Regent Park Aquatic Center - Toronto, MacLennan Jaumkas Miller Architects



New Ergolding Secondary School - Ergolding, Germany, Börsch Architekten



Blusson Hall - Simon Fraser University, Perkins+Will

5.0 BUILT FORM

5.4 ARCHITECTURAL EXPRESSION INTENT: DESIGN HIGH QUALITY BUILDINGS THAT REFLECT THE VISION AND VALUES OF ST. GEORGE'S SCHOOL

ARTICULATION

- Buildings with facades longer than 20m (65 ft) facing streets should be visually broken down using recesses, atria, changes in materials and/or shifts in the massing to lessen visual impact on the pedestrian realm and create variation.

CHARACTER

- Building design should acknowledge the school's history while projecting a refined and forward-looking vision for 21st century learning.
- Beyond the first phase of construction, each subsequent building shall be designed in such a manner as to create a cohesive campus. Common elements may include materials, colours, forms, floor levels and/or fenestration.

MATERIALS + COLOUR

- Use high quality materials to enhance the quality and character of the Senior School Campus. Robust materials such as wood, stone, brick, and metal are preferred.
- Colours should fit with the character of St. George's School and the neighbourhood context. Accent colours may be used, but should be harmonious with the main colour and material palette to unify the design and highlight architectural details (e.g. soffits, recesses, window and door trims, railings, hardware, etc.)

ROOFS

- Use architectural elements and massing strategies to screen mechanical and service equipment to integrate them with the overall expression.
- Consideration will be given to the appearance of roofs from the ground.
- Opportunities to integrate photovoltaic or solar thermal technologies or green roofs into rooftop spaces will be explored.

MATERIALS + COLOUR



Metz Panel - Nova Metax - Luweissburg, Basel - Herend + Philippe Samit Architects



Stone, MORA Apartments - Barbara, ADIBA Architects



Brick - Central Rendering, Einsiedlen - RECKEArchitekten

ROOFS



Bronkome Hall Athletics & Wellness Centre - Toronto, MacLennan Jaunkalns Miller Architects



Solar Panels on Roof - City of Vancouver

5.0 BUILT FORM

ENTRANCES

- Entrances should be well-lit, clearly identifiable, and accessible.
- Transparent materials should be used at and around entrances to create a relationship between indoor and outdoor spaces.
- All main entrances should have some form of weather protection.
- Incorporate architectural and landscape features to create thresholds and gateways to further enhance a sense of arrival to the buildings and differentiate the public and private realm along the streetscape.

ENTRANCES



Piri Reis Maritime University - Istanbul - Kraatz Nimmerik

WEATHER PROTECTION



University of British Columbia Stewart Under Building, Dang + BHH

WEATHER PROTECTION

- Provide weather protection along major pedestrian connections and among buildings.
- Provide covered outdoor learning spaces and social spaces.
- Weather protection elements should fit with the architectural style of the campus and use high quality materials such as wood, glass, metal or similar materials to give a cohesive expression within the façade.

LIGHTING



531 Foothill Road - Beverly Hills, Ehrlich Yarni
Alisa Chaney Architects



Regan Park Aquatic Centre - Toronto, MacLennan
Journata Wiljar Architects



Ilwaco Zenzen Mountain - Versburg, Herman
Kathman

LIGHTING

- All major exterior circulation routes and all building perimeters must be equipped with pedestrian scale lighting.
- Lighting fixtures should be unobtrusive and integrated into the design in a way that is consistent with the architecture of the building and its surrounding context.
- Provide full cut-off downlighting to ensure the safety and comfort of pedestrians on the public sidewalk. This lighting should provide security and ambient lighting while minimizing light pollution and spill over lighting into residential areas.

6.0 SUSTAINABILITY

St. George's aspires to be a leader in environmental sustainability through education, construction, and ongoing operations. To support this goal, each building on campus will be designed to be constructed and operated to a high standard, and to teach students about environmental stewardship. Codes, standards and green building rating systems are constantly changing, so specific strategies will be determined according to best practices current during the design of each building. Examples of current standards that would meet the intent of this section include Passive House, LEED Gold or better, and the Living Building Challenge. As St. George's School is a not-for-profit organization, registration and certification to the selected standard may not be pursued.

COMPLIANCE

Each Development Permit application will include a strategy for demonstrating compliance with the standard selected and with current versions of the applicable City of Vancouver policies governing sustainable development, including the Rezoning Policy for Sustainable Large Developments.

6.1 A HOLISTIC APPROACH

INTENT: INTEGRATE SUSTAINABILITY AT THE BUILDING AND CAMPUS LEVEL

- Meet the requirements of the Rezoning Policy for Sustainable Large Developments.
- For each Development Permit Application, additional information will be provided regarding specific rating systems and sustainability targets.

6.2 GARBAGE + RECYCLING

INTENT: ENSURE ALL BUILDINGS + FACILITIES PROMOTE WASTE REDUCTION STRATEGIES

- New phases of development must provide on site recycling and waste receptacles in locations that are adequately sized and convenient for collection and pick-up. The location of recycling, garbage and compost receptacles should be given thoughtful design to encourage the reduction of solid waste and promote sustainability.
- Encourage the installation or provision of space for multi stream (compost, recyclable, waste) collection facilities in new buildings.
- Ensure that the garbage/recycling/compost facility is located in a secure, well designed, screened area that is safely accessible by both staff and service trucks.

INTEGRATED SUSTAINABILITY STRATEGIES



CBS - University of British Columbia, Patricia-Will

7.0 TRANSPORTATION AND SAFETY

The Transportation Assessment and Management Study (TAMS) submitted with the Rezoning Application provides a detailed analysis of the existing conditions and a set of recommendations for future Transportation Demand Management (TDM) measures. Only those aspects of the TAMS that relate to the design of the physical campus are reiterated here.

7.1 DEMAND MANAGEMENT

INTENT: PROMOTE ALTERNATIVES TO DRIVING

- Continue to promote and expand the school's bus program, which currently includes eight routes.
- Equip the campus with secure, covered parking for bicycles.
- Create safe and welcoming pedestrian connections to the community.
- Provide no student parking on school property.
- Allocate priority parking for high-occupancy vehicles.

7.2 PARKING

INTENT: CREATE PARKING AREAS THAT ARE APPROPRIATE IN CAPACITY AND VISUALLY UNOBTUSIVE

- Locate vehicular access away from the corner to reduce traffic congestion.
- Where possible, vehicular access should be located off of Camosun Street to reduce the risk of conflict between vehicles and cyclists on the designated West 29th Avenue bicycle route.
- Parking access should be designed to be unobtrusive to the pedestrian environment. Screening and other architectural elements may be used to lessen visual impact of parking entrances. The preferred primary access point is facing 28th Avenue.
- Provide infrastructure within parking areas for electric vehicles.

7.3 LOADING

INTENT: CREATE LOADING AREAS THAT ARE APPROPRIATE IN CAPACITY AND VISUALLY UNOBTUSIVE

- Service and loading areas should be located away from public gathering spaces, building entrances, and high traffic, pedestrian areas.
- Locate loading access away from the corner to reduce traffic congestion.

7.4 DROP-OFF + PICK-UP

INTENT: OFF-SITE TRAFFIC TO CIRCULATE MORE EFFECTIVELY

- Bus pick-up and drop-off area will be accommodated on-site.
- Locate bus area so as to minimize conflict with pedestrians.
- Establish bus access away from the corner to reduce traffic congestion.
- Vehicular pick-up and drop-off to be distributed around the site perimeter.

7.5 SAFETY + SECURITY

INTENT: NEW BUILDINGS SHOULD ENHANCE SAFETY AND SECURITY THROUGH SITING, ORIENTATION, AND DESIGN

- Provide clear sightlines from within buildings to the entryways so occupants can clearly see outside before leaving the building. Design main entrances so they don't create entrapment areas that are not visible from indoors.
- Provide opportunities for visual oversight from buildings into adjacent open spaces, walkways, and public sidewalks.
- Ensure that the principal entrance is legible from the street. Use elements such as pathways, paving patterns, lighting, and landscaping to guide the public to and from main entrances and exits.
- Prioritize intuitive site circulation.
- Provide electronic access control infrastructure for all building entrances and exits.

7.6 UNIVERSAL ACCESS

INTENT: ENSURE ALL BUILDINGS, ENTRANCES, AND OPEN SPACES ARE ACCESSIBLE

- Universal accessibility must be provided throughout the St. George's Senior School Campus, both within and outside of buildings.
- Access from the street to building entrances and important walkways within the site should be universally accessible, with smooth, non-slip walking surfaces and gentle grades. Where possible, ramp grades should be less than 5%.
- Ensure that site furnishings (e.g. lighting, bollards, signage, guardrails, seating) are located where they will not impede easy passage for those using a mobility device (e.g. wheelchair, scooter) or people who are visually impaired.
- Locate parking for persons with disabilities close to accessible building entrances.

PROVIDE CLEAR SIGHTLINES



Jock Mann Centre - University of British Columbia, ©CIMA + NPWS Architects

4175 West 29th Avenue (St. George's School)
OPERATIONS MANAGEMENT PLAN

Please see <http://rezoning.vancouver.ca/applications/4175w29th/index.htm> for a PDF.



— SINE TIMORE AUT FAVORE —
ST. GEORGE'S SCHOOL

OPERATIONS MANAGEMENT PLAN

May 17, 2018

St. George's Senior School
4175 West 29th Avenue, Vancouver, BC

1. INTRODUCTION

Background and Purpose

St. George's School originally created a Good Neighbour Pledge in 2003. The purpose of the Pledge was to provide a framework for relations between St. George's Senior School and the surrounding community. The school is now replacing the original Pledge with this new Operations Management Plan. The Operations Management Plan accompanies the rezoning application for the St. George's School Master Plan. The purpose of the Operations Management Plan is to provide clear direction on how the school will be a conscientious and responsible neighbour in the community. This includes outlining how the school will manage traffic, programs, special events and construction. It also provides a framework for engaging the community in ongoing and clear communications to address, and hopefully, resolve issues as they arise. The overall goal is to minimize the impact of the school's operations on the neighbourhood.

History of the Site

Established in 1930, St. George's School began leasing the property (known then as "Topside") at 4175 West 29th Ave from the Jesuit Brothers in 1936. The Jesuit Brothers had originally obtained the land for a Catholic Seminary, but their plans changed and the land was no longer needed. St. George's School, at that time, was located to the east in the 3900 Block of West 29th and the leased Topside property was cleared and used for playing fields. In 1944 the school purchased an initial 5 acres from the Jesuit Brothers and then, over the next two decades, the balance of the current 14 acres was purchased as funds became available through the generosity of various donors. In 1965, the school's dream was realized when the new Senior School was opened on the Topside site. It took 30 years, and the philanthropy of many, to realize the dream of a new school on Topside. Since its original construction, the school has undergone numerous renovations and additions. The current school is an amalgamation of many pieces of buildings, many of which do not meet current academic or seismic requirements. Between 2012 and 2017 St. George's has worked to create a Campus Master Plan that will guide the long-term replacement of facilities on the site.

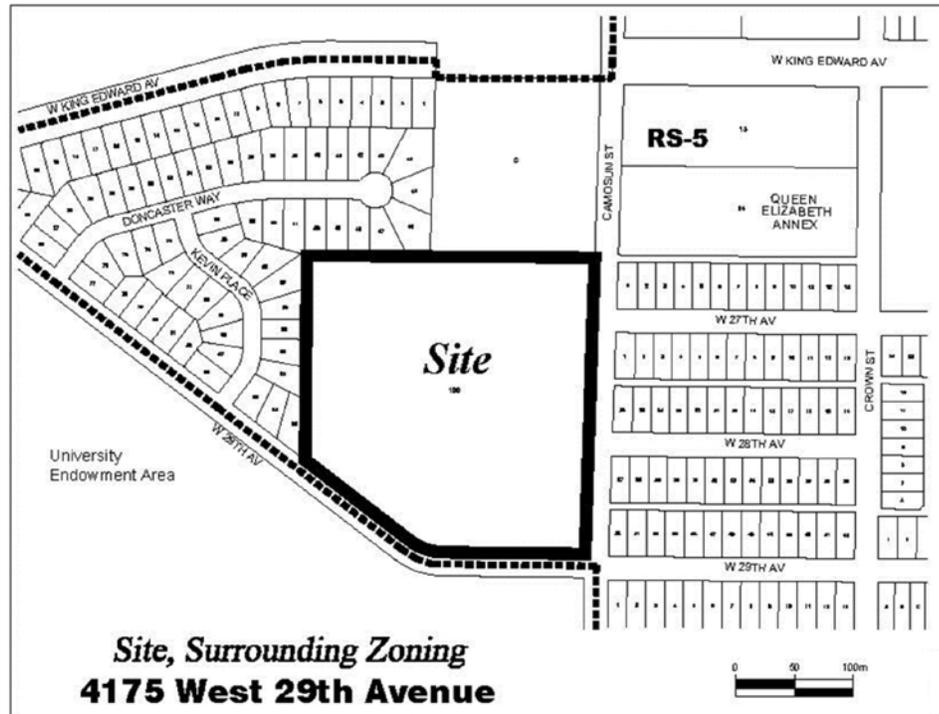
Area Context

Originally part of the Municipality of Point Grey, the Dunbar neighborhood became part of the City of Vancouver in 1929. The area includes a commercial district aligned along Dunbar Street, to the east of the school. Immediately surrounding the school are four distinct areas. To the east is a residential area, laid out on the City's traditional grid pattern, with the first homes built in the 1940s. Many of the homes in the area have been replaced with much larger structures in the past 10 years. To the west, and partially to the north, is a second residential area that was created in the 1960s. It is based on a suburban model of the era with winding streets that lack sidewalks. Many of the homes in this area are also being replaced with newer structures. To the north, east of the residential subdivision, is the major BC Hydro Camosun Substation. This substation is about to undergo a major expansion to support the growing electricity needs of UBC. To the south of the school is Metro Vancouver's Pacific Spirit Regional Park, formerly the UBC Endowment Lands.

Boundaries of Neighbourhood Area

While the Dunbar-Southland neighbourhood is broader, the more immediate community that relates to St. George's School is defined to include the following boundaries:

- Northern boundary: West King Edward Avenue (West 25th)
- Southern Boundary: West 33rd Avenue
- Eastern Boundary: Dunbar Street
- Western Boundary: Imperial Drive (Pacific Spirit Park)



Purpose of the Operations Management Plan

The purpose of this Plan is to provide a framework within which St. George's School will work with its neighbours to communicate effectively and address issues in a timely and proactive manner.

- To provide open and effective communication
- To promote good neighbour practices
- To minimize impacts on the neighbourhood

Components of the Operations Management Plan

The Operations Management Plan is comprised of the following components:

- Protocols for Neighbour Communications
- Communications Facilities Use Plan
- Construction Management Plan
- Transportation Management Plan

2. PROTOCOLS FOR NEIGHBOUR COMMUNICATIONS

St. George's School will:

Implement and maintain protocols for neighbour communications that:

- inform the neighbours in advance of large events;
- notify neighbours and seek of input on development plans;
- make materials available for review by neighbours;
- provide opportunities for dialogue between the school and its neighbours.

St. George's School – Neighbour Liaison

St. George's School will designate an employee to act as Neighbour Liaison. This individual will proactively distribute information on upcoming events or developments, keep minutes of meetings and copies of communications, maintain a database of neighbour contact information, and be available to take calls/emails (during school operating hours) with questions or concerns.

For 17/18 school year the Neighbour Liaison is:

Ms. Kerri McCullagh
kmccullagh@stgeorges.bc.ca
604 224-1304

Should the Neighbour Liaison change, this information will be updated on the school's website and an email will be sent to neighbours in the school's database.

St. George's School – After-Hours Contact

St. George's School will have an after-hours (evenings, weekends and holidays) security person available to deal with emergent issues. Typically, this will be a St. George's employee from 7:00 am to midnight and an on-call contractor between midnight and 7:00 am and during closure periods. Neighbours are invited to contact security to deal with noise and traffic related issues. In cases where the Motor Vehicle Act or the City of Vancouver Parking By-laws are being violated, neighbours are encouraged to call 911 (Police) or 311 (City of Vancouver Bylaws enforcement).

St. George's School Security: 604-314-5925

Contact information for both the Neighbour Liaison and the After-Hours Contact will be kept current on the school's website.

Regular Communications with neighbours

The school will facilitate direct communications to interested neighbours via email and general communication through the school website.

Email Communication

The school will maintain an email database of neighbours who wish to be kept informed of school events and developments. Neighbours are invited to be included in this database with the understanding that their email address will be retained for the sole purpose of communications about school/neighbourhood relations.

Website

The school will maintain a page on its website dedicated to neighbour relations. This will include

information on the Operations Management Plan, the Good Neighbour Committee, recent minutes, a current calendar of events, and other relevant information.

Neighbour Relations Committee

St. George's School will facilitate a Neighbour Relations Committee to promote open and ongoing communication between area residents and St. George's School. Through these committee meetings residents will be kept informed of school initiatives and activities, and St. George's will hear feedback, questions, and concerns from residents

The Committee will consist of 4 representatives of St. George's School and 4 representatives selected from the neighbourhood community as defined above.

The Committee will meet once each school term (September, January and April) to discuss issues and concerns, including issues related to the three management plans that follow in this document. Additional meetings may be held as required.

Meetings will be held at St. George's Senior School.

Meeting dates, agendas and minutes will be posted on the school website.

Significant issues which are not resolved by the Committee, or in respect of which impasse has been reached, may be referred to the Issues Resolution process as outlined below.

Issues Resolution

The communications protocol laid out above is designed to promote ongoing discussion and mutual understanding and thus mitigate conflict. Both St. George's School and neighbourhood residents are encouraged to proactively share relevant information and communicate issues through the mechanism established in this document.

St. George's School and neighbourhood residents will work collaboratively to resolve issues that arise in a way that aims to satisfy all affected parties.

Annual Review of the Operations Management Plan

On an annual basis, St. George's School will undertake a review of its Operations Management Plan, and will make improvements to the plan as identified through this review and ongoing communication with neighbours through the Neighbourhood Relations Committee and communication with residents.

This review would be conducted during the early spring and if required, changes will be proposed. The timing allows for timely and appropriate implementation of improvements for the upcoming school year. Proposed changes will be shared with the Neighbourhood Relations Committee and posted on the St. George's School website. Once feedback from the Neighbourhood Relations Committee has been addressed, a final updated Pledge will be submitted to the City of Vancouver and posted on the school website.

3. FACILITIES MANAGEMENT PLAN

Purpose of the Facility Management Plan

The purpose of this plan is to provide guidance and common understanding on how St. George's School uses and operates its facilities. Facilities are used for the education of students, while at the same time providing positive benefit to the surrounding community with minimized negative impact.

School Facilities

In addition to classroom spaces, St. George's School facilities currently include a number of larger gathering and specialty spaces:

- 25-metre, 6 lane indoor swimming pool
- 2 gymnasiums
- Several large gathering spaces (McLean Hall, Learning Commons, Great Hall, Theatre, and Grad Centre);
- Kitchen facilities
- Three outdoor grass sports fields
- Four-court tennis facility
- A partial running track and field area (high jump, long jump, javelin, and shot-put)

Senior School Enrolment

The school commits to maintaining the population at the Senior School campus to 775 students. Any desire to expand beyond this number would require the school to apply to the City for an amendment to the CD-1 zoning for the site.

School Use of Facilities

All of the school's facilities have been built for the primary purpose of creating a robust educational experience for the school's students. Facilities are used September to June, including evenings and weekends to support and house a range of school activities. Typical operating hours are 6:30am to 9:00pm. Occasionally social events, such as school dances, may operate as late as 11:00pm. The school is completely locked and faculty access cards disabled from midnight to 6:00am daily. A calendar of school events is posted on the school's website.

In addition to the standard academic program, the school frequently hosts other schools for tournaments, competitions, theatre productions, and collaborative programs. The school is also home to approximately 120 boarding students who currently live on the Junior School campus but participate in events and programs at both campuses. The school has a number of faculty and staff who live on-site and chaperone students in the boarding program.

The following table indicates typical large events that are hosted each year at the Senior School:

MONTH	EVENT	LOCATION	ATTENDANCE (approx.)
2-3 per week	Sports fixtures	Gyms/fields	50-200
1 per term	Large sports tournament	Gyms/fields	1,000
1 per term	Speaker Series	Auditorium	300
2 per term	Parent-Teacher conferences	McLean Hall	500
3 per term	Admissions open houses	Various	300
3 per term	Debating/ MUN events	Various	200
2 per term	Music concerts	Auditorium	200-450
6 nights per term	Theatre performances	Auditorium	200-400
5-6 per term	Parent meetings for grades		200-300
3 per term	Board meetings	Classrooms	15-25
2 per term	Art Shows	McLean and Great Halls	100
2 per term	Parent Association meetings	McLean Hall	25-100
Sept	Back to School BBQ	Fields	1,000
Sept	Meet-the-teacher night	Classrooms	1,000
November	Remembrance Day Service	Gym	1,200
May	Alumni dinner/reception	McLean and Great Halls	300
June	Grade 8-10 Prize day	Gym	500
June	Graduation	Fields	1,200

Summer School Use of Facilities

For more than 20 years the school has operated a Summer School program for six to seven weeks each summer (typically end of June to mid-August). These programs cater to both St. George's students and other boys and girls in the broader community. Programs range from sports to academic subjects and take place at both campuses. Up to 120 students live in residence and participate in a summer residential program. All school facilities are used for the Summer School program.

Community Group Use of Facilities

The school makes efforts to support community use by sports groups, Dunbar Residents Association, and other not-for-profits. When space is available, groups may book the pool, gyms, fields, or gathering spaces. The school's own use is extensive so availability for outside groups is somewhat limited. The school's rental rates for not-for-profits are low and based on a cost-recovery system. Facilities most typically used are the swimming pool, gyms, fields, and, occasionally, theatre or classroom/gathering spaces.

Other Rental Use

From time to time, the school rents its facilities for film and television productions requiring a school setting. There are few days each year where facilities are available for rental (typically professional development days and holidays). Production companies are required to apply for the necessary permits with the City and are responsible for neighbourhood notification.

Outside Group Facility Usage Levels

Above and beyond daily school use, outside group use is currently:

Swimming Pool: daily usage before school and in the evenings by swim clubs and others schools

Gymnasiums: Two evenings per week by alumni and community groups. Weekend use by community basketball groups.

Auditorium Use: Community use one to two evenings per term.

Large Gathering Spaces: Typically, one to three time per month by alumni or other community groups.

Informal Community Access and Use

For 87 years, St. George's School has been a key part of the Dunbar community. The school itself has always strived to be a good citizen and, in turn, has worked hard to instill a sense of civic responsibility in every student. The school has never built a perimeter wall or erected large chain-link fences to contain students or keep neighbours out. Community members are invited to visit the school and walk the grounds. While the school maintains control over the site to protect student safety and retains the right to ask problematic visitors to leave, visitors are generally welcome. In redeveloping, the school envisions creating a generous tree-lined promenade along Camosun Street, a forest trail through the trees along the south perimeter, a welcoming space along Camosun Street, and the entrance plaza at the intersection of 29th Avenue and Camosun Street. It is hoped that these areas will provide a gentle and welcoming transition to the site that builds the sense of community and place. Respectful visitors will continue to be welcomed to the site.

Field Use

The school's natural turf fields are the centerpiece of the school's athletic facilities. The fields are used by physical education classes during the school day and for organized sports practices and competitions after school and on weekends. The fields are not illuminated and use is primarily limited by daylight hours. The school will continue to provide a 20' "buffer zone" between the activity field play area and the residential properties to the residential north and west.

The fields are also used during the summer months for summer camps and school team training.

The new fields will be oriented in the north-south direction. Daylight permitting, the fields' use will be limited to 7:00 am to 9:00 pm.

A current list of dates for major field events will be maintained on the school's website.

Tennis Courts

The school currently operates a four-court tennis and multi-purpose facility at the northeast corner of the property.

The tennis courts are not covered and are currently used for school tennis programs and use by staff and faculty from 7:00 am to 9:00 pm weekdays and on weekends from 10:00 am to 7:00 pm. There may be occasions on which school tournament preparation and use will extend beyond these hours. The courts are locked when not in use.

The school will not illuminate the tennis or sports courts, or the fields. However, lighting may be installed adjacent to these areas for security or safety reasons.

Outdoor Noise Mitigation Strategies

The school currently utilizes a number of strategies to minimize noise and reduce impact on surrounding residential areas. These include:

- There is a permit system for field and tennis court use. Access to fields and courts is limited to permit holders. Permit holders agree to operate by field rules.
- Security staff monitor field use and ensure permits are in place and rules are being followed.
- Alcohol is not to be consumed on fields by field rental groups.
- Amplified music will not be permitted on school fields.

Student Accommodations

St. George's School has been offering a boarding experience since the school's inception in 1930. Currently, approximately 120 Senior School students from 20 countries reside in the Harker Hall residence at the Junior School campus. The Senior School Campus Master Plan includes the construction of a new boarding facility which will provide housing for students and the staff, and their families, who chaperone the boarders. In the summer, the boarding facilities will continue be used to house students who are part of the summer residential programs. Boarding accommodations will only be used for housing individuals who are part of the school's educational programs. Accommodations will not be rented to the general public.

Staff and Faculty Accommodations

The Senior School Master Plan includes the construction of additional staff/faculty accommodations. These accommodations would be built in a later phase, after the existing building has been removed.

4. CONSTRUCTION MANAGEMENT PLAN

Prior to the issuance of any Development Permit, the school shall provide a detailed Construction Management Plan that is specific to the project being undertaken. The following is an overview of key areas that will be addressed.

Construction Methodology

Efforts will be made to select construction processes that will shorten the construction period and reduce the amount of labour required on-site. This includes the use of pre-built concrete forms and pre-assembled building components.

Neighbourhood Communication

Prior the commencement of construction, the Construction Management Plan will be approved by the City of Vancouver, posted on the school's website and distribute by email to neighbours. Updates will be provided if there are any significant changes to the plan or if a process is likely to cause disruption (eg. delivery of an oversize load or closure of a street).

Site Liaison

The school will provide contact information for school and contractor representatives who may be reached to address concerns or questions. Contact information will be posted on the school's website, posted on-site, and be included in the Construction Management Plan.

Site Access

Site access for construction activities will be reviewed and approved by the City of Vancouver for each Development Permit application. Perimeter fencing will be installed around the site to separate active construction areas from operating student and public areas. The site will be secured after hours with regular security patrols. Trades will be required to arrive and depart outside of the peak student arrival/departure times (8:00-8:45am and 3:00-3:45pm).

Contractor Parking

A parking strategy will be reviewed and approved by the City of Vancouver with each Development Permit application. An on-site parking area will be provided for contractors who require their work vehicles to be close to site. Off-site parking instructions will be provided to all trades to know where they may and may not park. It will be made clear to trades that they are not permitted to park in front of our residential neighbours.

Loading/unloading Zones

Loading and unloading areas will be provided to minimize disruption to traffic and reduce inconvenience for neighbours. On-site lay-down and material storage areas will be provided. All trades will be directed to ship and receive materials outside of the peak student arrival/departure times (8:00-8:45am and 3:00-3:45pm).

Working Hours

Hours of work will comply with the City of Vancouver Noise Control By-Laws. Currently:
Monday to Friday 7:30am to 8:00pm
Saturdays: 10:00am to 8:00pm
Sundays and Statutory Holidays: no-construction

For any exceptional work outside of these hours, the school would apply a noise bylaw exception permit.

Site Safety Plan

The general contractor will be required to provide a Site Safety Plan to the satisfaction of the City of Vancouver.

5. TRANSPORTATION MANAGEMENT PLAN

Purpose

The purpose of the Transportation Management Plan is to identify and implement strategies for reducing the impact of transporting students, faculty and staff on both the neighbourhood and the environment.

Background

St. George's School has an obligation and responsibility to manage transportation in a manner that minimizes impact on the surrounding community and reduces the school's greenhouse gas emissions. While all schools face transportation challenges there are three unique features of that St. George's must address:

- St. George's is a destination school and attracts students from across the Lower Mainland.
- There are no major arterial routes adjacent to the school.
- The closest public bus stop is approximately six blocks away.

Campus Master Plan as an Opportunity

The school is not expanding the school population and continues to make headway in reducing the number of vehicles arriving at the school daily, reducing congestion and environmental impact. The new Campus Master Plan provides a unique opportunity to further improve how transportation is managed. This coupling of reduced traffic and improved transportation structures will result in decreased impact on neighbours, cyclists, pedestrians and other non-St. George's road users.

Transportation Assessment and Management Study 2017

As part of the school's 2017 rezoning application, the school engaged WSP to complete a comprehensive Transportation Assessment and Management Study (TAMS). The TAMS has three components: a Transportation Impact Study, a Parking Study and a Transportation Demand Management Plan. The TAMS includes:

- A travel mode survey for the entire school (students and staff) with a minimum 90% response rate;
- Consideration of pick-up/drop-off zones;
- Current and future TDM measures being implemented at the school;
- Confirmation that the school is meeting previously set travel mode targets and to set new targets for the future;
- Neighbourhood concerns regarding the school traffic; and
- Strategies to reduce vehicle trips and congestion around the school.

Modes of Travel

The overarching goal of the transportation plan is to reduce the number of individuals traveling to/from the school in low-occupancy private passenger vehicles. St. George's will continue to look for opportunities to reduce traffic congestion and parking issues through strategies including:

1. Boarding

Approximately 120 of the total 775 Senior School students are boarders. They live on-site at the Jr campus and walk to school each day. The school has a strict policy that prohibits boarders from keeping a car at school.

1. Staff and Faculty Housing

The school is working hard to increase the number of staff and faculty who live on site or adjacent to the school properties. The school owns or rents almost 20 residential units and currently there are approximately 35 faculty and staff who are able to walk to work.

2. School Buses

Due to the distance from public transportation, the school made a strategic decision in 2001 to begin offering a private bus service to deliver students to/from school. St. George's School now operates eight buses servicing White Rock, Richmond, New Westminster, Burnaby, the north shore, UBC and all of Vancouver. The buses pick up students, staff and faculty at hub locations that connect to public transportation options. The cost of providing the bus service is included in tuition to encourage all students to take advantage of this service. As of December 2017, there are 375 registered riders with daily ridership of approximately 250 (not every rider takes the bus every day). Currently 19% of senior school students ride the school bus. The School will continue to track the number of students, faculty and staff using the bus service, and will pursue all opportunities to expand the bus service and to increase ridership.

3. Walking

Many students walk either the entire distance from home to school or take the public bus to Dunbar Street (at either West King Edward or West 29th Ave) and then walk the rest of the way. Additionally, all boarders and staff/faculty from the school properties walk to school. Staff and faculty who walk to school are thanked with a free hot breakfast each day. Currently 19% of students walk to school or combine walking with public transit. The School will continue to track the number of students, faculty and staff who walk to school, and will pursue opportunities to incentivize and increase walking mode share.

4. Cycling

Cycling is an increasingly popular option, particularly in better weather and when the daylight hours are longer. The school is directly on the West 29th Avenue Bike Route. Covered bike racks were installed in 2013 and other end-of-trip facilities include showers, change rooms, and bike repair stand with tools. Staff and faculty who cycle to school are thanked with a free hot breakfast each day. Currently 5% of senior school students and 8% of faculty commute to school by bike. The School will continue to track the number of students, faculty and staff who cycle to school, and will pursue opportunities to incentivize and increase cycling mode share.

5. Public Transportation

Students, faculty and staff are encouraged to make use of the TransLink system. The school subsidizes bus passes to encourage ridership. Many riders combine public transit with walking or the school bus network. The School will continue to track the number of students, faculty and staff who use public transit to arrive at school, and will pursue opportunities to incentivize and increase transit mode share.

6. Ride Sharing

Students, faculty and staff are encouraged to ride-share to/from school. A designated priority drop-off area is provided for vehicles with two or more students. In May, 2018 the school added a staff and faculty ride sharing incentive pilot program. Staff and Faculty who ride share to/from school now receive a significant financial incentive to cover transportation costs. The School will continue to track the number of students, faculty and staff who use public ride sharing to arrive at school, and will pursue opportunities to incentivize and increase ride sharing mode share.

7. Car Sharing

A number of faculty and staff make use of car sharing systems such as Car2Go and Evo.

Travel Mode Targets

The school continues to work with students, parents and staff to encourage the use of

alternate types of transport. The school's bus route system has been very successful and there is optimism that that further ridership growth is possible. It is hoped that with improved route offerings and promotion, ridership could reach 25%. Cycling is another area with potential for growth. The school is committed to continually supporting these transportation options for students, faculty and staff.

Traffic Management at the Senior School Campus

The goal of St. George's traffic management plan is to maximize safety for pedestrians and cyclists and minimize congestion inconvenience for neighbours and other road users.

Strategies

The school has identified a number of strategies to help minimize the impact of traffic:

1. On-site Bus Loading/Unloading Areas.

In April 2017, the school moved all route bus loading and unloading to Camosun Street. This eliminates the need for buses to travel through the Camosun and West 29th Avenue intersection and opens up space for car drop-off and pick-up in front of the school. The new Campus Master Plan will move the bus drop-off and pick-up onto the campus. This will increase student safety and send a clear message that bus use is a top-priority mode of transportation.

2. Distributed Student Drop-off and Pick-up

Historically drop-off and pick-up and bus loading/unloading all took place in front of the Senior School on West 29th Avenue. In April 2017, buses were moved to Camosun Street, grade 8s and 9s were given priority for drop off in front of the school and Grade 10-11 students were assigned areas along Camosun Street and further to the west and east. The new Campus Master Plan provides for drop-off and pick-up distributed along a much larger frontage of West 29th Avenue and Camosun Streets. This distribution reduces congestion, reduces the number of cars passing through the four-way intersection east-bound, and reduces the number of cars conflicting with the bike lane on West 29th Avenue.

3. Traffic Monitoring

Traffic monitors are used every morning and afternoon to encourage parents to drop off and pick up in a manner that is efficient, conscientious, and maximizes safety. Members of the school's grounds and security teams, wearing safety vests, work with parents to ensure that procedures are followed and impact on other street users is minimized. Cars are directed to pull up to the front of designated drop-off areas and unload or load passengers as quickly as possible. Administrators join the morning supervision daily in September to ensure that students and parents fully understand expectations. Setting good habits in September has

proved to work well. School traffic monitors are supported with visits by the City of Vancouver Police and By-Laws Enforcement Officers. The School requests this City assistance from time to time, particularly at the start of the school year.

4. Parking Entry Off Camosun Street

The Campus Master Plan provides for entry to staff parking off Camosun Street. This reduces the number of cars passing through the problematic four-way intersection, particularly eastbound, and reduces the number of vehicles crossing the West 29th Avenue bike lane.

5. Controlled Traffic at Peak Times

Traffic attempting to enter and exit the campus via the two West 29th Avenue driveways create congestion and are a hazard to cyclists using the bike lane. During peak morning and afternoon periods, on-site pick-up and drop-off is limited to high occupancy vehicles and exiting vehicles are restricted from turning left. These strategies ease congestion and encourage ride-sharing.

6. Traffic flow Management

Those vehicles that do head west through the West 29th and Camosun intersection enter an area with higher congestion and difficult egress. While it is possible to continue westbound and follow Imperial drive to West 16th Avenue, this is not a convenient exit point and only 5% of vehicles use this route. The traffic circle at West 29th Ave and Kevin Place is a well-used means of changing direction and exiting eastbound along West 29th Avenue. Parents and buses are directed not to use Kevin Place and Doncaster Way as a turn-around loop.

7. Staggered times with Junior School

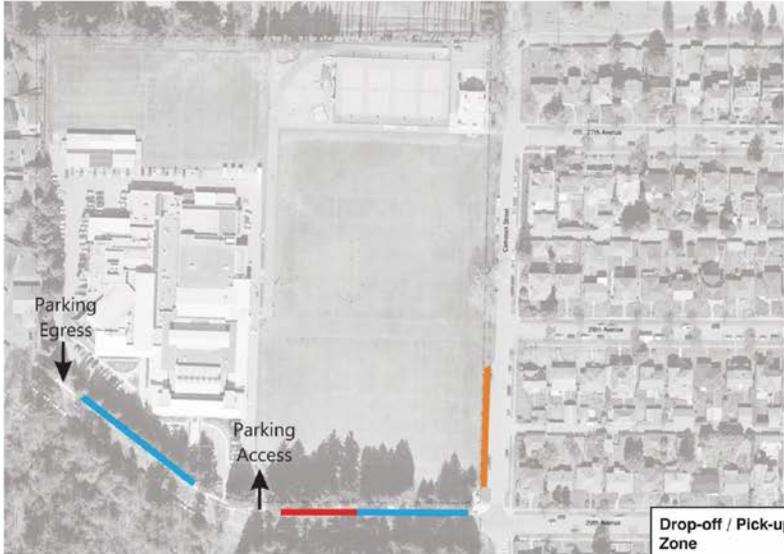
The Junior School start and finish times are earlier than the Senior School. This reduces the impact on West 29th Avenue and other surrounding streets.

8. Staggered end-of-day schedule

The Senior School end-of-day is staggered with some students finishing at 3:15pm and others staying for athletics and co-curriculars until 5:30pm. Two afternoon bus times are provided (3:30pm and 5:30pm) to accommodate the split schedule. This strategy dramatically reduces afternoon traffic peaks.

9. Communication with Parents

The school provide detailed communications to parents to encourage their support in reducing traffic. This is an important part of the school's back-to-school communications and is frequently reminded via emails and the weekly eNews.



Existing Drop-Off and Pick-Up Zones

Drop-off / Pick-up Zone	
No Stopping Zone	
School Bus Drop-off / Pick-up Zone	



Proposed Drop-Off and Pick-Up Zones

Parking

Existing Facilities

- The Senior School currently has 101 on-site parking stalls distributed across the campus;
- On-street parking is generally allowed along W 29th Avenue and Camosun Street; and
- There are four Class B loading spaces at the Senior School.

Current Parking Demand

Most parking is used by faculty and staff who drive to work and park for the day. A limited number of visitors park at the campus each day.

The school actively discourages students from driving to/from school. Boarders are not permitted to keep a car at the school. Students who do drive to school are asked to park along the south side of West 29th Avenue, adjacent to Pacific Spirit Park. Students are told not to park in front of residential homes in the neighbourhood.

Future Parking Demand

St. Georges anticipates that parking demand will decrease, through continued efforts to reduce the number vehicles traveling to and from the site, while maintaining current enrollment numbers. The School anticipates faculty and staff continuing to park on-site and students to park off-site. The school plans to increase the availability of short-term visitor parking on-site.

Parking Strategies

The current 101 on-site parking spaces are used by faculty and staff during the school day and are made available for guests during evening and weekend events. Summer demand for parking is lower than during the school year. The Campus Plan proposes to move the existing surface parking to an underground parkade. This will decrease the paved areas of the site and reduce the visual impact of parking. The addition of bus parking and drop-off/pick-up on site will further reduce neighbourhood impact.

Large Event Parking

The most significant impact of parking is during the various large events that the school hosts each year. The school encourages guests to use alternate forms of transport and emphasizes the importance of not disturbing neighbours. To allow neighbours to plan around large events, the school notifies neighbours of events by email and by posting a schedule of events on the website. In the evenings (after 5:00pm), parents and other guests are permitted to park in the drop/off pick-up zones adjacent to the school along West 29th Avenue and Camosun Street. This increases the number of parking spaces without parking in front of residences. For large events security staff are employed to assist with traffic and ensure guests park in accordance with the City regulations. City By-Laws enforcement staff are called to ticket vehicles that are not compliant with street signage. For the annual school Fair, the School works with the City to create appropriate temporary traffic regulations (eg. Additional no-parking zones).

Ongoing Transportation Management Plan Updates

To implement the transportation management strategies outlined in this document, a Transportation Management Plan (TMP) administrator at the school will be designated and given the responsibility to conduct mode surveys, respond to traffic concerns around the school, and implement TDM measures.

After each phase of the school's development plan, the school will provide a limited TMP update outlining the following:

- Travel mode survey for the entire school students and staff with a minimum 90% response rate to be completed annually for 3 years post-occupancy.
- Current and future TDM measures being implemented at the school.
- Number of students and staff utilizing the various TDM measures.
- Outline whether the school is meeting the previously set travel mode targets and to set new targets for the future.
- Any neighbourhood concerns regarding the school traffic.

A copy of the limited TMP will be submitted to the School Liaison at the City of Vancouver for review. An internal TMP in brochure form should be distributed to all families.

Additional strategies for TDM will be considered on an ongoing basis to reduce vehicle trips and congestion around the school. These may include carpool strategies, walking school bus, bicycle train, walking Wednesdays, park and walk a block, etc.

**4175 West 29th Avenue (St. George's School)
PUBLIC BENEFITS SUMMARY**

Project Summary:

Phased redevelopment of an existing independent school site, introducing an enrollment limit of 775 students, and redevelopment of the site with new academic, athletic and performing arts buildings, along with staff and student housing.

Public Benefit Summary:

The project would generate DCLs as well as a public art contribution.

	Current Zoning	Proposed Zoning
Zoning District	RS-5	CD-1
FSR (site area = 57,056.3 sq. m / 614,149 sq. ft.)	0.70	0.70
Floor Area (sq. ft.)	429,918	429,918
Land Use	Single-family residential (note 1)	School – Elementary or Secondary, with associated Staff Housing and Student Housing

Public Benefit Statistics		Value if built under Current Zoning (\$)	Value if built under Proposed Zoning (\$)
Required*	DCL (City-wide)	219,267	219,267
	Public Art		851,109
	20% Social Housing		
Offered (Community Amenity Contribution)	Cultural Facilities		
	Green Transportation/Public Realm		
	Heritage (transfer of density receiver site)		
	Affordable Housing		
	Parks and Public Spaces		
	Childcare Facilities/Social/Community Facilities		
	Unallocated		
	Other		
	TOTAL VALUE OF PUBLIC BENEFITS		219,267

Other Benefits (non-quantified components):

* DCLs, Public Art and Social Housing may have exemptions and/or minimum thresholds for qualification. For the City-Wide DCL, revenues are allocated into the following public benefit categories: Replacement Housing (36%); Transportation (25%); Parks (18%); Childcare (13%); and Utilities (8%).

1. The RS-5 District Schedule also allows for limited Agricultural; Cultural and Recreational; Dwelling; Institutional; Office; Parking; Retail; Service; Utility and Communication; and Accessory uses. School – Elementary or Secondary is a permitted conditional use in the RS-5 District Schedule.

**4175 West 29th Avenue (St. George's School)
APPLICANT, PROPERTY AND DEVELOPMENT PROPOSAL INFORMATION**

Applicant and Property Information

Address	4175 West 29th Avenue (St. George's Senior School)
Legal Description	PID: 025 453-254, Parcel 100, Block 292, District Lot 140, Group 1, New Westminster District Plan BCP420
Developer and Property Owner	St. George's School Foundation, Inc. No. S-0011886
Architect	Perkins and Will

Development Statistics

	Development Permitted Under Existing Zoning	Proposed Development	Recommended Development (if different than proposed)
ZONING	RS-5	CD-1	-
SITE AREA	57,056.3 sq. m (5.71 ha) 614,149 sq. ft. (14.1 ac.)	57,056.3 sq. m (5.71 ha) 614,149 sq. ft. (14.1 ac.)	-
USES	Agricultural; Cultural and Recreational; Dwelling; Institutional; Office; Parking; Retail; Service; Utility and Communication; and Accessory uses	Institutional Uses, limited to School – Elementary or Secondary, with a maximum enrollment of 775; and Accessory Uses, including Staff Housing and Student Housing ¹	-
FLOOR AREA	39,939.4 sq. m (429,918.3 sq. ft.)	39,939.4 sq. m (429,918.3 sq. ft.) ²	-
FLOOR SPACE RATIO (FSR)	0.70 FSR	0.70 FSR	-
HEIGHT	10.7 m (35 ft.) from base surface ³	Approximately 18.9 m (62 ft.) from base surface or 99.5 m referenced to geodetic datum ⁴	-
PARKING, LOADING AND BICYCLE SPACES	as per Parking By-law	100 vehicle parking spaces; 88 bicycle parking spaces (39 Class A, 47 Class B); 3 Class B loading spaces	as per Parking By-law: 166 vehicle parking spaces; 88 bicycle parking spaces (39 Class A, 47 Class B); 2 Class B and 2 Class C loading spaces

Note 1: Staff Housing and Student Housing would be limited to employees and to students or other individuals attending programs at the school. Refer to the "Land Use" section of this report for further details.

Note 2: Includes approximately 30,257 sq. m (325,700 sq. ft.) of school facilities and approximately 9,681 sq. m (104,203 sq. ft.) proposed as Staff Housing and Student Housing.

Note 3: Section 11 of the Zoning and Development By-law allows the Director of Planning to permit a greater height than permitted by the district schedule, provided they first consider the effect of the additional height on the neighbourhood. The existing academic building has a maximum height of 12.2 m (40 ft.).

Note 4: Refer to the "Height" section of this report for further details.

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