



Kitsilano Secondary School

RENEWAL PLAN

Open House Issues & Responses: Work in Progress

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1. Introduction

An Open House on renewal of the Kitsilano Secondary School was held on March 3rd 2010. A preferred concept (D2) for renewal was presented to the open house together with background on the concept, the range of other concepts generated, 21st Learning Environments, sustainable building ideas and other information. Details on the Open House are the subject of a separate report.

This report, and the accompanying architect's drawings, provides responses to a number of the key comments and ideas expressed at the Open House. A number of alternative features for the preferred concept are identified. The consultant team will continue to recommend Concept D2 as the preferred concept but a number of possible changes are being investigated as a result of the input received and the alternatives in this report will be submitted to the Steering Committee and VSB Board for their consideration.

USE OF OUTDOOR SPACE AND UNDERGROUND PARKING

Outdoor space uses | One of the most controversial areas of the preferred concept, but which will be an issue for any site plan, is the appropriate use of the new outdoor space created. The amount of outdoor space is also impacted by how parking is handled. The concept plan showed an all-weather field and no replacement for the six existing tennis courts.

Alternative site plans, showing alternative outdoor uses, will be forwarded to the VSB Board.

Underground parking | A number of comments were received regarding the number of parking spaces and the desirability of underground parking. Ministry of Education policy does not generally support underground parking and the preferred plan reflected this. On a constrained site, such as Kitsilano, placing the storage of cars underground would bring a number of benefits. The amount of parking will ultimately be dictated by the City of Vancouver. Planning to date has assumed a significant reduction in parking requirements estimated to be approximately 114 stalls to approximately 72, and which is believed can be supported through a Transportation Demand Management (TDM) plan. If underground parking were to be provided, it would be most economically located under the new school building, allowing it to capitalize on foundation construction and elevator locations. A conceptual plan has been prepared that illustrates this.

Plans with and without underground parking will be costed, and forwarded to the VSB and Ministry of Education for consideration

Location of the eco-garden | Comments were received that the garden, as shown, would be in shadow from the afternoon sun.

Plans showing alternative locations for the eco-garden will be forwarded to the VSB for its consideration.

Illustrated Alternatives

- *D2 Alternative 1* replaces the all weather field with tennis courts. It shows the accommodation of six tennis courts and relocation of the eco-garden. Parking remains surface.

- *D2 Alternative 2* moves parking underground and replaces it with the eco-garden on the Trafalgar frontage. This alternative also shows the impact on the open space to the east, enabling it to be enlarged. This is illustrated by the all-weather sports field, which grows to 55m x 88 m. This alternative would also allow the large open space to be alternatively used for six tennis courts.
- *D2 Alternative 3* places parking underground, shows tennis courts instead of parking, relocates the eco-garden and reduces the size of the sports field. This shows that only two courts can be accommodated in this location.
- *D2 Alternative 4* places parking underground, but moves the new building over towards Trafalgar, resulting in a gain of 9 metres in width. The eco-garden is shown adjacent to the Trafalgar entrance. This option could accommodate either six courts, or a 55 x 88 m wide sports field.

“INTERNAL CLASSROOMS”

Concern has been expressed regarding the prospect of a small number of rooms on the second and third floors not having conventional windows. These rooms form part of clusters of classrooms and preparation rooms. Further work has been undertaken on this, and a series of alternatives prepared, exploring ways natural light can be assured in these clusters. Four variations have been prepared and will be reviewed further. This remains work in progress, but is shown on the “Cluster Variations” plan.

2. Maximizing Retention of Existing Structural Elements, 1927 Block

Feedback, from a heritage perspective, conveys the view by some that the existing concrete floor slabs and supporting columns should be retained, in conjunction with the existing exterior walls. The rationale is that existing slabs are an intrinsic part of the building’s heritage, and that there are environmental savings to be had over completely new concrete. This request relates to the proposed preferred Concept D2, but is also articulated as part of a preference for Concept A, which is seen to be more consistent with the school’s original design.

A series of structural studies has been carried out on the school. C.Y. Loh Associates Ltd. assessed the seismic load resistance condition in 2004, as part of the Ministry of Education’s provincial seismic risk assessment initiative. The study found the entire school, with the exception of the 1958 change rooms, to have a high seismic risk. A seismic analysis of the 1927 Block in 2008 (by Pomeroy, now Genivar) confirmed the earlier study – the building requires an extensive a structural upgrade.

Although the general structure and components of the building have been established, it was not until this planning stage that a materials analysis, which included coring and materials testing, was undertaken. McGrath Engineering Ltd. undertook this work in December 2009. This included determining steel reinforcing details, structural section geometry and concrete compressive strength. The study was able to confirm that the exterior walls are typically exterior plaster over concrete, with clay tile and plaster on the interior. Reinforcing steel is present in the concrete – this is beneficial for retention. For the balance of the structure, clay tile is present extensively both in the interior walls and in the floor slabs.

Discussions with the project's structural engineer confirm that it may be technically possible to retain the existing structure and seismically upgrade it, although the interior partition walls will need to be removed under any option. Typically these are constructed with clay tile, which is considered hazardous in a seismic event in this setting. The slabs and columns could be retained but the slabs' structural characteristics would require frequent shear walls. The footings, the columns and the slabs would all need to be exposed and tested to confirm the details of construction. The actual measures required for the balance of the structure, and their costs, would be difficult to determine without further and intrusive structural analysis.

The prospect of retaining the existing slabs and columns, where consistent with the renewed school plan, will be carried forward as an option if it is technically feasible, less expensive than new construction and does not impede designing for a 21st Learning Environment. This will be determined when more detailed work is undertaken. At this time, for the purposes of costing, constructing a budget and applying for funding, it has been assumed that all of the interior structure will be removed and replaced. Pursuing this will be subject to the VSB's direction.

- **D2 Alternative 5 — Retention of the existing corridor slabs and columns on the north side of 1927 Block.** Consistent with the above approach, an option has been developed for D2 showing an enlarged northern corridor and potential for the retention of the existing slabs and columns. This sets the gym back slightly from the front entrance and also widens the entrance to the legacy hall.

3. Use of New School Building Roof

During the Open House, a number of comments were made about using the roofs of the school building for tennis courts or other sports, or as a green roof. Use of the roof for sports is not recommended because it would require high and unsightly screen fencing and costly reinforced roofing structures. There would also be challenges for access and maintenance if the entire school roof was a "vegetated" green space, and this is not recommended. However, a portion of the roof, above the library, is highly visible and easily accessed from the third floor corridor, providing a practical option. Measures under consideration for the main roof of the school include a "white roof" to reduce the "heat island effect," storm water collection and solar panels.

- **D2 Alternative 6 —Third floor learning garden.** A third floor learning garden is shown in the attached plan package.

This alternative will be included in the plans for consideration by the VSB. Options for use of the roof as part of the sustainable initiatives will continue to be examined for the project.

4. Concept A

A number of comments were made in favour of Concept A over Concept D2. A variety of reasons were expressed for this preference.

A revised Concept A has been developed from the original concept, using the principles of 21st Learning Environments. This has been re-labeled as Concept A2 and is shown on the attached plans. A site plan and more detailed phasing evaluation has also been included.

Concept A2 as with A is more challenging for implementation than Concept D2. This includes the extensive use of portables (34).

Concept A2 will be fully costed to the same level of detail as Concept D2, and forwarded to the VSB for its consideration

5. Next Steps

Preliminary costing estimates for Concepts A2, D2 and F will form a key component for reporting back to the VSB and Ministry of Education and selecting the preferred concept for the renewal of Kitsilano School. This information will be provided to the KSPT, and made public prior to consideration by the VSB.

