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Renewal of École J. H. Sissons
Technical Update

Public Meeting
École J.H. Sissons Gym
7:00 pm
January 10, 2019

Agenda/Outline

- Background
- Summary/timeline of work completed
- Reports:
  - Schematic design alternatives
  - Geotechnical
- Key next steps and timelines

Background

- Sissons - built in 1975 - no major renovations or retrofits.
- 2016-17 – new school became a high priority for capital investment due to condition and student enrolment.
- Planning study in 2017 to determine scope of work and cost for the renewal of École Sissons.

Background

- ECE determined Sissons renewal a priority and advanced request through the corporate capital planning process, where it competed for funding requests from all departments.

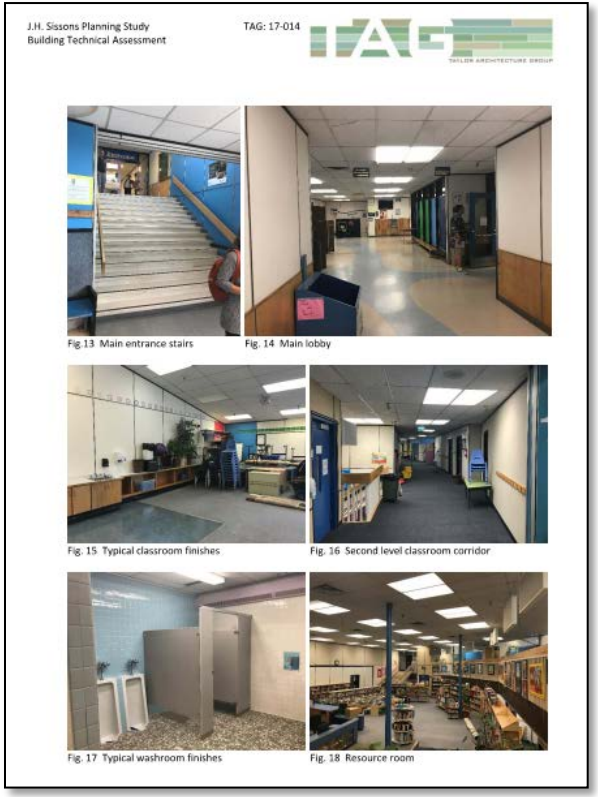
- Multi-year funding approval obtained in the 2019-20 Capital Estimates, approved in October 2018.

July 2017

- Taylor Architecture Group (TAG) undertook preliminary design work, including options for both renovation and replacement.

August 2017

- TAG issued a ‘Building Technical Assessment’ with a code review and priorities for technical upgrades.



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September 2017

- TAG issued a ‘New School Site Studies’ report, examining possible locations for new construction.

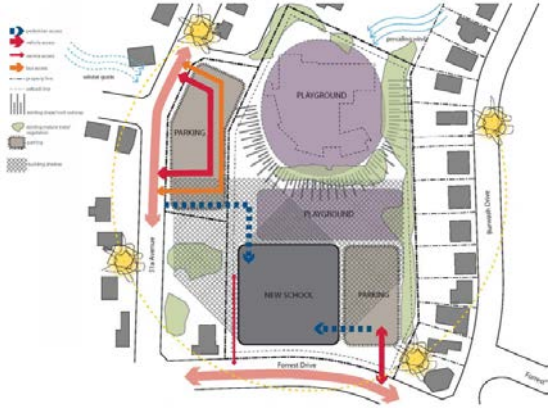

Fig. 6 – New School Siting Option 1

Fig. 7 – New School Siting Option 2

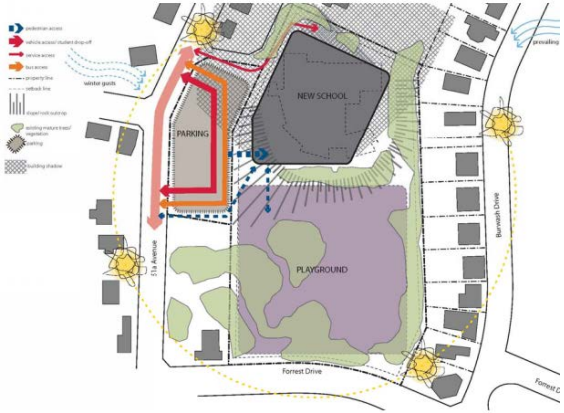

Fig. 8 – New School Siting Option 3

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October and November 2017

- October 2017: TAG prepared Schematic Alternatives Report with 3 strategic options: complete renovation, partial renovation and new construction. Cost estimates prepared.

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November 2017

- Options presented to YK1 administration and trustees. New construction chosen as the preferred strategy.
- Concern expressed about relocating students during construction.

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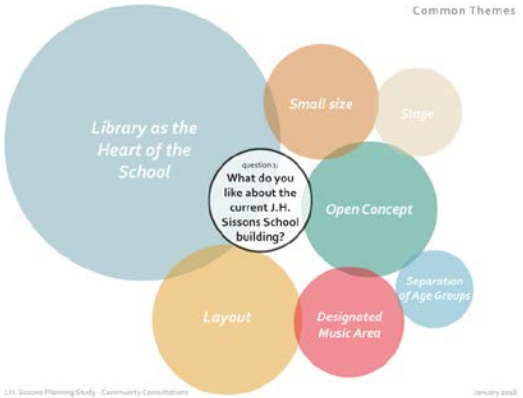
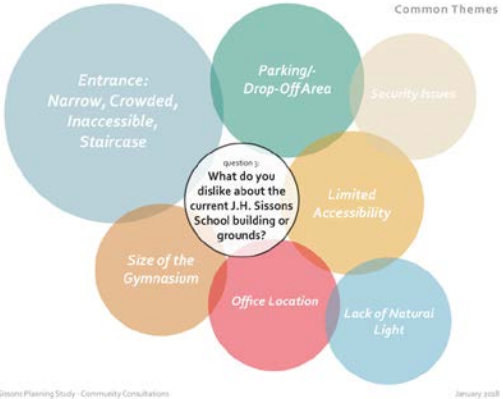
December 2017

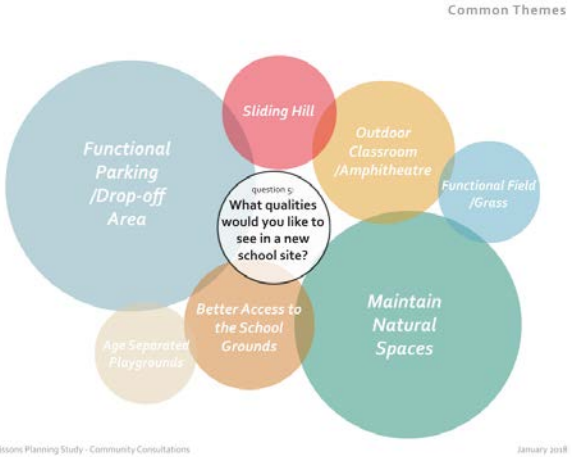
- Consultation sessions with staff and parents.
- YK1 conducted on-line survey.

January 2018

- Common themes from the consultation sessions were documented.







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January 2018

- TAG updated the ‘New School Site Studies’ report, including a 4th option in the parking lot.

Fig. 15 – New School Siting Option 1

Fig. 16 – New School Siting Option 2

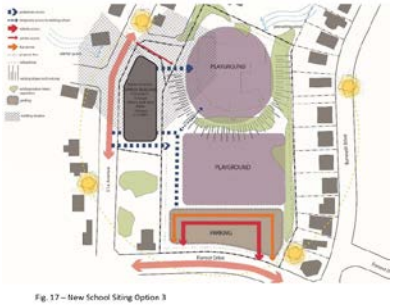

Fig. 17 – New School Siting Option 3

Fig. 18 – New School Siting Option 4

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February 2018

- Site options presented at public meeting.

Fig. 15 – New School Siting Option 1

Fig. 16 – New School Siting Option 2

Fig. 17 – New School Siting Option 3

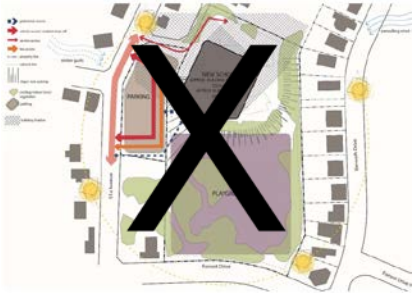

Fig. 18 – New School Siting Option 4

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July to October 2018

- Geotechnical contract awarded.
- Drilling takes place.
- TAG issues ‘Revised Schematic Alternatives’ report with another option for a school in the parking lot.

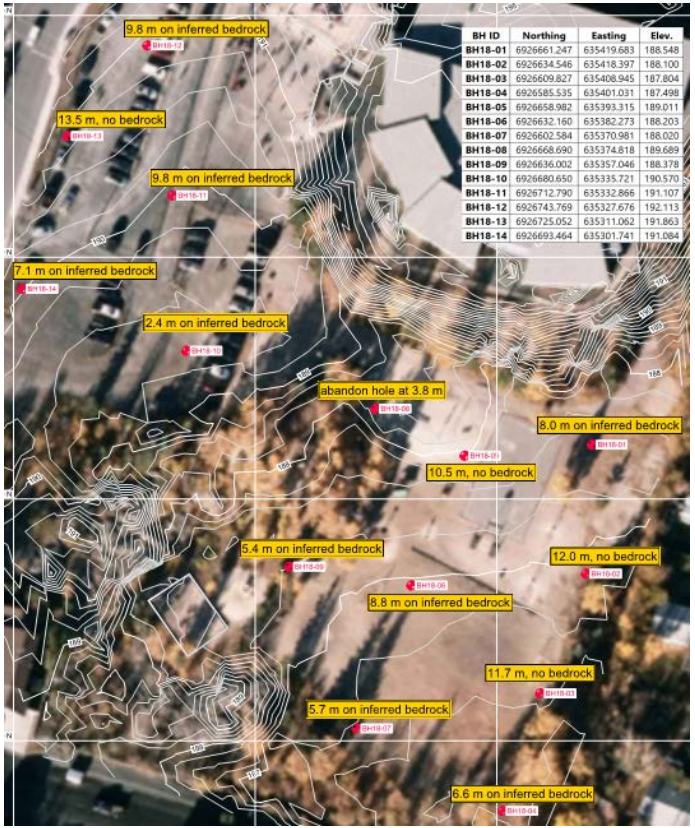
September 2018 - Schematic Design Alternatives Report

- Three schematic design alternatives considered:
  - existing parking lot
  - existing playground
  - existing rock outcrop (existing site)

- Recommendation - building on existing site is best long-term location, given cost, site implications and school operational considerations.

October 2018 – Geotechnical Report

- Bedrock found in 9 of 13 boreholes at depths of 2.4 m to 9.8 m.
- Bedrock not found in 4 boreholes drilled up to 13.5 m deep.
- High water table discovered – saturated sand within 5 feet of ground level.



BH ID	Northing	Easting	Elev.
BH18-01	6926661.247	635419.683	188.548
BH18-02	6926634.546	635418.397	188.100
BH18-03	6926609.827	635408.945	187.804
BH18-04	6926585.535	635401.031	187.498
BH18-05	6926658.982	635393.315	189.011
BH18-06	6926632.160	635382.273	188.203
BH18-07	6926602.584	635370.981	188.020
BH18-08	6926668.690	635374.818	189.689
BH18-09	6926636.002	635357.046	188.378
BH18-10	6926680.650	635335.721	190.570
BH18-11	6926712.790	635332.866	191.107
BH18-12	6926743.769	635327.676	192.113
BH18-13	6926725.052	635311.062	191.863
BH18-14	6926693.464	635301.741	191.084

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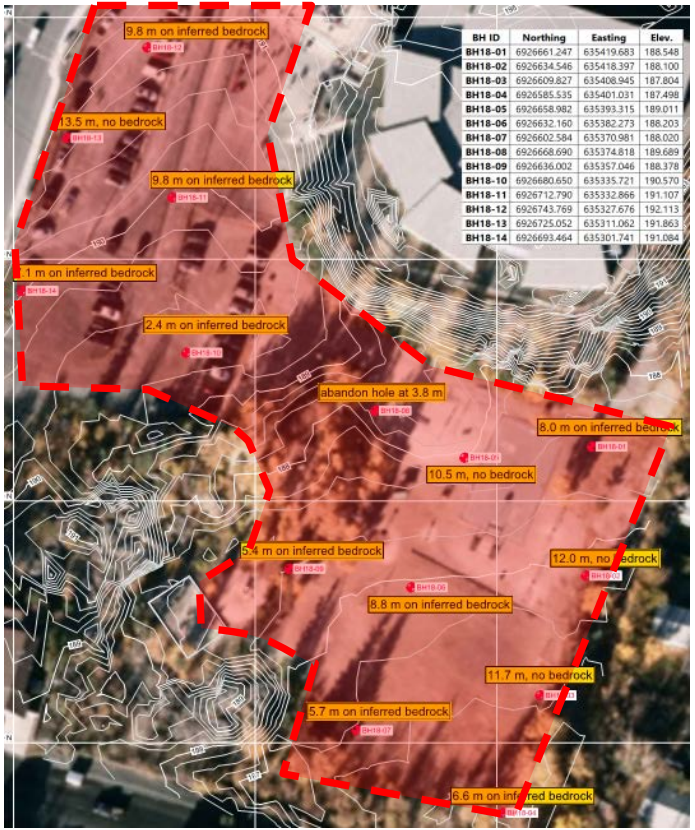
Geotechnical Risks

- Variability of depths to bedrock
- High water table and saturated sand within 5 feet of surface level
- Ice lenses discovered
- Moist sub soils discovered
- Ground water under pressure



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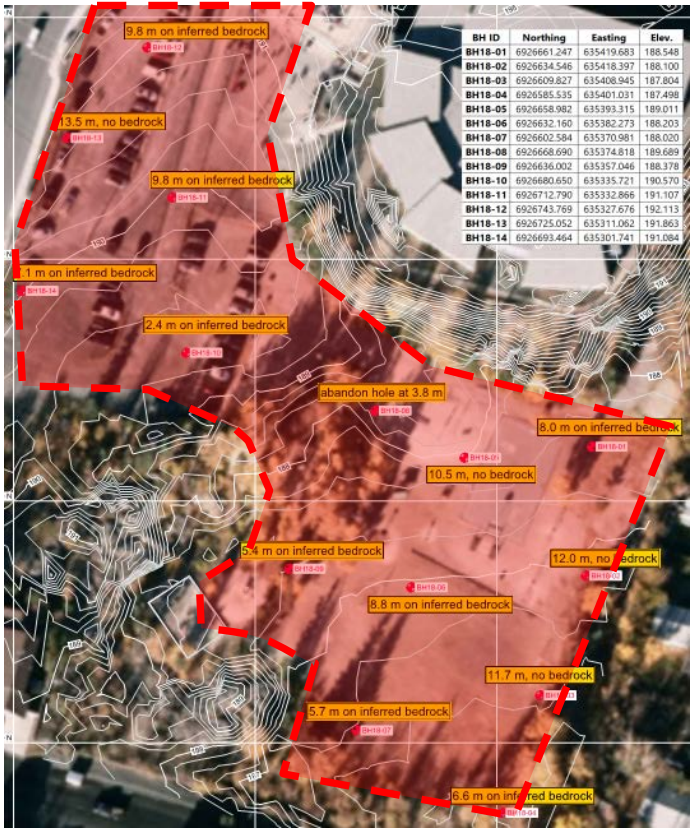
October 2018 - Geotechnical Report

- Parking lot and playground conditions rated as ‘fair’ only.
- Rock-socketed steel piles not practical due to high water marks.
- Shallow footings on sand possible but high risk due to water.
- Steel piles driven to refusal also possible - concern about high cost due to variability of bedrock depth and risk of frost jacking due to high moisture content.

Risks

- Water and drainage issues need special attention
- Construction and management on site becomes critical and high risk
- All forms of foundations become high risk and a life cycle risk
- Maintenance and monitoring costs increase and need constant work



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Conclusions

- Final report conclude that, while it is feasible to construct on any of the three sites, construction on the existing site is the recommended option due to cost and site implication issues.
- INF recommended development on the existing site as the best long term option.

Proposed Next Steps and Timelines

- Direction to Infrastructure on Site Selection – January 2019
- Complete Schematic Design – July 2019
- Confirm Project Budget – July/August 2019
- Complete Detailed Design – September 2019 to June 2020
- Start New School Construction – Fall 2020
- Complete New School Construction – August 2022

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Thank you