
WILLIAM COOK ELEMENTARY SCHOOL
SEISMIC UPGRADE & PARTIAL REPLACEMENT/ADDITION

CONSTRUCTION START:	July 2018
TARGET COMPLETION:	September 2020
PROJECT BUDGET:	\$14.27 Million
FUNDING SOURCES:	Capital Plan - \$12.95 Million (maximum) + SD38 Contribution \$1.36 Million + Annual Facility Grant \$350,000
CONSULTANT:	KMBR Architects
GENERAL CONTRACTOR:	Heatherbrae Builders Inc.
PROJECT MANAGER:	Richmond Project Team Enquiries: Sam Yoo, 604-295-7000 ext. 4100

BACKGROUND

William Cook Elementary School originally opened in 1954 with renovations and additions in 1957, 1962, 1964, 1971 and 1999 to serve Kindergarten to Grade 7. School District No. 38 (Richmond) has confirmed that Cook Elementary is needed for the long term as part of the overall long-range strategic planning.

Cook Elementary, which consists of four distinct blocks (“Block 5” consists of five portable classrooms), was seismically assessed initially using Version 2 of APEGBC’s Seismic Retrofit Guidelines. The entire school has a high risk of liquefaction potential requiring substructure upgrades, with Block 1 (1954 Original School) having a Seismic Risk Category H1 rating and Block 2 (1957, 1962, 1964 & 1971 Classrooms) having a Seismic Risk Category H2 rating, requiring superstructure seismic resistance upgrades.

PROJECT SCOPE

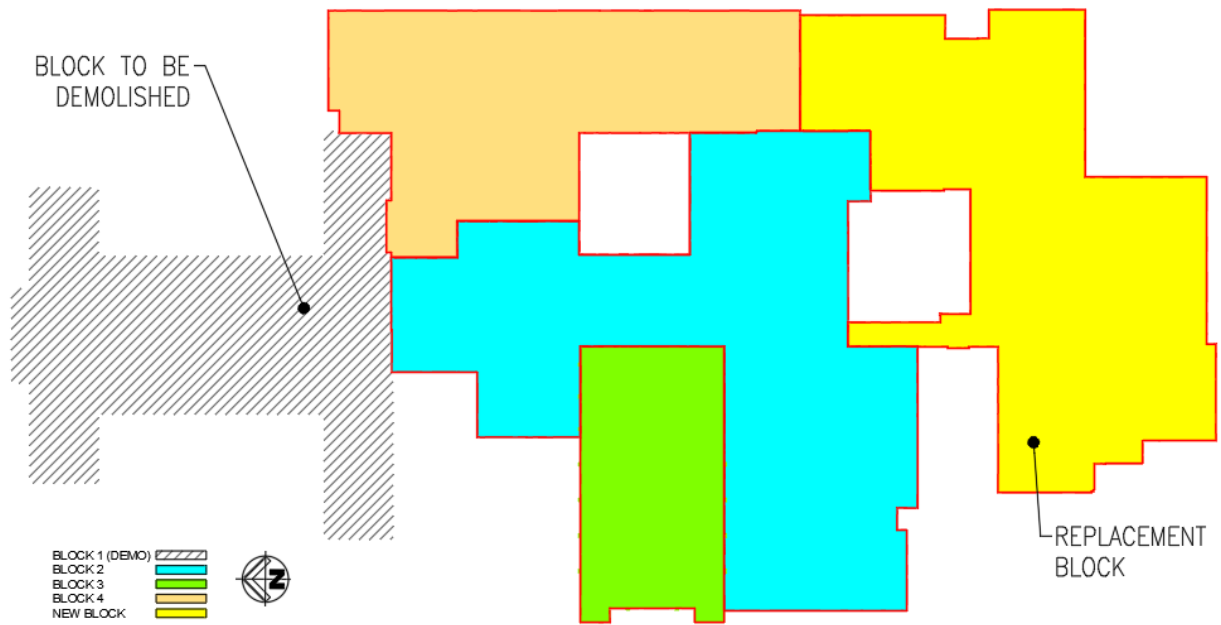
- Structural seismic resistance upgrade to Blocks 2, 3 and 4 of the school:
 - Block 2 (1957, 1962, 1964 & 1971 Classrooms) involving converting some of the existing wood stud walls to plywood shear walls, adding new plywood to existing roof with drags/chords as well as upgrading foundations with grade beams added for liquefaction mitigation;
 - Block 3 (1957 Gymnasium) adding grade beams to tie foundation together.
 - Block 4 (1999 Addition) grade beams to tie the foundation together.
- Block 1 (1954 Original School) demolished and replaced by a single storey addition in the rear, which will expand the school by four classrooms (20K/75E spaces).
- Block 5 portables will be relocated, used as swing space and demolished at the end.
- Non-structural seismic resistance upgrade to the entire school (added restraint of lighting, HVAC, plumbing and cabinets).

- Key feature work:
 - New parking lot with pick-up & drop-off zones;
 - New roofing throughout;
 - New security shutters to exterior windows throughout;
 - New entrance, administration offices & staff room;
 - Upgrading of wall/floor/ceiling finishes in existing building blocks;
 - Upgrading of finishes on walls affected by the structural work in classrooms and other spaces;
 - Upgrading of kitchen off gym; and
 - Minor upgrades to exterior building soffits and building re-painting (except gym mural).

PROJECT STATUS

- The Ministry of Education approved the Project Definition Report and signed the Capital Project Funding Agreement for the seismic upgrade of Cook Elementary 27 April 2017, funded from the Seismic Mitigation Program (SMP).
- Portables relocated and repaired/upgraded; site for new addition excavated, poor soils removed and preloaded over Summer 2018.
- Concrete grade beam and sidewalk around Gymnasium poured.
- One classroom in Block 1 demolished to re-route piping for siamese fire connections previously located on the building face of Block 1.
- Playground near Cook Road relocated to make room for Block 1 demolition and new pump station construction by the City of Richmond.
- Concrete grade beam on east side of East Wing (Block 4) poured in Summer 2019 to minimize disturbance to school as well as northern portion of interior corridor of East Wing to allow egress from the floor area when occupied.
- Classroom addition substantially completed and occupied September 2019. This is the end of Phase 1.
- Concrete grade beam and tie beam inside the school poured along the corridor & in one classroom of East Wing (Block 4).
- New ensuite and door opening for sliding door added to one Kindergarten Classroom; new flooring provided to 2 classrooms and corridor, Fall 2019.
- Phase 2 completed and handed over during Winter Break 2019.
- Hazmat abatement completed prior to Block 1 demolished, January 2020.
- Phase 3 started in January with the demolition of Block 1.
- Temporary Main Entrance to the building created on north side of gym (until Summer 2020).
- School Administration temporarily located in 3 Resource Rooms near Temp Main Entrance.

- Daycare moved to one of the portables; Staff Room moved to Multi-purpose Room temporarily, April 2020.
- Seismic upgrading work around gym have started. Asbestos containing vinyl flooring removed, April 2020.
- Framing for new principal entrance & admin offices completed; roofing underway.
- New parking lot completed except for planting & line-painting prior to the arrival of staff & students on June 1. Concrete sidewalk around parking lot to be completed in the first week of June.
- Library vacated in the first week of June to start the last phase of renovation in the building.
- Landscaping work around the school has commenced.
- Existing pump station on site was not able to be relocated by the city in time for new school year as the city has had issues with securing the fund and a contractor for the project. This work will commence in early July and is expected to be completed in December 2020. The final offsite & onsite work along street frontage will not be completed and be postponed until then. Temporary driveway accesses will be reconfigured, maintained and modified by the city.
- City crew mobilized on site; Old tree at NE corner of property removed to make room for new pump station; fence screened against school building to minimize distraction by students.
- More asbestos found around gym and in corridors and abated where disturbed.
- New paving provided to funnel ball hoops & basketball court; historically reoccurring site drainage issue addressed at one of the playgrounds.
- Roofing of the new admin area as well as reroofing of the gym completed.
- New admin area is at finishing stage, both interior & exterior.
- Interior grade beam & tie beam work (structural concrete only) all completed.
- Line painting on asphalt paving completed.
- Provisional occupancy attained on August 26; final inspection scheduled for September 2 & passed.
- Hydroseeding completed; trees & shrubs planted in September to avoid heat. Landscaping completed in September 2020.
- Project is substantially performed pending official documentation from the architect. Certification of completion is expected in the week of September 28.
- Existing vertical cedar siding of Block 4 is in poor condition - RPT are looking further into replacing this with metal plank cladding to match with the rest of the building. This work, if proceeding, is anticipated to have a minimal impact on the school operations.



Seismic Block Map - William Cook Elementary School