RICHMOND
SCHOOL DISTRICT NO.38

01 May 2023

WILLIAM BRIDGE ELEMENTARY SCHOOL SEISMIC UPGRADE

CONSTRUCTION START:	October 2021
TARGET COMPLETION:	August 2023
PROJECT BUDGET:	$16.06 Million
FUNDING SOURCES:	Ministry of Education Capital Plan - $16.06 Million (maximum)
CONSULTANT:	Station One Architects (SOA)
CONSTRUCTION MANAGER:	Unitech Construction Management (UCM)
PROJECT MANAGER:	Richmond Project Team Enquiries: Jose Pelayo, 604-295-7000 ext. 7800

BACKGROUND

William Bridge Elementary is in a two-storey wood frame building of 3,678 m^2, constructed in 1969 with additions and renovations in 1971, 1975, 1980, and 2002. School District No. 38 (Richmond) has confirmed that the school is needed for the long term as part of the overall long-range strategic planning.

William Bridge Elementary, which consists of two distinct blocks, was seismically assessed using Version 3 of EGBC's Seismic Retrofit Guidelines. The entire school has a low risk of liquefaction potential requiring substructure upgrades, with Block 1 (Classrooms and Administration) having a Seismic Risk Category H1 rating and Block 2 (Gymnasium and Changerooms) having a Seismic Risk Category H3 rating.

PROJECT SCOPE

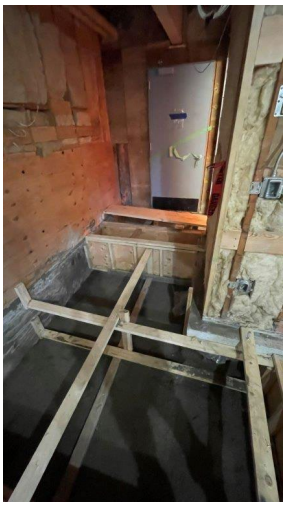
- Block 1 to be separated from Block 2 with a new seismic gap, with new load-bearing structure to be provided at Block 1 to support it independently of Block 2.
- Existing unreinforced masonry walls will be reinforced with vertical rebar, grouting, and dowels to existing foundation walls. New clip angles and tiebacks will be provided at the top of the walls to provide lateral restraint as required.
- New plywood shear walls to be constructed by overlaying new plywood over existing infill walls. New anchor rods and corner hold-downs to be epoxied to existing foundations.
- Existing shiplap roof diaphragms upgraded with new plywood sheathing and steel straps.
- New mass concrete pads at each end of shear wall segments anchored to both pile and grade beam foundations.
- Non-structural seismic resistance upgrade to the entire school (added restraint of lighting, HVAC, plumbing and cabinets).
- Installation of new automatic fire suppression system.
- Upgrade to mechanical ventilation system and domestic water distribution system.

- Restoration of wall/floor/ceiling/exterior finishes and hard/soft landscaping affected by the structural work, addition and demolition.
- Minor removal and replacement of mechanical and electrical equipment to accommodate structural work.

PROJECT STATUS

- Project Design Advisory Committee presentation/meeting – June 23, 2021
- Received 75% Drawings for review – June 24, 2021
- Building Permit submission – City of Richmond received August 09, 2021
- Sprinkler Permit received – from City of Richmond December 14, 2021
- Issue for Coinstruction (IFC) Drawings issued
- Start of construction – October 2021
- Building Permit Recevied – January 13, 2022
- Project extended to August 2023 - due to delay of building permit approval, lack manpower and materials and additional scope of work





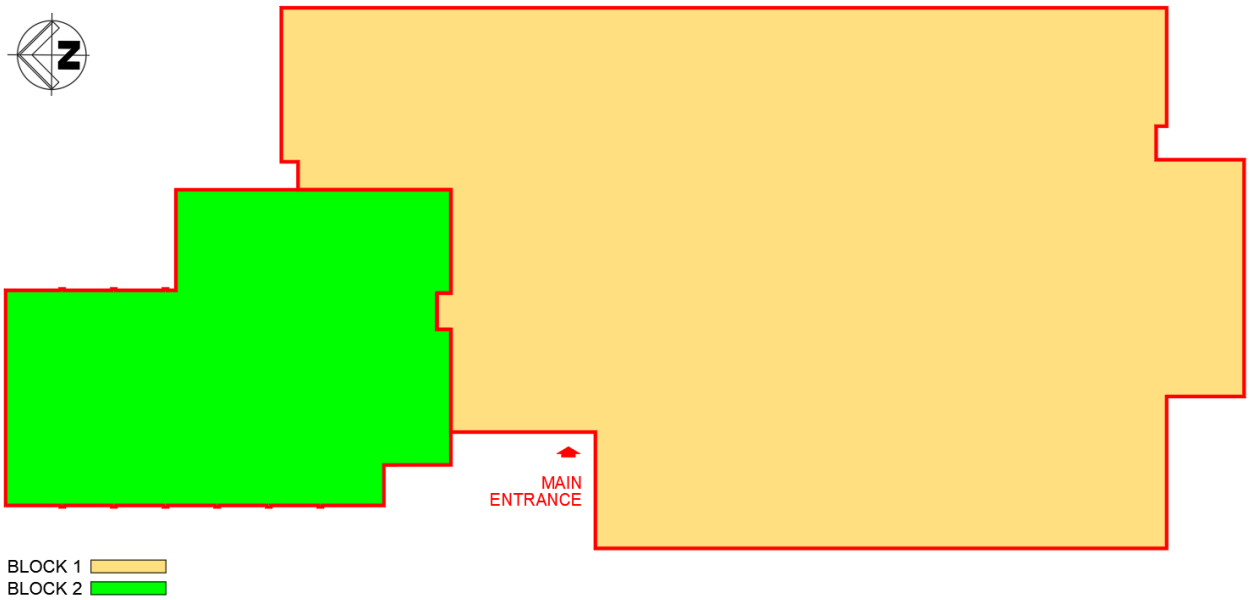
- Seismic footing upgradge in classrooms and staff room


- Corridor – MDF installation and finishing ready for painting

- Gym Kitchen Seismic Upgrade – on-going

- New BC Hydro connection and MDC electrical panel room

- Staff room and classroom – seismic upgrading on-going



Seismic Block Map – William Bridge Elementary