

**TO: Board of Education**

**FROM: Ryan Painter, Trustee**

**RE: Safe Design Council Certification Funding**

**DATE: June 8, 2020**

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**Rationale:**

I have facilitated connections with members of the board of the Safe Design Council, a national not-for-profit organization that utilizes peer reviewed and internationally recognized crime reduction through design program. The purpose and intent of the SAFE Design Standard® is to implement a point-based certification program aimed at achieving enhanced site and building security through functional planning, landscape architecture, architecture, engineering, interior design, and space programming.

I worked with Secretary-Treasurer Morris on the idea, and she reached out to Director of Facilities Morris who has expressed support for the project and has worked with similar design principles in his past.

From discussions with the SAFE Design Council we have learned that there is the potential for a pilot project for one to two schools to implement the SAFE Design Standard®. The grant will be utilized to:

- Complete a risk assessment as it relates to safety & crime;
- Provision of 3D fully scaled, interactive models of the potential sites for SD61's staff's future use;
- Safe Design personnel review of the assessment;
- Training of SD61's security personnel in the design principles;
- Submission for compliance to standard, deficiencies and recommendations for remediation
- Certification

Funds will come from a partnership with the federal and provincial government and will be provided to the district to bring the implementation of the design work and training for our pilot projects.

**Recommendation:**

That the Board of Education of School District No. 61 (Greater Victoria) direct Staff to make application for federal or provincial grant funding to undertake Safe Design Council certification for a new, replacement, or retrofit capital project, at no cost to the Board;

AND FURTHER;

That staff secure letters of support from the Ministries of Education and Public Safety & Solicitor General, to support relevant grant applications.

*The Greater Victoria School District wishes to recognize and acknowledge the Esquimalt and Songhees Nations, on whose traditional territories, we live, we learn, and we do our work.*

Greater Victoria School District No. 61  
556 Boleskine Road, Victoria, B.C.  
V8Z 1E8 Canada

June 4, 2020

**RE: SAFE Design for Greater Victoria Schools**

**Attention:** Greater Victoria School District Board

Dear Trustees:

Further to discussions regarding SAFE Design for Greater Victoria Schools, we propose a project with the following core objectives:

- *To better safeguard students, teachers, and staff against foreseeable security and criminal risks*
- *To support current and future emergency management planning, response, and recovery efforts*
- *To demonstrate the efficacy of the approach in advance of broader application in the District and eventually throughout BC.*

We suggest two components to the project, each funded from different sources:

- 1) *SAFE Design for one new school funded through the capital program of BC Ministry of education*
- 2) *SAFE Design for two existing schools funded through the Civil Forfeiture Crime Prevention and Remediation Grant program, administered through the Community Safety and Crime Prevention Branch.*

We look forward to working with you and others at the District to make Victoria's schools safer and more secure learning environments for students, teachers, and staff. We are fully committed to managing and delivering this project on time, on budget, and in a manner that meaningfully contributes to safety, and emergency management. We are also happy to support you in funding applications.

Sincerely,



**Dr. Douglas Olson**

Chair, SAFE Design Council  
[dolson@safedesigncouncil.org](mailto:dolson@safedesigncouncil.org)  
403.472.1574



# SAFE Design for Victoria Schools

*Crime Reduction by Design™*

**Prepared For:** **Greater Victoria School District Board**

Greater Victoria School District No. 61  
556 Boleskine Road,  
Victoria, B.C.  
V8Z 1E8

**Prepared by:** **SAFE Design Council**

Suite 306 | 701 – 11th Street SW  
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**Contact:** **Dr. Kelly Sundberg**

Founding President, SAFE Design Council  
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**June 4, 2020**

# Table of Contents

- Project Need and Overview ..... 1
- Project Components ..... 2
- Project Leadership, Management, and Operations ..... 3
  - SAFE Design Council ..... 3
  - SAFE Design Operations Inc. .... 3
  - Independent SAFE Design Accredited Professional – to be determined ..... 3
  - Project Leadership Team ..... 5
- SAFE Design Standard™ ..... 7
  - Overview of Methodology ..... 7
  - Multi-Scale Threat Centric Risk Analysis ..... 8
  - Property Assessment ..... 8
  - Review and Certification ..... 8
- Project Components and Deliverables ..... 8
- Project Budget ..... 12
- Contact ..... 12



## Project Need and Overview

The need to protect students and staff in BC schools from criminal threats is undisputed. The Ministry of Education's "ERASE Program" (Expect Respect & A Safe Education) states BC schools are places where "...students can thrive, be themselves, feel safe and seek help." The SAFE Design Standard™ directly supports the practical implementation of the ERASE program's objectives by:

- 1) *Providing an evidence-based, standardized, and replicable method to increase school safety and security through design, maintenance, and policy.*
- 2) *Enhancing school security for students, teachers, and staff, by realizing s*
- 3) *Supporting school districts' ability to meet their duty of care by improving protection of occupants from injury and by managing the conduct of third parties on school properties.*
- 4) *Helping school districts to identify and mitigate potential risks as required under the Occupiers Liability Act and Occupational Health and Safety Act and Regulations.*

We suggest two components to the project, each funded from different sources:

1. *SAFE Design for one new school funded through the Capital Program of BC Ministry of education – Cost approximately \$60,000*

By replicating the way BC Transit has adopted the SAFE Design Standard™ for their new construction projects, costs associated with a new school can be included in the procurement process and captured in capital budgets. As part of the procurement process (RFPs), BC Transit requires SAFE Design certification in the same way current RFPs require LEED® green-building certification. Using this same approach, the Ministry of Education will gain the benefits of the SAFE Design Standard™ without allocating specific funds for the certification of new schools.

Discussions need to be held to discuss the potential of an application through the Ministry Education capital development funds with respect to allocating funds towards the new middle school proposed for the Greater Victoria School Division. A request for \$60,000 is suggested.

2. *SAFE Design for two existing schools funded through the Civil Forfeiture Crime Prevention and Remediation Grant program, administered through the Community Safety and Crime Prevention Branch. Cost approximately \$75,000*

An application should be made to the civil forfeiture crime prevention and remediation grant program. Submissions for funding in January 2021 can be made in November 2020. Maximum grants or \$75,000 and it is suggested that the maximum be put forward in the application.



## Project Components

The following are the major components of the SAFE Design for Greater Victoria Schools proposal:

- **Complete School Risk Assessments** for one new and two existing schools in Victoria, including a detailed analysis of the security incident reports, crime statistics, Crime Severity Indices (CSI) and Canadian Index of Multiple Deprivation (CIMD) data specific to each school location.
- **Create 3D Scans and Models of Existing Schools** - Develop immersive 3D digital models for two existing schools that can all be used for facilities management, training and emergency response.
- **Conduct On-Site SAFE Design Assessments** for two existing and one new school in the District, including the identification of security deficits for each school together with mitigation recommendations — ensuring desired architectural and landscape design is supported and overt fortification or unnecessary surveillance is avoided.
- **SAFE Design Certification** - Once the policy, maintenance, and physical security requirements outlined in the SAFE Design Standard™ are met, the SAFE Design Council will certify each school for a five-year period.



## **Project Leadership, Management, and Operations**

### **SAFE Design Council**

The SAFE Design Council is the non-profit organization responsible for administering the SAFE Design Standard™. The Standard is the first-ever environmental crime reduction certification program focused on achieving security using urban design, architecture, landscape architecture, and interior design — complemented by security policies and procedures. Led by a multidisciplinary team of academics, design professionals, crime reduction specialists, and security and legal experts, the SAFE Design Council is committed to providing evidence-based and industry-informed methods and services that are delivered by trusted and experienced professionals. As indicated below, the SAFE Design Council is responsible for accrediting professionals to apply the SAFE Design Standard™ as well as property certification.

### **SAFE Design Operations Inc.**

SAFE Design Operations Inc. will provide project management risk analysis, scanning, mapping, and report review. SAFE Design Operations Inc. can also support, manage, and direct the independent SAFE Design Accredited Professionals (SAFE-APs) working on this project if that is the client wish. As noted above, the SAFE Design Council assumes full responsibility for property certifications.

### **Independent SAFE Design Accredited Professional – to be selected by client**

An independent, accredited SAFE Design Professional will be engaged by the school district to conduct the detailed on site assessments together with liaison with the design team on the new build. We have considered the budget requirements for the consultants in our estimates.



## SAFE-AP™ Course

Independent design and security professionals interested in becoming a SAFE Design Accredited (SAFE-AP™) must meet the membership requirements of the SAFE Design Council and successfully complete the SAFE-AP™ accreditation course.



## Registered SAFE-AP™

Once a person has successfully completed the SAFE-AP™ course and meets the membership requirements of the SAFE Design Council, they are registered as a SAFE-AP™ for a three-year period.



*Only registered SAFE-APs are authorised to use the SAFE Design Standard®.*



## Project Registration

A SAFE Design Accredited Professional (SAFE-AP™) initiates and registers a project with the SAFE Design Council.



## Multi-Scale, Threat-Centric Risk Analysis

A Risk Analysis is conducted to determine relevant criminal threats specific to the location, history, and use of the property. A risk score is determined from national, municipal/rural, community and property data analyses, which informs the specific performance requirements used during the SAFE Design assessment of the property.



## Physical Assessment of Property

A SAFE-AP™ completes the physical assessment of the property and prepares a report indicating the issues, vulnerabilities and recommended mitigations for the property.



## Independent Review of SAFE-AP™ Report

An arms-length review of the SAFE-AP's assessment report is completed to confirm all the SAFE Design Standard® performance requirements are addressed, and if deficiencies are identified, the mitigations recommended by the SAFE-AP™ are appropriate.



## Implementation of Recommendations

Once the recommendations made by the SAFE-AP™ are independently reviewed and approved, they are implemented and the Council is notified.



## Property Certified for Five-Year Period

Once the final recommendations have been implemented and the property is ready occupancy, the SAFE Design Council certifies the property as meeting the SAFE Design Standard®.







## Project Leadership Team

**Dr. Kelly W. Sundberg**, BA, MA-JPSL, PhD  
Environmental Criminologist

### Founding President, SAFE Design Council

Kelly is an Environmental Criminologist and Associate Professor in the Department of Economics, Justice, and Policy Studies at Mount Royal University. He also serves as an Adjunct Professor in the School of Law at the University of Adelaide, Associate Professor in the School of Architecture, Planning, and Landscape at the University of Calgary, and Fellow of the Canadian Global Affairs Institute. He holds a Bachelor of Arts in Political Science from the University of Victoria, Master of Arts in Justice and Public Safety Leadership and Training from Royal Roads University, and a Doctor of Philosophy in Political and Social Inquiry with a specialization in Criminology from Monash University. Prior to his academic career, Kelly served over fifteen years in various border security, law enforcement, and senior policy positions with the Government of Canada. In 2018 Kelly was qualified as an expert witness by the Alberta Court of Queen's Bench as an expert on crime prevention through environmental design (CPTED) and other crime reduction by design approaches and methods. Kelly is one of the co-founders of the SAFE Design Council and a co-inventor of the SAFE Design Standard™.

**Dan M. Levinson**, BA (Distinction), PhD (student)  
Risk Analyst and Physical Security Advisor

### Executive Director, SAFE Design Council

Dan is a risk analyst and physical security advisor with over 20-years of public safety and security experience. He has assisted government, corporate, and community organizations achieve their respective risk reduction and physical security goals, both domestically and internationally. Mr. Levinson is currently pursuing his Doctor of Philosophy at the University of Adelaide (Adelaide Law School) where he is studying how public and private sector organizations can most aptly mitigate the risk of occupiers' liability through informed risk analysis, space programming, and physical security. Dan is one of the co-founders of the SAFE Design Council and a co-inventor of the SAFE Design Standard™.

**Dr. J. Douglas Olson**, DDES, MLandArch, FCSLA, ASLA  
Landscape Architect and Urban Designer

### CEO, SAFE Design Operations Inc.

Douglas holds a Doctor of Design degree from Harvard University, and a Master of Landscape Architecture degree from the University of Manitoba. He has served as an instructor at the Harvard University Graduate School of Design and is an adjunct professor in the School of Architecture, Planning, and Landscape at the University of Calgary. He is a Fellow of the Canadian Society of Landscape Architects as well as a member of the American Society of Landscape Architects and the International Association of Landscape Ecology. Doug is one of the co-founders of the SAFE Design Council and a co-inventor of the SAFE Design Standard™. He received the Canadian Society of Landscape Architects Lifetime achievement award in 2017.



For over 25 years as CEO of O2 Planning + Design, Douglas directed the firm’s work in landscape architecture, planning, and urban design. He pioneered projects in the field of Geodesign—coupling GIS modelling with design and planning processes. Today, Doug serves as the CEO of SAFE Design Operations Inc., which assists the SAFE Design Council in operationalizing the SAFE Design Standard™ within both public and private sector organizations.

**Erica Hansen, BSc, MLA**

*Landscape Planner, Engagement and Environmental Professional*

Erica Hansen holds a Master of Landscape Architecture degree from the University of Calgary, and a Bachelor of Environmental Science degree from the University of British Columbia, with a specialization in chemistry and a minor in human geography. She has experience in environmental planning, together with engaging multi-disciplinary teams, stakeholders and the public. She is also experienced in research, GIS mapping, graphics, spatial assessments, project management and field work and has worked as a research assistant using GIS analysis to inform design decisions.



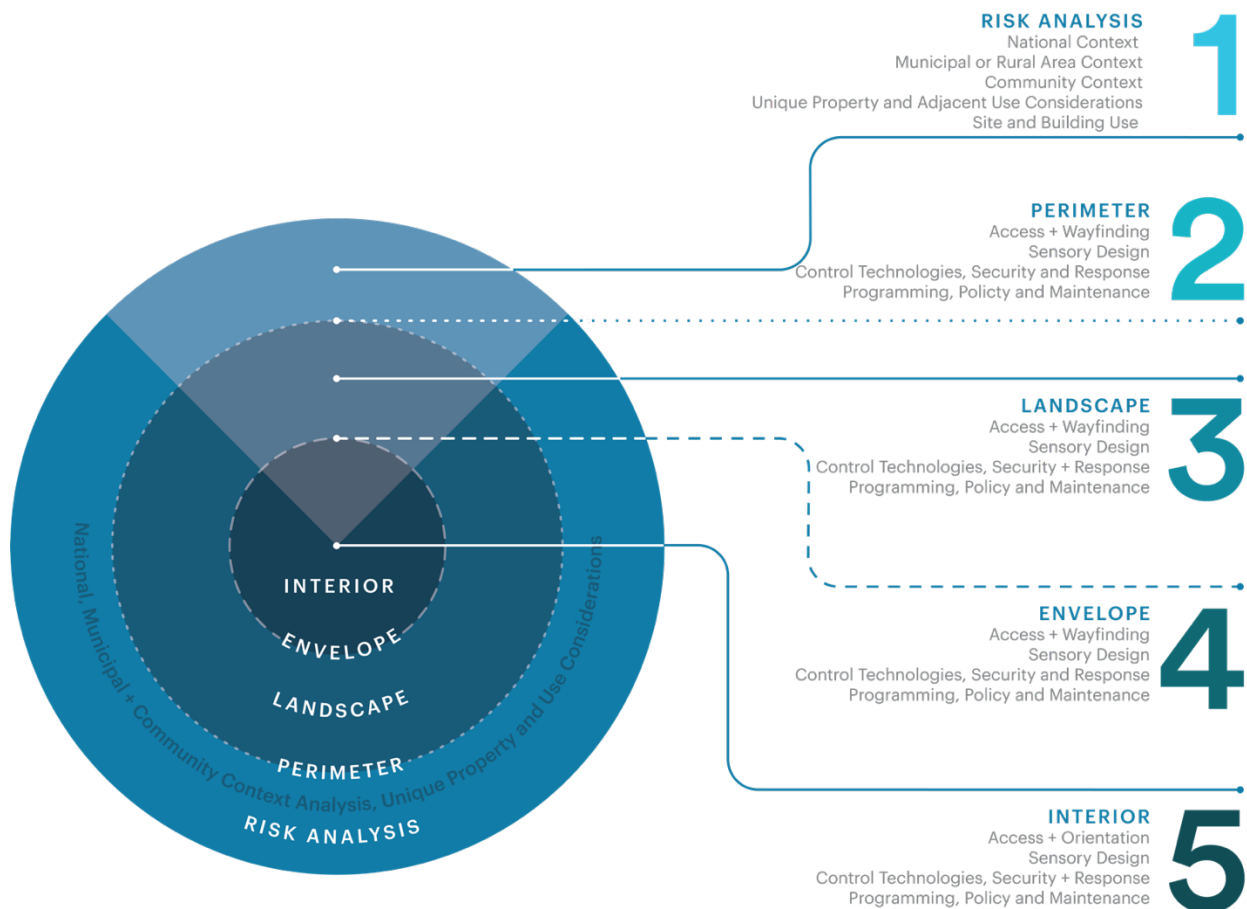
# SAFE Design Standard™

The SAFE Design Standard™ constitutes the first-ever crime prevention through environmental design (CPTED) certification program. Administered by the SAFE Design Council, buildings, sites, and other built environments certified as meeting the SAFE Design Standard™ represent places where prudent and reasonable steps have been taken to reduce the potential for harm against people, assets, and operations as the result of crime or social disorder. The SAFE Design Standard™ also serves as a key step in limiting occupiers' liability by comprehensively assessing reasonably foreseeable security and criminal incidents for a specific building or site.

## Overview of Methodology

In general terms, the SAFE Design Standard™ methodology is applied in three phases:

- 1) Multi-Scale Threat Centric Risk Analysis
- 2) Property Assessment
- 3) Review and Certification





## Multi-Scale Threat Centric Risk Analysis

A multi-scale risk analysis will be completed for each school — including an examination of the current socioeconomic context and criminal risks for the community in which the property is located. From this analysis, relevant criminal threats and actual crime occurrences in and around the property are annotated and mapped. Using this risk analysis, a risk score is assigned which informs how security planning and design are achieved.

## Property Assessment

Informed by the Risk Analysis, the building and site are assessed by a SAFE Design Accredited Professional (SAFE-AP™) to ensure that the performance requirements noted in the SAFE Design Standard™ are achieved. Included is collaboration between consulting designers, SAFE-APs, and security staff of the client to confirm security plans, policies, and procedures correspond with design. By taking a multidisciplinary approach to design, the use of unnecessary or obtrusive security elements can be avoided. Upon completion of the property assessment, the SAFE-AP™ submits a report detailing how the project design meets the requirements of the SAFE Design Standard™ and any recommendations required to address deficiencies or vulnerabilities.

## Review and Certification

An independent review of the SAFE-AP's property assessment report is conducted. Once complete, the SAFE Design Council reviews the application for certification and either issues certification for a five-year period or identifies outstanding requirements prior to certification. To ensure the integrity of the SAFE Design Program, audits may be conducted of select properties.

## Project Components and Deliverables

The project will deliver the following major components:

- 1) Risk Assessments for 3 Schools
- 2) 3D Scans and Models of 2 Existing Schools
- 3) SAFE Design Assessments of 2 Existing Schools
- 4) SAFE Design Assessments of 1 New Schools

The following workplan provides an overview of the project components and deliverables:

### COMPONENT 1: Risk Assessments

The project team will conduct a threat-centric, multi-scale risk assessment of the 3 schools. This includes analysis of school security incident reports, official crime data, the Canadian Index of Multiple Deprivation (CIMD), as well as online questionnaires and/or telephone interviews with relevant school authorities. These online and desktop reviews will be supplemented by physical reconnaissance of schools and adjacent neighbourhoods during the detailed SAFE Design assessments of individual properties (refer to Component 3).

Schools across BC will be mapped and indexed based on their unique risk levels. Upon completion, the Ministry of Education will gain an important database which can be used for prioritizing planning, resourcing, and crime reduction interventions.



ITEM	TASK DESCRIPTION	OUTCOMES / DELIVERABLES
<b>1.1 MULTI-SCALE THREAT CENTRIC RISK ANALYSES</b>	<p>Multi-scale risk analyses will be conducted to identify the current social / economic context, and criminal risks for each school.</p> <p>Analysis will include review and mapping of relevant criminal threats and actual crime data specific to the study area, as well as anticipated future risks to the schools.</p> <p>Tasks include:</p> <ul style="list-style-type: none"><li>• Review social and economic context of study area</li><li>• Analyze Statistics Canada and Police crime data including Crime Severity Indices (CSI) and Uniform Crime Reporting (UCR)</li><li>• Mapping actual crime occurrence and crime hotspots specific to the school</li><li>• Conduct online questionnaires or interviews with key school managers and stakeholders to identify specific issues, perceptions, locations and types of crime in and around the schools</li></ul>	<ul style="list-style-type: none"><li>• Analyses of crime statistics</li><li>• Mapping of actual crime occurrence and hotspots</li><li>• Risk ratings for crime types.</li><li>• Identification of stakeholder issues and concerns specific to individual schools</li><li>• An overall risk score, for each criminal threat to inform the planning and design of future development projects</li><li>• Multi-scale risk analysis report for each school</li></ul>
<b>1.2 PROVINCE WIDE MAPPING OF RISK ANALYSES</b>	<p>Map and index schools across BC based on their unique risk levels.</p>	<ul style="list-style-type: none"><li>• A province-wide risk map and database that allows for prioritization of schools for more detailed planning, resourcing, and crime reduction</li></ul>

## COMPONENT 2: Immersive 3D Scanning / Modelling of Schools

Schools will be digitally photographed/scanned to create an immersive 3D Matterport model for each school (refer <https://www.matterport.com> ). The models will allow spaces to be viewed from multiple angles and to allow for virtual tours throughout the schools. Spaces may be viewed from multiple angles, and accurate measurements may be taken throughout the property. With a single scan, 3D walk-throughs, 4K print quality photos, and schematic floor plans, can be automatically created. The 3D scans provide multiple benefits not only to allow for school SAFE Design Assessments, but also for remote maintenance and development planning, first responder training, and emergency preparedness.



Models can be viewed online by authorized users. This ability to quickly and economically create virtual models of all schools is unprecedented.

**NOTE:** *The scans will also support the documentation and classification of schools that are best suited for use as community shelters or clinics during times of emergency (by others).*

ITEM	TASK DESCRIPTION	OUTCOMES / DELIVERABLES
<p><b>2.1 MATTERPORT 3D SCANS + MODELS</b></p>	<p>High-definition panoramic imagery and depth data is captured and synthesized to render a dimensionally accurate 3D digital twin of the physical spaces of each school. Allows for rapid data capture, inspecting, documenting, and sharing.</p>	<p>Matterport 3D digital model with:</p> <ul style="list-style-type: none"> <li>• Exterior cutaway views</li> <li>• Interior dynamic immersive views allowing walkthroughs</li> <li>• Floorplan views</li> <li>• Annotate features of space to guide viewers. Tags such as notes, videos, and photos are placed in key locations</li> <li>• Spaces and items can be measured</li> </ul>

### COMPONENT 3: SAFE Design Assessment and Certification of Existing Schools

Independent SAFE Design Accredited Professionals (SAFE-APs) will conduct on-site assessments for the two existing schools using the SAFE Design Standard™. Included is the identification of security deficits for each school together with mitigation recommendations — ensuring desired architectural and landscape design is supported and overt fortification or unnecessary surveillance is avoided. Once the policy, maintenance, and design requirements outlined in the SAFE Design Standard™ are met, the SAFE Design Council will certify the school for a five-year period.

ITEM	TASK DESCRIPTION	OUTCOMES / DELIVERABLES
<p><b>3.1 SAFE DESIGN ASSESSMENTS</b></p>	<p>SAFE Design Accredited Professionals (SAFE APs) will conduct SAFE Design assessments of each school to ensure compliance with the SAFE Design Standard™.</p> <p>Based on the multi-scale risk analysis, neighbourhood reconnaissance, site visits, and a review of current design drawings, an assessment of the property, including the perimeter, landscape, building</p>	<ul style="list-style-type: none"> <li>• SAFE Design Assessment Reports</li> <li>• Annotated Matterport 3D digital models</li> </ul>



ITEM	TASK DESCRIPTION	OUTCOMES / DELIVERABLES
	<p>envelope, and interior will be completed.</p> <p>The assessment considers security policy and design criteria related to:</p> <ul style="list-style-type: none"> <li>• Access and Wayfinding</li> <li>• Sensory Design (lighting and visibility)</li> <li>• Programing, Policy, and Maintenance</li> <li>• Control Technologies, Security and Response</li> </ul> <p>Design, programing, or policy modifications to mitigate the risk or fear of crime will be identified.</p>	
<p><b>3.2 SAFE DESIGN CERTIFICATION</b></p>	<p>Once mitigations and recommendations are implemented, the SAFE Design Council will certify the school for a five-year period.</p>	<ul style="list-style-type: none"> <li>• SAFE Design Certification of Schools</li> </ul>

#### COMPONENT 4: SAFE Design Assessments and Certification of New Schools

The SAFE Design methodology will also be used in the design of a new school. SAFE Design Accredited Professionals (SAFE APs) will become part of the design and planning team. The SAFE APs will provide input at the pre-design, schematic design, design development, and detailed design phases. For the new school, the requirement for involvement of a SAFE AP and all risk, review and certification costs can be included in the procurement process and costs captured in the capital budget.

ITEM	TASK DESCRIPTION	OUTCOMES / DELIVERABLES
<p><b>4.1 SAFE DESIGN ASSESSMENT</b></p>	<p>SAFE APs will provide initial guidance to the design team as to the requirements of the SAFE Design Standard before design work commences. This helps to ensure the efficiency of security by design recommendations and reduce costly change orders later in the design process.</p> <p>Reviews of schematic design, design development, and detailed design drawings and reports will be carried out to ensure compliance with the</p>	<ul style="list-style-type: none"> <li>• SAFE Design Assessment Report</li> </ul>



ITEM	TASK DESCRIPTION	OUTCOMES / DELIVERABLES
	SAFE Design Standard™. Site, architectural, and interior design drawings will be reviewed.	
<b>4.2 SUBMISSION OF SAFE DESIGN ASSESSMENT REPORT AND REVIEW</b>	The report will be submitted to SAFE Design to confirm the requirements of the SAFE Design Standard™ have been met.	<ul style="list-style-type: none"> <li>• Submission of Assessment Reports</li> </ul>
<b>4.3 SAFE DESIGN CERTIFICATION</b>	Once Construction is complete and designs implemented, the SAFE Design Council will certify the school for five years.	<ul style="list-style-type: none"> <li>• SAFE Design Certification of BC Schools</li> </ul>

## Project Budget

The following provides the estimated budget for the components of the project. These are for discussion purposes only and both amounts and strategies for funding requests need further discussion.

<b>Estimated Cost of SAFE Design for Two Existing Schools</b>	<b>\$75,000</b>
<b>Estimated Cost of SAFE Design for One New School</b>	<b>\$60,000</b>

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## Contact

Dr. Kelly W. Sundberg  
*Founding President*

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 **SAFE**  
DESIGN  
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