

Safety Enhancement Program Request Form

Purpose

This request form will document the request and approval for funding of specific, one-time, fixed cost expenditure from the Safety Enhancement Program, supporting employee-related occupational health and safety enhancement initiatives.

Reference: Safety Enhancement Program Administrative Policy A-HRS-04.16

Application Process



Request Details

Initiative Title:	Shoring Safety System
Sponsor Name and Position:	Brian Brost
Department:	Utilities
Date of Request:	February 16, 2017
Funding Request Amount:	\$20,000

- Briefly describe the initiative/project which the funds will support (i.e. training, equipment, software/hardware etc.) and that meet the Safety Enhancement Program Administrative Policy A-HRS-04.16. See attached.**
- Supporting details. Identify the safety hazards within a Hazard Identification Assessment Control document (HIAC) the initiative will be designed to control and attach a copy. Identify how this will support corporate and/or cross-departmental safety needs. Describe why this is a safety priority. Provide any supporting data to justify the need for this initiative. See attached.**
- Explain the scope of impact (i.e. how many people/who will be affected by this initiative? How many/which departments will be affected?) See attached.**
- How does this initiative align to Council Priorities? Check all that apply and explain.**

	Council Priority / Link:	Explain/Define link
<input type="checkbox"/>	1. Cultivate Economic Prosperity	
<input type="checkbox"/>	2. Cultivate a Historic, Creative and Active Community	
<input type="checkbox"/>	3. Cultivate a Green Community	

<input type="checkbox"/>	4. Cultivate Excellence in Government	
<input checked="" type="checkbox"/>	5. Cultivate Sustainable Infrastructure and Services	Eliminating &/or reducing potential hazards through a span of controls from Engineering, Administrative, and Personal Protective Equipment is the responsibility of the City to ensure the safety of workers. This engineered structure supports the safety of personnel performing emergent and planned rehabilitation of water and wastewater systems infrastructure.
<input type="checkbox"/>	6. Cultivate a Safety Healthy and Inclusive Community	

5. Detail the key milestones on the proposed implementation timeline.

Work Steps & Deliverables:	Projected Date:
1. Vendor/Equipment Research and Analysis	January 2017
2. Issue Request for Quotations	February 2017
3. Order Equipment (Emergent Replacement Funded Initially through Water/Wastewater Capital RMR)	February/March 2017
4. Safety Enhancement Fund Approval – Council	May 2017

6. Detail a breakdown of costs, if applicable.

Itemization:	Projected Cost:
1. Modular Shoring Safety System	\$20,000
TOTAL:	\$20,000

7. Identify the primary stakeholders responsible for the implementation/program elements. (i.e. scheduling training, procuring product or services, installing new equipment, etc)

Position Title:	Name:	Responsibility:
Manager of Utilities	Brian Brost	Request for Quotation/Vendor submission Evaluation & Award
Supervisor of Utilities	Blair Roy	Modular Shoring Systems Vendor/Equipment Research and Configuration Analysis
Team Lead (Construction)	Kevin Wilson	Primary User - Modular Shoring Systems Equipment Research and Configuration Analysis
Director of Utilities	Kevin Cole	Procurement Authorization/Approval

Signatures and Tracking


Department Sponsor


Date


Department Director


Date




Date

Joint Health & Safety Sub-committee Chair

Date

Attach meeting minutes from Joint Health and Safety Enhancement Committee (JHSEC) that approves and endorses the allocation of funds from the Safety Enhancement Program to the above stated request.

Human Resources Director

Date

Attachment SEP – Shoring Safety System

A modular aluminum shoring safety system is an essential protective structure utilized by the Utilities Department when completing works within excavations to protect personnel when accessing water and sewer infrastructure.

The Utilities Department personnel conduct excavations on a routine basis (both emergent and planned) in a variety of situations to carry out infrastructure rehabilitation and repairs including water mains, valves, services, water system PRV stations, fire hydrants, sanitary or storm sewer manholes and household sewer service replacements.

Due to the varying sizes, depths and dimensions commonly encountered when undertaking excavations of infrastructure, a modular aluminum shoring system offers both protection to workers as required by the Alberta Occupational Health and Safety Act, Regulation and Code as well as flexibility in configuration.

Advances in new design and flexibility in configuration offered by manufactures over recent years greatly reduces the size of excavations comparatively to the use of conventional (fixed size) shoring systems. This flexibility enables excavation crews the ability to limit the amount of impacts to other infrastructure such as roadways, boulevards, sidewalks and private property therefore significantly reducing overall site restoration costs. These costs can be upwards of \$5,000 to \$20,000 per excavation pending the infrastructure impacted.

Equipment such as excavation shoring systems has a life span for replacement however based on recent inspections it was found to be structurally compromised and pulled from use for urgent replacement.

Safety Hazard Identification and Control

The Alberta Occupational Health and Safety (OH&S) Code Part 32 – Excavation and Tunnelling requires that:

446(1) An employer must provide workers with a safe means of entering and leaving an excavation, tunnel or underground shaft.

450(1) Before a worker begins working in an excavation that is more than 1.5 metres deep and closer to the wall or bank than the depth of the excavation, an employer must ensure that the worker is protected from cave-ins or sliding or rolling materials by

- (a) Cutting back the walls of the excavation to reduce the height of the remaining vertical walls, if any, to no more than 1.5 metres for "hard and compact soil" and "likely to crack or crumble soil,"*
- (b) Installing temporary protective structures, or*
- (c) Using a combination of the methods in clauses (a) and (b)*

Scope of Impact / Safety Priority

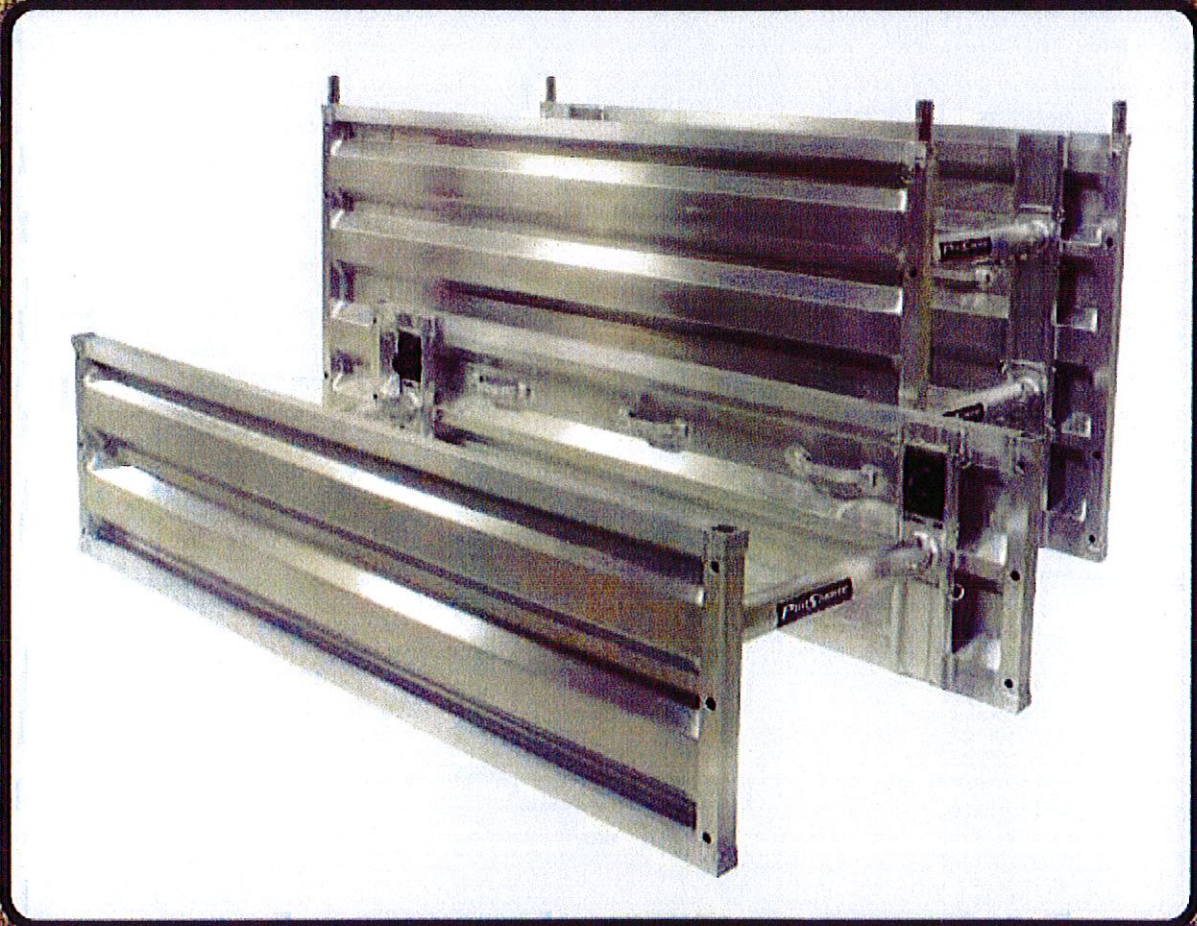
A modular shoring safety system is a safety priority and equipment need for the Utilities Department as excavations rank as a very high potential for exposure to hazardous conditions (soil instability, strikes due to sliding or rolling materials or risk of being buried) personnel carry out frequent excavations and many personnel are responsible to perform and are exposed to this type work where shoring is required.

ProShore

Single Wall Trench Shields

Shoring Safety System

ProShore single wall trench shields provide a light-weight adaptable shoring solution for trench depths of up to 12' in C-60 soils. The single wall trench shields are professionally engineered to have a large open working area. These shields come in 2' and 4' high sections that are stackable. They can be easily transported in a pickup truck or van. They are light enough to be assembled by hand and moved by a mini excavator or backhoe. This makes them a great choice for even the tightest job site conditions.



Panel Length	Open Working Area Between Spreaders	Weight		Pipe Clearance	
		2' High (0.6 m)	4' High (1.2 m)	2' High (0.6 m)	4' High (1.2 m)
4' (1.2 m)	32" (0.8 m)	86 lbs (39 kg)	153 lbs (70 kg)	10" (0.25 m)	16" (0.4 m)
5' (1.5 m)	44" (1.1 m)	96 lbs (44 kg)	169 lbs (77 kg)	10" (0.25 m)	16" (0.4 m)
6' (1.8 m)	56" (1.4 m)	107 lbs (48 kg)	185 lbs (84 kg)	10" (0.25 m)	16" (0.4 m)
7' (2.1 m)	68" (1.7 m)	117 lbs (53 kg)	201 lbs (91 kg)	10" (0.25 m)	16" (0.4 m)
8' (2.4 m)	72" (1.8 m)	128 lbs (58 kg)	218 lbs (99 kg)	10" (0.25 m)	16" (0.4 m)
10' (3.0 m)	80" (2.0 m)	148 lbs (67 kg)	250 lbs (114 kg)	10" (0.25 m)	16" (0.4 m)
12' (3.6 m)	92" (2.3 m)	169 lbs (77 kg)	282 lbs (128 kg)	10" (0.25 m)	16" (0.4 m)

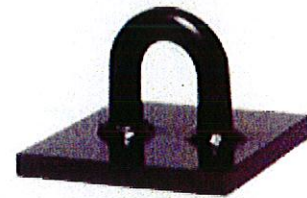
With options such as legs kits, wheel kits, stacking kits, and end shore panels the single wall trench shields can be used for almost any small tie-in or service. They can be assembled with adjustable aluminum spreaders or the pneumatic shoring struts, giving the option of having an even more versatile fleet.



Leg kits: Allows support of shields off the bottom of the trench at 12" or 24" heights. (sets of 4)



Wheel kits: Allows for shields to be rolled along the trench, eliminating the need to have a machine move the shield. (sets of 4)



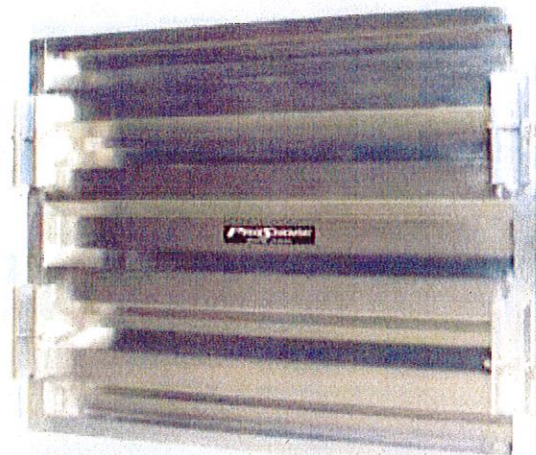
Steel lift lug: The lift lugs slide into the rails of a shield, providing a secure lifting point. They can be transferred between shields so that multiple sets are not required. (sets of 4)



Stack kits: Allows for stacking of 2' and 4' shield sections to a maximum of 12' high. (sets of 4)



Lifting sling: A 4-leg 3/8" x 6' sling provides a safe certified means of installing and removing the shield.



End shore panels: Panels are pinned on to the ends of the shields to protect the worker on 3 or 4 sides. They come in 2' or 4' heights, and 3', 4', 5', and 6' lengths.

Adjustable Aluminum Spreaders

Available in 5 sizes ranging from 19" to 97"

2' high shields require 2 spreaders

4' high shields require 4 spreaders



Part Number	Overall Length
SWTS-AAS1.5-2.5	19"- 31" (48-79 cm)
SWTS-AAS23	25"- 37" (63-94 cm)
SWTS-AAS34	31"- 49" (79-124 cm)
SWTS-AAS35	37"- 61" (94-155 cm)
SWTS-AAS58	61"- 97" (155-246 cm)

Custom sizes also available