Small Arms Inspection Building
South Building Roof Upgrade Design

MISSISSAUGA

The following scope of work is associated with a larger project being completed at the Small Arms Inspection Building site including the following scope:

- Storage Shed Demolition - link to Heritage Impact Statement
- South Parking Lot Redevelopment - link to Heritage Memo

Facility:	Date:
Small Arms Inspection Building 1352 Lakeshore Rd E, Mississauga, ON L5E 1E9	**January 2024**

Heritage Memo

The following document outlines proposed roof upgrades for the Small Arms Inspection Building's south building roof. The proposed design aims to improve drainage performance and address building leaks without compromising the heritage integrity of the building structure.

The existing roof structure is a low slope flat roof that sheds water to the perimeter gutters. The shedding of rain water frequently overspills the roof and gutter system, causing leaks through the heritage windows. The poor drainage design of the current roof is causing rainwater to pool on the roof, and as a result, there are localized leaks in the wood ceiling. The drainage needs to be addressed in order to prevent further roof leaks and improve the performance and preservation of this heritage designated building.

Scope of Work

The proposed scope of work includes introducing a new 4-ply built up roof system with new roof drains, new tapered insulation, a new perimeter curb, flashing, raising the gutter to properly catch rainwater and replacing select sections of water-damaged wood decking.

In order to improve the roof drainage and longevity of the building, tapered insulation that slopes rainwater towards the new roof drains or the perimeter gutter is required. This requires raising the roof by approximately 6 inches. In order to keep the heritage integrity of the building, this design proposes insetting the curb 1.2m from the roof edge, which will prevent the parapet or exterior wall condition from changing. The new inset curb will be wrapped in white flashing and will be hidden from view from grade, as illustrated in various viewpoints in *Attachment 1*.

Figure 1. Existing roof condition. Dark areas indicate rainwater pooling as a result of inadequate drainage design.

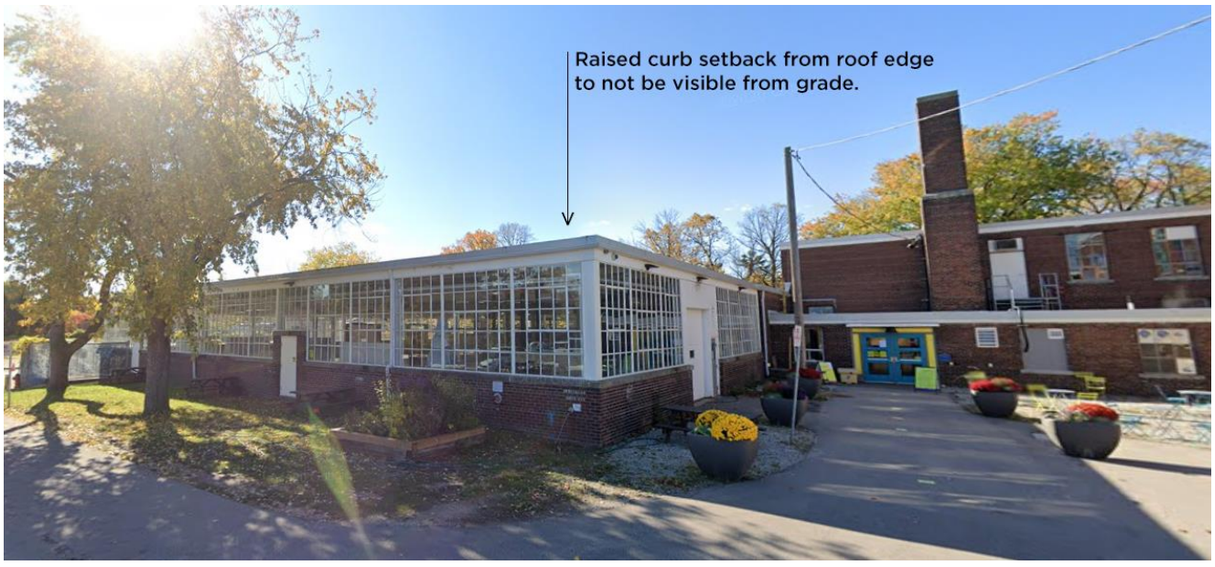

Figure 2. South Building Elevation. Raised curb is inset to not be visible when viewing building from grade level.

Figure 3. Proposed Roof Curb Design. The render on the right illustrates that the setback 6" curb is hidden from view when standing in the same viewpoint as the image on the left. Additionally, raising the gutter to the top of the roof edge will improve the drainage system and prevent water from spilling over the edge and through the windows.

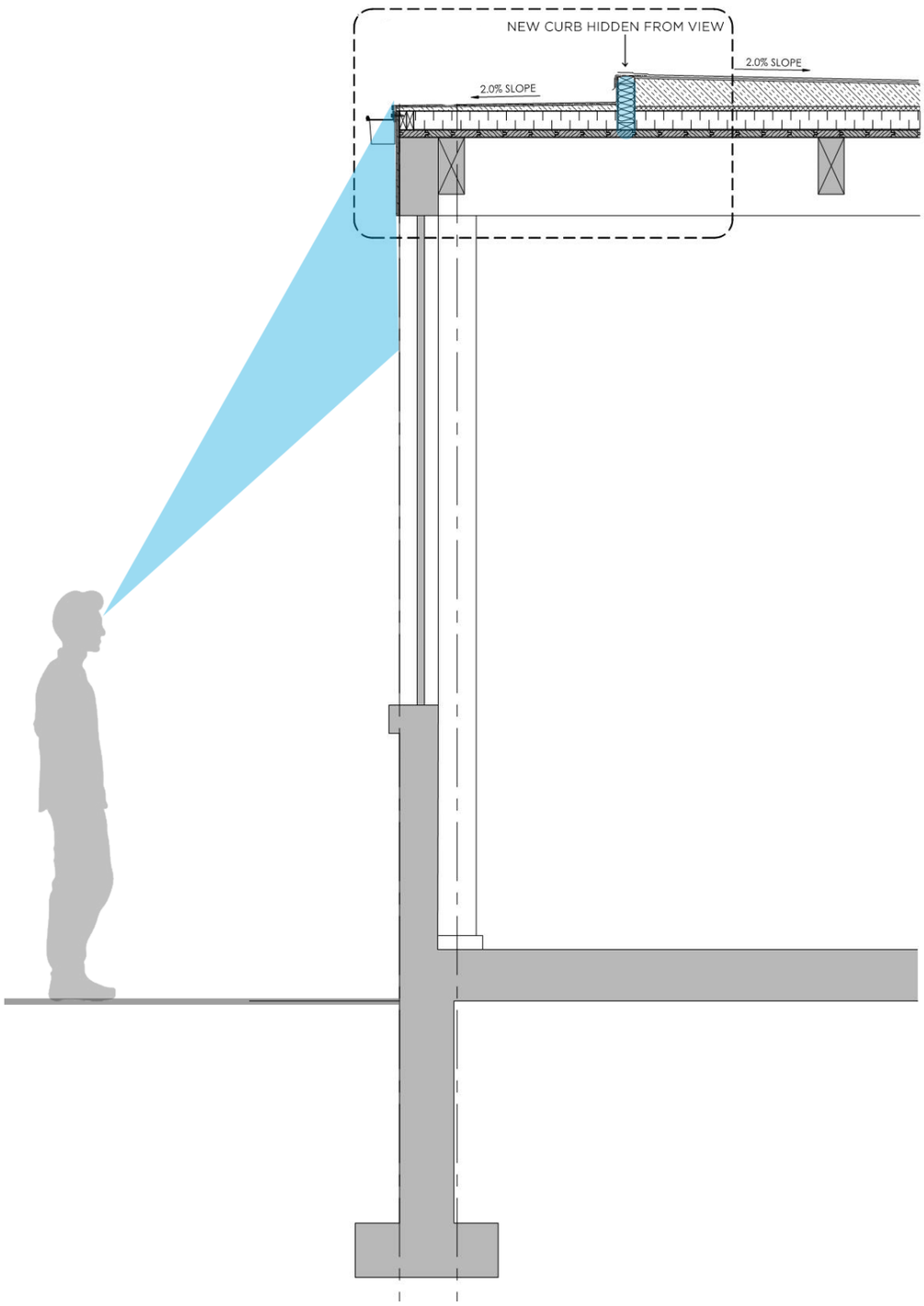

Figure 4. Building Section of Proposed Curb. With the curb setback from the roof edge by 1.2m, it is visually hidden from view from grade and minimizes any alterations on the building's appearance when viewing the building from ground level.

ATTACHMENT 1

MISSISSAUGA

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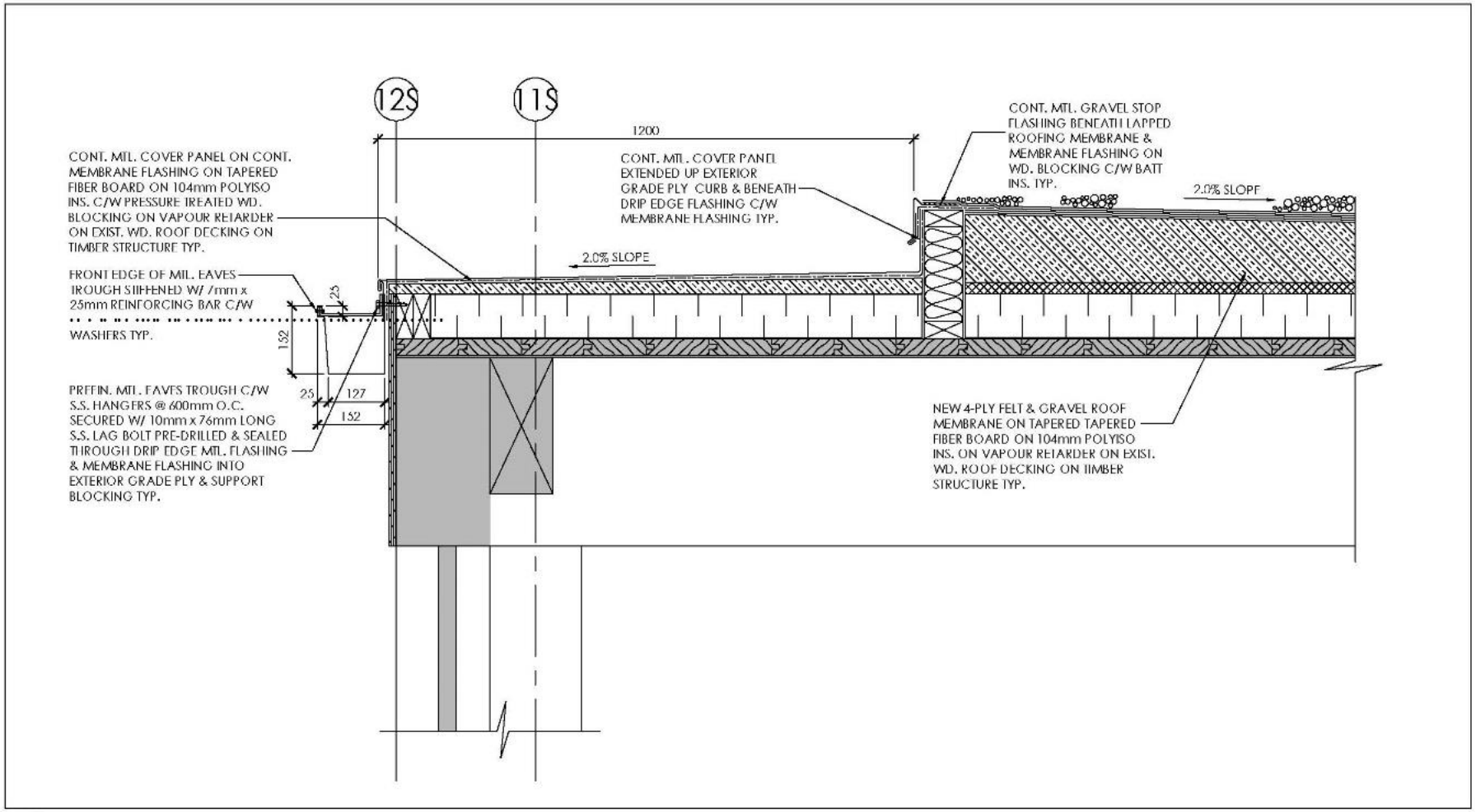
SMALL ARMS INSPECTION BUILDING
South Wing Roof Modifications

PROPOSED ROOF EAVE DESIGN MODIFICATIONS



03 / A3.1 SECTION DETAIL @ ROOF EAVE
1:10

SMALL ARMS INSPECTION BUILDING
South Wing Roof Modifications

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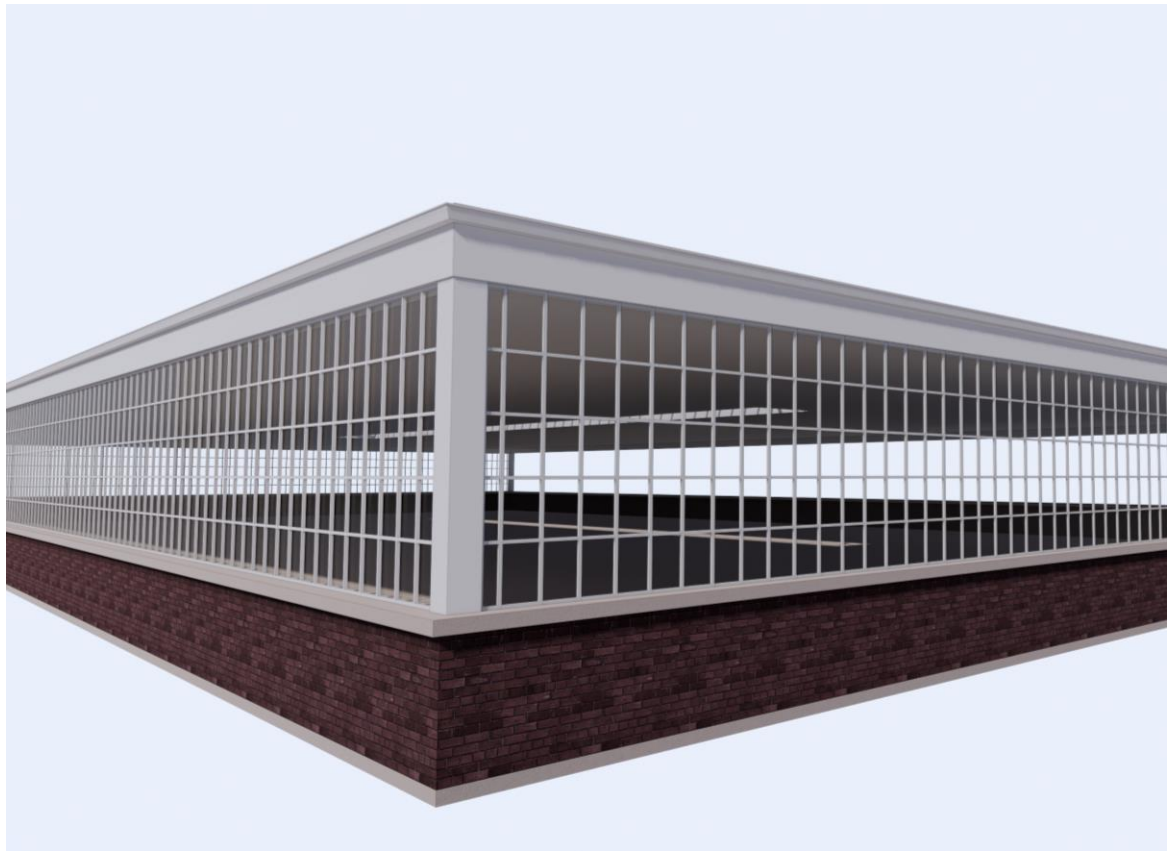
EXISTING ROOF EAVE CONDITIONS

SOUTHEAST CORNER OF THE BUILDING

PROPOSED ROOF EAVE DESIGN

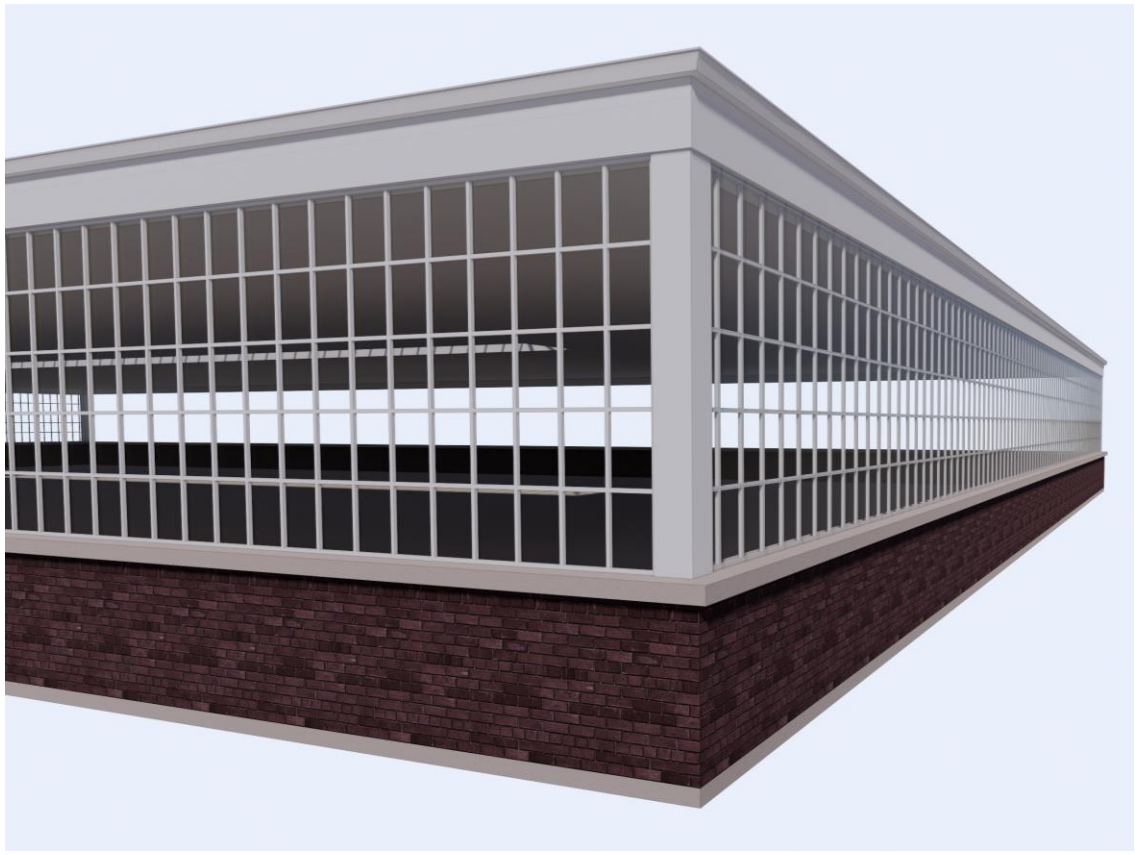


SMALL ARMS INSPECTION BUILDING
South Wing Roof Modifications

EXISTING ROOF EAVE CONDITIONS

SOUTHEAST CORNER OF THE BUILDING

PROPOSED ROOF EAVE DESIGN



SMALL ARMS INSPECTION BUILDING
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EXISTING ROOF EAVE CONDITIONS

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