P.O. Box 1749
Halifax, Nova Scotia
B3J 3A5 Canada

Item No. 13.2.5
Audit & Finance Standing Committee
November 25, 2025

TO: Chair and Members of Audit & Finance Standing Committee

FROM: Brad Anguish, A/Chief Administrative Officer

DATE: October 1, 2025

SUBJECT: Increase to Project No. CBE240005 - Structural Fire Training Prop

ORIGIN

The approved 2024/25 Capital Budget, Supplemental Report Page G17 (Structural Fire Training Prop CE240005).

EXECUTIVE SUMMARY

This report addresses the need for an increase in the 2025/26 capital project budget for the Structural Fire Training Prop (CE240005). The project aims to enhance the Halifax Regional Fire & Emergency (HRFE) training facility by constructing a three-story prop that includes multiple simulated fires, smoke compartments, and various training spaces. The initial budget of $3.0 million has proven insufficient due to higher-than-expected costs identified during the procurement process, resulting in a funding shortfall of $1.5 million.

The total cost of the project is estimated at $4,485,242, which includes consulting services, fire simulations, the structure itself, and other related costs. The current budget allocation is $3,000,000, leaving a funding shortfall of $1,485,242.

RECOMMENDATIONS

It is recommended that the Audit & Finance Standing Committee recommend that Regional Council:

1. Approve an additional $1,500,000 (net HST included) in debt financing;

2. Increase the 2025/26 Capital Budget, Project Number CE240005 - Structural Fire Training Prop by $1,500,000 (net HST included);

3. Award RFP 2025-0185 Design Build Fire Training Facility to the highest scoring bidder, Bird Construction Group, at a cost of $3,001,364 (net HST included) with funding from CE240005 Structure Fire Training Prop, as outlined in the Financial Implications section of this report.

BACKGROUND

Regional Council's 2024/25 capital budget included $3.0M multi-year budget for CE240005 "*Structural Fire Training Prop*" project, enabling HRFE to upgrade its firefighter training facility. Funding was split: $1.0M in 2024/25 and $2.0M in 2025/26.

Based on the procurement process, staff have identified a funding shortfall of $1.5 million.

DISCUSSION

Project Deliverables
The project deliverables are "*One 3-storey prop to be located at the existing training facility in Halifax. This prop will include at least 2 simulated fires, compartments with simulated smoke and spaces to allow training on hose advancement, pump operations, search & rescue, fire attack, ladder operations, IMS*."
"IMS" means the Incident Management System which is used by HRFE to manage emergency incidents. This is often referred to as Incident Command.

Design Requirements
At the outset of the project, the HRFE Training Division staff participated in consultations regarding the primary design requirements for the prop. The specified features included:

- three floors
- cast-in-place concrete structural slabs on concrete columns with precast or tilt-up concrete walls
- four propane fueled training fires, including a garage with overhead door
- two interior stairways
- standpipe system
- sprinkler demonstration system
- residential style entrance on ground floor
- separated control room for building systems
- an open area on roof for ladder, ventilation and high-angle training operations
- four cantilevered balconies
- sufficient space to accommodate multiple fire crews for simultaneous training

Construction Methods Considered
Concrete construction was selected due to its realistic appearance, long-lasting durability, minimal maintenance requirements, and excellent thermal stability. Concrete facilitates the creation of a highly tailored layout, enabling residential building simulations on one floor and commercial simulations on another. Additionally, concrete allows flexibility in the placement of ladders on the exterior of the structure during training exercises.

Other construction methods were considered:

- Steel-frame, steel-clad construction was considered, but there were concerns with steel's susceptibility to corrosion, maintenance requirements and potential loss of strength at high temperatures.

- Modular shipping containers were considered for fire training, but they pose challenges: repeated fires weaken their structure, they degrade over time, and they lack realism. Despite flexible configurations, containers are narrower than real buildings and feel cramped even when combined.

- A structural engineer completed the preliminary design for an 80-by-50-foot, three-story building. Refer to Attachment 1 – Concept Design Plan.

Procurement Process
Staff initiated procurement for fire simulation systems covering training fires, smoke simulations and related safety controls to inform the upcoming RFP for construction of the structure itself. RFP HRM 2025-0144

"*Design/Build for Fire Training Props in New Training Structure*" was posted March 6, 2025, and was awarded on July 2, 2025, for $1,016,105.

RFP HRM 2025-0185 "*Design Build Fire Training Facility*" was posted on July 15, 2025, and closed on August 26, 2025. Three qualified bids were received.

Company:
Bird Construction Group *
Lindsay Construction Limited
Avondale Construction Limited

***Recommended Bidder**

Scope and Schedule:
The scope of this RFP includes the following work:

- Design and construct concrete tilt-up training structure
- Provide technical assistance for HRM with the training props vendor.

The RFP included an optional rooftop prop designed to allow firefighters to practice cutting ventilation openings in a simulated roof surface. The highest scoring bid received was $2,889,900 plus HST for the structure and $67,100 plus HST for the optional rooftop prop.

Outcomes
If the recommendation presented in this report is not approved, staff will be unable to proceed with awarding RFP HRM 2025-0185 "Design Build Fire Training Facility." In response, staff would reassess the design of the fire training structure to align with the approved budget. Potential options for consideration include:

- Reducing the overall size of the training structure,
- Decreasing the number of simulated fires incorporated into the facility, and
- Exploring alternatives to concrete construction, such as procuring a steel frame, steel-clad, or modular container structure.

To fund the construction of the new structure, CE240005 "*Structural Fire Training Prop*" requires additional funding of $1.5M:

Structural Fire Training Prop CE240005		
Current (In Flight) Items	Cost (net HST)	
Consulting Services	$ (33,775)	
HRM 2025-0155 (Fire Simulations)	$ (1,055,327)	
HRM 2025-0185 (Structure)	$ (3,001,450)	$ (4,090,552)
Outstanding Items (Estimated)		
Contingency (5%)	$ (200,000)	
Electrical Connections & Panel	$ (100,000)	
Geotechnical Report	$ (25,000)	
Optional Rooftop Ventilation Prop	$ (69,690)	$ (394,690)
Total		$ (4,485,242)
Project Budget		$ 3,000,000
Funding Shortfall		**$ (1,485,242)**

FINANCIAL IMPLICATIONS

Budget Summary: **Project Account No. CE240005 – Structural Fire Training Prop**

Cumulative Unspent Budget	$2,952,121.00
Plus: Approved Increase	$1,500,000.00
Less: Award RFP 2025-185	**$3,001,364.00**
Balance	$1,450,757.00

This project was estimated in the Previously Approved and Approved 2025/2026 Project Budget at $3,000,000.00.

The balance of funds will be used for construction of the structure as identified in the approved Capital Project budget.

RISK CONSIDERATION

No risk considerations were identified.

COMMUNITY ENGAGEMENT

No community engagement was required.

ENVIRONMENTAL IMPLICATIONS

No environmental implications were identified.

SOCIAL VALUE

RFP submissions included a scored Social Value section worth a maximum of ten (10) total points. This includes but is not limited to diversity of ownership, actions to protect the environment and climate, actions to support workforce and workforce development, actions to encourage diverse economic development and corporate social responsibility.

ALTERNATIVE

Audit & Finance Standing Committee could choose not to approve the recommendation to increase to the 2025/26 capital project budget for Structural Fire Training Prop CE240005. This will require that the structural design and construction be reevaluated to fit within approved budget.

LEGISLATIVE AUTHORITY

On December 11, 2012, Halifax Regional Council directed that all reports related to budget increases be presented to the Audit and Finance Standing Committee prior to submission to Regional Council.

Halifax Regional Municipality Charter, S.N.S. 2008, c. 39 provides:

Section 93(1) The Council shall make estimates of the sums that are required by the Municipality for the fiscal year;

Section 79 The Municipality may spend money for municipal purposes in accordance with this section;

Section 35(2)(d)(i) The CAO can only authorize budgeted expenditures or within the amount determined by Council by policy;
Section 120(6) The Municipality may maintain other reserve funds for such purposes as the Council may determine;

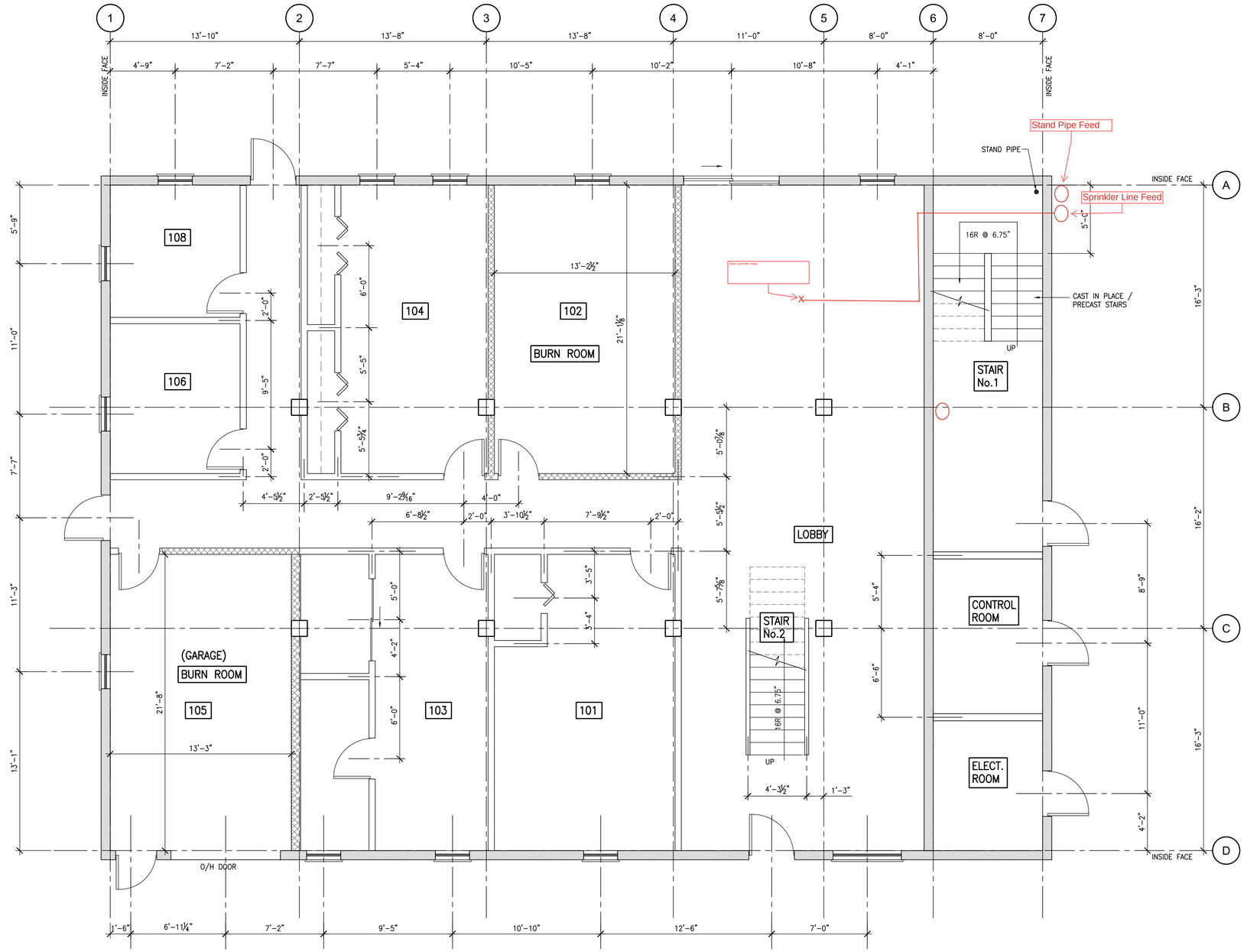
Halifax Regional Municipality Policy on Changes to Cost Sharing for Capital Projects: Changes requiring Council approval

Halifax Regional Municipality Reserve Policy: No reserve funds will be expended without the CAO's recommendation and Council approval

ATTACHMENTS

Attachment 1 – Concept Design Plan

Report Prepared by: David Meldrum / Deputy Chief / Halifax Regional Fire & Emergency / 902 490 6552



6" THICK FULLY GROUTED CMU WALL, DOWEL INTO SLAB BASE w/ 15M @ 24"c/c

6 1/2" THICK REINF. TILT-UP / PRECAST WALL PANELS

STEEL STUD FRAMED WALLS WITH CORRUGATED METAL CLADDING

F.D. REPRESENTS FLOOR DRAIN

LEVEL L1 PLAN

SCALE: 1/4"=1'-0"

T.O.F. ELEV. = 100'-0"

REVISIONS

No.	DESCRIPTION	DATE

THE GENERAL CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS AND REPORT ANY DISCREPANCIES OR OMISSIONS TO ENGINEER

DO NOT SCALE DRAWINGS

BMR Structural|Engineering

5495 Spring Garden Rd., 4th floor
Halifax, Nova Scotia B3J 1G2
PH. (902) 429-3321

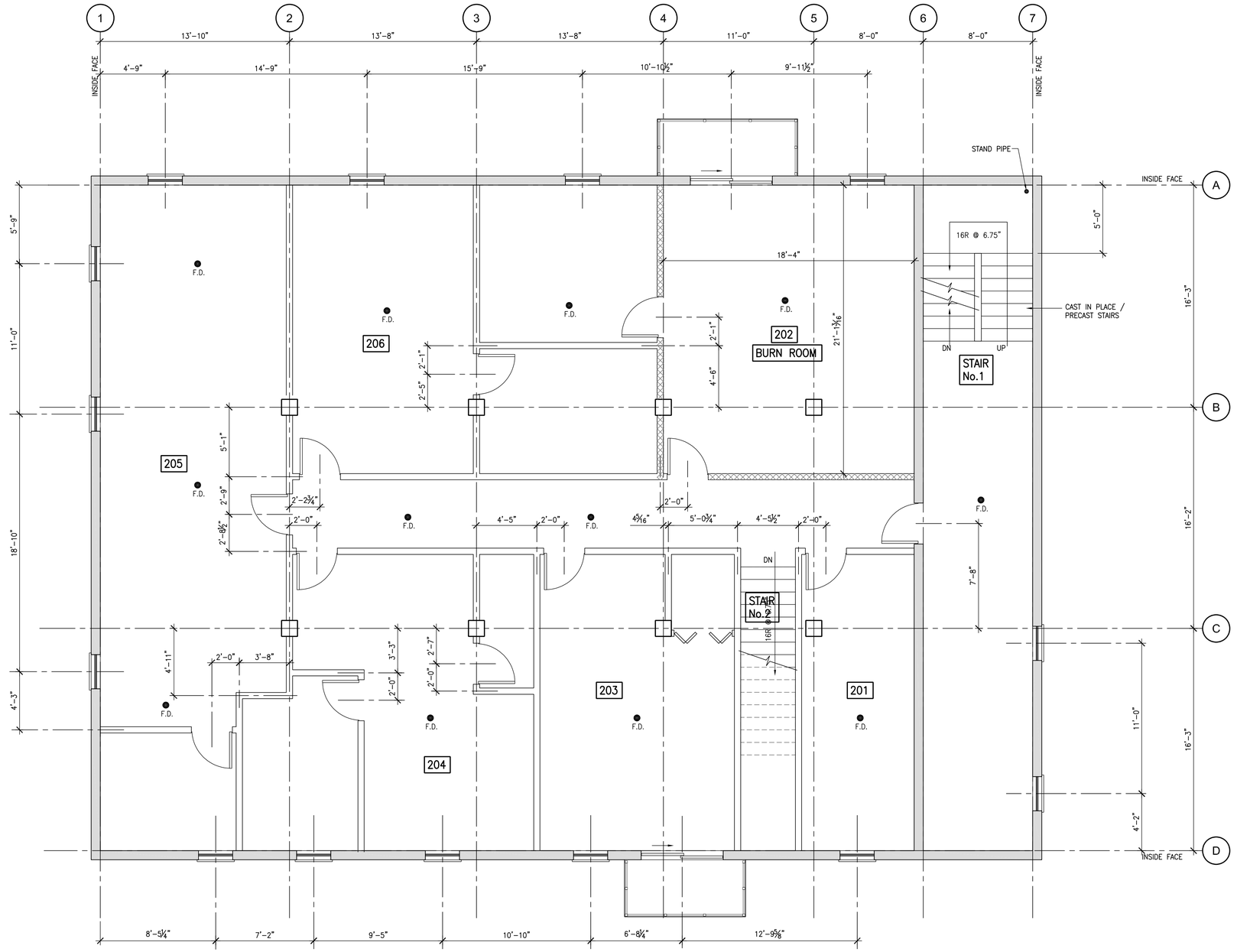
PROJECT

KNIGHTSRIDGE FIRE STATION TRAINING STRUCTURE

45 KNIGHTSRIDGE DR, HALIFAX, NS

A/B — A SECTION or DETAIL No. — B SHEET No. WHERE DETAILED

DESIGNED BY	I. MacDONALD
DRAWN BY	R. LANDRY
CHECKED BY	I. MacDONALD
DRAWING	LEVEL L1 PLAN
SCALE	AS NOTED
DATE	DECEMBER 2024
PROJECT No.	2024-291
SHEET No.	A-1



LEVEL L2 PLAN

SCALE: 1/4"=1'-0"

T.O.F. ELEV. = 110'-3"

6" THICK FULLY GROUTED CMU WALL, DOWEL INTO SLAB BASE w/ 15M @ 24"c/c

6 1/2" THICK REINF. TILT-UP / PRECAST WALL PANELS

STEEL STUD FRAMED WALLS WITH CORRUGATED METAL CLADDING

F.D. REPRESENTS FLOOR DRAIN

REVISIONS

No.	DESCRIPTION	DATE

THE GENERAL CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS AND REPORT ANY DISCREPANCIES OR OMISSIONS TO ENGINEER

DO NOT SCALE DRAWINGS

BMR Structural | Engineering

5495 Spring Garden Rd., 4th floor
Halifax, Nova Scotia B3J 1G2
PH. (902) 429-3321

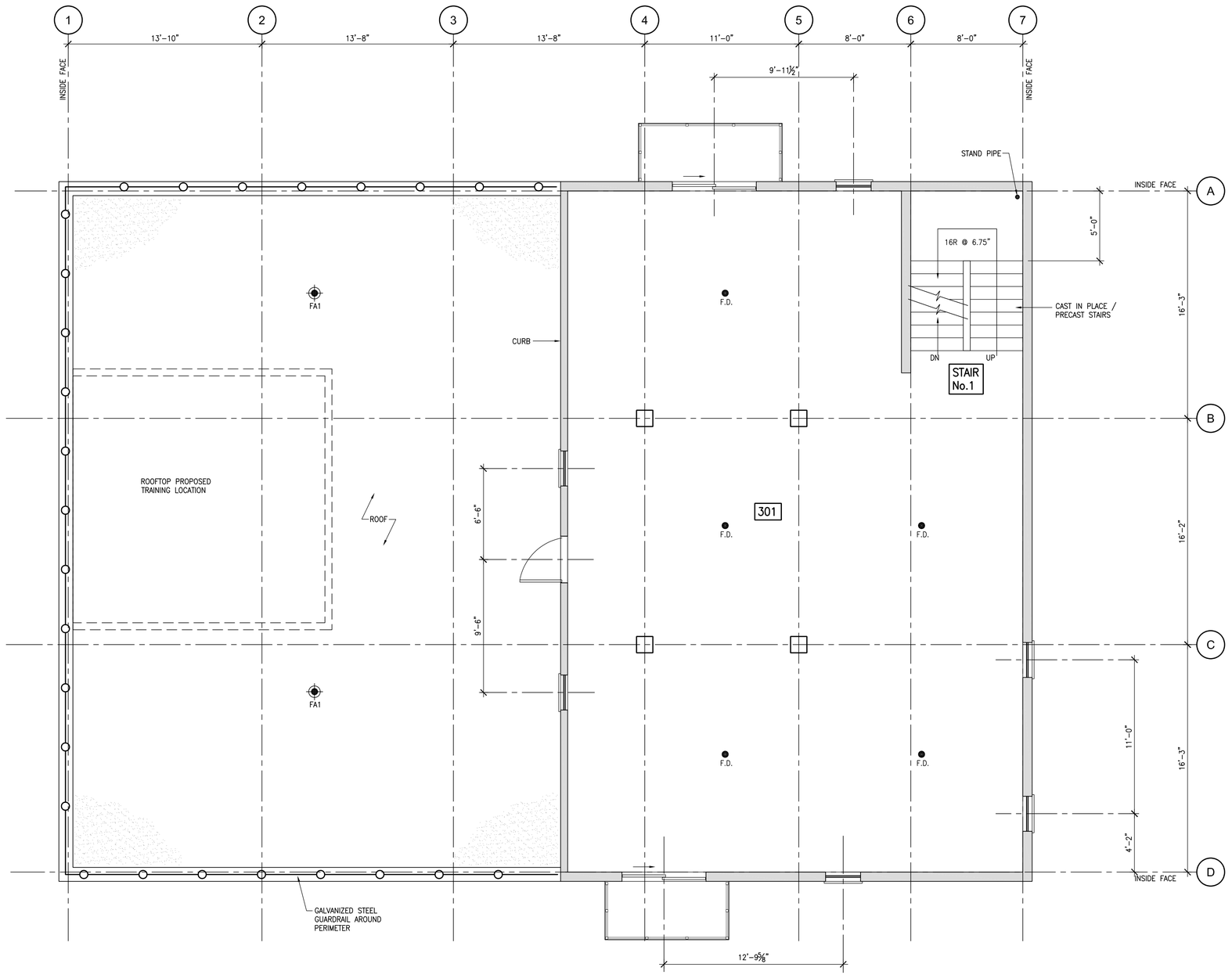
PROJECT

KNIGHTSRIDGE
FIRE STATION
TRAINING
STRUCTURE

45 KNIGHTSRIDGE DR, HALIFAX, NS

A / B — A SECTION or DETAIL No. / B SHEET No. WHERE DETAILED

DESIGNED BY	I. MacDONALD
DRAWN BY	R. LANDRY
CHECKED BY	I. MacDONALD
DRAWING	LEVEL L2 PLAN
SCALE	AS NOTED
DATE	DECEMBER 2024
PROJECT No.	2024-291
SHEET No.	A-2



LEVEL L3 PLAN

SCALE: 1/4"=1'-0"

T.O.F. ELEV. = 120'-6"

6" THICK FULLY GROUTED CMU WALL, DOWEL INTO SLAB BASE w/ 15M @ 24"c/c

6 1/2" THICK REINF. TILT-UP / PRECAST WALL PANELS

STEEL STUD FRAMED WALLS WITH CORRUGATED METAL CLADDING

FA1 — REPRESENTS THALER FARA-1 FALL ARREST ANCHOR

F.D. — REPRESENTS FLOOR DRAIN

REVISIONS

No.	DESCRIPTION	DATE

THE GENERAL CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS AND REPORT ANY DISCREPANCIES OR OMISSIONS TO ENGINEER

DO NOT SCALE DRAWINGS

BMR Structural|Engineering
5495 Spring Garden Rd., 4th floor
Halifax, Nova Scotia B3J 1G2
PH. (902) 429-3321

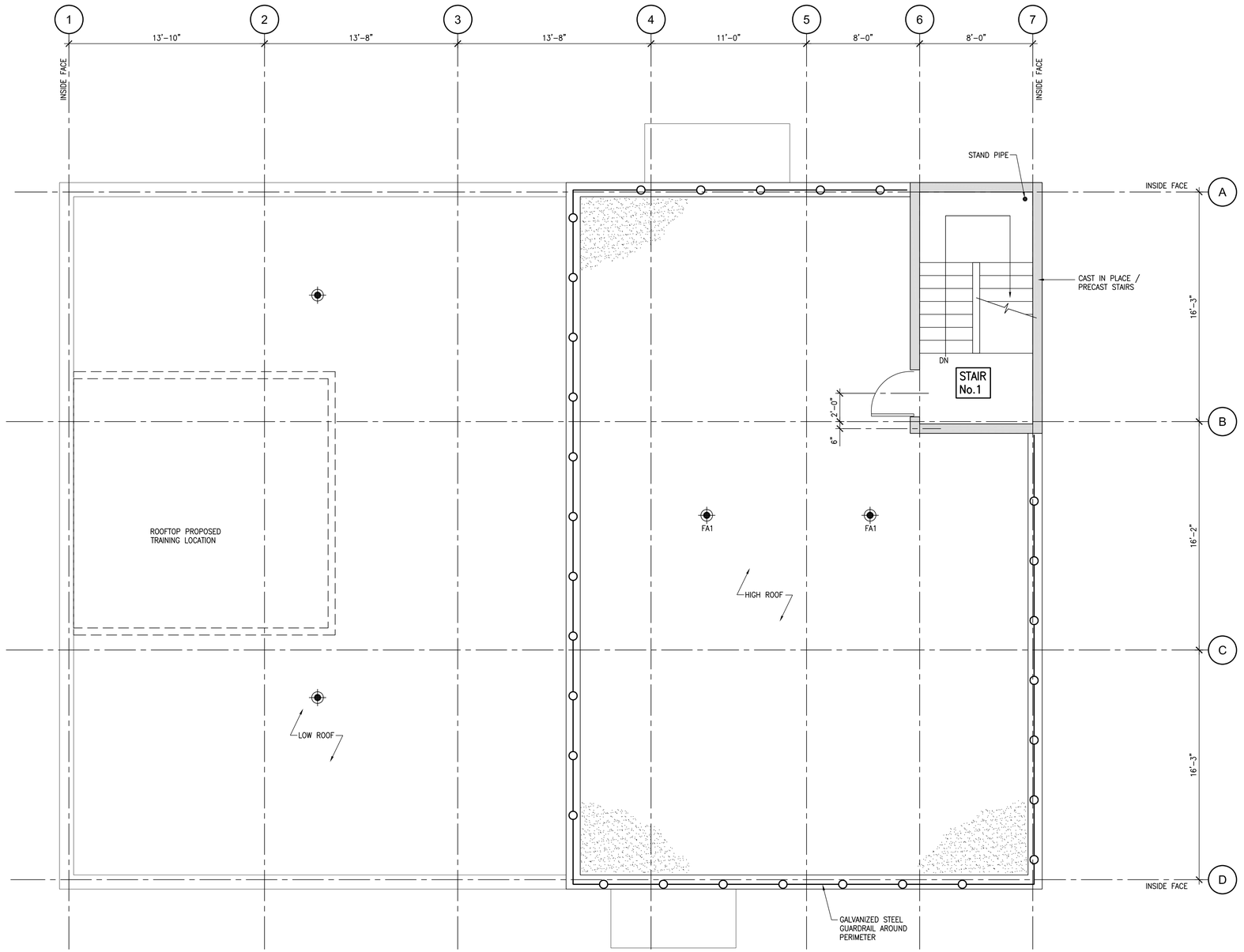
PROJECT

KNIGHTSRIDGE FIRE STATION TRAINING STRUCTURE

45 KNIGHTSRIDGE DR, HALIFAX, NS

A/B — A SECTION or DETAIL No. — B SHEET No. WHERE DETAILED

DESIGNED BY	I. MacDONALD
DRAWN BY	R. LANDRY
CHECKED BY	I. MacDONALD
DRAWING	LEVEL L3 PLAN
SCALE	AS NOTED
DATE	DECEMBER 2024
PROJECT No.	2024-291
SHEET No.	A-3



ROOF PLAN

SCALE: 1/4"=1'-0"

6 1/2" THICK REINF. TILT-UP / PRECAST WALL PANELS

T.O.F. ELEV. = 120'-6"

FA1 — REPRESENTS THALER FARA-1 FALL ARREST ANCHOR

F.D. — REPRESENTS FLOOR DRAIN

REVISIONS

No.	DESCRIPTION	DATE

THE GENERAL CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS AND REPORT ANY DISCREPANCIES OR OMISSIONS TO ENGINEER

DO NOT SCALE DRAWINGS

BMR Structural|Engineering
5495 Spring Garden Rd., 4th floor
Halifax, Nova Scotia B3J 1G2
PH. (902) 429-3321

PROJECT

KNIGHTSRIDGE FIRE STATION TRAINING STRUCTURE

45 KNIGHTSRIDGE DR, HALIFAX, NS

A/B — A SECTION or DETAIL No. — B SHEET No. WHERE DETAILED

DESIGNED BY	I. MacDONALD
DRAWN BY	R. LANDRY
CHECKED BY	I. MacDONALD
DRAWING	ROOF PLAN
SCALE	AS NOTED
DATE	DECEMBER 2024
PROJECT No.	2024-291
SHEET No.	A-4