

PROJECT INFORMATION:

Project: RPC Bow Unit Redevelopment
Location: Saskatoon, Saskatchewan
PWGSC #: R.082215.001

Building Information: Bow Unit
 Building Area unlimited
 Two storey
 Non Combustible Construction
 Sprinklered
 Roof does not have a Fire Resistance Rating
 Major Occupancy: B1 Detention occupancy

- The Building is classified as Group B, Division 1 and will abide by National Building Code 3.2.2.37 Group B, Division 1 up to 3 storeys, sprinklered. 1)c) the building area, if 2 storey, building area not more than 12 000 m². 2) The Building shall be of, non-combustible construction and a) floor assemblies shall be fire separations with fire-resistance rating not less than 1 hr, b) mezzanines shall have a fire resistance rating not less than 1 hr, and c) loadbearing walls, columns and arches shall have a fire resistance rating not less than that required for the supported assembly.

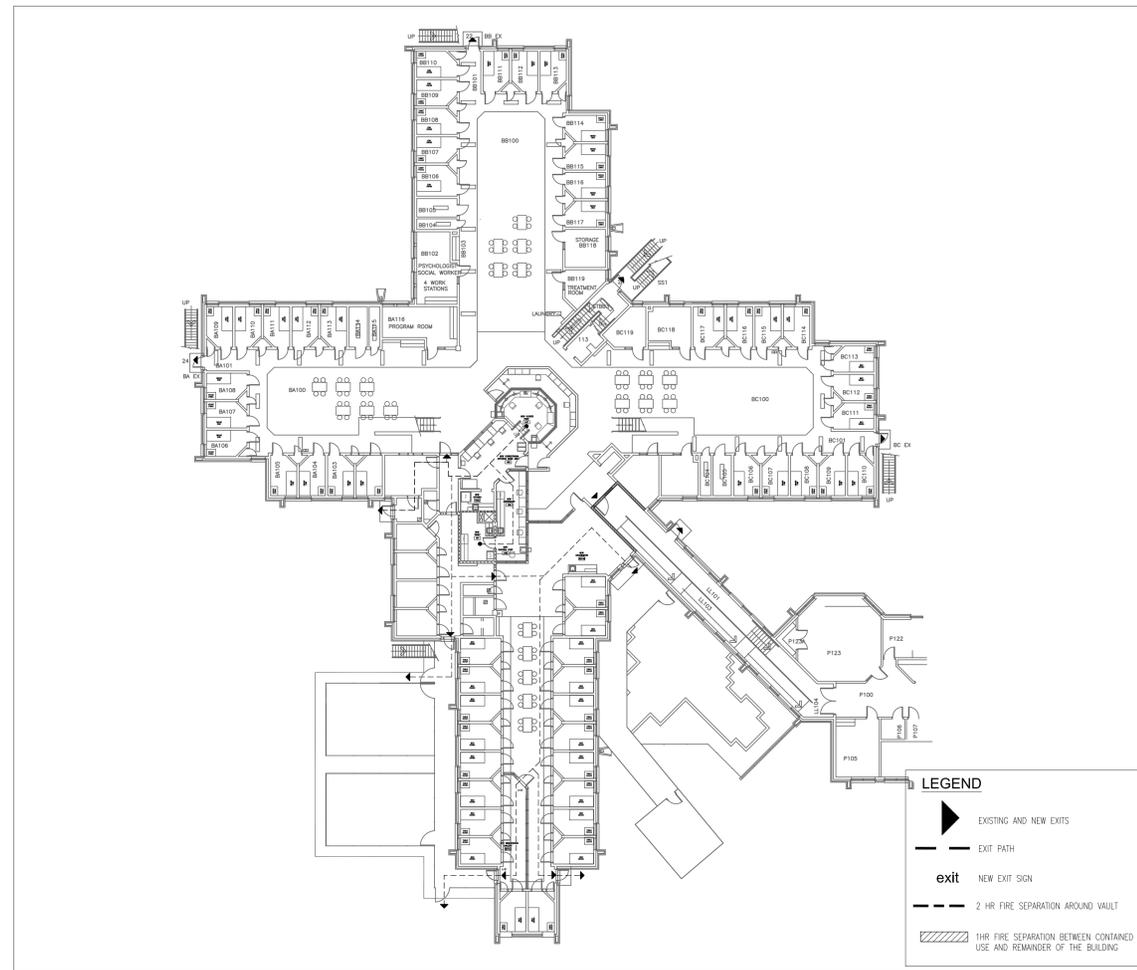
The Bow NBC Review:

- Service Room: 3.6.2.1 b) a fuel fired appliance shall be located in a service room separated from the remainder of the building by fire separations having a FRR of 1 hr. (to underside roof deck.)
- 3.6.2.3. A Service Room may contain electrical
- 3.6.2.6. The door to a Service room may swing in. It may swing out if it opens onto a corridor
- 3.3.1.21.1) Janitor Rooms to have a fire separation but no FRR is required if the floor is sprinklered throughout.
- 3.2.4.10 Fire Detectors: Fire detectors are not required within floor areas that are sprinklered throughout.
- 3.2.4.1 Fire Alarm System shall be installed in a building in which an automatic sprinkler system is installed.
- 3.2.4.3 Type of Fire Alarm Systems: The fire alarm system for this building may be a single or 2 stage system
- 3.4.2.1 Minimum Number of Exits: 3.4.2.1.2) Every floor Area intended for occupancy shall be served by at least 2 exits.
- 3.4.2.5 1)c) Maximum Travel distance to an exit : 45m
- 3.3.1.9. Corridors: (1) The minimum width of a public corridor shall be 1100mm, (7) A dead end corridor is permitted provided it is not more than 6m long.
- 3.3.1.11. Door Swing: (1) Except as permitted by 3.3.1.12, a door that opens into a corridor or other facility providing access to exit from a room not located within a suite shall swing on a vertical axis. (3) Every door that divides a corridor that is not wholly contained within a suite shall swing on a vertical axis in the direction of travel to the exit. (4) If a pair of doors is installed in a corridor that provides access to exit in both directions, the doors shall swing in opposite directions, with the door on the right hand side swinging in the direction of travel to the exit.
- 3.3.1.12. Sliding Doors: (2) In a Group B, Division 1 occupancy, or in an impeded egress zone in other occupancies, sliding doors used in an access to exit need not conform to Sentence 1 and Article 3.1.11
- 3.3.1.13 Door and Door Hardware: (6) An egress door in an access to exit serving a contained use area or an impeded egress zone is permitted to be equipped with locking devices that can be released either locally or remotely in conformance with Sentence (7) or (8), (7) Local locking devices permitted by Sentence (6) shall be operable by a key from both sides of the door. (8) Controls for the remote release of door locking devices permitted by Sentence(6) shall be located in an area readily available to security personnel. (9) Locking devices permitted by Sentence (6) that are electronically operated shall be a) designed to operate on emergency power, and b) capable of manual release by security personnel.
- 3.3.1.23. Obstructions: 1) No obstruction shall be permitted in any occupancy that would restrict the width of a normal means of egress from any part of a floor area to less than 750mm unless an alternative means of egress is provided adjacent to, accessible from, and plainly visible from the obstructed means of egress
- 3.3.3.7 Contained Use Areas: 2) A contained Use Area shall be separated from the remainder of the Building by a fire separation having a fire resistance rating not less than 1 hr. 3) the building is sprinklered throughout. 5) A corridor serving a contained use area shall have no dead-end portion unless the area served by the dead end portion has a second and separate means of egress.

WALL ASSEMBLIES:

IMAGE	TAG	DESCRIPTION (mm)	FIRE RATING ULC DESIGN No	STC RATING	REMARKS
EXISTING WALL TYPES					
	EW1▶	194 CONCRETE BLOCK		STC 50	MEETS SECURE CONSTRUCTION 1 - COMMERCIAL ENHANCED. WALLS CARRIED TO THE UNDERSIDE OF STRUCTURE ABOVE
	EW2▶	194 CONCRETE BLOCK (CONCRETE FILLED)		STC 50	MEETS SECURE CONSTRUCTION 3. ALL CORES CONCRETE FILLED REINFORCED WITH 1-10M BAR VERTICAL & HORIZONTAL @ 400 o/c
	EW3▶	194 CONCRETE BLOCK (CONCRETE FILLED)		STC 50	MEETS SECURE CONSTRUCTION 3. ALL CORES CONCRETE FILLED REINFORCED WITH 1-10M BAR VERTICAL @ 400 o/c
	EW4▶	INSULATED BLOCK WALL WITH BRICK: 194 mm SEALED BLOCK WALL (CONCRETE FILLED) SELF-ADHERING SBS AIR/VAPOUR RAIN BARRIER MEMBRANE AND ADHESIVE 125mm RIGID INSULATION (R18) 25mm AIR SPACE 90mm BRICK VENEER NOTE: PROVIDE BRICK TIES MAX 400 mm VERTICALLY & 800 mm HORIZONTALLY- TYP @ ALL BRICK		STC 50 (MIN)	SECURE CONSTRUCTION 3: ALL HOLLOW CONCRETE BLOCK HAVING ALL HOLLOW CONCRETE FILLED AND VERTICALLY REINFORCED AT 400mm MIN.

* ALL EXISTING WALLS TO BE CONFIRMED AT DEMOLISHING STAGE



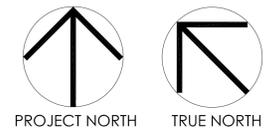
BOW UNIT EXIT PATH PLAN

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IMAGE	TAG	DESCRIPTION (mm)	FIRE RATING ULC DESIGN No	STC RATING	REMARKS
PARTITION TYPES					
	P1▶ UPPER	16 GYPSUM WALLBOARD 3.12mm STEEL 31 x 92 METAL STUDS @ 50mm o/c 3.12mm STEEL		STC 50	LEVEL B PROTECTION (REFER TO TECHNICAL CRITERIA FOR CORRECTIONAL INSTITUTIONS SECTION A-13, PAGE A-84)
	GLAZING LOWER	16 GYPSUM WALLBOARD			ALL HOLLOW CONCRETE FILLED. HORIZONTAL REINFORCING TO BE PROVIDED AT EVERY COURSE, VERTICAL REINFORCING TO BE 15mm STEEL RODS AT 400mm o/c
	P2▶	194 CONCRETE BLOCK		STC 50	SECURE CONSTRUCTION 3: ALL HOLLOW CONCRETE BLOCK HAVING ALL HOLLOW CONCRETE FILLED AND VERTICALLY REINFORCED AT 400mm MIN.
	P3▶	194 CONCRETE BLOCK		STC 50	SECURE CONSTRUCTION 2: ALL HOLLOW CONCRETE BLOCK HAVING ALL HOLLOW CONCRETE FILLED AND VERTICALLY REINFORCED AT 800mm MIN.
	P4▶	194 CONCRETE BLOCK 25 AIR GAP 194 EXISTING CONCRETE BLOCK (CONCRETE FILLED)		STC 50	MEETS SECURE CONSTRUCTION 3: ALL CORES CONCRETE FILLED REINFORCED WITH 1-10M BAR VERTICAL @ 400 o/c
	P5▶	194 CONCRETE BLOCK 16 GYPSUM WALLBOARD 31 x 92 METAL STUDS @ 400 O/C 16 GYPSUM WALLBOARD		STC 50 (MIN)	SECURE CONSTRUCTION 3: ALL HOLLOW CONCRETE BLOCK HAVING ALL HOLLOW CONCRETE FILLED AND VERTICALLY REINFORCED AT 400mm MIN.
	P6▶ UPPER GLAZING LOWER	4 STEEL PLATE TYP: 31 x 152 METAL STUDS @ 50mm O/C ACOUSTIC INSULATION 13 GYPSUM WALLBOARD			
		194 CONCRETE BLOCK			

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ARCHITECT
casola koppe
 ARCHITECTS
 #300 - 1410 1st street sw - calgary, alberta T2R 0V8
 bus (403) 287-9960 fax (403) 287-9962 info@ckarch.ca



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0	ISSUED FOR TENDER	2018/12/20

Client: Correctional Services Canada

Project: BOW UNIT REDEVELOPMENT

Designed by: [Name]
 PM

Drawn by: [Name]
 MW, RH

Approved by: [Name]

PWGSC Project Manager: [Name] / Administration de Projets TPWSC

EH

Drawing title: BOW UNIT PROJECT INFORMATION & CONSTRUCTION ASSEMBLIES

Project no./No. du projet	Drawing no./No. de dessin	Revision no.
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