

Amendment Notice: Mechanical Updates

This bulletin applies to and amends the following document:

GO Design Requirements Manual (DRM):

- Section 5.4.2 Heating, Ventilation, and Air Conditioning (HVAC) Systems - DRM Table 56 - Additional column "relative humidity" (RH %) requirement for summer max and winter min.
- Section 5.4.2 Heating, Ventilation, and Air Conditioning (HVAC) Systems - DRM Table 56: HVAC - Additional room design criteria for generator room, third party room, mini hub room, fuel tank room to the HVAC table.
- Section 5.4.2 Heating, Ventilation, and Air Conditioning (HVAC) Systems - DRM Table 56 - Additional requirements for air exchange in tunnels to platforms. This will add requirement for mechanical ventilation to remove smoke, fumes, gases in the tunnels based on ASHRAE.
- Section 5.4.6 Fire Protection Systems Design Requirements - DRM Table 58: Fire Protection System Page 170 - Added requirement for sprinklers in unheated areas to be dry pipe.

Amendments to the GO DRM are provided in the following attachment:

- Revisions to GO DRM Sept. 2021 - Mechanical Updates

On MyLinux, the Bulletin is located on the [Go Manual](#) page.

The Bulletin is also available for external users to download via the Metrolinx public download site (http://www.gosite.ca/engineering_public/).

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Table 56: Heating, Ventilation, and Air Conditioning (HVAC)

Room	Winter Min. (°C)	Summer Max. (°C)	Summer RH (%)	Energy Source
Passenger Waiting Room (including vending/concessions)	18	25	50%	HVAC
Station Attendant	22	22	50%	HVAC
Staff Room	22	22	50%	HVAC
Dispatcher Room	22	22	50%	HVAC
Office Room	22	22	50%	HVAC
Communication room	15	22	50%	HVAC (Note 1)
Hub room	15	22	50%	HVAC (Note 1)
Mini hub room	15	22	50%	HVAC (Note 1)
<u>Third Party Room</u>	<u>15</u>	<u>22</u>	<u>50%</u>	<u>HVAC (Note 1)</u>
Electronics Workshop	22	22	50%	HVAC
Washroom	22	N/A	N/A	Ventilation & Heating
Janitor Room	18	N/A	N/A	Ventilation & Heating
Battery Room	18	N/A	N/A	Ventilation, Heating & Gas Monitoring
Electrical Room	15	25	50%	HVAC (Note 1)
Elevator control room	15	25	50%	HVAC (Note 1)
Mechanical Room	18	N/A	N/A	Ventilation & Heating
Sump pump room	18	N/A	N/A	Ventilation & Heating
Maintenance Room	18	25	50%	HVAC
Boiler Room	18	N/A	N/A	Ventilation, Heating & Gas Monitoring
<u>Generator Room</u>	<u>15</u>	<u>N/A</u>	<u>N/A</u>	<u>Ventilation & Heating</u>

<u>Fuel Room</u>	<u>15</u>	<u>N/A</u>	<u>N/A</u>	<u>Ventilation & Heating</u>
Elevator Hoistway	15	25	<u>50%</u>	HVAC (Note 2)
Workshop	22	22	<u>50%</u>	HVAC
Storage Room	20	22	<u>50%</u>	HVAC
Station secondary entrance, tunnel , and pedestrian bridge	N/A	N/A	<u>N/A</u>	Ventilation
<u>Tunnel</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>Mechanical ventilation: min. 3 ACH</u>
Hydro Vault	N/A	N/A	<u>N/A</u>	
Shelter	N/A	N/A	<u>N/A</u>	Note 3

Notes:

1. For HVAC system detail requirement refer to service rooms requirements in section 5.2.23.
2. For HVAC system detail requirement refer to Elevators in section 5.5.5.
3. For HVAC system detail requirement refer to GO-Shelter standard drawing and specification.

Table 58: Fire Protection System

Item	Features
Sprinkler System	<ul style="list-style-type: none"> Sprinkler heads in public areas shall be concealed flush type. Drum drips shall be insulated and electrically heat traced, with dedicated circuits <u>Pre-action sprinkler system shall be provided for service rooms (eg. electrical and communication rooms) only when the building/space is required to be sprinklered per code.</u> <u>Dry zone sprinkler system shall be provided in unheated areas and areas where sprinkler piping maybe susceptible to freezing only when the building/space is required to be sprinklered per code.</u>
Standpipe and hose system	<ul style="list-style-type: none"> In unheated area, dry standpipe system shall be provided. Drain pipe shall be drained to sanitary system instead of dumping on the floor.
Fire Hydrant System	<ul style="list-style-type: none"> Hydrant shall be provided as per code and include a trace line. Fire hydrants located in a landscaped area or snowdrift area shall be raised or marked with raised identification “flag” devices. Minimum burial depth of piping and pipe-marking/protection shall be to municipal requirements.
Dry Fire Suppression System	<ul style="list-style-type: none"> Dry Fire Suppression System or clean agent system for main communication, electrical and computer and telephone equipment room shall be provided where required by Metrolinx.
Portable Fire Extinguisher	<ul style="list-style-type: none"> Fire extinguisher shall be available during construction and be provided as per Metrolinx for occupancy of premises.

5.4.7 Identification, Appearance, and Noise/ Vibration

5.4.7.1 Identification Requirements

5.4.7.1.1 Equipment, piping, and systems shall be clearly identified according to industry standards. Equipment shall include manufacturer’s nameplate, CSA, and/or CUL registration plates where applicable. Piping and ducting systems shall be identified using a standard identification system, ASHRAE, CGSB or similar;

5.4.7.1.2 All labels, tags, nameplates, etc., shall be stainless steel, brass, or thick laminated plastic, as appropriate to suit application;

5.4.7.1.3 Any alteration to equipment shall be approved for use by recognized certification and/or field evaluation markings;

5.4.7.1.4 Refer to Metrolinx Standard 20 05 10 Basic Mechanical Materials and Methods Specification for detailed requirements.

5.4.7.2 Appearance Requirements