

3. MECHANICAL DESIGN SUMMARY PROJECT: _____

3.1 Heating, Ventilating and Air-Conditioning (MBC Part 6) (Design professionals to initial their items of responsibility)

NOTE: Mechanical systems, such as commercial cooking operations and manufacturing processes, are permitted to be excluded from the Full or Partial Plan Submission, however, separate permits will be required for those mechanical systems.

MBC Section 6.2 Design and Installation

MBC Subsection 6.2.2 Ventilation ASHRAE 62 Other _____ (specify)

- a. Use(s): _____ Yes
- b. Rate(s): _____ Yes
- c. Occupant Load(s): _____ Yes
- d. Ventilation capacity required = _____ Yes
- e. Ventilation capacity provided = _____ Yes

Mechanical HVAC design for MBC Part 5 – Environmental Separation

- a. Operating temperature _____
- b. Operating relative humidity range Summer: _____ Winter: _____
- c. Operating static pressure _____
- d. Specified leakage rate for building _____

Other Space ventilation

- a. Storage garage - 6.2.2.3 Yes NA
- b. Air contaminant exhaust - 6.2.2.5 Yes NA
- c. Dust collection system - 6.2.2.5 & 6.2.2.6 Yes NA
- d. Welding and cutting operations (NFPA 51) - 6.2.2.5 & 6.2.2.6 Yes NA
- e. Crawl Space/Attic or Roof Spaces - 6.2.2.8 Yes NA
- f. Other conditions /features: (specify) _____

MBC Subsection 6.2.3 Air Duct Systems

- a. Fire Dampers (See Article 3.1.8.9) - 6.2.3.6 Yes NA
- b. Smoke Detector Control (see Article 3.2.4.13) - 6.2.3.7 Yes NA
- c. Exhaust Ducts and Outlets - 6.2.3.8 Yes NA
- d. Interconnection of Systems - 6.2.3.9 Yes NA
- e. Make-up Air - 6.2.3.11 Yes NA

MBC Subsection 6.2.4 Carbon Monoxide Alarms

Note : The building does not contain a fuel-burning appliance, storage garage or other sources of carbon monoxide (Check)

- a. Carbon Monoxide Alarms - 6.2.4.1 Yes
- b. Carbon Monoxide Alarms – (NFPA 720) 6.2.4.2 Yes
- c. Carbon Monoxide Alarms shown on Electrical dwgs. on Mechanical dwgs.

Note: Carbon Monoxide Alarm locations required by 6.2.4.1 or 6.2.4.2 have been coordinated with the Electrical Engineer. Check

MBC Subsection 3.3.6 /MFC Dangerous Goods Check if not applicable

- a. Dangerous Goods - 3.3.6.2 Yes NA
- b. Compressed gases – 3.3.6.3 Yes NA
- c. Flammable and Combustible Liquids – 3.3.6.4 Refer to Clause 4.1.2.1.2 (in NFC for classification) Yes NA
- d. Other hazardous Processes and Operations Yes NA

Mechanical Systems Requiring Separate Permit Yes No

- a. _____
- b. _____
- c. _____

Professional Certificate

This certificate is both applicable and limited to the scope of work defined in the plans and drawings under my seal and signature.

In submitting sealed plans for demolition or construction associated with this project, I am making the following statements:

- I am an architect or engineer entitled to practice as such in the Province of Manitoba and am competent to design and review the plans submitted under my seal.
- I am aware that the City of Winnipeg will rely upon the plans signed and sealed by me and upon this certificate, and will not conduct any plan examination or plan inspection of the plans except by way of possible screening for completeness or audit for code compliance, as they relate to the current editions of the Manitoba Energy Code for Buildings (MECB), the Canadian Electrical Code – Part I, as adopted and varied by the Winnipeg Electric Bylaw, and the following provisions of the Manitoba Building Code (MBC), Division B:
 - Section 3.7 – Health Requirements
 - Section 3.8 – Barrier-Free Design
 - Part 5 – Environmental Separation
 - Article 6.2.2.1. – General ventilation requirements
 - Part 7 – Plumbing Services
- I recognize that, if the City becomes aware that the attached plans are not complete or fail to comply with the Winnipeg Electrical By-law or the Winnipeg Building By-law, which includes the applicable editions of the Manitoba Building Code, the Manitoba Energy Code for Buildings, the Manitoba Fire Code, and the Manitoba Plumbing Code, the City may provide this information to the Manitoba Association of Architects (MAA) or the Association of Professional Engineers and Geoscientists of Manitoba (APEGM) by way of a complaint or otherwise.
- I understand that any negligence, misrepresentation or falsification of facts contained in this certificate or in the plans under my seal may result in a finding of legal liability against me. I understand that the City of Winnipeg does not accept responsibility for any errors and omissions in the sealed plans.
- I further understand that the City of Winnipeg recommends that I periodically review my professional liability exposures, including those posed by potential third party claims, and that I carry an appropriate level of insurance. I understand that this review should include this specific project, including the building's occupancy type and classification, value, size and complexity, the extent of my professional involvement with it, and the City of Winnipeg's reliance on my certificate.
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 - a. obtains written acknowledgement by the City that Manitoba Building Code Division C - 2.2.2.3. and 2.2.7.2., the Winnipeg Electrical By-law Subrule 2-000(1) and the Winnipeg Building By-law 4555/87 subsection 5.1 do not apply to the project, and
 - b. indicates on his or her drawings that he/she does not intend to be involved in construction reviews

Please note: The fact that the City has acknowledged that periodic reviews are not required for its purposes does not relieve the professional from any construction reviews that may be required by professional regulatory bodies or client contracts.

By affixing my seal, I am representing that:

- I am fully aware of the provisions of the Manitoba Building Code, the Manitoba Energy Code for Buildings, the Manitoba Fire Code and the Manitoba Plumbing Code that are applicable to these plans and drawings;
- I have applied a professional standard of care to ensure compliance of these plans and drawings with the applicable provisions of these Codes.

Affix seal with signature and date

3. MECHANICAL DESIGN SUMMARY cont'd.

PROJECT: _____

3.2 Other Systems (Design professionals to initial their items of responsibility)

1. Repair Garage/Spray Booths Check if not applicable

- a. Auto-body repair shop - 6.2.2.5 Yes
- b. Service/repair garage (NFPA 30A) - 6.2.2.6 Yes
- c. Spray Booth (NFPA 33) - 6.2.2.5 & 6.2.2.6 Yes

2. Cooking Equipment Check if not applicable

- a. Ventilation of cooking equipment (NFPA 96) - 6.2.2.7 Yes No
- b. Fire protection of cooking equipment (ANSI/UL 300 or ULC/ORD-C1254.6)- 6.2.2.7 Yes

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 - b. indicates on his or her drawings that he/she does not intend to be involved in construction reviews

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Affix seal with signature and date

Note: Confirm that original mechanical design assumptions have been received/reviewed from the BSDS- Shell Only (check) Yes or No, If No, please fill out the mechanical design assumptions portion in the Shell Only (Schedule A) or Building was not built as a Shell only.

Failure to fully complete submission will delay processing your permit application

3. MECHANICAL DESIGN SUMMARY cont'd.

PROJECT: _____

3.3 Fire Suppression Systems *(Design Professionals to initial their items of responsibility)*

- Note:** 1. Sprinkler system and/or standpipe drawings, including hydraulic calculations to be submitted under separate permit (check)
2. For Fire Protection (M2) permit, Required Professional Design Certificate to be submitted with drawings, sealed signed and dated

1. Sprinkler Systems Check if not applicable

- a. Sprinkler Systems (3.2.5.13) - NFPA 13 13R 13D (check applicable standard)
- b. NFPA Hazard occupancy (check type): Light , Ordinary (group1) , Ordinary (group2) , Extra (group1) , Extra (group2)
- c. Type of system (check type): Wet _____ Dry _____ Other (specify) _____
- d. Building, (for additions: existing building and addition) to be fully sprinklered Yes

2. Standpipe Systems Check if not applicable

- a. Standpipe and Hose System (3.2.5.8 to 3.2.5.11) - NFPA 14 Yes

3. Other Fire Suppression Features

- a. Fire Pump (see 3.2.5.18) - NFPA 20 Yes NA
- b. Individual rooms or areas required to be sprinklered or Alternative Solutions using sprinklering Yes No

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- I have applied a professional standard of care to ensure compliance of these plans and drawings with the applicable provisions of these Codes.

Responsibilities of the Designer:

I am the specifying and coordinating engineer (check)

Affix seal with signature and date

Failure to fully complete submission will delay processing your permit application

I am the system design engineer (check)

Affix seal with signature and date

Note: Confirm that original mechanical design assumptions have been received/reviewed from the BSDS- Shell Only
(check) Yes or No , If No, please fill out the mechanical design assumptions portion in the Shell Only (Schedule A)
or
 Building was not built as a Shell only.