

## Electrical Design Summary

Project description/name and address: \_\_\_\_\_

General information:

1. This document **must** be completed and attached to the application submission. When necessary, additional analyses shall be provided and included with the submission.
2. All code references refer to the Winnipeg Electrical By-law (WEB), including Canadian Electrical Code, unless indicated otherwise.
3. Indicate all items that are not applicable.

### 1. General

a. Wiring methods suitable for non-combustible construction are required	<input type="checkbox"/> Yes	<input type="checkbox"/> No		
b. Electrical specification provided	<input type="checkbox"/> on drawings	<input type="checkbox"/> in specifications book		
c. Sprinklered	<input type="checkbox"/> Yes	<input type="checkbox"/> No		
<input type="checkbox"/> Partially sprinklered specify location(s)_____				
d. Consumer's Service	A: _____	V: _____	phase: _____	wire: _____
e. Service conductor routing:	<input type="checkbox"/> O/H <input type="checkbox"/> U/G <input type="checkbox"/> thru wall <input type="checkbox"/> other (describe routing details): _____			
f. Ground fault protection required	<input type="checkbox"/> Yes <input type="checkbox"/> No			
g. Single line diagram provided	<input type="checkbox"/> Yes			
h. U/G cable ampacities	diagram: _____	detail: _____	table: _____	
i. Service grounding conductor size and type (specify):	_____			
j. Grounding electrode:	<input type="checkbox"/> metallic water pipe    or <input type="checkbox"/> artificial			
k. Grounding detail provided	<input type="checkbox"/> Yes <input type="checkbox"/> Existing			
l. IC ratings:				
Service entry	_____ kA			
600V CDP	_____ kA			
600V panel	_____ kA			
208V CDP	_____ kA			
208V panel	_____ kA			
m. Dielectric filled transformer clearance (utility or customer-owned)				
Outdoor location	<input type="checkbox"/> $\geq$ 3m	or	<input type="checkbox"/> transformer as per 26-242(2) if $<3m$	
Indoor location	as per 26-010, req'd to be in a vault compliant w/ MBC 3.6.2.7			<input type="checkbox"/> Yes <input type="checkbox"/> N/A
n. Working space requirements	<input type="checkbox"/> 2-308 (1m) and/or <input type="checkbox"/> 2-310 (1.5m)			
o. Panel locations shown	<input type="checkbox"/> Yes			

p. Exits from electrical rooms as per 2-310	<input type="checkbox"/> Yes <input type="checkbox"/> N/A	
q. Sprinkler shielding provided	<input type="checkbox"/> Yes	<input type="checkbox"/> N/A (only in unsprinklered areas)
r. Flood plain requirement details _____	or <input type="checkbox"/> N/A	
s. Landfill requirement details _____	or <input type="checkbox"/> N/A	
t. Wiring and equipment in plenums meet MBC 3.1.5.21, 3.1.5.23 & 3.6.4.3 requirements	<input type="checkbox"/> Yes <input type="checkbox"/> N/A	
<b>2. Exit signage (see MBC Subsection 3.4.5)</b>	Check if not applicable <input type="checkbox"/>	
a. Exit sign locations shown	<input type="checkbox"/> Yes	
b. Dedicated exit sign cct. <b>or</b> exit sign/emergency lighting cct.	<input type="checkbox"/> Yes	
c. Type of signs provided	<input type="checkbox"/> red EXIT (to match existing)	or <input type="checkbox"/> green pictogram
d. Power supply	<input type="checkbox"/> hard-wired <input type="checkbox"/> photoluminescent (checklist attached) <input type="checkbox"/> other (specify) _____	
<b>3. Emergency lighting (see MBC Subsection 3.2.7)</b>	Check if not applicable <input type="checkbox"/>	
a. Emergency lighting locations shown	<input type="checkbox"/> Yes	
b. Emergency power supply	<input type="checkbox"/> battery	or <input type="checkbox"/> generator
c. Emergency power duration	<input type="checkbox"/> ½ hour	<input type="checkbox"/> 1 hour <input type="checkbox"/> 2 hours
d. WEB compliance	<input type="checkbox"/> 46-106	and <input type="checkbox"/> 46-304(4) – for unit equipment only
<b>4. Fire alarm system (see MBC Subsection 3.2.4)</b>	Check if not applicable <input type="checkbox"/>	
a. Fire alarm system required	<input type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> Voluntary
b. Fire alarm system:	<input type="checkbox"/> Existing	<input type="checkbox"/> New
c. Fire alarm system specifications provided	<input type="checkbox"/> Yes	
d. Fire alarm riser diagram relevant to this project provided	<input type="checkbox"/> Yes <input type="checkbox"/> N/A	
e. Zone schedule provided	<input type="checkbox"/> Yes <input type="checkbox"/> N/A	
f. Type of fire alarm: and	<input type="checkbox"/> 1 stage	or <input type="checkbox"/> 2 stage <input type="checkbox"/> addressable or <input type="checkbox"/> conventional
g. Fire alarm annunciator location(s) shown	<input type="checkbox"/> Yes	
h. Manual pull stations shown	<input type="checkbox"/> Yes	
i. Fire detectors shown	<input type="checkbox"/> Yes <input type="checkbox"/> N/A	
j. Sprinkler system supervision provided	<input type="checkbox"/> Yes <input type="checkbox"/> N/A	
k. Standpipe supervision provided	<input type="checkbox"/> Yes <input type="checkbox"/> N/A	
l. Latching supervisory zones provided	<input type="checkbox"/> Yes <input type="checkbox"/> N/A	
m. Elevator emergency return/alternate floor recall provided	<input type="checkbox"/> Yes <input type="checkbox"/> N/A	

n. Smoke detector(s) provided for air-handler shutdown	<input type="checkbox"/> Yes	<input type="checkbox"/> N/A
o. Central vacuum shutdown required/provided	<input type="checkbox"/> Yes	<input type="checkbox"/> N/A
p. Cooking exhaust hood extinguisher connection to FA system provided	<input type="checkbox"/> Yes	<input type="checkbox"/> N/A
q. Audible signal devices provided/shown	<input type="checkbox"/> Yes	
r. Visual signal devices provided/shown	<input type="checkbox"/> Yes	<input type="checkbox"/> N/A
s. Central reporting required	<input type="checkbox"/> Yes	<input type="checkbox"/> N/A
t. Emergency power supply	<input type="checkbox"/> battery	or <input type="checkbox"/> generator
u. Lock-on breaker painted red and c/w red lamicoid label	<input type="checkbox"/> Yes	

## 5. Carbon monoxide alarms (see MBC 6.9.3.1 and 6.9.3.2)

Not applicable (i.e.: the building does not contain a fuel-burning appliance, storage garage or other sources of carbon monoxide)  (check)

a. CO alarms required/provided	<input type="checkbox"/> Yes, to meet MBC 6.9.3.1	or	<input type="checkbox"/> Yes, to meet MBC 6.9.3.2
b. CO alarm locations required in item a. have been coordinated with the mechanical engineer			<input type="checkbox"/> Yes
c. CO alarms shown on:	<input type="checkbox"/> electrical drawings	<input type="checkbox"/> mechanical drawings	

## 6. Smoke or Combination Smoke/Fire dampers (see MBC 3.1.8.7. and 3.1.8.11.)

a. Smoke or combination smoke/fire dampers	<input type="checkbox"/> Yes	<input type="checkbox"/> N/A
b. Locations required in item (a.) have been coordinated with the Mechanical Engineer	<input type="checkbox"/> Yes	
c. Smoke or combination smoke/fire dampers shown on:	<input type="checkbox"/> electrical drawings	<input type="checkbox"/> mechanical drawings
d. Smoke detector required/provided	<input type="checkbox"/> Yes	<input type="checkbox"/> N/A
e. Smoke detector connected to fire alarm	<input type="checkbox"/> Yes	<input type="checkbox"/> N/A

## 7. Door hardware/control (or other closure)

Check if not applicable

a. Door holders provided and indicated on drawings	<input type="checkbox"/> Yes	<input type="checkbox"/> N/A
Door holder FA release provided	<input type="checkbox"/> Yes	<input type="checkbox"/> N/A
Smoke detection for door holders located per CAN/ULC-S524	<input type="checkbox"/> Yes	<input type="checkbox"/> N/A
b. Electromagnetic door locks provided and indicated on drawings	<input type="checkbox"/> Yes	<input type="checkbox"/> N/A
Completed electromagnetic locks checklist attached	<input type="checkbox"/> Yes	<input type="checkbox"/> N/A

## 8. Emergency generator

Check if not applicable

a. Emergency generator location shown	<input type="checkbox"/> Yes	
b. Compliance with MBC 3.6.2.8.(1)	<input type="checkbox"/> Yes	<input type="checkbox"/> N/A
c. Compliance with	<input type="checkbox"/> CAN/CSA C-282	<input type="checkbox"/> CSA Z32
d. Generator trouble supervision	<input type="checkbox"/> Local	<input type="checkbox"/> Remote

e. Emergency lighting c/w TVSS provided in generator room	<input type="checkbox"/> Yes	<input type="checkbox"/> N/A
f. Emergency lighting c/w TVSS provided in transfer switch room	<input type="checkbox"/> Yes	<input type="checkbox"/> N/A
g. Dedicated ULC transfer switches for life safety and non-life safety loads	<input type="checkbox"/> Yes	<input type="checkbox"/> N/A
h. Isolation & manual by-pass provided for Groups B & C occupancies per CSA C282	<input type="checkbox"/> Yes	<input type="checkbox"/> N/A
<b>9. Fire pump</b>	Check if not applicable <input type="checkbox"/>	
a. Shown on single line diagram	<input type="checkbox"/> Yes	
b. Required emergency generator power provided	<input type="checkbox"/> Yes	
c. Remote trouble supervision provided	<input type="checkbox"/> Yes	
d. Fire alarm supervision provided	<input type="checkbox"/> Yes	
e. Dedicated transfer switch approved for fire pump service as per WEB 32-308	<input type="checkbox"/> Yes	
f. Overcurrent protection for normal and emergency sources provided as per WEB 32-306	<input type="checkbox"/> Yes	
<b>10. Other electrical design considerations</b>		
a. High buildings requirements (MBC Subsection 3.2.6)	<input type="checkbox"/> Yes	<input type="checkbox"/> N/A
b. Hazardous locations (WEB Sections 18 and 20)	<input type="checkbox"/> Yes	<input type="checkbox"/> N/A
If yes, locations/classifications indicated on drawings	<input type="checkbox"/> (check)	
c. Patient care areas (WEB Section 24)	<input type="checkbox"/> Yes	<input type="checkbox"/> N/A
If yes, locations/classifications:	<input type="checkbox"/> indicated on drawings	<input type="checkbox"/> or provided by facility administrator
d. Wet and/or corrosive environments (WEB Section 22)	<input type="checkbox"/> Yes	<input type="checkbox"/> N/A
If yes, locations indicated on drawings	<input type="checkbox"/> (check)	
e. Solar PV installation (WEB Section 64)	<input type="checkbox"/> Yes	<input type="checkbox"/> N/A
f. Non-life-safety generator	<input type="checkbox"/> Yes	<input type="checkbox"/> N/A
If yes, location indicated on drawings and on single line diagram	<input type="checkbox"/> (check)	
<b>11. Barrier-free requirements</b>	Check if not applicable <input type="checkbox"/>	
a. Fire-resistance for elevator conductors required/provided – MBC 3.3.1.7.(1)(a)	<input type="checkbox"/> Yes	<input type="checkbox"/> N/A
b. Assistive listening system required/provided – MBC 3.8.3.19.	<input type="checkbox"/> Yes	<input type="checkbox"/> N/A
<b>12. Residential units</b>	Check if not applicable <input type="checkbox"/>	
a. Smoke alarms – locations / circuiting / interconnection	<input type="checkbox"/> Yes	
b. Carbon monoxide alarms – locations / circuiting	<input type="checkbox"/> Yes	
c. Heat detector provided / shown per MBC 3.2.4.10.(2)(g)	<input type="checkbox"/> Yes	

d. Fire alarm audible device(s) provided / shown	<input type="checkbox"/> Yes
Isolated from other suites per MBC 3.2.4.18.(9)	<input type="checkbox"/> Yes
On a separate signal circuit from devices in public areas per MBC 3.2.4.18.(10)	<input type="checkbox"/> Yes
e. Fire alarm visual devices provided / shown	<input type="checkbox"/> Yes
f. GFCI protection for receptacles provided per WEB Section 26	<input type="checkbox"/> Yes
g. Switches/communication outlets in bathrooms not < 1m from tubs / showers	<input type="checkbox"/> Yes
h. Mandatory circuits provided as per WEB Section 26	<input type="checkbox"/> Yes
i. Electric heat control in each area	<input type="checkbox"/> Yes <input type="checkbox"/> N/A

**12a. Additional requirements for dwelling units**

- a. Dwelling unit panel locations shown  Yes
- b. Kitchen receptacles and circuits as per WEB Section 26  Yes
- c. Lighting / switched outlets provided / shown in each room  Yes
- d. AFCI protection provided  Yes

**13. Electrical systems installed under separate permit**

 Check if not applicable 

- a. \_\_\_\_\_
- b. \_\_\_\_\_
- c. \_\_\_\_\_

**14. Integration of fire protection and life safety systems (CAN/ULC-S1001)**

Standard for Integrated Systems Testing of Fire Protection and Life Safety Systems

- a. Building subject to CAN/ULC-S1001 standard (3.2.9.1)  Yes  N/A

Affix seal with signature and date