



Brossard, 5 July 2019

**LHN DU FORT LENNOX LOT 2
Aménagement de la Caserne**

Projet no client PRO-1396

ADDENDA N° ME-01

MÉCANIQUE - ÉLECTRICITÉ

Owner	Parcs Canada
Architecte	Riopel + Associés Architectes
Ingénieurs-conseils et rédacteur	WSP Canada Inc. 9160, boul. Leduc Bureau 210 Brossard (Québec) J4Y 0E3
Projet no WSP	161-14903-01
Projet no Riopel	APC-2727

1.0 GENERALITIES

- 1.1 This addendum is an integral part of the plans and specifications issued for Tender by our firm on June 18, 2019.
- 1.2 Plan M09 is reissued with this addendum.
- 1.3 Specification section 23 33 16 is issued with this addendum.
- 1.4 Plan E02 is reissued with this addendum.

2.0 MECHANICAL SPECIFICATIONS AND PLANS

2.1 SPECIFICATION

- 2.1.1 Add section 23 33 16 Dampers – fire and smoke to the specification

2.2 PLANS

- 2.2.1 Plan M09 – Revised position and quantity of the fire extinguisher as indicated on revised plan M09 submitted herein.
- 2.2.2 Install indicator signs for each portable fire extinguisher.

3.0 ELECTRICAL SPECIFICATIONS AND PLANS

3.1 SPECIFICATION

3.1.1 Specification section 26 05 32, article 2.5.1

Complete the paragraph with the following sentence.

- Described product : Multiconnect from Nocom, type MOI-PWR4

Add Article 2.5.2 next :

- A rectangular box 400B Series with stainless steel cover as manufactured by WellMark will be accepted as an equivalent product. The case must be supplied with a sturdy support fixed below the floor.

3.1.2 Specification section 26 50 00, article 2.4.

Complete the article with the following sentences:

- EXIT SIGN PANEL
 - Photoluminescence type panel.
 - Green "Running man" pictogram visible up to 15.25 meters, double sided.
 - UL 924 and CAN / ULC-S572 compliant.
 - Everlux product, distributor AL Carrière.
 - The sign meets the requirements described in ISO 3864-1 (2011) and ISO 7010 (2011)
 - Provide an anodized aluminum frame with each panel.

3.1.3 Specification section 28 31 00.01 Fire Alarm System

Article 1.2.3 - Underwriters Laboratories of Canada (ULC).

The revised numbers of the reference standards in force are as follows:

- ULC-S524-14 AMD1, ULC-S526-16, ULC-527-11, ULC-528-14, ULC-S529-16, ULC-S530-M91-R2018, ULC-531-14 et ULC-537-13.

3.2 PLANS

3.2.1 Plan E02

- One lighting fixture in the mechanical / electrical room between axes 2 and 4 shall be connected to the emergency power supply, circuit UA-4.
- Provide an additional type E2 luminaire installed in room 137, located between axes 52 and 62. Install the luminaire at the top of the wall next to the electrical mechanical room, connect the luminaire to the emergency circuit UB-2
- General overhaul of the fire alarm system schematic.



3.2.2 Plan E-05

- The Contractor must maintain the existing fire alarm system during the entire work period. The system will be dismantled by the contractor upon completion of the work when the new fire alarm system is commissioned.
- Provide an interruptible emergency lighting UPS system.
 - Voltage 120/240 volts, single phase, 60 Hz, power 3 kVA, efficiency 98% at full load, DHT < 5%, crest factor :3.
 - Power Mosfet technology, pulse width modulation.
 - Self-testing & Self-diagnostic.
 - 30 minutes run time at full nominal power 100%.
 - Heat lost at full power: 546 Btu/Hr.
 - DEL driver, electronic & magnetic ballast compatible.
 - Maintenance free standard batteries (10) within cabinet.
 - Forced air cooling during emergency and recharged mode only.
 - Cabinet Dimensions: 30 in W x 71 in H x 27 in D.
 - Option included: Eight (8) output breakers circuits normally ON 15A-1P.
 - Described product: Série IPS by Lumacell.
 - Manufacturers likely to supply an equivalent product shall be accepted.
- Install the UPS system in the mechanical / electrical room 137. Connect the system to a 20A, 120/240V circuit to UB emergency panel. Relocate the four emergency lighting circuits UA-2, UA-4, UB-2 and UB-4 shown on drawings, at four output circuit breakers of the UPS system.

Prepared by :

Mario Bouchard, P.Eng.

Part 1 General**1.1 RELATED REQUIREMENTS**

- .1 Section 23 31 13.01 applies to the present section

1.2 REFERENCE STANDARDS

- .1 National Fire Protection Association (NFPA)
 - .1 NFPA 90A, Standard for the Installation of Air Conditioning and Ventilating Systems.
- .2 Underwriters Laboratories of Canada (ULC)
 - .1 CAN/ULC-S112, Standard Test Method of Fire Test of Fire Damper Assemblies.
 - .2 CAN/ULC-S112.2, Standard Method of Fire Test of Ceiling Fire Stop Flap Assemblies.
 - .3 ULC-S505, Standard for Fusible Links for Fire Protection Service.

1.3 ACTION AND INFORMATIONAL SUBMITTALS

- .1 Product Data:
 - .1 Submit manufacturer's instructions, printed product literature and data sheets for fire dampers and include product characteristics, performance criteria, physical size, finish and limitations.
 - .2 Indicate the following:
 - .1 Fire dampers.
 - .2 Fire stop flaps.
 - .3 Fusible links.
- .2 Certificates: submit certificates signed by manufacturer certifying that materials comply with specified performance characteristics and physical properties.

1.4 MAINTENANCE MATERIAL SUBMITTALS

- .1 Extra Materials:
 - .1 Provide:
 - .1 Six (6) fusible links of each type.

Part 2 Products**2.1 FIRE DAMPERS**

- .1 Fire dampers: arrangement Type C, A, or B, listed. bear label of ULC, meet requirements of Fire Commissioner of Canada (FCC). Fire damper assemblies fire tested in accordance with CAN/ULC-S112.

- .2 Mild steel, factory fabricated for fire rating requirement to maintain integrity of fire wall and/or fire separation.
 - .1 Fire dampers: 1 ½ - hour fire rated unless otherwise indicated.
 - .2 Fire dampers: automatic operating type and have dynamic rating suitable for maximum air velocity and pressure differential to which it will be subjected.
- .3 Top hinged: offset single damper, round or square; sized to maintain full duct cross section.
- .4 Fusible link actuated, weighted to close and lock in closed position when released or having negator-spring-closing operator for multi-leaf type or roll door type in horizontal position with vertical air flow.
- .5 Retaining angle iron frame, on full perimeter of fire damper, on both sides of fire separation being pierced.
- .6 Equip fire dampers with steel sleeve or frame installed disruption ductwork or impair damper operation.
- .7 Equip sleeves or frames with perimeter mounting angles attached on both sides of wall or floor opening. Construct ductwork in fire-rated floor-ceiling or roof-ceiling assembly systems with air ducts that pierce ceiling to conform with ULC.
- .8 Design and construct dampers to not reduce duct or air transfer opening cross-sectional area.
- .9 Dampers shall be installed so that the centerline of the damper depth or thickness is located in the centerline of the wall, partition of floor slab depth or thickness.
- .10 Unless otherwise indicated, the installation details given in SMACNA Install Fire Damp HVAC and in manufacturer's instructions for fire dampers shall be followed.

2.2 FIRE STOP FLAPS

- .1 Fire smoke flaps: ULC listed and labelled and fire tested in accordance with CAN/ULC-S112.2.
- .2 Construct of minimum 1.5 mm thick sheet steel with 1.6 mm thick non-asbestos ULC listed insulation and corrosion-resistant pins and hinges.
- .3 Flaps held open with fusible link conforming to ULC-S505 and close at 74 degrees C or as indicated.

Part 3 Execution

3.1 EXAMINATION

- .1 Verification of Conditions: verify that conditions of substrate previously installed under other Sections or Contracts are acceptable for fire and smoke damper installation in accordance with manufacturer's written instructions.
 - .1 Visually inspect substrate in presence of Consultant.
 - .2 Inform Consultant of unacceptable conditions immediately upon discovery.

- .3 Proceed with installation only after unacceptable conditions have been remedied and after receipt of written approval to proceed from Consultant.

3.2 INSTALLATION

- .1 Install in accordance with NFPA 90A and in accordance with conditions of ULC listing.
- .2 Maintain integrity of fire separation.
- .3 After completion and prior to concealment obtain approvals of complete installation from authority having jurisdiction.
- .4 Install access door adjacent to each damper. See Section 23 33 00- Air Duct Accessories.
- .5 Ensure access doors/panels, fusible links are easily observed and accessible.
- .6 Install break-away joints of approved design on each side of fire separation.

END OF SECTION