

Part 1 General

1.1 RELATED REQUIREMENTS

- .1 Section 27 10 05 – Structured Cabling for Communications
- .2 Section 28 05 01 – Common Work Results – Electronic Safety and Security
- .3 Section 28 13 00 – Access Controls
- .4 Section 28 23 00 – Video Surveillance

1.2 DEFINITIONS

- .1 (SAI) Intrusion Detection System (Système de détection intrusion).
- .2 (SSC) Camera Surveillance System (Système de surveillance par caméras).
- .3 (SCA) Access Control System (Système de contrôle d'accès).
- .4 (INT) Intercommunication and Program System (Système d'interphone).
- .5 (SCB) Barrier Control System (Système de contrôle pour barrière).
- .6 (DND) Department of National Defense
- .7 (DEC) Economic Development Agency of Canada for the Regions of Quebec (EDA)
- .8 (PWGSC) Public Works and Government Services Canada

1.3 REFERENCES

- .1 CAN/CSA-C22.2 NO. 60950 - Information Technology Equipment - Safety - Part 1: General Requirements (Bi-National standard, with UL 60950-1)
- .2 NMB-003 - Information Technology Equipment (ITE) — Limits and Methods of Measurement.

1.4 SECTION CONTENT

- .1 Description of work to be completed by the Contractor to deliver an intercom system (INT) that principally contains master stations, secondary stations and controllers functionally grouped by sector.

1.5 WARRANTY

- .1 Intercom system Contractor must be licensed contractor of the manufacturer of a product firmly established and distributed in Quebec and whose distribution is open to any other installer wishing to become a certified installer. To this end, the tenderer must provide a letter from the manufacturer of the intercom system stating that the subcontractor is authorized to act on it.
- .2 The contractor must be able to intervene urgently on the scene within a maximum of four (4) hours (24 hours / 7 days a week) with qualified technical workforce.

1.6 SCOPE

- .1 The Contractor shall supply, install and commission an independent INT system at the locations shown in the plans.
- .2 The Contractor shall also provide technical assistance and share technical information required to customize the INT system and its interfaces.

1.7 SCOPE OF SUPPLY

- .1 Description of the supply is not exhaustive, either from a point of view of quantity or from a point of view of one particular type. The Contractor shall provide all components of the system required for INT operations. This includes in particular the master stations and secondary stations from which voice communication is established.
- .2 Structured cabling system is described in Section 27 10 05.
- .3 Conduit infrastructure, junction boxes and electrical distribution, 120 V a.c.-15A, as per Division 26.
- .4 The Contractor shall provide the wiring for all equipment (with the exception of what is provided in Section 27 10 05).
- .5 The Contractor must refer to plans and technical and functional specifications as described in different sections to determine the extent of work required.

1.8 OPERATING SYSTEM

- .1 Intercom system aims to enable the identification of a person seeking access to an area controlled by security staff (or staff in the sector) and to offer assistance to visitors or other people.
- .2 Office-type master and secondary stations are required as indicated in plans.
- .3 From secondary master stations, it should only be possible to communicate with the secondary intercoms.
 - .1 In general, the secondary stations that are wall type with call button and camera are required for the main access doors of the building.
- .4 Communication between the master station and secondary stations must be controlled by the master station. No communication shall be possible between the secondary stations.
- .5 Failure to respond to a request for assistance after a certain delay causes the automatic relay to request assistance from the master stations in the security office.
- .6 An incoming call must be placed in a queue when there is more than one call to treat.

1.9 SHOP DRAWINGS AND TECHICNAL DATA SHEETS

- .1 Submit documents and samples required, in accordance with Section 28 05 01 - Common Work Results – Electronic Safety and Security.
- .2 Include:
 - .1 A system architecture design that shows the different elements of the system.

- .2 The description of the functional and technical characteristics of the INT system and its elements. This description should include identification of manufacturer and model number of elements, as well as their performance characteristics/specs (?).
- .3 Diagrams for the different elements of the system.
- .4 Full technical description of wiring and termination modules required for the transmission of signals associated with this system.
- .5 A diagram of network cabling and vertical and horizontal conduits, including numbering of 120V AC distribution channels. Cabling and distribution network 120V AC is treated in sections of Division 26.
- .6 A diagram of the control circuits of the complete intercom system.

1.10 DOCUMENTS / ITEMS TO BE SUBMITTED UPON COMPLETION

- .1 Provide operation and maintenance manuals for INT system. These guides should include in particular:
 - .1 A full description of the system and its components.
 - .2 A description of the operating modes of the system.
 - .3 Description of the tests and system verification checks.
 - .4 The complete list of parts of the system.
 - .5 Shop drawings and technical data sheets that describe the state of the system as built.
- .2 Provide a table of cables showing clearly and precisely the identification of each cable from the starting and ending points.
- .3 Provide the results of controls and tests that have been performed.

1.11 TRAINING AND TRAINING DOCUMENTATION

- .1 Refer to Section 28 13 00 – Access Controls.
- .2 Integrate training into the training for the SCA.

Part 2 Products

2.1 COMMERCIAL TYPE MASTER STATIONS (PIM)

- .1 Desktop model with LCD display and with a keyboard or call selection buttons.
- .2 IP based communication technology.
- .3 Under the proposed solution, the PIM could be integrated into unified workstation.
- .4 Frequency Response ± 3 dB from 300 Hz to 7000 Hz.
- .5 With necessary license.

2.2 COMMERCIAL SECONDARY STATIONS (PIS)

- .1 Secondary substations must be IP, recessed or wall-type (depending on the environment) and equipped with a call button to communicate with the master station of that sector.
- .2 Equipped with a video camera.
- .3 Conversation between secondary stations must not be possible
- .4 Frequency Response ± 3 dB from 300 Hz to 7000 Hz.
- .5 With necessary license.
- .6 Exterior stations must be vandal and weather resistant.

2.3 UNIT EXCHANGE / INTERFACE

- .1 Exchange units and / or interface must be installed in racks in technical rooms dedicated to safety.
- .2 Allows the management of master stations and substations.
- .3 Allows interface with the system.
- .4 Interconnected by IP.
- .5 With necessary license.
- .6 The system architecture should support a potential expansion of 20% of secondary intercoms and at least ten (10) master intercoms without the need to replace the equipment required for the current phase.

2.4 CABLING AND CONDUITS

- .1 Conduits as per Division 26.
- .2 The Contractor shall provide and install all the necessary cables to connect all components of the INT system as well as connectors and Velcro fasteners in housings and cabinets.
- .3 Specifications for networking cables are defined in Section 27 10 05.

Part 3 Execution

3.1 INSTALLATION

- .1 Install equipment as indicated and in accordance with manufacturer's instructions.
- .2 Install necessary licences.
- .3 With the exception of master stations and substations, all the material elements of the INT system must be installed in the racks dedicated to security in the technical rooms.

3.2 INSPECTIONS AND TESTS

- .1 Provide to the Applicant, for approval, the required inspection and test plan in order to demonstrate functionality, performance, robustness and system integration.

- .2 Carry out inspections and tests.
- .3 Submit the results.

END OF SECTION