The following changes in the tender documents are effective immediately. This addendum will form part of the contract documents.

1 SPECIFICATIONS

.1 Refer to Specification Section 26 56 19 Part 2 2.1.1.6:

.1 Pole shall with stand a wind load of 86.6 MPH with luminaires being provided.

2. Refer to Specification Section 28 23 00:
   .1 CCTV High Pole Requirements shall be as follows:
      .1 Mounting on concrete base;
      .2 Finish: galvanized;
      .3 Shall with stand a wind load of 86.6 MPH with cameras.
3. Include attached specification section 28 13 00.
4. Replace previously issued Specification section 08 71 00 - Door Hardware with attached revised specification section.

2 ARCHITECTURAL DRAWINGS

1. Replace previously issued AE 6.0 with revised AE 6.0 – ROOM FINISH SCHEDULE, DOOR SCHEDULE, AND DOOR AND WINDOW ELEVATIONS

3 ELECTRICAL DRAWINGS

2. Include attached Drawings ES2.1, ES2.2 ,ES2.3 and E1.0R.
3. Refer to Drawing ED1.1 Note 4:

.1 Delete reference to existing to remain and disconnect and remove feeder for others to relocate garage to north end of site adjacent to existing Public Works Government Services Canada Storage Building.

4. Refer to Drawing E4.0:

.1 Provide new feeder from MD-2 complete with 90Amp breaker and 3- $^{\#1}/_{0}$ RW90 + 1-#6 ground in 53mm conduit to relocated garage and reconnect to distribution.

.1 elevation title from South Elevation to East Elevation.

.2 Revise underside of girt elevation from 101 634 to 101 650 between gridlines T.1 and T.3

----------END----------

Part 1 General

1.1 RELATED REQUIREMENTS

.1 Not Applicable

1.2 REFERENCES

.1 Abbreviations:

.1 Access Control and Security Management System (ACSMS) control of people through entrances and exits of controlled area. Security utilizing hardware systems and specialized procedures to control and monitor movements within a controlled area.

.2 Reference Standards:

.1 Underwriters Laboratories of Canada (ULC)

.2 Underwriters' Laboratories (UL)

.1 UL 294-2009, Access Control System Units.

1.3 ACTION AND INFORMATIONAL SUBMITTALS

.1 Submit in accordance with Section 01 33 00 - Submittal Procedures.

.2 Product Data:

.1 Submit manufacturer's instructions, printed product literature and data sheets for access controls and equipment and include product characteristics, performance criteria, physical size, finish and limitations.

.2 Submit:

.1 Functional description of equipment.

.2 Technical data for all devices.

.3 Device location plans and cable lists.

.4 Devices mounting location detail drawings.

.5 Typical devices connection detail drawings.

.3 Shop Drawings:

.1 Submit drawings stamped and signed by professional engineer registered or licensed in Province of Manitoba, Canada.

.2 Shop drawings to indicate project layout, including details.

.1 Shop drawings to indicate, mounting heights and locations, wiring diagrams.

.2 Submit zone layout drawing indicating number and location of zones and areas covered.

.3 Submit wiring diagrams.

.4 Submit complete equipment list.

.4 Certificates: submit certificates signed by manufacturer certifying that materials comply with specified performance characteristics and physical properties.

.1 Submit ULC/UL Product Safety Certificates.

.2 Submit verification Certificate that security access system is "Certified alarm system".

.5 Test and Evaluation Reports:

.1 Submit certified test reports from approved independent testing laboratories indicating compliance with specifications for specified performance characteristics and physical properties.

.6 Manufacturer's Instructions: submit manufacturer's installation instructions.

.7 Manufacturer's Field Reports: submit manufacturer's written reports within 3 days of review, verifying compliance of Work, as described in PART 3 - FIELD QUALITY CONTROL.

1.4 ACCESS CONTROLS AND SECURITY MANAGMENET SYSTEM DESCRIPTION

.1 The Access Control and Security Management System (ACSMS) shall function as an electronic physical access and situational control system and shall integrate the alarm monitoring, Video Management System (VMS), ID badging, and database management into a single executable application. The ACSMS shall function as the primary means of controlling all access and situational control needs. A scalable, open architecture and network ready solution shall allow for an assured access and alarm monitoring solution.

.2 The access control security management system (ACSMS) shall also ASA secondary function as a duress system complete with push buttoms, audible and visual devices with reader boards for a complex wide system.

1.5 CLOSEOUT SUBMITTALS

.1 Submit in accordance with Section 01 78 00 - Closeout Submittals.

.2 Operation and Maintenance Data: submit operation and maintenance data for access controls and equipment for incorporation into manual.

.1 Include:

.1 System configuration and equipment physical layout.

.2 Functional description of equipment.

.3 Instructions of operation of equipment.

.4 Illustrations and diagrams to supplement procedures.

.5 Operation instructions provided by manufacturer.

.6 Cleaning instructions.

1.6 DELIVERY, STORAGE AND HANDLING

.1 Deliver, store and handle materials in accordance with Section with manufacturer's written instructions.

.2 Delivery and Acceptance Requirements: deliver materials to site in original factory packaging, labelled with manufacturer's name and address.

.3 Storage and Handling Requirements:

.1 Store materials indoors and in accordance with manufacturer's recommendations in clean, dry, well-ventilated area.

.2 Store and protect access controls and equipment from nicks, scratches, and blemishes.

.3 Replace defective or damaged materials with new.

1.7 WARRANTY

.1 For materials the 12 month warranty period prescribed in subsection GC 32.1 of General Conditions is extended to 24 months.

.2 Manufacturer's Warranty: submit, for Departmental Representative's acceptance, manufacturer's standard warranty document executed by authorized company official.

1.8 DEFINITIONS

.1 Access Card: A coded employee card, usually the size of a credit card, recognizable to the access control system and read by a reader to allow access. It can be used for photo identification of the cardholder and for other data collection purposes. Card technologies include magnetic strips, wiegand-effect, proximity (active/passive), barium ferrite, smart/intelligent cards, and NFC enable applications on mobile devices.

.2 Access Control System: An interconnected set of controllers, managing the entrance and exit of people through secure areas.

.3 Access Level: The door or combination of doors and/or barriers an individual is authorized to pass through.

.4 Anti-Pass back (Anti-Tailgating): This feature protects against more than one person using the same card or number. It defines each system card reader and card ID number as IN, OUT or other. Once a card is granted access to an IN reader, it must be presented to an OUT reader before another IN reader access is granted. Cards will continue to have access to all authorized OTHER readers.

.5 Alarm: A signal that indicates a problem.

.6 Alarm input: A device that is monitored by the access control panel. An alarm signal will be generated if the device is activated.

.7 Badge: Badge is a template or a design for creating a card. WIN-PAK includes a full-featured badge layout utility for designing, creating, and printing badges. Badge design includes magnetic stripe encoding, bar coding, signatures, and so on.

.8 Bar Code: A method of encoding information using lines and blank spaces of varying size and thickness to represent alphanumeric characters.

.9 Biometrics: A general term for the verification of individuals using unique biological characteristics (i.e. fingerprints, hand geometry, voice analysis, the retinal pattern in the eye).

.10 Card and Card Holder: A card is an identity proof of a person and a card holder is a person who holds the card. Multiple cards can be assigned to a single card holder to provide different access.

.11 Controller: A microprocessor based circuit board that manages access to a secure area. The controller receives information that it uses to determine through which doors and at what times cardholders are granted access to secure areas. Based on that information, the controller can lock/unlock doors, sound alarms, and communicate status to a host computer.

.12 Card Reader: A device that retrieves information stored on an access card and transmits that information to a controller.

.13 Digital Video Recorder (DVR): A security system device that records the video from the surveillance cameras (IP and Analog) on a hard disk.

.14 Door: A generic term for a securable entry way. In many access control applications a "door" may actually be a gate, turnstile, elevator door, or similar device.

.15 Duress: Forcing a person to provide access to a secure area against that person's wishes.

.16 Input: An electronic sensor on a controller that detects a change of state in a device outside the controller.

.17 Keypad: An alphanumeric grid which allows a user to enter an identification code. A flat device which has buttons that may be pressed in a sequence to send data to a controller, and which differs from a typewriter-like computer board.

.18 Output Relay: A device that changes its state upon receiving a signal from a controller. Typically the state change prompts an action outside of the controller such as activating or inactivating a device. The auxiliary relays found in access control panels or NODES that control external devices.

.19 Shunt Time: The length of time a door open alarm is suppressed (shunted) after a valid card access or free egress request. This time should be just enough to allow a card user to open a door or gate, pass through, and then close it.

.20 Time Schedules: Schedules that allow cards to function or not function depending on the time of day. This is used to limit access to the facility. The schedule may include not only time but which days of the week a card is valid.

.21 Video Management System (VMS): An enterprise-class video management and storage solution.

Part 2 Products

2.1 MATERIALS

.1 Design Criteria:

.1 Design access control and security access systems using only ULC/UL listed products.

.2 Design security access system using ULC/UL listed alarm service company, company specializing in security access systems.

.3 Design security access system as a ULC/UL certified alarm system

.4 Design system as type: proprietary.

2.2 ACCESS CONTROL AND SECURITY MANAGEMENT SYSTEM COMPONENTS

.1 The ACSMS shall consist of three components: Database Server, Application Server, and User Interface. These components shall run on a single computer, virtual or physical, or on multiple computers allowing scalability in the configured architecture.

.1 Database Server

.2 Application Server

.3 User Interface

.2 In addition to the above three components, the ACSMS offers the following components that can be added to the system in order to provide enhanced functionality.

.1 Open DX – Personnel data exchange tool used for provisioning personnel/cardholder information and access level assignment within the DNA Fusion ACSMS there by creating a logical link to the authoritative data source. The authoritative data source shall be one or more ActiveX Data Objects (ADO) compliant connections.

2.3 ACCESS CONTROL AND SECURITY MANAGEMENT SYSTEM OPERATION REQUIREMENTS

.1 The ACSMS shall be a highly scalable, robust access control and security management system developed using the latest in development technology. The ACSMS shall provide a singular interface capable of controlling multiple, geographically independent sites and provide alarm monitoring, video management integration, ID badging, personnel and cardholder management, and situational control of all connected devices.

.2 The ACSMS must support credential readers that communicate via weigand, RS-485, or clock and data communications formats.

.3 The ACSMS must support the Open Supervised Device Protocol (OSDP).

.4 A sufficient number of controllers and sub-controllers will be provided to monitor all credential reader, monitor point, and relay point locations shown on plan.

.1 Capacities

a. Maximum intelligent controllers per application server: 256

i. Intelligent controllers can be geographically independent

ii. Must support IP and/or RS-485 communication methods.

b. Maximum sub-controllers per controller: 32

i. This number varies per model of controller.

ii. Some controller models may have a smaller number for maximum sub-controllers.

c. Maximum doors per controller: 64

i. This number varies per model of controller.

ii. Some controller models may have a smaller number for maximum doors

d. Maximum pin digits: 15

e. Maximum card formats: Unlimited

f. Maximum Time Schedules per intelligent controller: 255

g. Maximum holidays per intelligent controller: 255

h. Maximum number of personnel records: Unlimited

i. Maximum number of operators: Unlimited

j. Maximum number of client connections: Unlimited

.5 The ACSMS shall be capable of the following features:

.1 Multi-User/Network Capabilities: The ACSMS shall support multiple operator workstations via local area network/wide area network (LAN/WAN). The communications between the workstations and the server computer shall utilize the TCP/IP standard over industry standard IEEE 802.3 (Ethernet). The communications between the server and workstations shall be supervised, and shall provide the ability to generate alarm messages when the server is unable to communicate with a workstation.

.2 Operating Environment: The ACSMS shall be a 3-tier client/server, ODBC compliant application based on Microsoft tools and standards. The ACSMS application shall operate in the following environments: Microsoft Windows® Server 2008 R2 SP1, Microsoft Windows® 7 SP1 (64-bit), Windows Server 2012 R2, and Windows 8.1.

.3 Multi-level Password Protection: The ACSMS application shall provide multi-level password protection, with user-defined operator name/password combinations. Name/password log-on shall restrict operators to selected areas of the program. The application shall allow the assignment of operator levels to define the system components that each operator has access to view, operate, change, or delete.

.4 Strong Password Enforcement: The ACSMS application shall have an option to enforce strong passwords and by setting minimum character lengths and complexity requirements.

.5 Graphical User Interface: The ACSMS shall be fully compliant with Microsoft Graphical User Interface (GUI) standards, with the look and feel of the software being that of a standard Windows application, including hardware tree-based system configuration.

.6 Concurrent Licensing: The ACSMS shall support concurrent client workstation licensing. The ACSMS application shall be installed on any number of client workstations, and shall provide the ability for any of the client workstations to connect to the application server as long as the maximum number of concurrent connections purchased has not been exceeded.

.7 Access Control Software Suite: The ACSMS shall be a scalable application such that there is no requirement for separate tiers or editions of software. The same code set used for smaller, more localized installations, shall be the same code set used for enterprise system deployments.

.8 Relational Database Management System: The ACSMS shall support industry standard relational database management systems (RDMS). This shall include the following: Microsoft SQL Server 2012 Express/Enterprise Edition, Microsoft SQL Server 2008 R2 Express/Enterprise Edition, and Microsoft SQL Server 2014 Express/Enterprise Edition.

.9 System Partitioning/Filtering: The ACSMS shall provide the option to restrict access to data based on login and profile.

.10 Encryption: The ACSMS shall provide multiple levels of data encryption.

a. True 128-bit AES data encryption between the host and intelligent controllers. The encryption shall ensure data integrity that is compliant with the requirements of FIPS-197 and SCIF environments. Master keys shall be downloaded to the intelligent controller, which shall then be authenticated through the Access Control and Security Management System based on a successful match.

b. Transparent database encryption, including log files and backups.

.11 Industry Standard Panel Communication: The ACSMS shall communicate with the access control intelligent controllers via LAN/WAN connections utilizing industry standard communication protocols.

.12 Supervised Alarm Points: The ACSMS shall provide both supervised and non-supervised alarm point monitoring with the ability to specify custom values of resistance. On recognition of an alarm, the ACSMS shall be capable of switching and displaying the video from the camera connected to the video management system that is associated with the alarm point.

.13 Multiple Account Support: The ACSMS shall allow support for multiple accounts allowing separate access to the personnel database, badge layout, operator access, and reporting. Physical hardware may be filtered by profile level into “sites”. “Sites” may be assigned to one or more operator profiles. The system shall allow control of common areas between operator profiles. Access levels and time schedules shall be global to allow for easy administration and filtering. The global access levels and time schedules shall be capable of being used by one or more operator profiles.

.14 Video Management System Support: The ACSMS shall integrate with the major brands of video management systems (VMS).

.15 Camera Support: The ACSMS shall support, via integrated VMS platforms, pan, tilt, zoom, and touring features.

.16 Display Live Video: The ACSMS shall support an option to view live video from a camera connected to an integrated VMS. The cameras from the integrated VMS shall be able to be associated with any hardware device programmed in the ACSMS and opened automatically on any system event or operator initiated command sequence.

.17 Global/Anti-Passback: The ACSMS shall support multiple modes of anti-passback, by which cardholders must follow a specified sequence of card reads in the configured areas.

.18 Alarm Events: The ACSMS shall include a feature where alarm events with defined priorities shall be able to pop-up automatically in an Alarm event window for operator attention. The pop-up shall display the name of the event (reader, alarm point, cardholder, or system alarm), time, date, point description, if

a card event the card number, type of event and cardholder name. An event counter shall also display the number of times the event was reported to the Alarm event monitor prior to Acknowledgement or Clearing the event. Event instructions shall be made available by double clicking on the event. The Alarm shall also display an icon to indicate that a camera is associated to the device. The Alarm event window shall allow the operator to initiate a physical response to the event as well as a written response. Responses shall include but not be limited to: acknowledge, clear, open a pre-programmed floor plan, activate, de-activate, pulse, time pulse, add comment, retrieve archived video, and bring up live video, disarm, or arm.

.19 Global Device Control: The ACSMS shall allow manual control of one or more selected inputs, outputs, and doors. Global device control shall include pulse, timed pulse, and energize/de-energize or return to normal options for output points and arm/disarm or return to normal options for input points. For global control of doors the ACSMS shall include Disabled, Unlocked, Locked, Facility Code Only, Card Only, PIN Only, Card and PIN, Override Mode, and Cancel Override Mode.

.20 Global Edit: The ACSMS shall support, by way of a multi-select function, a method to globally edit input points, outpoint points, doors, readers, personnel and cards.

.21 Levels of System Operation: The ACSMS shall include a feature to define the levels of system operation for each individual operator using passwords and profiles. System operation for individual operators shall include, but not be limited to, restricted time periods for login, inactivity notifications, and lockout for failed logon attempts. Operator actions range from no view or control rights to basic monitoring including the ability to block the viewing of card and or personal identification numbers, to full control of the system including programming.

.22 Distributed Processing: All the control components of the ACSMS shall utilize “Distributed-Processing” design. The distributed processing shall include the ability to download operating parameters to any field panel, thus allowing the field panel to provide full operating functions independent of the ACSMS application server.

.6 The ACSMS shall have the major functional capabilities (considered essential for the system described in this specification) categorized as follows:

.1 General Application Requirements

a. All transactions and audits shall be logged by date and time to the database.

b. The end-user shall have the ability to make any system configuration changes such as, but not limited to door open time, door contact shunt time, point and door names, when and where a cardholder is authorized, and the ability to add or modify personnel records at any time and without assistance from the manufacturer or system installer.

c. Shall support Global Anti-pass back, feature allowing cardholders to enter/exit any such defined card reader area on any intelligent control panel provided they follow the required in/out flow.

d. Anti-pass back modes shall include: hard (no forgiveness), soft (allows access but generates an alarm event) and timed for all readers on the intelligent controller, on specified reader or card for a definable period of time up to 1092 minutes.

e. Shall support a Duress PIN feature that is configurable in operation by which the cardholder either adds a specified digit to their unique PIN or appends a specified digit to their unique PIN.

f. Shall support Two Card Control on any door, by which two different credentials with the proper access must be presented at the same door within a 5 second window of time.

g. Shall support a Photo Recall option with four separate, configurable windows that displays the photo(s) associated with the personnel records as the credentials are used. The Photo Recall windows shall be configurable to show the credential reads from all doors, or only specific doors. In addition, the Photo Recall window shall be configurable as to what system data will be displayed for each transaction.

h. Shall support the scheduling of any system or custom system reports.

i. Shall support Auto-Email function, by which any event or point in the system can be configured to send an email using replacement parameters. The replacement parameters shall be used to query data from the database for insertion into the body, subject line, or address field of the email.

j. All updates and changes to the programming in the intelligent controllers shall take place real-time and will not require manual downloads to propagate system changes.

k. Shall have an available Application Program Interface (API) built on current development technologies that allows the integration of third party programs or systems.

l. Shall be an intuitive Graphical User Interface (GUI) that implements a multi-document layout. An operator will not be required to close or switch views to another part of the application in order to edit or view any aspect of the system. The GUI must be fully customizable allowing for an infinite number of operator views to be created and assigned. The GUI must support drag and drop functions within the multi-document interface.

m. Shall support global I/O functions, by which any point in programmed in the system can be configured to control any other point on the system regardless of which intelligent controllers they reside on.

n. All necessary system drivers shall run as Windows services and as such do not require the Operating System to be logged in on the application server.

o. Shall have support for thick client, web client and mobile client applications that provide system management functions.

p. Shall support a Situation Level Manager that provides five different states that can be initiated by clicking on a single, color coded button. The Situation Levels shall by configurable on the following objects: Doors, Time Schedules, Input Points, Output/Relay Points, and Credentials.

q. Shall provide intuitive Info-Ready™ reporting by which an operator must only right click on an object to run a Trace History Report, Has Access To, Who Has Access, Who Does Not Have Access, Last Used, and Non-Use.

r. The GUI shall be developed in such a manner that any place that a personnel record or hardware device is shown that an operator can right click on it and open the properties or execute control functions.

s. Shall support a method of controlling any device connected to the system in order to effectively change the state of a single point or group of points where supported by the hardware.

t. Shall support Direct Commands, which allow the creation of a single button to control a single or all devices simultaneously by clicking one button, based on operator privileges.

u. Shall support the ability to password protect the Direct Commands to require additional authentication when executing them.

.2 Personnel and Cardholder Management

a. Shall provide a personnel browser method of managing personnel data in a hierarchical tree. The personnel browser shall be sortable by in field of data stored in the personnel record.

b. Shall have the ability to create custom personnel groups that personnel records can be assigned to where by personnel records can be assigned to one or more personnel groups.

c. Shall have the ability to assign default access levels to custom personnel groups that cardholders will inherit or disinherit as they are added or removed to or from custom personnel groups.

d. Shall have the ability to assign one or more credentials to a single personnel record.

e. Shall support a maximum of 128 access levels per credential per intelligent controller.

f. Shall support Precision Access Levels, by which an operator need not create an access level to assign access to a single door, but only click and drag said door into the access level assignment window of the credential and associate a time schedule with it.

g. Shall support a Vacation Start function on credentials to allow the temporary disabling of cards for a specified number of days.

h. Shall support a Temporary Upgrade of Access Levels by which an operator can temporarily assign an access level with start and stop dates.

i. Shall support an activation and deactivation date and time of a credential down to the minute within a day.

j. Shall support the capture of personnel photos and signatures to be used for ID badge printing.

k. Shall support the ability for any personnel or credential field to be retrieved and printed on an ID badge.

l. Shall support the ability for any or all credentials activate or deactivate based on a system controlled Situation Level.

m. Shall support Info-Ready™ reports on personnel groups providing the following information: Last Used and Non-Use.

n. Shall support the ability to assign/re-assign credentials to personnel records by way of a drag and drop convention.

.3 Time Schedules and Holidays

a. Shall support up to 255 individual time schedules per time schedule set.

b. Shall support up to 255 individual time schedule sets that are then assignable to intelligent controllers.

c. Shall support up to 12 different start and stop intervals for each day, including holidays.

d. Shall support time schedule templates to quickly build common time schedules.

e. Shall support a copy feature to copy time schedules between time schedule sets.

f. Time schedules shall be assignable to any or all access levels or precision access levels.

g. Shall support the ability to manually control any or all time schedules programmed in the system by providing the following commands: Temporary Off, Temporary On, Override Off, Override On, and Resume Normal State.

h. Shall support the ability for any or all time schedules to be manually controlled by the changing of the Situation Level Manager.

i. Shall support up to 255 holiday sets that are then assignable to intelligent controllers.

j. Shall support creating a holiday to span up to 365 days.

k. Shall support up to eight different holiday types.

.4 Access Levels

a. Shall support an unlimited number of access levels.

b. Access levels shall be capable of being global or intelligent controller based.

c. Shall support the option to assign activation and deactivation dates/times to access levels.

d. Shall support three types of escort requirements for access levels: Not an Escort, Is an Escort, and Requires an Escort.

e. Shall support a default time schedule to be assigned to the access level or separate time schedules to individual doors within the access level.

f. Shall support eight different access level categories that can then be assigned to operator profiles granting rights to assign the category of access level or not.

g. Shall support an Info-Ready™ report named Assigned To that provides a list of all credentials the access level is assigned to with the ability to remove the access level from cardholders directly from the result set window.

h. Shall support a click and drag method of assigning access levels to a single credential, personnel record, or group of personnel records.

.5 Hardware

a. Shall support a browser based, hierarchical tree structure that displays the programmed hardware with current states and provides command and control capabilities based on operator privileges.

b. The tree structure shall be developed in such a way that it is intuitive for the operator to navigate.

c. The tree structure shall provide, based on operator privileges, the ability to group edit and control similar devices.

d. The tree structure shall have an option to display a tooltip upon hovering over a specific device to obtain detailed status information.

.6 Integrated ID Badging

a. Shall have an integrated photo capture and ID badging module.

b. The integrated ID badging module shall support an unlimited number of badge templates.

c. The badging station shall include a badge designer to create badge templates.

d. The badge designer shall allow any data field associated with a personnel record to be printed or otherwise used on the credential.

e. The integrated ID badging module shall support a dedicated, high end photo badging camera from Valcam (Model# 9000-628).

f. The integrated ID badging module shall support, through the use of a third party TWAIN Driver, the ability to use any TWAIN compliant USB camera.

g. The badge designer shall provide scripting capabilities to create a robust and streamlined template process by which the layout of a single template can be edited based on data retrieved from the personnel record.

h. The integrated ID badging module shall support a cropping mechanism in order to resize photos and select the printable area of the picture.

i. The integrated ID badging module shall support any credential printer that has a Windows print driver

j. The integrated ID badging module shall offer, depending upon the printer selected, the ability to create a template that will read the encoded card number from the credential as it passes through the printer during the printing process and then associate it with the personnel record automatically, thereby removing the need for the operator to manually enter the credential number. This feature will require a reader/encoder be installed inside the printer prior to setup.

k. The integrated ID badging module shall provide a print preview function that allows the operator to verify the credential format prior to actually printing it.

l. The integrated ID badging module shall support the capturing of signatures during the credentialing process.

.7 Integrated Graphics Maps

a. Shall provide, with no additional licensing fees required, an integrated and robust graphical map module allowing for the importation of floor plans and other .JPG or .BMP files for use in plotting hardware and other connected devices programmed in the system onto the graphic layouts.

b. Shall support the ability to assign a graphic map as a homepage of any point in the system, thereby linking that device to that map and allowing the system to automatically load the graphic upon an alarm condition from any point that is plotted on it.

c. Shall support any command and control or reporting functions available in the Hardware Browser for any point that is plotted on a graphic map.

d. Shall support the hyperlinking of graphic maps to one another, thereby creating a "drill down" effect.

e. Shall support the ability to plot any camera that is integrated to the core application onto a graphics map and display the live video in a tooltip window upon the operator hovering over the icon, or displaying of live video in a video container window upon left clicking the camera icon.

f. Shall support the real-time status updating of points that are plotted on a graphics map by configurable colors, shapes, or icons.

g. Shall support the ability to plot the same device on a single graphic map multiple times to get varying states of status reported simultaneously.

h. Shall support the ability to create buttons on the graphic maps which can then be linked to Direct Commands.

.8 Integrated Video Management Systems

a. Shall support the integration of Digital Video Recorders (DVR) and Network Video Recorders (NVR) from the following manufacturers:

i. To be Determined

b. Shall support the ability to associate cameras from DVR/NVR to devices in DNA Fusion.

c. Shall support, at minimum, the ability to launch live and recorded video based on a right click command in the DNA Fusion software, or automatically based on a pre-programmed event based action.

d. Shall support the ability to initiate presets or PTZ controls

.9 Integrated Biometrics

a. Shall support an integration with the following biometric solutions

i. To be Determined

b. The integration shall be direct, by which the biometric templates are captured via DNA Fusion and will not require manual entry via 3rd party application.

2.4 ACSMS COMPUTER REQUIREMENTS

.1 DNA Fusion Application Server Requirements

.1 DNA Fusion Application Server controlling 50 doors or less and 10 clients or less

a. Processor (Intel Core i7 or equivalent) or greater

b. 4 GB RAM or greater

c. 500GB HDD or greater

d. 10/100 NIC or greater

e. Windows 7 Enterprise, Windows 8/8.1 Enterprise, Windows 10 Enterprise, Windows Server 2008 R2, Windows Server 2012 (*Operating systems must be Professional/Enterprise versions and not Home/Personal editions.)

.2 DNA Fusion Application Server controlling 50 doors or more and 10 clients or more

a. Processor (Intel Core i7 or equivalent) or greater

b. 8 GB RAM or greater

c. 500GB HDD or greater

d. 10/100 NIC or greater

e. Windows Server 2008 R2, Windows Server 2012

.3 Open Options fully supports virtualized environments provided the specifications meet the minimums listed above.

.2 DNA Fusion Client Workstation Requirements

.1 DNA Fusion Standard and Photo ID Workstations

a. Processor (Intel Core i7 or equivalent) or greater

b. 4 GB RAM or greater

c. 500GB HDD or greater

d. 10/100 NIC or greater

e. Windows 7 Enterprise, Windows 8/8.1 Enterprise, Windows 10 Enterprise (*Operating systems must be Professional/Enterprise versions and not Home/Personal editions.)

2.5 ACCESS CONTROL HARDWARE REQUIREMENTS

.1 The access control hardware will be a distributed intelligence, open architecture platform capable of scalability.

.2 The access control hardware shall be offered in two form factors: as board only product or as enclosed product.

.3 The enclosed product shall be offered as a factory, pre-wired unit and must be a UL recognized assembly.

.4 The enclosed products must be offered as a 1U rack mountable intelligent controller or as a plenum rated poly carbonate enclosure.

.5 The access control hardware will be in use and deployed by a minimum of 10 access control manufacturers.

.6 The access control hardware shall work in a hierarchical structure, by which an intelligent controller is deployed and control downstream Reader Interface Modules (RIM) or Input/Output Modules (I/OM).

.7 The access control hardware shall support the following communication protocols:

.1 TCP/IP

.2 RS485

2.6 DURESS SYSTEM – SYSTEM DESCRIPTION

.1 Emergency Mass Notification system shall activate and control remote alerting devices such as PA speakers, strobe lights, LED message boards and siren horns.

.2 The main system shall include a dedicated microphone, full keyboard for data entry, se5rial connections to in-house alert system, serial connection to optional building automation systems, software and hardware interface for network access, FCC approved transmitter and a UPS power backup.

.3 The main system shall be capable of sending alerts to the following devices:

.1 Controlled PA Speakers: Activation of embedded tones and bells, pre-recorded voice alerts, user recorded voice alerts and Text to Speech voice alerts.

.2 Controlled Strobe Lights: Activation of devices that have ON and OFF status, including strobe lights and sirens.

.3 Wirelessly Controlled Alphanumeric LED Message Board: Activation of alphanumeric LED message boards that can display an alphanumeric message using different formats and effects. Alphanumeric LED message boards shall support alternate time display when LED message board is idle.

.4 The system shall be capable of generating automated alerts using the following interfaces:

.1 Dry-contact closure of one of the alarms /dry – contacts modules.

.2 Incoming serial data, which will be processed according to the active protocol on the specific serial port receiving the data.

.3 Triggering a button or dry-contact closure of a emergency call button or station (push buttons, pull cords, door and windows transmitters).

.5 The main system shall provide a graphic Visual Control Panel for monitoring dry-contact alarm inputs, emergency transmitters and stations and activation of alerts. The Visual Control Panel shall allow placement of visual indicators over a site map of any other image.

.6 The main system shall archive all system activity with date and time for on-demand reports.

.7 The main system shall be capable of accessing wireless devices and non-wireless devices individually and as a group, including groups of devices of different types. The main

system shall support activation of wired or wirelessly controlled PA speakers, strobe lights, alphanumeric LED message boards and siren horns individually or as a group. The messages may be initiated automatically or manually be the user.

.8 The main system shall be capable of supporting 10,000 devices, 1,000 pre-recoded voice messages, 1,000 dry-contact alarm inputs, 1,000 wireless emergency call button or station transmitters, 1,000"keywords' for conditional messaging and 250 RS232 serial ports.

.9 The system shall be capable of providing a "Secure Mode" design so that no other paging transmitter can activate the local wireless remote devices. The "Secure Mode" design so that no other paging transmitter can activate the local wireless remote devices. The "Secure Mode" code should be programmable from the system main console.

.10 The system shall be capable of providing an "Over –the Air" programmability design. This feature shall allow programming remote devices into groups/zones and setting their operation mode from the system main console.

.11 The system shall be capable of providing full supervision capabilities of all system remote devices such as speakers, strobe lights, LED message boards and sirens. This feature shall allow each remote device to report back its operational status, setup information and internal battery status upon request from the main system.

.12 The main system shall provide a voice gateway to access controlled PA speakers individually or as a group. Real-time voice messages can be initiated via the system microphone or the telephone line interface. The messages may be initiated automatically or manually by the user.

.13 The controlled strobe lights shall be capable of being a member of at least 8 groups or zones, with full programmability.

.14 The wirelessly controlled alphanumeric LED message boards shall be capable of wirelessly receiving alphanumeric text messages from the main system and display them in 1 to 4 lines (model dependant). The wirelessly controlled alphanumeric LED message boards shall be capable of being a member of at least 6 groups or zones.

.15 The controlled siren horn shall be capable of being a member of at least 8 groups or zones, with full programmability.

.16 The controlled speaker, strobe light or siren shall be capable of supporting built-in battery backup.

.17 The system shall incorporate a "fall-safe" design so that a temporary power interruption shall no cause failure of the entire system. Upon restoration of power, the system shall resume normal operation without the need to reset the system or any of its components.

.18 The system shall include a notification pager and email to automatically notify a local supervisor or maintenance personnel of any system malfunction within seconds.

Part 3 Execution

3.1 EXAMINATION

.1 Verification of Conditions: verify conditions of substrates previously installed under other Sections or Contracts are acceptable for access control system installation in accordance with manufacturer's written instructions.

.1 Visually inspect substrate in presence of Departmental Representative

.2 Inform Departmental Representative 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 Departmental Representative.

.2 Examine site conditions to determine site conditions are acceptable without qualifications. Notify Owner in writing if deficiencies are found. Starting work is evidence that site conditions are acceptable.

3.2 INSTALLATION: SECURITY ACCESS

.1 Install security access systems and components in accordance withCAN/ULC-S302 CAN/ULC-S310.

.2 Install components in accordance with manufacturer's written installation instructions to locations, heights and surfaces shown on reviewed shop drawings.

.3 Install components secure to walls, ceilings or other substrates.

.4 Install required boxes in inconspicuous accessible locations.

.5 Conceal conduit and wiring.

.6 Integrated Security Management System, including but not limited to access control, alarm monitoring, CCTV, and ID badging system shall be installed in accordance with the manufacturer’s installation instructions.

.7 Supervise installation to appraise ongoing progress of other trades and contracts, make allowances for all ongoing work, and coordinate the requirements of the installation of the Security Management System.

3.3 SITE TEST AND INSPECTION

.1 Perform verification inspections and test in presence of Departmental Representative.

.1 Provide all necessary tools, ladders and equipment.

.2 Ensure appropriate subcontractors , and manufacturer's representatives and security specialists are present for verification.

.2 Pretesting procedure:

.1 Verify (utilizing an approved spectrum analyzer and test equipment) that system is fully operational and meets all system performance requirements of this specification.

.2 Measure and record, control (and/or voice) carrier levels of every system channel at each of following points in the system:

.1 Door located actuating devices.

.2 Door control panel functions.

.3 Electronic supervisory control units inputs and outputs.

.4 Distribution system input and output.

.5 Telephone system interface input and output.

.3 Submit to Departmental Representative 2 copies of recorded system pretest measurements, along with pretest certification.

.3 Performance testing:

.1 Test procedure: perform test on a "go-no-go" basis.

.1 Make only operator adjustments required to show proof of performance.

.2 Test to demonstrate and verify that installed system complies with installation and technical requirements of this specification under operating conditions.

.3 Test results to be evaluated by Departmental Representative DCC Representative Consultant as either acceptable or unacceptable using following procedures.

.2 Documentation review:

.1 This review will determine if information provided is sufficient to meet requirements of this specification.

.2 Provide for review all System manuals, as installed drawings, pretest forms, antenna radiation patterns, equipment cabinet pictorials, antenna pictorial, antenna mount pictorial, video and audio equipment details.

.3 Mechanical inspection:

.1 Departmental Representative DCC Representative Consultant and Contractor to tour areas to insure that Systems and Subsystems are installed in place for proof of performance testing.

.2 Take system inventory at this time. Verify following items before beginning proof of performance tests:

.1 Electrical power circuits designated for system equipment are properly labeled, wired, phased, protected and grounded.

.2 Conductor ends are protected by heat shrink wrap; audio spade lugs, barrier strips and punch blocks are used.

.3 Dust, debris, solder splatter, etc. are cleaned and removed from site.

.4 Equipment is properly labelled.

.5 Equipment identified in system's equipment lists are in-place and properly installed.

.6 Each lightning and System ground method are installed in accordance with manufacturer's instructions and this specification.

.4 Subsystem functional test:

.1 Conduct operational testing after review of documentation and mechanical inspection completed. Proceed as follows.

.1 Perform operational test of each Subsystem to verify that all equipment is properly connected, interfaced and is functionally operational to meet requirements of this specification.

.2 Control units:

.1 Take S/N readings from control unit's input and output in manual (and/or automatic) mode. Check output of DC/Data converter for S/N. Evaluate entire signal quality at baseband connector output of control unit and remote equipment.

.3 Distribution (or interface) system:

.1 Check each door utilizing a volt/ohm (or signal level) meter to confirm each function and to insure that system meets all performance requirements.

.2 Test each interconnection point (i.e.: door unit, junction box "cross connection", control unit, etc.) to ensure compliance with this specification.

.4 Total system test:

.1 Proceed with testing when system and subsystems are functionally tested and accepted. Total system tests to verify that requirements have been met for DC (and/or audio), sub carrier, and control signals in accordance with this specification.

.5 Safety:

.1 Demonstrate with documentation that access control system meets safety requirements specified in UL 294.

.5 Visual verification: objective is to assess quality of installation and assembly and overall appearance to ensure compliance with Contract Documents. Visual inspection to include:

.1 Sturdiness of equipment fastening.

.2 Non-existence of installation related damages.

.3 Compliance of device locations with reviewed shop drawings.

.4 Compatibility of equipment installation with physical environment.

.5 Inclusion of all accessories.

.6 Device and cabling identification.

.7 Application and location of ULC approval decals.

.6 Technical verification: purpose to ensure that all systems and devices are properly installed and free of defects and damage. Technical verification includes:

.1 Validate sensitivity of readers and applicability and application of cards.

.2 Connecting joints and equipment fastening.

.3 Compliance with manufacturer's specification, product literature and installation instructions.

.7 Operational verification: purpose to ensure that devices and systems' performance meet or exceed established functional requirements. Operational verification includes:

.1 Operation of each device individually and within its environment.

.2 Operation of each device in relation with programmable schedule and or/specific functions.

.8 Testing: The access control, alarm monitoring, CCTV, and ID badging system shall be tested in accordance with the following:

.1 Conduct a complete inspection and test of all installed access control and security monitoring equipment. This includes testing and verifying connection to equipment of other divisions such as life safety and elevators.

.2 Provide staff to test all devices and all operational features of the Security Management System for witness by the Owner's representative and authorities having jurisdiction as applicable.

.3 Correct deficiencies until satisfactory results are obtained.

.4 Submit written copies of test results.

3.4 FIELD QUALITY CONTROL

.1 Manufacturer Services:

.1 Manufacturer of products, supplied under this Section, to review Work involved in the handling, installation/application, protection and cleaning, of its products and submit written reports, in acceptable format, to verify compliance of Work with Contract.

.2 Manufacturer's Field Services:

.1 Obtain written reports from manufacturer verifying compliance of Work, in handling, installing, applying, protecting and cleaning of product.

.2 Submit manufacturer's field services consisting of product use recommendations and periodic site visits for inspection of product installation in accordance with manufacturer's instructions.

.3 Ensure manufacturer's representative is present before and during critical periods of installation testing.

.4 Schedule site visits to review Work at stages listed:

.1 After delivery and storage of products, and when preparatory Work on which Work of this Section depends is complete, but before installation begins.

.2 Twice during progress of Work at 25% and 60% complete.

.3 Upon completion of Work, after cleaning is carried out.

3.5 CLEANING

.1 Progress Cleaning: clean in accordance with Section 01 74 11 - Cleaning.

.1 Leave Work area clean at end of each day.

.2 Final Cleaning: upon completion remove surplus materials, rubbish, tools and equipment in accordance with Section 01 74 11 - Cleaning.

.1 Remove protective coverings from accessories and components.

.2 Clean housings and system components, free from marks, packing tape, and finger prints, in accordance with manufacturer's written cleaning recommendations.

.3 Clean components free from dirt and fingerprints.

3.6 PROTECTION

.1 Protect installed products and components from damage during construction.

.2 Repair damage to adjacent materials caused by access controls and equipment installation.

END OF SECTION

Part 1 General

1.1 REFERENCES

.1 Canadian Steel Door and Frame Manufacturers' Association (CSDFMA).

.1 CSDFMA Canadian Metric Guide for Steel Doors and Frames (Modular Construction): standard hardware location dimensions.

.2 Canadian General Standards Board (CGSB)

.1 CAN/CGSB-69.17, Bored and Preassembled Locks and Latches.

.3 American National Standards Institute (ANSI)/Builders Hardware Manufacturer's Association (BHMA)

.1 ANSI/BHMA A156.1-2006, Butts and Hinges.
.2 ANSI/BHMA A156.3-2003, Exit Devices.
.3 ANSI/BHMA A156.4-2008, Door Controls (Closers).
.4 ANSI/BHMA A156.5-2001, Auxiliary Locks and Associated Products.
.5 ANSI/BHMA A156.6-2005, Architectural Door Trim.
.6 ANSI/BHMA A156.8-2010, Door Controls - Overhead Holders.
.7 ANSI/BHMA A156.12-2005, Interconnected Locks and Latches.
.8 ANSI/BHMA A156.13-2005, Mortise Locks and Latches.
.9 ANSI/BHMA A156.14-2007, Sliding and Folding Door Hardware.
.10 ANSI/BHMA A156.15-2006, Closer/Holder Release Device.
.11 ANSI/BHMA A156.16-2003, Auxiliary Hardware.
.12 ANSI/BHMA A156.17-1987, Self-Closing Hinges and Pivots.
.13 ANSI/BHMA A156.18-2006, Materials and Finishes.
.14 ANSI/BHMA A156.19-2007, Power Assist and Low Energy Power Operated Doors.
.15 ANSI/BHMA A156.26-2006, Continuous Hinges.

.4 Canadian Standards Association (CSA International).

.1 CAN/CSA-B651-10, Barrier-Free Design.

1.2 SUBMITTALS

.1 Product Data:

.1 Submit manufacturer's printed product literature, specifications and data sheet in accordance with Section 01 33 00 - Submittal Procedures.

.2 Samples:

.1 Submit samples in accordance with Section 01 33 00 - Submittal Procedures.
.2 Identify each sample by label indicating applicable specification paragraph number, brand name and number, finish and hardware package number.
.3 After approval samples will be returned for incorporation in the Work.

.3 Hardware List:

.1 Submit contract hardware list in accordance with Section 01 33 00 - Submittal Procedures.

.2 Indicate specified hardware, including make, model, material, function, size, finish and other pertinent information.

.4 Manufacturer's Instructions:

.1 Submit manufacturer's installation instructions.

.5 Closeout Submittals

.1 Provide operation and maintenance data for door closers, locksets, door holders electrified hardware and fire exit hardware for incorporation into manual specified in Section 01 78 00 - Closeout Submittals.

1.3 QUALITY ASSURANCE

.1 Regulatory Requirements:

.1 Hardware for doors in fire separations and exit doors certified by a Canadian Certification Organization accredited by Standards Council of Canada.

.2 Test Reports: certified test reports showing compliance with specified performance characteristics and physical properties.

.3 Certificates: product certificates signed by manufacturer certifying materials comply with specified performance characteristics and criteria and physical requirements.

.4 Pre-installation Meetings: conduct pre-installation meeting to verify project requirements, manufacturer's installation instructions and manufacturer's warranty requirements.

1.4 DELIVERY, STORAGE, AND HANDLING

.1 Packing, Shipping, Handling and Unloading:

.1 Deliver, store, handle and protect materials in accordance with Section 01 61 00 - Common Product Requirements.

.2 Package each item of hardware including fastenings, separately or in like groups of hardware, label each package as to item definition and location.

.2 Storage and Protection:

.1 Store finishing hardware in locked, clean and dry area.

1.5 WASTE DISPOSAL AND MANAGEMENT

.1 Separate and recycle waste materials in accordance with Section 01 74 21 - Construction/Demolition Waste Management And Disposal.

.2 Remove from site and dispose of packaging materials at appropriate recycling facilities.

.3 Dispose of packaging material in appropriate on-site bin for recycling in accordance with site waste management program.

1.6 MAINTENANCE

.1 Extra Materials:

.1 Provide maintenance materials in accordance with Section 01 78 00 - Closeout Submittals.

.2 Supply two sets of wrenches for door closers, locksets and fire exit hardware.

Part 2 Products

2.1 HARDWARE ITEMS

.1 Use one manufacturer's products only for similar items.

2.2 DOOR HARDWARE

.1 Locks and latches:

.1 Bored and preassembled locks and latches: to CAN/CGSB-69.17, series 2000 preassembled lock, grade 1, designed for function and keyed as stated in Hardware Schedule.

.2 Interconnected locks and latches: to ANSI/BHMA A156.12-2005, series 5000 interconnected lock, grade 1, designed for function and keyed as stated in Hardware Schedule.

.3 Mortise locks and latches: to ANSI/BHMA A156.13-2005, series 1000 mortise lock, grade 1, designed for function and keyed as stated in Hardware Schedule.

.4 Deadbolts: hardened with minimum projection of 25.4 mm.

.5 Lever handles: plain design, heavy duty L series.

.6 Roses: round.

.7 Escutcheons: square plain.

.8 Normal strikes: box type, lip projection not beyond jamb.

.9 Cylinders: key into keying system as noted.

.10 Finished to 626 dull chromium.

.2 Butts and hinges:

.1 Butts and hinges: to ANSI/BHMA A156.1-2006, Grade 1.

.2 Self-closing hinges and pivots: to to ANSI/BHMA A156.17-1987, Grade 1.

.3 Full mortise type bearing hinges: Five knuckle standard or heavy duty series.

.4 Exterior door hinges brass or bronze base polished and plated.

.5 Interior door hinges steel base polished and plated.

.6 Provide non-removable pins at all exterior doors with security stud to lock hinge plates together when door is in closed position.

.7 Finish: 26D, dull chromium.

.3 Hinges for Aluminum Swinging Doors:

.1 Continuous hinge, institutional to ANSI/BHMA A156.26-2006, Grade 1.

.4 Exit devices: to ANSI/BHMA A156.3-2003

.1 Aluminum doors: Concealed vertical rod with touchbar. Model 35A, Finish 628 Anodized Aluminum.

.2 Metal doors: Mortise lock type, Model 9875, Finish 626 dull chromium.

.3 Auxiliary items: door co-ordinator, type 21, for pairs of doors with overlapping astragals. Dust proof strikes for flush bolts.

.5 Door Closers and Accessories:

.1 Door controls (closers): to ANSI/BHMA A156.4-2008, Grade 1. Heavy duty parallel and double arm for high traffic application.

.2 Finish: powder coat 689 Aluminum.

.3 Door controls - overhead holders: to ANSI/BHMA A156.8-2010, Grade 1.

.4 Closer/holder release devices: to ANSI/BHMA A156.15-2006, Grade 1.

.5 Door co-ordinator: concealed for pairs of doors with overlapping astragal.

.6 Concealed spring closing device to return manual swing out in swinging doors to closed position for aluminum doors.

.6 Door Operators:

.1 Power-operated pedestrian doors: to ANSI/BHMA A156.10-2005.

.2 Power assist and low energy power operated doors: to ANSI/BHMA A156.19-2007.

.7 Auxiliary locks and associated products: to ANSI/BHMA A156.5-2001.

.1 Dead bolt: key into keying system.

.2 Cylinders: for installation in deadlocks provided with special doors as listed in Hardware Schedule. Key into keying system.

.8 Architectural door trim: to ANSI/BHMA A156.6-2005.

.1 Door protection plates: kick plate type, 1.27 mm thick stainless steel, x 450mm high x width to suit door size. Finish to brushed stainless steel or 26D, dull chromium.

.2 Door protection plates: armor plate type, 1.27 mm thick stainless steel, x 900mm high x width to suit door size. Finish to brushed stainless steel or 26D, dull chromium.

.3 Push plates: 1.27 mm thick stainless steel. Size 100 mm x 400 mm. Finish to brushed stainless steel or 26D, dull chromium.

.4 Push/Pull units: aluminum or stainless steel to suit door material, 300 mm high, finished to 26D, dull chromium.

.9 Sliding door hardware: to ANSI/BHMA A156.14-2007, 26D, dull chromium.

.1 Bi-passing sliding door hardware: double leg steel or aluminum track with fascia and hangers, as listed in above standard for door weight.

.2 Accessory item: door pulls, handles, stops, guides and latch.

.10 Auxiliary hardware: to ANSI/BHMA A156.16-2003.

.1 Wall Stop: cast brass or stainless steel, finish 26D dull chromium, GSH 250B.

.2 Floor Stop: dome type, cast brass, bronze, finish 26D dull chromium, GSH 218B.

.3 Door viewer: glass magnification, listed or labelled for fire doors, similar to Model No. CS1404.

.11 Door bottom seal: heavy duty, door seal of extruded aluminum frame and solid closed cell neoprene weather seal, surface mounted with drip cap, closed ends, clear anodized finish.

.12 Thresholds: 127 mm wide x full width of door opening, extruded aluminum, grooved surface, with thermal break of rigid PVC.

.13 Weatherstripping:

.1 Head and jamb seal:

.1 Extruded aluminum frame and closed cell neoprene insert, clear anodized finish.

.2 Adhesive backed neoprene material.

.2 Door bottom seal:

.1 Extruded aluminum frame and solid neoprene sweep, clear anodized finish.

.14 Astragal: overlapping, extruded aluminum frame with vinyl insert, finished to match doors.

.15 Power Assisted Door Operator:

.1 Electromechanical power assisted door opener and closer to meet ANSI/BHMA 156.19 for accessible doors to the disabled.

.2 Full closing force shall be provided when the power or assist cycle ends.

.3 Maximum of 6.8kg of manual opening force function.

.4 Provision for separate conduits to carry high and low voltage wiring in compliance with the National Electrical Code, Section 725-31.

.5 Arm function: Standard single and regular double type.

.6 UL listed for use on labelled doors.

.7 Standard anodized aluminum finish.

2.3 SECURE ROOM DOOR HARDWARE – LEVEL 1

.1 SR-1 requires a heavy-duty commercial grade 1 operational mortise lockset with a deadbolt and ANSI F15 (without indicator) or ANSI F13 function conforming to ULC 437, ANSI/BHMA standards A156.13 and A156.5. Use grade 1 unless the lock employs an anti-drill plate, in which case grade 2 could be considered.

.2 All locksets shall be equipped with a mechanical high security level B cylinder that conforms to ANSI/BHMA standard A156.30. Provide locksets with 19 mm deadlatching feature, 25 mm deadbolt, and outside fixed lever handle.

.3 Provide NRP (non removable pins) hinges on outswinging doors, overhead door closer and reinforce door to accept hardware.

2.4 MISCELLANEOUS HARDWARE

.1 Indexed key control system: to CAN/CGSB-69.21.

2.5 FASTENINGS

.1 Use only fasteners provided by manufacturer. Failure to comply may void warranties and applicable licensed labels.

.2 Supply screws, bolts, expansion shields and other fastening devices required for satisfactory installation and operation of hardware.

.3 Exposed fastening devices to match finish of hardware.

.4 Where pull is scheduled on one side of door and push plate on other side, supply fastening devices, and install so pull can be secured through door from reverse side. Install push plate to cover fasteners.

.5 Use fasteners compatible with material through which they pass.

2.6 KEYING

.1 Doors, padlocks and cabinet locks to be keyed alike in groups.

.2 The Main Port building, Generator building and Tertiary Garage building are to be keyed alike and similarly for doors on each building but each building is to be keyed differently. All exterior doors to be keyed alike and may be included on a master keyway system. Prepare detailed keying schedule in conjunction with Departmental Representative.

.3 Interior doors for the Main Port Building to be keyed differently and keyed to master keyway system.

.4 Provide keys in duplicate for every lock in this Contract.

.5 Provide three masterkeys for each keying system group.

.6 Stamp keying code numbers on keys and cylinders.

.7 Provide construction cores.

.8 Provide all permanent cores and keys to Departmental Representative.

.9 Doors with keypad access no keys required.

Part 3 Execution

3.1 MANUFACTURER'S INSTRUCTIONS

.1 Compliance: comply with manufacturer's written data, including product technical bulletins, product catalogue installation instructions, product carton installation instructions, and data sheets.

.2 Furnish metal door and frame manufacturers with complete instructions and templates for preparation of their work to receive hardware.

.3 Furnish manufacturers' instructions for proper installation of each hardware component.

3.2 INSTALLATION

.1 Install hardware to standard hardware location dimensions in accordance with Canadian Metric Guide for Steel Doors and Frames (Modular Construction) prepared by Canadian Steel Door and Frame Manufacturers' Association.

.2 Where door stop contacts door pulls, mount stop to strike bottom of pull.

.3 Install key control cabinet.

.4 Use only manufacturer's supplied fasteners. Failure to comply may void manufacturer's warranties and applicable licensed labels. Use of "quick" type fasteners, unless specifically supplied by manufacturer, is unacceptable.

.5 Remove construction cores and locks when directed by Departmental Representative; install permanent cores and check operation of locks.

3.3 ADJUSTING

.1 Adjust door hardware, operators, closures and controls for optimum, smooth operating condition, safety and for weather tight closure.

.2 Lubricate hardware, operating equipment and other moving parts.

.3 Adjust door hardware to provide tight fit at contact points with frames.

3.4 CLEANING

.1 Perform cleaning after installation to remove construction and accumulated environmental dirt.

.2 Clean hardware with damp rag and approved non-abrasive cleaner, and polish hardware in accordance with manufacture's instructions.

.3 Remove protective material from hardware items where present.

.4 Upon completion of installation, remove surplus materials, rubbish, tools and equipment barriers.

3.5 DEMONSTRATION

.1 Keying System Setup and Cabinet:

.1 Set up key control system with file key tags, duplicate key tags, numerical index, alphabetical index and key change index, label shields, control book and key receipt cards.

.2 Place file keys and duplicate keys in key cabinet on their respective hooks.

.3 Lock key cabinet and turn over key to Departmental Representative.

.2 Maintenance Staff Briefing:

.1 Brief maintenance staff regarding:

.1 Proper care, cleaning, and general maintenance of projects complete hardware.

.2 Description, use, handling, and storage of keys.

.3 Use, application and storage of wrenches for door closers, locksets and fire exit hardware.

.3 Demonstrate operation, operating components, adjustment features, and lubrication requirements.

3.6 SCHEDULE

Set: 1.0

3	Hinge (heavy weight)	TA386 NRP SSF 4-1/2" x 4-1/2"	US26D	MK
1	Mortise Lock (hotel)	ML2029 PSF	626	RU
1	Electric Strike	310-3-1-24D-LCBMA	630	FO
1	Strike Latch Guard	150		HS
1	Concealed Overhead Stop	1-X36	630	RF
1	Door Closer	281 P10	EN	SA
1	Kick Plate	K1050 10"	US32D	RO
1	Threshold	171A		PE
1	Gasketing	2891AS		PE
2	Gasketing	290AS		PE
1	Sweep	315CN		PE
1	Card Reader	By Security Division		00
1	Door Contact	By Security Division		00
1	Request to Exit	By Security Division		00
1	Power Supply	By Security Division		00

Notes: Key to existing Corbin Russwin system. Provide 5 change keys per lock.

2891AS to be installed to head of frame. Mount closer to weatherstrip.

Set: 2.0

3	Hinge	TA714 NRP 4-1/2" x 4"	US26D	MK
1	Mortise Lock (storeroom)	ML2057 PSF	626	RU
1	Strike Latch Guard	150		HS
1	Electric Strike	310-2-3/4-24D-LCBMA	630	FO
1	Door Closer	1431 P9	EN	SA
1	Kick Plate	K1050 10"	US32D	RO
1	Wall Stop	406	US32D	RO
1	Card Reader	By Security Division		00
1	Door Contact	By Security Division		00
1	Request to Exit	By Security Division		00
1	Power Supply	By Security Division		00

1	Viewer	627	CRM	RO

Notes: Key to existing Corbin Russwin system. Provide 5 change keys per lock.

Set: 3.0

3	Hinge	TA714 NRP 4-1/2" x 4"	US26D	MK
1	Mortise Lock (storeroom)	ML2057 PSF	626	RU
1	Strike Latch Guard	150		HS
1	Electric Strike	310-2-3/4-24D-LCBMA	630	FO
1	Door Closer	1431 P9	EN	SA
1	Kick Plate	K1050 10"	US32D	RO
1	Wall Stop	406	US32D	RO
1	Card Reader	By Security Division		00
1	Door Contact	By Security Division		00
1	Request to Exit	By Security Division		00
1	Power Supply	By Security Division		00

Notes: Key to existing Corbin Russwin system. Provide 5 change keys per lock.

Set: 4.0

3	Heavyweight Hinge	TA786 NRP 4-1/2" x 4-1/2"	US26D	MK
1	Mortise Lock (hotel)	ML2029 PSF	626	RU
1	Electric Strike	310-3-1-24D-LCBMA	630	FO
1	Strike Latch Guard	150		HS
1	Concealed Overhead Stop	1-X36	630	RF
1	Door Closer	281 P10	EN	SA
1	Kick Plate	K1050 10"	US32D	RO
1	Card Reader	By Security Division		00
1	Door Contact	By Security Division		00
1	Request to Exit	By Security Division		00
1	Power Supply	By Security Division		00

Set: 5.0

3	Hinge	TA714 4-1/2" x 4"	US26D	MK
1	Mortise Lock (office)	ML2053 PSF	626	RU
1	Door Closer	1431 O	EN	SA
1	Kick Plate	K1050 10"	US32D	RO
1	Wall Stop	409	US32D	RO

1	Gasketing	S88BL		PE
1	Door Bottom	4131CRL		PE

Notes: Key to existing Corbin Russwin system. Provide 5 change keys per lock.

Set: 6.0

3	Hinge	TA714 NRP 4-1/2" x 4"	US26D	MK
1	Pull Plate	107x70C	US32D	RO
1	Push Plate	70C	US32D	RO
1	Concealed Overhead Stop	1-X36	630	RF
1	Door Closer	1431 P9	EN	SA
1	Kick Plate	K1050 10"	US32D	RO

Set: 7.0

1	Electric Strike	8300C-LBM	630	HS
1	Card Reader	By Security Division		00
1	Door Contact	By Security Division		00
1	Request to Exit	By Security Division		00
1	Power Supply	By Security Division		00

Notes: Balance of hardware is existing to remain.

Set: 8.0

3	Hinge	TA714 4-1/2" x 4"	US26D	MK
1	Mortise Lock (hotel)	ML2029 PSF	626	RU
1	Electric Strike	310-3-1-24D-LCBMA	630	FO
1	Door Closer	1431 O	EN	SA
1	Kick Plate	K1050 10"	US32D	RO
1	Wall Stop	406	US32D	RO
1	Card Reader	By Security Division		00
1	Door Contact	By Security Division		00
1	Request to Exit	By Security Division		00
1	Power Supply	By Security Division		00

Notes: Key to existing Corbin Russwin system. Provide 5 change keys per lock.

Set: 9.0

3	Hinge	TA714 NRP 4-1/2" x 4"	US26D	MK
1	Mortise Lock (hotel)	ML2029 PSF	626	RU
1	Concealed Overhead Stop	2-X36	630	RF
1	Door Closer	1431 P9	EN	SA
1	Kick Plate	K1050 10"	US32D	RO

Notes: Key to existing Corbin Russwin system. Provide 5 change keys per lock.

Set: 10.0

6	Hinge	TA714 NRP 4-1/2" x 4"	US26D	MK
2	Flush Bolt	555	US26D	RO
1	Dust Proof Strike	570	US26D	RO
1	Mortise Lock (hotel)	ML2029 PSF	626	RU
2	Concealed Overhead Stop	1-X36	630	RF
1	Door Closer	1431 P9	EN	SA
2	Kick Plate	K1050 10"	US32D	RO
1	Astragal	357SPTB		PE

Notes: Closer for use on active leaf only. Key to existing Corbin Russwin system. Provide 5 change keys per lock.

Set: 11.0

4	Heavyweight Hinge	TA786 NRP 4-1/2" x 4-1/2"	US26D	MK
1	Mortise Lock (hotel)	ML2029 PSF	626	RU
1	Electric Strike	310-3-1-24D-LCBMA	630	FO
1	Concealed Overhead Stop	1-X36	630	RF
1	Door Closer	281 P10	EN	SA
1	Kick Plate	K1050 10"	US32D	RO
1	Card Reader	By Security Division		00
1	Door Contact	By Security Division		00
1	Request to Exit	By Security Division		00
1	Power Supply	By Security Division		00

Notes: Key to existing Corbin Russwin system. Provide 5 change keys per lock.

Set: 12.0

1	Storeroom Lock	CL3557 PZD	626	RU
1	Electric Strike	8300C-LBM	630	HS

1	Door Loop	TSB-C		SU
1	Card Reader	By Security Division		00
1	Door Contact	By Security Division		00
1	Request to Exit	By Security Division		00
1	Power Supply	By Security Division		00

Notes: Remove existing office lock and replace with specified storeroom lock. Balance of hardware is existing.
Key to existing Corbin Russwin system. Provide 5 change keys per lock.

Set: 13.0

1	Continuous Hinge	CFM_SLF		PE
1	Mortise Deadlock	MS1850S	628	AD
1	Deadlatch	4900	628	AD
1	Lever	4560	130	AD
1	Thumbturn	4066	628	AD
1	Mortise Cylinder	1000-118- A03	626	RU
1	Electric Strike	7400-M	628	AD
1	Push Bar & Pull	BF15847	US28	RO
1	Concealed Overhead Stop	6-X36	630	RF
1	Door Closer	1431 OZ	EN	SA
1	Drop Plate	1431B	EN	SA
1	Threshold	272A		PE
1	Card Reader	By Security Division		00
1	Door Contact	By Security Division		00
1	Request to Exit	By Security Division		00
1	Power Supply	By Security Division		00
1	Weatherstrip and Sweep	By Door Supplier		00

Notes: Key to existing Corbin Russwin system. Provide 5 change keys per lock.

Set: 14.0

1	Exit Device Trim	17 990NL	US26D	VD
1	Rim Cylinder	3000	626	RU
1	Electric Strike	9500-LBSM	630	HS
1	Card Reader	By Security Division		00
1	Door Contact	By Security Division		00
1	Request to Exit	By Security Division		00
1	Power Supply	By Security Division		00
1	Viewer	627	CRM	RO

Notes: Remove existing push button exit device trim and replace with standard trim and cylinder. Key to existing Corbin Russwin system. Provide 5 change keys per lock.

Set: 15.0

6	Hinge	TA714 NRP 4-1/2" x 4"	US26D	MK
1	Flush Bolt	2849	US26D	RO
1	Mortise Lock (classroom)	ML2003 PSF	626	RU
1	Coordinator	2600 Series x Filler x Brackets	Black	RO
2	Door Closer	1431 P9	EN	SA
2	Kick Plate	K1050 10"	US32D	RO
1	Electromagnetic Holder	980	689	RF
1	Electromagnetic Holder	998	689	RF
1	Gasketing	S88BL		PE
2	Door Bottom	4131CRL		PE
1	Astragal	357SPTB		PE

Notes: Key to existing Corbin Russwin system. Provide 5 change keys per lock.

Set: 16.0

6	Hinge	TA714 NRP 4-1/2" x 4"	US26D	MK
1	Flush Bolt	2849	US26D	RO
1	Mortise Lock (classroom)	ML2003 PSF	626	RU
1	Coordinator	2600 Series x Filler x Brackets	Black	RO
2	Door Closer	1431 P9	EN	SA
2	Kick Plate	K1050 10"	US32D	RO
2	Electromagnetic Holder	998	689	RF
1	Gasketing	S88BL		PE
2	Door Bottom	4131CRL		PE
1	Astragal	357SPTB		PE

Notes: Key to existing Corbin Russwin system. Provide 5 change keys per lock.

Set: 17.0

3	Hinge	TA714 NRP 4-1/2" x 4"	US26D	MK
1	Mortise Lock (storeroom)	ML2057 PSF	626	RU
1	Electric Strike	310-2-3/4-24D-LCBMA	630	FO
1	Door Closer	1431 P9	EN	SA
1	Kick Plate	K1050 10"	US32D	RO

1	Electromagnetic Holder	998	689	RF
1	Gasketing	S88BL		PE
1	Door Bottom	4131CRL		PE
1	Card Reader	By Security Division		00
1	Door Contact	By Security Division		00
1	Request to Exit	By Security Division		00
1	Power Supply	By Security Division		00

Notes: Key to existing Corbin Russwin system. Provide 5 change keys per lock.

Set: 18.0

6	Hinge	TA714 4-1/2" x 4"	US26D	MK
2	Pull Plate	107x70C	US32D	RO
2	Push Plate	70C	US32D	RO
1	Concealed Overhead Stop	6-X36	630	RF
2	Kick Plate	K1050 10"	US32D	RO
1	Wall Stop	406	US32D	RO

Notes: Overhead stop for use on door that swings 90 degrees.

Momentary bell when doors are opened supplied by electrical division.

Set: 19.0

3	Hinge	TA714 4-1/2" x 4"	US26D	MK
1	Mortise Lock (storeroom)	ML2057 PSF	626	RU
1	Electric Strike	310-2-3/4-24D-LCBMA	630	FO
1	Door Closer	1431 O	EN	SA
1	Kick Plate	K1050 10"	US32D	RO
1	Door Stop	441H	US26D	RO
1	Card Reader	By Security Division		00
1	Door Contact	By Security Division		00
1	Request to Exit	By Security Division		00
1	Power Supply	By Security Division		00

Notes: Key to existing Corbin Russwin system. Provide 5 change keys per lock.

Set: 20.0

3	Hinge (heavy weight)	TA386 NRP SSF 4-1/2" x 4-1/2"	US26D	MK
1	Strike Latch Guard	150		HS

1	Electric Strike	9500-LBSM	630	HS
1	Concealed Overhead Stop	6-X36	630	RF
1	Door Closer	281 P10	EN	SA
1	Kick Plate	K1050 10"	US32D	RO
1	Threshold	171A		PE
1	Gasketing	2891AS		PE
1	Sweep	315CN		PE
1	Card Reader	By Security Division		00
1	Door Contact	By Security Division		00
1	Request to Exit	By Security Division		00
1	Power Supply	By Security Division		00

Notes: Key to existing Corbin Russwin system. Provide 5 change keys per lock.

Mount closer and strike to weatherstrip.

Set: 21.0

1	Exit Device Trim	K157	626	RU
1	Rim Cylinder	3000	626	RU
1	Electric Strike	9500-LBSM	630	HS
1	Door Pull	BF158	US28	RO
1	Card Reader	By Security Division		00
1	Door Contact	By Security Division		00
1	Request to Exit	By Security Division		00
1	Power Supply	By Security Division		00

Notes: Remove existing trim and replace with pull and key entry. Key to existing Corbin Russwin system. Provide 5 change keys per lock.

Set: 22.0

1	Electric Strike	9500-LBSM	630	HS
1	Card Reader	By Security Division		00
1	Door Contact	By Security Division		00
1	Request to Exit	By Security Division		00
1	Power Supply	By Security Division		00

Notes: Balance of hardware is existing.

Set: 23.0

1	Storeroom Lock	CL3557 PZD	626	RU
1	Electric Strike	8300C-LBM	630	HS
1	Card Reader	By Security Division		00
1	Door Contact	By Security Division		00
1	Request to Exit	By Security Division		00
1	Power Supply	By Security Division		00

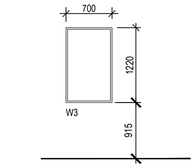
Notes: Remove existing lock and replace with specified storeroom lock. Balance of hardware is existing. Key to existing Corbin Russwin system. Provide 5 change keys per lock.

Set: 24.0

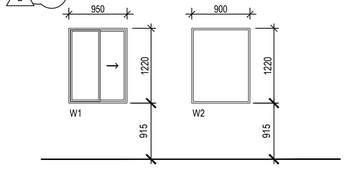
1	Deadlatch	4900	628	AD
1	Lever	4560	130	AD
1	Mortise Cylinder	1000-118- A03	626	RU
1	Electric Strike	7400-M	628	AD
1	Card Reader	By Security Division		00
1	Door Contact	By Security Division		00
1	Request to Exit	By Security Division		00
1	Power Supply	By Security Division		00

Notes: Balance of hardware is existing. Existing deadbolt to remain.
Key to existing Corbin Russwin system. Provide 5 change keys per lock.

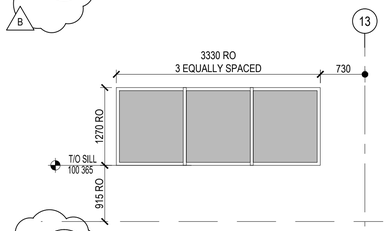
END OF SECTION



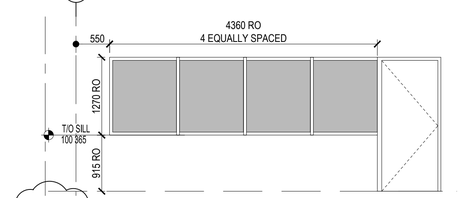
7 A4.0 A6.0 EXTERIOR GLAZING AT EXISTING
1:50



6 A4.0 A6.0 INTERIOR GLAZING SCHEDULE
1:50



4 A4.2 A6.0 GLAZING SCHEDULE NORTH TERTIARY
1:50



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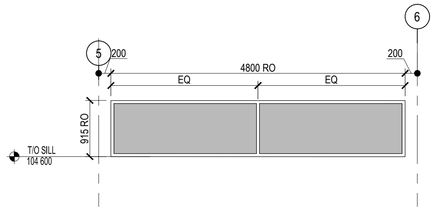
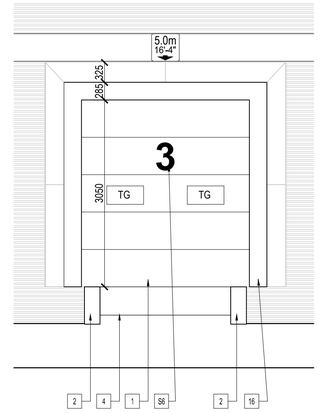
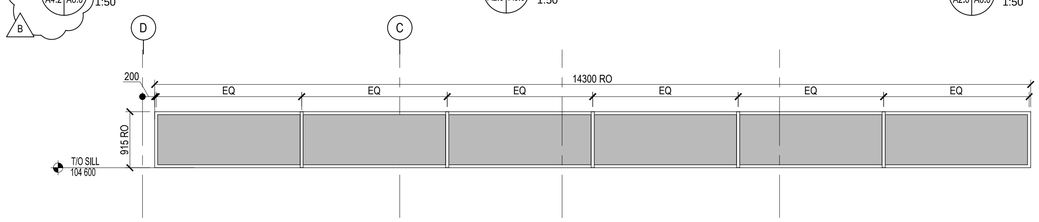
1:50



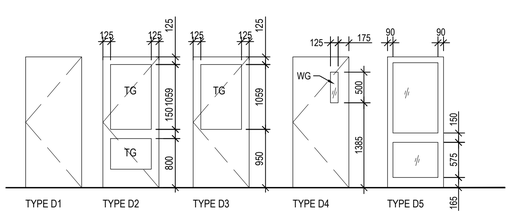
2 A2.0 A6.0 GLAZING SCHEDULE SOUTH
1:50

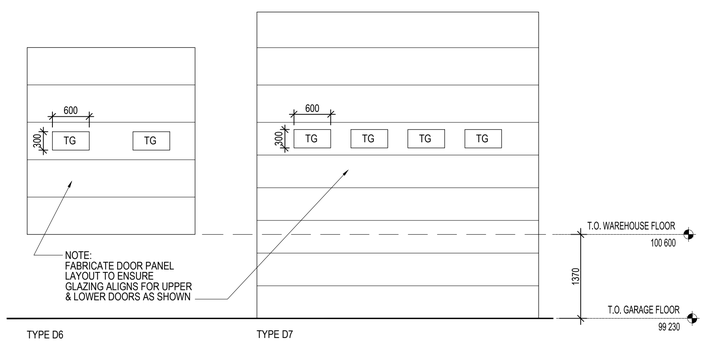


1 A2.0 A6.0 LOADING DOCK ENLARGED ELEVATION
1:50



3 A2.0 A6.0 GLAZING SCHEDULE EAST
1:50





DOOR TYPES:
SCALE: 1: 50

ROOM SCHEDULE:

ROOM		FLOOR		WALLS								CEILING		REMARKS
				NORTH		EAST		SOUTH		WEST				
ROOM	NAME	FIN	BASE	MAT	FIN	MAT	FIN	MAT	FIN	MAT	FIN	MAT	FIN	
MAIN FLOOR														
232	Existing Storage	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	
233	Existing Seized Goods	EXIST	EXIST	GB	P	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	
234	Existing Goods Storage	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	GB	P	EXIST	EXIST	EXIST	EXIST	
235	Existing Warehouse	EXIST	EXIST	GB	P	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	
236	Locker Room	SLF	EXIST	GB	P	GB	P	GB	P	EXIST	EXIST	ACT	-	
237	Interview	SLF	EXIST	GB	P	GB	P	GB	P	GB	P	ACT	-	
238	Driver Waiting	SLF	EXIST	EXIST	P	GB	P	GB	P	GB	P	ACT	-	
239	Office	SLF	EXIST	GB	P	GB	P	GB	P	GB	P	ACT	-	
240	Warehouse	CONC	CONC	GB	P	GB	P	GB	P	GB	P	EXP	P	
241	Vestibule	EXIST	EXIST	EXIST	P	GB	P	GB	P	EXIST	P	ACT	-	
242	Server Room	CONC	CONC	GB / PLY	P	GB / PLY	P	GB / PLY	P	GB / PLY	P	EXP	-	
406	PIL Booth	SLF	MTL	-	-	-	-	-	-	-	-	-	-	
407	PIL Booth	SLF	MTL	-	-	-	-	-	-	-	-	-	-	
408	PIL Booth	SLF	MTL	-	-	-	-	-	-	-	-	-	-	
409	PIL Booth	SLF	MTL	-	-	-	-	-	-	-	-	-	-	

ABBREVIATIONS

ACP	ACOUSTICAL WALL PANEL	EXP	EXPOSED STRUCTURE	SF	SAFETY FLOORING
ACT	ACOUSTICAL TILE	EXIST	EXISTING	SLF	SHEET LINOLEUM FLOORING
BR	BRICK	GB	GYPSUM WALL BOARD	ST	STAIN FINISH
CB	CONCRETE BLOCK	LMC	LINEAR METAL CEILING	SVF	SHEET VINYL FLOORING
CT	CERAMIC TILE	MTL	METAL	VCT	VINYL COMPOSITE TILE
CH	CONCRETE HARDENER	P	PAINT FINISH	VWC	VINYL WALL COVERING
CONC	CONCRETE	PCT	PORCLIAN CERAMIC TILE	WD	WOOD
CS	CONCRETE SEALER	PLY	PLYWOOD	WPL	WOOD PANELING
EP	EPOXY	RCB	RUBBER COVE BASE		
EPB	EPOXY BASE	SEF	SEAMLESS EPOXY FLOORING		

DOOR SCHEDULE:

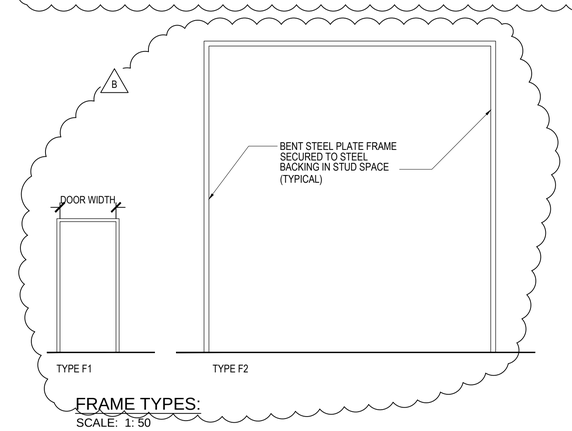
ROOM			DOOR						FRAME				HARDWARE						REMARKS
DOOR NO.	ROOM NO.	ROOM NAME	WIDTH	HEIGHT	THICK.	TYPE	MAT	FIN	TYPE	JAMB PROFILE TYPE	MAT	FIN	GROUP	CARD READER (ROOM SIDE)	ELECTRIC STRIKE	CONTACTOR	CLOSER	FIRE RATING	
MAIN FLOOR																			
100	TBD	Site confirm	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	21	●	●	●			NOTE 5
103B	TBD	Site confirm	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	22	●	●	●	●		NOTE 5
107	TBD	Site confirm	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	22	●	●	●	●		NOTE 5
111	TBD	Site confirm	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	23	●	●	●	●		NOTE 5
113	TBD	Site confirm	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	23	●	●	●	●		NOTE 5
119	TBD	Site confirm	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	23	●	●	●	●		NOTE 5
127	TBD	Site confirm	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	23	●	●	●	●		NOTE 5
141	TBD	Site confirm	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	22	●	●	●	●		NOTE 5
141A	TBD	Site confirm	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	23	●	●	●	●		NOTE 5
145	TBD	Site confirm	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	23	●	●	●	●		NOTE 5
200	TBD	Site confirm	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	21	●	●	●	●		NOTE 5
206	TBD	Site confirm	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	22	●	●	●	●		NOTE 5
211	TBD	Site confirm	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	21	●	●	●	●		NOTE 5
PIL	TBD	Site confirm	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	24	●	●	●	●		NOTE 5
227A	227	Comm Room	914	2134	45	D1	HM	P	F1	-	PS	P	8	●	●	●	●	1 HR	NOTE 2
231A	231	Existing Exam Area	1060	2134	45	D1	HM	P	F1	-	PS	P	11	●	●	●	●	1 HR	NOTE 2
231B	231	Existing Exam Area	1830	2134	45	D1	HM	P	F1	-	PS	P	10				●	1 HR	
231C	231	Existing Exam Area	CFM	CFM	-	D6	-	-	-	-	-	-	-						NOTE 1
231D	231	Existing Exam Area	CFM	CFM	-	D6	-	P	-	-	-	-	-						NOTE 1
232A	232	Existing Storage	CFM	CFM	45	D1	EXIST	P	F1	-	EXIST	P	7	●	●	●	●	45	NOTE 2, 5
233A	233	Existing Seized Goods	1830	2134	45	D1	EXIST	P	F1	-	EXIST	P	12	●	●	●	●		NOTE 2
234A	234	Existing Goods Storage	1830	2134	45	D1	EXIST	P	F1	-	EXIST	P	12	●	●	●	●		NOTE 2
235A	235	Existing Warehouse	1830	2134	45	D1	EXIST	P	F1	-	EXIST	P	12	●	●	●	●	45	NOTE 2
236A	236	Locker Room	914	2134	45	D1	HM	P	F1	-	PS	P	6				●		
237A	237	Interview	914	2134	45	D1	HM	P	F1	-	PS	P	2	●	●	●	●		NOTE 2 & 3
238A	238	Driver Waiting	914	2134	45	D1	HM	P	F1	-	PS	P	3	●	●	●	●		NOTE 2
238B	238	Driver Waiting	EXIST	EXIST			-												
239A	239	Office	914	2134	45	D3	HM	P	F1	-	PS	P	5				●		
239B	239	Office	914	2134	45	D3	HM	P	F1	-	PS	P	5				●		
240A	240	Warehouse	914	2134	45	D2	HMI	P	F1	-	PSI	P	1	●	●	●	●		NOTE 2
240B	240	Warehouse	2740	3050	-	D6	-	PREF	F2	-	SPL	P	-						OVHD Loading Dock
240C	240	Warehouse	2740	3050	-	D6	-	PREF	F2	-	SPL	P	-						OVHD Loading Dock
240D	240	Warehouse	2740	3050	-	D6	-	PREF	F2	-	SPL	P	-						OVHD Loading Dock
240E	240	Warehouse	4600	5000	-	D7	-	PREF	F2	-	SPL	P	-						OVHD Truck Bay
240F	240	Warehouse	914	2134	45	D1	HMI	P	F1	-	PSI	P	1	●	●	●	●		NOTE 2
240G	240	Warehouse	914	2134	45	D1	HMI	P	F1	-	PSI	P	1	●	●	●	●		NOTE 2
240H	240	Warehouse	914	2134	45	D1	HMI	P	F1	-	PSI	P	1	●	●	●	●		NOTE 2
240J	240	Warehouse	914	2134	45	D1	HM	P	F1	-	PS	P	4	●	●	●	●		NOTE 2
241A	241	Vestibule	914	2134	45	D4	HM	P	F1	-	PS	P	3	●	●	●	●		NOTE 2
242A	242	CCTV Room	914	2134	45	D1	HM	P	F1	-	PS	P	9				●	1.5	
243A	243	Electrical Room	914	2134	45	D1	HM	P	F1	-	PS	P	9				●	1.5	
406A	406	PIL Booth	914	2134	45	D2	ALUM	PREF.	F1	-	ALUM	PREF.	3	●	●	●	●		NOTE 2
406B	406	PIL Booth	914	2134	45	D2	HM	P	F1	-	-	-	-						SLIDER - BY OTHERS
407A	407	PIL Booth	914	2134	45	D2	ALUM	PREF.	F1	-	ALUM	PREF.	3	●	●	●	●		NOTE 2
407B	407	PIL Booth	914	2134	45	D2	HM	P	F1	-	-	-	-						SLIDER - BY OTHERS
408A	408	PIL Booth	914	2134	45	D2	ALUM	PREF.	F1	-	ALUM	PREF.	3	●	●	●	●		NOTE 2
408B	408	PIL Booth	914	2134	45	D2	HM	P	F1	-	-	-	-						SLIDER - BY OTHERS
409A	409	PIL Booth	914	2134	45	D2	ALUM	PREF.	F1	-	ALUM	PREF.	3	●	●	●	●		NOTE 2
409B	409	PIL Booth	914	2134	45	D2	HM	P	F1	-	-	-	-						SLIDER - BY OTHERS
501	400	Exist Tertiary Garage	EXIST	EXIST									14	●	●	●	●		NOTE 2
502	400	Exist Tertiary Garage	1830	2134	45	D3	HM	P	F1	-	PS	P	15				●	1 HR	
503	400	Exist Tertiary Garage	1830	2134	45	D3	HM	P	F1	-	PS	P	16	●	●	●	●	1 HR	
504	400	Exist Tertiary Garage	914	2134	45	D3	HM	P	F1	-	PS	P	17				●	1 HR	
505	501	Waiting Room	1830	2134	45	D2	HM	P	F1	-	PS	P	8				●		
506	503	Office Area	914	2134	45	D2	HM	P	F1	-	PS	P	19	●	●	●	●		NOTE 2
507	503	Office Area	914	2134	45	D3	HMI	P	F1	-	PSI	P	1	●	●	●	●		NOTE 2
508	504	Garage	914	2134	45	D4	HMI	P	F1	-	PSI	P	20	●	●	●	●		NOTE 2
509	504	Garage	1830	2134	45	D3	HM	P	F1	-	PS	P	16				●	1 HR	
510	503	Office Area	1830	2134	45	D3	HM	P	F1	-	PS	P	16				●	1 HR	
511	503	Office Area	914	2134	45	D3	HM	P	F1	-	PS	P	17	●	●	●	●	1 HR	NOTE 2
512	504	Garage	914	2134	45	D4	HMI	P	F1	-	PSI	P	20	●	●	●	●		NOTE 2
513	504	Garage	3600	4200	-	D7	-	PREF	F2	-	SPL	P	-						OVHD, NOTE 4
514	504	Garage	3600	4200	-	D7	-	PREF	F2	-	SPL	P	-						OVHD, NOTE 4
515	400	Exist Tertiary Garage	EXIST	EXIST	-	-	-	-	-	-	-	-	-						OVHD, NOTE 4
516	400	Exist Tertiary Garage	EXIST	EXIST	-	-	-	-	-	-	-	-	-						OVHD, NOTE 4

ABBREVIATIONS

ALUM	ALUMINUM	HM	HOLLOW METAL	PS	PRESSED STEEL
ADO	AUTOMATIC DOOR OPENER	HMI	HOLLOW METAL INSULATED	PSI	PRESSED STEEL INSULATED
ANOD	ANODIZED	HR	HOUR	SPL	BENT STEEL PLATE
CFM	CONFIRM EXISTING OPENING	MIN	MINUTE	STN	STAIN FINISH
DA	DOUBLE ACTING	N/A	NOT APPLICABLE	TBD	TO BE DETERMINED
DE	DOUBLE EGRESS	OVHD	OVERHEAD	TG	TEMPERED GLASS
DFG	DOOR FRAME GUARD	P	PAINT FINISH	WC	WOOD HOLLOW CORE
DP	DOOR PROTECTION	PIL	PRIMARY INSPECTION LANE	WD	WOOD
EP	EPOXY PAINT	PLAM	PLASTIC LAMINATE	WG	WIRED GLASS
EPF	ELECTRICAL POWER TO FRAME	PR	PAIR	WS	WOOD SOLID CORE
EXIST	EXISTING	PREF	PREFINISHED	WR	WOOD RAIL & STYLE

NOTES

1. EXISTING OVHD DOOR TO BE REPLACED WITH NEW OVHD DOOR TO SUIT NEW FINISHED FLOOR LEVEL AND EXISTING OPENING
2. CARD READER
3. DOOR VIEWER
4, INSTALL ADO ON ALL OVERHEAD DOORS (NEW AND EXIST). ADO'S TO BE ON SEPARATE FREQUENCIES
5 EXISTING DOOR - CONFIRM LOCATION WITH CBSA REPRESENTATIVE



FRAME TYPES:
SCALE: 1: 50

PWGSC – A1 – 841X594

0 10 20 30 40 50 60 70 80 90 100mm

Public Works and Government Services Canada / Travaux publics et Services gouvernementaux Canada

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VERNE REIMER ARCHITECTURE INCORPORATED

PROVINCE OF MANITOBA — Verne Reimer Architecture Incorporated 2016/11/02 No. 139 — APPROVED ARCHITECTURAL CORPORATION

PROVINCE OF MANITOBA — L. D. REIMER 2016/11/02 — REGISTERED ARCHITECT

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C		
B	ADDENDUM NO. 01 - GENERAL REVISIONS	2016/12/06
A	ISSUED FOR CONSTRUCTION	2016/11/02
Revision/ Révision	Description/Description	Date/Date

Client/client

CANADA BORDER SERVICES AGENCY

Project title/Titre du projet

EMERSON, MANITOBA
HIGHWAY 75, UNITED STATES BORDER

EXPANSION AND REDEVELOPMENT OF THE EMERSON PORT OF ENTRY

Approved by/Approuve par

Designed by/Concept par
MJG

Drawn by/Dessine par
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JAMES HUTCHINGS

PWGSC, Architectural and Engineering Resources Manager/ Ressources Architectural et de Directeur d'Ingénierie, TPSGC

Client/client

Drawing title/Titre du dessin

ROOM FINISH SCHEDULE, DOOR SCHEDULE AND DOOR & WINDOW ELEVATIONS

Project No./No. du projet	Sheet/Feuille	Revision no./ La Révision no.
R.068431.001	A6.0 OF 21	B

EPE 6.0 A 00

ELECTRICAL SYMBOL LEGEND

'A'	FLUORESCENT LUMINAIRE (REFER TO LUMINAIRE SCHEDULE)
'A'	FLUORESCENT LUMINAIRE CONNECTED TO EMERGENCY POWER OR NIGHT LIGHT CIRCUIT
'A'	FLUORESCENT STRIP LUMINAIRE (REFER TO LUMINAIRE SCHEDULE)
'A'	POT LIGHT (REFER TO LUMINAIRE SCHEDULE)
'A'	POT LIGHT CONNECTED TO EMERGENCY POWER OR NIGHT LIGHT CIRCUIT
'A'	WALL MOUNT LUMINAIRE (REFER TO LUMINAIRE SCHEDULE)
'A'	POLE MOUNTED LUMINAIRE (REFER TO LUMINAIRE SCHEDULE)
P	PHOTOCELL
$	SINGLE POLE SWITCH
$	2-GANG SWITCH
$	3-GANG SWITCH
$	4-GANG SWITCH
$3	3-WAY SWITCH
$4	4-WAY SWITCH
$PL	SWITCH C/W PILOT LIGHT
$K	KEY OPERATED SWITCH
$LV	LOW VOLTAGE SWITCH
$D	DIMMER SWITCH
$	SWITCH MOUNTED OCCUPANCY SENSOR
	OCCUPANCY SENSOR
	VACANCY SENSOR
E1	CEILING MOUNTED EXIT LIGHT - '2x' DENOTES DOUBLE SIDED (DIRECTION ARROWS AS INDICATED)
E2	WALL MOUNTED EXIT LIGHT - '2x' DENOTES DOUBLE SIDED (DIRECTION ARROWS AS INDICATED)
E3	EDGE MOUNTED EXIT LIGHT - '2x' DENOTES DOUBLE SIDED (DIRECTION ARROWS AS INDICATED)
EB	EMERGENCY BATTERY UNIT
EB	EMERGENCY BATTERY UNIT C/W TWO INTEGRAL LIGHTS
	DOUBLE REMOTE EMERGENCY LIGHTING HEAD - CEILING MOUNTED
	DOUBLE REMOTE EMERGENCY LIGHTING HEAD - WALL MOUNTED
	SPECIAL RECEPTACLE
	DUPLEX RECEPTACLE
	DUPLEX RECEPTACLE - MOUNTED ABOVE COUNTER
	DUPLEX RECEPTACLE - FLOOR MOUNTED
	DUPLEX RECEPTACLE - CEILING MOUNTED
WP	DUPLEX RECEPTACLE - WEATHERPROOF
	ISOLATED GROUND DUPLEX RECEPTACLE
	ISOLATED GROUND DUPLEX RECEPTACLE - MOUNTED ABOVE COUNTER
	ISOLATED GROUND DUPLEX T-SLOT RECEPTACLE
	GROUND FAULT CIRCUIT INTERUPT DUPLEX RECEPTACLE

	GROUND FAULT CIRCUIT INTERUPT DUPLEX RECEPTACLE - MOUNTED ABOVE COUNTER
	GROUND FAULT CIRCUIT INTERUPT T-SLOT DUPLEX RECEPTACLE - MOUNTED ABOVE COUNTER
	DUPLEX T-SLOT RECEPTACLE
	SPLIT FED DUPLEX RECEPTACLE
	SPLIT FED DUPLEX RECEPTACLE - MOUNTED ABOVE COUNTER
	DIRECT CONNECTION
	DIRECT CONNECTION C/W DISCONNECT SWITCH
J	JUNCTION BOX
	RECESSED MOUNTED ELECTRICAL PANEL
	SURFACE MOUNTED ELECTRICAL PANEL
T	TRANSFORMER
	MOTOR (REFER TO MOTOR SCHEDULE)
	MOTOR CONNECTION C/W DISCONNECT SWITCH
	DISCONNECT SWITCH
M	MANUAL MOTOR STARTER (REFER TO MOTOR SCHEDULE)
	MAGNETIC MOTOR STARTER (REFER TO MOTOR SCHEDULE)
S	SPEED CONTROLLER
	ELECTRIC HEATER
T	THERMOSTAT
F	FIRE ALARM VISUAL SIGN
F	FIRE ALARM BELL
F	FIRE ALARM PULL STATION
F	FIRE ALARM HORN SPEAKER C/W STROBE LIGHT
H	HEAT DETECTOR
S	SYSTEM SMOKE DETECTOR
A	SMOKE ALARM
SD	DUCT SMOKE DETECTOR C/W STROBE LIGHT
	FIRE ALARM CONTROL PANEL
SV	SPRINKLER SOLENOID VALVE
TS	TAMPER SWITCH
PS	PRESSURE SWITCH
FS	FLOW SWITCH
P	PAY TELEPHONE OUTLET - 1x CAT 3 CABLE
F	FAX OUTLET - 1x CAT 3 CABLE
POS	POINT OF SALE OUTLET - 1x CAT 3 CABLE
	TELEPHONE OUTLET - 1x CAT 3 CABLE
	TELEPHONE OUTLET - MOUNTED ABOVE COUNTER
	TELEPHONE OUTLET - FLOOR MOUNTED

	TELEPHONE OUTLET - CEILING MOUNTED
	DATA OUTLET - 1x CAT 6 CABLE
	DATA OUTLET - MOUNTED ABOVE COUNTER
	DATA OUTLET - FLOOR MOUNTED
	DATA OUTLET - CEILING MOUNTED
S1	SECURE COMMUNICATION OUTLET - 1x CAT 6 CABLE
S2	SECURE COMMUNICATION OUTLET - 2x CAT 6 CABLES
S3	SECURE COMMUNICATION OUTLET - 3x CAT 6 CABLES
	COMBINATION VOICE/DATA OUTLET - 2x CAT 6 CABLES
	COMBINATION VOICE/DATA OUTLET - MOUNTED ABOVE COUNTER
	COMBINATION VOICE/DATA OUTLET - FLOOR MOUNTED
	COMBINATION VOICE/DATA OUTLET - CEILING MOUNTED
	INTERCOM OUTLET
	INTERCOM OUTLET - MOUNTED ABOVE COUNTER
	INTERCOM OUTLET - FLOOR MOUNTED
TVM	CCTV MONITOR
CCTV	CCTV CAMERA
	DURESS BUZZER/STROBE
	KLAXON HORN SPEAKER
	DURESS PUSHBUTTON
C	DOOR CONTACT
	ELECTRIC DOOR STRIKE
	MAGNETIC DOOR LOCK
A	ANNUNCIATOR
H	EMERGENCY PULL STATION
	PUSHBUTTON DOOR OPERATOR
M	MOTION SENSOR
K	KEYPAD
	CARD READER
E	EGRESS MOTION DETECTOR
DH	DOOR HOLD OPEN
R	REQUEST TO EXIT
DM	DURESS MONITOR
B	120V BUZZER
DC	120V DOOR CONTACT
	CONDUIT/CABLE RUN
1 (TYP.)	DRAWING NOTE

ABBREVIATIONS

A	AMPERES
AC	MOUNTED ABOVE CEILING
AFCI	ARC FAULT CIRCUIT INTERRUPTER
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
BFG	BELOW FINISHED FLOOR
BB	BASEBOARD HEATER
BRK	BREAKER
BU	BATTERY UNIT
C	MOUNTED ABOVE COUNTER
CDP	CENTRAL DISTRIBUTION PANEL
CF	CEILING PLAN
CLG	CEILING MOUNTED
CM	COMBINATION MAGNETIC
CM FVNR	COMBINATION MAGNETIC, FULL VOLTAGE NON-REVERSABLE
CM RVNR	COMBINATION MAGNETIC, REDUCED VOLTAGE NON-REVERSABLE
CNDT	CONDUIT
CT	COMPUTER TERMINAL
CTP	COMPUTER TERMINAL PRINTER
D	DELETE
DB	DIRECT BURIED
DF	DRINKING FOUNTAIN
DHWH	DOMESTIC HOT WATER HEATER
DL	DOCK LEVELLER
DN	DOWN
DP	DISTRIBUTION PANEL
E	EXISTING
EC	EMPTY CONDUIT
EF	EXHAUST FAN
EH	ELECTRIC HEATER
F	FLUSH FLOOR MOUNTED
FA	FIRE ALARM
FC	FAN COIL (WHEN USED WITH MOTOR SYMBOL)
FC	FOOT CANDLE
FF	FORCE FLOW
FM	FLOOR MOUNTED
FU	FUSE
FR	FRIDGE
FX	FAX

GFI	GROUND FAULT CIRCUIT INTERRUPTER
HP	HORSE POWER
IG	ISOLATED GROUND
INT	INTERLOCK
KVA	KILO VOLT-AMPERES
KW	KILOWATTS
LTG	LIGHTING
LV	THERMOSTAT
LVR	LOW VOLTAGE RELAY
MC	MICROWAVE
MD	MAIN DISTRIBUTION
MTD	MOUNTED
MV	EXISTING TO BE MOVED
NC	NORMALLY CLOSED
NIC	NOT IN CONTRACT
NL	NIGHT LIGHT
NO	NORMALLY OPEN
NTS	NOT TO SCALE
OH	OVERHEAD DOOR
P	PUMP (WHEN USED WITH MOTOR SYMBOL)
PA	PUBLIC ADDRESS
PNL	PP POWER PANEL
PR	PRINTER
PTZ	PAN TILT ZOOM
R	RELOCATE(D)
RP	RECEPTACLE PANEL
SC	SEPARATE CIRCUIT
SS	SELECTOR SWITCH
SWBRD	SWITCHBOARD
TEL	TELEPHONE
TYP	TYPICAL
V	VOLT
VM	VENDING MACHINE
W	WALL MOUNTED
WC	WATER COOLER
WG	WIREGUARD
WP	WEATHERPROOF
WTP	WATERPROOF
XP	XPLOSION PROOF

ELECTRICAL DRAWING LIST

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Travaux publics et Services gouvernementaux Canada

REAL PROPERTY SERVICES
Western Region
SERVICES IMMOBILIERS
Région de l'ouest

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Client/client

PUBLIC WORKS AND GOVERNMENT SERVICES AGENCY

Project title/Titre du projet

EMERSON, MANITOBA
HIGHWAY 75, UNITED STATES BORDER

EXPANSION AND REDEVELOPMENT OF THE EMERSON PORT OF ENTRY

Approved by/Approuve par
KEI

Designed by/Concept par
GD

Drawn by/Dessine par
GA

PWGSC Project Manager/Administrateur de Projets TPSGC
JAMES HUTCHINGS

PWGSC, Architectural and Engineering Resources Manager/ Ressources Architectural et de Directeur d'ingénierie, TPSGC

Client/client

Drawing title/Titre du dessin

ELECTRICAL SYMBOL LEGEND

Project No./No. du projet	Sheet/ Feuille	Revision no./ La Révision no.
R.068431.001	E1.0R OF 26	0

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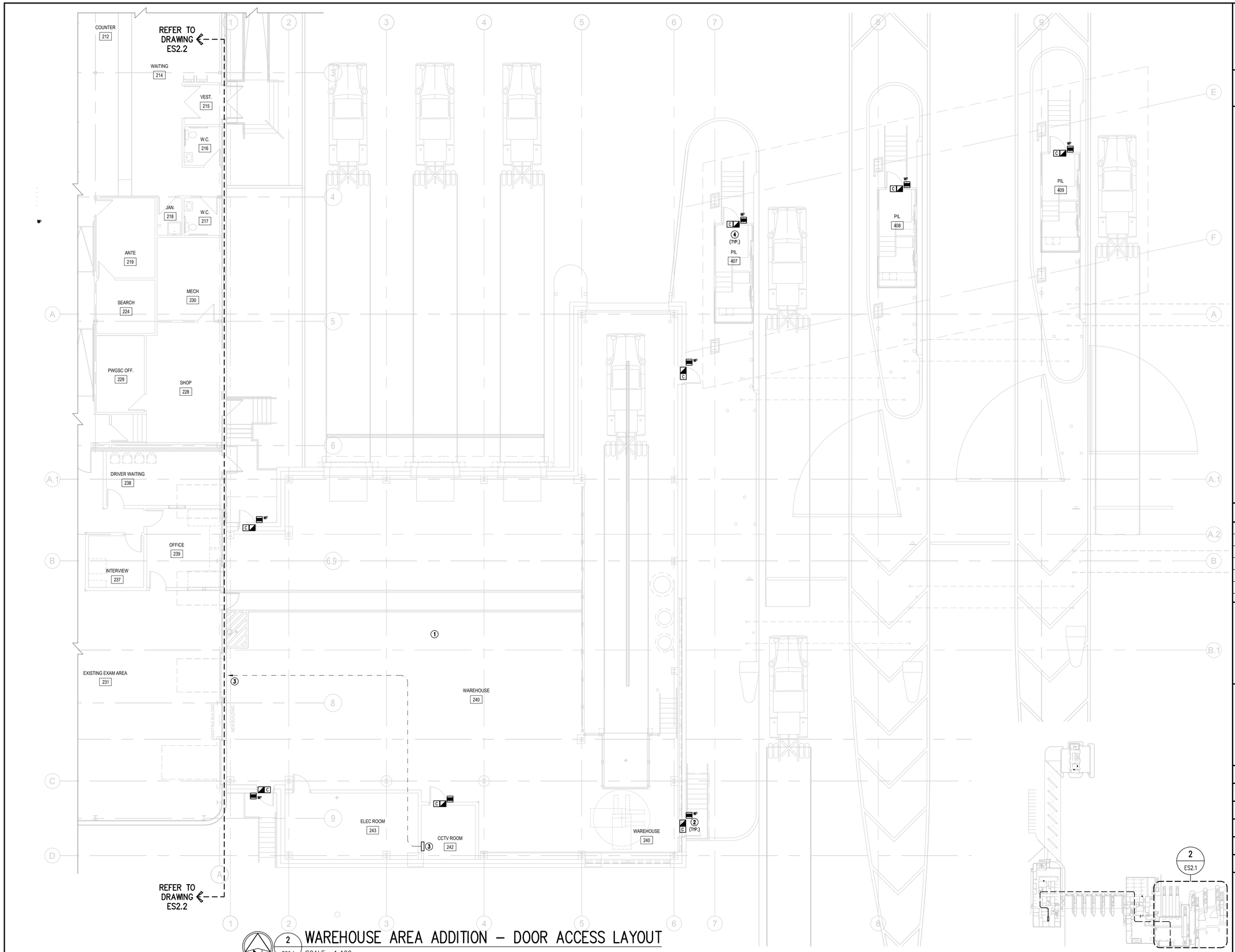

2 ES2.1 WAREHOUSE AREA ADDITION – DOOR ACCESS LAYOUT
SCALE: 1:100

1 ES2.1 KEY PLAN
SCALE: N.T.S.

PWGSC – A1 – 841X594

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E-Mail: mcw_wpg@mcw.com

10605

NOTES:

1. PROVIDE INTEGRATED DOOR ACCESS CONTROL AND DURESS SYSTEM.
2. HOME RUN CONDUIT SHALL BE MINIMUM 21mm EMT C/W WEATHERPROOF COUPLINGS & CONNECTORS. JUNCTION BOXES SHALL BE 102mm x 102mm DEEP CAST ALUMINUM C/W WEATHERPROOF COVER AND TAMPERPROOF SCREWS. GROUPING OF HOME RUN FEEDERS IS ACCEPTABLE. CONTRACTOR SHALL RESIZE CONDUIT AS REQUIRED.
3. CONTROL PANEL SHALL COMMUNICATE WITH CENTRAL CONTROL PANEL IN COMPUTER 115 TRAVELLERS BLDG. C/W FIBRE OPTIC CABLE IN CONDUIT AS SPECIFIED BY MANUFACTURER.
4. WIRE & CONNECT ELECTRIC STRIKES AS SUPPLIED BY OTHERS.

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PUBLIC WORKS AND GOVERNMENT SERVICES AGENCY

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EMERSON, MANITOBA
HIGHWAY 75, UNITED STATES BORDER

EXPANSION AND REDEVELOPMENT OF THE EMERSON PORT OF ENTRY

Approved by/Approuve par
KEI

Designed by/Concept par
GD

Drawn by/Dessine par
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PWGSC Project Manager/Administrateur de Projets TPSGC
JAMES HUTCHINGS

PWGSC, Architectural and Engineering Resources Manager/ Ressources Architectural et de Directeur d'ingénierie, TPSGC

Client/client

Drawing title/Titre du dessin
WAREHOUSE AREA ADDITION - DOOR ACCESS CONTROL LAYOUT

Project No./No. du projet	Sheet/ Feuille	Revision no./ La Révision no.
R.068431.001	ES2.1 OF .	0

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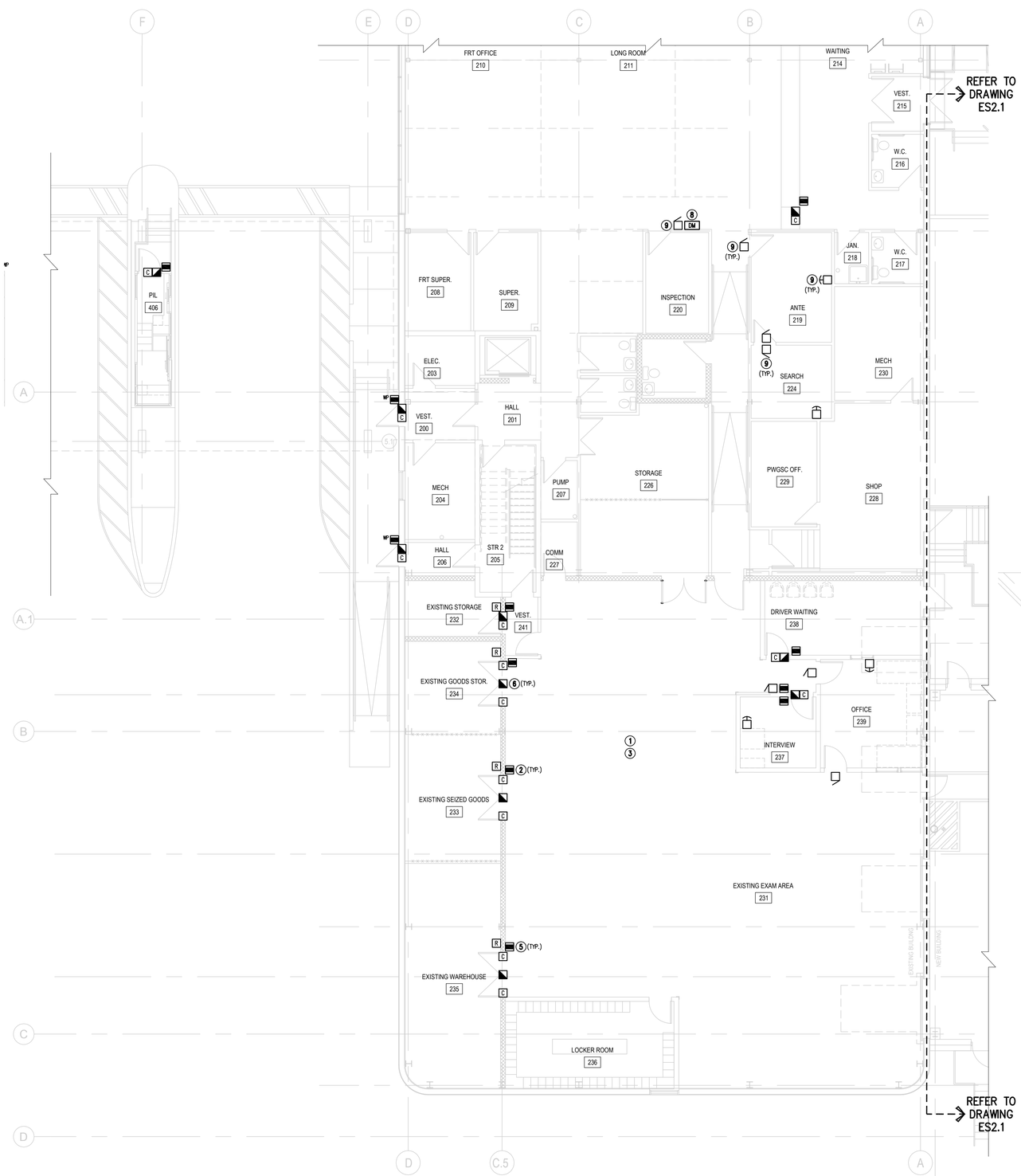
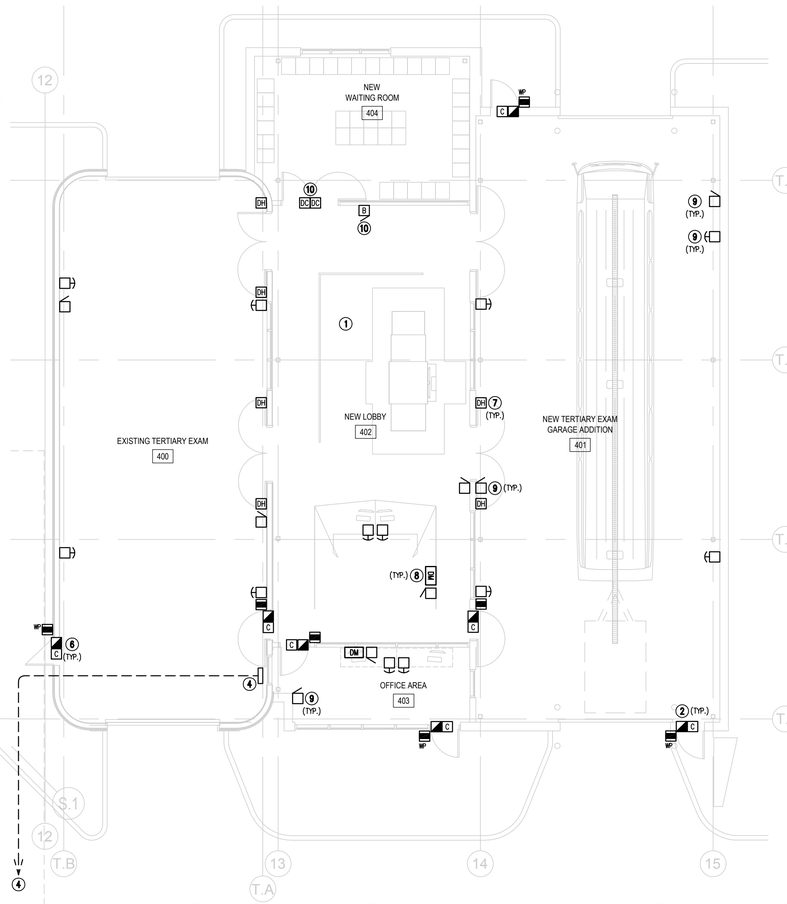


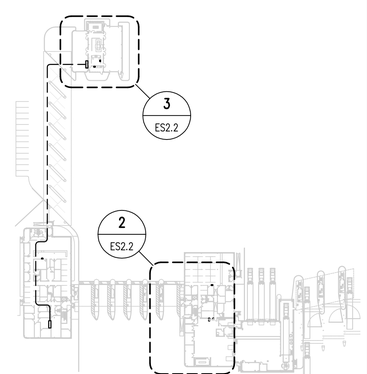
2 ES2.2 EXISTING WAREHOUSE – DOOR ACCESS LAYOUT

SCALE: 1:100



3 ES2.2 TERTIARY GARAGE BUILDING – DOOR ACCESS LAYOUT

SCALE: 1:100



1 ES2.2 KEY PLAN

SCALE: N.T.S.

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10605

NOTES:

1. PROVIDE INTEGRATED DOOR ACCESS CONTROL AND DURESS SYSTEM.
2. HOME RUN CONDUIT SHALL BE MINIMUM 21mm EMT C/W WEATHERPROOF COUPLINGS & CONNECTORS. JUNCTION BOXES SHALL BE 102mm x 102mm DEEP CAST ALUMINUM C/W WEATHERPROOF COVER AND TAMPERPROOF SCREWS. GROUPING OF HOME RUN FEEDERS IS ACCEPTABLE. CONTRACTOR SHALL RESIZE CONDUIT AS REQUIRED.
3. WIRE & CONNECT DEVICE BACK TO CONTROL PANEL IN CCTV ROOM 242. REFER TO DRAWING ES2.1
4. CONTROL PANEL SHALL COMMUNICATE WITH CENTRAL CONTROL PANEL IN COMPUTER 115 TRAVELLERS BLDG. C/W FIBRE OPTIC CABLE IN CONDUIT AS SPECIFIED BY MANUFACTURER.
5. EXISTING DOOR LOCATIONS SHALL BE SURFACE RACEWAY IN LIEU OF CONDUIT.
6. WIRE & CONNECT ELECTRIC STRIKES AS SUPPLIED BY OTHERS.
7. PROVIDE DOOR HOLD OPEN DEVICES. CONNECT TO EXISTING FIRE SYSTEM SO UPON ALARM DOOR HOLD OPEN RELEASES.
8. LED DURESS DISPLAY SHALL INDICATE LOCATION OF INCOMING ALARM C/W ADJACENT HORN/STROBE GOING INTO ALARM ONLY NOT AREA. COORDINATE WORDING WITH OWNERS REPRESENTATIVE.
9. PUSHBUTTON SHALL INITIATE RELATED BUZZER/STROBE AND DURESS MONITOR.
10. PROVIDE BUZZER SYSTEM TRIGGERED BY DOOR CONTACTS C/W FLUSH MOUNTED 24 VOLT BUZZER WITH STAINLESS STEEL COVERPLATE AS INDICATED. BUZZER TO PROVIDE A 65 dB SOUND LEVEL AT 10'–0" (3M) DISTANCE AND 120/24V AC TRANSFORMER IN COMMON BACKBOX WITH THE FIRST BUZZER

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PUBLIC WORKS AND GOVERNMENT SERVICES AGENCY

Project title/Titre du projet

EMERSON, MANITOBA
HIGHWAY 75, UNITED STATES BORDER

EXPANSION AND REDEVELOPMENT OF THE EMERSON PORT OF ENTRY

Approved by/Approuvé par: **KEI**

Designed by/Concept par: **GD**

Drawn by/Dessiné par: **GA**

PWGSC Project Manager/Administrateur de Projets TPSGC: **JAMES HUTCHINGS**

PWGSC, Architectural and Engineering Resources Manager/ Ressources Architectural et de Directeur d'ingénierie, TPSGC

Client/client

Drawing title/Titre du dessin

EXISTING WAREHOUSE & NEW TERTIARY GARAGE ADDITION - DOOR ACCESS CONTROL LAYOUT

Project No./No. du projet	Sheet/ Feuille	Revision no./ La Révision no.
R.068431.001	ES2.2 OF .	0

PWGSC – A1 – 841X594

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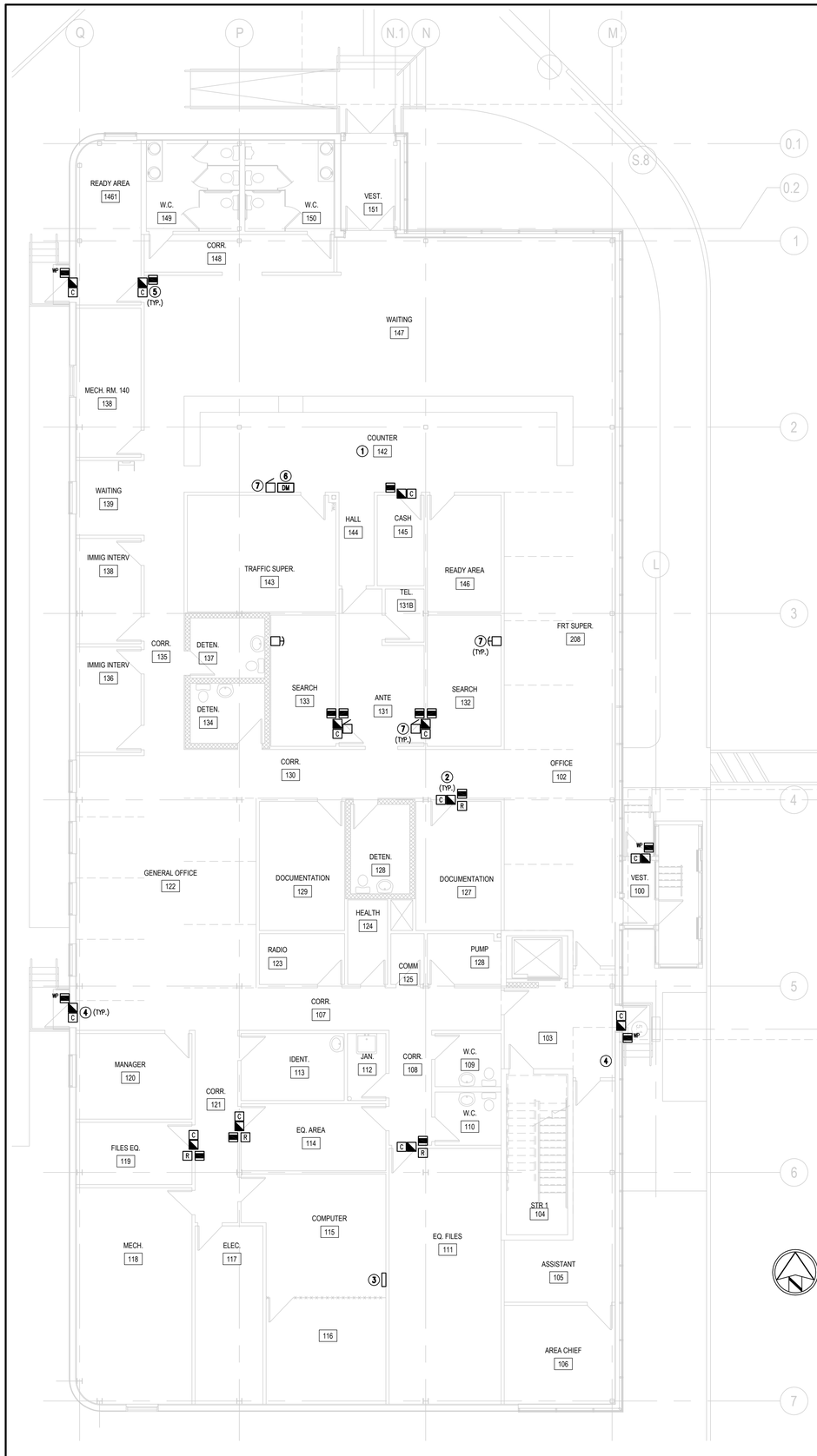
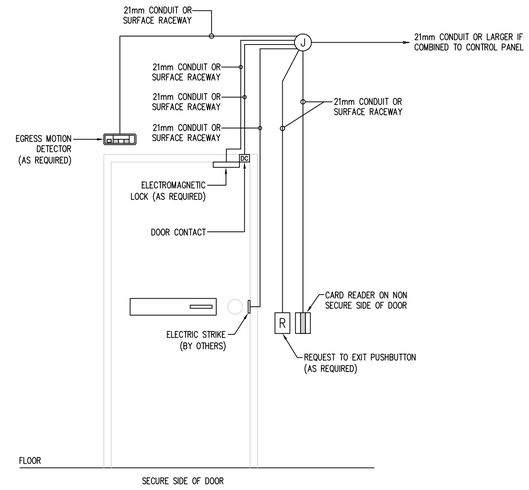


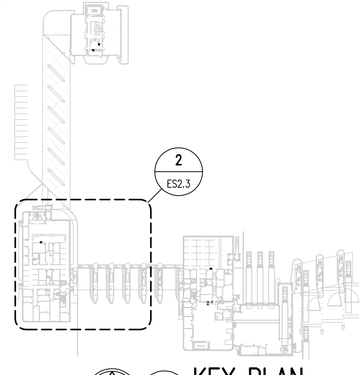
2 ES2.3 EXISTING TRAVELLERS BUILDING – DOOR ACCESS LAYOUT

SCALE: 1:100



3 ES2.3 TYPICAL DOOR ACCESS CONTROL ROUGH–IN

SCALE: N.T.S.



1 ES2.3 KEY PLAN

SCALE: N.T.S.

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E-Mail: mcw_wpg@mcw.com
10605

NOTES:

1. PROVIDE INTEGRATED DOOR ACCESS CONTROL AND DURESS SYSTEM.
2. HOME RUN CONDUIT SHALL BE MINIMUM 21mm EMT C/W WEATHERPROOF COUPLINGS & CONNECTORS. JUNCTION BOXES SHALL BE 102mm x 102mm DEEP CAST ALUMINUM C/W WEATHERPROOF COVER AND TAMPERPROOF SCREWS. GROUPING OF HOME RUN FEEDERS IS ACCEPTABLE. CONTRACTOR SHALL RESIZE CONDUIT AS REQUIRED.
3. CENTRAL CONTROL PANEL. COORDINATE LOCATION ON SITE WITH OWNER REPRESENTATIVE.
4. WIRE & CONNECT ELECTRIC STRIKES AS SUPPLIED BY OTHERS.
5. EXISTING DOOR LOCATIONS SHALL BE IN SURFACE RACEWAY IN LIEU OF CONDUIT.
6. LED DURESS DISPLAY SHALL INDICATE LOCATION OF INCOMING ALARM C/W ADJACENT HORN/STROBE GOING INTO ALARM ONLY NOT AREA. COORDINATE WORDING WITH OWNERS REPRESENTATIVE.
7. PUSHBUTTON SHALL INITIATE RELATED BUZZER/STROBE AND DURESS MONITOR.

DO NOT SCALE DRAWINGS

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PUBLIC WORKS AND GOVERNMENT SERVICES AGENCY

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HIGHWAY 75, UNITED STATES BORDER

EXPANSION AND REDEVELOPMENT OF THE EMERSON PORT OF ENTRY

Approved by/Approuve par: **KEI**

Designed by/Concept par: **GD**

Drawn by/Dessine par: **GA**

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Client/client

Drawing title/Titre du dessin

EXISTING TRAVELLERS BUILDING - DOOR ACCESS CONTROL LAYOUT

Project No./No. du projet	Sheet/Feuille	Revision no./ La Révision no.
R.068431.001	ES2.3 OF .	0

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