1. GENERAL

1.01 SECTION INCLUDES

.1 Fire alarm annunciator panels.

.1 Main annunicator panel and remote LCD annunicator panels.

.2 Firefighter entrances.

.3 Passive graphics.

1.02 RELATED REQUIREMENTS

.1 Section 21 12 00 – Fire-Suppression Standpipes.

.2 Section 21 13 00 – Fire-Suppression Sprinkler Systems.

.3 Section 26 05 00 – Common Work Results for Electrical.

.4 Section 28 46 13 – Fire-Alarm Systems.

1.03 REFERENCE STANDARDS

.1 The publications listed below form a part of this specification. The publications are referenced in text by the basic designation only. Comply with the latest edition/amendment referenced code, standard, or publication.

.1 Ontario Regulations

.1 Ontario Building Code.

.2 Ontario Fire Code.

.2 Underwriters Laboratories of Canada

.1 CAN/ULC-S524 – Installation of Fire Alarm Systems.

.2 CAN/ULC-S525 – Audible Signal Appliances for Fire Alarm Systems.

.3 CAN/ULC-S526 – Visual Signal Appliances for Fire Alarm Systems.

.4 CAN/ULC-S527 – Control Units for Fire Alarm Systems.

.5 CAN/ULC-S528 – Manual Pull Stations for Fire Alarm Systems.

.6 CAN/ULC-S529 – Smoke Detectors for Fire Alarm Systems.

.7 CAN/ULC-S530 – Heat Detectors for Fire Alarm Systems.

.8 CAN/ULC-S533 – Egress Door Securing and Releasing Devices.

.9 CAN/ULC-S536 – Inspection and Testing of Fire Alarm Systems.

.10 CAN/ULC-S537 – Verification of Fire Alarm Systems.

.11 CAN/ULC-S548 – Alarm Initiating and Supervisory Devices for Water Type Extinguishing Systems.

.12 ULC/ORD 693 – Central Station Fire Protective Signaling.

.3 All requirements of the Authority Having Jurisdiction (AHJ).

.2 In the case of any discrepancy between these specifications, the project drawings, and any applicable local codes, comply with the most stringent requirement.

1.04 COORDINATION

.1 Coordinate between all trades for inclusion of information to be included on passive graphic.

1.05 ACTION SUBMITTALS

.1 In accordance with Section 01 33 00, and Section 28 46 13.

.2 Shop Drawings:

.1 Annunciator:

.1 Provide annunciator layout and system wiring diagram showing each device and wiring connection required.

.2 Show annunciator layout and main control panel module layout, configurations, and terminations.

.2 Passive Graphic:

.1 Prepare a complete zoning schedule and artwork layout for each passive graphic to be included with submittal package.

.2 Submit colour PDF (electronic submittal) using the identical colours as will be used in a temporary graphic for use during occupancy review by municipal fire inspector.

.3 After occupancy review, incorporate comments from municipal fire inspector, and submit colour PDF (electronic submittal) using the identical colours as will be used in the final production graphic.

1.06 DELIVERY, STORAGE, AND HANDLING

.1 In accordance with Section 01 61 00.

1.07 WARRANTY

.1 All work performed and all material and equipment furnished to be warranted as free from defects and for a period of at least one year from the date of acceptance.

2. PRODUCTS

2.01 MANUFACTURERS

.1 In accordance with Section 28 46 13.

2.02 FIRE ALARM ANNUNCIATOR PANEL (FAAP)

.1 Annunciator panels will have an alphanumeric display for each detection device, and will identify the detection device initiating an alarm.

.2 Annunciator panel located at the firefighter's entrance will have separate zone indication for each zone.

.3 Install panel in a [surface mounted] enclosure with brushed aluminum finish. Coordinate exact location and dimensions with Architectural drawings.

.4 Identify emergency exit door numbers/identifiers, and on the control panel/annunciator panel LED labels in order to identify the manual pull stations adjacent to said doors when being activated when cross referenced with the passive graphic.

.1 Coordinate with architectural plans indicating door IDs.

2.03 PASSIVE GRAPHIC DISPLAYS

.1 Provide passive colour graphic display to be mounted adjacent to the fire alarm control panel and each annunciator panel as indicated on the drawings.

.1 Provides building and zone layout while defining zone boundaries.

.2 Visual reference of user's location within the building.

.2 Multicoloured Passive Graphics:

.1 Plastic laminate type, on white background, framed and under plexiglass, 600 mm by 600 mm (24 inch by 24 inch) minimum size.

.2 Different brilliant colours used to distinguish the various fire alarm zones and building outline from one another, silk-screened with durable acrylic-based inks on a white matte 3 mm (1/8 inch) thick acrylic sheet. Use UV protected inks to protect against fading or colour changes for life.

.3 Provide a minimum of six different colours.

.4 Uppercase text, minimum height of 4 mm (0.15 in).

.5 Graphical display will indicate the following at minimum. Coordinate between all trades for inclusion of this information.

.1 "YOU ARE HERE" indicated in red (unique to each passive graphic location), and properly oriented to the viewer when standing in front of the graphic.

.2 Zone colours to clearly indicate the extents of all fire alarm zones.

.1 Define all egress corridors in a distinctive (dot) black hatch pattern.

.2 All enclosed stairs and elevators to be coloured yellow.

.3 Indicate the extents of zones served by air handling units with shut downs.

.4 Indicate the location of the fire alarm control panel, all annunciators, and network panels/nodes.

.5 Indicate the location of the ULC monitoring transmitter.

.6 Indicate the location and designation of sprinkler and standpipe monitoring devices.

.7 Indicate the location of Sprinkler Room(s), and all supervised fire protection devices. Coordinate with the fire protection trade(s) for exact locations of devices.

.8 Emergency exit doors with door numbers shown. These will be needed to cross reference with the annunciator panel labels for pull stations that are activated next to these doors.

.9 Label all Stair Letters. Designations to match Architectural drawings.

.10 Main gas shut off location.

.3 Frame

.1 [Stainless steel] [Extruded aluminum] frame with concealed mounting hardware and concealed screws

.2 Brushed silver finish.

.3 Concealed security mounting hardware.

.4 Frame to permit future replacement of graphic if the building or zone layouts change in future.

.4 Allow for other requirements per the Authorities Having Jurisdiction, including the Municipal Building Inspector, and Municipal Fire Inspector.

2.04 [FIRE ALARM REMOTE LCD ANNUNCIATORS (FARA)]

.1 Description: Remote Control and Annunciation provided using back-lit, alphanumeric display. Information is presented including:

.1 Point Status (alarm, trouble, etc.);

.2 Alarm Type (smoke detector, manual station, etc.);

.3 Number of System Alarms, Supervisory Conditions, and Trouble Conditions.

.2 Features:

.1 Display:

.1 LCD Display with two lines of 40 characters each.

.2 LED status indicators.

.2 Controls:

.1 Switches for system acknowledge, alarm silence, and system reset.

.2 Four programmable control switches.

.3 Lamp/LCD test

.3 Finish: brushed stainless steel trim.

3. EXECUTION

3.01 INSTALLATION

.1 Installation in accordance with Section 28 46 13.

.2 Install annunciators and passive graphics with the top no greater than 1800 mm (70 in) above finished floor.

.3 Install main annunciators with temporary passive graphics in the following locations:

.1 Ground floor main entrance (firefighter's entrance).

.2 Main Electrical Room.

.3 Other locations as noted on drawings.

.4 Install temporary passive graphic at fire alarm control panel.

3.02 SITE TESTS AND INSPECTIONS

.1 Review passive graphics and annunciators with municipal fire inspector on site during occupancy review. Incorporate any comments and resubmit to the Consultant for review.

.2 Include reprogramming of zone nomenclature by system manufacturer to suit municipal review comments.

.3 After review by the Consultant, fabricate final passive graphics, and replace temporary graphics on site.

End of Section