City of Saint John

A D D E N D U M

PROJECT TITLE: SAINT JOHN FLEET RELOCATION	ADD. NO: 3
TENDER NO: 2022-081203T	DATE: November 29th, 2022
PAGE 1 of 2 (Including Confirmation Sheet)	

Make the following modifications to the above project. Include in the amount of the Tender, any additions to or deductions from the cost of the work by reason of these instructions.

Sign and attach this Addendum to the Tender documents and submit with your Tender. Failure to do so may result in the rejection of your Tender.

Please find attached addendum #3:

SIGN AND RETURN THIS ADDENDUM WITH YOUR PROPOSAL

BY: Monic MacVicar

Monic MacVicar, CCLP, CPPB
Procurement Specialist, Supply Chain Management

Contractor's Signature

City of Saint John

A D D E N D U M

PROJECT TITLE: SAINT JOHN FLEET RELOCATION	ADD. NO: 3
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PAGE 2 of 2 (Including Confirmation Sheet)	

CONFIRMATION - RECEIPT OF ADDENDUM

Upon receipt of this document, fax this page to (506) 658-4742 to confirm receipt of this addendum.

CONTRACTOR'S NAME: _____

ADDRESS: _____

_____

PHONE: _____ FAX: _____

RECEIVER NAME (PRINT) _____

RECEIVER SIGNATURE: _____

.1 ADDENDA

.1 The following changes to the plans and specifications are to be incorporated in the tender documents:

DRAWINGS

Item 1 Drawing A-100: Overall Floor Plan.

CLARIFICATION: Floor Type F indicates that the "existing steel structure and supporting assembly to be fireproofed". Where steel columns are exposed below suspended ceilings, apply intumescent paint.

Item 2 Drawing A-100: Overall Floor Plan.

Wall Type P2 change re-bar spacing to 400 mm O/C.

Item 3 A-401: Building Sections & Wall Section Details – Roof curb detail:

Add Roof Curb detail SK-3 at mechanical penetrations sized as required.

Add Top of Wall detail SK-4 Typical Detail at Block Wall/Deck.

Add Top of Wall detail SK-5 Typical Detail at Block Wall/Steel Beam.

Add Top of Wall detail SK-6 Typical Detail at Block Wall/OWSJ.

Item 4 A-710: Millwork Sections & Mounting Heights

Note not that all illustrated mounting heights might be utilized. Washroom accessories are per room elevations.

Item 5 M-108: Ventilation – Partial Plan – Admin Area/Mezzanine:

The building utilizes Delta HVAC Controls System which was installed by Controls & Equipment. Controls Shop Drawings of existing facility available upon request from the City . The controls scope of work for this project, including modifications to the controls of existing equipment, is defined on Drawing M-103 Part 10 Controls

Item 6 M-109: Ventilation – Partial Plan – Service Area:

Concrete housekeeping pad under dust collector to be 2400 X 2400 X 125 with 10M at 350 c/c reinforcing each way (inbedded at 50 mm) with edging and broom finish. 50 mm think insulation under pad throughout are bypass perimeter edges by 600 mm. All to be installed over 400 mm of compacted granular base of free draining non-frost susceptible material.

Item 7 E-001: Electrical Legend. General Notes. Mounting Heights and Abbreviations:

E-200: Electrical Lighting and Fire Alarm. Systems Floor Plans – Level 1.

E-201: Electrical Lighting and Fire Alarm. Systems Floor Plan – Mezzanine.

On drawing E001 and elsewhere, the symbol (OS) is to be interpreted as an occupancy sensor or a vacancy sensor according to the context.

On drawings E200 and E201, the symbol (OS) in an office or other space that includes a wall-mounted light switch $ is to be interpreted as a vacancy sensor. In offices or spaces without a wall-mounted light switch it is to be interpreted as an occupancy sensor.

Additional vacancy sensors shall be installed in the following rooms and in quantities to ensure adequate coverage:

- Room 1002, Waiting.
- Room 1003, Shared Office.
- Room 1105, Driver's Lounge.
- Room 1106, Training.
- Room 1109, Dispatch.
- Room 2108, Storage.

Additional occupancy sensors shall be installed in the following rooms and in quantities to ensure adequate coverage:

Room 1103, Kitchenette. To control the two Type 'K' fixtures above the countertop.

An additional light switch shall be installed beside the existing switch in Room 1101, Lobby. This switch shall control the four type 'K' fixtures in the Lobby.

Item 8 S-001: Notes Plan and Sections and S-002 Plans and Sections:

Add drawing S-001 and S-002 to the tender package.

SPECIFICATION

Item 9 Section 07 81 00 Applied Fireproofing, paragraph 2.2.1.4.:

Acceptable equivalent: Fire Finish 120+ CFP-SP WB by Hilti.

Item 10 Section 08 88 00 Glazing, paragraph 2.5:

Add article .5 as follows: Plastic Film: thickness 2.76 - 5.51 mil, Clear, Adhesive Type, Pressure-sensitive. Translucent model Fasara as manufacturer by 3M or approved equal.

Item 11 Section 10 51 13. Metal Lockers:

Delete specification section 10.51.13 in its entirety.

Item 12 Section 08 33 24. High-speed Metal Rolling Doors, Paragraph 2.2.5.7:

Delete item 2.2.5.7.1 cast in concrete controller loop.

Item 2.2.5.7.2 to be installed on both sides of the door, increase quantity to 4.

Delete item 2.2.5.9.1 cast in concrete detection loop.

Item 2.2.5.9.2 to be installed on both sides of the door.

Item 13 Section 03 33 00. Cast-in-Place Concrete:

Add Section 03 33 00 Cast -in-Place Concrete (7 pages attached).

Item 14 Section 08 71 00. Door Hardware:

Add Section 08 71 00 Door Hardware (18 pages attached) with appended doors Hardware Schedule.

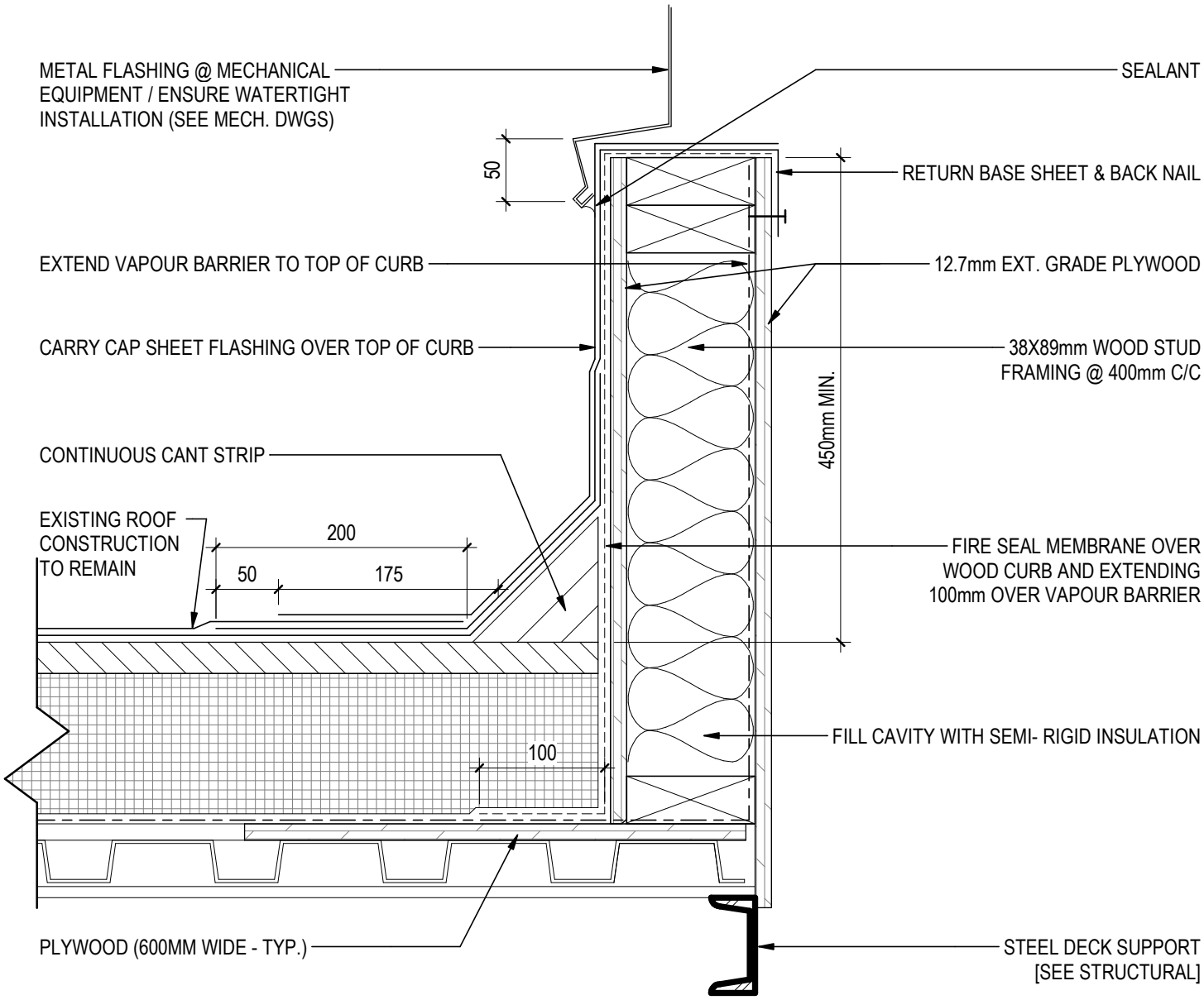
GENERAL

Item 15 Addendum #1, Drawings Item #1.

Overhead door contractor to allow for all hardware, weatherstrip and relocating the electric operator to the appropriate height.

Existing overhead door tracks can be extended, spliced and welded.

END OF ADDENDUM NO. 3



Stantec

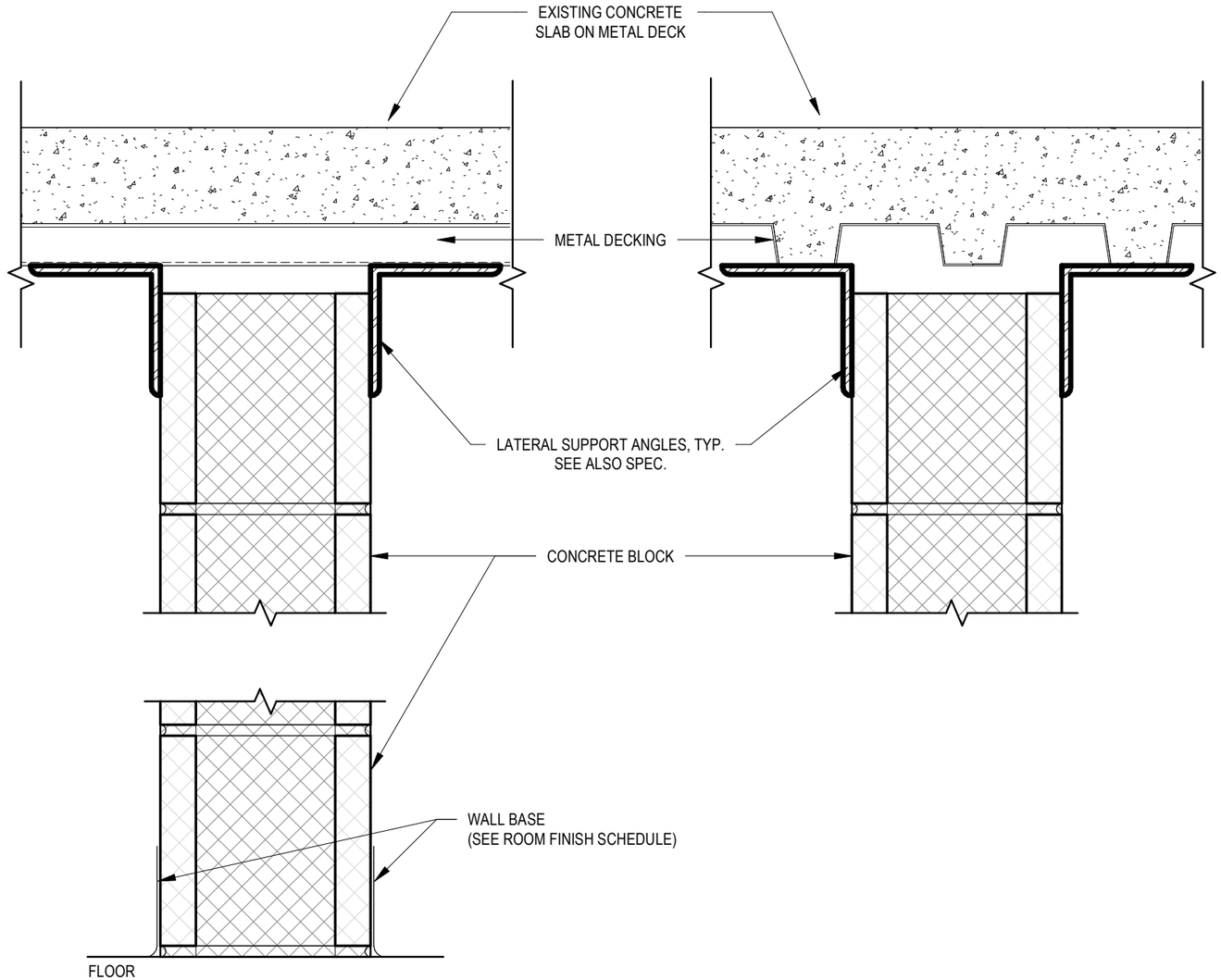
1199 Main Street /
Moncton, NB E1C 1H9

Client/Project
Saint John Fleet Relocation

Title
ROOF CURB DETAIL

Revision	YYYY.MM.DD
ADDENDUM #3	2022.11.29

Project No.	Reference Sheet	Figure No.
140164248	N/A	SK-3



Stantec

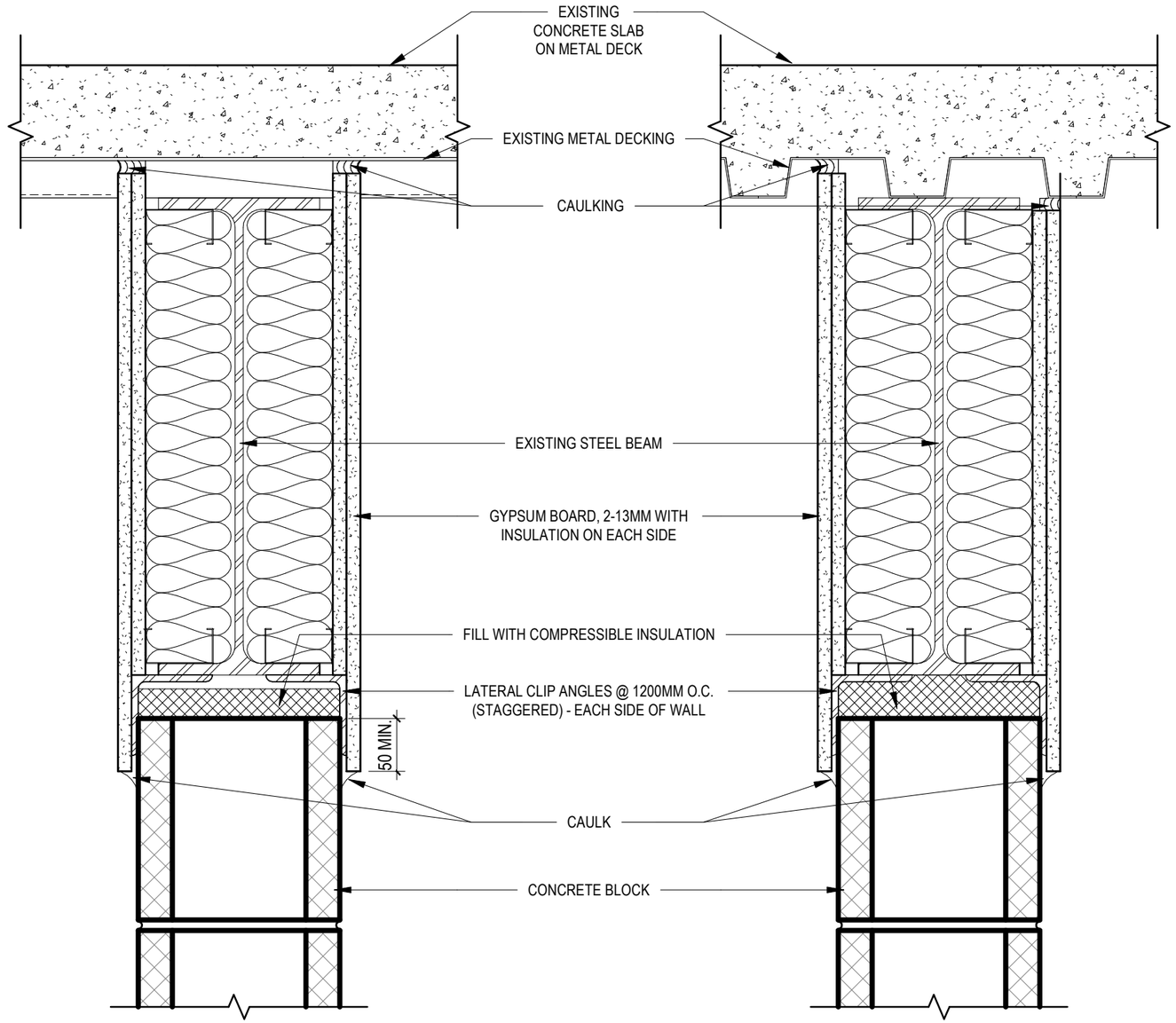
1199 Main Street /
Moncton, NB E1C 1H9

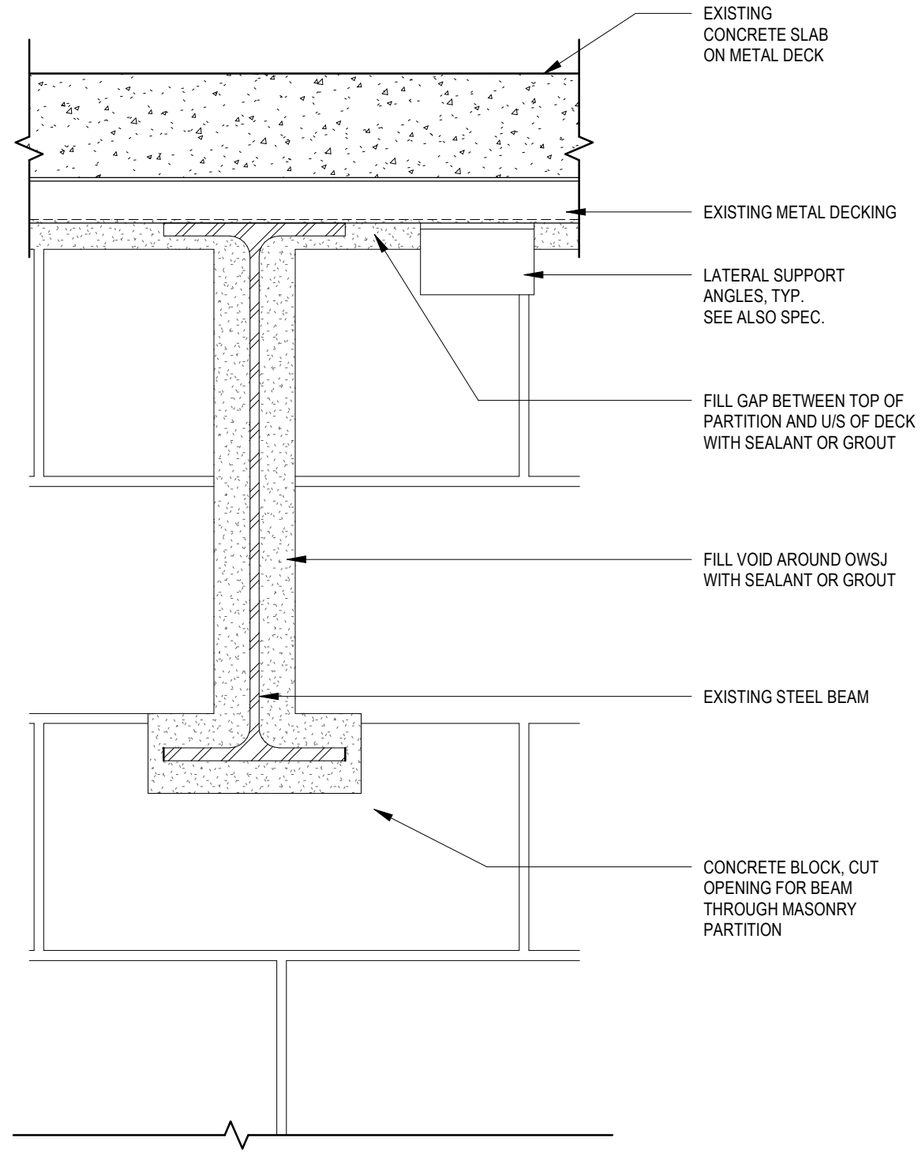
Client/Project
Saint John Fleet Relocation

Title
TYP. DETAIL AT BLOCK WALL / DECK

Revision	YYYY.MM.DD
ADDENDUM #3	2022.11.29

Project No.	Reference Sheet	Figure No.
140164248	N/A	SK-4





Stantec

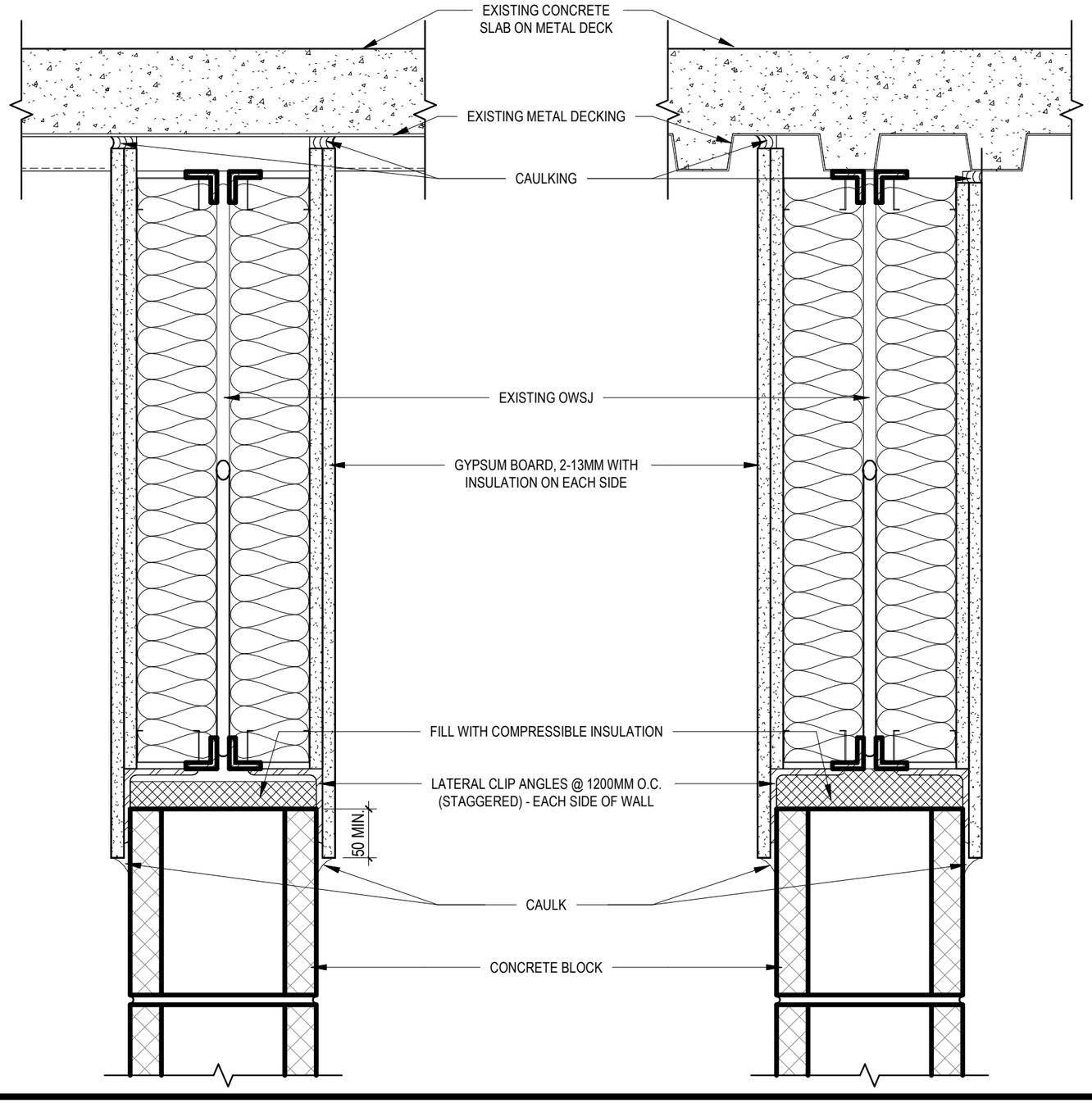
1199 Main Street /
Moncton, NB E1C 1H9

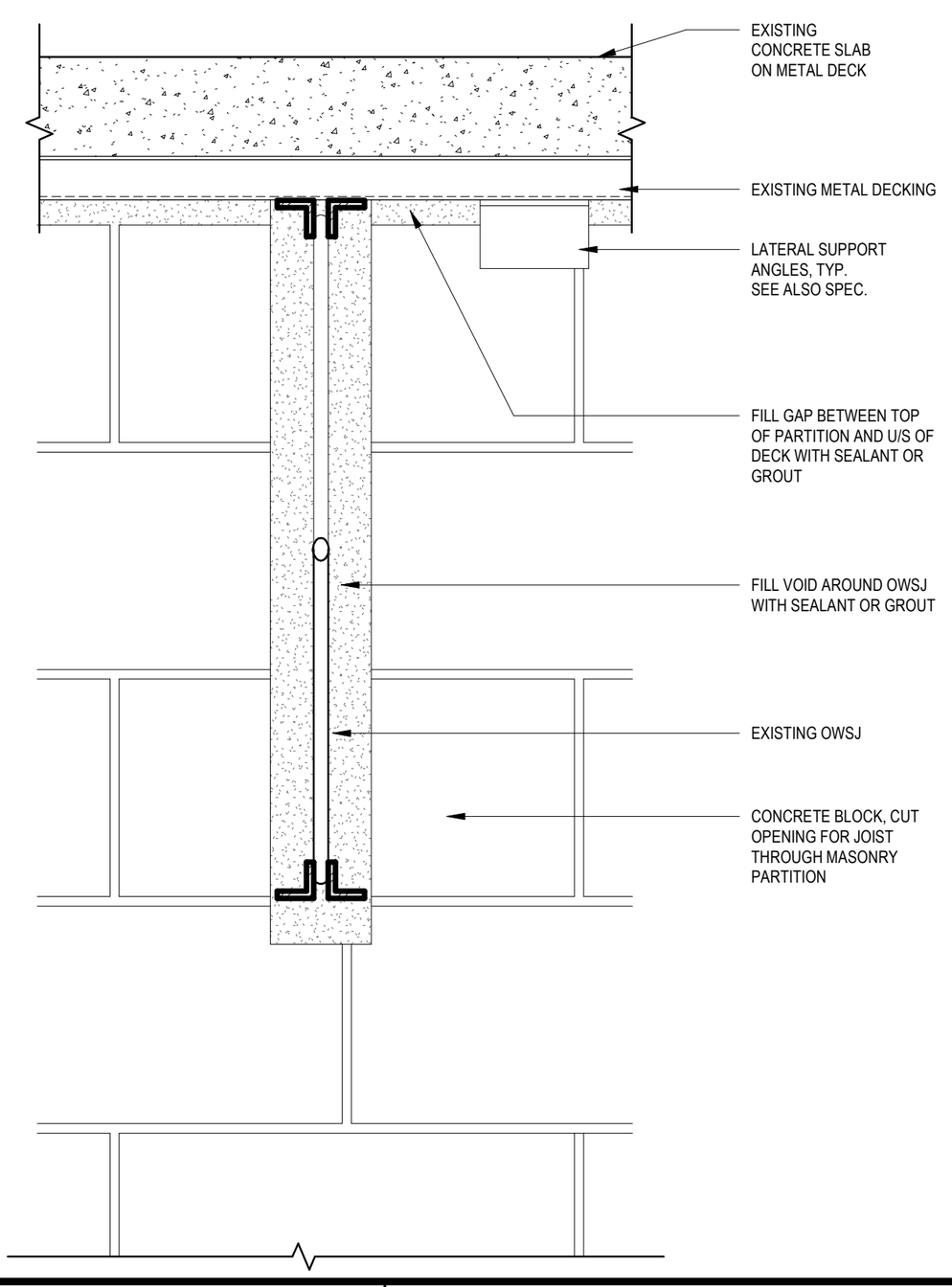
Client/Project
Saint John Fleet Relocation

Title
TYP. DETAIL AT BLOCK WALL / STEEL BEAM

Revision	YYYY.MM.DD
ADDENDUM #3	2022.11.29

Project No.	Reference Sheet	Figure No.
140164248	N/A	SK-5





Stantec
1199 Main Street /
Moncton, NB E1C 1H9

Client/Project
Saint John Fleet Relocation

Title
TYP. DETAIL AT BLOCK WALL / OWSJ

Revision	YYYY.MM.DD
ADDENDUM #3	2022.11.29

Project No.	Reference Sheet	Figure No.
140164248	N/A	SK-6

Part 1 General

1.1 RELATED SECTIONS

.1 Section 01 74 19 Construction Waste Management and Disposal
.2 Section 05 12 23 - Structural Steel for Buildings
.3 Division 07 – Thermal and Moisture Protection

1.2 REFERENCES

.1 American Society for Testing and Materials International (ASTM)
  .1 ASTM C260/C260M-10a (2016), Standard Specification for Air-Entraining Admixtures for Concrete.
  .2 ASTM C309-19, Standard Specification for Liquid Membrane-Forming Compounds for Curing Concrete.
  .3 ASTM C494/C494M-19, Standard Specification for Chemical Admixtures for Concrete.
  .4 ASTM C881/C881M-20a, Standard Specification for Epoxy Resin Base Bonding Systems for Concrete.
  .5 ASTM D1751-18, Standard Specification for Preformed Expansion Joint Filler for Concrete Paving and Structural Construction (Nonextruding and Resilient Bituminous Type).
.2 Canadian Standards Association (CSA)
  .1 CSA-A23.1:19/A23.2:19, Concrete Materials and Methods of Concrete Construction / Test Methods and Standard Practice for Concrete.
  .2 CSA-A3000-18, Cementitious Materials Compendium.

1.3 CONSTRUCTION QUALITY CONTROL

.1 Upon request submit proposed quality control procedures for Consultant review.
.2 Minimum two weeks prior to starting concrete work, submit proposed quality control procedures for Consultant approval for following items:
  .1 Falsework erection.
  .2 Temporary Bracing.
  .3 Cold and hot weather concrete.
  .4 Floor slopes and depressions, embedded items.
  .5 Chairs for support of reinforcing.
  .6 Curing.
  .7 Finishes.
  .8 Formwork removal.
  .9 Saw-cutting of slabs.

.10 Joint forming and filling.
.11 Waterstops.

.3 Inspection and testing of concrete and concrete materials will be carried out in accordance with CSA-A23.1.

.4 Testing Laboratory will take additional test cylinders during cold weather concreting. Cure cylinders on job site under same conditions as concrete which they represent.

.5 Non-destructive Methods for Testing Concrete shall be in accordance with CSA-A23.2.

.6 Inspection or testing by Consultant will not augment or replace Contractor's quality control nor relieve them of their contractual responsibilities.

1.4 SAMPLES

.1 At least three weeks prior to commencing work, inform Consultant of proposed source of aggregates and provide access for sampling.

1.5 CERTIFICATES

.1 Provide certification indicating the concrete supplier is certified in accordance with the Atlantic Provinces Ready Mix Concrete Association Program or equivalent. Only concrete supplied from such certified plants shall be acceptable to the Consultant and plant certification shall be maintained for the duration of the fabrication and erection until the warranty period expires.

.2 Provide certification that mix proportions selected will produce concrete of quality, yield and strength as specified for concrete mixes, and will comply with CSA-A23.1.

.3 Provide certification that plant, equipment, and materials to be used in concrete comply with requirements of CSA-A23.1.

1.6 RECYCLED CONTENT

.1 Include Supplementary Cementing Materials (SCM=s B slag/fly ash) **SCM shall NOT be used in concrete for slabs receiving glued finishes or coatings.**
Submit documentation for each mix.

1.7 DELIVERY, STORAGE AND HANDLING

.1 Concrete hauling time: maximum allowable time for concrete to be delivered to site of Work and discharged not to exceed 120 minutes after batching.

.1 Modifications to maximum time limit must be agreed to Consultant laboratory representative and concrete producer as described in CSA-A23.1/A23.2.

.2 Deviations to be submitted for review by Consultant.

.2 Concrete delivery: ensure continuous concrete delivery from plant meets CSA-A23.1/A23.2.

.3 Waste Management and Disposal:

.1 Separate waste material for reuse and recycling.

.2 Divert unused concrete materials from landfill to local quarry facility approved by Consultant.

.3 Provide an appropriate area on the job site where concrete trucks can be safely washed.

.4 Divert unused admixtures and additive materials (pigments, fibres) from landfill to official hazardous material collections site as approved by the Consultant.

.5 Unused admixtures and additive materials must not be disposed of into sewer systems, into lakes, streams, onto ground or in other location where it will pose health or environmental hazard.

.6 Prevent admixtures and additive materials from entering drinking water supplies or streams. Using appropriate safety precautions, collect liquid or solidify liquid with inert, non-combustible material and remove for disposal. Dispose of waste in accordance with applicable local, Provincial/Territorial and National regulations.

Part 2 Products

2.1 MATERIALS

.1 Portland Cement: to CSA-A3000.

.2 Water: to CSA-A23.1.

.3 Aggregates: to CSA-A23.1. Coarse aggregates to be normal density.

.4 Air Entraining Admixture: to ASTM C260/C260M.

.5 Chemical Admixtures: to ASTM C494/C494M. Consultant to approve accelerating or set retarding admixtures during cold and hot weather placing.

.6 Shrinkage Compensating Grout for use under baseplates: premixed compound consisting of non-metallic aggregate, Portland cement, water reducing and plasticizing agents.

.1 Acceptable Products:

.1 M-Bed Standard by Sika Products.

.2 MasterFlow 100 Grout by Master Builders.

.3 NS Grout by Euclid Chemical Company.

.7 Welded steel wire reinforcement for concrete reinforcement: to ASTM A1064/A1064M. Provide in flat sheets only.

.8 Chairs, bolsters, bar supports, spacers: to CSA-A23.1. Non-metallic where within 40 mm of exposed concrete surfaces.

.9 Curing and Sealing Compound:
.1 Per Section 03 35 00 – Concrete Finishing.
.10 Premoulded Joint Fillers (Isolation Joints):
.1 Bituminous impregnated fiber board to ASTM D1751.
.11 Nonshrink Grout for patching:
.1 Acceptable materials:
.1 Sika Grout 212HP by Sika Canada Inc.
.2 MasterFlow 928 by Master Builders.
.3 Planigrout 712 by Mapei.
.4 Approved alternate.
.12 Patching mortars for slab infill, leveling, patching and ramping: Acceptable Products:
.1 For applications feather edge to 25 mm in thickness:
.1 MAPECEM 101 by Mapei.
.2 FLO-TOP 90 by Euclid Chemical.
.3 MasterEmaco N 300 CI by Master Builders.
.4 Alternate Materials: Approved by addendum in accordance with Instruction to Tenderers.
.2 For applications above 25 mm in thickness: (maximum lifts as specified by product manufacturer).
.1 MAPECEM 102 by Mapei.
.2 EUCO-SPEED by Euclid Chemical.
.3 MasterEmaco T 310CI by Master Builders.
.4 Alternate Materials: Approved by addendum in accordance with Instructions to Tenderers.
13 Use compatible additives and admixtures, as approved by the manufacturers.
.14 Floor Hardener/Sealers:
.1 Per Section 03 35 00 – Concrete Finishing.
.15 Bonding Agent for bonding new concrete to in-place concrete:
.1 High modulus, high strength, epoxy bonding adhesive.
.2 Acceptable Products:
.1 Sikadur-32 Hi-Mod by Sika Canada Inc.
.2 Approved alternate.

2.2 MIXES

.1 The Contractor shall be responsible for the concrete mix designs.

.2 It shall be the responsibility of the Contractor to ensure that the mixture proportions shall be properly batched, mixed, placed and cured such that the concrete conforms to the Specification.

.3 Proportion normal density concrete in accordance with A23.1, Alternative 1, to give following quality for concrete as indicated:

.3 For concrete in slabs on metal deck:

.1 Type GU Portland Cement.

.2 Minimum compressive strength at 28 days: 30 MPa.

.3 Class of exposure: N.

.4 Maximum water/cement ratio: as per CSA A23.1.

.5 Nominal maximum size of coarse aggregate 15 mm.

.6 Slump at time and point of discharge: 80 mm ± 30 mm.

Part 3 Execution

3.1 PREPARATION

.1 Obtain Consultant approval before placing concrete. Provide 24 hour notice prior to placing of concrete.
.2 Pumping of concrete is permitted only after approval of equipment and mix.
.3 Prior to placing of concrete obtain Consultant approval of proposed method for protection of concrete during placing and curing.
.4 Maintain accurate records of poured concrete items to indicate date, location of pour, quality, air temperature and test samples taken.
.5 Do not place load upon new concrete until authorized by Consultant.

3.2 CONSTRUCTION

.1 Do cast-in-place concrete work in accordance with CSA-A23.1.
.2 Reinforcing steel, embedded parts, anchor bolts, dowels, etc., shall be secured in position prior to placing concrete.
.3 Ensure reinforcement and inserts are not disturbed during concrete placement.
.4 Cure all concrete slab surfaces by moist cure for minimum 7 consecutive days after placing.
.5 Location of construction joints, other than indicated on the drawings, shall be forwarded to the Consultant for review and acceptance.
.6 Core drilling.
    .1 Submit drawings for review, showing size and location of all holes to be core drilled into walls or slabs.
    .2 Do not proceed with core drilling until drawings have been reviewed and hole size and locations have been approved by the Consultant.

.13 Grout.
.1 Grout under base plates and equipment using procedures in accordance with manufacturer's recommendations which result in 100% contact over grouted area.
.2 All structural steel column base plates to be grouted using flowable grout. Dry-packing is not acceptable.

.14 Finishing.
.1 Finish concrete in accordance with CSA-A23.1 and Section 03 35 00 – Concrete Finishing.

.15 Floor Hardener Finish:
.1 Apply hardeners in accordance with manufacturer's printed instructions to all areas as indicated on the Finish Schedule.

.16 Dampproofing/Waterproofing:
.1 Refer to Division 07 – Thermal and Moisture Protection.

3.3 SITE TOLERANCE

.1 Concrete tolerances to be in accordance with CSA-A23.1 and as otherwise indicated on drawings.
.2 For floor topping slabs: Straight Edge Method tolerance shall be within 6 mm in 3.0 metres.
.3 Coordinate floor finish and tolerance with all related trades to ensure that they meet or exceed minimum requirements for specified finish. Provide all corrective measures as specified under Clause 3.3.4.
.4 Correction of Floor Tolerances:
.1 Where floor tolerances are not within specified tolerances or are otherwise not suitable for intended finish, grind or fill the floor to bring the surface to within the requirements.
.2 Where grinding is required, grind floors as soon as possible, preferably within three days but not until the concrete is sufficiently strong to prevent dislodging coarse aggregate particles.
.3 Where filling is required, the concrete surface shall be prepared by mechanical roughening or hydro milling to remove all surface film and laitance.
.5 Apply leveling compound as specified in accordance with manufacturer's printed instructions.

END OF SECTION

Part 1 General

1.1 GENERAL REQUIREMENTS

.1 Comply with requirements of Division 1.

.2 Furnish and delivery of all finish hardware necessary for all doors. Also hardware as specified herein and as enumerated in “Set Numbers” and as indicated and requested by actual conditions of the building. The hardware shall include the furnishing of all necessary screws, special screws, bolts, special bolts, expansion shields, drop plates and all other devices necessary for the proper installation of the hardware.

.3 The Consultant approval of the schedule will not be construed as certifying that the list is complete. Acceptance of the Hardware Schedule does not relieve the supplier of responsibility of errors or omissions.

.4 Hardware should not be ordered unless a corrected copy of the shop drawings is reviewed and returned from the specification writer and bearing the approval of the Consultant.

.5 Aluminum Door hardware is to be ordered immediately after approval of shop drawings and shipped directly to the Aluminum Door supplier.

.6 Furnish, deliver and install all finish hardware necessary for all doors, also hardware as specified herein and as enumerated in hardware group indicated by actual conditions at the project site.

.7 The electrical hardware shall include the furnishing of plug in connections and final connections of Low voltage wiring at the door opening. Electrical hardware devices to be installed by section 08 71 00 with all final connection with termination above the frame. Electric hardware devices for the proper operation and application of the hardware noted by connection notes in the hardware schedule. Power, conduit, low voltage wire to junction box above the frame. Connection of the card readers, maglocks and high voltage wire by the electrical section Division 28.

.8 Division 28 to provide high voltage wiring and conduit to the door opening or power supplies including conduit to hardware locations.

1.2 RELATED SECTIONS

.1 01 33 00 - Submittals
.2 01 74 19 - Construction Waste Management
.3 06 20 00 – Finish Carpentry
.4 07 92 00 – Joint Sealants
.5 08 11 00 – Doors and Frames
.6 08 33 24 – High Speed Roll-up Doors
.7 08 36 13.16 – Sectional Metal Overhead doors
.8 26 06 00 – Schedules for Electrical
.9 26 08 00 – Commissioning of Electrical Systems
.10 28 00 00 – Electronic Safety and Security

1.3 REFERENCES

.1 American National Standards Institute (ANSI) A117.1 Specification

- .1 ANSI/BHMA A156.1-2021, Butts and Hinges.
- .2 ANSI/BHMA A156.26-2021, Continuous Hinges.
- .3 ANSI/BHMA A156.13-2017, Mortise Locks and Latches.
- .4 ANSI/BHMA A156.3-2019, Exit Devices.
- .5 ANSI/BHMA A156.4-2019, Door Controls (Closers)
- .6 ANSI/BHMA A156.5-2020, Auxiliary Locks and Associated Products.
- .7 ANSI/BHMA A156.6-2021, Architectural Door Trim.
- .8 ANSI/BHMA A156.7-2016, Template Hinge Dimensions.
- .9 ANSI/BHMA A156.8-2021, Door Controls - Overhead Holders.
- .10 ANSI/BHMA A156.15-2021, Closer/ Holder Release Device.
- .11 ANSI/BHMA A156.16-2018, Auxiliary Hardware.
- .12 ANSI/BHMA A156.18-2020, Materials and Finishes.
- .13 ANSI/BHMA A156.19-2019, Power Assist and Low Energy Power Operated Doors.
- .14 ANSI/BHMA A156.21-2019, American National Standards for Thresholds.
- .15 ANSI/BHMA A156.22-2021, Door Gasketing and Edge Seal Systems.
- .16 ANSI/BHMA A156.29-2017, American National Standards for Exit Locks, Exit Locks with Alarms, Exit Alarms, Alarms for Exits.
- .17 ANSI/BHMA A156.30-2020, American National Standards for High Security Cylinders.

.2 Canadian Standards Association (CSA)

- .1 CAN/CSA-B651-18.Accessible Design for the Built Environment.

.3 Canadian Steel Door Manufacturer's Association (CSDMA).

- .1 Standard Hardware Locations in Accordance with the Canadian Steel Door and Frame Association Guidelines.
- .2 Recommended locations for Architectural Hardware for Wood Flush Doors.

.4 National Fire Protection Agency(NFPA)

- .1 NBC - National Building Code – Latest Edition
- .2 NFPA-80 - Standard for Fire Doors and Windows – Latest Edition
- .3 NFPA101 - Life Safety Code – Latest Edition
- .4 NFPA-105 - Smoke and Draft Control – Latest Edition

1.4 SUBMITTALS

.1 Product Data:

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

.2 Samples:

.1 Upon Consultant request submit samples of door hardware. Identify each sample by label indicating applicable specification paragraph number, brand name and number, finish and hardware package number.

.2 After approval samples will be returned for incorporation in the Work.

.3 Hardware List:

.1 Submit detailed hardware list and keying schedule. Hardware Schedule is to be submitted as per DHI vertical format which is in the “Sequence and Format for Hardware Schedules”.

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

.3 Furnish other Sections with templates required for hardware preparation and installation. Issue templates when requested so as not to cause any delays but not before hardware list has received final review by Consultant.

.4 Keying Schedule to be in accordance with DHI manual “Keying Systems Names and Nomenclature”. Key schedule is not to hold up the processing of the hardware list.

.5 Wiring Diagrams will only be supplied after the final approval of the Hardware Schedule. Submit wiring diagrams as requested for proper installation of electrical, electrical-mechanical and electrical-magnetic products.

.4 Manufacturer’s Instructions: Submit manufacturer’s installation instructions.

.5 Closeout Submittals: Provide operation and maintenance data for door closers, locksets, door holders, electrified hardware and fire exit hardware for incorporation into Operations and Maintenance Manuals specified in Section 01 78 00.

.6 Provide guarantee.

.1	Closers	10 year
.2	Electronic Closer	2 year
.3	Exit Device	3 years
.4	Hinges	Lifetime of Building
.5	All other Hardware	1 year

1.5 QUALITY ASSURANCE

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

.2 Meet requirements of National Building Code of Canada and other applicable regulations.

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

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

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

.6 Upon completion of finish hardware installation, hardware supplier shall inspect work and shall certify in writing that all items and their installation are in accord with requirements of Contract Documents and are functioning properly.

1.6 PRODUCT DELIVERY, HANDLING & STORAGE

.1 Packing, Shipping, Handling and Unloading:

.1 Deliver, store, handle and protect materials in accordance with Section 01 45 00.

.2 Package each item of hardware including fastenings, separately or in like groups of hardware, with necessary screws, keys, instructions and installation templates.

.3 All items of hardware should be itemized and tagged as per the approved Finish Hardware Schedule.

.4 Hardware for Aluminum Doors to be shipped directly to the Aluminum Door supplier. Hardware for Aluminum Doors will be ordered immediately after approval of shop drawings. Delays in ordering the Aluminum Door hardware will not be accepted.

.5 Shortages will not delay installation.

.6 Items damaged in shipment will be replaced properly with proper material.

.7 All Hardware shall be handled in a manner to avoid damage, marking and scratching.

.8 Hardware is to be inventoried on site and confirmed by the Contractor and Hardware Supplier.

.2 Storage and Protection:

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

1.7 WASTE DISPOSAL AND MANAGEMENT

.1 Separate and recycle waste materials in accordance with Section 01 74 19.

.2 Collect and separate metal, plastic, paper packing and corrugated cardboard and deposit in appropriate on site recycling bins.

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

1.8 MAINTENANCE

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

.2 Provide three sets of maintenance tools for closers, locks and exit devices as well as a complete set of installation instructions.

.3 After the building is occupied, arrange for an appointment with the owner to instruct them of proper use, service, adjusting and maintenance of the hardware furnished in this section.

.4 Extra Material if required.

1.9 INSPECTION

.1 The hardware supplier shall arrange at least four visits to the job site.

.1 Visit project at time of delivery of hardware and inspect the personnel who will be looking after the installation and issuing of hardware at the job site. Delivered hardware to be received, sorted and itemized at the jobsite with contractor.

.2 Second visit will be required for key meeting with the owner/representative at a location at their request.

.3 Third visit will take place when about sixty percent of hardware is installed.

.4 Check all hardware on site and correct any errors or shortages. Co-ordinate with contractor to determine proper time for visit.

.5 Fourth visit shall take place just prior to building turnover. All hardware shall be checked for proper installation and adjustment. Any errors shall be corrected and adjustments made. Check the key system and furnish a report along with maintenance manuals detailing any errors found.

.6 Cost of this service will be included as part of this Section and is not covered by any allowance amount.

Part 2 Products

2.1 HARDWARE ITEMS

.1 Only locksets and latch sets listed are acceptable for use on this project.

.2 Use one manufacturer's products only for all similar items.

.3 Manufacturer's Listed:

.1 Hinges

.1 McKinney – ASSA ABLOY Door Security Solutions Canada, 160 Four Valley Drive, Vaughan, Ontario, L4H 4T9.

.2 Continuous Hinges

.1 McKinney – ASSA ABLOY Door Security Solutions Canada, 160 Four Valley Drive, Vaughan, Ontario, L4H 4T9.

.3 Locks

.1 Sargent – ASSA ABLOY Door Security Solutions Canada, 160 Four Valley Drive, Vaughan, Ontario, L4H 4T9.

.4 Exit Devices

.1 Sargent – ASSA ABLOY Door Security Solutions Canada, 160 Four Valley Drive, Vaughan, Ontario, L4H 4T9.

.5 Closers

.1 Sargent – ASSA ABLOY Door Security Solutions Canada, 160 Four Valley Drive, Vaughan, Ontario, L4H 4T9.

.6 Flush Bolts

.1 Rockwood Manufacturing – ASSA ABLOY Door Security Solutions Canada, 160 Four Valley Drive, Vaughan, Ontario, L4H 4T9.

.7 Overhead Stops

.1 Sargent – ASSA ABLOY Door Security Solutions Canada, 160 Four Valley Drive, Vaughan, Ontario, L4H 4T9.

.8 Flatware

.1 Rockwood Manufacturing – ASSA ABLOY Door Security Solutions Canada, 160 Four Valley Drive, Vaughan, Ontario, L4H 4T9.

.9 Floor/Wall Stops

.1 Rockwood Manufacturing – ASSA ABLOY Door Security Solutions Canada, 160 Four Valley Drive, Vaughan, Ontario, L4H 4T9.

.10 Weatherstrip/Thresholds

.1 Pemko – ASSA ABLOY Door Security Solutions Canada, 160 Four Valley Drive, Vaughan, Ontario, L4H 4T9.

.11 Power Supplies

.1 Securitron – ASSA ABLOY Door Security Solutions Canada, 160 Four Valley Drive, Vaughan Ontario, L4H 4T9.

.12 Electric Strikes

.1 HESS – ASSA ABLOY Door Security Solutions Canada, 160 Four Valley Drive, Vaughan Ontario, L4H 4T9.

2.2 DOOR HARDWARE

.1 All fasteners to come complete with the hardware as described. Hardware supplier must be Advised immediately if required fasteners are not enclosed with hardware.

.2 Hardware must be installed with fasteners supplied by the manufacturer.

.3 Hinges Butts and hinges: to ANSI/BMHA A156.1, as listed in Hardware Schedule.

.1 Non removable pins (NRP) for all exterior and out swinging secure doors.

.2 Exterior hinges and hinges in wet areas of stainless steel, brass or bronze.

.3 Interior hinges of plated steel, unless otherwise noted.

.4 Size and quantity to be as the manufacturers hinge selection guide.

.5 Unless otherwise scheduled, supply (1) hinge for every 762mm of door height.

.6 The width of hinges shall be sufficient to clear all trim.

.7 All hinges to be five-knuckle design and ball bearing.

.8 All electric hinges to be supplied with Electrolynx QC plug in connectors as specified.

.9 Finish to Dull Chrome 26D.

.10 Standard of Acceptance:

.1 Specified Acceptable Alternates

.2

McKinney	Hager	Stanley

.3

TA2714	BB1279	FBB179

.4 Continuous Geared Hinges: to ANSI/BMHA A156.26.

.1 Provide continuous hinges of the type and style noted in the Hardware legend.

.2 To be non-handed and completely reversible.

.3 Material: Extruded tempered aluminium.

.4 Material Standard: 6063-T6 Alloy.

.5 Configuration: Three interlocking extrusions in pinless assembly, installed to full height of door.

.6 Type: Full Mortise: 45mm for extra heavy duty weights.

.7 Length: Full height less 25mm.

.8 Strength: Heavy Duty – 27 bearings each leaf for 2108mm, minimum door weight 245 kg.

.9 Mortise Fasteners: TEK, #12 x ¾" inch, FHUC, Philips head screws.

.10 Size to suite door height complete with installation aids and fasteners to suit door an frame conditions.

.11 All electric hinges to be supplied with Electrolynx QC plug in connectors as specified.

.12 Finish to Anodized Aluminum US28.

.13 Standard of Acceptance:

.1 Specified Acceptable Alternates

.2	McKinney	Pemko	Hager (Roton)
.3	MCK-12HD	CFM83SLFHD	780-112HD

.5 Tubular Locksets, Grade 1 (Extra-Heavy Duty): ANSI/BHMA A156.2 Series 4000, Grade 1 certified.

.1 Locksets to withstand 3000 inch pounds of torque applied to the locked lever without gaining access.

.2 Locksets to fit a standard 2 1/8" bore without the use of through-bolts.

.3 Lever handles to be made of solid material with no plastic fillers.

.4 Latchbolt head to be one-piece stainless steel construction encased within the lock body.

.5 Extended cycle test: Locks to have been cycle tested in ordinance with ANSI/BHMA A156.2 requirements to 20 million cycles

.6 Lever to be "J" Design

.7 Furnish with standard 2 3/4" backset and 1/2" throw latchbolt (3/4" at rated paired openings).

.8 Standard of Acceptance:

.1 Specified Acceptable Alternates

.2	Sargent	Corbin	BEST
.3	10 Line		

.6 Exit Devices: to ANSI/BMHA A156.3, Grade 1.

.1 Modern touch pad type, fabricated of brass, bronze, stainless steel or aluminum.

.2 UL listed for Accident Hazard or Fire Exit Hardware as required.

.3 Hex key dogging standard on non fire-rated exit devices. Cylinder dogging where specified.

.4 Exit devices shall be UL listed panic exit hardware. All exit devices for fire rated openings shall be ULC labeled fire exit hardware.

.5 Include all electrified functions as specified.

.6 Device Length as per manufacturer's guidelines.

.7 The design of the exit device shall eliminate the necessity of removing the device from the door for standard maintenance or keying changes.

.8 Trim as specified shall be through-bolted.

.9 All vertical rod in pairs to be less bottom rod where noted.

.10 Extension rods are required as per manufacturer's requirements.

.11 Electronic exit devices to have Linx quick connectors (QC).

.12 Exit devices to suite doors over 45mm where required.

.13 Standard of acceptance:

.1

Sargent	Corbin	Von Duprin
.2 8800 - Series	ED5200	98

.7 Door controls (closers): to ANSI/BMHA A156.4 as listed in Hardware Schedule.

.1 Modern type, surface applied.

.2 All closers for both interior and exterior doors shall be the product of one manufacturer and be matched in style.

.3 Surface closers shall be adjustable to provide sizes 1 through 6 and comply with ADA.

.4 Full rack and pinion construction.

.5 Closing speed, latching speed and backcheck shall be controlled by key operated valves.

.6 Captivated valves.

.7 Delayed action feature shall be available and controlled by a separate valve.

.8 Delayed action shall be available in addition to, not in lieu of, backcheck.

.9 The one piece closer body shall be of die cast aluminum alloy with 14% silicon minimum content. An increase of 15% in closing power shall be provided by means of adjustment of the arm leverage at the foot connection. (Standard Arm).

.10 All arms shall be finely finished with heavy duty forged steel main arm.

.11 Two mounting positions of the closer shall meet all requirements. Standard mountings shall provide 120° door opening and alternate mounting 180° door opening.

.12 All closers shall be suitable for standard, top jamb, parallel arm and track type applications when provided with proper brackets and arms.

.13 Closer covers shall be of high impact plastic material of flame retardant grade.

.14 Secured by machine screws.

.15 Spring power shall be continuously adjustable over the full range of closer sizes and allow for reduced opening force for the physically handicapped. Hydraulic regulation shall be tamper proof, non-critical valves. Closers shall have separate adjustment for latch speed, general speed and backcheck.

.16 All closer to have a forged steel main arm and forged forearm for parallel arm closers.

.17 Finish to Aluminum 689.

.18 Standard of acceptance:

.1 Specified Acceptable Alternates:

.2

Sargent	Norton	Corbin
.3 1431	8500	DC6200

.4 351 7500 DC3000

.8 Architectural door trim: to ANSI/BHMA A156.6, as listed in Hardware Schedule, finished to stainless steel 32D.

.1 Door protection plates: kickplates type, 1.3 mm thick stainless steel, 203mm high, unbevelled edges, width less 40mm push side, width less 25mm on pull side for single doors. Width less 25mm for pairs. Finished to stainless steel 630.

.1 Standard of acceptance:

.1	Specified	Acceptable Alternates	
.2	Rockwood	Standard Metal	Ives
.3	K1050	K10A	8400

.9 Door controls - overhead stop: to ANSI/BMHA A156.8, heavy duty construction, BHMA Grade 1 Certified, heavy duty architectural bronze construction.

.1 UL Classified: The 590 and 690 stops are UL 10B and UL 10C classified as miscellaneous fire door accessories.

.2 Corrosion resistance: Brass construction provides corrosion resistance in a variety of conditions.

.3 Holder Selector: 590 and 690 series holders are equipped with a turn knob to activate and deactivate the hold open function

.4 Thru bolts capture channel and end caps.

.5 Heavy duty shock spring absorbs load and gradually stops door.

.6 Blade shim required for all Aluminum Doors.

.7 Sized as per manufacturer's guidelines. Take into account other hardware mounted on doors.

.8 Finishes

.1 Exterior to stainless steel, 26D.

.2 Interior to steel sprayed finish, EN.

.9 Standard of acceptance:

.1	Specified	Acceptable Alternates	
.2	Rixson	Sargent	Glynn Johnson
.3	#9 (Surface)	590	90
.4	#10 (Surface)	1540	450

.10 Closer Release Device: to ANSI/BMHA A156.15.

.1 Designed for use with self-closing fire and smoke barrier doors.

.2 When de-activated, helps control the spread of fire and smoke by automatically releasing doors from an open position for simultaneous closing.

.3 Fail-safe device: When electrical power fails, doors will release to close automatically.

.4 Conforms to devices outlined in National Fire Protection Agency Standards Nos. 80 and 101.

.5 Recommended vertical location is on top rail of door – within 150mm of lock stile edge.

.6 When applications will not allow wall or floor magnets, consult manufacturer's FireGuard catalog for our line of Electronic Closer Holders.

.7 Fits standard outlet box.

.8 Holding force – 35 lbs typical.

.9 Voltage and Current: 120 VAC, 60 Hz., .020 amp, 24 VAC/DC, 60 Hz., .020 amp, 12 VDC, .040 amp.

.10 Finish – EN.

.11 UL – UL Listed to U.S. and Canadian safety standards.

.12 25mm extension included standard to increase armature projection to 67mm.

.13 Standard of acceptance: Sargent 1560 and 1561.

.1 Specified Acceptable Alternates:

.2

Sargent	Rixson
1561	997/998

.11 Door Stops and Holders and Auxiliary hardware: to ANSI/BMHA A156.16 designated by letter L and numeral identifiers as listed in Hardware Schedule finished to 26D.

.1 Floor stops dome style classification. Low dome or High dome. Die cast brass. Stops to be sized according to door clearances, thresholds or undercuts as noted in the Door Schedule. Fasteners to suite floor conditions.

.1 Standard of acceptance:

.1 Specified Acceptable Alternates

.2

Rockwood	Standard Metal	Ives
441	S101	FS13

.2 Wall stops classification, convex or concave, cast brass or bronze. Fasteners to suite wall conditions.

.1 Standard of acceptance:

.1 Specified Acceptable Alternates

.2

Rockwood	Standard Metal	Ives
406	S121	WS406CV

.12 Thresholds and Weatherstripping Thresholds: to ANSI/BMHA A156.21.

.1 Saddle threshold 152.4 mm wide x full width of door opening, extruded aluminum mill finish, serrated surface, with thermal break of rigid PVC.

.2 Panic threshold 93.7 mm wide x full width of door opening, extruded aluminum mill finish, serrated surface, with lip and vinyl door seal insert.

.3 Standard of acceptance:

.1 Specified Acceptable Alternates

.2

PEMKO	KN Crowder	Hager
252 x 3AFG	CT45A	421S

.13 Door Gasketing and Edge Seal Systems: to ANSI/BMHA A156.22.

.1 Head and Jamb seal:

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

.2 Surface overhead stops and exit device strikes to mount on top of weatherstrip to provide continuous seal.

.3 Adhesive backed black “Santoprene” to provide smoke, light and sound control. Fire labeled 1 1/2hrs.

.4 Standard of acceptance:

.1	Specified	Acceptable Alternates	
.2	PEMKO	KN Crowder	Hager
.3	319S	W-14S	878S

.2 Door bottom seal:

.1 Extruded Aluminum frame and nylon brush sweep, clear anodized finish.

.2 Heavy duty, door seal of extruded aluminum frame and solid closed cell neoprene weather seal, recessed in door bottom, closed ends, automatic retract mechanism when door is open, clear anodized finish.

.3 Standard of acceptance:

.1	Specified	Acceptable Alternates	
.2	PEMKO	KN Crowder	Hager
.3	18100CNB	W24S	801SB

.14 Power Supplies:

.1 Dual output, field selectable 12 or 24 VDC via clearly marked toggle switch.

.2 Supplies 1 full AMP continuous current output, even while charging back-up batteries.

.3 SPDT AC monitoring output allows for remote monitoring of the power supply's 110V AC input.

.4 Separate voltage inputs for load and battery allow the batteries to charge at a higher output while the load remains at exactly 12 or 24 VDC.

.5 LED indication (AC & DC) showing power supply status UL listed low current fire alarm disconnect requires only a minimum size fire alarm relay and wire gauge Polyswitch type breakers allow for large short duration inrush current if batteries are installed (approx. 20A for 1 second) Line voltage and DC fuses Sealed lead acid-gel battery charging capability (battery not included).

.6 UL Class 2, linear regulated power supply provides the cleanest power available sensitive, active safety and security devices.

.7 UL Listed.

.8 CFAR Relay - Securitron's Fire Alarm reset module interconnects with a Securitron BPS series power supply and a fire alarm (made by others). The purpose is to provide additional safety and control in an installation where activation of the fire alarm is intended to switch off the BPS power supply.

.9 This is often done to release power to magnetic locks which are installed on perimeter doors so as to permit safe evacuation in the event of a fire. The module has three specific functions:

.1 It will maintain the released condition of devices released by activation of the fire alarm even after the fire alarm resets and until the module itself is reset by key.

.2 It allows key controlled release of the same devices (separate from the fire alarm control).

.3 It signals the released or "normal" condition of the devices via a bicolor LED.

.10 Standard of acceptance:

.1	Specified	Acceptable Alternates	
.2	Securitron	Sargent	Schlage Electronics

.3	BPS/AQD	3500	PS900 Series

.15 Door Status Switch:

.1 Monitors door position remotely.

.2 SPDT concealed switch (3 wire).

.3 Contacts rated .25 Amp @24 VDC, requires 25mm diameter hole.

.4 Standard of acceptance:

.1	Specified	Acceptable Alternates	
.2	Sargent	Securitron	Schlage Electronics
.3	3287	DPS W/M	679 Series

.16 Power Transfer Devices:

.1 Concealed Quick Connect Electric Power Transfers: Provide concealed wiring pathway housing mortised into the door and frame for low voltage electrified door hardware. Furnish with Molex™ standardized plug connectors and sufficient number of concealed wires (up to 12) to accommodate the electrified functions specified in the Door Hardware Sets. Connectors plug directly to through-door wiring harnesses for connection to electric locking devices and power supplies. Wire nut connections are not acceptable.

.2 Standard of acceptance:

.1	Specified	Acceptable Alternates	
.2	Securitron	Pemko	Von Duprin
.3	EL-CEPT	EL-CEPT	EPT-10

2.3 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.

2.4 FINISHES

.1	Description	Material	BMHA
.2	Exterior Hinges	Stainless Steel Metal, Satin	630
.3	Interior Hinges	Satin Chromium Plated	626
.4	Locks	Stainless Steel Metal, Satin	630

.5	Exit Devices	Satin Chromium Plated	626
.6	Closers	Aluminum Powder Coated	689
.7	Flatware	Stainless Steel Metal, Satin	630
.8	All other items	Satin Chromium Plated	626

2.5 KEYING

.1 All locks to be master keyed to the Existing Facility registered master key system. All locks to be master keyed as per the owners instructions.

.2 All cylinders to be Sargent Degree Series.

.3 All cylinders to be interchangeable cores.

.4 All locks and cylinders to be visually keyed.

.5 Consult with the Architect/Engineer and the owner and secure written approval of the complete keying layout prior to placing lock order with the factory.

.6 Grand master keys and master keys shall be sent directly to the owner by registered mail, return receipt if requested.

.7 Supply:

1.	Masterkeys	2 per group
2.	Control Keys – Permanent Cores	1
3.	Key Blanks	20

Part 3 Execution

3.1 SITE TESTING AND INSPECTIONS

.1 Indoor Air Quality measures: Perform work in accordance with the Project's Indoor Air Quality Management plan for LEED credit compliance as specified in Section 01 57 15.

3.2 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.

.4 Wiring Diagrams: Provide any special information, voltage requirements and wiring diagrams to other trades requiring such information.

3.3 INSTALLATION

.1 Install door hardware in accordance with manufacturer's instructions, using special tools and jigs. Fit accurately and apply securely. Ensure that hardware is installed correctly. Issue instructions if required to Sections concerned.

.2 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 Manufacturers' Association.

.3 Installation is to be done by a qualified tradesman, if technical assistance is required contact the hardware supplier.

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

.5 Install key control cabinet.

.6 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.

.7 Remove construction cores and locks when directed by Contractor; install permanent cores and check operation of locks.

.8 Hardware should not be installed until all finishing is complete.

.9 All hardware to be installed level plumb and true.

.10 All operating parts to work freely and smoothly.

.11 Exterior thresholds to be set in exterior sealants.

.12 Install Power Operators as per manufacturer’s instructions and by a qualified installer.

.13 Access control to be installed by a certified installer.

.14 High voltage wiring by Division 28. Low voltage wiring by access control supplier.

3.4 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.

.4 All defective or damaged hardware will have to be repaired or replaced at the contractors expense.

3.5 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.

3.6 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 Owner’s Representative.

.2 Maintenance Staff Briefing:

.1 Brief maintenance staff regarding:

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

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

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

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

3.7 FIELD QUALITY CONTROL

.1 An inspection report will be required 6 months after substantial completion by a qualified Architectural Hardware Consultant to note any deficiencies. The inspection should include checking each lock against the key schedule to make sure the correct locks and cylinders are on the proper doors.

3.8 PROTECTION

.1 Protection must be given to all products and finishes until such time as the owner accepts the project.

3.9 CERTIFICATION

.1 After installation, Hardware Supplier is to have a regular member of the Architectural Hardware Consultants'' (AHC) Association inspect and certify in writing that all items and their installations are in accordance with specified requirements.

3.10 DOOR HARDWARE SETS

.1 The door hardware sets represent the design intent and direction of the owner and architect. They are a guideline only and should not be considered a detailed hardware schedule. Discrepancies, conflicting hardware and missing items should be brought to the attention of the architect with corrections made prior to the bidding process. Omitted items not included in a hardware set should be scheduled with the appropriate additional hardware required for proper application and functionality.

.2 The supplier is responsible for handing and sizing all products as listed in the door hardware sets. Quantities listed are for each pair of doors, or for each single door.

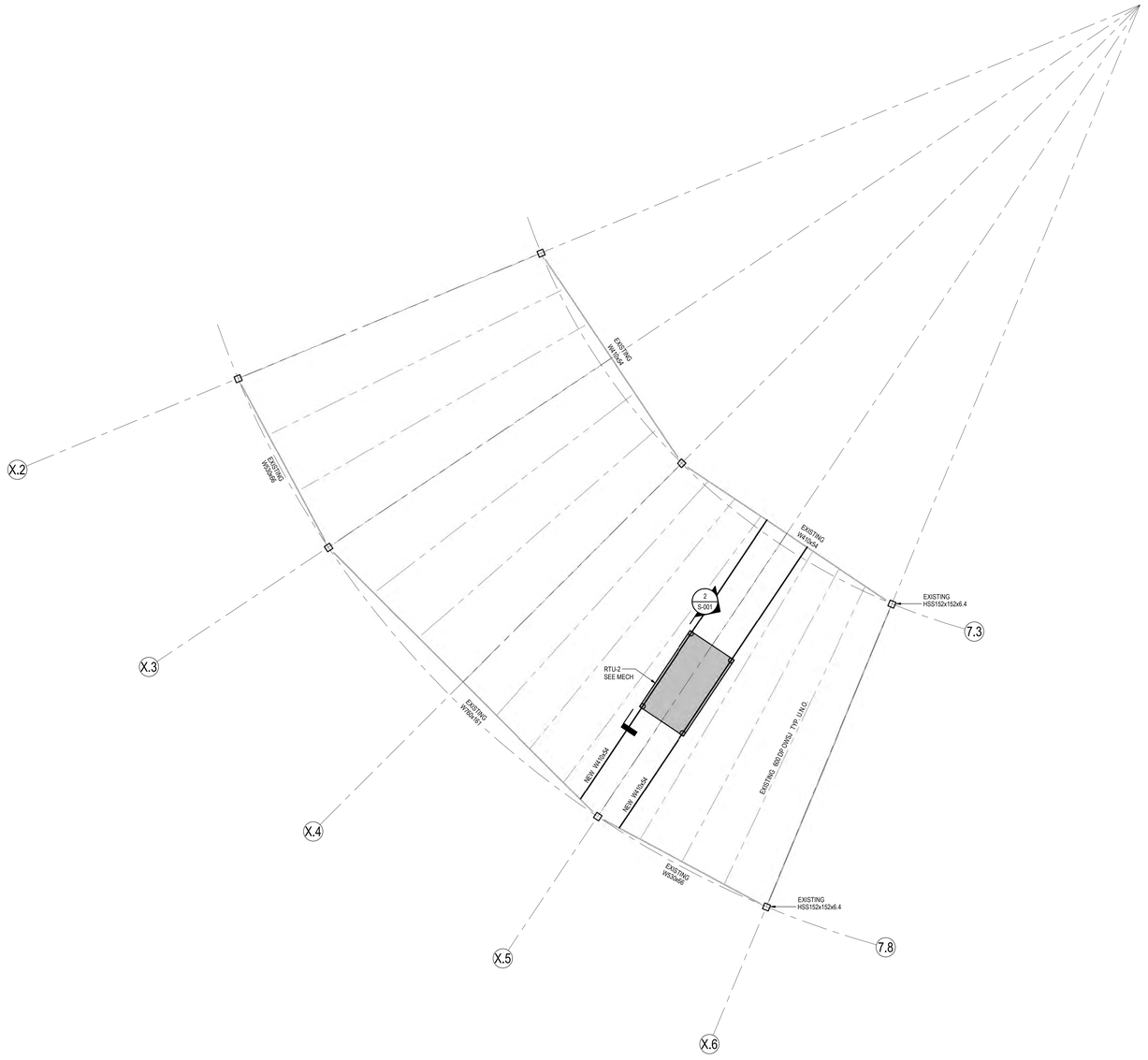
.3 Products listed in the Door Hardware Sets must meet the requirements described in the specification sections noted.

3.11 HARDWARE SCHEDULE

END OF SECTION

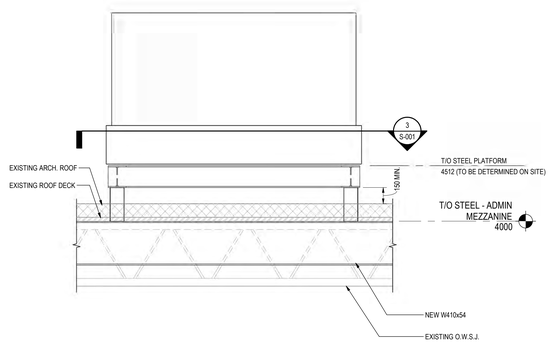
DOOR No	HINGES	LOCKSET	EXIT DEVICE	PUSH/PULL	CLOSER	STOP	BOLTS	ELECT.MISC.	MISC.	NOTES
D1000	(3)TA2714	ANSI F86			351-02	590S			K10A	3500
D1000A										Overhead Door
D1000B	(3)TA2714	ANSI F75			1431-0	1540S			K10A	
D1002	(3)TA2714	ANSI F82			1431-0	1540S			K10A	
D1004	(3)TA2714	ANSI F86			1431-0	1540S			K10A	3500
D1005	(3)TA2714		8804 x ETJ		1431-0	1540S			K10A	3500
D1005A										Overhead Door
D1005B	MCK-12HD		8804 x ETJ		351-02	590S			K10A	CT45A, W-14S,W24S
D1006	(3)TA2714	ANSI F86			1431-0	1540S			K10A	
D1100	(3)TA2714		8804 x ETJ		1431-0	1540S				3500
D1101	(3)TA2714		8804 x ETJ		1431-0	1540S				
D1102	(3)TA2714	ANSI F82				S121				
D1102A	(3)TA2714	ANSI F76				S121				
D1104	(3)TA2714		8815 x ETJ		1431-0	1540S			K10A	
D1106	(3)TA2714	ANSI F84				S121			K10A	
D1108	(3)TA2714	ANSI F86			1431-0					Overhead Door
D1110	(3)TA2714	ANSI F82				1540S				
D2001	(3)TA2714		8815 x ETJ		1431-0	1540S			K10A	
D2003	(3)TA2714		8815 x ETJ		1431-0	S121			K10A	
D2004	(3)TA2714	ANSI F76				S121			K10A	
D2005	(3)TA2714	ANSI F76				S121			K10A	
D2006	(3)TA2714	ANSI F75			1431-0	S121			K10A	
D2007	(3)TA2714	ANSI F86			1431-0	S121			K10A	
D2100A	(3)TA2714		8815 x ETJ		1431-0	S121				
D2101	(3)TA2714	ANSI F76				S121				
D2102	(3)TA2714	ANSI F82				S121				
D2103	(3)TA2714	ANSI F82				S121				

DOOR No	HINGES	LOCKSET	EXIT DEVICE	PUSH/PULL	CLOSER	STOP	BOLTS	ELECT.MISC.	MISC.	NOTES
D2105	(3)TA2714	ANSI F82				S121				
D2106	(3)TA2714	ANSI F82				S121				
D2107	(3)TA2714	ANSI F82				S121				
D2108	(3)TA2714	ANSI F82				S121				
D2108A	(3)TA2714	ANSI F86								



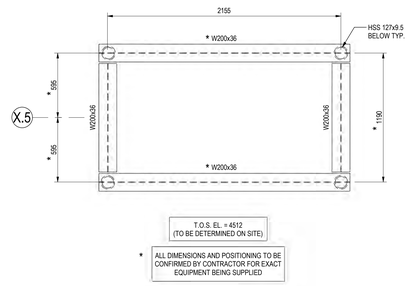
1 S-001 T/O STEEL - ADMIN MEZZANINE

1 : 50



2 S-001 SECTION

1 : 20



3 S-001 PLAN DETAIL

1 : 20

GENERAL NOTES

1 READ THE STRUCTURAL DRAWINGS IN CONJUNCTION WITH ALL OTHER PERTINENT CONTRACT DOCUMENTS.
2 WHERE THERE IS A DISCREPANCY BETWEEN DRAWINGS, SUBMIT A FORMAL RFI TO THE OWNERS REPRESENTATIVE PRIOR TO MANUFACTURING OR INSTALLATION.
3 GENERAL CONTRACTOR SHALL COMPLY AND BE RESPONSIBLE FOR ALL WORK TO BE COMPLETED IN CONFORMANCE WITH ALL APPLICABLE FEDERAL, PROVINCIAL AND OWNERS OCCUPATIONAL HEATH AND SAFETY REGULATIONS.
4 CONSTRUCTION SAFETY REQUIREMENTS SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR.
5 THE DESIGN AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE NATIONAL BUILDING CODE OF CANADA, 2020 EDITION [Part 4], AND REFERENCED STANDARDS WITHIN.
6 REFER TO SPECIFICATIONS FOR CONSTRUCTION AND MATERIAL REQUIREMENTS.
7 GENERAL CONTRACTOR SHALL VERIFY THE SUITABILITY OF ALL PRODUCTS BEING SPECIFIED FOR WORK FOR THE INTENDED USE AS PART OF THIS CONTRACT AND OR ANY OTHER FORM OF COMMUNICATION RELATING TO THIS PROJECT PRIOR TO START OF WORK.
8 WHERE THERE IS A DISCREPANCY BETWEEN PROJECT SPECIFICATIONS AND GENERAL NOTES, INFORMATION SHOWN IN SPECIFICATIONS SHALL GOVERN.
9 MODIFICATIONS, ALTERNATIONS OR SUBSTITUTIONS MUST BE AUTHORIZED IN WRITING BY THE ENGINEER.
10 ALL DIMENSIONS ARE IN MILLIMETERS, UNLESS NOTED OTHERWISE. THE GENERAL CONTRACTOR SHALL VERIFY DIMENSIONS PRIOR TO CONSTRUCTION START AND REPORT ALL DISCREPANCIES BEFORE PROCEEDING WITH THE WORK. DO NOT SCALE DRAWINGS.
11 VERIFY ALL DIMENSIONS, ELEVATIONS, SLOPES, DETAILS, CONDITIONS, ETC., SHOWN ON THE DRAWINGS AND VERIFIED WITH SITE CONDITIONS, PRIOR TO CONSTRUCTION OR PREFABRICATION OF ANY BUILDING COMPONENT.
12 ALL SHOP DRAWINGS SHALL BE REVIEWED AND STAMPED BY THE GENERAL CONTRACTOR PRIOR TO SUBMITTAL TO THE ENGINEER.
13 SHOP DRAWINGS: REPRODUCTION OF DESIGN DRAWINGS SHALL NOT BE PERMITTED FOR SHOP DRAWING SUBMISSIONS. THE GENERAL CONTRACTOR SHALL REVIEW AND PROVIDE REVIEW STAMP ON SHOP DRAWING SUBMISSIONS PRIOR TO SUBMITTAL TO ENGINEER INDICATING UNDERSTANDING AND ACCEPTANCE OF SUBMITTAL AND CONFIRMING CONFORMANCE TO PROJECT PLANS/SPECIFICATIONS. ALL STRUCTURAL SHOP DRAWINGS ARE TO BE STAMPED BY A PROFESSIONAL ENGINEER LICENSED TO PRACTICE IN THE PROVINCE OF NEW BRUNSWICK.
14 DO NOT INSTALL OPENINGS, SET INSERTS, DRILL OR ATTACH TO THE STRUCTURAL BUILDING COMPONENTS, EXCEPT AS NOTED ON THE STRUCTURAL DRAWINGS, WITHOUT WRITTEN CONSENT OF THE ENGINEER.
15 GENERAL CONTRACTOR SHALL RETAIN A PROFESSIONAL ENGINEER REGISTERED IN THE PROVINCE OF NEW BRUNSWICK TO PERFORM AND TAKE RESPONSIBILITY FOR ANY TEMPORARY BRACING, SHORING OR OTHER DESIGNS TO COMPLETE THE CONSTRUCTION.
16 WHERE EXISTING CONDITIONS ARE SHOWN THEY ARE NOT NECESSARILY ACCURATE OR COMPLETE. THE GENERAL CONTRACTOR SHALL CONFIRM ALL EXISTING DIMENSIONS/ LOCATIONS AND REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO START OF WORK.
17 DRAWINGS SHOW EXISTING CONDITIONS AND COMPLETED STRUCTURES ONLY. GENERAL CONTRACTOR SHALL PROVIDE TEMPORARY BRACING AND SHORING FOR CONSTRUCTION LOADING CONDITIONS AND STABILITY OF THE STRUCTURE DURING CONSTRUCTION. CONSTRUCTION LOADS INCLUDING OPERATING EQUIPMENT AND PERSONNEL MAY NOT EXCEED DESIGN LOAD. USE ADDITIONAL SUPPORT WHERE REQUIRED.
18 ALL DEMOLITION WORK SHALL INCLUDE BUT IS NOT LIMITED TO ALL LABOUR, MATERIALS, EQUIPMENT FOR THE CUTTING, REMOVAL AND DISPOSAL FOR WORK IDENTIFIED IN THE CONTRACT DOCUMENTS.
19 IT SHALL BE THE GENERAL CONTRACTOR'S RESPONSIBILITY TO REPAIR ANY DAMAGE DONE TO EXISTING FEATURES AS A RESULT OF THIS WORK. DAMAGED ITEMS SHALL BE REPLACED IN KIND AND AT NO ADDITIONAL COST TO THE OWNER.
20 DEFECTIVE OR UNACCEPTABLE WORK SHALL BE REPAIRED TO THE SATISFACTION OF THE ENGINEER AT NO ADDITIONAL COST TO THE PROJECT.
21 GENERAL CONTRACTOR TO MAKE GOOD ALL AFFECTED AREAS TO THE ACCEPTANCE OF THE OWNERS REPRESENTATIVE. DEFECTIVE OR UNACCEPTABLE WORK SHALL BE REPAIRED TO THE SATISFACTION OF THE OWNERS REPRESENTATIVE AT NO ADDITIONAL COST TO THE PROJECT.

STRUCTURAL STEEL NOTES

1 DESIGN, FABRICATE AND ERECT STRUCTURAL STEEL TO CONFORM TO THE NATIONAL BUILDING CODE OF CANADA 2020, CSA S16:19 & CSA S136-16 (R2021).
2 PROVIDE STRUCTURAL STEEL TO MEET THE REQUIREMENTS OF CSA STANDARD G40.20-13/G40.21-13 (R2018) WITH THE FOLLOWING GRADES:
-WIDE FLANGE SECTIONS 350W
-CHANNELS AND ANGLES 300W
-STRUCTURAL BARS AND PLATES 300W
-MISCELLANEOUS STEEL 300W
-PIPE SECTIONS ASTM A53 / A53M - 20 - 241MPa. MIN. YIELD STRENGTH
-STRUCTURAL BOLTS, NUTS AND WASHERS ASTM F3125 / F3125M - 21
3 DIMENSIONS SHOWN ARE TO CENTERLINES OF SECTIONS AND TO BACK OF CHANNELS AND ANGLES. ELEVATIONS SHOWN ARE TO UNDERSIDE OF METAL DECK UNLESS NOTED OTHERWISE.
5 ALL WELDING SHALL BE PERFORMED BY QUALIFIED WELDERS FULLY APPROVED FOR STRUCTURAL WELDING BY THE CANADIAN WELDING BUREAU IN ACCORDANCE WITH CSA W47.1:19 (R2014), CSA 47.2-11 (R2020), AND CSA W59-18.
6 FIELD WELDING AND FIELD MODIFICATION OF STRUCTURAL STEEL WILL NOT BE ALLOWED WITHOUT PRIOR REVIEW AND WRITTEN APPROVAL BY THE ENGINEER.
7 SPLICING OF MEMBERS NOT PERMITTED UNLESS OTHERWISE NOTED, WHERE BEAMS ARE CONTINUOUS OVER SUPPORTS, NO HOLES PERMITTED IN TOP FLANGE.
11 STRUCTURAL STEEL ERECTOR SHALL SUPPLY AND INSTALL ALL TEMPORARY GUYING AND BRACING NECESSARY TO PROVIDE STABILITY FOR THE STRUCTURE AS A WHOLE. THESE SHALL REMAIN IN PLACE UNTIL STEEL FLOOR DECK IS FULLY WELDED AND/OR PERMANENT BRACING IS INSTALLED.
12 STRUCTURAL STEEL SUPPLIER SHALL SUBMIT SHOP DRAWINGS, SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE PROVINCE OF NEW BRUNSWICK, SHOWING ALL DESIGN AND FABRICATION DETAILS OF CONNECTIONS, TO THE ENGINEER FOR REVIEW PRIOR FABRICATION.
14 PAINTING OF STRUCTURAL STEEL SHALL BE AS SHOWN IN PROJECT SPECIFICATIONS.
15 CLEAN ALL STEEL PRIOR TO PAINTING TO SSPC SURFACE PREPARATION SPECIFICATION NO. 7 "BRUSH-OFF BLAST CLEANING" EXCEPT STRUCTURAL MEMBERS WHICH WILL BE EXPOSED IN THE COMPLETED STRUCTURE IN WHICH CASE CLEANING SHALL CONFORM TO SSPC NO. 6 "COMMERCIAL BLAST CLEANING".
17 SHOP PRIME STEEL SURFACES WITH ONE COAT OF STEEL PRIMER TO MEET THE REQUIREMENTS OF CISC/CPMA [1-73A / 2-75] AFTER ERECTION PRIME ALL WELDS, ABRASIONS, BOLTED CONNECTIONS AND ALL OTHER SURFACES NOT SHOP PRIMED, EXCEPT SURFACES TO BE IN CONTACT WITH CONCRETE.
19 CUT OPENINGS IN THE DECKING WHERE INDICATED ON THE DRAWINGS.
20 PROVIDE MINIMUM 6 4mm (1/4") WELD UNLESS NOTED OTHERWISE.
21 DESIGN CONNECTIONS FOR MINIMUM 50% OF SHEAR CAPACITY UNLESS NOTED OTHERWISE.

CAST IN PLACE CONCRETE NOTES

1 CONCRETE MATERIALS, QUALITY, MIXING, PLACING, FORMWORK AND OTHER CONSTRUCTION PRACTICES TO CONFORM TO CSA-A23.1-14.
2 B USE TYPE GU (TYPE 10) NORMAL PORTLAND CEMENT FOR CONCRETE EXCEPT WHERE CONCRETE IS IN CONTACT WITH SOIL, USE TYPE HS (TYPE 50) SULPHATE RESISTANT CEMENT.
3 CONCRETE LOCATION — STRENGTH — EXPOSURE CLASS
STRUCTURAL SLABS & BEAMS — 35 MPa @ 56 DAYS — C1
4 ALL TESTING TO BE DONE IN ACCORDANCE WITH CSA-A23.2-14 BY AN AGENCY APPROVED BY AND RESPONSIBLE TO THE ENGINEER AND PAID FOR BY THE OWNER.
5 SUBMIT PROPOSED MIX DESIGN TO BE REVIEWED BY AN AGENCY APPROVED BY AND RESPONSIBLE TO THE ENGINEER AND PAID FOR BY THE OWNER PRIOR TO COMMENCING WORK.
6 REINFORCING STEEL TO CONFORM TO CSA G30.18-M92 (R2002), GRADE 400.
7 SUBMIT CHECKED SHOP DRAWINGS AND DETAILS OF ALL REINFORCEMENT FOR REVIEW ONLY PRIOR TO FABRICATION.
8 REINFORCING FOR STRUCTURAL SLABS, BEAMS, AND SLABS ON GRADE TO BE SUPPORTED ON APPROVED CHAIRS AT 915mm MAXIMUM SPACING. USE PRECAST CONCRETE CHAIRS FOR SLABS ON GRADE.
9 DO NOT WELD REINFORCEMENT UNLESS APPROVED IN WRITING BY THE ENGINEER. REINFORCEMENT APPROVED FOR WELDING TO CONFORM TO CSA G30.18-M1992 (R2002), GRADE 400W. WELDING ONLY PERMITTED BY AN ORGANIZATION CERTIFIED TO CSA W186-M1990 (R2002).
10 CONCRETE COVER TO REINFORCEMENT (UNLESS NOTED):
STRUCTURAL SLABS
TOP — 50mm
BOTTOM — 75mm
SLABS EXPOSED TO DE-ICING SALTS TOP — 50mm
11 SUPPLY SUPPORT BARS TO SUPPORT MAIN REINFORCEMENT AS REQUIRED.
12 DO NOT CUT REINFORCEMENT AT OPENINGS WHERE IT CAN BE SPREAD CONTINUOUS AROUND OPENING.

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Tel: (506) 383-8500

Structural Consultant:

Mechanical Consultant:

Electrical Consultant:

Consultants

Key Plan

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Province of New Brunswick
L4304 David S. Bulger 2022
Signature
2022-11-29
Date
INGÉNIEUR TITULAIRE DE PERMIS
Province du Nouveau-Brunswick

Revision	By	Appd	AAAA.MM.JJ
1 ADDENDUM #3			2022.11.29
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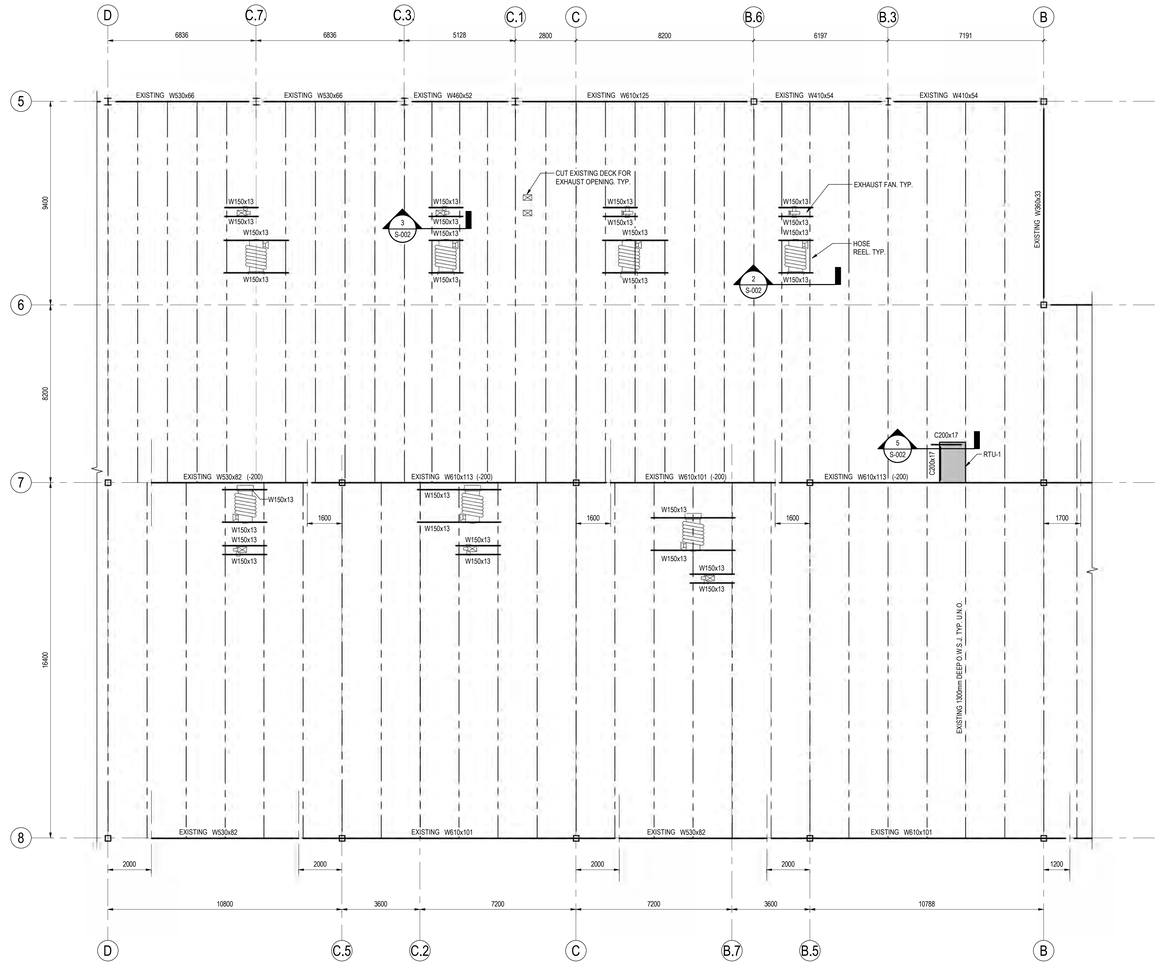
Permit-Seal

Client/Projet
Saint John Fleet Relocation

Title
NOTES, PLANS, AND SECTION

Project No. 140164248
Scale As indicated
Drawing No. S-001
Sheet



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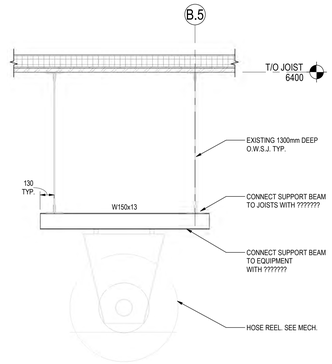

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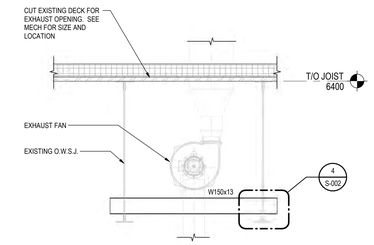

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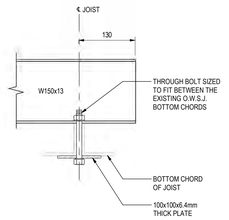

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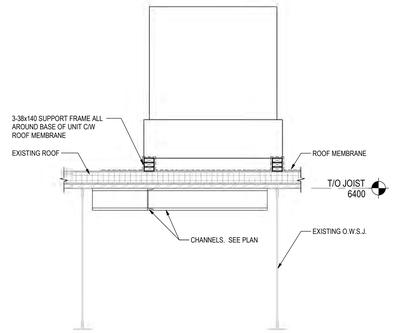

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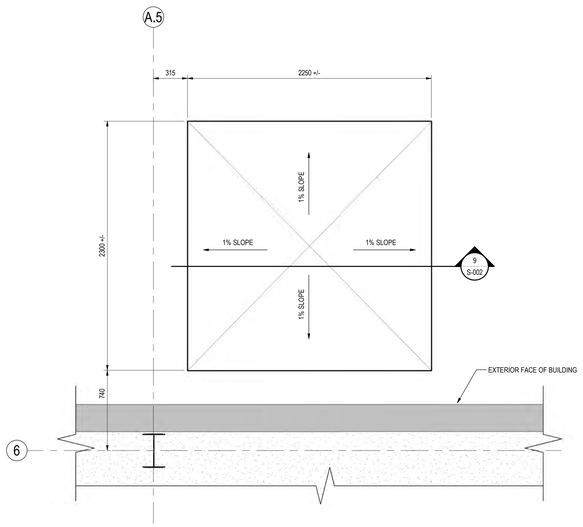

8 M-MAIN FLOOR
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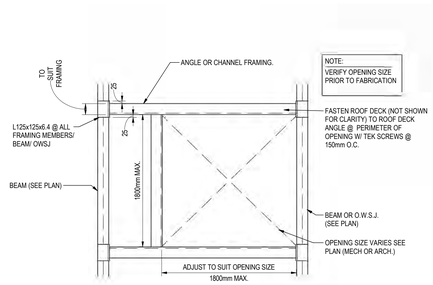
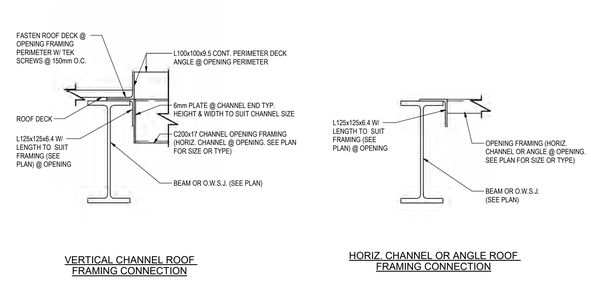


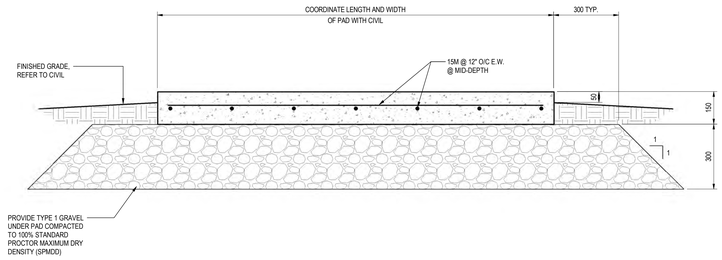
6 ROOF FRAMING AT OPENING - PLAN
S-002 1 : 20



VERTICAL CHANNEL ROOF FRAMING CONNECTION

HORIZ. CHANNEL OR ANGLE ROOF FRAMING CONNECTION

7 ROOF FRAMING AT OPENING - SECTIONS
S-002 1 : 10



9 DUST COLLECTOR PAD
S-002 1 : 10

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