

Parkin Architects Limited  
20 James Street, Suite 200  
Ottawa, Ontario, K2P0T6

Tel: (613) 739-7700; Fax: (613) 739-7780

**1.1 ADDENDUM**

**.1 INTENT**

- .1 This Addendum is issued during Bidding and shall form part of Bidding and Contract Documents for above Project.
- .2 Except as otherwise specified herein, work required by this Addendum shall be in accordance with specifications dated April 07, 2015 and Drawings accompanying same and previously issued Addenda (if any).

**1.2 CIVIL - DRAWINGS**

**.1 N/A**

**1.3 ARCHITECTURAL - SPECIFICATIONS- DIVISIONS 0 TO 33 INCLUSIVE**

**.1 DOCUMENT 11 24 24, FALL ARREST ANCHOR SYSTEM- VOLUME 2**

- .1 Delete Section 11 24 24, FALL ARREST ANCHOR SYSTEM in its entirety.

**1.4 ARCHITECTURAL - DRAWINGS**

**.1 DRAWING NO: 1408-A501**

- .1 Drawing No. 1408-A501 is modified as follows by attached Sheet Number: 1408-A501.2, dated July 20, 2015.

**.2 DRAWING NO: 1408-A2001**

- .1 Drawing No. 1408-A2001 is modified as follows by attached Sheet Number: 1408-A2001.1, dated July 20, 2015.

**1.5 STRUCTURAL – SPECIFICATIONS**

**.1 DOCUMENT 05 17 00, STEEL ROD SYSTEM – VOLUME 1**

- .1 Add new Section 05 17 00 STEEL ROD SYSTEM, appended to this Addendum.

**1.6 STRUCTURAL – DRAWINGS**

**.1 DRAWING NO: S001**

- .1 Drawing No. S001 is modified as follows by attached sketch: S001.02, dated July 20, 2015.

**.2 DRAWING NO: S200**

- .1 Drawing No. S200 is modified as follows by attached Sheet Number: S200, dated July 20, 2015.

**.3 DRAWING NO: S502.01**

- .1 Drawing No. S502 is modified as follows by attached sketch: S502.01, dated July 20, 2015.

**.4 DRAWING NO: S502.02**

.1 Drawing No. S502 is modified as follows by attached sketch: S502.02, dated July 20, 2015.

**.5 DRAWING NO: S502.03**

.1 Drawing No. S502 is modified as follows by attached sketch: S502.03, dated July 20, 2015.

**.6 DRAWING NO: S502.04**

.1 Drawing No. S001 is modified as follows by attached sketch: S502.04, dated July 20, 2015.

**1.7 MECHANICAL – DRAWINGS**

**.1 DRAWING NO: M610**

.1 Drawing No. M610 is modified as follows; Pump Schedule, Pump P-2 required head to read: 13.8m and **45ft** rather than 13.8m and 75ft head.

**1.8 ELECTRICAL- DRAWINGS**

**.1 DRAWING NO: E001**

.1 Drawing No. E001 is modified as follows by attached Sheet Number: E001, dated July 15, 2015.

**.2 DRAWING NO: E002**

.1 Drawing No. E002 is modified as follows by attached Sheet Number: E002, dated July 15, 2015.

**.3 DRAWING NO: E100**

.1 Drawing No. E100 is modified as follows by attached Sheet Number: E100, dated July 15, 2015.

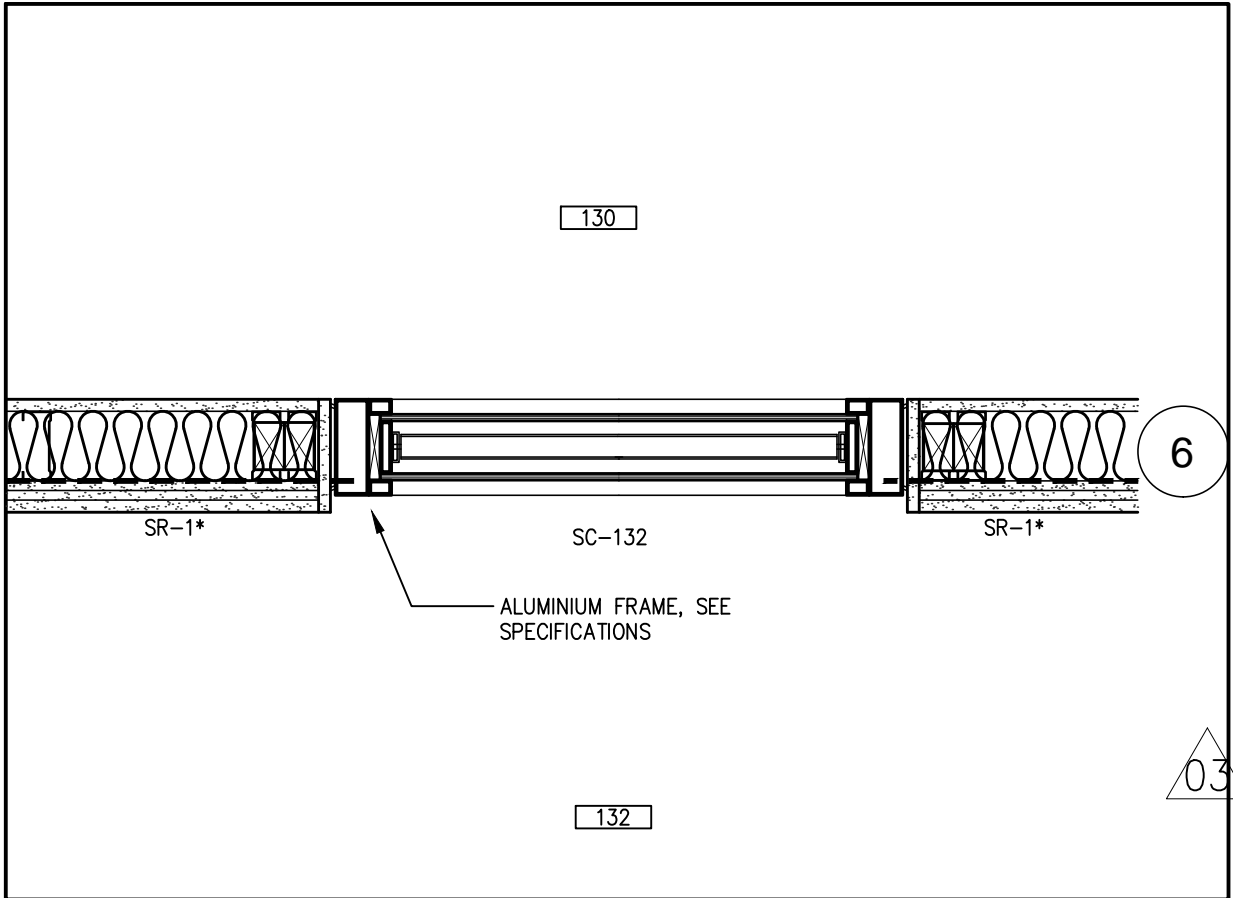
**List of Attachments:**

**PDF Files**

Architectural Drawings	2 Pages
Structural Specifications	4 Pages
Structural Drawings	6 Pages
Electrical Drawings	3 Pages

**END OF ADDENDUM**

A500



PLAN DETAIL

6

03

11

A501

C:\projects\2014\1408\1408-00\graphicsacad\working\sheet\1408-00-a501.dwg  
Jul 17, 2015 - 12:43pm

Sheet Title: PARTIAL INTERIOR PLAN DETAIL

Project:

FEDERAL BUILDING  
ARVIAT, NUNAVUT



Date:  
2015/07/20

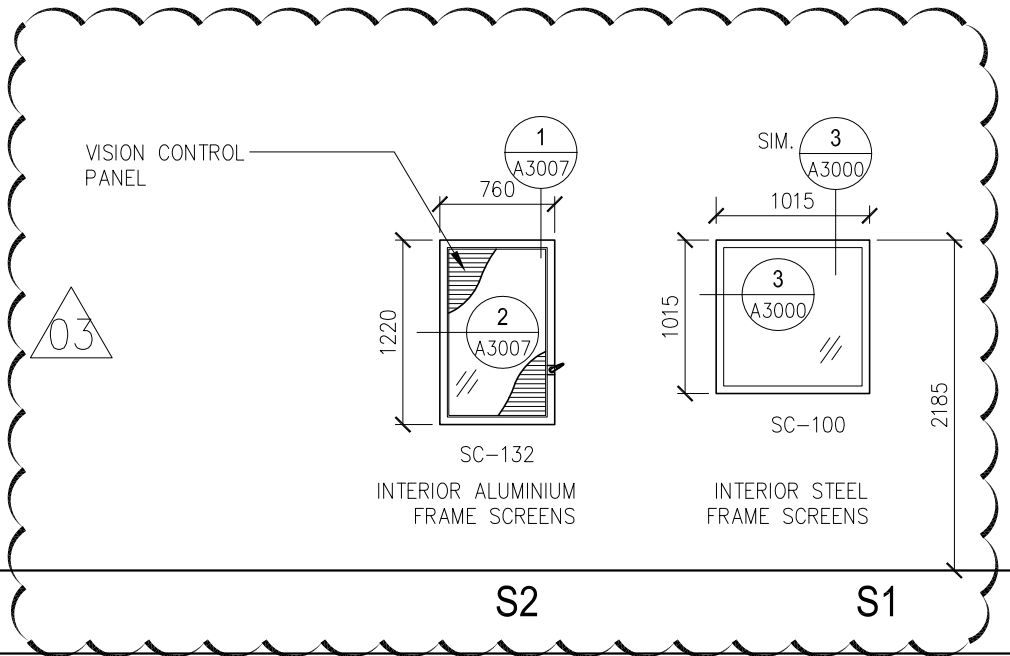
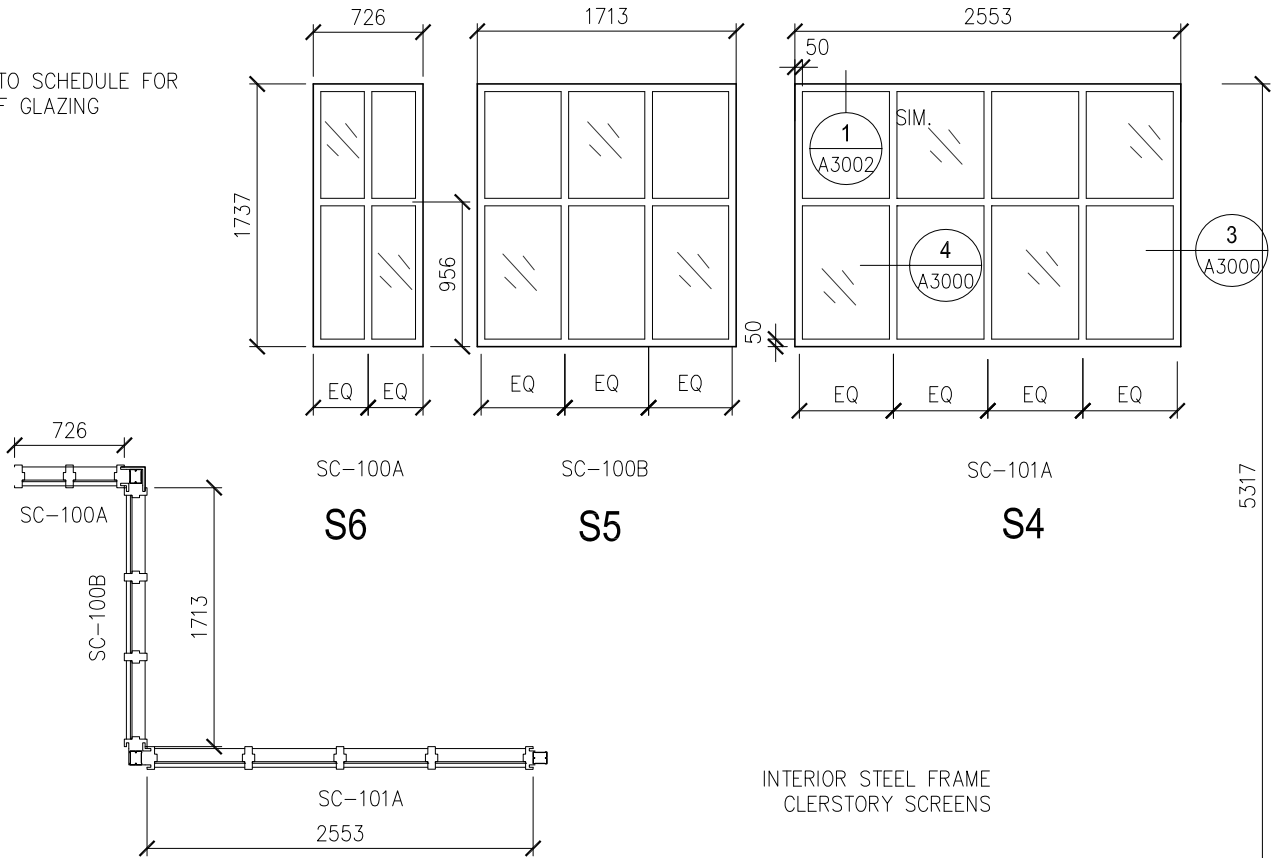
Scale:  
1:10

Drawn By:  
JoL

Revision:  
ADDENDUM #3

Sheet Number:  
1408-A501.2

NOTE:  
REFER TO SCHEDULE FOR  
TYPE OF GLAZING



O:\projects\2014\1408\1408-00\graphics\acad\working\1408-a-door-frame.dwg  
Jul 17, 2015 - 12:41pm

Sheet Title: REVISION -SCREEN TYPE

Project:

Federal Building  
Arviat, NUNAVUT  
PROJECT No: 1408-00



Date:  
2015-07-20

Scale:  
1:50

Drawn By:  
WH/JL

Revision:  
ADDENDUM #3

Sheet Number:  
A2001.1

PART 1 - GENERAL

1.1 SECTION INCLUDES

- .1 This section covers Halfen Anchoring Systems "DETAN" steel tension.
- .2 Carbon Steel Rod System:
  - .1 Tension rods.
  - .2 Cross couplers.
  - .3 Fork connectors.
  - .4 Connecting plates.

1.2 RELATED REQUIREMENTS

- .1 Section 05 12 23 - Structural Steel for Buildings.

1.3 REFERENCE STANDARDS

- .1 ASTM A572/A572M - Standard Specification for High-Strength Low-Alloy Columbium-Vanadium Structural Steel.
- .2 ASTM A666 - Standard Specification for Annealed or Cold-Worked Austenitic Stainless Steel Sheet, Strip, Plate, and Flat Bar.
- .3 ASTM A694/A694M - Standard Specification for Carbon and Alloy Steel Forgings for Pipe Flanges, Fittings, Valves, and Parts for High-Pressure Transmission Service.

1.4 PREINSTALLATION MEETINGS

- .1 Convene pre-installation meeting 2 weeks before start of work of this section.
- .2 Require attendance of parties directly affecting work of this section, including Contractor, Architect, Engineer, installer, and manufacturer's representative.
- .3 Review materials, installation, field quality control, protection, and coordination with other work.

1.5 SUBMITTALS

- .1 Comply with Section 01 33 00 - Submittal Procedures.
  - .2 Product Data: Submit manufacturer's product data, including installation instructions.
  - .3 Shop Drawings: Submit manufacturer's shop drawings, detailing
-

installation procedures, including layout, dimensions and placement of tension rods, couplers, anchor discs, fork connectors, connection plates, and compression rods.

- .4 Warranty Documentation: Submit manufacturer's standard warranty.

## 1.6 QUALITY ASSURANCE

- .1 Installer's Qualifications: Installer experienced in performing work of this section.

## 1.7 DELIVERY, STORAGE, AND HANDLING

- .1 Ordering: Comply with manufacturer's ordering instructions and lead time requirements to avoid construction delays.
- .2 Delivery and Acceptance Requirements: Deliver materials to site in manufacturer's original, unopened containers and packaging, with labels clearly identifying product name and manufacturer.
- .3 Storage and Handling Requirements:
  - .1 Store and handle materials in accordance with manufacturer's instructions.
  - .2 Keep materials in manufacturer's original, unopened containers and packaging until installation.
  - .3 Store materials in clean, dry area protected from weather.
  - .4 Protect materials and finish during storage, handling, and installation to prevent damage.

## PART 2 - PRODUCTS

### 2.1 MANUFACTURER

- .1 Halfen USA Inc., 8521 FM 1976, P.O. Box 547, Converse, TX 78109. Toll Free 800-423-9140. Fax 888-277-1695. [www.halfenusa.com](http://www.halfenusa.com). [info@halfenusa.com](mailto:info@halfenusa.com).

### 2.2 MATERIALS

- .1 Rod System: Halfen "DETAN" rod system.
  - .2 Carbon Steel System: "DETAN-S460".
    - .1 Tension Rods:
      - .1 Material: Carbon steel S460, DIN EN 10025, ASTM A572.
      - .2 Finish: Hot-dip galvanized.
      - .3 Diameter: 24 mm (15/16 inch).
-

- .4 Length: as per Drawing S200.
- .2 Couplers:
  - .1 Material: Dacrometized, carbon steel, Grade S355 with 355 MPa (51,000 psi) minimum yield strength, DIN EN 10025.
  - .2 Diameter: matches the main tension rod diameter.
  - .3 Length: matches the main tension rod diameter.
- .3 Fork Connectors:
  - .1 Material: Dacrometized, cast steel, G20 Mn5+QT, EN 10293.
- .4 Connecting Plates: (Connecting plates are not manufactured as part of the DETAN system. They must be fabricated and obtained from other manufacturers.)
  - .1 Material: ASTM A572, Grade 50.
  - .2 Finned for welding to steelwork.
  - .3 Size: as per drawings S200, S502.

### PART 3 - EXECUTION

#### 3.1 EXAMINATION

- .1 Examine area to receive bracing for compliance with installation clearances.
- .2 Verify substrate conditions are acceptable for product installation.
- .3 Notify Architect of conditions that would adversely affect installation.
- .4 Do not begin installation until unacceptable conditions are corrected.

#### 3.2 INSTALLATION

- .1 Install rod system in accordance with manufacturer's instructions at locations indicated on the Drawings.
  - .2 Fully screw rod system locknut on rod until rod markings are not visible.
  - .3 Screw fork connector on tension rod to required system length.
  - .4 Screw locknut back toward fork connector until locked.
  - .5 Install snap rings with snap-ring pliers on each side of pin in fork connector.
  - .6 Position connection plates to not subject rod system to bending.
  - .7 Align and position forks in same plane.
    - .1 Maximum Misalignment: 0.5 degrees.
-

3.3 FIELD QUALITY CONTROL

- .1 Inspections:
  - .1 Inspect completed rod system for proper locknut screw-in depth, after installation and before final acceptance.
  - .2 Report component damage to Architect and manufacturer.
  - .3 Ensure markings on rods are covered by locknut to achieve minimum screw-in depth.

3.4 PROTECTION

- .1 Protect installed rod system from damage during construction.
- .2 Touch-up damage to factory-applied finishes using appropriate materials and techniques.

END OF SECTION



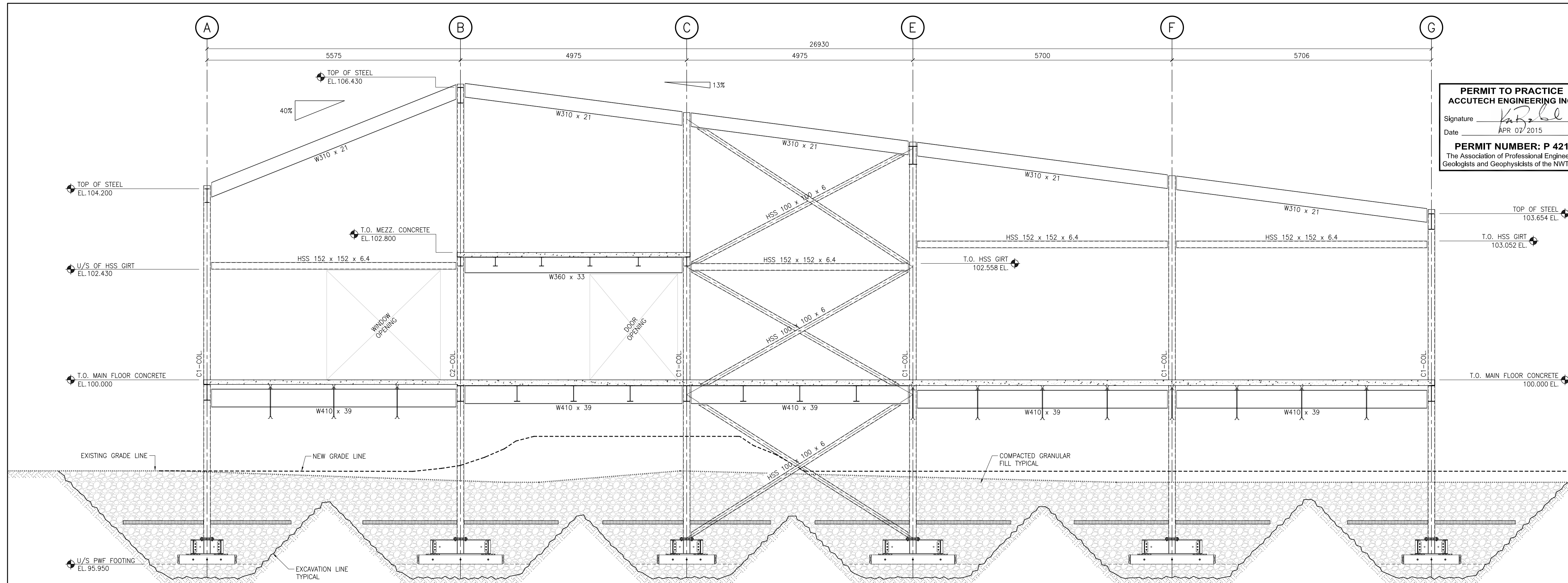
## STRUCTURAL STEEL

- 1) STRUCTURAL STEEL SHALL CONFORM TO CSA STANDARD G40.21-300W FOR PLATES AND ANGLES AND TO G40.21-350W FOR REMAINDER.
- 2) FABRICATION AND ERECTION SHALL CONFIRM TO CSA STANDARD S16 (LATEST).
- 3) ALL WELDING SHALL BE PERFORMED BY QUALIFIED WELDERS FULLY APPROVED FOR STRUCTURAL WELDING BY THE CANADIAN WELDING BUREAU IN ACCORDANCE WITH CSA SPECIFICATIONS W47 AND W59.
- 4) DESIGN AND FABRICATE ALL CONNECTIONS FOR THE FULL STRENGTH OF THE MEMBER.
- 5) SPLICING OF MEMBERS IS NOT PERMITTED UNLESS OTHERWISE NOTED.
- 6) WHERE BEAMS ARE CONTINUOUS OVER SUPPORTS, NO HOLES ARE PERMITTED IN THE TOP FLANGE. PROVIDE TWO 10mm WELDED WEB STIFFENER PLATES EACH SIDE OF BEAM, ALIGNED WITH COLUMN WALLS, UNLESS OTHERWISE NOTED.
- 7) COLUMN BASE AND CAP PLATES SHALL BE FULLY WELDED ALL AROUND.  
PROVIDE 19mm CAP PLATE WITH FOUR 19mm (3/4") DIAMETER BOLTS FOR ALL COLUMNS SUPPORTING CANTILEVERED BEAMS.
- 8) ALL STRUCTURAL STEEL BELOW GRADE AND EXPOSED TO EXTERIOR ENVIRONMENTS SHALL BE HOT DIPPED GALVANIZED.
- 9) SUPPLY ALL COMPONENTS WITH 1 COAT OF SHOP PRIMER CONFORMING TO C.I.S.C./C.P.M.A. 1-73A OR EQUIVALENT UNLESS NOTED OTHERWISE.
- 10) 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 FLOOR SLABS ARE WELL CURED, STEEL ROOF DECK IS FULLY WELDED AND / OR PERMANENT BRACING IS INSTALLED. TEMPORARY BRACING AND GUY-WIRES ARE DESIGNED BY STRUCTURAL STEEL SUPPLIERS PROFESSIONAL ENGINEER REGISTERED IN THE TERRITORY OF NUNAVUT, AND HOLDS A CURRENT "PERMIT TO PRACTICE" IN NUNAVUT.
- 11) ALL STEEL STAIRS, RAMPS, GUARD RAILS, HANDRAILS, PLATFORMS AND WIRE MESH INFILL SHALL BE DESIGNED & DETAILED BY STRUCTURAL STEEL FABRICATOR'S ENGINEER. FABRICATOR SHALL SUBMIT SHOP DRAWINGS UNDER THE SEAL OF A PROFESSIONAL ENGINEER REGISTERED IN THE TERRITORY OF NUNAVUT AND HOLDS A "PERMIT TO PRACTICE" OF NAPEG. DRAWINGS SHALL BE SUBMITTED TO THE DESIGN ENGINEER OF RECORD PRIOR TO START OF FABRICATION.
- 12) FOR ALL PERIMETER LOAD-BEARING BEAMS, PROVIDE BOTTOM FLANGE BRACE TO ROOF/FLOOR DIAPHRAGM AT MAXIMUM SPACING OF 3000mm.

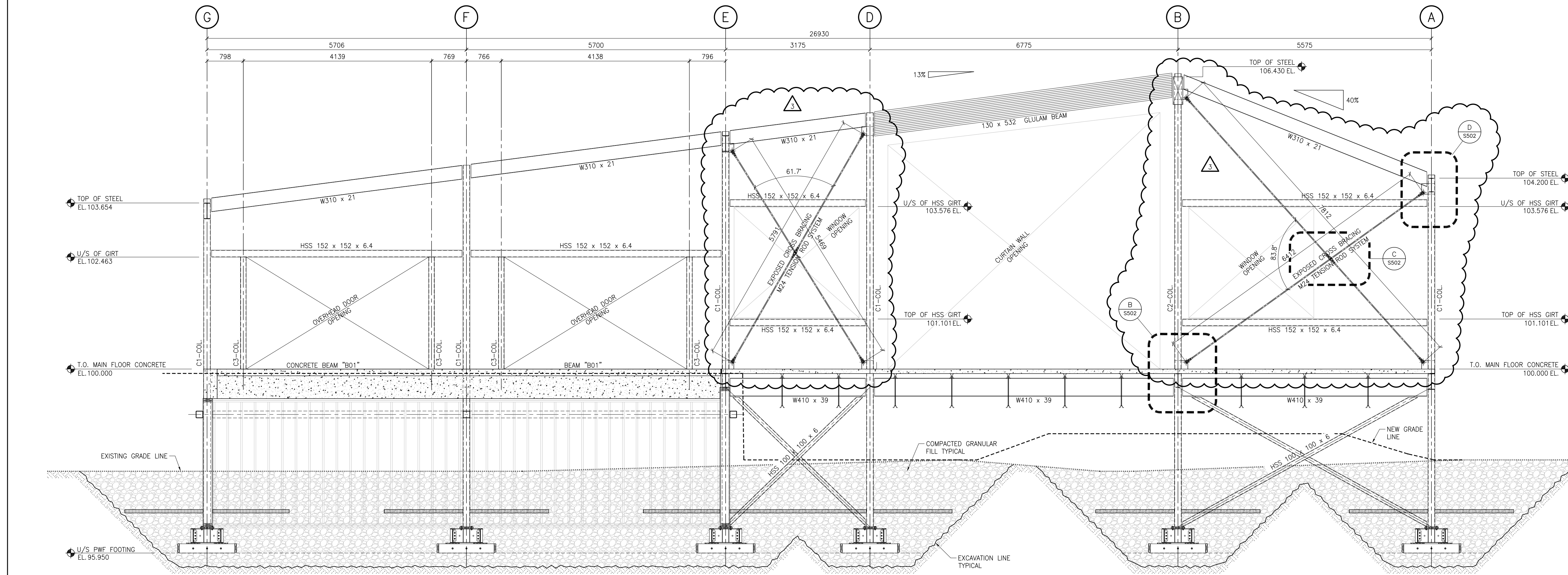
- 13) TWO EXPOSED CROSS BRACINGS WILL BE PROVIDED BY HALFEN ANCHORING SYSTEM "DETAN" STEEL TENSION ROD SYSTEM. EACH BRACE SHALL CONSIST OF ONE VARIANT WITH CROSS COUPLER AND ONE BASIC SYSTEM. 3 - 24mm DIAMETER TENSION RODS, 4 - FORK CONNECTION SETS & 1 - CROSS COUPLER SET. NR,d = 120 kN.







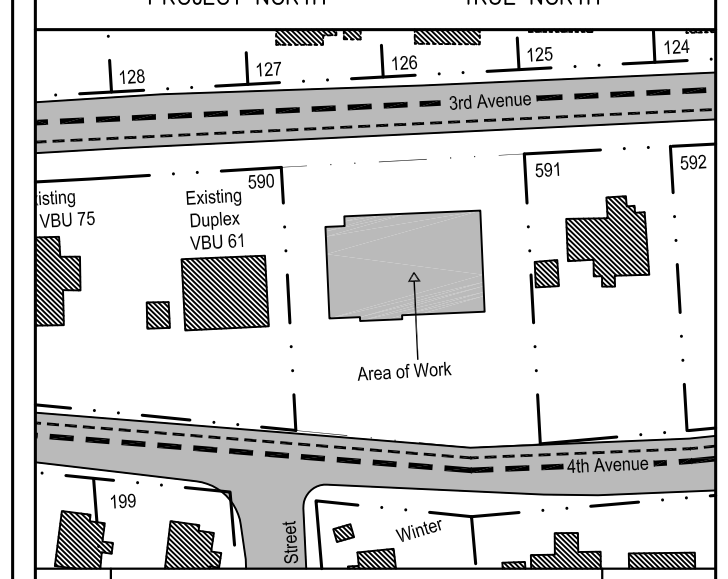
**A NORTH WALL – BRACING ELEVATION**  
S200 1:50



**B SOUTH WALL – BRACING ELEVATION**  
S200 1:50

**PERMIT TO PRACTICE**  
**ACCUTECH ENGINEERING INC.**  
Signature: *K.R. DeSousa*  
Date: APR 07 2015

**PERMIT NUMBER: P 421**  
The Association of Professional Engineers,  
Geologists and Geophysicists of the NWT/NNU



No.	Description	Date
1	ISSUED WITH ADDENDUM	07-20-2015
0	ISSUED FOR TENDER	04-07-2015

Revisions:

All measurements are to be checked and verified on site by the contractor before proceeding with the work.  
Do not scale the drawings.

Prime Consultant:

20 James Street, Suite 200, Ottawa, Canada K2P 0T6 613-739-7700

Sub Consultant:

**Accutech Engineering Inc.**  
Tomorrow's Technology Today

1548 Dugald Road, Winnipeg, Manitoba, Canada R2J 0H3  
Phone: 204.944.1552 Fax: 204.944.1444  
www.accutech.ca

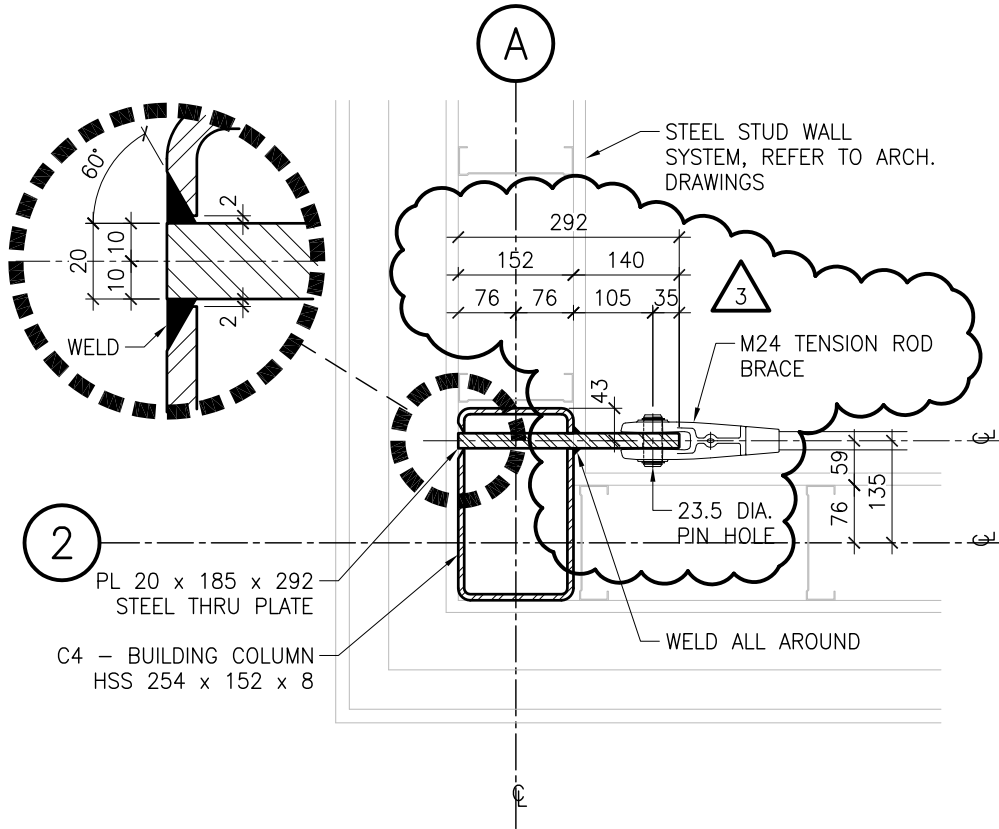
**A.G. Engineering**  
Electrical Engineers

Thunder Bay Inc.  
1115 East Beaver Avenue, 2nd Floor  
Thunder Bay, ON P7C 1B7  
Phone: (807) 627-2654  
Fax: (807) 627-8761  
AEC Project #121-13-02

Project:

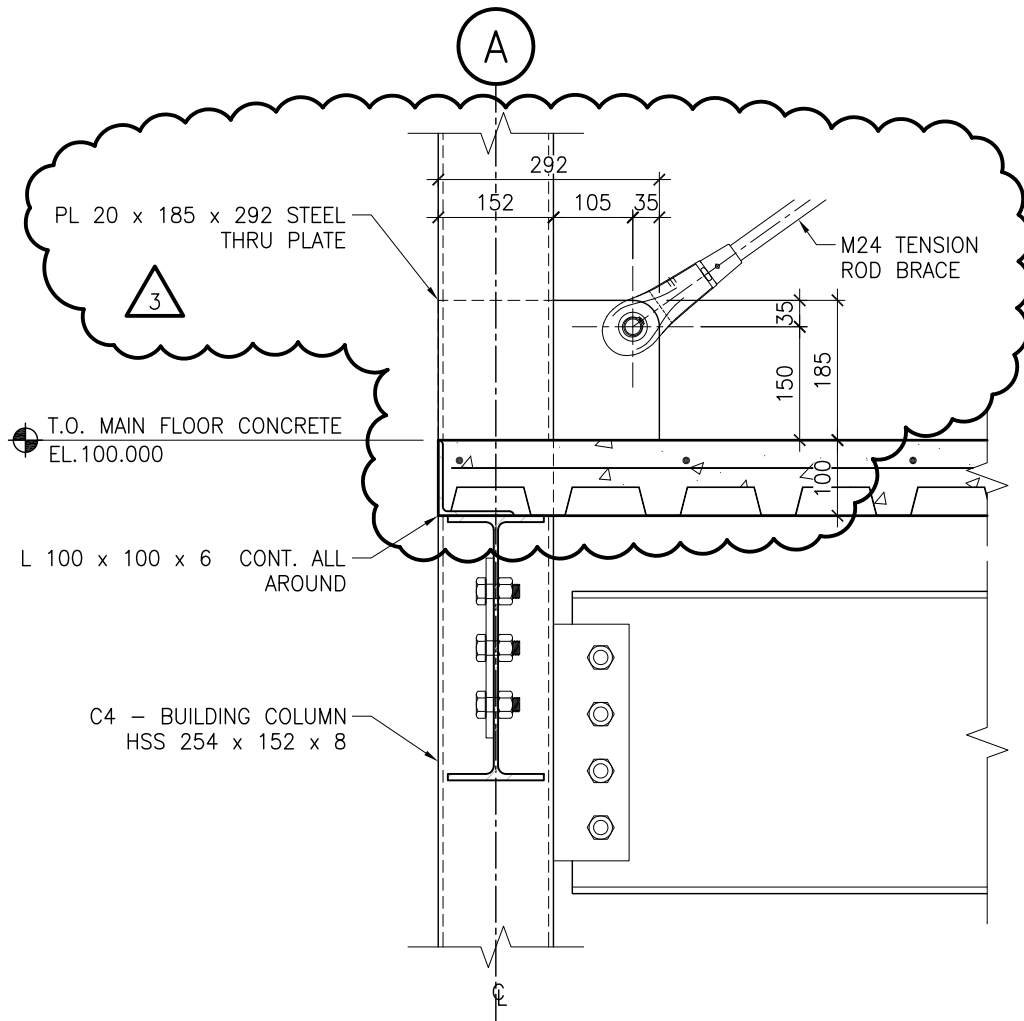
**FEDERAL BUILDING  
ARVIAT, NUNAVUT**

Drawn By: ALG	Date: 04-07-2015
Checked By: KRD	Scale: 1:50
Sheet Title: <b>BRACING ELEVATIONS</b>	
Sheet Number: <b>S200</b>	

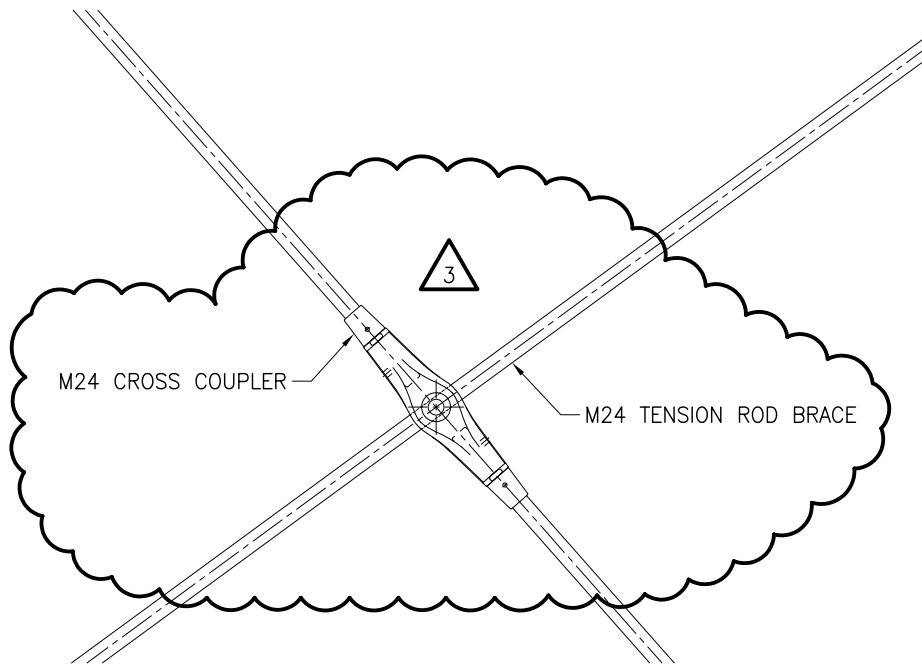


A
S502
EXPOSED BRACE BASE DETAIL  
1:10





**B** EXPOSED BRACE DETAIL  
 S502 1:10



C  
S502

EXPOSED BRACE DETAIL

1:10



1349 Dugald Road, Winnipeg, Manitoba, Canada R2J 0H3  
 phone 204.944.1555 fax 204.944.1444  
 www.accutecheng.ca

Sheet Title: ADDENDUM NO. 3  
 REFERENCE DRAWING: S502  
 DETAILS

Project: FEDERAL BUILDING  
 ARVIAT, NUNAVUT

Date: JUL 20 2015

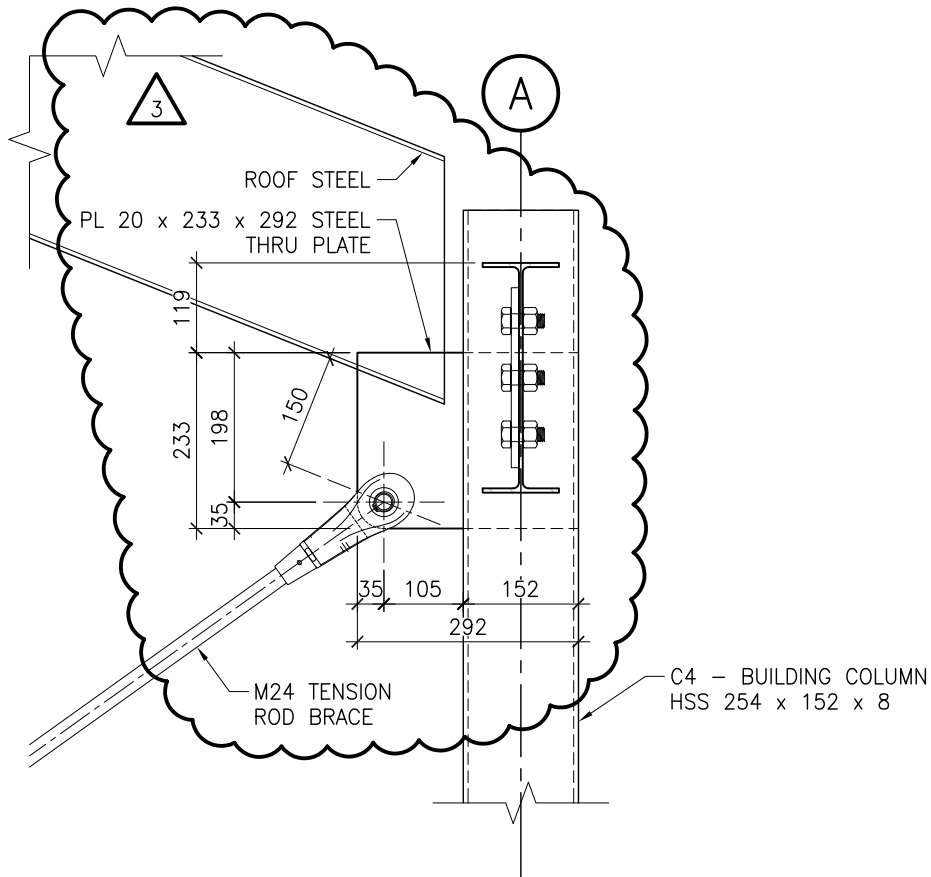
Drawn By: ALG

Job Number: 62601

Scale: 1:50

Revision: 0

Sheet Number: SR-S502.03



D  


---

 S502
 

 EXPOSED BRACE DETAIL  
 1:10

## GENERAL ELECTRICAL SPECIFICATIONS

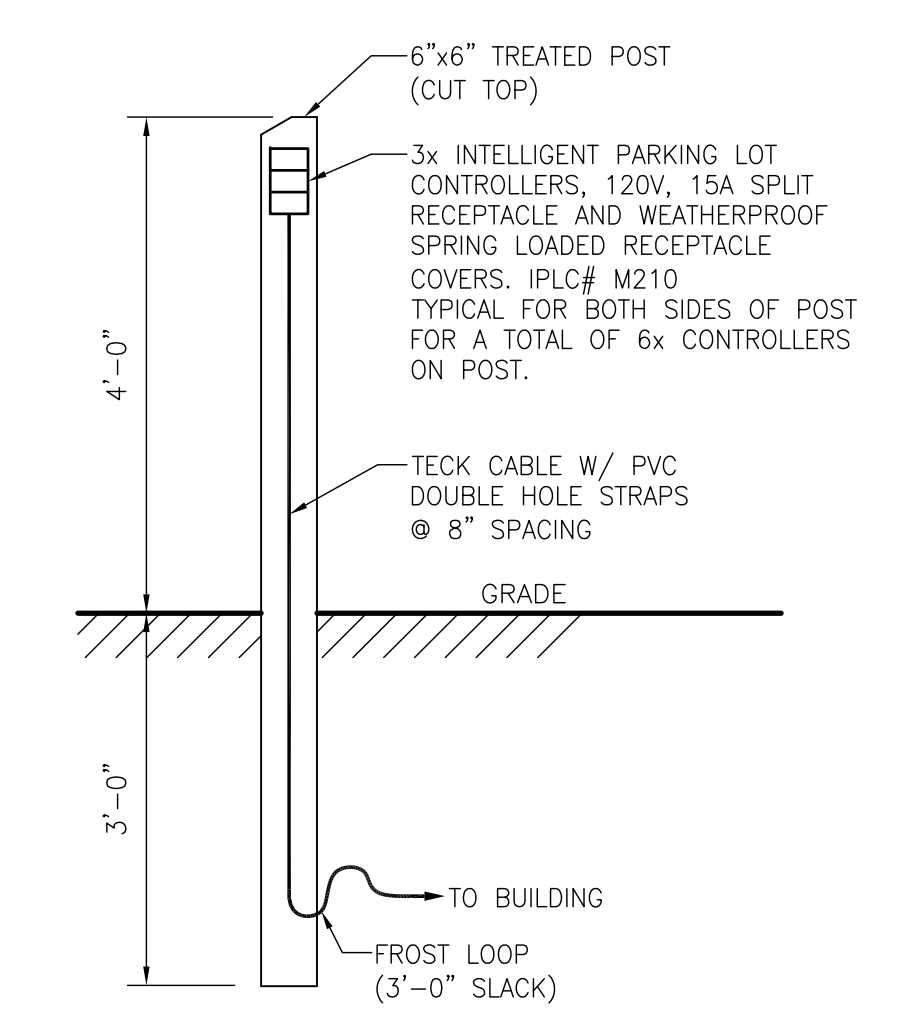
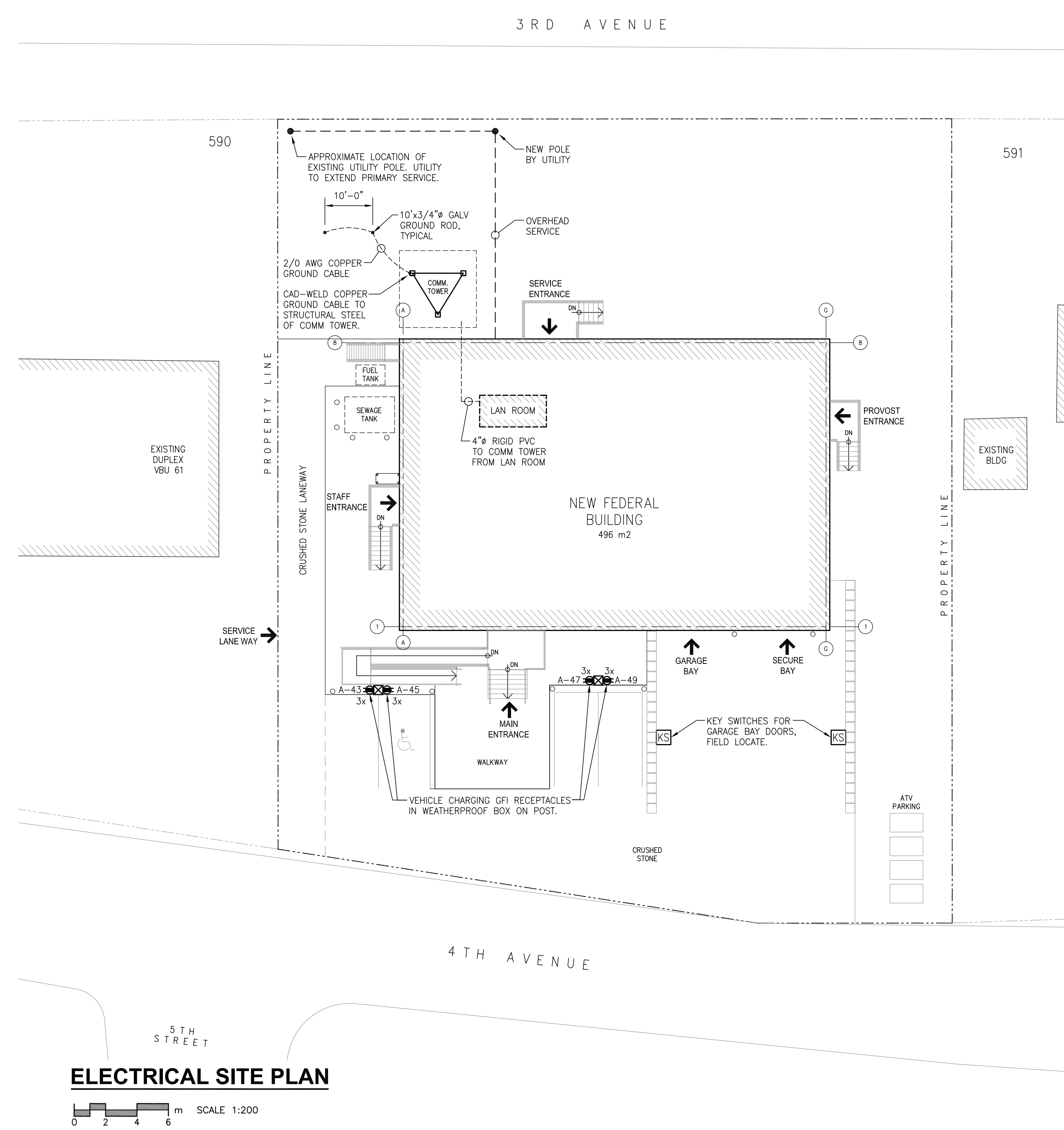
- INSTALLATION SHALL BE IN ACCORDANCE WITH THE CANADIAN ELECTRICAL CODE ELECTRICAL SAFETY CODE LATEST EDITION & ALL OTHER APPLICABLE CODES & REGULATIONS.
- ALL EQUIPMENT SHALL BE NEW AND CSA CERTIFIED.
- ELECTRICAL CONTRACTOR SHALL SUPPLY EQUIPMENT AS SPECIFIED AS WELL AS ANY MISCELLANEOUS TO COMPLETE THE WORK.
- IDENTIFY ELECTRICAL EQUIPMENT WITH PROPER NAMEPLATES. IDENTIFY ALL WIRING, MAINTAIN PHASE SEQUENCE & COLOUR CODING.
- CONTRACTOR TO FURNISH CERTIFICATES OF ACCEPTANCE FROM THE ELECTRICAL INSPECTION DEPARTMENT UPON COMPLETION OF WORK TO THE ENGINEER. VERIFY F/A SYSTEM BY QUALIFIED PERSONNEL. CONDUCT AUDITORY TEST UPON COMPLETION.
- ALL WIRING SHALL BE MIN. #12 AWG CU. IN EMT (UNLESS OTHERWISE NOTED).
- INSTALL INSULATED GREEN BONDING CONDUCTOR IN ALL EMT CONDUIT.
- ALL WIRING SHALL BE CONCEALED FROM VIEW UNLESS OTHERWISE NOTED.
- CONTRACTOR SHALL REPAIR ALL SURFACES DAMAGED DUE TO WORK PERFORMED.
- CONTRACTOR SHALL VERIFY ALL DIMENSIONS, DO NOT SCALE DRAWING.
- ALL MATERIALS REMOVED AND MADE REDUNDANT BY THIS WORK (UNLESS OTHERWISE NOTED) SHALL BECOME PROPERTY OF OWNER.
- MOUNTING HEIGHTS FOR DEVICES AS PER CODE REQUIREMENTS, UNLESS OTHERWISE NOTED.
- COORDINATE COLOUR FOR ALL WALL PLATES, RECEPTACLES, SWITCHES AND DEVICES WITH OWNER.
- MOUNT ALL EMERGENCY LIGHTING AT 7'-0" ABOVE FINISHED FLOOR. PROVIDE RECEPTACLE ABOVE CEILING AS REQUIRED.
- COORDINATE ALL LIGHT FIXTURE AND RECEPTACLE INSTALLATION IN MILLWORK WITH CABINET BUILDER.
- THE INTENT OF THIS PROJECT IS INSTALL A COMPLETE LIGHTING DESIGN. IF SWITCHING FOR AN AREA IS NOT SHOWN, THE ELECTRICAL CONTRACTOR SHALL PROVIDE SWITCHING.
- ELECTRICAL CONTRACTOR TO SUPPLY AND INSTALL ALL FUSED AND NON-FUSED DISCONNECTS AS REQUIRED FOR ALL MECHANICAL EQUIPMENT INDICATED ON ELECTRICAL AND MECHANICAL DRAWING SETS. AMPERAGE, VOLTAGE AND NUMBER OF POLES TO BE CONFIRMED WITH MANUFACTURER'S LITERATURE.
- PROVIDE DEDICATED 1P-15A BREAKER FOR EXIT SIGN POWER.
- ELECTRICAL CONTRACTOR TO PROVIDE AND INSTALL 20A GFI NEMA 5-20R CONVENIENCE RECEPTACLE(S) WITHIN 7.5m OF ALL ROOFTOP MOUNTED MECHANICAL EQUIPMENT (HEATING, VENTILATION, AIR CONDITIONING UNITS). ALL RECEPTACLES TO BE FED FROM DEDICATED 1P-20A CIRCUIT(S), AND MOUNTED IN WEATHERPROOF BACKBOX W/ SPRING-LOADED COVER, MINIMUM 750mm ABOVE FINISHED ROOF.
- COMPLETE TYPEWRITTEN PANEL SCHEDULES ARE TO BE PROVIDED FOR ALL PANELS. ALL LOADS FED FROM RELOCATED EXISTING CIRCUITS ARE TO BE DETERMINED AND INCLUDED IN PANEL SCHEDULES.
- ALL ELECTRICAL EQUIPMENT WITHIN SPRINKLERED ROOMS SHALL BE EQUIPPED WITH HOODS SUITED FOR THE APPLICATION. IF HOODS ARE NOT PROVIDED BY THE FACTORY OR IT IS FOR AN EXISTING PIECE OF EQUIPMENT, IT SHALL BE THE ELECTRICAL CONTRACTORS RESPONSIBILITY TO SUPPLY AND INSTALL THESE HOODS ON NEW OR EXISTING EQUIPMENT AS REQUIRED.
- ALL CEILING SPACES ACT AS RETURN AIR PLENUMS. ALL CABLING IN CEILING SPACE MUST HAVE AN FT6 FIRE RATING OR BE COMPLETELY ENCLOSED IN CONDUIT.

## POWER IDENTIFICATION LEGEND

- DUPLEX RECEPTACLE
- SPECIAL CONNECTION FOR POWER
- GFI RECEPTACLE. (IN OUTDOOR LOCATIONS MOUNT IN WEATHERPROOF BACKBOX W/ SPRING LOADED COVER)
- 20A GFI RECEPTACLE
- QUAD RECEPTACLE
- DATA & TELEPHONE OUTLET. PROVIDE 3/4" EMT RACEWAY TO CEILING SPACE C/W PULL CORD.
- ANALOG TELEPHONE OUTLET. PROVIDE 1/2" EMT RACEWAY TO EACH OUTLET TO CEILING SPACE C/W PULL CORD.
- SATELLITE TELEVISION OUTLET, PROVIDE 3/4" EMT RACEWAY TO CEILING SPACE.
- 'CH' DENOTES DEVICE WALL-MOUNTED AT COUNTER HEIGHT.
- BARRIER-FREE DOOR OPERATOR AND ASSOCIATED PUSHBUTTONS. ALL POWER AND CONTROL WIRING BY ELECTRICAL CONTRACTOR. INSTALL CONDUIT AND RECESSED BOXES FOR PUSHBUTTONS AS REQUIRED. COORDINATE WITH DOOR HARDWARE SUPPLIER/INSTALLER.
- FIRE ALARM PULLSTATION (2 STAGE)
- FIRE ALARM BELL/STROBE
- HEAT DETECTOR
- FIXED TEMPERATURE HEAT DETECTOR
- IONIZATION SMOKE DETECTOR
- ELECTRIC MOTOR
- DISCONNECT SWITCH. SIZE AS REQUIRED, OUTDOOR RATED.
- SECURITY CAMERA LOCATION
- PANIC ALARM PUSHBUTTON
- PANIC ALARM RESET KEY SWITCH
- PANIC ALARM
- SECURITY ALARM
- KEY SWITCH
- KEYPAD ALARM
- MOTION SENSOR

## LIGHTING IDENTIFICATION LEGEND

- 42W, 120V LED TROFFER FIXTURE, 3000°K, 3600 LUMEN, 1220x305mm PHILIPS VECTRA SERIES CAT# 9714-D1-ST-L-C-36-S-1-1-E
- LED SURFACE MOUNT FIXTURE, 120V, 40W, 3500°K, 3,900 LUMEN PHILIPS GFI DAY-BRITE FLUXSTREAM SERIES CAT# LF-4-FR-39-35-U-LAG
- LED WALL-MOUNT FIXTURE 25W, 120V, 3500°K, 2123 LUMENS, 125x610mm KENALL MILLENNIUM STRETCH SERIES CAT# MLH45V-24-R-MW-PP-25L35K-DCC-1-120
- LED CORNER-MOUNT, CORRECTIONAL GRADE CELL FIXTURE 74W, 120V, 4000°K, 4800 LUMENS, C/W LED NIGHT LIGHT W/ LIGHT LEVEL CONTROL 100%-20% COOPER LIGHTING FAIL-SAFE FCC SERIES # FCC-X-4-LED3-2-STD-40-120-80/86-ED2C-LLNL
- LED SURFACE-MOUNT, CORRECTIONAL GRADE FIXTURE 67W, 120V, 4000°K, 5606 LUMENS, C/W LED NIGHT LIGHT W/ LIGHT LEVEL CONTROL 100%-20% KENALL MIGHTY MAC SDSA SERIES CAT# SDSA-4-4/4-67L40K-DCC-120-G-1-DLN
- LED RECESSED VAPOURPROOF CORRECTIONAL GRADE FIXTURE, 13W, 120V, 4000°K, 1202 LUMENS, LISTED FOR WET LOCATIONS KENALL MILLENNIUM DOWNLIGHT HADL SERIES CAT# HADL6VL2-13L40K-DV-2FW-G-9500
- LED CORRECTIONAL GRADE TROFFER FIXTURE 67W, 120V, 4000°K, 5606 LUMENS, C/W LED NIGHT LIGHT W/ LIGHT LEVEL CONTROL 100%-20% KENALL MIGHTY MAC RMCA SERIES CAT# RMCA-4-TG-4/4-67L40K-DCC-120-G-1-DLN
- LED GARAGE FIXTURE 73W, 120V, 4000°K, 6377 LUMENS, 3380x3960mm 2 LED ARRAYS, CONCENTRATED DOWNLIGHT PHILIPS GARDCO SERIES CAT# G3-CD-2-73LA-3270-NW-120-NP
- 20W, 120V, 4.5" ROUND LED RECESSED DOWNLIGHT FIXTURE, 3000°K, 1000 LUMEN, C/W SPECULAR CLEAR REFLECTOR, WET LISTED LIGHTOLIER CALCULITE LED CAT# C4L20LED1-C420LEDL30K-CLW
- 20W, 120V, 5" ROUND LED RECESSED VAPOURPROOF DOWNLIGHT FIXTURE, 3000°K, 900 LUMEN, C/W LENS PHILIPS LIGHTOLIER XCEED SERIES FRAME-IN# 1050LRN-09D1 LIGHT ENGINE# 1050LRN-09-30 TRIM SERIES# 1050LRN-DL-WB
- 30W, 120V, LED DIRECT/INDIRECT PENDANT FIXTURE, 1220mm LENGTH, 408 UPLIGHT/608 DOWN, 3000°K, 3400 LUMEN, SUSPENDED WITH AIRCRAFT CABLE, REFER TO ARCH FOR EXACT MOUNTING HEIGHT. PEERLESS BRUNO LED SOFTSHINE SERIES. CAT# BRM9L-LO-40/60-SSH-4FT-R4-120-SCT-LP830
- LED EXTERIOR WALL PACK 35W, 120V, 5000 LUMENS PHILIPS WIDE-LITE ASW LED SERIES CAT# ASW-32G1-350-NW-2L-120
- TOGGLE SWITCH, BACK/SIDE WIRED, 15A, 120/277V, LEVITON CAT. # 1201 OR EQUAL.
- THREE-WAY TOGGLE SWITCH, BACK/SIDE WIRED, 15A, 120/277V, LEVITON CAT. # 1203 OR EQUAL.
- PIR WALL SWITCH OCCUPANCY SENSOR LIGHTING CONTROL RATED 800W @ 120V LEVITON# ODS15-ID
- 3-POSITION SELECTOR SWITCH TO SUIT FIXTURE TYPE 'C1' TO PROVIDE 100% ILLUMINATION, 20% ILLUMINATION, AND FIXTURE OFF. FLUSH-MOUNTED. COORDINATE REQUIREMENTS WITH FIXTURE MANUFACTURER.
- 'NL' DENOTES AN UNSWITCHED NIGHT LIGHT FIXTURE.
- LED "RUNNING MAN" EXIT SIGN W/ PICTOGRAM SYMBOLS CONFORMING TO ISO 7010. EXTRUDED ALUMINUM FRAME W/ CLEAR POLYCARBONATE PANELS AND PICTOGRAM FILMS. SELF-POWERED WITH NICKLE-CADMIUM BATTERY SIZED FOR 2 HOURS BACKUP. UNIVERSAL VOLTAGE (120V-347V). SINGLE OR DOUBLE FACED TO SUIT AND PICTOGRAM FILMS TO DENOTE EXIT DIRECTIONS AS NOTED ON DRAWINGS. EMERGI-LITE# EA SERIES
- NEW EMERGENCY 12 VDC LIGHTING UNIT C/W INTEGRAL 12VDC 9W MICRO-TUNGSTEN HEAD(S) AS INDICATED. SIZED FOR 1 HOUR COVERAGE. EMERGI-LITE# 12ESL SERIES
- EMERGENCY LIGHTING 12 VDC 9W DOUBLE REMOTE HEAD(S). WIRED TO PACK EM# (USE #10 AWG AC90 MIN. FOR 12VDC WIRING). EMERGI-LITE# EF9 SERIES & EF9D SERIES



**CAR PLUG POST DETAIL**  
NOT TO SCALE

No.	Description	Date
1	RE-ISSUED FOR TENDER	07/15 2015
0	ISSUED FOR TENDER	04/07 2015

Revisions:

All measurements are to be checked and verified on site by the contractor before proceeding with the work. Do not scale the drawings.

Prime Consultant:

20 James Street, Suite 200, Ottawa, Canada K2P 0T6 616.736-7700

REGISTERED PROFESSIONAL ENGINEER

JULY 15/15

A. GAZZOLA

LICENSEE

PROVINCE OF ONTARIO

Sub Consultant:

**Accutech Engineering Inc.**  
Tomorrow's Technology Today

1349 Duguid Road, Winnipeg, Manitoba Canada R2J 0H3  
Phone: 204.944.1555 Fax: 204.944.1444  
www.accutech.ca

**AGE** A.G. Engineering  
Thunder Bay Inc.

1111 East Victoria Ave, 2nd Fl  
Thunder Bay, ON, P7C 1B7  
Phone: (807) 622-9654  
Fax: (807) 622-9633

Project:

**THE GOVERNMENT OF NUNAVUT**

**FEDERAL BUILDING**  
ARVIAT, NUNAVUT

Drawn By: GAP Date: JULY 15, 2015

Checked By: AG Scale: AS NOTED

Sheet Title:

**IDENTIFICATION LEGENDS & SITE PLAN**

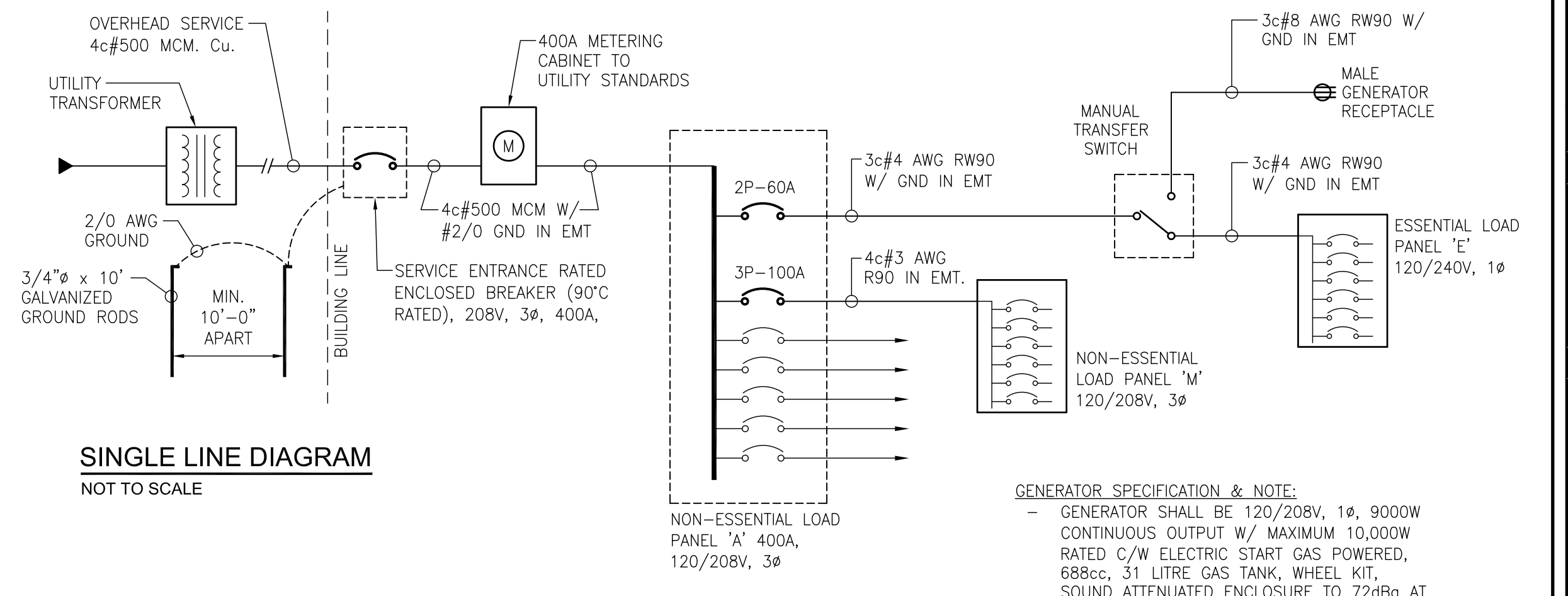
Sheet Number:

**E001**



NON-ESSENTIAL LOADS ELECTRICAL PANEL 'A'																	
CCT. No.	CIRCUIT USE	BREAKER SIZE	POLES	VOLTS	VA			WIRE AND CONDUIT SIZE	CCT. No.	CIRCUIT USE	BREAKER SIZE	POLES	VOLTS	VA			WIRE AND CONDUIT SIZE
					A <sub>B</sub>	B <sub>B</sub>	C <sub>B</sub>							A <sub>B</sub>	B <sub>B</sub>	C <sub>B</sub>	
1	DATA RECEPTACLES - ROOM 106	15A	1	120		540		2#12 IN EMT	2	LIGHTING - ROOMS 102, 103, 107, 108, 111	15A	1	120	910		2#12 IN EMT	
3	DATA RECEPTACLES - ROOM 105	15A	1	120		540		2#12 IN EMT	4	LIGHTING - ROOMS 109, 110, 112-120, 201	15A	1	120	1250		2#12 IN EMT	
5	DATA RECEPTACLES - ROOMS 104, 105	15A	1	120		540	540	2#12 IN EMT	6	EXTERIOR LIGHTING	15A	1	120	1000		2#12 IN EMT	
7	DATA RECEPTACLES - ROOMS 103, 107	15A	1	120		720		2#12 IN EMT	8	LIGHTING - ROOMS 122-127, 131, 132	15A	1	120	644		2#12 IN EMT	
9	DATA RECEPTACLES - ROOMS 113, 114, 116	15A	1	120		720		2#12 IN EMT	10	LIGHTING - ROOMS 128-131, 134, 137, 138	15A	1	120	750		2#12 IN EMT	
11	DATA RECEPTACLES - ROOMS 128, 132	15A	1	120		720		2#12 IN EMT	12	LIGHTING - ROOMS 100, 101, 104-106	15A	1	120	1100		2#12 IN EMT	
13	RECEPTACLES - ROOMS 120, 121	15A	1	120		840		2#12 IN EMT	14	CRAWLSPACE LIGHTING & RECEPTACLES - ROOM 003	15A	1	120	550		2#12 IN EMT	
15	RECEPTACLES - ROOMS 117, 119	15A	1	120		960		2#12 IN EMT	16	BARRED-FREE DOOR OPERATORS - ROOM 100	15A	1	120	500		2#12 IN EMT	
17	RECEPTACLES - ROOMS 112, 116	15A	1	120		960	960	2#12 IN EMT	18	FRIIDGE RECEPTACLE - ROOM 107	15A	1	120	500		2#12 IN EMT	
19	RECEPTACLES - ROOMS 108, 110, 111, 114	15A	1	120		960		2#12 IN EMT	20	DISHWASHER RECEPTACLE - ROOM 107	15A	1	120	500		2#12 IN EMT	
21	RECEPTACLES - ROOMS 101, 103, 104, 106	15A	1	120		960		2#12 IN EMT	22	MICROWAVE RECEPTACLE - ROOM 107	15A	1	120	1000		2#12 IN EMT	
23	RECEPTACLES - ROOMS 101, 107, 111	15A	1	120		960		2#12 IN EMT	24	MICROWAVE RECEPTACLE - ROOM 125	15A	1	120	1000		2#12 IN EMT	
25	RECEPTACLES - ROOMS 121, 122, 124, 125	15A	1	120		840		2#12 IN EMT	26	FRIIDGE RECEPTACLE - ROOM 125	15A	1	120	500		2#12 IN EMT	
27	RECEPTACLES - ROOMS 121, 122	15A	1	120		840		2#12 IN EMT	28	QUAD 20A RECEPTACLES - LAN ROOM 115	20A	1	120	750		2#12 IN EMT	
29	RECEPTACLES - RMS 123, 128, 130, 132, 137, 138	15A	1	120		960	960	2#12 IN EMT	30	QUAD 20A RECEPTACLES - LAN ROOM 115	20A	1	120	750		2#12 IN EMT	
31	EXTERIOR GFI RECEPTACLES	15A	1	120		720		2#12 IN EMT	32	DRYER - ROOM 123	30A	2	208	2500		2#10 IN EMT	
33	GFI RECEPTACLES - ROOMS 102, 109, 118	15A	1	120		720		2#12 IN EMT	34	WASHER - ROOM 123	15A	1	120	500		2#12 IN EMT	
35	GFI RECEPTACLES - ROOMS 121, 126, 128, 131	15A	1	120		900		2#12 IN EMT	36	HAND DRYER - ROOM 102	20A	1	120	1200		2#12 IN EMT	
37	20A GFI RECEPTACLES - ROOMS 107, 125	20A	1	120		1440		2#12 IN EMT									
39	RADIO CHARGING RECEPTACLES - ROOM 110	15A	1	120		960		2#12 IN EMT									
41	RADIO CHARGING & DATA RECEPTACLES - 110, 111	15A	1	120		960		2#12 IN EMT									
43	VEHICLE CHARGING - EXTERIOR GFI RECEPTACLES	15A	1	120		1200		2#12 IN EMT									
45	VEHICLE CHARGING - EXTERIOR GFI RECEPTACLES	15A	1	120		1200		2#12 IN EMT									
47	VEHICLE CHARGING - EXTERIOR GFI RECEPTACLES	15A	1	120		1200		2#12 IN EMT									
49	VEHICLE CHARGING - EXTERIOR GFI RECEPTACLES	15A	1	120		1200		2#12 IN EMT									
51																	
53																	
55																	
57																	
59																	

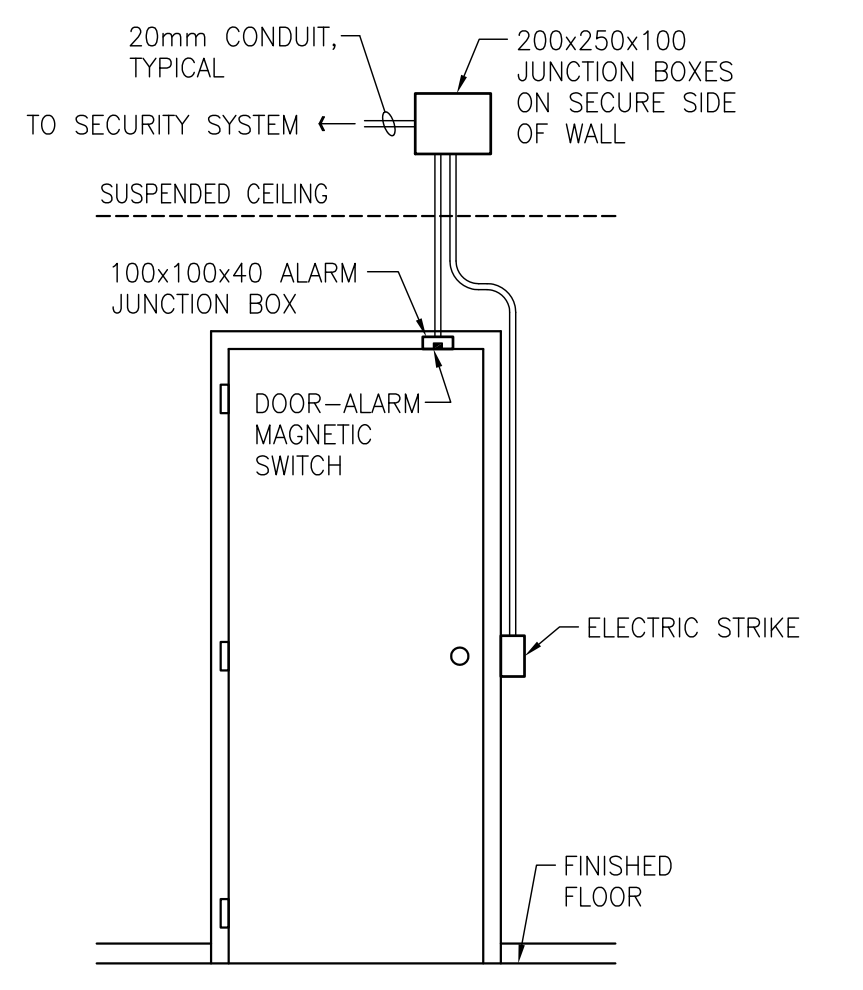
VOLTAGE: 120/208VAC MAIN BREAKER: MLO MOUNTING: SURFACE MAINS: 400A BREAKER I.C.: 10KA PHASE: 3 WIRE: 4 FEEDER: AS INDICATED FED FROM: AS INDICATED LOCATION: AS SHOWN



**GENERATOR SPECIFICATION & NOTE:**  
 GENERATOR SHALL BE 120/208V, 1Ø, 9000W CONTINUOUS OUTPUT W/ MAXIMUM 10,000W RATED C/W ELECTRIC START GAS POWERED, 688cc, 31 LITRE GAS TANK, WHEEL KIT, SOUND ATTENUATED ENCLOSURE TO 72dBa AT 7m, COLD CLIMATE TECHNOLOGY. EQUAL TO HONDA "EB1000".  
 ELECTRICAL CONTRACTOR SHALL MAKE UP A 6m LONG CORD FOR USE WITH RCMP PORTABLE GENERATOR AND SUPPLY ENDS TO SUIT GENERATOR AND CONNECTION RECEPTACLE. ENSURE NO LIVE PINS CAN BE EXPOSED WHEN CORD IS PLUGGED INTO GENERATOR.

ESSENTIAL LOADS ELECTRICAL PANEL 'E'																
CCT. No.	CIRCUIT USE	BREAKER SIZE	POLES	VOLTS	VA			WIRE AND CONDUIT SIZE	CCT. No.	CIRCUIT USE	BREAKER SIZE	POLES	VOLTS	VA		WIRE AND CONDUIT SIZE
					L1	L2	L1							L2		
1	(B-1) BOLLER B-1	15A	1	120	500		AS NOTED	2	LIGHTING - CELLS 135, 136	15A	1	120	150		2#12 IN EMT	
3	(B-2) BOLLER B-2	15A	1	120		500	AS NOTED	4	FIRE ALARM PANEL	15A	1	120	150		2#12 IN EMT	
5	(P1/2) BOLLER PUMPS P1/P2	30A	2	240	4080		AS NOTED	6	EVIDENCE FRIIDGE RECEPTACLES - ROOMS 113, 116	15A	1	120	600		2#12 IN EMT	
7	SPARE	15A	1	120		4080	AS NOTED	8	QUAD 20A RECEPTACLES - LAN ROOM 115	20A	1	120	750		2#12 IN EMT	
9	(P5/6) GLYCOL PUMPS P5/P6	15A	1	120		1176	AS NOTED	10	QUAD 20A RECEPTACLES - LAN ROOM 115	20A	1	120	750		2#12 IN EMT	
11	(UH-1) CRAWLSPACE UNIT HEATERS (6 TOTAL)	15A	1	120	200		AS NOTED	12	RECEPTACLES - ROOM 105, 124	15A	1	120	360		2#12 IN EMT	
15	(P3/4) GLYCOL PUMPS P3/P4	15A	2	240		193	AS NOTED	14	(UH-2) BOLLER ROOM UNIT HEATER	15A	1	120	200		AS NOTED	
17						193	AS NOTED	16	SMOKE DAMPERS	15A	1	120	250		2#12 IN EMT	
19								18								
21								20								
23								22								
								24								

VOLTAGE: 120/240VAC MAIN BREAKER: MLO MOUNTING: SURFACE MAINS: 100A BREAKER I.C.: 10KA PHASE: 1 WIRE: 3 FEEDER: AS INDICATED FED FROM: AS INDICATED LOCATION: AS SHOWN



MECHANICAL EQUIPMENT ELECTRICAL PANEL 'M'																	
CCT. No.	CIRCUIT USE	BREAKER SIZE	POLES	VOLTS	VA			WIRE AND CONDUIT SIZE	CCT. No.	CIRCUIT USE	BREAKER SIZE	POLES	VOLTS	VA			WIRE AND CONDUIT SIZE
					A <sub>B</sub>	B <sub>B</sub>	C <sub>B</sub>							A <sub>B</sub>	B <sub>B</sub>	C <sub>B</sub>	
1								2									
3	(AHU1) AHU-001	30A	3	208	1333	1333	AS NOTED	4	(P9) DOMESTIC WATER CIRC P-9	15A	2	208	1050	1050	AS NOTED		
5							1333	6									
7	(AHU2) AHU-002	15A	3	208	500	500	AS NOTED	8	(EF-1) EXHAUST FAN EF-1	15A	2	208	60		AS NOTED		
9							500	10	(EF-2) EXHAUST FAN EF-2	15A	2	208	60	250	AS NOTED		
11							500	12	(EF-3) EXHAUST FAN EF-3	15A	2	208	250	250	AS NOTED		
13	(P7) MJA CIRC PUMP P-7	15A	1	120	500		AS NOTED	14	(EF-4) EXHAUST FAN EF-4	15A	2	208	250	250	AS NOTED		
15	(P-10) GLYCOL MAKE-UP PUMP PACKAGE	15A	1	120		120	AS NOTED	16									
17	(P8) DOMESTIC WATER CIRC P-8	15A	2	208	1050	1050	AS NOTED	18									
19	(P-11) DOM HOT WATER RETURN CIRC PUMP	15A	1	120		500	AS NOTED	20									
21								22									
23								24									
25								26	OVERHEAD DOOR MOTOR	15A	3	208	700	700	3#12 AWG IN EMT		
27								28									
29								30									
31								32	OVERHEAD DOOR MOTOR	15A	3	208	700	700	3#12 AWG IN EMT		
33								34									
35								36									

VOLTAGE: 120/208VAC MAIN BREAKER: MLO MOUNTING: SURFACE MAINS: 100A BREAKER I.C.: 10KA PHASE: 3 WIRE: 4 FEEDER: AS INDICATED FED FROM: AS INDICATED LOCATION: AS SHOWN

MECHANICAL EQUIPMENT SCHEDULE															
No.	DESCRIPTION	ROOM #	ELECTRICAL NOTES	BRANCH WIRING	BREAKER SIZE	CIRCUIT NUMBER	TOTAL VA	REMARKS							
(AHU1)	AHU-001	201	3HP, 208V, 3Ø	3c#10 AWG IN EMT	3Ø-30	M-1/3/5	4000 VA	DISCONNECT REQUIRED & STARTER							
(AHU2)	AHU-002	201	1HP, 208V, 3Ø	3c#12 AWG IN EMT	3Ø-15A	M-7/9/11	1500 VA	DISCONNECT REQUIRED & STARTER							
(B-1)	BOLLER B-1	120	1/8HP, 120V, 1Ø	2c#12 AWG IN EMT	1P-15A	E-1	500 VA	DISCONNECT REQUIRED							
(B-2)	BOLLER B-2	120	1/8HP, 120V, 1Ø	2c#12 AWG IN EMT	1P-15A	E-3	500 VA	DISCONNECT REQUIRED							
(P1/2)	BOLLER PUMPS P1/P2	120	2HP, 240V, 1Ø	3c#8 AWG IN EMT	2P-30A	E-5/7	8160 VA	DUPLEX CONTROLLER & DISCONNECT REQUIRED							
(P3/4)	GLYCOL PUMPS P3/P4	003	1/8HP, 208V, 1Ø	2c#12 AWG IN EMT	2P-15A	E-15/17	385 VA	DUPLEX CONTROLLER & DISCONNECT REQUIRED							
(P5/6)	GLYCOL PUMPS P5/P6	003	1/8HP, 120V, 1Ø	2c#12 AWG IN EMT	1P-15A	E-11	1176 VA	DUPLEX CONTROLLER & DISCONNECT REQUIRED							
(P7)	AHU-2 CIRC PUMP P-7	201	1/8 HP, 120V, 1Ø	2c#12 AWG IN EMT	1P-15A	M-13	400 VA	DISCONNECT REQUIRED, INTERLOCK WITH MJA UNIT, RUNS CONTINUOUSLY							
(P8)	DOMESTIC WATER CIRC P-8	120	1-1/2HP, 208V, 1Ø	2c#12 AWG IN EMT	2P-20A	M-17/19	2100 VA	DISCONNECT REQUIRED & STARTER							
(P9)	DOMESTIC WATER CIRC P-9	120	1-1/2HP, 208V, 1Ø	2c#12 AWG IN EMT	2P-20A	M-2/4	2100 VA	DISCONNECT REQUIRED & STARTER							
(P-10)	GLYCOL MAKE-UP PUMP PACKAGE	120	0.07HP, 120V, 1Ø	2c#12 AWG IN EMT	1P-15A	M-15	120 VA	DEDICATED RECEPTACLE REQUIRED							
(P-11)	DOM HOT WATER RETURN CIRC PUMP	120	1/8 HP, 120V, 1Ø	2c#12 AWG IN EMT	1P-15A	M-21	500 VA	DISCONNECT REQUIRED & STARTER							
(EF-1)	EXHAUST FAN EF-1	121	0.27HP, 208V, 1Ø	2c#12 AWG IN EMT	2P-15A	M-8/10	120 VA	DISCONNECT REQUIRED							
(EF-2)	EXHAUST FAN EF-2	121	1/8 HP, 208V, 1Ø	2c#12 AWG IN EMT	2P-15A	M-12/14	500 VA	DISCONNECT REQUIRED							
(EF-3)	EXHAUST FAN EF-3	122	1/8 HP, 208V, 1Ø	2c#12 AWG IN EMT	2P-15A	M-16/18	500 VA	DISCONNECT REQUIRED							
(EF-4)	EXHAUST FAN EF-4	120	1/8 HP, 208V, 1Ø	2c#12 AWG IN EMT	2P-15A	M-20/22	500 VA	DISCONNECT REQUIRED							
(UH-1)	CRAWLSPACE UNIT HEATERS (6 TOTAL)	003	1/20HP, 120V, 1Ø	2c#12 AWG IN EMT	1P-15A	E-13	200 VA	DISCONNECT REQUIRED							
(UH-2)	BOLLER ROOM UNIT HEATER	003	120V, 1Ø	2c#12 AWG IN EMT	1P-15A	E-13	200 VA	DISCONNECT REQUIRED							

MOTOR CONNECTIONS:  
 FOR ALL MOTOR CONNECTIONS, CHANGE FROM EMT TO LIQUIDTIGHT AT MOTOR FOR FINAL CONNECTION.

**PARKIN ARCHITECTS LIMITED**

Prime Consultant:

Sub Consultant:

**Accutech Engineering Inc.**  
 Tomorrow's Technology Today  
 1349 Duguid Road, Winnipeg, Manitoba Canada R2J 0H3  
 Phone: 204.244.1855 Fax: 204.944.1444  
 www.accutech.ca

**AG E A.G. Engineering**  
 Thunder Bay Inc.  
 1111 East Victoria Ave, 2nd Fl  
 Thunder Bay, ON, P7C 1B7  
 Phone: (807) 622-9654  
 Fax: (807) 622-9633

Project:  
 THE GOVERNMENT OF NUNAVUT

FEDERAL BUILDING  
 ARVIAT, NUNAVUT

Drawn By: GAP Date: JULY 15, 2015  
 Checked By: AG Scale: AS NOTED

Sheet Title:  
 SINGLE LINE DIAGRAM &  
 PANEL SCHEDULES

Sheet Number:  
 E002

PROJECT NORTH TRUE NORTH

126 127 128 129 130 131 132

3rd Avenue

4th Avenue

5th Avenue

6th Avenue

199 200 201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251 252

1 RE-ISSUED FOR TENDER 07/15 2015  
 0 ISSUED FOR TENDER 04/07 2015

No. Description Date

Revisions:

All measurements are to be checked and verified on site by the contractor before proceeding with the work.  
 Do not scale the drawings.

20 James Street, Suite 200, Ottawa, Canada K2P 0T6 (613) 736-7700



