

- GENERAL NOTES:**
- CONTRACTOR MUST VISIT THE SITE AND BE FAMILIAR WITH EXISTING CONDITIONS.
  - VERIFY ALL DIMENSIONS AND REPORT ANY DISCREPANCIES TO THE CONSULTANT BEFORE PROCEEDING WITH THE WORK.
  - ALL DIMENSIONS AND ELEVATIONS ARE IN METRIC UNITS U.N.O.
  - THESE DRAWINGS SHALL BE VIEWED IN CONJUNCTION WITH THE CONTRACT DOCUMENTS AND SPECIFICATIONS.
  - PRIOR TO COMMENCING WORK, THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION AND ELEVATIONS OF ALL EXISTING UTILITIES AND SERVICES (SHOWN OR NOT SHOWN ON DRAWINGS) IN THE FIELD WITHIN THE CONTRACT LIMIT. INFORMATION SHOWN ON PLANS IS APPROXIMATE ONLY.
  - UNDERGROUND WATER, SEWER, FUEL OIL, TELEPHONE, POWER SERVICES EXIST BENEATH THE SITE. EXERCISE CAUTION IN EXCAVATION AND PROTECT FACILITIES FROM DAMAGE. CONTRACTOR TO REPAIR DAMAGES AT NO COST TO THE OWNER. WORK SHALL BE CARRIED OUT TO THE SATISFACTION OF THESE AUTHORITIES. CONTACT UTILITIES BEFORE EXCAVATING.
  - PROVIDE TEMPORARY SUPPORT TO EXISTING STRUCTURES AND UTILITY POLES AS REQUIRED.
  - THE WORK SHALL BE IN ACCORDANCE WITH THE NATIONAL BUILDING CODE OF CANADA 2015, APPLICABLE LAWS AND STANDARDS.
  - PERFORM WORK AND COMPLY WITH ALL FEDERAL, PROVINCIAL AND MUNICIPAL BY-LAWS AND REGULATIONS.
  - THE CONTRACTOR WILL BE REQUIRED TO MAINTAIN TRAFFIC AND ACCESS TO THE SITE AT ALL TIMES DURING THIS CONTRACT AND ACCESS FOR EMERGENCY VEHICLES ON CONSTRUCTION SITE. PROVIDE SIGNS, BARRICADES, FLAGGERS AS PER APPLICABLE REGULATIONS.
  - REPAIR & REINSTATE DISTURBED ASPHALT PAVEMENT, GRASSED & LANDSCAPED AREAS, SIGNS, RETAINING WALLS, ETC., DAMAGED BY WORK OF CONTRACT INCLUDING ALL AREAS IMPACTED BEYOND LIMIT OF CONTRACT. COST TO BE INCIDENTAL TO THE CONTRACT.
- ENVIRONMENTAL PROTECTION NOTES:**
- INSTALLATION OF ENVIRONMENTAL CONTROLS SHALL BE A FIRST STEP IN THE CONSTRUCTION SEQUENCE. THEIR DESIGN, INSTALLATION AND MAINTENANCE SHALL BE AS PER PEI DOT&PW'S ENVIRONMENTAL PROTECTION PLAN, SECTION 7.0 AND PROJECT SPECIFICATIONS.
  - CONSTRUCT AND INSTALL AT 0% OF SLOPE AROUND PERIMETER OF ALL TEMPORARY AND PERMANENT CONSTRUCTION AREAS INCLUDING AROUND STOCKPILES OF FILL. SILT FENCES & EROSION CONTROL DEVICES. ALL ENVIRONMENTAL CONTROLS (E.G. SILT FENCING, CHECK DAMS, SEDIMENT COLLECTION PONDS, ETC.) SHALL BE IN PLACE PRIOR TO, DURING AND AFTER PROJECT ACTIVITIES TO AVOID OFFSITE SILTATION.
  - ENSURE THAT ALL SILT FENCES ARE IN PLACE AND MAINTAINED ON A DAILY BASIS TO PREVENT SEDIMENTS FROM THE WORK AREAS FROM ENTERING ANY WATER COURSE OR CATCH BASIN. MAINTAIN FENCE AT ALL TIMES AND REPLACE IF DAMAGED. REMOVE ACCUMULATED SEDIMENTS TO PREVENT BLOCKAGE OF FENCES AND DAMS OR AS DIRECTED BY CONSULTANT. REMOVE AND REPLACE EROSION CONTROL STRUCTURES WHEN THEY BECOME CLOGGED WITH SOIL PARTICLES OR AS DIRECTED BY ENGINEER REPAIR ALL DAMAGES CAUSED BY SOIL EROSION OR CONSTRUCTION ACTIVITIES AT OR BEFORE THE END OF EACH WORKING DAY.
  - INSTALL SEDIMENT COLLECTION POND AT END OF THE OUTFALL & AT THE END OF THE DITCHES TO FILTER SEDIMENT FROM SURFACE RUNOFF BEFORE IT IS DISCHARGED TO WATERCOURSE.
  - ENSURE THAT RUNOFF IS DIRECTED THROUGH SEDIMENT COLLECTION PONDS.
  - DO NOT DISTURB EXISTING VEGETATION ANY MORE THAN NECESSARY TO COMPLETE EACH PHASE OF THE PROJECT.
  - INSTALL A LAYER OF MULCH OR AN EROSION CONTROL BLANKET TO ALL EXPOSED SLOPES THAT IS NOT IMMEDIATELY UNDER CONSTRUCTION APPLIED AND MAINTAINED UNTIL THE AREA IS READY TO BE COMPLETED, SHAPED AND STABILIZED WITH SEEDING, SOIL OR RIP-RAP.
  - SEED/SOD ALL EXPOSED AND BARREN SOIL AS SOON AS POSSIBLE.
  - ALL WORK TO BE PERFORMED IN ACCORDANCE WITH PEI OCCUPATIONAL HEALTH & SAFETY ACT, FEDERAL, PROVINCIAL & MUNICIPAL BY-LAWS & REGULATIONS.
  - ENVIRONMENTAL PROTECTION MEASURES SHALL BE CARRIED OUT TO THE SATISFACTION OF THE CONSULTANT & AUTHORITIES HAVING JURISDICTION AND THE COST OF ALL THESE DEVICES & MEASURES SHALL BE INCLUDED IN THE CONTRACT PRICE.
  - REPORT ANY DOUBTFUL CONDITIONS REQUIRING DECISIONS & SECURE DIRECTIONS FROM THE CONSULTANT BEFORE PROCEEDING WITH THE WORK.
  - THE CONTRACTOR IS TO HAVE ON HAND, THE APPROPRIATE EMERGENCY RESPONSE PHONE NUMBERS AND CONTACTS TO ALERT THE APPROPRIATE AUTHORITIES OF POSSIBLE CONTAMINATION SHOULD A SPILL OCCUR.

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Client  
**Town of Stratford**

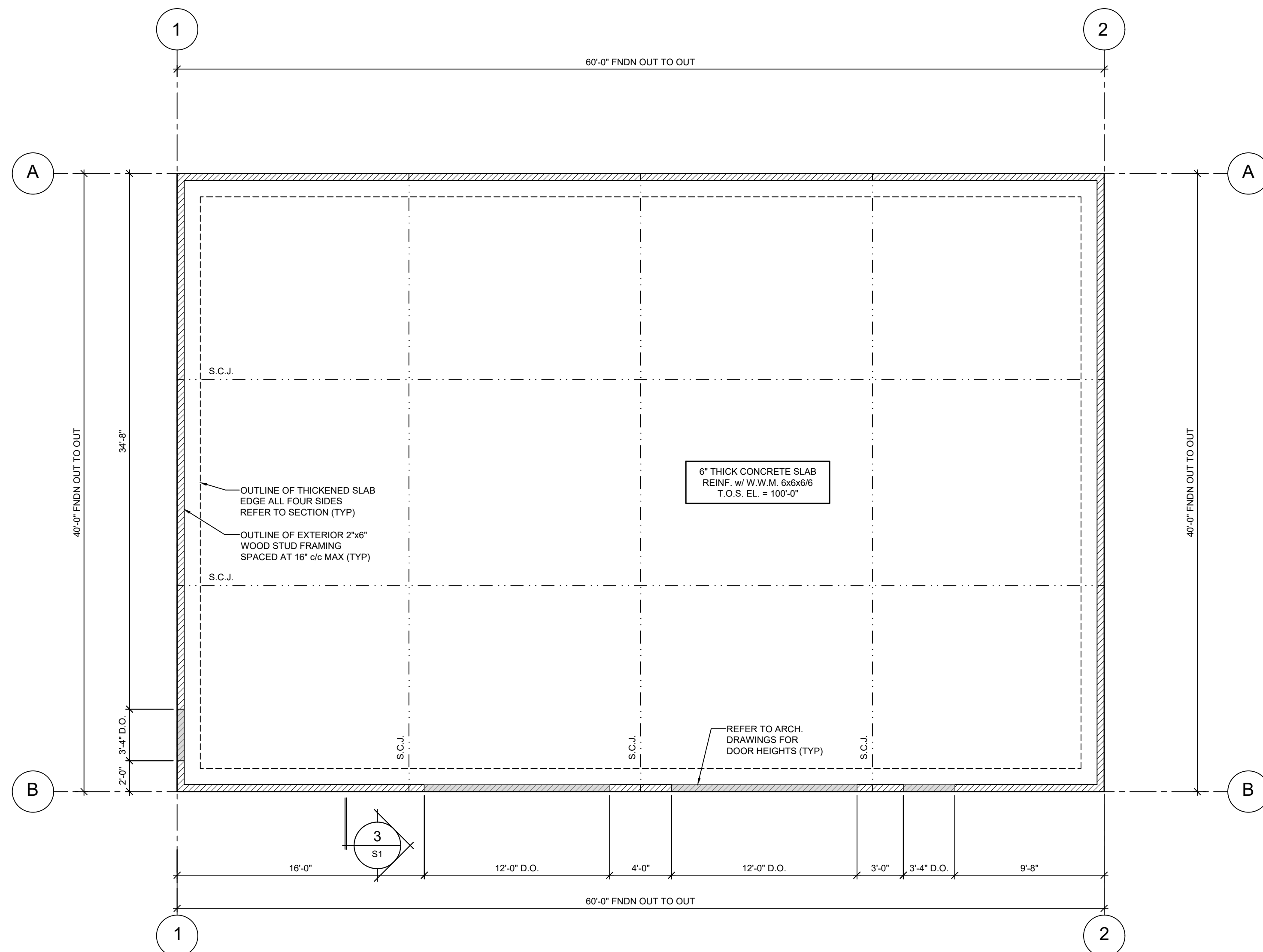
PROFESSIONAL ENGINEER  
SPECIAL P. MONTGOMERY  
1740  
18 Nov 2021  
DATE

Project Title  
**Stratford Dry Storage Building**

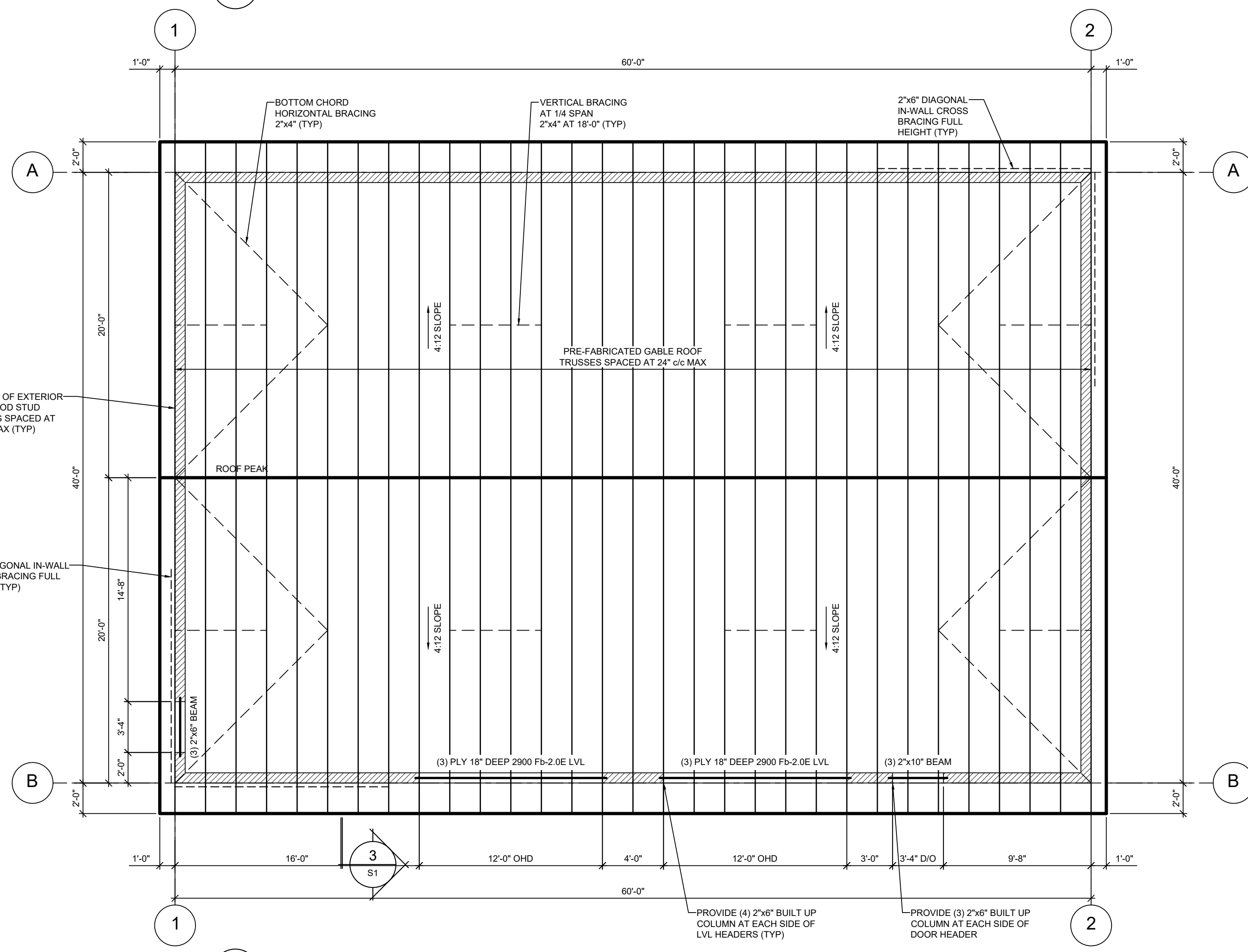
Sheet Title  
**Site Plan & Details**

No.	Description	Date	Date:	Revision
0	Issued for Tender	2021-11-18	November 2021	0
			Drn By: SPM, P.Eng / E.A. I.T.	
			Chk By: SPM, P.Eng	
			Project Number:	
			<b>211161</b>	
			Drawing Number:	
			<b>C1</b>	





1 MAIN FLOOR SLAB PLAN  
S1 3/16" = 1'-0"



2 ROOF PLAN  
S1 3/16" = 1'-0"

**LEGEND**

	EXTERIOR WALL
	DOOR OPENING
	THICKENED SLAB OUTLINE
	S.C.J.
	SAWCUT CONTROL JOINT

**LEGEND**

	WOOD STUD WALL
	BEAM / HEADER
	ROOF TRUSS

**ROOF LOADS**

DEAD LOADS:	20.0 PSF
LIVE LOADS:	58.0 PSF
SNOW (56x0.8)+13=	58.0 PSF
<b>TOTAL LOADS:</b>	<b>78.0 PSF</b>

A. WIND PRESSURE : 1/10 = 9.0 PSF  
1/50 = 12.0 PSF

B. DESIGN ROOF JOISTS FOR NET UPLIFT OF 20.0 PSF

**GENERAL NOTES:**

- THE WORK SHALL BE IN ACCORDANCE WITH NATIONAL BUILDING CODE OF CANADA (NBCC), LATEST REVISION, TO THE SATISFACTION OF THE ENGINEER UNLESS NOTED OTHERWISE ON THE DRAWING OR IN THE SPECIFICATIONS.
- COMPLY WITH ALL LOCAL, MUNICIPAL, AND PROVINCIAL BY-LAWS AND REGULATIONS.
- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH PEI OCCUPATIONAL HEALTH & SAFETY ACT, WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM AND APPLICABLE LABOR CODES.
- CONTRACTOR MUST VISIT THE SITE AND BE FAMILIAR WITH EXISTING CONDITIONS, VERIFY EXACT LOCATION OF ALL EXISTING UTILITIES AND SERVICES WITHIN THE CONTRACT LIMIT.
- CONTRACTOR SHALL COORDINATE WORK AND COOPERATE WITH OWNER AND AGENCIES HAVING JURISDICTION.
- REPORT ANY DOUBTFUL CONDITIONS REQUIRING DECISIONS AND SECURE DIRECTIONS FROM THE ENGINEER BEFORE PROCEEDING WITH THE WORK.
- VERIFY ALL DIMENSIONS AND REPORT ANY DISCREPANCIES TO THE ENGINEER BEFORE PROCEEDING WITH THE WORK.
- ALL DIMENSIONS AND ELEVATIONS ARE IN IMPERIAL UNITS UNLESS NOTED OTHERWISE.
- THE CONTRACTOR TO INCLUDE IN THE CONTRACT PRICE COSTS ASSOCIATED WITH OVER EXCAVATION, BACKFILLING AND REINSTATEMENT.
- PROPERLY DISPOSE AND REMOVE OFFSITE ALL DEBRIS AND MATERIALS TO BE REMOVED.

**FOUNDATION NOTES:**

- FOOTINGS SHALL NOT BE PLACED ON SOIL SOFTENED BY WATER.
- ALL FOOTINGS SHALL BE PLACED ON SOIL HAVING A SAFE BEARING PRESSURE OF 145 kN/SQ.m (3000 psf). REFER TO SOIL INVESTIGATION REPORT #21013, PREPARED BY EASTTECH ENGINEERING CONSULTANTS INC. DATED JUNE 22, 2020.
- ALL FOOTINGS SHALL BE REVIEWED BY THE ENGINEER BEFORE CONCRETE IS PLACED.
- VERIFY ALL CONCRETE FORMWORK LINES ARE LEVEL, PLUMB, SQUARE AND TRUE.
- CONCRETE FORMWORK PLYWOOD SHEETS TO THE REQUIREMENTS OF CSA 0121. USE NEW MATERIAL, CLEAN, SOUND, FREE FROM DEFECTS DETRIMENTAL TO THE QUALITY OF FINISHED CONCRETE SURFACES. ARRANGE PLYWOOD SHEETS TO A UNIFORM JOINT PATTERN. CONSTRUCT FORMWORK TO RESIST FLUID PRESSURE FROM WET CONCRETE AND ALL OTHER CONSTRUCTION LOADINGS WITHOUT BULGING, MOVEMENT OR DISTORTION. REUSE OF FORMWORK SUBJECT TO THE REQUIREMENTS OF CSA A23.1.
- OPENINGS IN FOUNDATION SHALL BE PROVIDED AS SHOWN ON ARCHITECTURAL AND ELECTRICAL DRAWINGS. ANY ADDITIONAL OPENINGS MUST BE APPROVED BY ENGINEER. OPENINGS SHALL BE SLEEVED. CORING SHALL NOT BE ACCEPTABLE.
- LOCATION OF CONSTRUCTION JOINTS TO BE APPROVED BY ENGINEER BEFORE CONCRETE IS PLACED.
- ANCHOR RODS AND EMBEDDED STEEL ITEMS WILL BE INSTALLED BY THE FOUNDATION CONTRACTOR. SET ANCHOR RODS, INSERT PLATES, SLEEVES AND OTHER MISCELLANEOUS ITEMS EMBEDDED IN CONCRETE ACCURATELY, USING TEMPLATES TO EXACT GRADE AND LOCATION SHOWN ON PROJECT DRAWINGS OR AS DIRECTED BY ENGINEER. SECURE TO PREVENT DISPLACEMENT DURING CONCRETE PLACEMENT. DO NOT CUT OR RELOCATE REINFORCING STEEL FOR PLACEMENT OF EMBEDDED PARTS. IF INSERTS CANNOT BE LOCATED AS SPECIFIED, OBTAIN APPROVAL OF ALL MODIFICATIONS FROM ENGINEER BEFORE PLACING.
- ALL BASE AND BEARING PLATES TO BE GROUTED USING 50 MPa (7200psi) NON-SHRINK GROUT. CURE NON-SHRINK GROUT AND PROTECT FROM FREEZING TEMPERATURES IN ACCORDANCE WITH CSA UNLESS NOTED OTHERWISE.
- THE FILL SHALL BE PLACED SIMULTANEOUSLY ON BOTH SIDES OF THE FOUNDATION WALL. PROVIDE LATERAL SUPPORT TO WALLS PRIOR TO BACKFILLING.

**CONCRETE NOTES:**

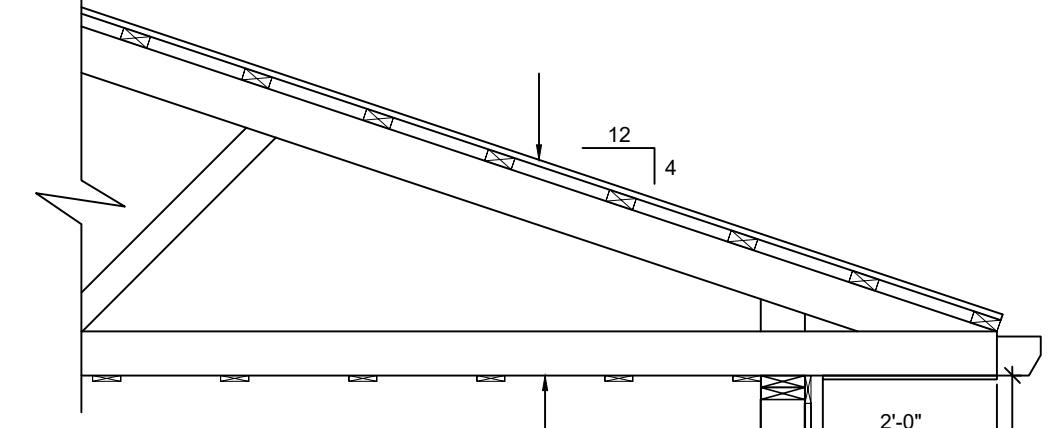
- ALL CONCRETE WORK SHALL BE CARRIED OUT IN ACCORDANCE WITH LATEST CSA A23.1 AND NBCC.
- ALL CONCRETE MATERIAL SHALL CONFORM TO:
  - CEMENT: CAN/CSA-A5-TYPE 10
  - AGGREGATES: CSA A23.1
  - AIR ENTRAINMENT: CSA CAN3-A266.1
  - CHEMICAL ADMIXTURES: CSA CAN3-266.2
  - DESIGN MIX: CSA A23.1
- MIX DESIGN: TYPE 10 PORTLAND CEMENT.
- INTERIOR SLABS:
  - COMPRESSIVE STRENGTH (28D): 35MPa (5000psi)
  - CLASS OF EXPOSURE: N
  - NOMINAL AGGREGATE SIZE: 20mm (3/4")
  - SUMP: 50mm (2")
  - AIR CONTENT: NONE
  - WATER CEMENT RATIO: 0.45 MAX
- CONCRETE MIX DESIGN SHALL BE SUBMITTED FOR REVIEW BY THE ENGINEER MINIMUM 48 HRS PRIOR TO CASTING.
- USE OF CALCIUM CHLORIDE IS NOT PERMITTED.
- NO CONCRETE SHALL BE POURED WITHOUT THE PRIOR KNOWLEDGE AND APPROVAL OF ENGINEER.
- ALL CONCRETE SHALL BE TESTED. TESTING SHALL CONFORM TO CSA A23.2. RECORD TESTS FOR SLUMP, AIR CONTENT AND COMPRESSIVE STRENGTH.
- ALL CONCRETE SHALL BE VIBRATED USING HIGH FREQUENCY VIBRATORS. VIBRATION PRACTICES TO BE IN ACCORDANCE WITH ACI 309R.
- COLD WEATHER CONCRETE SHALL BE PLACED AND PROTECTED IN ACCORDANCE WITH THE REQUIREMENTS OF CSA A23.1 AND TO THE REQUIREMENTS OF ACI-308R. PROVIDE HEATED ENCLOSURES AND/OR INSULATED TARPS AS REQUIRED TO MAINTAIN MINIMUM 10°C CONCRETE SURFACE TEMPERATURE FOR A PERIOD OF 5 DAYS FOLLOWING CONCRETE PLACEMENT. PROVIDE CONTROLLED COOL DOWN PERIOD TO PREVENT SURFACE CRACKING AT END OF PROTECTION PERIOD. ENSURE THAT NO CONCRETE IS PLACED ON OR AGAINST FROZEN SUBGRADE, FORMWORK, OR REINFORCING STEEL.
- LEAVE FORMWORK IN PLACE FOR THE FOLLOWING MINIMUM PERIODS OF TIME AFTER PLACING CONCRETE: 72 HR.
- APPLY CURING COMPOUND TO WALLS AND PILASTERS IF EXPOSED TO DRYING CONDITIONS PRIOR TO COMPLETION OF FULL 7 DAY MOIST CURING PERIOD. USE LIQUID MEMBRANE CONCRETE CURING COMPOUND.

**SLAB ON GRADE NOTES:**

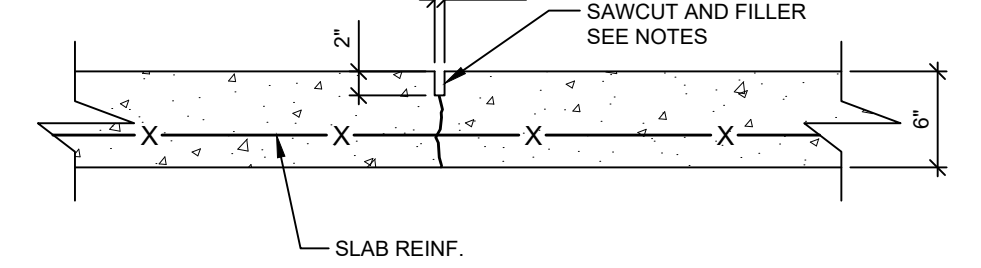
- LOCATION OF SLAB CONSTRUCTION JOINTS TO BE APPROVED BY ENGINEER BEFORE CONCRETE IS PLACED.
- MINIMUM SLAB-ON-GRADE REINFORCING OF 10M AT 400mm (16") O/C EACH WAY AT MIDDLE OF SLAB UNLESS NOTED OTHERWISE ON DRAWINGS. CHAIR REINFORCING.
- PROVIDE VAPOUR RETARDER UNDER ALL INTERIOR SLAB ON GRADES U.N.O.
- INTERIOR CONCRETE FLOOR SLAB TO HAVE A SMOOTH STEEL TROWELLED FINISH (TO A FLAT TOLERANCE CLASSIFICATION 5mm (3/16") IN 3m (9'-0") AS PER ENGINEERS REQUIREMENT.
- PROVIDE CONTROL JOINTS WITH JOINT FILLER. ACCEPTABLE MATERIAL: MASTERFILL 300I, OR APPROVED EQUAL. INSTALL TO MANUFACTURERS INSTRUCTIONS.
- PROVIDE WEATHER PROTECTION TO CONCRETE SLAB AND ALL CONCRETE WORK IN CONFORMANCE WITH REQUIREMENTS OF A23.1.

**REINFORCING STEEL NOTES:**

- ALL REINFORCING STEEL SHALL BE NEW BILLET AND SHALL CONFORM TO CSA G30.18, WWM REINFORCING TO CSA G30.5.
- MINIMUM REINFORCING STEEL YIELD STRENGTH SHALL BE 400 MPa.
- REINFORCING STEEL SHALL BE DETAILED, CUT, BENT, FABRICATED AND PLACED IN ACCORDANCE WITH REINFORCING MANUAL OF STANDARD PRACTICE (REINFORCING STEEL INSTITUTE OF CANADA), CAN3-A23.3 AND CSA-A23.1.
- THE GENERAL CONTRACTOR SHALL INSPECT ALL THE REINFORCING STEEL BEFORE PLACEMENT OF THE CONCRETE.
- THE GENERAL CONTRACTOR SHALL NOTIFY THE ENGINEER 24 HOURS PRIOR TO THE PLACEMENT OF THE CONCRETE.
- THE POSITION OF ALL REINFORCING STEEL SHALL BE MAINTAINED DURING THE POURING OPERATION BY DIRECT SUPERVISION OF THE REINFORCING STEEL CONTRACTOR.
- SHOP DRAWINGS: SUBMIT SHOP DRAWINGS STAMPED BY AN ENGINEER LICENSED TO PRACTICE IN PEI FOR REVIEW PRIOR TO FABRICATING REINFORCING STEEL. CLEARLY INDICATE BAR SIZES, SPACING, LOCATION, QUANTITY, CHAIRS, SPACERS, ETC WITH IDENTIFYING CODE MARKS TO PERMIT PLACEMENT.
- CONCRETE COVER (UNLESS NOTED OTHERWISE):
  - POURED AGAINST THE GROUND: 75mm (3")
  - FORMED SURFACE AGAINST GROUND: 50mm (2")
  - FORMED SURFACE EXPOSED TO WEATHER: 50mm (2")
- USE SPACERS, CHAIRS, TEMPLATES AND DIRECT SUPERVISION OF REINFORCING STEEL CONTRACTOR TO ACCURATELY LOCATE & SUPPORT REINFORCING STEEL & SECURE IN POSITION TO PREVENT DISPLACEMENT DURING CONCRETE PLACEMENT.



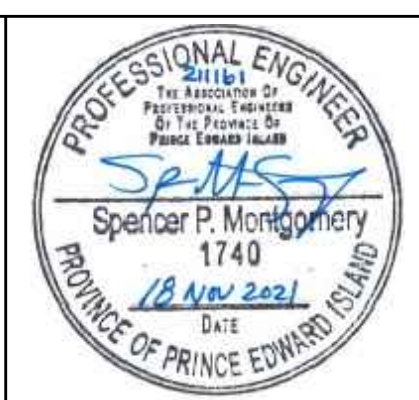
3 SECTION: THICKENED SLAB EDGE (TYP)  
S1 1/2" = 1'-0"



4 SECTION: CONTROL JOINT IN CONCRETE SLAB (TYP)  
S1 N.T.S.

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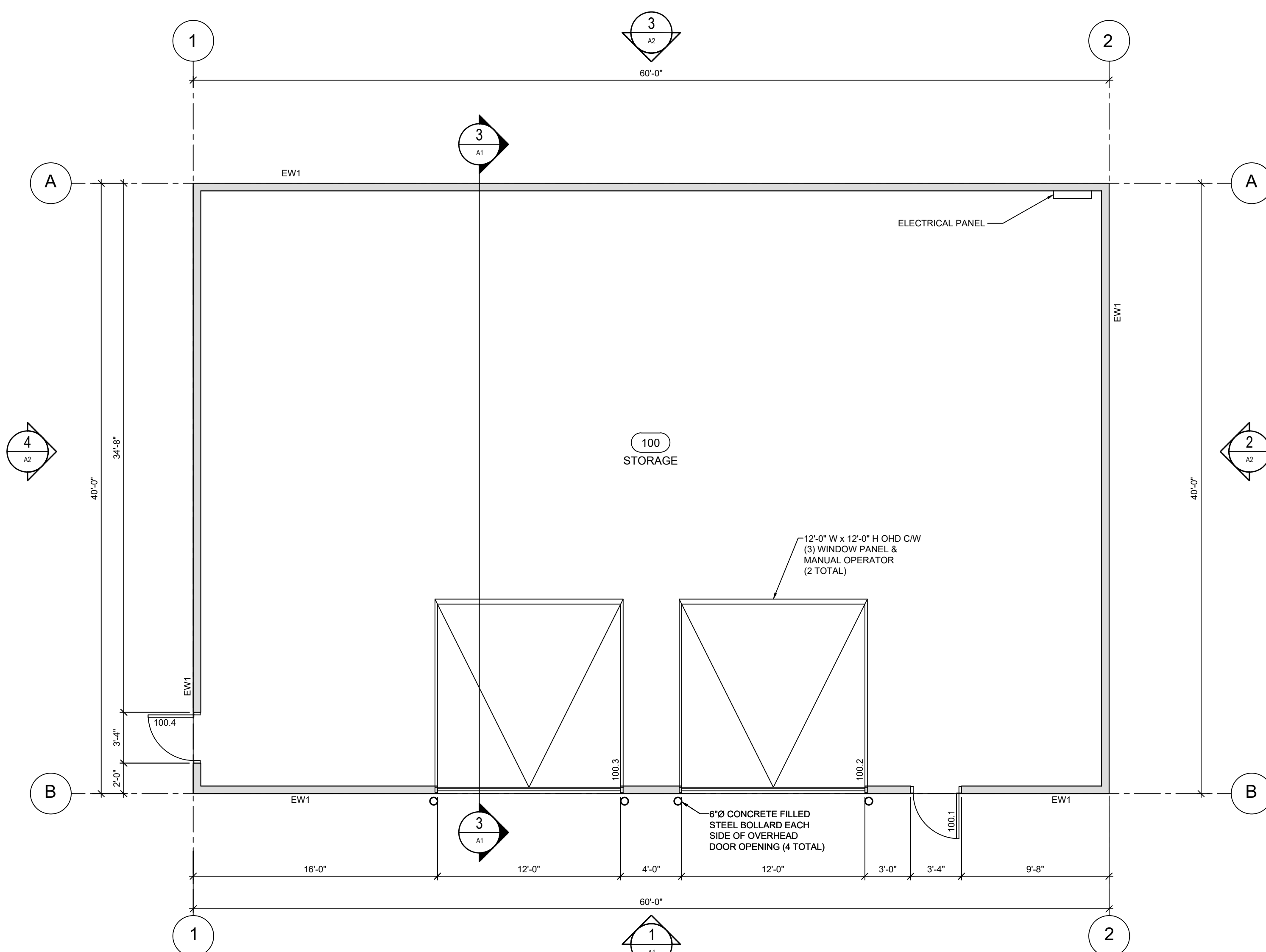
Client  
Town of Stratford

Project Title  
Stratford Dry Storage Building

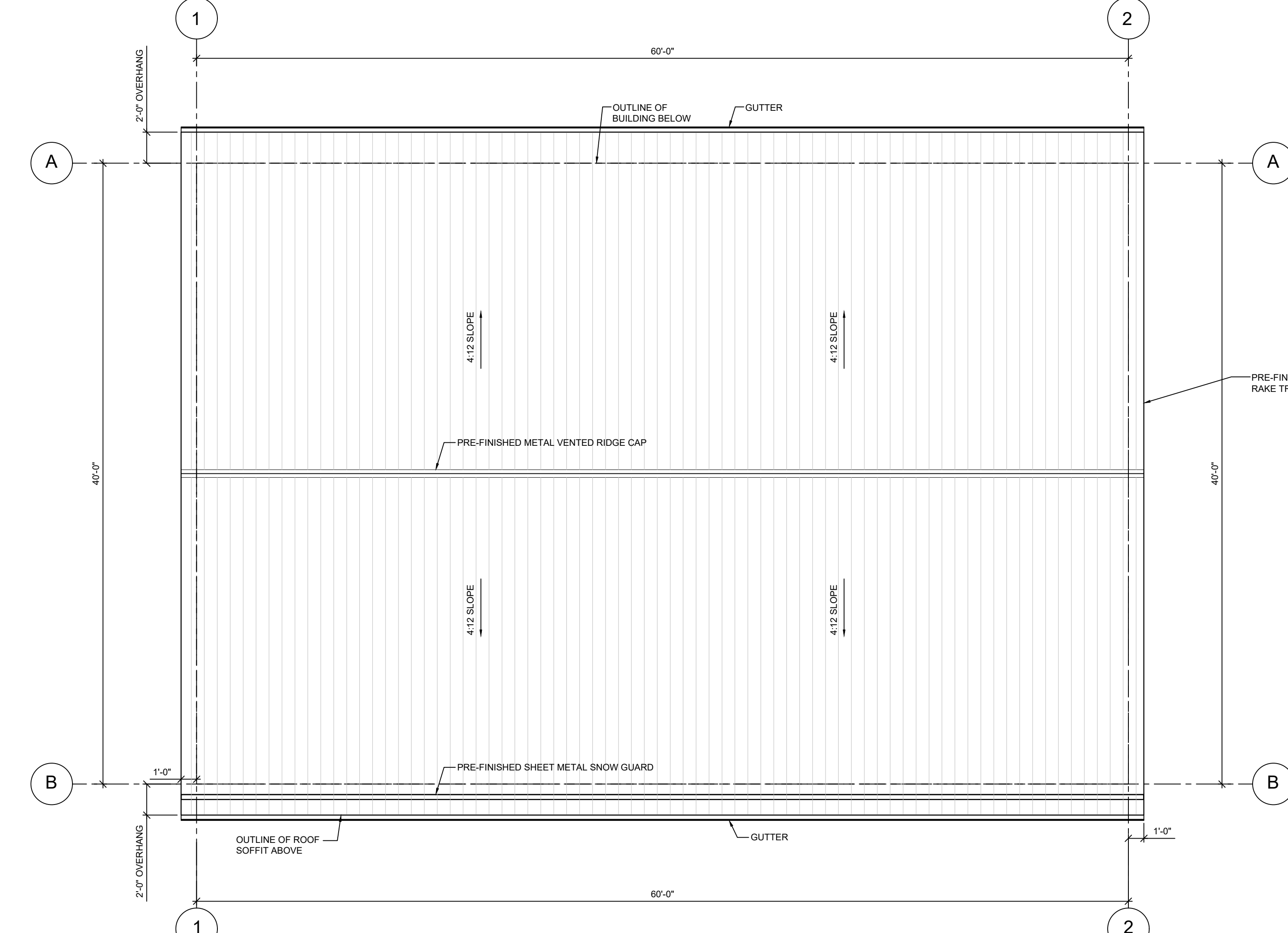
Sheet Title  
Main Floor Slab Plan,  
Roof Plan, Sections & Notes

No.	Description	Date	Date:	Revision
0	Issued for Tender	2021-11-18	November 2021	0
			Drn By: SPM, P.Eng	
			Chk By: SPM, P.Eng / NL, P.Eng	
			Project Number:	
			<b>211161</b>	
			Drawing Number:	
			<b>S1</b>	





1 MAIN FLOOR PLAN  
3/16" = 1'-0"



2 ROOF PLAN  
3/16" = 1'-0"

- LEGEND**
- NEW WALL (REFER TO SCHEDULE)
  - 100.1 DOOR TAG
  - EW1 WALL TAG
- GENERAL NOTES**
- VERIFY ALL DIMENSIONS AND REPORT ANY DISCREPANCIES TO THE CONSULTANT BEFORE PROCEEDING WITH THE WORK.
  - THE WORK SHALL BE IN ACCORDANCE WITH THE NATIONAL BUILDING CODE OF CANADA (NBC 2015) UNLESS OTHERWISE NOTED ON THE DRAWINGS.
  - COMPLY WITH ALL LOCAL, MUNICIPAL AND PROVINCIAL BY-LAWS AND REGULATIONS.
  - CONTRACTOR TO VERIFY LOCATION OF ALL UTILITIES PRIOR TO EXCAVATION.
  - BENCH MARKS TO BE ESTABLISHED BY CONTRACTOR.
  - ALL PENETRATIONS IN RATED PARTITIONS AND/OR FLOOR ASSEMBLIES FOR PLUMBING, DUCTING OR ELECTRICAL RUNS ARE TO BE SEALED. FIRE STOP IN ACCORDANCE WITH WALL AND/OR FLOOR TYPES. SUBMIT ILC DETAILS AND MATERIALS DURING SHOP DRAWING PROCESS FOR REVIEW PRIOR TO INSTALLATION.
  - ALL WOOD FRAMING TO BE CONSTRUCTED OF APPROVED MATERIALS AND LATERALLY STRAPPED AND SUPPORTED AS PER NBC 2015 STRUCTURAL REQUIREMENTS.

**EXTERIOR WALL SCHEDULE**

TYPE	DESCRIPTION
EW1	<ul style="list-style-type: none"> <li>METAL CLADDING (VERTICAL)</li> <li>CONTINUOUS AIR BARRIER (STAPLED)</li> <li>1-1/2" x 3-1/2" WOOD STRAPPING AT 16" O.C.</li> <li>1-1/2" x 5-1/2" WOOD STUD FRAMING AT 16" O.C.</li> </ul> <p>NOTE: THE OUTSIDE FACE OF STRAPPING IS TO ALIGN WITH THE EXTERIOR FACE OF FOUNDATION</p>

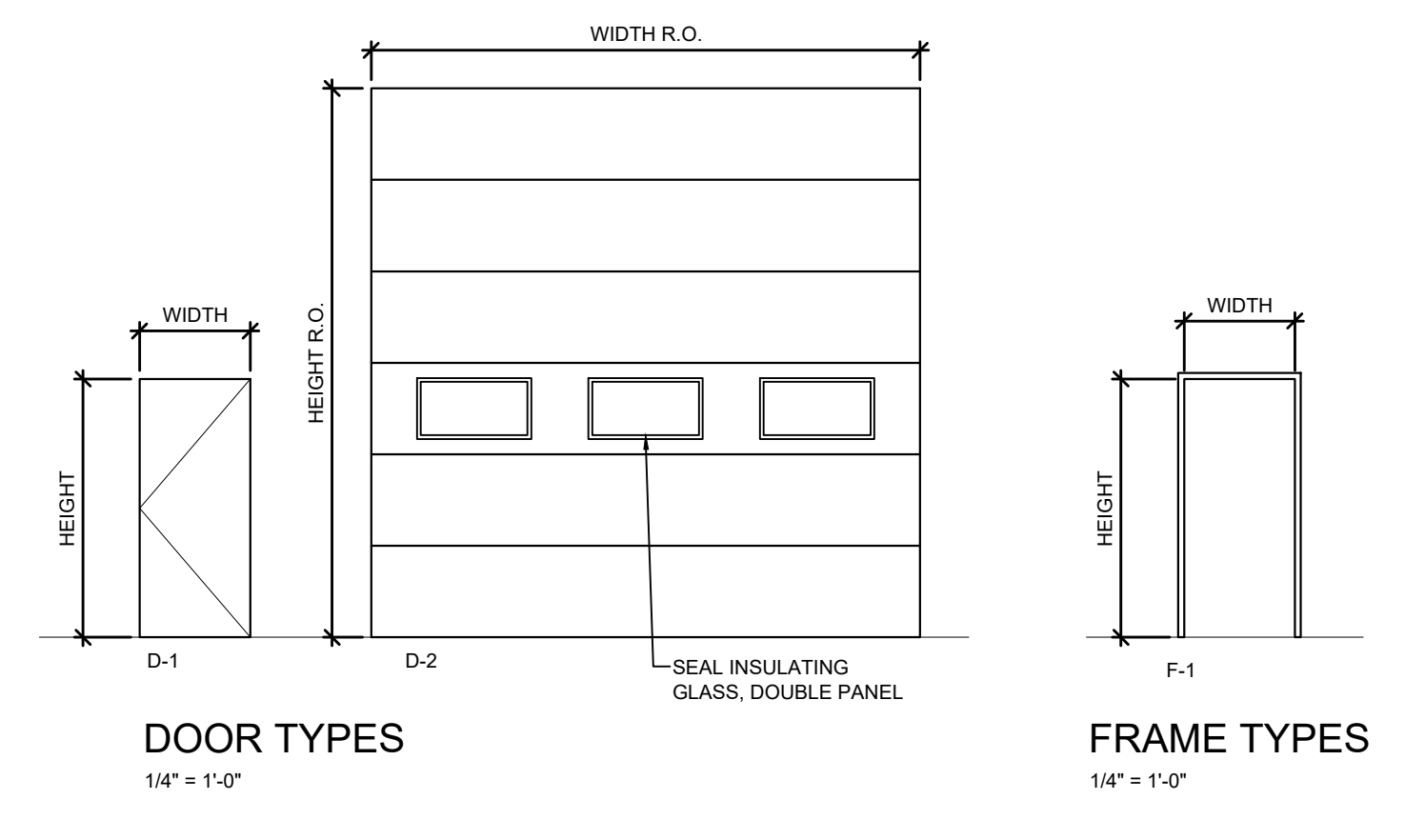
**ROOF SCHEDULE**

TYPE	DESCRIPTION
R1	<ul style="list-style-type: none"> <li>3/4" METAL ROOFING, 9" FLUTE CENTERS (SCREW DOWN)</li> <li>1-1/2" x 3-1/2" WOOD STRAPPING AT 16" O.C.</li> <li>PRE-ENGINEERED WOOD ROOF TRUSSES AT 24" O.C.</li> <li>3/4" x 3-1/2" WOOD STRAPPING AT 16" O.C.</li> </ul>

**FLOOR SCHEDULE**

TYPE	DESCRIPTION
F1	<ul style="list-style-type: none"> <li>FLOOR FINISH AS SPECIFIED</li> <li>CONCRETE FLOOR (REFER TO STRUCTURAL FOR THICKNESS)</li> <li>10MIL POLY VAPOUR BARRIER (TAPED AND SEALED)</li> <li>2" RIGID INSULATION (R10)</li> <li>COMPACTED MATERIAL (REFER TO STRUCTURAL AND GEOTECHNICAL)</li> </ul> <p>DESIGN NO.: N/A FRG: N/A STC: N/A IC: N/A</p>

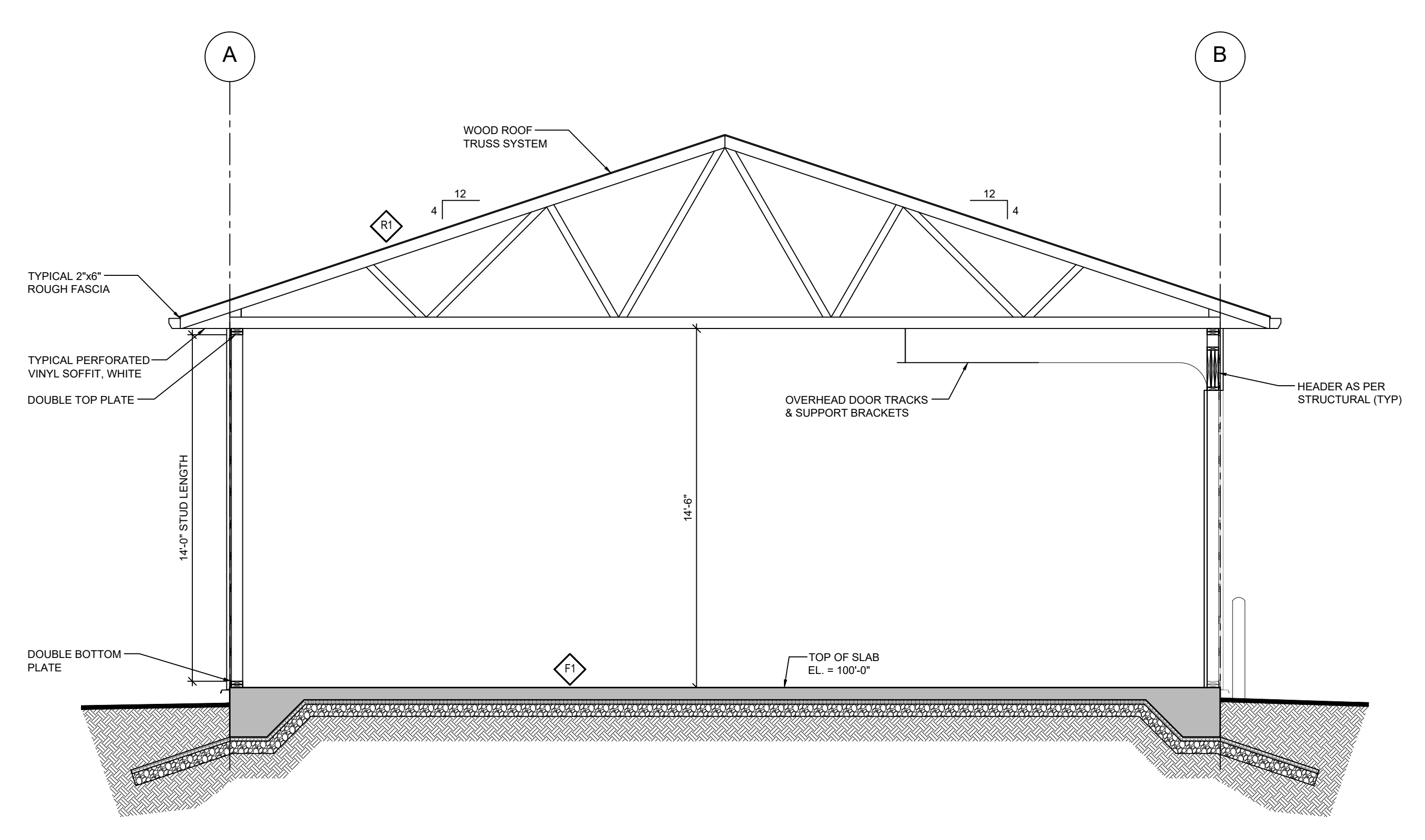
- DOOR SCHEDULE NOTES**
- REFER TO MATERIAL/FINISH SCHEDULE FOR ALL MATERIAL TAGS.
  - ALL EXTERIOR DOOR FRAMES AND THRESHOLDS TO BE THERMALLY BROKEN.
  - ALL EXTERIOR DOORS AND FRAMES TO BE INSULATED.
  - ALL OVERHEADROLLING SERVICE DOORS ARE DIMENSIONED TO THE ROUGH OPENINGS. DOORS TO OVERLAP HEAD AND JAMB OPENINGS BY 1".
- DOOR & FRAME SCHEDULE ABBREVIATIONS**
- HM HOLLOW METAL
  - PS PRESS STEEL
- MATERIAL FINISH SCHEDULE:**
- MT-1 PRE-FINISHED METAL, BLACK
  - MT-2 PRE-FINISHED METAL, STONE GREY (MATCH EXISTING)
  - MT-3 PRE-FINISHED METAL, WHITE
  - P-1 PAINT, BLUE (MATCH EXISTING)
  - P-2 PAINT, WHITE
  - P-3 CLEAR CONCRETE SEALER
  - VN-1 VINYL, WHITE



- OUTLINE SPECIFICATIONS**
- Section 07 21 13 - Board Insulation**
    - Standard of Acceptance: Extruded polystyrene
    - Location: Under concrete slabs
    - Thickness & R-Value per assemblies
    - Compressive Strength: 30 PSI min
  - Section 07 26 00 - Vapour Retarders**
    - Polyethylene sheet 10 mil under concrete slabs
    - Locate on warm side of insulation in all cases.
  - Section 07 27 00 - Air Barriers**
    - Standard of Acceptance: Spun bonded olefin sheet, Tyvek, stapled.
  - Section 07 46 19 - Steel Siding**
    - Standard of Acceptance:
      - VicWest UltraVic 36" wide sheet, 3/4" high flutes, 9" flute spacing
      - Pre-finished metal, 24 gauge
      - Finish: VicWest WeatherXL™ with Silicone Modified Polyester paint system
      - Colour: Refer to Drawings
  - Section 07 46 33 - Plastic Siding**
    - Standard of Acceptance: Kaycan
    - See elevation drawings for soffits.
  - Section 07 61 00 - Sheet Metal Roofing**
    - Standard of Acceptance:
      - VicWest UltraVic 36" wide sheet, 3/4" high flutes, 9" flute spacing
      - Pre-finished metal, 28 gauge
      - Finish: VicWest WeatherXL™ with Silicone Modified Polyester paint system
      - Colour: Refer to Drawings
  - Section 07 62 00 - Sheet Metal Flashing and Trim**
    - Pre-finished metal, 28 gauge
    - Cutters: pre-finished sheet steel, preformed by seamless process c/w all accessories
    - Rainwater leaders: pre-finished sheet steel, preformed by seamless process c/w all accessories
    - Colour: Refer to drawings
  - Section 07 92 00 - Joint Sealants**
    - Standard of Acceptance: Purpose made for specific application
    - Provide submittal to consultant for review
  - Section 08 11 13 - Hollow Metal Doors and Frames**
    - Door Construction: A40 Galvalume, Form each face sheet for doors from 18 gauge, lock seam welded.
    - Frames: A40 Galvalume, Welded type, thermally broken, 16 gauge
    - Insulation: Styrene core
  - Section 08 36 13 - Sectional Doors**
    - Standard of Acceptance: Garex
    - Insulated (R18)
    - Thickness: 1.75" / 44mm
    - Pre-finished metal, 20 gauge
    - Texture: smooth
    - Manual
    - Weatherstripping on all four sides.
    - Tracks: 12-gauge
    - Cross Bars: Provide for doors over 12' / 3600mm wide
  - Section 08 71 00 - Door Hardware**
    - Standard of acceptance:
      - Cylindrical Locksets: NDSGD SPA 626 SCH, Lever Handles, see schedule for function.
      - Exit Devices / Panic Hardware: Sargent 6710 US26D & Sargent 21 V6-2746 ETL US26D, surface rods
      - Closer: Sargent 351 P3
      - Door Stop - Overhead: Sargent 590H US26D
      - Door Sweep: W-245 x 8y door width 627 KNC
      - Kick Plate: 8400 10" X 1 1/2" LDW 630 IVE
      - Butt Hinges: Midway TASA 44812 x 4" NRP US26D
      - Threshold: CT-10 x by door width 627 KNC
      - Weatherstripping: KN Crowder W-205 x 20.4" Commercial quality hardware
      - Refer to door schedule for locations
  - Section 08 80 00 - Glazing**
    - Standard of Acceptance (Sealed Insulating Glass): PPG, Solatex 65 Solar Control Low-E Glass, VLT 70, SHGC 0.39
  - Section 09 91 00 - Painting**
    - Latex Semi-gloss for doors, door frames, handrails, guardrails
    - Colour: Refer to drawings

**DOOR AND FRAME SCHEDULE**

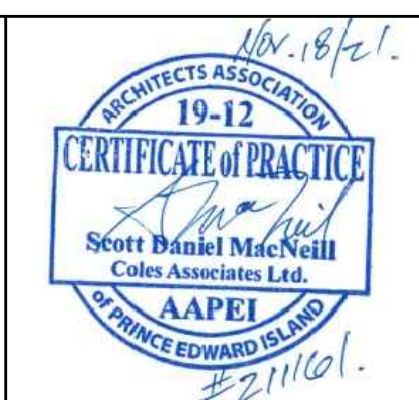
DOOR NO.	ROOM NAME	FIRE RATING	DOOR			FRAME			CYLINDRICAL LOCKSET/LEVER HANDLE	ENTRANCE	PANIC HARDWARE	CLOSER	DOOR STOP - OVERHEAD	KICK PLATE - BOTH SIDES	BUTT HINGES	THRESHOLD	DOOR SWEEP	WEATHER STRIPPING	COMMENTS
			WIDTH	HEIGHT	THICKNESS	TYPE	MATERIAL	FINISH											
100.1	STORAGE		3'-0"	6'-8"	1-3/4"	D-1	HM	P-1	F-1	PS	P-1	X	X	X	X	X	X	X	MANUAL OPERATION WITH LOCKING PIN ON INSIDE
100.2	STORAGE		12'-0"	12'-0"	1-3/4"	D-2	SPEC	MT-3	SPEC	SPEC	SPEC	X	X	X	X	X	X	X	MANUAL OPERATION WITH LOCKING PIN ON INSIDE
100.3	STORAGE		12'-0"	12'-0"	1-3/4"	D-2	SPEC	MT-3	SPEC	SPEC	SPEC	X	X	X	X	X	X	X	MANUAL OPERATION WITH LOCKING PIN ON INSIDE
100.4	STORAGE		3'-0"	6'-8"	1-3/4"	D-1	HM	P-1	F-1	PS	P-1	X	X	X	X	X	X	X	MANUAL OPERATION WITH LOCKING PIN ON INSIDE



3 BUILDING SECTION  
1/4" = 1'-0"

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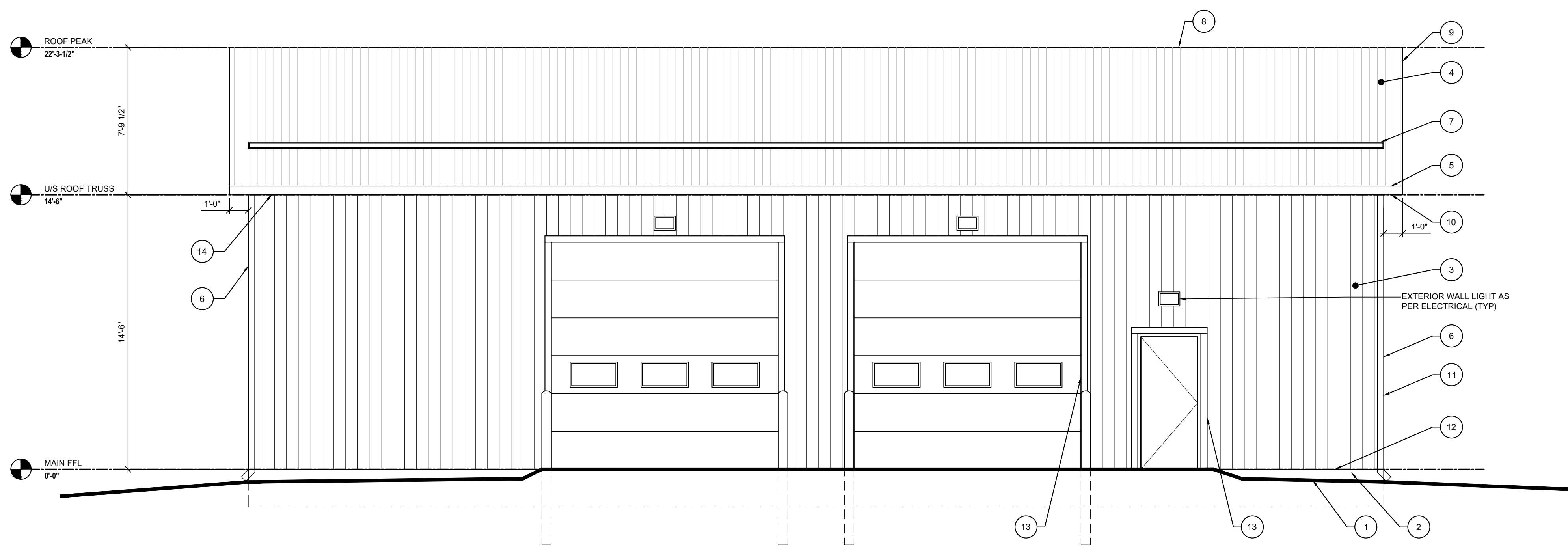


Client: Town of Stratford

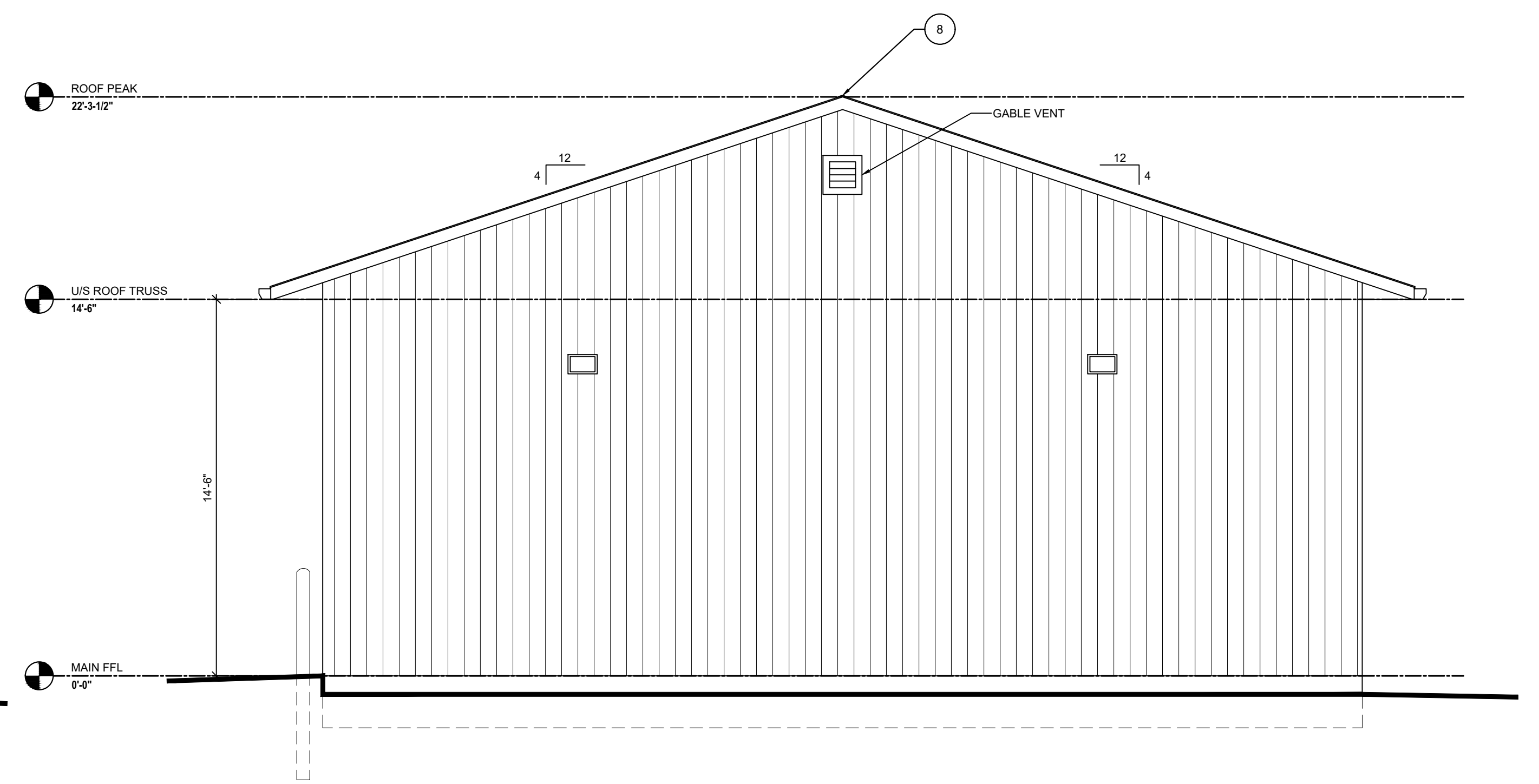
Project Title: Stratford Dry Storage Building

Sheet Title: Main Floor Plan, Roof Plan, Building Section & Notes

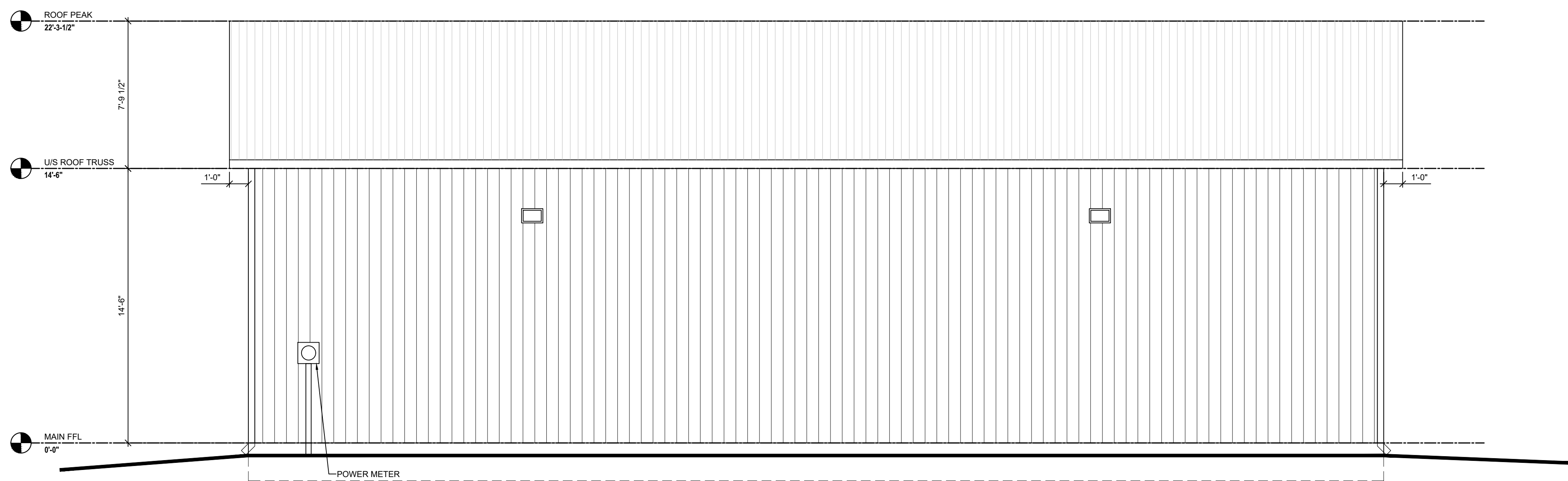
No.	Description	Date	Date:	Revision
0	Issued for Tender	2021-11-16	November 2021	0
			Drn By: SPM, P.Eng	
			Chk By: SDM	
			Project Number:	
			211161	
			Drawing Number:	
			A1	



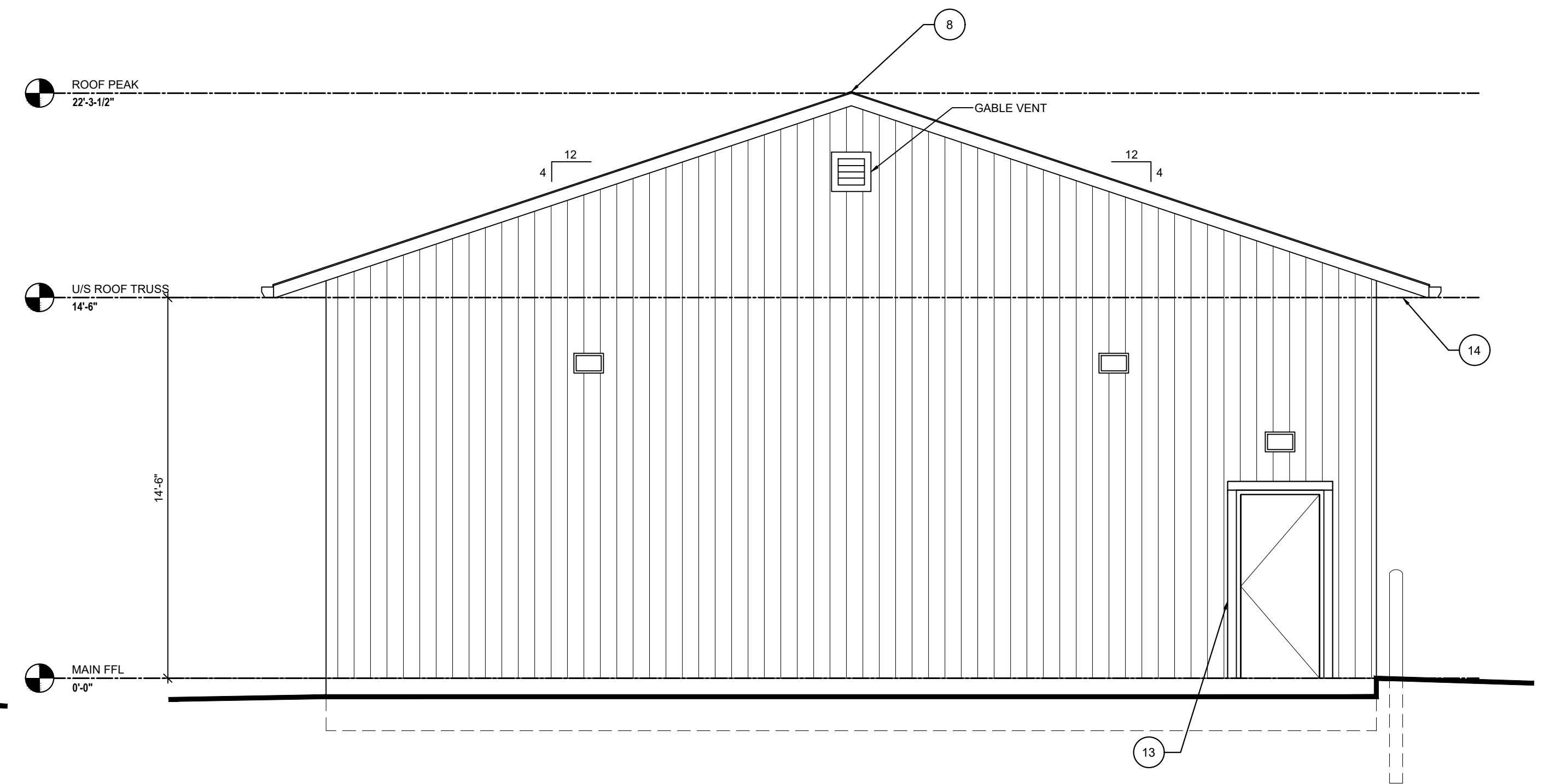
1 BUILDING ELEVATION: WEST  
A2 1/4" = 1'-0"



2 BUILDING ELEVATION: SOUTH  
A2 1/4" = 1'-0"



3 BUILDING ELEVATION: EAST  
A2 1/4" = 1'-0"



4 BUILDING ELEVATION: NORTH  
A2 1/4" = 1'-0"

ELEVATION NOTES	
1	FINISH GRADE, MIN. 150mm BELOW CLADDING, FLUSH AT DOORS, REFER TO CIVIL FOR MATERIAL.
2	EXPOSED CONCRETE, POURED IN PLACE
3	PRE-FINISHED METAL CLADDING, MT-2
4	PRE-FINISHED METAL ROOFING, MT-1
5	PRE-FINISHED METAL GUTTER, MT-3
6	PRE-FINISHED METAL DOWNSPOUT, MT-2
7	PRE-FINISHED METAL SNOW GUARD, MT-1
8	PRE-FINISHED METAL VENTED RIDGE CAP, MT-1
9	PRE-FINISHED METAL RAKE TRIM, 2.5" VERTICAL, NO F-TRIMS, MT-1
10	PRE-FINISHED METAL FASCIA, MT-3
11	PRE-FINISHED METAL CORNER TRIM, 4" x 4", MT-2
12	PRE-FINISHED METAL FLASHING, MT-2
13	PRE-FINISHED METAL TRIM, 4" x 4" AS REQUIRED, MT-2
14	PERFORATED VINYL SOFFIT, VN-1

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Client  
Town of Stratford

Project Title  
Stratford Dry Storage Building

Sheet Title  
Building Elevations

No.	Description	Date	Date:	Revision
0	Issued for Tender	2021-11-18	November 2021	0
			Drn By: SPM, P.Eng	
			Chk By: SDM	
			Project Number:	
			211161	
			Drawing Number:	
			A2	



ELECTRICAL SPECIFICATIONS

1. GENERAL CONDITIONS

- 1.1. TENDER REQUIREMENTS, THE PROJECT CONTRACT, RELATED DOCUMENTATION AND GENERAL REQUIREMENTS GOVERN THE WORK OF THIS CONTRACT/TRADE.
- 1.2. ALL ELECTRICAL WORK IS TO BE CARRIED OUT BY QUALIFIED, LICENSED ELECTRICIANS OR APPRENTICES FOR THE PROVINCE OF PRINCE EDWARD ISLAND AND THE ELECTRICAL CONTRACTOR MUST HAVE A VALID CONTRACTOR LICENSE ISSUED BY THE PROVINCE OF PRINCE EDWARD ISLAND.
- 1.3. ELECTRICAL CONTRACTOR TO FURNISH ALL LABOUR, MATERIALS, TOOLS AND EQUIPMENT REQUIRED TO COMPLETE ALL WORK SHOWN ON THE DRAWINGS AND HEREIN SPECIFIED. THE WORK IS TO BE IN ACCORDANCE WITH RULES AND REGULATIONS OF ALL AUTHORITIES HAVING LEGAL JURISDICTION OVER THE WORK. PROVIDE ANY SMALL ITEMS OF WORK NOT SPECIFICALLY CALLED FOR BUT REQUIRED TO COMPLETE THE INTENDED INSTALLATION.
- 1.4. THE TERM "OWNER" TO HEREIN REFER TO THE TOWN OF STRATFORD, THE TERM "ENGINEER" TO HEREIN REFER TO COLES ASSOCIATES LTD.
- 1.5. THE ENGINEER RESERVES THE RIGHT TO APPROVE THE QUALITY OF MATERIAL AND WORKMANSHIP, AND TO CALL FOR ANY TESTS WHICH THEY DEEM NECESSARY TO ESTABLISH THE INTEGRITY OF THE INSTALLATION DURING THE PROGRESS OF THE WORK AND A COMPLETE TEST OF EACH SYSTEM AT THE COMPLETION OF THE WORK. THE COST OF SUCH TESTS ARE NOT TO BE CONSIDERED AS EXTRAS.

2. DESCRIPTION OF WORK

- 2.1. THE WORK IS TO CONSIST OF, BUT NOT BE LIMITED TO, THE FOLLOWING:
  - 2.1.1. POWER DISTRIBUTION AND MODIFICATION TO EXISTING ELECTRICAL DISTRIBUTION IN EXISTING STORAGE BUILDING
  - 2.1.2. WIRING DEVICES
  - 2.1.3. LIGHTING
  - 2.1.4. EXIT AND EMERGENCY LIGHTING
  - 2.1.5. ALL CABLE AND CONDUIT INSTALLATION
  - 2.1.6. ALL NECESSARY CONNECTIONS FOR A COMPLETE SYSTEM

3. CODES, PERMITS AND INSPECTION

- 3.1. ALL WORK IS TO BE IN ACCORDANCE WITH THE LATEST ADOPTED EDITION OF THE CANADIAN ELECTRICAL CODE (CSA 22-1.21), THE NATIONAL BUILDING CODE (NBC 2015), AND THE NATIONAL FIRE CODE (NFC).
- 3.2. ELECTRICAL CONTRACTOR TO BE RESPONSIBLE FOR AND IS TO OBTAIN ALL PERMITS, INSPECTIONS, ETC. AS REQUIRED BY ALL AUTHORITIES HAVING JURISDICTION OVER THIS WORK AND IS TO PAY FOR THESE COSTS ARE TO BE INCLUDED IN THE TENDER PRICES. ALL PERMITS ARE TO BE DELIVERED TO THE OWNER'S REPRESENTATIVE AS SOON AS THEY BECOME AVAILABLE.

4. DRAWINGS

- 4.1. PREPARE AT OWN EXPENSE, ANY LARGE SCALE WORKING DRAWINGS WHICH MAY BE REQUIRED BY THE EXAMINING AUTHORITIES TO FACILITATE INSTALLATION.

5. AS-BUILT DRAWINGS

- 5.1. PROVIDE AS-BUILT DRAWINGS TO GENERAL REQUIREMENTS.

6. SHOP DRAWINGS

- 6.1. SUBMIT SHOP DRAWINGS OF ALL ELECTRICAL EQUIPMENT FOR REVIEW BY THE ENGINEER. SHOP DRAWINGS ARE TO INCLUDE POWER DISTRIBUTION, WIRING DEVICES, LIGHTING, EXIT AND EMERGENCY LIGHTING AND ANY OTHER EQUIPMENT REQUESTED BY THE ENGINEER. CONTRACTOR IS TO STAMP, SIGN AND DATE SHOP DRAWINGS PRIOR TO SUBMISSION AS PROOF OF THEIR APPROVAL. COORDINATION WITH FIELD MEASUREMENTS, AND COMPLIANCE WITH THE CONTRACT DOCUMENTS.

7. EXAMINATION OF SITE AND DRAWINGS

- 7.1. EXAMINE DRAWINGS, VISIT THE SITE AND BECOME FAMILIAR WITH THE PROJECT. ANY DEVIATION AND/OR CONFLICTS ON THE PLANS OR SITE IS TO BE REPORTED TO THE ENGINEER PRIOR TO SUBMITTING TENDER. OTHERWISE IT WILL BE CONSIDERED THAT THEY HAVE BEEN ACCOUNTED FOR IN TOTAL TENDERED PRICE.

8. CONSTRUCTION SCHEDULE

- 8.1. SCHEDULE AND PERFORM WORK TO MEET THE COMPLETION SCHEDULE, ANY OVERTIME WORK IS TO BE INCLUDED IN TOTAL TENDERED PRICE.

9. BILLINGS, REVISIONS AND EXTRAS

- 9.1. BILLINGS FOR WORK ARE TO BE BROKEN DOWN INTO A NUMBER OF SUBSECTIONS TO INDICATE HOW VALUES WERE DERIVED. SUBMIT PROPOSED BREAKDOWN TO ENGINEER FOR APPROVAL, PRIOR TO FIRST BILLING. MATERIALS ON SITE TO BE SUPPORTED WITH PACKING SLIPS.

9.2. NO ADDITIONAL MONEY OVER THE CONTRACT PRICE WILL BE PAID UNLESS AN APPROVED CHANGE ORDER IS ISSUED. CLAIMS FOR EXTRAS MUST BE SUBMITTED WITH A COMPLETE BREAKDOWN OF MATERIAL, LABOUR, HOURLY RATES, ETC.

10. CLEANUP

- 10.1. REMOVE ALL WASTE PRODUCTS AND DEBRIS AND KEEP THE WORK AREA CLEAN AT ALL TIMES.
- 10.2. PRIOR TO FINAL REVIEW REMOVE SURPLUS PRODUCTS, TOOLS, AND CONSTRUCTION EQUIPMENT.

11. CUTTING AND PATCHING

- 11.1. BE RESPONSIBLE FOR ANY CUTTING, PATCHING AND OPENINGS NECESSARY FOR WORK. USE APPROPRIATE POWER DRIVEN TOOLS TO MAKE ANY OPENINGS. KEEP OPENINGS TO A MINIMUM, AND MAKE OPENINGS ONLY AS LARGE AS REQUIRED FOR ELECTRICAL SERVICES.

12. EXISTING STRUCTURES AND SERVICES

- 12.1. CONTRACTOR TO BE RESPONSIBLE FOR ANY DAMAGE CAUSED BY CUTTING OR DISRUPTING EXISTING STRUCTURES OR SERVICES DESIGNATED TO REMAIN IN USE.

13. VAPOUR BARRIER PENETRATIONS

- 13.1. EVERY OUTLET AND JUNCTION BOX INSTALLED IN A WALL OR CEILING WHICH IS EQUIPPED WITH OR MAY BE EQUIPPED WITH A VAPOUR BARRIER IS TO BE SURROUNDED WITH A MOISTURE RESISTANT BARRIER.

13.2. OPENINGS WRAPPED THROUGH VAPOUR BARRIERS FOR THE INSTALLATION OF ELECTRICAL WIRING, OUTLET BOXES AND EQUIPMENT ARE TO BE EFFECTIVELY SEALED TO MAINTAIN THE INTEGRITY OF THE VAPOUR BARRIER.

14. DELIVERY DATES

- 14.1. PLACE ORDER FOR ALL MATERIAL AND EQUIPMENT IMMEDIATELY AFTER SIGNING OF CONTRACT. SUBMIT A LIST OF DELIVERY DATES FOR EACH TYPE OF EQUIPMENT WITHIN 5 DAYS OF THE AWARD OF CONTRACT. THE LIST IS TO INCLUDE SUPPLIERS AND MANUFACTURER'S NAMES. USE ONLY MATERIALS THAT CAN BE DELIVERED ON TIME TO MEET CONSTRUCTION SCHEDULE. OTHERWISE PROVIDE TEMPORARY AT NO COST TO OWNER.

15. EQUIPMENT AND MATERIAL

- 15.1. ALL EQUIPMENT AND MATERIAL, UNLESS SPECIFICALLY NOTED OTHERWISE, IS TO BE NEW AND WITHOUT BLEMISH OR DEFECT. ALL MATERIAL AND EQUIPMENT ARE TO BE CERTIFIED BY A CERTIFICATION AGENCY WHICH IS ACCREDITED BY THE CANADIAN STANDARDS COUNCIL OF CANADA IN ACCORDANCE WITH THE REQUIREMENTS OF CSA STANDARDS OR OTHER RECOGNIZED DOCUMENTS AND HAVE ALL REQUIRED LABELS PERMANENTLY AFFIXED AND VISIBLE WHEN INSTALLED.

16. TESTING

- 16.1. PERFORM TEST ON EACH SYSTEM TO THE SATISFACTION OF THE ENGINEER AND SUBMIT TEST RESULTS FOR APPROVAL PRIOR TO THE FINAL ACCEPTANCE OF THE WORK.

16.2. PANELBOARD IS TO BE BALANCED WITHIN 5%. MEASURE PHASE CURRENT TO PANEL WITH NORMAL LOADS OPERATING AT TIME OF ACCEPTANCE. ADJUST BRANCH CIRCUIT CONNECTIONS AS REQUIRED TO OBTAIN BEST BALANCE OF CURRENT BETWEEN PHASES AND RECORD CHANGES. INCLUDE SIGNED AND DATED LOAD BALANCE SHEETS IN MAINTENANCE MANUALS.

16.3. TEST ALL SYSTEM GROUNDING AND BONDING CONDUCTORS FOR PHASE TO GROUND LOADS. AMMETER IS TO READ LESS THAN ONE AMPERE.

16.4. MEGGAR ALL CIRCUITS PHASE-TO-PHASE-TO-GROUND. INCLUDE SIGNED AND DATED TEST SHEETS IN MAINTENANCE MANUALS.

16.5. ALL POWER CABLES TO BE TESTED FOR OPENS, SHORTS, GROUNDS AND CONTINUITY. INCLUDE SIGNED AND DATED TEST SHEETS IN MAINTENANCE MANUALS.

16.6. ALL ELECTRICAL EQUIPMENT AND SYSTEMS TO BE COMMISSIONED BY ELECTRICAL CONTRACTOR, READY FOR USE BY OWNER.

- 16.7. AT COMPLETION OF WORK SUBMIT WITH THE MAINTENANCE MANUALS A REPORT LISTING PHASE AND NEUTRAL CURRENTS ON PANELBOARDS, OPERATING UNDER NORMAL LOAD. STATE HOUR AND DATE WHICH EACH LOAD WAS MEASURED AND VOLTAGE AT TIME OF TEST.

17. DEMONSTRATION OF THE SYSTEM

- 17.1. DEMONSTRATE THE FUNCTION AND OPERATION OF EACH SYSTEM TO THE ENGINEER AND OWNER.

18. IDENTIFICATION

- 18.1. PROVIDE AND INSTALL LAMICOID IDENTIFICATION NAMEPLATES ON ALL ELECTRICAL EQUIPMENT, INCLUDING BUT NOT LIMITED TO PANELBOARDS INDICATING THE LOAD SERVED, SYSTEM AMPERAGE, VOLTAGE, PHASING AND CIRCUIT NUMBER WHERE APPLICABLE.
- 18.2. LAMICOID NAMEPLATES ARE TO BE WHITE WITH BLACK ENGRAVED LETTERS AND ARE TO BE INSTALLED WITH CONTACT GEM TO EQUIPMENT ENCLOSURES.

18.3. EACH BRANCH PANEL IS TO HAVE A TYPEWRITTEN BREAKER DIRECTORY INDICATING THE LOAD CONNECTED TO EACH CIRCUIT. DIRECTORIES ARE TO BE MOUNTED ON THE INSIDE OF THE PANEL DOOR WITH A TRANSPARENT PLASTIC COVER.

18.4. EACH WIRE TO BE SELF-LAMINATING OR HEAT SHRINK STYLE CABLE MARKER INDICATING THE CIRCUIT NUMBER IT IS CONNECTED TO.

18.5. COLOUR CODE CONDUITS, BOXES AND METALLIC SHEATHED CABLES WITH PLASTIC TAPE OR PAINT. CONDUIT AND METALLIC SHEATHED CABLES ARE TO BE PAINTED OR TAPED ON BOTH SIDES OF WALL OR CEILING PENETRATIONS AND AT 50' INTERVALS. COLOURS TO BE AS FOLLOWS: 120/208V POWER-YELLOW.

18.6. ALL JUNCTION/PULL BOXES ARE TO BE MARKED WITH AN INDELIBLE INK MARKER TO IDENTIFY THE CIRCUIT NUMBER OF ENCLOSED WIRING AND THE PANEL NAME.

19. COORDINATION

- 19.1. BE RESPONSIBLE FOR COORDINATING THE INSTALLATION OF EQUIPMENT, CONDUIT AND CABLE WORK, LIGHTING FIXTURES, ETC. WITH OTHER TRADES PRIOR TO THE ACTUAL INSTALLATION.

20. ACCESSIBILITY

- 20.1. ALL WORK IS TO BE INSTALLED SO IT CAN BE READILY ACCESSIBLE FOR OPERATION, MAINTENANCE AND REPAIRS.

21. RESPONSIBILITY

- 21.1. BE RESPONSIBLE FOR WORK UNTIL THE COMPLETION AND FINAL ACCEPTANCE, INCLUDING REPLACING ANY ITEM THAT MAY BE DEFECTIVE, DAMAGED, LOST OR STOLEN WITHOUT ADDITIONAL COST TO THE OWNER OR DELAY TO THE COMPLETION OF THE PROJECT.

22. WARRANTY

- 22.1. WARRANT ALL WORK AND MATERIALS INSTALLED UNDER THIS CONTRACT, AGAINST ALL DEFECTS AND WORKMANSHIP FOR A PERIOD OF ONE (1) YEAR AFTER ACCEPTANCE OF SAME BY OTHERS.

23. FASTENINGS AND SUPPORTS

- 23.1. PROVIDE FASTENINGS AND SUPPORTS SPECIFICALLY DESIGNED TO SUPPORT THE LOAD FOR ALL ELECTRICAL EQUIPMENT.

23.2. SUPPORT CHANNELS TO BE U-SHAPED, 1-1/2" x 1-1/2" x 1/16" THICK PRE-GALVANIZED STEEL, SURFACE MOUNTED OR SUSPENDED AS REQUIRED. THREADED ROD, NUTS AND WASHERS TO BE ZINC PLATED.

23.3. SPECIFIC PURPOSE HEAT TREATED, SPRING STEEL FASTENERS TO SUPPORT BOXES, CONDUIT AND CABLE FROM MAIN STRUCTURES AND CHANNELS. ACCEPTABLE MATERIAL: COOPER B-LINE, CADDY.

23.4. SURFACE MOUNTED EQUIPMENT REQUIRING ADDITIONAL SUPPORT TO BE INSTALLED USING METAL FRAMING CHANNELS, FITTINGS AND HARDWARE.

23.5. BOXES INSTALLED IN STUD WALLS ARE TO BE SUPPORTED BETWEEN STUDS USING SPECIFIC PURPOSE BOX SUPPORTS. ACCEPTABLE MATERIAL: COOPER B-LINE, CADDY.

23.6. PROVIDE METAL BRACKETS, FRAMES, HANGERS, CLAMPS AND RELATED TYPES OF SUPPORT. 120V, 15A CSA 5-1R OR 20A CSA-5-20R AS INDICATED ON THE DRAWINGS WITH TURNED-IN CORNER STAINLESS STEEL FACEPLATE WHEN INSTALLED ON SURFACE MOUNTED BOXES. ACCEPTABLE MATERIAL: COOPER #VGF15-W, HUBBELL #R20-WH, LEVITON #CR20-WH, PASS & SEYMOUR #R20-WH.

23.7. ENSURE ADEQUATE SUPPORT FOR RACEWAYS AND CABLES DROPPED VERTICALLY. PROVIDE CHANNEL AS REQUIRED.

23.8. DO NOT USE SUPPORTS OR EQUIPMENT INSTALLED BY OTHER TRADES FOR CONDUIT OR CABLE SUPPORT UNLESS APPROVAL IS OBTAINED FROM THE ENGINEER.

23.9. DO NOT INSTALL CABLE, RACEWAYS AND BOXES DIRECTLY TO UNDERSIDE OF ROOF DECKING. SUPPORT CABLES, RACEWAY AND BOXES SO THAT THE NEAREST OUTSIDE SURFACE OF THE CABLE RACEWAY OR BOX IS NOT LESS THAN 1" FROM BOTTOM OF ROOF DECKING.

24. CONDUIT AND FITTINGS

- 24.1. WHEN SHOWN, CONDUIT SIZES ARE TO BE AS INDICATED ON THE DRAWINGS AND ARE NOT TO BE REDUCED IN SIZE WITHOUT APPROVAL. IS OBTAINED FROM THE ENGINEER. OTHERWISE, SIZE CONDUIT TO CSA 22-1.21 REQUIREMENTS. ALL CONDUIT IS TO BE INSTALLED PARALLEL OR PERPENDICULAR TO BUILDING LINES. CONDUIT IS TO BE INSTALLED TO CONSERVE HEADROOM IN SPACES THROUGH WHICH THEY PASS.

24.2. EMT COMPLETE WITH STEEL SET SCREW COUPLINGS AND CONNECTORS TO BE USED FOR ALL BRANCH CIRCUIT WORK UNLESS OTHERWISE INDICATED. INSTALL A SEPARATE BOND WIRE SIZED IN ACCORDANCE WITH CEC REQUIREMENTS IN ALL CONDUITS.

24.2.1. AC90 IS AN ACCEPTABLE ALTERNATE TO CONDUIT FOR INTERIOR BRANCH CIRCUITS SURFACE MOUNTED AND EXPOSED ALONG STUD WALL CONSTRUCTION. AC90 CABLES TO BE SECURELY FASTENED AND STAPLED TO WOODEN STUDS IN A CONCEALED FASHION TO PROVIDE PROTECTION FROM MECHANICAL DAMAGE.

24.3. PVC CONDUIT TO BE USED UNDERGROUND AND IN CONCRETE SLAB WHERE ALLOWED BY SECTION 12 OF THE CSA 22-1.21, UNLESS OTHERWISE INDICATED, EXPOSED PVC WILL NOT BE PERMITTED.

24.4. MINIMUM CONDUIT SIZE IS TO BE 3/4" UNLESS OTHERWISE INDICATED.

24.5. ARMoured CABLE TO BE USED FOR DROPS TO LIGHT FIXTURES, MAXIMUM 5' LONG. INSTALL ANTI-SHORTS, STRAPS AND CONNECTORS AS REQUIRED.

24.6. FOR EXTERIOR AND WET LOCATIONS USE LIQUID TIGHT FLEX OR TECK CABLE WITH PROPER FITTINGS.

24.7. CONDUIT AND ARMoured CABLES ARE TO BE SUPPORTED INDEPENDENTLY OF OTHER EQUIPMENT USING ONE-HOLE STEEL STRAPS FOR UNDER 2", TWO-HOLE STEEL STRAPS FOR 2" AND LARGER, AND REAN CLAMPS, AND SPRING STEEL FASTENERS IN ACCORDANCE WITH THE CEC.

24.8. PROVIDE LOW VOC MASTIC COMPOUND WEATHERPROOF SEAL WHERE CONDUITS PASS THROUGH EXTERIOR WALLS OR STRUCTURES.

25. OUTLET, PULL AND JUNCTION BOXES

- 25.1. BOXES TO BE CODE GAUGE STEEL, SIZED TO MEET CSA 22-1.21 REQUIREMENTS AND SUITABLE FOR FLUSH MOUNTING FOR THE TYPE OF CONSTRUCTION. USE CAST FS OR FD BOXES FOR SURFACE MOUNTED OUTLETS.

25.2. EXTERIOR BOXES TO BE WATER TIGHT.

25.3. PROVIDE PULL BOXES ON CONDUIT RUNS AT A MAXIMUM OF 100' INTERVALS.

25.4. BOXES TO BE SUPPORTED INDEPENDENT OF CONDUIT RUNS.

26. INSTALLATION OF ELECTRICAL

- 26.1. PLANS SHOW APPROXIMATE LOCATION OF ELECTRICAL WORK. EXACT LOCATION TO BE COORDINATED ON THE SITE WITH OTHER TRADES. ARCHITECTURAL PLANS, EQUIPMENT, ETC. LOCATIONS MAY VARY BY 10' WITHOUT CREDIT OR EXTRA. INACCURATELY LOCATED ELECTRICAL TO BE RE-ADJUSTED OR RELOCATED AT THE CONTRACTOR'S EXPENSE.

26.2. UNLESS OTHERWISE INDICATED ON THE DRAWINGS, LOCATE ELECTRICAL EQUIPMENT AT THE FOLLOWING MOUNTING HEIGHTS TAKEN FROM EQUIPMENT CENTERLINE TO FINISHED FLOOR.

26.2.1. RECEPTABLES: 18" IN GENERAL

26.2.2. LIGHT SWITCHES: 48"

26.2.3. PANELBOARDS: 60" OR AS REQUIRED BY CODE.

26.2.4. WALL MOUNTED EXIT OR EMERGENCY LIGHTS: 90"

26.3. INSTALL VAPOUR BARRIER BOXES AND SEAL AROUND BOXES WITH ISOLATING EXPANSION FOAM. ACCEPTABLE MATERIAL: MONO COMC No. 09421-R BY TREMCO.

27. WIRE AND CABLE

- 27.1. ALL WIRES TO BE COPPER RW90, RATED 600V, INSTALLED IN CONDUIT UNLESS OTHERWISE INDICATED. AC90 IS AN ACCEPTABLE ALTERNATE TO CONDUIT FOR INTERIOR BRANCH CIRCUITS SURFACE MOUNTED AND EXPOSED ALONG STUD WALL CONSTRUCTION.

- 27.2. ALL WIRING TO BE SIZED TO MEET ALL REQUIREMENTS OF THE CSA 22-1.21. MINIMUM SIZE FOR BRANCH CIRCUIT WIRING TO BE #12 WIRING UNLESS INDICATED OTHERWISE.

- 27.3. ALL WIRES TO BE NEW AND DELIVERED TO THE SITE OF THE PROJECT IN THEIR ORIGINAL PACKAGING. WIRES #8 AND LARGER TO BE STRANDED, #10 AND SMALLER TO BE SOLID. WIRES TO BE FACTORY IDENTIFIED SHOWING SIZE, VOLTAGE RATING AND INSULATION TYPE.

- 27.4. NEUTRAL CONDUCTOR TO BE WHITE THROUGHOUT, THREE PHASE WIRES TO BE: ONE RED, ONE BLACK AND ONE BLUE.

- 27.5. WHERE COMMON NEUTRALS ARE USED ENSURE THAT CIRCUITS ARE FROM DIFFERENT PHASES.

- 27.6. CABLES ARE TO BE INSTALLED WITHOUT SPLICES AND BE RUN CONTINUOUS FROM SOURCE TO LOAD.

28. CONNECTORS FOR WIRES

- 28.1. USE TWIST-ON PRESSURE TYPE WIRE CONNECTORS FOR #8 TO #14 SIZED WIRE CONNECTIONS. ACCEPTABLE MATERIAL: MARSHETTE.

- 28.2. COMPRESSION TYPE CONNECTORS TO BE USED FOR CONNECTING #6 CONDUCTORS AND LARGER.

- 28.3. USE GEL FILLED TWIST-ON CONNECTORS IN DAMP OR WET LOCATIONS. ACCEPTABLE MATERIAL: KING INNOVATION DRY CONN.

- 28.4. PREMANUFACTURED MOTOR LEAD SPLICING KITS TO BE USED FOR WIRING CONNECTIONS TO MOTORS.

29. GROUNDING AND BONDING

- 29.1. ENTIRE ELECTRICAL SYSTEM TO BE GROUNDED AND BONDED IN ACCORDANCE WITH THE REQUIREMENTS OF THE CEC AND LOCAL AUTHORITIES.

- 29.2. ALL CONDUITS TO HAVE SEPARATE INSULATED BONDING CONDUCTOR.

- 29.3. ALL INSULATED GROUNDING AND BONDING WIRES TO HAVE GREEN JACKET.

30. POWER DISTRIBUTION SYSTEM

30.1. PANELBOARDS

- 30.1.1. PANELBOARD TO BE OF THE AMPERAGE, VOLTAGE AND PHASING INDICATED ON THE DRAWINGS, COMPLETE WITH CIRCUIT BREAKERS AS INDICATED.

- 30.1.2. PANELBOARD TO BE SURFACE MOUNTED ON A 6" (W) x 4" (H) BACKBOARD AS INDICATED COMPLETE WITH HINGED DOOR, LATCH, LOCK AND DIRECTORY, BAKED GREY ENAMEL FINISH.

- 30.1.3. CIRCUIT BREAKERS TO HAVE THERMAL MAGNETIC TRIP PROTECTION WITH REMITTALIC ELEMENTS FOR DELAY OVERLOAD PROTECTION. TWO POLE BREAKERS TO HAVE INTERNAL COMMON TRIP. BREAKERS ARE TO BE BOLT-IN FIELD INTERCHANGEABLE, 10 KAIC AT 208V. PROVIDE ALL MOUNTING HARDWARE AS REQUIRED FOR INSTALLING NEW BREAKERS IN EXISTING PANELBOARD LOCATED IN EXISTING STORAGE BUILDING.

- 30.1.4. CIRCUIT BREAKERS TO BE BY THE SAME MANUFACTURER AS THE PANELBOARD IN WHICH THEY ARE BEING INSTALLED. BREAKERS MUST BE NEW, COMPLETE WITH FACTORY WARRANTY AND SUPPLIED FROM AN AUTHORIZED MANUFACTURER'S DISTRIBUTOR.

- 30.1.5. ACCEPTABLE MATERIAL: SQUARE D, SIEMENS, EATON.

31. WIRING DEVICES

- 31.1. DUPLEX RECEPTABLES TO BE WHITE, STANDARD, COMMERCIAL SPECIFICATION GRADE, 120V, 15A CSA 5-1R OR 20A CSA-5-20R AS INDICATED ON THE DRAWINGS WITH TURNED-IN CORNER STAINLESS STEEL FACEPLATE WHEN INSTALLED ON SURFACE MOUNTED BOXES. ACCEPTABLE MATERIAL: (CSA 5-1R) COOPER #R20-WH, HUBBELL #CR15-WH, LEVITON CR15-WH, PASS & SEYMOUR #P72625W, (CSA 5-20R) COOPER #CR20-WH, HUBBELL #CR20-WH, LEVITON #CR20-WH, PASS & SEYMOUR #R20-WH.

- 31.2. DUPLEX CSA TYPE 5-16R GROUND FAULT CIRCUIT INTERRUPTER (GFCI) RECEPTABLES TO BE WHITE, DECORA, COMMERCIAL SPECIFICATION GRADE, TURNED-IN CORNER STAINLESS STEEL FACEPLATE WHEN INSTALLED ON SURFACE MOUNTED BOXES. ACCEPTABLE MATERIAL: COOPER #VGF15-W, HUBBELL #R20-WH, LEVITON #V20-WH, PASS & SEYMOUR #1595W.

- 31.3. SWITCHES: SINGLE POLE AS INDICATED TO BE WHITE, STANDARD, COMMERCIAL SPECIFICATION GRADE RATED 15A, 120V, C/W TURNED-IN CORNER STAINLESS STEEL FACEPLATE WHEN INSTALLED ON SURFACE MOUNTED BOXES. ACCEPTABLE MATERIAL: COOPER #HUBELL #K15-WH, LEVITON, PASS AND SEYMOUR.

- 31.4. COVERPLATES OF SURFACE MOUNTED OUTLET BOXES TO BE STAINLESS STEEL COMPLETE WITH TURNED-IN CORNERS SUITABLE FOR CAST BOX MOUNTING.

- 31.5. PROVIDE CIRCUIT IDENTIFICATION AT ALL WIRING DEVICES USING PRE-PRINTED THERMAL NON-SMEAR LABELS, CLEAR VINYL WITH BLOCK LETTERING, ATTACHED TO COVERPLATE. WHITE VINYL LABELS WILL NOT BE ACCEPTED.

- 31.6. RECEPTABLES DESIGNATED AS WEATHERPROOF TO BE GFCI TYPE C/W SPRING LOADED GASKETTED WHILE-IN-USE COVERS. ACCEPTABLE MATERIAL: HUBBELL TAYMEX M1 SERIES, PASS & SEYMOUR #HUC105G.

- 32. LUMINAIRES
- 32.1. PROVIDE LUMINAIRES C/W DRIVERS AND LAMPS AS INDICATED IN THE LUMINAIRE SCHEDULE ON DRAWING E1. LUMINAIRES TO BE C/W ALL NECESSARY HANGERS, LOUVERS, DIFFUSERS, SUPPORTS, ETC.

- 32.2. CO-ORDINATE THE MOUNTING AND LOCATION OF LUMINAIRES WITH OTHER TRADES TO AVOID CONFLICTS.

- 32.3. PROVIDE LUMINAIRES WITH SURFACE MOUNTING BRACKETS AS REQUIRED TO MOUNT LUMINAIRES TO UNDERSIDE OF EXPOSED STEEL JOIST.

- 32.4. ALIGN LUMINAIRES IN CONTINUOUS ROWS TO FORM STRAIGHT UNINTERRUPTED LINE. ALIGN LUMINAIRES MOUNTED INDIVIDUALLY PARALLEL OR PERPENDICULAR TO BUILDING LINES.

- 33. EXIT SIGNS AND EMERGENCY LIGHTS
- 33.1. EXIT SIGNS TO BE LED, 120V NORMAL POWER, PICTORIAL, GREEN RUNNING MAN ON WHITE FACE, G22 4"X11-10, C860 COMPLIANT. ACCEPTABLE MATERIAL: AM-LITE #RPNP, LUMACELL #LP, READY-LITE #RS, STANPRO #RPMN. EXIT LIGHTS TO HAVE A TEN YEAR UNCONDITIONAL PARTS AND LABOUR GUARANTEE.

- 33.2. EMERGENCY LIGHT TO BE 4W, 12V, MR16 LED LAMP VANDAL RESISTANT REMOTE HEAD(S), WHITE COLOR, SINGLE OR DOUBLE AS INDICATED. ACCEPTABLE MATERIAL: AM-LITE #RPM202, STANPRO #S24-24-4WLRWH, LUMACELL #R0M0207, READY-LITE #RM0207, STANPRO #S2-24-4WLRWH.

- 33.3. EMERGENCY BATTERY TO BE RATED 36W FOR 30 MIN., 12V INPUT, 12V DC OUTPUT, WITH TWO 4W MR16 LED LAMPS, AUTO-TEST, WHITE HOUSING AND COMPLETE WITH HEATER FOR COLD TEMPERATURES. ACCEPTABLE MATERIAL: AM-LITE #EBST1238-2M84W-WHT/ATD, LUMACELL #R23363LD7AT, READY-LITE #LDX1236AD2LD7, STANPRO #S8A1236-24W/LJW/AT, BATTERY TO HAVE A TEN YEAR UNCONDITIONAL PARTS AND LABOUR GUARANTEE.

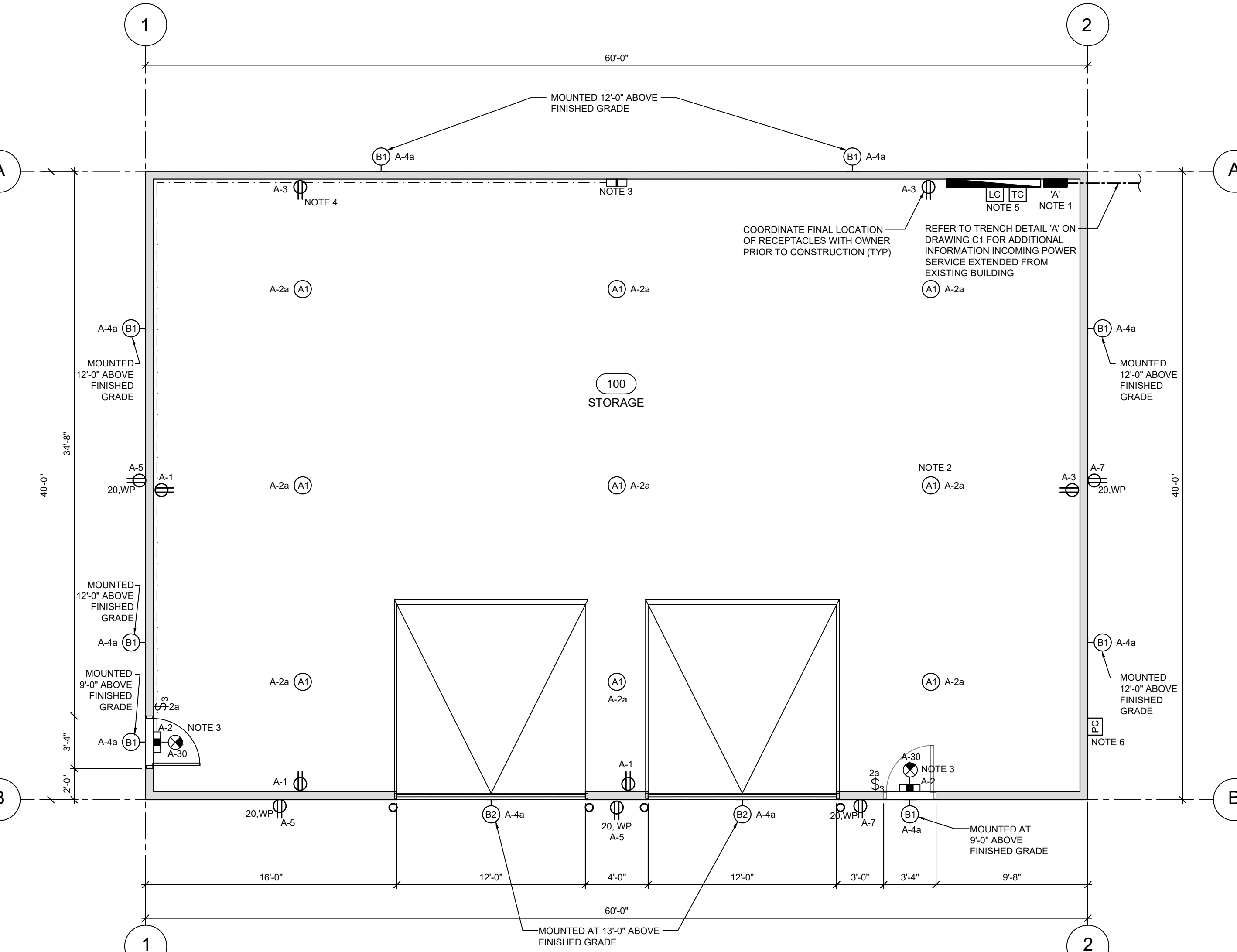
- 33.4. INSTALL EXIT AND EMERGENCY LIGHTING AS INDICATED AND MAKE NORMAL AND EMERGENCY POWER CONNECTIONS. TEST EMERGENCY POWER FOR 30 MINUTES.

- 34. MAINTENANCE MANUALS
- 34.1. AT COMPLETION OF CONTRACT PROVIDE THREE COPIES OF MAINTENANCE MANUALS TO GENERAL REQUIREMENTS. INCLUDE ALL SHOP DRAWINGS, CERTIFICATES, TEST SHEETS, GUARANTEES, WARRANTIES AND MAINTENANCE INFORMATION NAME, ADDRESS AND TELEPHONE NUMBER OF CONTRACTOR, PLUS NAMES, ADDRESSES AND TELEPHONE NUMBERS OF DISTRIBUTORS, MANUFACTURERS, AND SUPPLIERS OF EQUIPMENT.

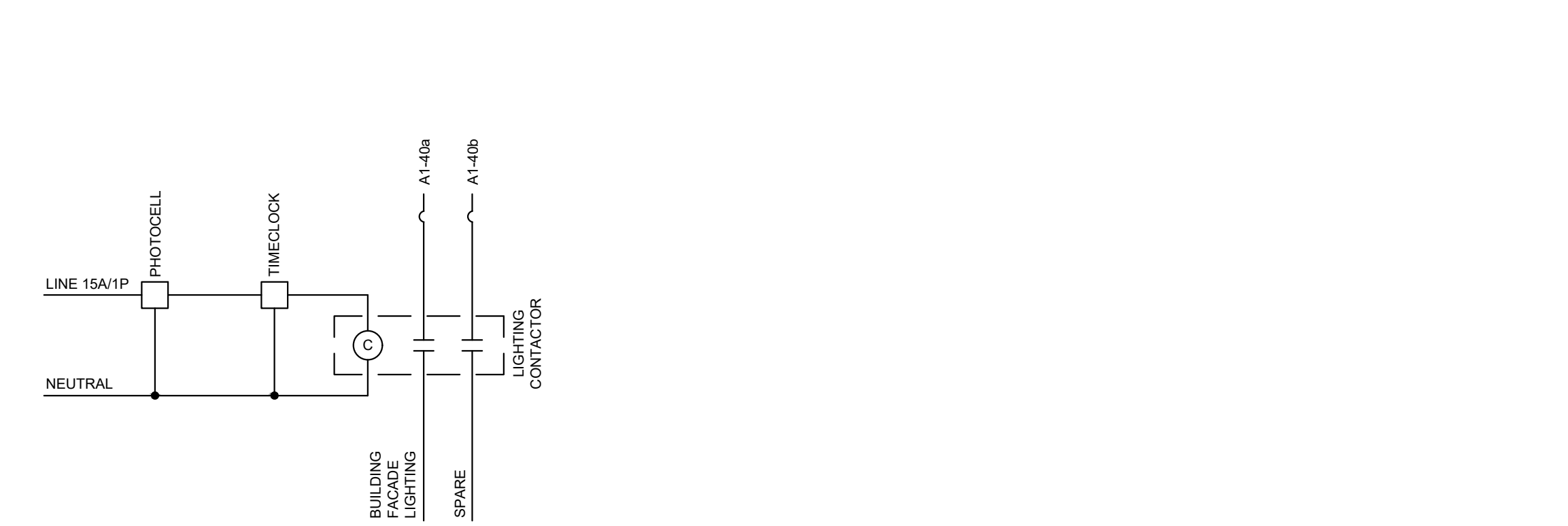
- NOTES
- THE PLANS FOR THE WORK ACCOMPANYING THESE SPECIFICATIONS ARE MADE AS ACCURATELY AS POSSIBLE, BUT ABSOLUTE ACCURACY OF DIMENSIONS CANNOT BE GUARANTEED. THEY ARE INTENDED TO SUPPLEMENT AND SIMPLIFY THE GENERAL CONTRACT DRAWINGS, NO CLAIMS FOR EXTRA PAYMENT ON ACCOUNT OF THE DIFFERENCE OF ACTUAL AND ESTIMATED DIMENSIONS WILL BE ALLOWED.

- EXACT LOCATION OF ALL ELECTRICAL WORK TO BE DETERMINED WITH ARCHITECTURAL FLOOR PLANS, FURNITURE AND EQUIPMENT LAYOUTS PRIOR TO ANY INSTALLATION.

- DRAWINGS
- E1 - ELECTRICAL SPECIFICATIONS, MAIN FLOOR PLAN, LEGEND, LUMINAIRE SCHEDULE & DETAILS



1. MAIN FLOOR PLAN  
3/16" = 1'-0"



2. EXTERIOR LIGHTING CONTROL WIRING SCHEMATIC  
N.T.S.

- 1. LIGHTING CONTROLLER TO BE MECHANICALLY OPERATED, ELECTRICAL HELD, ACCEPTABLE MANUFACTURER OR APPROVED EQUAL. SQUARE D #LGC-V02.
- 2. TIME CLOCK TO BE C/W 24 HOUR SKIP A DAY, CARRYOVER, ACCEPTABLE MANUFACTURER OR APPROVED EQUAL. INTERMATIC #E1125C.
- 3. PHOTOCELL TO BE TEMPERATURE COMPENSATED, THERMAL TYPE, INTERMATIC #K4251 OR APPROVED EQUAL.