

3) WIND LOAD: q50 = 9.4 P.S.F. GROUND SNOW LOAD: Ss = 39.6 P.S.F.

ASSOCIATED RAIN LOAD: 4.2 P.S.F. SEISMIC SITE CLASSIFICATION: NOT APPLICABLE DO NOT SCALE DRAWINGS.

ALL DIMENSIONS ARE TO BE VERIFIED WITH THE PROJECT DRAWINGS AND EXISTING SITE CONDITIONS PRIOR TO CONSTRUCTION. THESE STRUCTURAL DRAWINGS SHOW THE COMPLETED STRUCTURE AND DO NOT INDICATE ALL COMPONENTS NECESSARY FOR SAFETY DURING CONSTRUCTION. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR SAFETY ON AND AROUND THE JOBSITE DURING CONSTRUCTION. THE EXISTING STRUCTURE INCLUDING FOUNDATIONS AFFECTED BY THE WORK INDICATED IN THIS DRAWING HAS BEEN CHECKED AND DETERMINED ADEQUATE FOR THE IMPOSED LOADING. MECHANICAL UNITS AND STRUCTURAL STEEL SHALL BE CRANED FROM OSBORNE STREET SIDE OF EXISTING BUILDING. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS AND COORDINATION WITH PUBLIC WORKS FOR PERMITS, BARRIER, SIGNAGE, ETC. TO ACCOMPLISH CRANING PROCEDURES. ALTERNATIVELY, CONTRACTOR MAY CRANE FROM BUILDING PROPERTY, BUT IT MUST OCCUR ON THE WEEKEND AND NO ADDITIONAL PAYMENT WILL BE PROVIDED FOR PREMIUM OVERTIME WORK

STRUCTURAL STEEL

1. THE STRUCTURAL STEEL FABRICATOR'S ENGINEER SHALL BE RESPONSIBLE FOR LOCATING AND DESIGNING PROVISIONS FOR ALL TEMPORARY FALL PROTECTION SYSTEMS REQUIRED DURING CONSTRUCTION TO MEET MANITOBA WORKPLACE HEALTH AND SAFETY REGULATIONS. 2. STRUCTURAL STEEL TO CONFORM TO CSA-G40.21, "STRUCTURAL QUALITY STEELS" AND CSA-G40.20 "GENERAL REQUIREMENTS FOR ROLLED OR WELDED

3. ALL ROLLED OR STEEL STRUCTURAL SECTIONS SHALL BE G40.21-50W. ALL HOLLOW STRUCTURAL SECTIONS TO BE G40.21-50W CLASS C OR ASTM A500-C. ALL ANGLES, CHANNELS AND PLATES SHALL BE G40.21-44W. 4. FABRICATION AND ERECTION OF STRUCTURAL STEEL SHALL BE PERFORMED IN ACCORDANCE WITH CAN/CSA S16-09, "STEEL STRUCTURES FOR BUILDINGS". 5. ALL WELDING SHALL CONFORM TO THE LATEST EDITION OF CSA W59, "WELDED STEEL CONSTRUCTION". FABRICATORS SHALL BE PROPERLY CERTIFIED IN ACCORDANCE WITH CSA W47.1. "CERTIFICATION OF COMPANIES FOR FUSION WELDING OF STEEL STRUCTURES".

6. ALL BOLTED CONNECTIONS TO USE A325 HIGH STRENGTH BOLTS. MINIMUM CONNECTION SHALL CONSIST OF 2 BOLTS. 7. ALL STRUCTURAL STEEL IS TO RECEIVE ONE COAT OF CISC/CPMA 1-73a QUICK DRYING SHOP PRIMER. STEEL IN CRAWLSPACES SHALL RECEIVE 2 COATS. STEEL TO BE CLEANED IN CONFORMANCE WITH SSPC-SP2. STEEL RECEIVING FINISH PAINTING TO HAVE ONE COAT OF CISC/CPMA 2-75 QUICK DRYING SHOP PRIMER. STEEL TO BE CLEANED IN CONFORMANCE WITH SSPC-SP7. 8. NO HOLES PERMITTED IN TOP FLANGE OF BEAMS AT COLUMNS WHERE BEAMS ARE CONTINUOUS OVER COLUMNS.

ALL BEAMS CONTINUOUS OVER COLUMNS ARE TO HAVE WEB STIFFENERS THE SAME SIZE AND ORIENTATION AS THE COLUMN BELOW, UNLESS OTHERWISE NOTED. O. FABRICATOR TO NOTIFY CONTRACT ADMINISTRATOR OF ANY PROPOSED MEMBER SUBSTITUTIONS AND CHANGED CONNECTION DETAILS. 11. THE STRUCTURAL STEEL SUPPLIER SHALL PROVIDE AND BE RESPONSIBLE FOR ALL HOLES IN STEEL SECTIONS REQUIRED BY OTHER TRADES. SECTION SHALL BE STRENGTHENED WHERE REQUIRED TO GUARANTEE THE ORIGINAL STRENGTH OF THE BEAM. ANY CUTTING OF STEEL AT THE JOB SITE SHALL BE DONE ONLY AS DIRECTED AND APPROVED BY THE CONTRACT ADMINISTRATOR. 12. THE STRUCTURAL STEEL ERECTOR SHALL BE RESPONSIBLE FOR SUPPLYING AND ERECTING ALL TEMPORARY GUYING AND BRACING OF THE STEEL FRAMING TO

PROVIDE STABILITY FOR THE STRUCTURE AS A WHOLE. THESE SHALL REMAIN IN PLACE UNTIL ALL PERMANENT STEEL BRACING IS INSTALLED. 13. ALL DUCTS LARGER THAN 18 IN. X 18 IN. THROUGH ROOF DECK TO BE FRAMED WITH L4 x 4 x 5/16 ANGLES ALL AROUND, EXCEPT AS NOTED. SMALLER OPENINGS TO BE ADDRESSED ON A CASE BY CASE BASIS, CONTACT THE CONTRACT ADMINISTRATOR AS REQUIRED. WHERE STEEL DECK REVERSES ITS FRAMING DIRECTION, USE L 2 1/2 x 2 1/2 x 1/4 ANGLE TO SUPPORT EDGE. 14. STRUCTURAL STEEL SUPPLIER IS TO SUBMIT ENGINEERING DRAWINGS BEARING THE SEAL OF A PROFESSIONAL ENGINEER REGISTERED IN THE PROVINCE OF

MANITOBA COVERING THE DESIGN OF CONNECTIONS, TO THE DESIGNER OF RECORD FOR REVIEW PRIOR TO FABRICATION. CONNECTION DESIGN TO INCLUDE FOR

ALL ADJUSTABLE CONNECTIONS REQUIRED TO SUITE FABRICATION AND ERECTION PROCEDURES AND TOLERANCES.

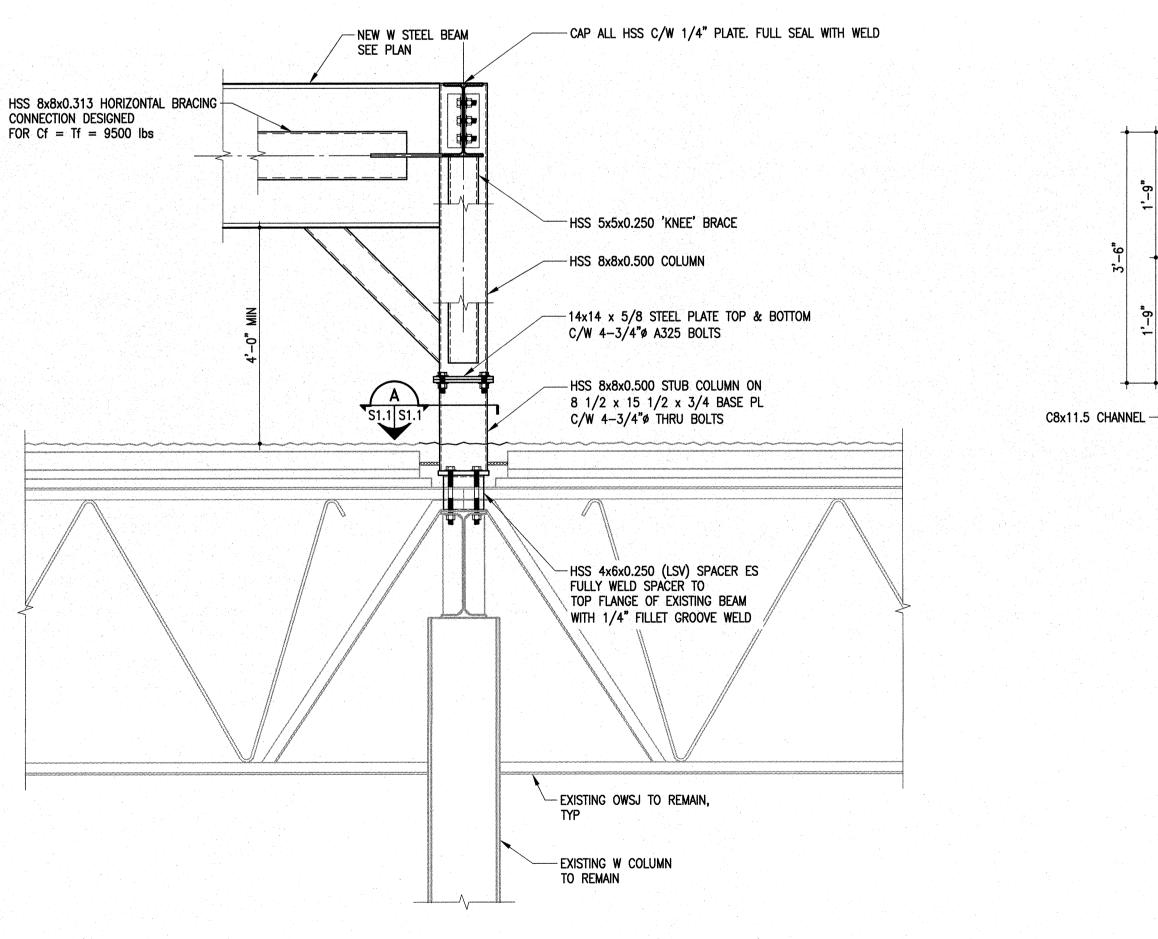
1. STEEL STAIR AND GUARDRAIL SUPPLIER IS TO SUBMIT ENGINEERING DRAWINGS BEARING THE SEAL OF A PROFESSIONAL ENGINEER REGISTERED IN THE PROVINCE OF MANITOBA FOR REVIEW BY THE PROJECT ENGINEER, PRIOR TO FABRICATION. ENGINEERED SHOP DRAWINGS SHALL INCLUDE DESIGN LOADS, LAYOUT PLAN, CONNECTION DETAILS, AND ALL OTHER PERTINENT INFORMATION.

2. STEEL STAIR AND GUARDRAIL SUPPLIER/DESIGNER SHALL PROVIDE A FINAL INSPECTION AND A LETTER SEALED BY THE ENGINEER RESPONSIBLE FOR THE STAIR AND GUARDRAIL DESIGN, CERTIFYING THAT STAIRS AND GUARDRAILS ARE CONSTRUCTED AND INSTALLED AS PER DESIGN ASSUMPTIONS AND INSTALLATION

> ALL HOLES IN EXIST ROOF TO BE FILLED IN WITH 1 1/2" DEEP 18GA METAL ROOF DECK C/W 3/4" PUDDLE WELD @ 12" O/C AROUND PERIMETER. EXTEND MIN 6" BEYOND EDGE OF OPENING IN ALL DIRECTIONS.

THE EXIST ROOF HAS BEEN DESIGNED FOR 36 psf LIVE LOAD. THE CONTRACTOR IS TO DETERMINE AN APPROPRIATE METHOD OF TRANSPORTING MATERIALS & MECHANICAL UNITS TO THE FINAL LOCATION WITHOUT EXCEEDING THIS DESIGN LOAD. ANY TRANSPORTATION METHOD SHOULD ENSURE PROTECTION OF THE EXIST ROOF SURFACE & UNDERLYING INSULATION. CONTRACTOR TO SUBMIT SEALED SHOP DRAWINGS TO ADDRESS MEANS AND METHODS OF INSTALLATION.

INFILL EXIST OPENINGS IN MASONRY WALL WITH MATCHING WIDTH BLOCKS. MIN BLOCK STRENGTH 15 MPa. TYPE S MORTAR MUST BE USED. MASON TO REMOVE ANY PARTIAL BLOCKS FRAMING THE CURRENT OPENING PRIOR TO INFILLING.



NOTE: CONTRACTOR IS TO CUT OUT EXISTING ROOFING, INSULATION & STEEL DECKING AT EACH NEW COLUMN LOCATION TO ALLOW FOR THE BASE PLATE TO BE INSTALLED DIRECTLY ON

RE-ROOFING AROUND EACH NEW COLUMN

TOP OF THE NEW STEEL HSS SPACERS. ONCE THE COLUMNS

ARE INSTALLED, THE CONTRACTOR IS RESPONSIBLE FOR

CONFIRM LOCATIONS OF BEAMS WITH MECH UNIT

SHOP DRAWINGS AND EXISTING SITE CONDITIONS

UNIT SUPPLIER PRIOR TO FABRICATION. PROVIDE

COORDINATE LOCATIONS OF ALL REQUIRED.

ADDITIONAL W8x10 BEAMS AS REQUIRED.

PRIOR TO FABRICATION.

SNOW LOAD: 36 PSF

CONNECTION DESIGNED

HSS 5x5x0.250 'KNEE'

HSS 4x6x0.250 (LSV) SPACER ES FULLY WELD SPACER TO TOP FLANGE OF EXISTING BEAM

WITH 1/4" FILLET GROOVE WELD

EXISTING W BEAM-

- EXISTING W COLUMN

TO REMAIN

TO REMAIN

— EXISTING OWSJ TO REMAIN

BRACE

NEW STEEL BEAM SEE PLAN

HSS 8x8x0.500 COLUMN -

14x14 x 5/8 STEEL PLATE -

TOP & BOTTOM C/W 4-3/4"ø

HSS 8x8x0.500 STUB COLUMN ON -

8 1/2 x 15 1/2 x 3/4 BASE PL C/W 4-3/4"ø THRU BOLTS

FOR Cf = Tf = 9500 lbs

- HSS 8x8x0.313 HORIZONTAL BRACING

PLATFORM LIVE LOAD = 50 PSF (SHOWN HATCHED)

EXISTING COLUMNS ALONG GRID 60 ARE W10x33

EXISTING COLUMNS ALONG GRID 61 BETWEEN GRIDS E-H ARE W14x43

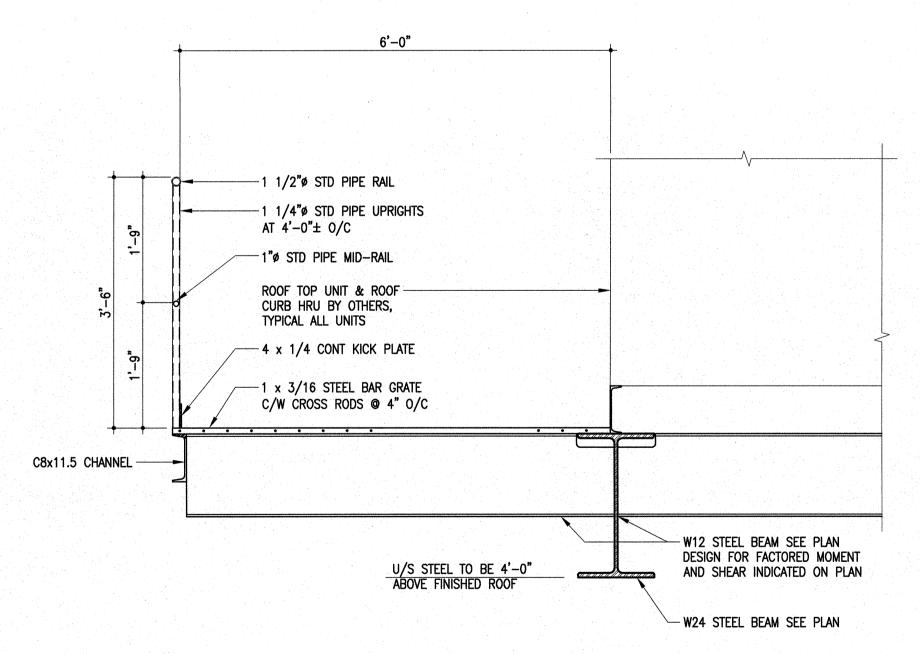
BETWEEN GRIDS M-Q,T-W ARE W10x33

STEEL SUPPLIER TO DESIGN ALL

CONNECTIONS NOT SPECIFICALLY

DETAILED ON THESE DRAWINGS

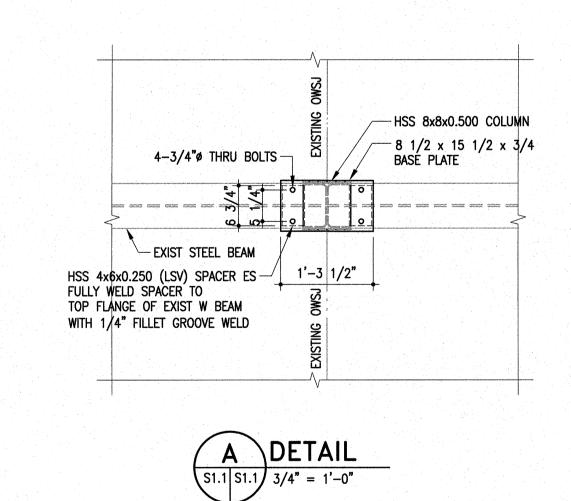
NEW ROOF TOP UNITS: AS NOTED ON PLAN

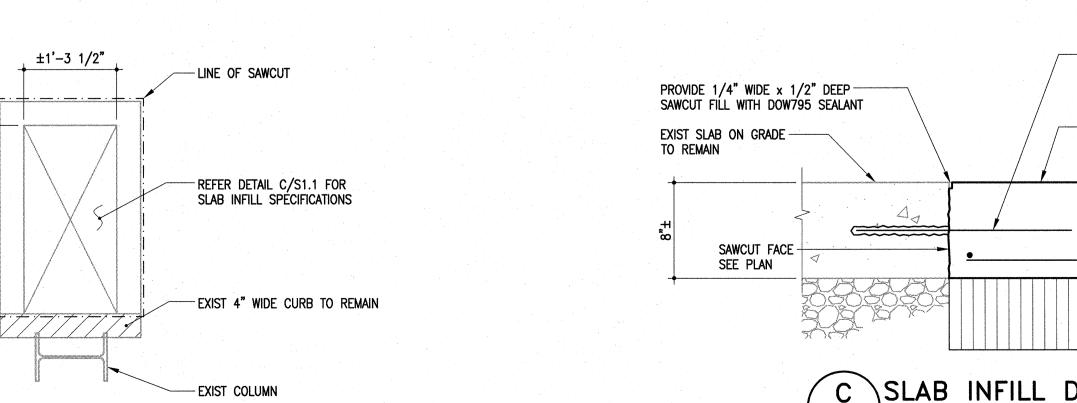


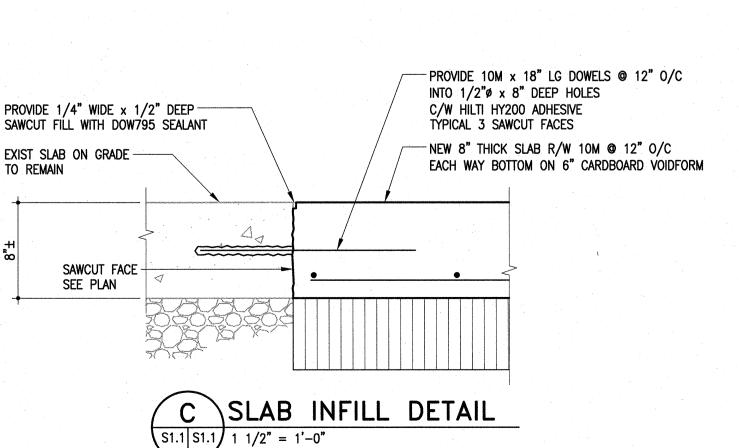
3 SECTION S1.1 S1.1 3/4" = 1'-0"

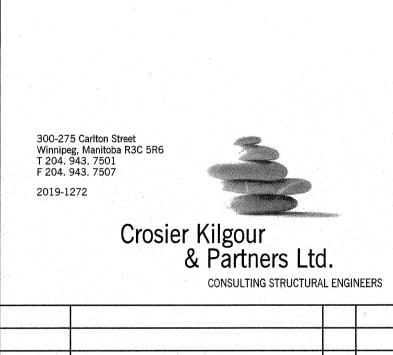
B SAWCUT PLAN DETAIL ON GRADE

CONCRETE TO BE 32 MPa TYPE C-1POSURE.
 PROVIDE 1 1/2" CLEAR COVER TO REINFORCING. ALL REINFORCING TO BE CSA G30.18 MIN Fy=400 MPa



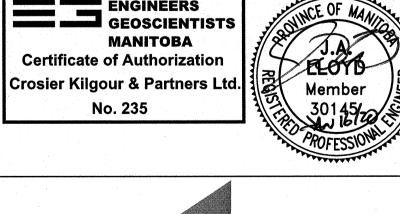






AREA OF WORK-

BY DD/MM/YY ENGINEERS
GEOSCIENTISTS **Certificate of Authorization**





CITY OF WINNIPEG FORT ROUGE TRANSIT BASE - STORAGE TRACK 25-36 - MECHANICAL UPGRADE MANITOBA

WINNIPEG PARTIAL ROOF FRAMING PLAN **SECTIONS & DETAIL GENERAL NOTES**

JANUARY 2020 **S1.1**