FILE NAME:

DATE: 2025.05.28

SHEET TITLE: GENERAL NOTES & TYPICAL DETAILS

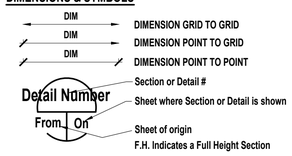
PROJECT No: 25369

ADDRESS: 510 KING STREET

GENERAL NOTES

1. DO NOT SCALE DRAWINGS.
2. Design live loads shall not be exceeded at any time during construction. For concrete structures, design live loads may only be applied after concrete reaches its design strength.
3. Construction loads must not be imposed on structure in excess of specified design live load. Design live loads may only be applied after concrete reached its design strength.
4. The contractor is to verify dimensions, elevations, slopes, details, conditions and other data noted on the structural drawings with conditions on the site, co-ordinate all dimensions with the architectural drawings prior to construction or fabrication of any building component, and is held responsible for reporting any discrepancies that effect structural framing to the engineer before proceeding with the work. Variations and modifications to work shown on the structural drawings shall not be carried out without written permission from the engineer.
5. Modifications, alterations or substitutions must be authorized in writing by the Design Engineer.
6. The General Contractor shall locate all existing site services prior to construction.
7. For openings in slabs, floor, walls, roof, etc. refer to architectural, mechanical, structural and or other pertinent drawings.
8. Location of construction joints not indicated on plans is the responsibility of the general contractor but approval must be obtained from the Design Engineer before proceeding.
9. The contractor shall be responsible for the design and installation of all necessary shoring, bracing and form work. Form work for new construction shall be bridged over existing services.
10. The structure and grade beams shall be braced in all directions to safely withstand all lateral forces which may be encountered during erection. The bracing shall remain in place until all permanent bracing, framing, cladding and backfill are in place.
11. All codes referenced in these notes shall be of the latest applicable revision.
12. All beams, angles and miscellaneous metals indicated on architectural drawings but not shown on structural drawings, shall be included in the tender price. The contractor is responsible for confirming sizes and locations of these members with both the architect and the engineer prior to tender closing.
13. Do not cut or drill any openings into structural members without obtaining written permission from the structural consultant.
14. The Contractor shall retain a manufacturer's representative to provide onsite anchor installation training for all of their products specified. The structural engineer of record must receive documented confirmation that the contractors personnel are trained prior to the commencement of installing anchors.

DIMENSIONS & SYMBOLS



DESIGN SPECIFICATIONS

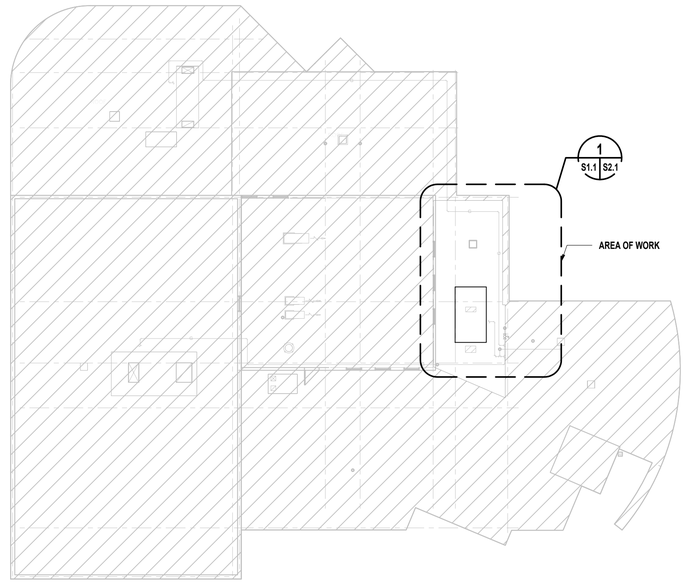
1. The building modifications are designed in accordance with the 2024 Manitoba Building Code.
2. Importance Category for building = Normal
3. Design specified loads:
   - Live Loads: as per floor plans
   - Dead Loads: as per floor plans
4. All climatic data based on Winnipeg, MB.
5. Snow loads:
   - Design snow load = 1.72 kPa (36 psf)
   - Ground snow load, Ss = 1.90 kPa (40 psf) (1/50 year return)
   - Associated rain load, Sr = 0.20 kPa (4 psf) (1/50 year return)
   - Additional snow loads adjacent higher roofs, walls, mechanical units, etc. as indicated on drawings.
6. Wind loads:
   - Hourly wind pressure, q = 0.45 kPa (9 psf) (1/50 year return)
   - Exposure factor, Ce = 0.9, based on open terrain
   - Internal wind pressure category: coefficient, Cpi = -0.45 to +0.30
   - Design wind loads calculated in accordance with NBCC static procedure.
7. Seismic loads:
   - Site Class = D (Assumed)
   - Seismic Category = SC1
   - Sa(0.2) = 0.104 - Sa(2.0) = 0.018
   - Sa(0.5) = 0.0915 - Sa(5.0) = 0.00359
   - Sa(1.0) = 0.046 - Sa(10.0) = 0.00107
   - PGA = 0.0618 - PGV = 0.0467
   - In accordance with section 4.1.8.18 and 4.1.8.18 (sentence 2) of the 2020 NBC, non-structural components and elements for buildings is Seismic Categories SC1 or SC2, other than buildings classified as post-disaster, seismically isolated buildings, and buildings with supplemental energy dissipation systems, categories 6 through 22 of table 4.1.8.18 shall not apply to 4.1.8.18 (sentence 1).

STRUCTURAL STEEL

1. Fabricate & erect structural steel to CSA S16:19. Structural steel and connections for lateral force resisting system shall meet the requirements of CSA S16 Clause 27.
2. Structural steel shapes and plates shall conform to CSA G40.21:13, Grade 350W and CSA G40.21:13, Grade 350W for H.S.S., Class C.
3. 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 and CSA W59:18.
4. Unless shown otherwise on the Drawings, connect all flexural members (beams, channels, etc...) at each end for one half of the total uniformly distributed factored load of the laterally supported beam, in addition to the transfer of factored moments, where shown on the Drawings.
5. Splicing of members not permitted unless otherwise noted.
6. 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.
7. Structural Steel supplier shall submit shop drawings bearing the seal of a Professional Engineer in the project Province showing all design and fabrication details of connections to the Architect for review prior to fabrication.
8. Structural Bolts, nuts, and washers to ASTM F3125/F3125M-18, grade A325, minimum bolt diameter 19mm (3/4").
9. Welding of reinforcing bars to CSA W186:21.
10. Primer to conform to the requirements of CGSB or CISC/CPMA standards.
11. All bolted connections shall have a minimum of two bolts in each connected piece and be designed with bearing-type connections with threads included in shear plane, unless noted otherwise.
12. Unless noted otherwise on plans provide 76mmx76mmx9.5mm (3"x3"x3/8") angle frame from joist to joist on each side of all steel deck openings over 406mm (16"), and C200x17 (C8x11.5) frame at all mechanical and electrical units that sit on or hang from the roof or floors.
13. All steel shall receive a shop coat of primer except surfaces to be concreted, welded, light zinc coated or galvanized.
14. Clean all field welds after erection and touch up all unpainted surfaces with one coat of primer paint to match shop coat.
15. There shall be no cutting of the structural steel members for the work of other trades without prior written approval of the structural consultant.
16. Professional Engineer whose seal is on shop drawings shall review construction and provide a letter certifying that connections have been installed in accordance with the approved shop drawings.
17. All exposed steel to be galvanized.
18. Provide weep holes for exterior HSS members and members inside exterior wall. Holes to be located at low point of member to allow for relief moisture.

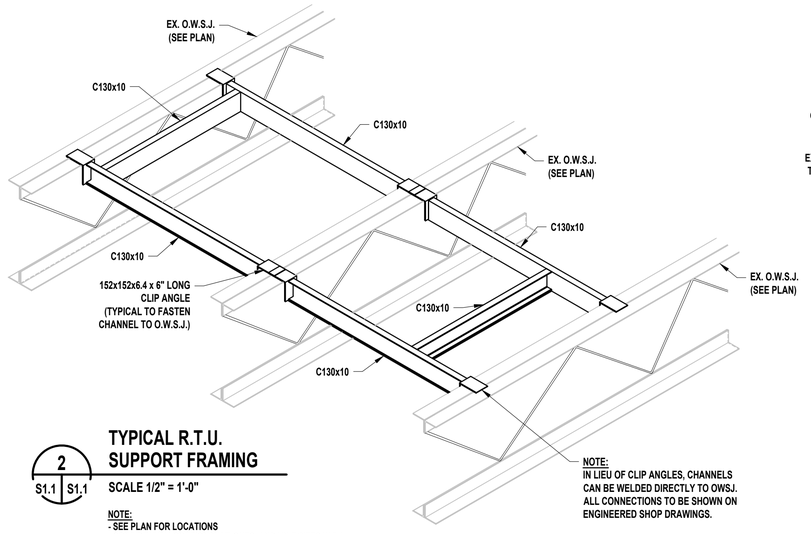
SHOP DRAWING REVIEW

1. Erection and fabrication shop drawings for all building components work are to be submitted to the engineer for review before commencing with work.
2. As part of the field services, Lavergne Draward and Associates Inc. will review shop drawings pertaining to work shown on Lavergne Draward and Associates Inc. drawings by means of appropriate rational sampling procedures and comment on the accuracy with which the contractor prepared the drawings. Review of the shop drawings is for the sole purpose of ascertaining conformance with the general design concept and is NOT an approval of the detail design inherent in the shop drawings, responsibility for which shall remain with contractor submitting them. Such review shall not relieve the contractor of his responsibility for errors and omissions in the shop drawings OR for meeting all requirements of the contract documents. The contractor is solely responsible for information pertaining to the fabrication process techniques of construction AND installation and for coordination of the work of all sub-trades.
3. All shop drawings must bear the seal of a professional engineer licensed in the project Province.
4. The approval of shop drawings does not relieve the contractor from the responsibility of the fitting of building components. Any discrepancies in the shop drawings are the responsibility of the contractor.
5. Unsealed shop drawings will not be reviewed unless alternative arrangements agreed.



1 S1.1 S1.1 **LOCATION DIAGRAM**

SCALE N.T.S.

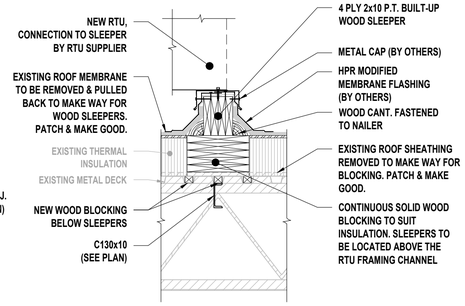


NOTE:
IN LIEU OF CLIP ANGLES, CHANNELS CAN BE WELDED DIRECTLY TO OWSJ. ALL CONNECTIONS TO BE SHOWN ON ENGINEERED SHOP DRAWINGS.

2 S1.1 S1.1 **TYPICAL R.T.U. SUPPORT FRAMING**

SCALE 1/2" = 1'-0"

NOTE:
- SEE PLAN FOR LOCATIONS
- CONFIRM ALL LOCATIONS, WEIGHTS, AND UNIT SIZES WITH MECHANICAL AND ELECTRICAL DRAWINGS



3 S1.1 S1.1 **R.T.U. SLEEPER DETAIL**

SCALE 3/4"=1'-0"

NOTES:

APEGM
Certificate of Authorization
Lavergne Draward & Associates Inc.
No. 1912 Date: SEPT. 5, 2025

LDA STRUCTURAL ENGINEERS — LAVERGNE DRAWARD & ASSOCIATES INC.
200-193 DUMOULIN STREET, WINNIPEG, MANITOBA R2H 0E4
(204) 947-2222 general@ldaeng.ca www.LDAeng.ca

Project Number: 25369

No.	REVISION/DESCRIPTION	BY	DATE
2			
1	ISSUED FOR CONSTRUCTION	TK	2025/09/05
0	ISSUED FOR 100% REVIEW	TK	2025/08/07

SEAL

PROVINCE OF MANITOBA
T.S. NGUYEN
Member
37029
2025.09.05
REGISTERED PROFESSIONAL ENGINEER

DRAWN	EPYP	CHECKED	TK	DESIGNED	SB	APPROVED	JN
DATE	2025.05.28	USER APPROVAL					

Winnipeg

THE CITY OF WINNIPEG
PLANNING, PROPERTY AND
DEVELOPMENT DEPARTMENT
MUNICIPAL ACCOMMODATIONS DIVISION
3-65 GARRY STREET, R3C 4K4

PROJECT

TURTLE ISLAND RECREATION CENTRE

510 KING STREET

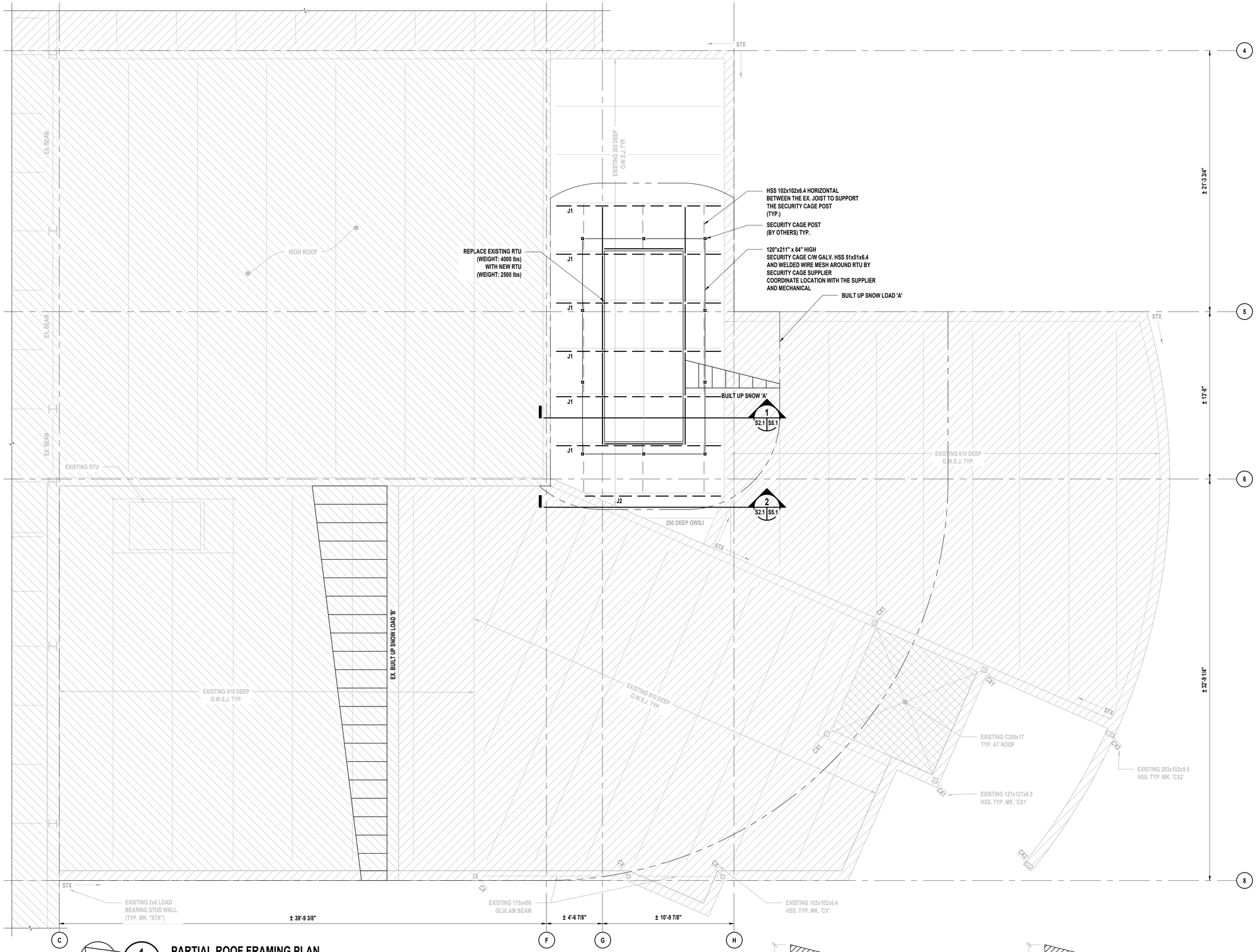
SHEET TITLE

GENERAL NOTES, LOCATION DIAGRAM & TYPICAL DETAILS

SCALE	PROJECT No:	SHEET No:
AS SHOWN	25369	S1.1

DRAWING SHEET SIZE: A1 (841mm x 594mm) PLOT 1:1

NOTES:



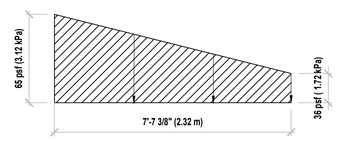
PARTIAL ROOF FRAMING PLAN

SCALE 1/4" = 1'-0"

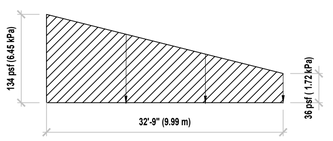
NOTES:
- EXISTING DESIGN SNOW LOAD = 36 psf (1.72 kPa)
- EXISTING DESIGN DEAD LOAD = 19 psf (0.9 kPa)
- EXISTING BUILDING SHOWN IN GREY FOR REFERENCE ONLY. G.C. TO SITE VERIFY AND NOTIFY ENGINEER OF ANY DISCREPANCIES
- G.C. TO REPAIR & REPLACE ALL ROOF DECKING, INSULATION, MEMBRANE, ETC. AFTER INSTALLATION OF RTU AND NEW SECURITY CAGE. (IF REQUIRED)
- G.C. TO REMOVE AND REINSTALL EXISTING MECHANICAL DUCTS AND PIPES, ELECTRICAL LINES AND STRUCTURAL STEEL AS REQUIRED TO REINFORCE THE EXISTING STRUCTURAL MEMBER.

NOTE:
- DIMENSIONS OF RTU BUILT-UP SNOW LOADS ARE SHOWN ON PLAN
- THE EXISTING STRUCTURE HAS BEEN REVIEWED AND IS CAPABLE OF HANDLING THE NEW RTU NEW SECURITY CAGE & BUILT-UP SNOW ONCE REINFORCEMENT HAS BEEN COMPLETED AS SHOWN IN ACCORDANCE WITH PART 4 OF THE 2024 MANITOBA BUILDING CODE.

JOIST TO BE REINFORCED SHOWN THUS



TYPICAL B.U. SNOW LOAD 'A' @ NEW RTU
NOTE:
BUILT UP SNOW IS LOCATED AROUND UNIT



TYPICAL EX. B.U. SNOW LOAD 'B' @ LOW ROOF

Certificate of Authorization
Lavergne Draward & Associates Inc.
No. 1912 Date: SEPT. 5, 2025

LAVERGNE DRAWARD & ASSOCIATES INC.
STRUCTURAL ENGINEERS
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(204) 947-2222 general@ldaeng.ca www.LDAeng.ca
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SEAL
PROVINCE OF MANITOBA
B.S. NGUYEN
Member
37029
2025.08.06
REGISTERED PROFESSIONAL ENGINEER

DRAWN	EPYP	CHECKED	TK	DESIGNED	SB	APPROVED	JN
DATE	2025.08.07	USER		APPROVAL			

Winnipeg
THE CITY OF WINNIPEG
PLANNING, PROPERTY AND DEVELOPMENT DEPARTMENT
MUNICIPAL ACCOMMODATIONS DIVISION
3–65 GARRY STREET, R3C 4K4

PROJECT
TURTLE ISLAND RECREATION CENTRE

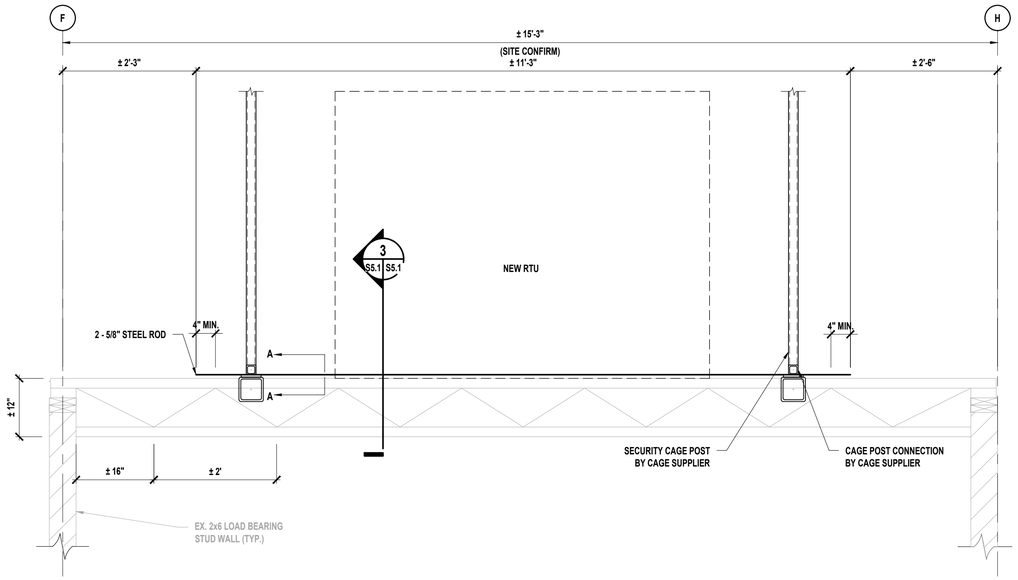
510 KING STREET

SHEET TITLE
PARTIAL ROOF FRAMING PLAN

SCALE	PROJECT No:	SHEET No:
AS SHOWN	25369	S2.1

DRAWING SHEET SIZE: A1 (841mm x 594mm) PLOT 1:1

ADDRESS: 510 KING STREET
PROJECT No: 25369
SHEET TITLE: PARTIAL ROOF FRAMING PLAN
DATE: 2025.08.07
FILE NAME:

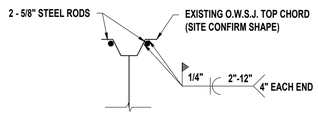


1 JOIST REINFORCING DETAIL 'J1' - (6 TOTAL JOISTS)

S2.1 | S5.1

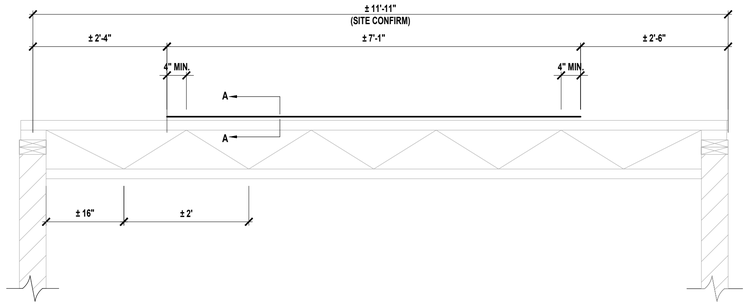
SCALE: N.T.S

NOTES:
- SITE CONFIRM JOIST CONFIGURATION AND MEMBER SIZES AND REPORT TO ENGINEER
- LENGTH OF TOP CHORD REINFORCING IS TO EXTEND PAST PANEL POINTS (MIN. 4")



SECTION A-A
TOP CHORD
REINFORCING

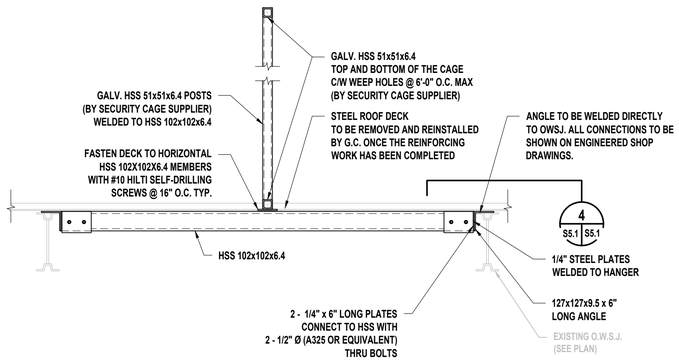
NOTE:
REINFORCING MEMBERS TO BE FULL
LENGTH OR PROVIDE FULL TENSION
JOINT BY STEEL SUPPLIER



2 JOIST REINFORCING DETAIL 'J2'

S2.1 | S5.1

SCALE: N.T.S

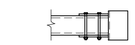


3 SECURITY CAGE

S5.1 | S5.1

SCALE 3/4"=1'-0"

NOTE:
- ENTIRE ASSEMBLY TO BE GALANIZED
(SEE PLAN FOR LOCATIONS)



4 SECTION

S5.1 | S5.1

SCALE 3/4"=1'-0"

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REGISTERED PROFESSIONAL ENGINEER

DRAWN	CHECKED	DESIGNED	APPROVED
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PROJECT
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ADDRESS: 510 KING STREET PROJECT No: 25369 SHEET TITLE: DETAILS DATE: 2025.08.07 FILE NAME: 0510KG.dwg\A1