

### FOUNDATION PLAN

SCALE:  $\frac{1}{4}$ " = 1'-0"

NOTES:

1. SEE ARCHITL DRAWINGS FOR DIMENSIONS, ELEVATIONS AND SLOPES.
2. SEE ALSO \* GENERAL NOTES\* AND TYPICAL DETAILS ON DRAWING 54 & 55.

ASSUMED SOIL BEARING CAPACITY OF 100 KPa (SLS) & 150 KPa. (ULS) AND ASSUMED SEISMIC SITE CLASS TO BE CONFIRMED ON SITE BY GEOTECHNICAL ENGINEER PRIOR TO CONSTRUCTION.

STRIP FOOTING SCHEDULE		
MARK	SIZE	NOTES
SF1	1'-8" X 8" DP. + 2-15M CONT.	PROVIDE DOWELS TO MATCH WITH WALL ABOVE VERTICALS (SEE SECTIONS)
SF2	2-0" X 8" DP. + 3-15M CONT.	PROVIDE DOWELS TO MATCH WITH WALL ABOVE VERTICALS (SEE SECTIONS)

WOOD LINTEL SCHEDULE			
MARK	SIZE	BEARING PLATE	NOTES
L1	2-2X10		PROVIDE MIN. 4" BEARING ON SPF. POSTS
L2	3-2X12		PROVIDE MIN. 4" BEARING ON SPF. POSTS

WOOD POST SCHEDULE		
MARK	SIZE	NOTES
P1	3-2X6 { 2 BEARING + 1 JACK }	NAILED
P2	3-2X6 { 3 BEARING }	NAILED
P3	4-2X6 { 3 BEARING + 1 JACK }	NAILED

WOOD SHEARWALL SCHEDULE		
MARK	SIZE	NOTES U.N.O.
SW1	1/2" EXTERIOR GRADE PLYWOOD SHEATHING +2 X 6@16" C/C MAX. STUD WALL +1/2" GWB TYPE X	<ol style="list-style-type: none"> <li>1. PROVIDE BLOCKING AT ALL UNSUPPORTED EDGES.</li> <li>2. NAIL PLYWOOD SHEATHING MEMBERS WITH 0.131" DIA X Ø 2.25" LONG COMMON NAILS AT 6" C/C MAXIMUM ALONG PANEL EDGES AND AT 12" C/C MAXIMUM AT INTERMEDIATE SUPPORTS AT PANEL EDGES</li> <li>3. NAIL SHEATHING TO EVERY WALL STUD AND PLATE.</li> <li>4. SEE ALSO GENERAL NOTES.</li> </ol>

CONCRETE FOUNDATION WALL SCHEDULE		
MARK	SIZE	NOTES
FW1	8" THK. RW 1 OM@16" C/C VERT. & HORZ. AT CENTRE OF WALL +2-15M@ TOP & BOTTOM.	SEE ALSO SECTION

STEEL LINTEL SCHEDULE			
MARK	SIZE	BEARING PLATE	NOTES
SL1	W200X27+225 X 8 THK. CONT. WELDED BOTTOM PLATE.	PROVIDE BEARING PLATE BPL AT E/E	(PROVIDE MIN. 200 BEARING @ E/E)

BEAM BEARING PLATE SCHEDULE			
MARK	SIZE	ANCHORS	NOTES
BPL1	12" X 1/2" X 9"	2- 1/2" Ø X 8" LONG WELDED ANCHORS	PROVIDE 16" X 10" DP. CONCRETE PAD AT BEARING PLATE LOCATIONS-TYP.

<input checked="" type="checkbox"/>	ISSUED FOR PERMIT & TENDER	JUNE 20/25	D.K
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No.	REVISION	DATE	BY

PROJECT NORTH

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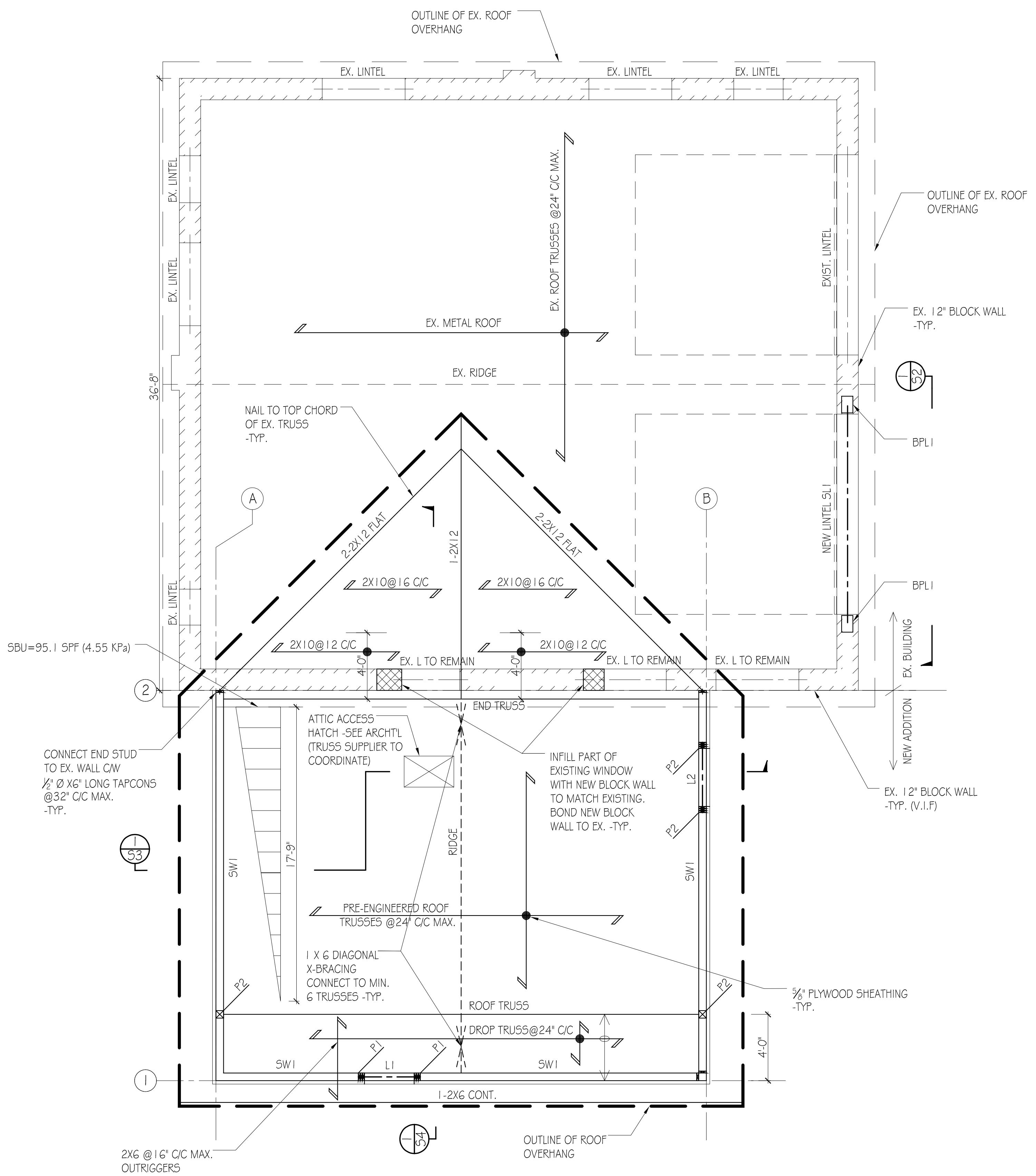
CLIENT: **WILCOX ARCHITECTS INC.**  
74 LINDSAY ST. S. LINDSAY, ONTARIO

PROJECT:

CKL KINMOUNT FIRE HALL  
EXPANSION & RENOVATIONS  
24 MAJESTIC STREET, KINMOUNT, ONTARIO

DRAWING:  
FOUNDATION PLAN AND SCHEDULES

<b>FMR</b>	REGISTERED PROFESSIONAL ENGINEERS 25-2309 D. KOTOBELLI PROVINCE OF ONTARIO		
DRAWN BY:	M.K.	AMR PROJECT No.	25-2309
CHECKED BY:	D.K.		
DATE:	JUNE 20/25	DWG. No.	
SCALE:	AS NOTED	OF 5	S1



# ROOF FRAMING PLAN

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SCALE:  $\frac{1}{4}$ " = 1'-0"

## NOTES

1. SEE ARCH'T'L DRAWINGS FOR DIMENSIONS AND ROOF SLOPES.
  2. SEE ALSO SCHEDULES, GENERAL NOTES AND TYPICAL DETAILS ON DRAWINGS S5.
  3. BUILDING IMPORTANCE CATEGORY (SNOW, WIND, AND EARTHQUAKE) IS POST DISASTER.  
(Iw=1.25, Is=1.25, Ie=1.5)
  4. STIFF ELEMENTS NOT PART OF SFRS SHALL BE SEPARATED FROM THE STRUCTURE AS PER  
OBC CLAUSE 4.1.8.3. (6a). EXAMPLES INCLUDE BUT NOT LIMITED TO MASONRY PARTITIONS, BRICK VENEER,  
PRECAST CLADDING ETC. IT IS RESPONSIBILITY OF THE SUBCONTRACTOR TO PROVIDE SHOP DRAWINGS,  
STAMPED, SIGNED AND DATED BY AN PROFESSIONAL ENGINEER DEMONSTRATING COMPLIANCE.  
PROVIDE MINIMUM 15mm SEPARATION UNLESS NOTED OTHERWISE.

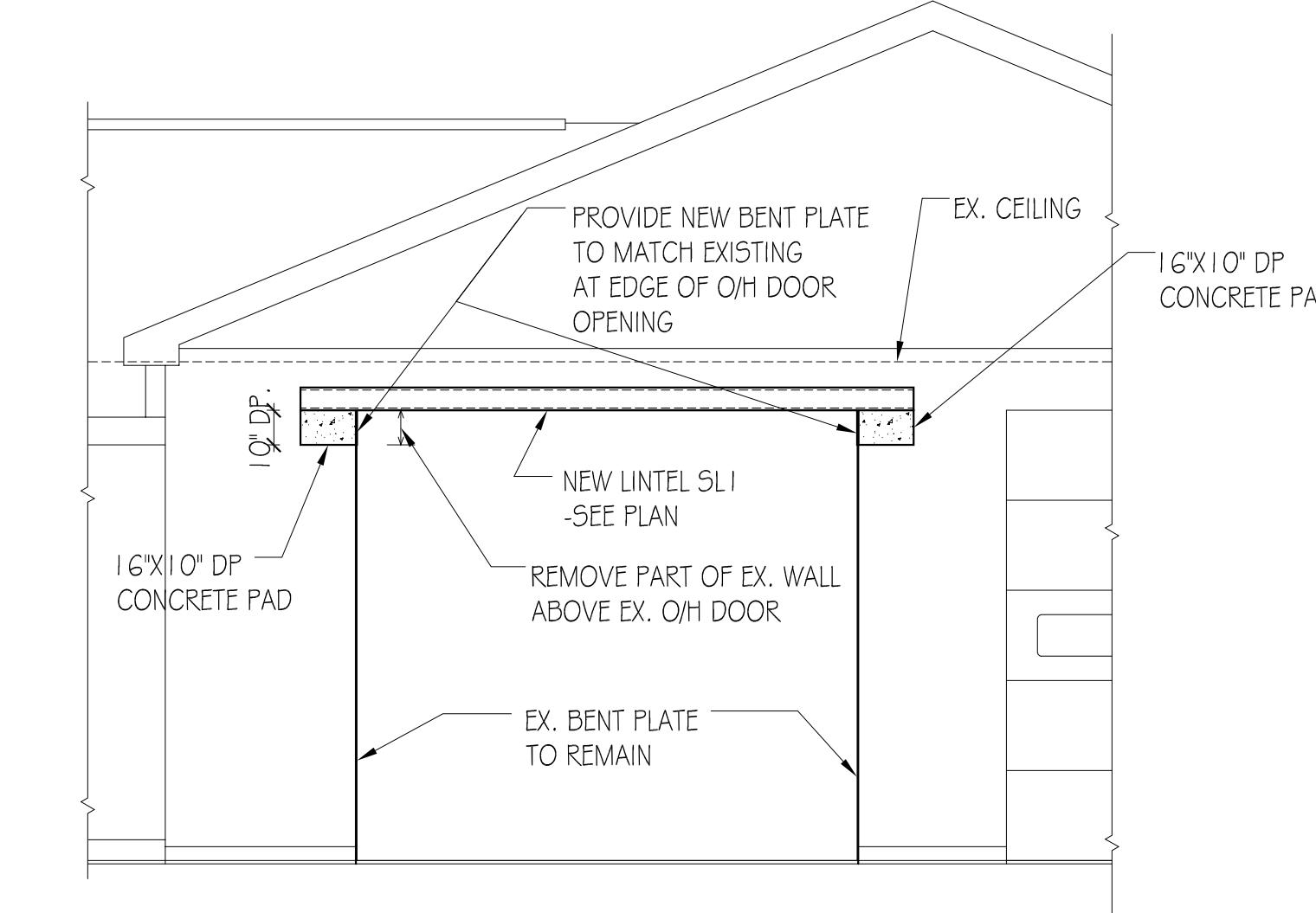
## DESIGN LOADS FOR ROOF TRUSS

TOP CHORD:	LIVE LOAD	= 66.9 PSF
	DEAD LOAD	= 7.0 PSF
BOTTOM CHORD:	LIVE LOAD	= 10.0 PSF
	DEAD LOAD	= 8.0 PSF
TOTAL LOAD		= 91.9 PSF

DESIGN TRUSS FOR WIND UPLIFT  
AC. PER WIND UPLIFT DIAGRAM B/C

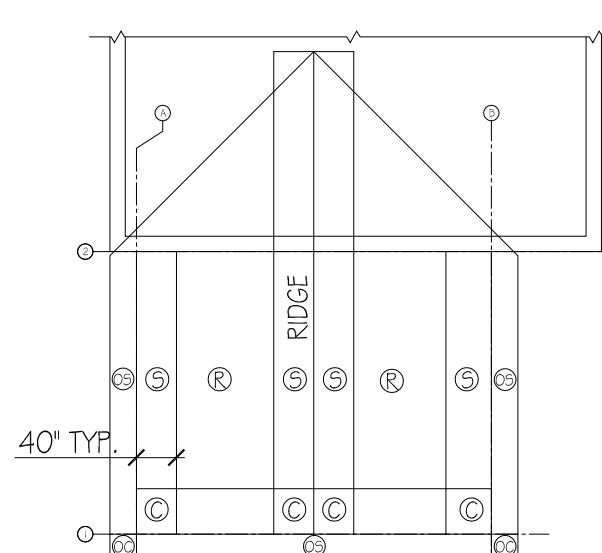
NOTE:  
 $leS(0.2) = 0.47 > 0.35$ , SEISMIC CATEGORY SC3

(POST-DISASTER)  
IT IS THE RESPONSIBILITY OF THE CONTRACTOR WHO IS SUPPLYING AND INSTALLING EQUIPMENT, THAT ALL ELEMENTS OF STRUCTURES LISTED IN TABLE 4.1.8.18 THE OBC 2024 ARE DESIGNED IN ACCORDANCE WITH CLAUSE 4.1.8.18  
CONTRACTOR TO PROVIDE SHOP DRAWINGS STAMPED, SIGNED AND DATED BY PROFESSIONAL ENGINEER FOR CONNECTION OF THESE ITEMS.



## EAST ELEVATION

SCALE:  $\frac{1}{2}'' = 1'$



## ROOF WIND UPLIFT (GROSS) DIAGRAM

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SCALE KELLOGG

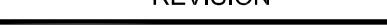
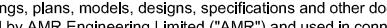
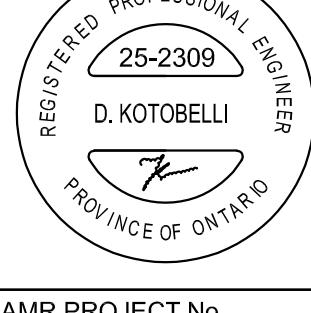
SCALE:  $\frac{1}{8}$ " = 1'-0"

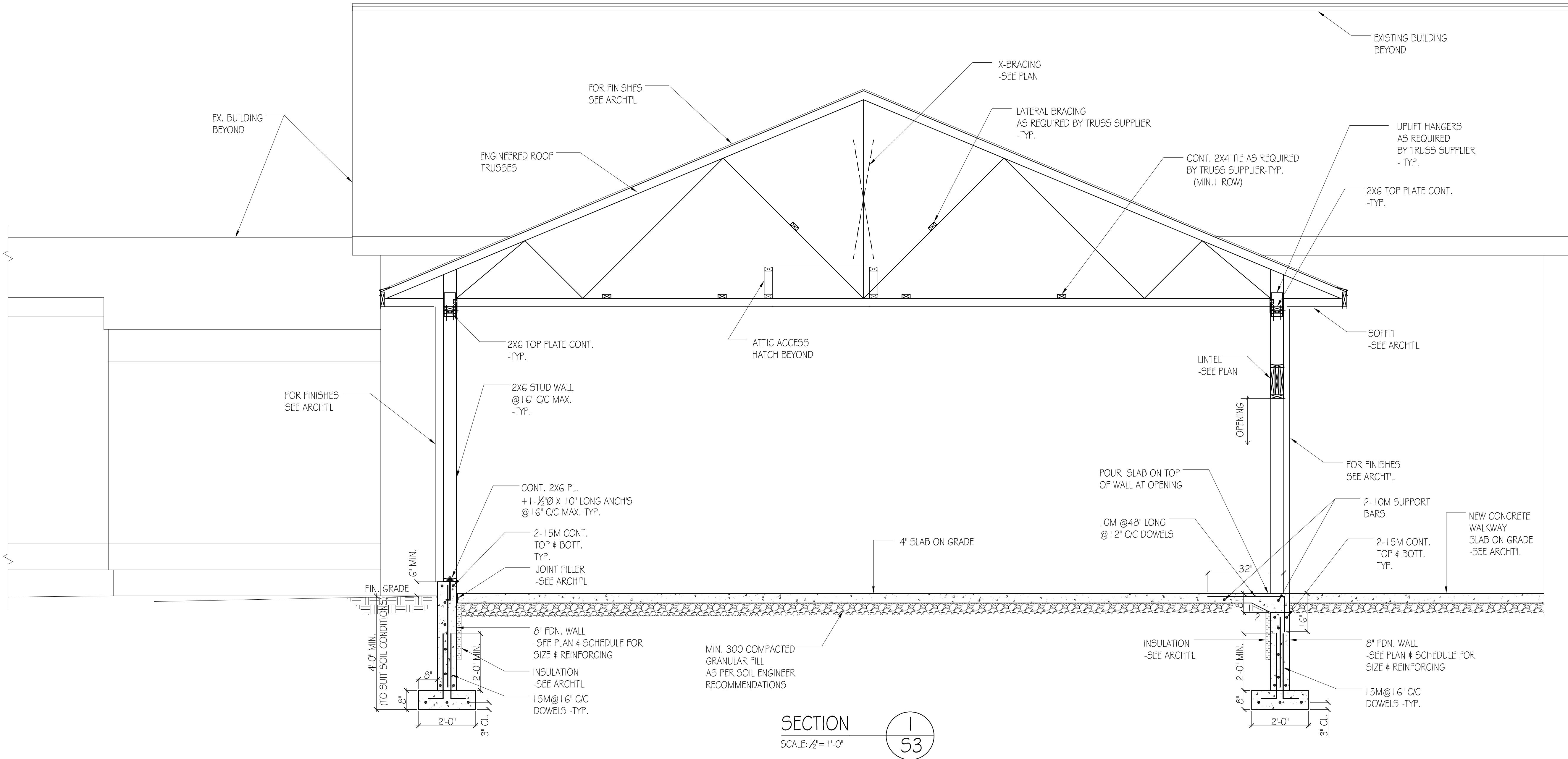
## NOTES:

$$C = 2.20 \text{ kPa}$$

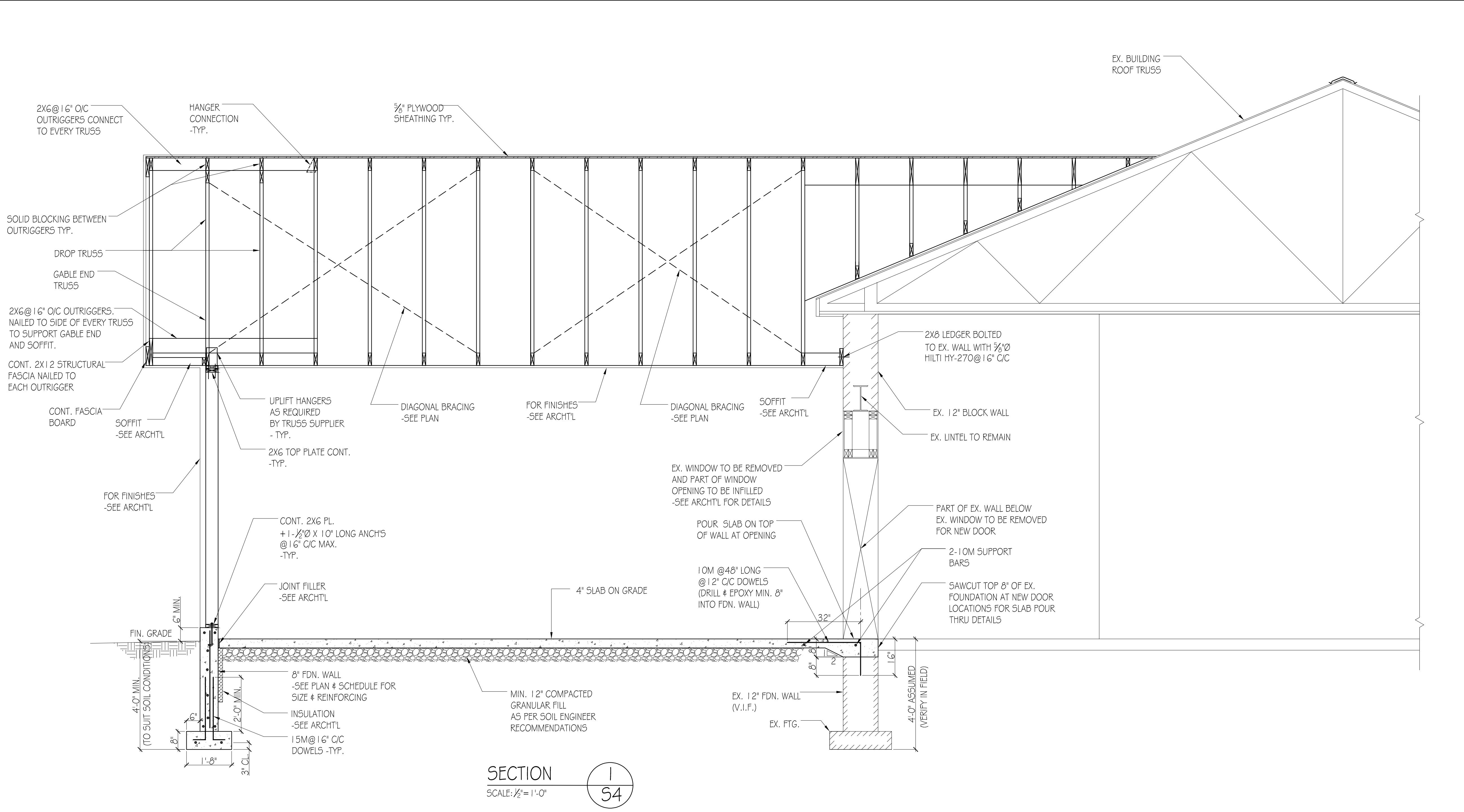
$$P = 1.21 \text{ kPa}$$

FOR CALCULATION OF NET UPLIFT ROOF

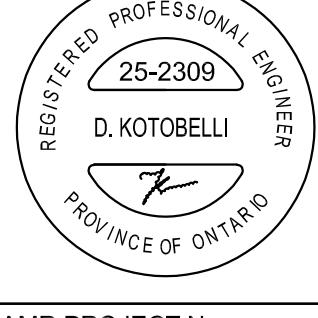
	ISSUED FOR PERMIT & TENDER	JUNE 20/25	D.K
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CLIENT:  WILCOX ARCHITECTS INC. 74 LINDSAY ST. S. LINDSAY, ONT.			
PROJECT:			
<h1>CKL KINMOUNT FIRE HALL EXPANSION &amp; RENOVATIONS</h1>			
24 MAJESTIC STREET, KINMOUNT, ONTARIO			
DRAWING: ROOF FRAMING PLAN & WIND UPLIFT DIAGRAM AND ELEVATION			
 <p>AMR ENGINEERING LTD. STRUCTURAL ENGINEERS 920 ALNESS STREET, SUITE 205 TORONTO, ON M3J 2H7 (416) 551-1611</p>			
DRAWN BY:	M.K.	AMR PROJECT No.	
CHECKED BY:	D.K.	25-2309	
DATE:	JUNE 20/25	DWG. No.	
SCALE:	AS NOTED	S1 OF 5	



 2	ISSUED FOR PERMIT & TENDER		JUNE 20/25	D.K
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<b>CLIENT:</b>  <b>WILCOX ARCHITECTS INC.</b> 74 LINDSAY ST. S. LINDSAY, ONT.				
<b>PROJECT:</b> <h1 style="text-align: center;">CKL KINMOUNT FIRE HALL EXPANSION &amp; RENOVATIONS</h1>				
24 MAJESTIC STREET, KINMOUNT, ONTARIO				
<b>DRAWING:</b> SECTION				
				
AMR ENGINEERING LTD. STRUCTURAL ENGINEERS 920 ALNESS STREET, SUITE 205 TORONTO, ON M3J 2H7 (416) 551-1611				
DRAWN BY:		AMR PROJECT No. 25-2309		
CHECKED BY:		D.K.		
DATE:		JUNE 20/25		
SCALE:		AS NOTED		
		DWG. No. <b>S3</b> OF 5		



SECTION

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CLIENT:  WILCOX ARCHITECTS INC. 74 LINDSAY ST. S. LINDSAY, ONT.		
PROJECT:		
<b>CKL KINMOUNT FIRE HALL EXPANSION &amp; RENOVATIONS</b>		
24 MAJESTIC STREET, KINMOUNT, ONTARIO		
DRAWING: FOUNDATION PLAN		
 AMR ENGINEERING LTD. STRUCTURAL ENGINEERS 920 ALNESS STREET, SUITE 205 TORONTO, ON M3J 2H7 (416) 551-1611		
DRAWN BY:	M.K.	AMR PROJECT No.  25-2309
CHECKED BY:	D.K.	
DATE:	JUNE 20/25	DWG. No.  S4
SCALE:	AS NOTED	



**WOOD FRAMING**

### GENERAL

- ALL DESIGN, DETAILS, MATERIALS AND CONSTRUCTION PROCEDURES SHALL CONFORM TO CURRENT EDITIONS OF THE FOLLOWING AS A MINIMUM:
  - ONTARIO BUILDING CODE 2021 - PART 9
  - CAN/CSA-G20-M15.1, ENGINEERING DESIGN IN WOOD
  - CSA O112 - DOUGLAS FIR PLYWOOD
  - CAN/CSA-L4000 - PARALLAM AND MICROLAM
  - CAN/CSA-L4000-18 - ADDED-LAMINATED TIMBER
  - CSA O437 SERIES - STANDARDS FOR OSB AND FIBREBOARD
  - CSA B111 - WIRE NAILS, SPLITS AND STAPLES
  - CAN/CSA-B34 - MISCELLANEOUS BOLTS AND SCREWS
  - CAN/CSA-B34.1 - WIRE NAILS
  - "WOOD DESIGN MANUAL" - CANADIAN WOOD COUNCIL

ANY CHANGES TO THE FRAMING SHOWN ON THESE DRAWINGS SHALL HAVE PRIOR WRITTEN APPROVAL OF AMR. FRAMING CHANGES WHICH HAVE NOT BEEN SO APPROVED WILL BE REJECTED.

CONFIRM ALL DIMENSIONS AND OUTLINES WITH THE ARCHITECTURAL DRAWINGS SEE ARCHITECTURAL DRAWINGS FOR ADDITIONAL DIMENSIONS, ELEVATIONS AND DETAILS.

- ANY TIMBER NOT GRADE MARKED WILL BE REJECTED.
- FINISHES SHALL BE DETAILED TO ACCOMMODATE SHRINKAGE OF THE TIMBER OVER TIME.
- DO NOT COVER WOOD FRAMING WITH FINISHES UNTIL AMR'S FRAMING REVIEW IS COMPLETE PROVIDED 48 HOURS ADVANCE NOTIFICATION WHEN FRAMING REVIEWS ARE REQUIRED.
- NOTCHING AND DRILLING OF STRUCTURAL ELEMENTS SHALL FOLLOW THE GUIDELINES SET FORTH IN THE BUILDING CODE PART 9, UNLESS OTHERWISE APPROVED IN WRITING BY AMR.
- ALL TIMBER ELEMENTS ARE DESIGNED FOR DRY-SERVICE CONDITIONS. SEE ARCHITECTURAL DRAWINGS FOR WATERPROOFING AND VENTILATION DETAILS.
- ANY TIMBER NOT GRADE MARKED WILL BE REJECTED. TIMBER SHALL BE DRY SPRUCE #1 OR #2 CONFORMING TO CSA-O86-14 UNLESS OTHERWISE APPROVED.
- TRUS JOISTS AND MICRO LAM BEAMS (MLB) SHALL BE AS MANUFACTURED BY TRUS JOIST CANADA LTD. OR AN APPROVED EQUAL.
- ALL LOAD BEARING STUDS SHALL HAVE ONE ROW OF SOLID BLOCKING AT MID-HEIGHT UNLESS NOTED OTHERWISE.
- PROVIDE 38X8 BRIDGING AT 200 CIC MAXIMUM FOR FLOOR JOISTS.
- BRIDGING FOR TRUSS JOISTS SHALL BE AS RECOMMENDED BY THE MANUFACTURER. HOWEVER, PROVIDE MINIMUM ONE ROW OF BRIDGING AT MID-SPAN FOR JOIST SPANS > 4'00".
- PROVIDE ADEQUATE TEMPORARY BRACING FOR ALL STUD WALLS DURING CONSTRUCTION.
- ALL CONNECTIONS, UNLESS NOTED OTHERWISE, TO BE IN ACCORDANCE WITH O.B.C. 2024, TABLE 9.2.3.4 & TABLE 9.2.3.5
- ALL WOOD FRAME CONSTRUCTION SHALL SATISFY THE FOLLOWING CONSTRUCTION TOLERANCES AS A MINIMUM. REFER TO ARCHITECTURAL AND WARRANTY REQUIREMENTS FOR ADDITIONAL TOLERANCE SPECIFICATIONS.
 

A. FLOORS	- NOT MORE THAN 8 mm IN 3 m OUT OF LEVEL.
B. WALLS	- NOT MORE THAN 8 mm in 2.4 m OUT OF PLUMB.
C. OVERALL	- NOT MORE THAN 8 mm IN 3 m FOR ANY BOWING.

FOR JOISTS, HANGERS SHALL BE SPECIFIED ON ENGINEERED SHOP DRAWINGS PROVIDED BY THE JOIST SUPPLIER.

### JOISTS

- REFER TO PLAN AND JOIST SCHEDULE FOR JOIST TYPE, SIZE, AND SPACING.
- INDICATES EXTENT OF JOISTS
- INDICATES DIRECTION OF JOISTS. THE TERM "JOIST" REFERS TO CONVENTIONAL SAWN TIMBER JOISTS AND TJS.
- DIMENSIONAL LUMBER JOISTS SHALL HAVE CROSS-BRIDGING OR T-JOIST BRIDGING 1800 CIC ALONG THE SPAN. FOR SPANS GREATER THAN 3000 mm, CROSS-BRIDGING OR A CONSIST OF 30 x 30 TIMBER OR APPROVED STEEL BRIDGING. T-J JOISTS SHALL BE BLOCKED AS PER MANUFACTURERS REQUIREMENTS. JOISTS SHALL HAVE FULL-DEPTH BLOCKING IN LOAD BEARING WALLS. DROPPED JOISTS OR LEADERS, SET IN THE LOAD BEARING WALL, SHALL HAVE ADDITIONAL CONNECTIONS BETWEEN FLOORS FOR ADDITIONAL BLOCKING REQUIREMENTS.

PROVIDE MINIMUM 15 MM AT INTERIOR SUPPORTS

1 EXTRA STUD FULL-HEIGHT EACH SIDE

WALL PLATE, REINFORCING STRAP NOT SHOWN FOR CLARITY

FLUSH BEAM

DROPPED BEAM

PROVIDE MINIMUM 15 MM AT INTERIOR SUPPORTS

1 EXTRA STUD FULL-HEIGHT EACH SIDE

FLUSH BEAM (GIRDER TRUSS SIMILAR)

DROPPED BEAM

BLOCKING TO BE TOE-NAILED WITH 2x5 mm LONG NAILS EACH SIDE, EACH END

STUD NAILING

38 X 89	75 mm NAILS @ 220 mm O/C
38 X 140	2 - ROWS OF 75 mm NAILS @ @ 220 mm O/C
38 X 184	2 - ROWS OF 75 mm NAILS @ 220 mm O/C

TRIM OPENINGS IN FLOORS AND ROOFS (I.E. STAIRS, FIREPLACES, SKYLIGHTS ETC) WITH DOUBLE JOISTS UNLESS NOTED OTHERWISE.

PROVIDE DOUBLE JOISTS UNDER PARALLEL FRAME WALLS UNLESS NOTED OTHERWISE.

PARALLEL LOAD BEARING OR NON-LOAD BEARING WALL

STAIRS AND STRINGERS SHALL BE FRAMED IN ACCORDANCE WITH THE BUILDING CODE PART 9, UNLESS NOTED OTHERWISE.

JOISTS ARE TO BE FLUSH UNLESS NOTED OTHERWISE. USE JOIST HANGERS OR FRAMING ANCHORS TO CONNECT JOISTS.

FLUSH JOISTS

MAXIMUM 100 mm Ø HOLE IN 38 x 140 PLATE

MAXIMUM 50 mm Ø HOLE IN 38 x 89 PLATE

HOLE TO BE ON CENTRELINE OF PLATE.

32 X 450 X 1.52 mm STEEL STRAP EACH SIDE OF EACH PLATE, NAIL WITH 8x65 mm LONG NAILS AS SHOWN.

UNLESS NOTED OTHERWISE, JOIST HANGERS OR FRAMING ANCHORS SHALL BE CAPABLE OF DEVELOPING THE SHEAR STRENGTH OF THE SUPPORTED MEMBER. FOR DIMENSIONAL LUMBER JOISTS, THE FOLLOWING CAPACITIES ARE REQUIRED (BASED ON CASE 2-S-P-F NO.1(NO.2))

JOIST SIZE	REQUIRED SHEAR RESISTANCE (kN)	WORKING LOAD	FACTORED LOAD
38 X 89	5.5	5.2	
38 X 140	7.2	9.4	
38 X 184	8.2	10.6	
38 X 235	9.5	12.4	
38 X 266	10.5	13.7	

FOR JOISTS, HANGERS SHALL BE SPECIFIED ON ENGINEERED SHOP DRAWINGS PROVIDED BY THE JOIST SUPPLIER.

### BEAMS

- BUILT-UP BEAMS (I.E. 3-36 X 235) SHALL BE NAILED TOGETHER WITH 2 ROWS OF 75 mm NAILS. EACH ROW WITH NAILS AT 300 O/C. INDIVIDUAL MEMBERS MAY NOT BE SPLICED BETWEEN SUPPORTS. FOR FURNISHED PRODUCTS, NAILING REQUIREMENTS OF LUMINATES SHALL BE SPECIFIED ON ENGINEERED SHOP DRAWINGS PROVIDED BY BEAM SUPPLIER.
- FLUSH BEAMS

FLUSH BEAM TYPICAL U.N.O.

- DROPPED BEAMS

BLOCKING BETWEEN JOISTS AS (D.B.) ON PLAN

- U.N.O. ALL EXTERIOR WALL BEAMS, INTERIOR WALL BEAMS, AND DOOR HEADER BEAMS ARE DROPPED, UNLESS NOTED OTHERWISE. ALL OTHER INTERIOR BEAMS ARE FLUSH.
- USE 2-38 x 184 BEAMS OVER ALL OPENINGS IN LOAD BEARING AND NON LOAD BEARING WALLS UNLESS NOTED OTHERWISE. BEAMS SHALL BE SUPPORTED AT EACH END AS SHOWN BELOW UNLESS NOTED OTHERWISE.
- WHEN LIFT-WALL CONSTRUCTION IS USED FOR EXTERIOR WALLS, THE ADJACENT WALL PANELS SHALL BE WELL CONNECTED. THE FOLLOWING DETAIL MAY BE USED:

EXTERIOR SHEATHING

PANEL JOINT

STUD

CONNECT ADJACENT PANELS WITH NAILS @ 300 mm O/C

FILL ANY GAPS WITH SHIM PLATES AT NAIL LOCATIONS

DETAIL THROUGH WALL FROM ABOVE

- WHEN LIFT-WALL CONSTRUCTION IS USED FOR EXTERIOR WALLS, THE ADJACENT WALL PANELS SHALL BE WELL CONNECTED. THE FOLLOWING DETAIL MAY BE USED:

CASE 1 - FLUSH BEAM

FLUSH BEAM SEE PLAN

BLOCKING

JOIST

SEE PLAN FOR NUMBER OF STUDS, MINIMUM 2 STUDS TOTAL

DETAIL THROUGH WALL FROM ABOVE

- CASE 2 - DROPPED BEAM

BLOCKING

JOIST

DROPPED BEAM SEE PLAN

MINIMUM 1 FULL-HEIGHT STUD

SPAN 1200 OR GREATER

SEE PLAN FOR NUMBER OF STUDS

END JOINTS OF PANELS MUST BE SUPPORTED

### MOISTURE BARRIERS AT WOOD BEAMS

  - PROVIDE A MOISTURE BARRIER BETWEEN WOOD ELEMENTS AND ALL CONCRETE OR MASONRY. THIS CAN BE A SHEET OF LIGHT-GAUGE (0.61 mm MINIMUM) GALVANIZED METAL, ASPHALT IMPREGNATED BUILDING PAPER (7.5 kg PER 10 m<sup>2</sup>), CLOSED-CELL FOAM GASKET TAPE, OR A SHEET OF GLULAM. MOISTURE BARRIER IS NOT PERMITTED. ALL JUNCTIONS AND TERMINATIONS TO BE LAPPED (50 mm MINIMUM) AND SEALED. BUTT JOINTS IN MOISTURE BARRIERS NOT PERMITTED.
  - NO JOINTS IN SHEATHING OVER GAP
  - SHRINKAGE GAP
  - JOISTS
  - PARALLAM OR GLULAM
  - SHRINKAGE GAP TOP AND BOTTOM
  - PLYWOOD FILLER PIECE IN BUILT-UP BEAM
  - DRYWALL OR SHEATHING ON LOAD BEARING WALLS OR SHEAR WALLS SHALL BE FASTENED DIRECTLY TO THE STUDS, WITHOUT THE USE OF RESILIENT METAL CHANNELS

### WALLS

  - LOAD BEARING WALLS: DENOTED ON PLAN THUS.
  - SIEE TYPICAL DETAILS FOR LOAD BEARING WALL CONNECTIONS BETWEEN FLOORS U.N.O.
  - UNLESS NOTED OTHERWISE, PROVIDE A BUILT-UP STUD POST AT THE ENDS OF ALL BEAMS AND GIRDER TRUSS FRAMING TO WOOD STUDS. THE BUILT-UP STUD POST SHALL MATCH THE WALL U.N.O. ON PLAN.

WALL PLATE, REINFORCING STRAP NOT SHOWN FOR CLARITY

FLUSH BEAM

DROPPED BEAM

PROVIDE MINIMUM 15 MM AT INTERIOR SUPPORTS

1 EXTRA STUD FULL-HEIGHT EACH SIDE

FLUSH BEAM (GIRDER TRUSS SIMILAR)

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PROVIDE DOUBLE JOISTS UNDER PARALLEL FRAME WALLS UNLESS NOTED OTHERWISE.

PARALLEL LOAD BEARING OR NON-LOAD BEARING WALL

STAIRS AND STRINGERS SHALL BE FRAMED IN ACCORDANCE WITH THE BUILDING CODE PART 9, UNLESS NOTED OTHERWISE.

JOISTS ARE TO BE FLUSH UNLESS NOTED OTHERWISE. USE JOIST HANGERS OR FRAMING ANCHORS TO CONNECT JOISTS.

FLUSH JOISTS

MAXIMUM 100 mm Ø HOLE IN 38 x 140 PLATE

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HOLE TO BE ON CENTRELINE OF PLATE.

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JOIST INDICATES EXTENT OF JOISTS

JOIST INDICATES DIRECTION OF JOISTS. THE TERM "JOIST" REFERS TO CONVENTIONAL SAWN TIMBER JOISTS AND TJS.

2. DIMENSIONAL LUMBER JOISTS SHALL HAVE CROSS-BRIDGING OR T-JOIST BRIDGING 1800 CIC ALONG THE SPAN. FOR SPANS GREATER THAN 3000 mm, CROSS-BRIDGING OR A CONSIST OF 30 x 30 TIMBER OR APPROVED STEEL BRIDGING. T-J JOISTS SHALL BE BLOCKED AS PER MANUFACTURERS REQUIREMENTS. JOISTS SHALL HAVE FULL-DEPTH BLOCKING IN LOAD BEARING WALLS. DROPPED JOISTS OR LEADERS, SET IN THE LOAD BEARING WALL, SHALL HAVE ADDITIONAL CONNECTIONS BETWEEN FLOORS FOR ADDITIONAL BLOCKING REQUIREMENTS.

3. UNLESS NOTED OTHERWISE, PROVIDE A BUILT-UP STUD POST AT THE ENDS OF ALL BEAMS AND GIRDER TRUSS FRAMING TO WOOD STUDS. THE BUILT-UP STUD POST SHALL MATCH THE WALL U.N.O. ON PLAN.

4. THE DESIGN PREPARATION OF SHOP DRAWINGS, REVIEW OF FABRICATION AND FIELD REVIEW OF INSTALLATION SHALL BE CARRIED OUT AND STAMPED BY A SPECIALTY STRUCTURAL ENGINEER.

5. THE WOOD TRUSSES SHALL BE DESIGNED FOR THE LOADS SPECIFIED IN THE GENERAL NOTES, OR AS SHOWN ON PLAN. SNOW LOADS SHALL BE BALANCED, OR A T-100, OR A BUILDING CODE T-100, DEPENDING ON THE EFFECT OF DRAFTING ENDS. THIS AMR ADDITIONAL REQUIREMENTS SET OUT IN THE LOCAL BUILDING BY-LAW, THEY SHOULD ALSO BE DESIGNED FOR A VERTICAL POINT LOAD OF 0.90 kN (UNFACTORED) APPLIED ANYWHERE ON BOTTOM CHORD (ONE-POINT LOAD PER TRUSS).

6. TRUSS SUPPORT MUST DESIGN AND SUPPORT THE ENTIRE TRUSS SYSTEM WHICH INCLUDES THE FOLLOWING ELEMENTS:
 

  - LATERAL BRACING AND BRIDGING,
  - CONNECTING HARDWARE,
  - BEARING PLATES, HOLD DOWN, AND TENSION TIES SHOWN ON TRUSS SHOP DRAWINGS.

7. THE SHOP DRAWINGS SHALL INCLUDE THE FOLLOWING ELEMENTS:
 

  - A. FRAMING LAYOUT, SECTIONS, CONNECTION DETAILS, DESIGN LOADS, WOOD SPECIES AND WOOD GRADE
  - B. COMPLETE DIMENSIONS
  - C. ALL BRACING AND BRIDGING NECESSARY FOR THE STABILITY OF THE TRUSS DURING ERECTION AND IN THE COMPLETED STRUCTURE.
  - D. HOLD DOWN ANCHORS TO RESIST WIND UPLIFT, CONNECTING ROOF TRUSSES TO THE SUPPORTING STRUCTURE

8. SHOP DRAWINGS SHALL BE PREPARED UNDER THE DIRECTION OF A SPECIALTY STRUCTURAL ENGINEER FOR THOSE CONNECTIONS AND COMPONENTS DESIGNED BY THE FABRICATOR. THIS ENGINEER OR THE CONTRACTOR SHALL MAKE THE FINAL DRAFTS OF THE CONNECTIONS AND COMPONENTS DESIGNED BY THIS ENGINEER TO SATISFY THEMSELVES THAT THESE CONNECTIONS AND COMPONENTS DO NOT CONTRADICT THE REQUIREMENTS OF THE FABRICATOR. THIS ENGINEER SHALL PROVIDE A LETTER TO AMR TO THIS EFFECT. THIS ENGINEER SHALL ALSO PROVIDE SEALED SKETCHES FOR ALL FIELD MODIFICATIONS MADE TO THEIR DESIGN.

9. SUBMIT SHOP DRAWINGS FOR REVIEW PRIOR TO START OF STEEL FABRICATION.

10. FABRICATION, ERECTION, STRUCTURAL DESIGN, AND DETAILING OF ALL STEEL SHALL BE IN ACCORDANCE WITH CAN/CSA-A16.

11. FILLET WELDS SHALL BE 9.5 mm MINIMUM U.N.O.

12. BOLTS SHALL BE A325 19 mm Ø MINIMUM U.N.O.

13. BOLTED CONNECTIONS SHALL HAVE A MINIMUM OF TWO BOLTS IN EACH MEMBER U.N.O.

14. UNLESS NOTED OTHERWISE, COLUMN CAP PLATES SHALL BE 16 mm THICK AND COLUMN BASE PLATES SHALL BE 20 mm MINIMUM THICK.

15. PROVIDE 6 mm CAP PLATES FOR ALL HSS MEMBERS U.N.O.

16. CONNECTION DETAILS SHOWN ON THE STRUCTURAL DRAWINGS SHALL NOT BE ALTERED BY THE CONTRACTOR WITHOUT WRITTEN APPROVAL FROM AMR ENGINEERING LIMITED.

### STRUCTURAL STEEL

  - STRUCTURAL STEEL SECTIONS SHALL BE NEW AND CONFORM TO THE FOLLOWING:
    - A. WIDE FLANGE BEAMS AND WWF SECTIONS — CSA G40.21 350W
    - B. CHANNELS AND ROLLING SECTIONS — CSA G40.21 310W
    - C. HOLLOW STRUCTURAL SECTIONS (EXCEPT WIDE FLANGES) — CSA G40.21 320W
    - D. MASONRY WIRE REINFORCING TO CAN/CSA G30.5
    - E. REINFORCING BARS TO CAN/CSA-G30.18 - 400 MPa
    - F. WIRE REINFORCEMENT TO CAN/CSA-G30.18 - 400 MPa
    - G. CONNECTIONS TO CAN/CSA-A370
    - H. PRACTICE TO CAN/CSA-A370
  - STRUCTURAL DRAWINGS UNLESS CONCENTRATED BLOCKING WITH 12.5 MPa MIN. GROUT TO A DEPTH OF AT LEAST 400 mm MEASURED DOWN FROM THE BEARING UNLESS NOTED OTHERWISE. PROVIDE 20 MPa GROUT AT MASONRY WALL AROUND FLOOR LEVELS AS PER DETAIL 13/10
  - PROVIDE EXTRA HEAVY DUTY LADDER TYPE OR TRUSS TYPE MASONRY REINFORCING (47.6 mm DIAMETER) IN HORIZONTAL JOINTS EVERY SECOND COURSE (400 mm) UNLESS NOTED OTHERWISE IN SCHEDULE
  - PROVIDE LINTELS OVER ALL OPENINGS IN WALLS. SEE LINTEL SCHEDULE. UNLESS NOTED OTHERWISE, USE ON PLAN. CONNECT BACK TO BACK ANGLES TOGETHER. 150 mm O/C MAXIMUM. PROVIDE 100 mm MINIMUM END BEARING FOR LINTELS.
  - PROVIDE 1-1M CONTINUOUS IN TOP COURSE OF WALL UNDER FLOOR SLAB TYP. U.N.O. AND TILL CELLS SOLID WITH 12.5 MPa GROUT MIN.
  - LAPS:
    - WIRE REINFORCEMENT — 200 mm
    - 10M BARS — 400 mm
    - 15M BARS — 600 mm
    - 20M BARS — 1000 mm
  - UNLESS NOTED OTHERWISE, PROVIDE VERTICAL BARS FULL HEIGHT AT UNSUPPORTED ENDS OF WALLS, CORNERS, INTERSECTIONS, SIDE OF DOORS, AND OTHER OPENINGS, AS SHOWN BELOW.

AT CORNER

AT INTERSECTION

AT OPENING

### ENGINEERED WOOD TRUSSES

  - THE STRUCTURAL DRAWINGS SHOW CONCEPTUAL WOOD TRUSS FRAMING ONLY. SEE ARCHITECTURAL DRAWINGS FOR DIMENSIONS, ROOF SLOPES, ROOF OVERHANGS, ELEVATIONS, OPENINGS ETC.
  - WOOD TRUSSES ARE BOTTOM CHORD BEARING UNLESS NOTED OTHERWISE.
  - THE DESIGN PREPARATION OF SHOP DRAWINGS, REVIEW OF FABRICATION AND FIELD REVIEW OF INSTALLATION SHALL BE CARRIED OUT AND STAMPED BY A SPECIALTY STRUCTURAL ENGINEER.
  - THE WOOD TRUSSES SHALL BE DESIGNED FOR THE LOADS SPECIFIED IN THE GENERAL NOTES, OR AS SHOWN ON PLAN. SNOW LOADS SHALL BE BALANCED, OR A T-100, OR A BUILDING CODE T-100, DEPENDING ON THE EFFECT OF DRAFTING ENDS. THIS AMR ADDITIONAL REQUIREMENTS SET OUT IN THE LOCAL BUILDING BY-LAW, THEY SHOULD ALSO BE DESIGNED FOR A VERTICAL POINT LOAD OF 0.90 kN (UNFACTORED) APPLIED ANYWHERE ON BOTTOM CHORD (ONE-POINT LOAD PER TRUSS).
  - TRUSS SUPPORT MUST DESIGN AND SUPPORT THE ENTIRE TRUSS SYSTEM WHICH INCLUDES THE FOLLOWING ELEMENTS:
    - A. FRAMING LAYOUT, SECTIONS, CONNECTION DETAILS, DESIGN LOADS, WOOD SPECIES AND WOOD GRADE
    - B. COMPLETE DIMENSIONS
    - C. ALL BRACING AND BRIDGING NECESSARY FOR THE STABILITY OF THE TRUSS DURING ERECTION AND IN THE COMPLETED STRUCTURE.
    - D. HOLD DOWN ANCHORS TO RESIST WIND UPLIFT, CONNECTING ROOF TRUSSES TO THE SUPPORTING STRUCTURE
  - THE SHOP DRAWINGS SHALL INCLUDE THE FOLLOWING ELEMENTS:
    - A. FRAMING LAYOUT, SECTIONS, CONNECTION DETAILS, DESIGN LOADS, WOOD SPECIES AND WOOD GRADE
    - B. COMPLETE DIMENSIONS
    - C. ALL BRACING AND BRIDGING NECESSARY FOR THE STABILITY OF THE TRUSS DURING ERECTION AND IN THE COMPLETED STRUCTURE.
    - D. HOLD DOWN ANCHORS TO RESIST WIND UPLIFT, CONNECTING ROOF TRUSSES TO THE SUPPORTING STRUCTURE
  - SHOP DRAWINGS SHALL BE PREPARED UNDER THE DIRECTION OF A SPECIALTY STRUCTURAL ENGINEER FOR THOSE CONNECTIONS AND COMPONENTS DESIGNED BY THE FABRICATOR. THIS ENGINEER OR THE CONTRACTOR SHALL MAKE THE FINAL DRAFTS OF THE CONNECTIONS AND COMPONENTS DESIGNED BY THIS ENGINEER TO SATISFY THEMSELVES THAT THESE CONNECTIONS AND COMPONENTS DO NOT CONTRADICT THE REQUIREMENTS OF THE FABRICATOR. THIS ENGINEER SHALL PROVIDE A LETTER TO AMR TO THIS EFFECT. THIS ENGINEER SHALL ALSO PROVIDE SEALED SKETCHES FOR ALL FIELD MODIFICATIONS MADE TO THEIR DESIGN.
  - SUBMIT SHOP DRAWINGS FOR REVIEW PRIOR TO START OF STEEL FABRICATION.
  - FABRICATION, ERECTION, STRUCTURAL DESIGN, AND DETAILING OF ALL STEEL SHALL BE IN ACCORDANCE WITH CAN/CSA-A16.
  - FILLET WELDS SHALL BE 9.5 mm MINIMUM U.N.O.
  - BOLTS SHALL BE A325 19 mm Ø MINIMUM U.N.O.
  - BOLTED CONNECTIONS SHALL HAVE A MINIMUM OF TWO BOLTS IN EACH MEMBER U.N.O.
  - UNLESS NOTED OTHERWISE, COLUMN CAP PLATES SHALL BE 16 mm THICK AND COLUMN BASE PLATES SHALL BE 20 mm MINIMUM THICK.
  - PROVIDE 6 mm CAP PLATES FOR ALL HSS MEMBERS U.N.O.
  - CONNECTION DETAILS SHOWN ON THE STRUCTURAL DRAWINGS SHALL NOT BE ALTERED BY THE CONTRACTOR WITHOUT WRITTEN APPROVAL FROM AMR ENGINEERING LIMITED.

### LOAD BEARING MASONRY

  - MASONRY WORK SHALL CONFORM TO CSA S304.1 AND ITS REFERENCED DOCUMENTS, INCLUDING:
    - A. CONCRETE BLOCK TO CAN/CSA-A16.5, TYPE H15A, UNLESS NOTED OTHERWISE ON SCHEDULE (BASED ON NET AREA).
    - B. MORTAR TO CAN/CSA-A179, TYPE 'S' FOR ALL WALLS.
    - C. GROUT TO CAN/CSA-A179, TYPE 'S'
    - D. MASONRY WIRE REINFORCING TO CAN/CSA G30.5
    - E. REINFORCING BARS TO CAN/CSA-G30.18 - 400 MPa
    - F. WIRE REINFORCEMENT TO CAN/CSA-G30.18 - 400 MPa
    - G. CONNECTIONS TO CAN/CSA-A370
    - H. PRACTICE TO CAN/CSA-A370
  - STRUCTURAL DRAWINGS UNLESS CONCENTRATED BLOCKING WITH 12.5 MPa MIN. GROUT TO A DEPTH OF AT LEAST 400 mm MEASURED DOWN FROM THE BEARING UNLESS NOTED OTHERWISE. PROVIDE 20 MPa GROUT AT MASONRY WALL AROUND FLOOR LEVELS AS PER DETAIL 13/10
  - PROVIDE EXTRA HEAVY DUTY LADDER TYPE OR TRUSS TYPE MASONRY REINFORCING (47.6 mm DIAMETER) IN HORIZONTAL JOINTS EVERY SECOND COURSE (400 mm) UNLESS NOTED OTHERWISE IN SCHEDULE
  - PROVIDE LINTELS OVER ALL OPENINGS IN WALLS. SEE LINTEL SCHEDULE. UNLESS NOTED OTHERWISE, USE ON PLAN. CONNECT BACK TO BACK ANGLES TOGETHER. 150 mm O/C MAXIMUM. PROVIDE 100 mm MINIMUM END BEARING FOR LINTELS.
  - PROVIDE 1-1M CONTINUOUS IN TOP COURSE OF WALL UNDER FLOOR SLAB TYP. U.N.O. AND TILL CELLS SOLID WITH 12.5 MPa GROUT MIN.
  - LAPS:
    - WIRE REINFORCEMENT — 200 mm
    - 10M BARS — 400 mm
    - 15M BARS — 600 mm
    - 20M BARS — 1000 mm
  - UNLESS NOTED OTHERWISE, PROVIDE VERTICAL BARS FULL HEIGHT AT UNSUPPORTED ENDS OF WALLS, CORNERS, INTERSECTIONS, SIDE OF DOORS, AND OTHER OPENINGS, AS SHOWN BELOW.

AT CORNER

AT INTERSECTION

AT OPENING

### TYP. BEAM BEARING DETAIL AT MASONRY WALLS

WALL

BEAM

2' MAX.

WELD BEAM TO BPL

BPL. SEE PLANSCHEDULE

PROVIDE SOLID BEARING FOR MINIMUM 8" UNDER BPL TYP.

OPENING

LAST DIMENSION OF BPL.

### RENOVATIONS

  - THE CONTRACT DOCUMENTS ARE BASED ON ASSUMED AS-BUILT DIMENSIONS FOR THE EXISTING BUILDING STRUCTURE AND ASSUMPTIONS IN ACCORDANCE WITH DRAFTING AND PRACTICE. THESE ASSUMPTIONS MAY VARY FROM THE ACTUAL ON