

LOADING SUMMARY

DESIGN STANDARDS

- ONTARIO BUILDING CODE, 2024, PART 4: STRUCTURAL DESIGN
- CA/CSA-A23.3-19, DESIGN OF CONCRETE STRUCTURES
- CA/CSA-A23.4-19, DESIGN OF PRECAST CONCRETE STRUCTURES
- CA/CSA-S304-14, MASONRY DESIGN FOR BUILDINGS
- CA/CSA-S18-16, LIMIT STATES DESIGN OF STEEL STRUCTURES
- CA/CSA-S18-16, DESIGN OF COLD FORMED STEEL STRUCTURAL MEMBERS
- CA/CSA-S18-16, ENGINEERING DESIGN IN WOOD

SNOW, ICE AND RAIN LOADS

APPLIED PER OBC, PART 4, SECTION 4.1.6

IMPORTANCE FACTOR, I_s	0.9 (SL3)	1.15 (AL3)
GROUND SNOW LOAD, S_g	0.9 kPa (19 PSF)	0.4 kPa (8 PSF)
ASSIGNED ROOF LOAD, S_d	0.4 kPa (8 PSF)	0.4 kPa (8 PSF)
WIND EXPOSURE FACTOR, C_e	1.0	1.0
WIND EXPOSURE FACTOR, C_w	1.47 kPa (31 PSF)	1.47 kPa (31 PSF)
DRIFT LOADS PER CLAUSE 4.1.6.2.8		
SCAFFOLDING PER CLAUSE 4.1.6.2.8 (D)		

WIND LOADS

APPLIED PER OBC, PART 4, SECTION 4.1.7

IMPORTANCE FACTOR, I_s	0.75 (SL3)	1.15 (AL3)
REFERENCE VELOCITY PRESSURE FOR STRUCTURAL MEMBERS	0.46 kPa	1.50 YEAR PROBABILITY (10 PSF)
REFERENCE VELOCITY PRESSURE FOR CLADDING & NON-STRUCTURAL MEMBERS	0.36 kPa	1/10 YEAR PROBABILITY (8 PSF)
CLIFF FACTOR, C_f	2.0	
FOR SMALL ELEMENTS INCLUDING CLADDING	2.5	
FOR INTERNAL PRESSURES	2.0	
BUILDING INTERNAL PRESSURE CATEGORY	2	PER 4.1.7.7

FLOOR LOADS

APPLIED PER OBC, PART 4, TABLE 4.1.5.3

CLASSROOM	2.4 kPa (50 PSF)
CORRIDORS	4.8 kPa (100 PSF)
STAIRS AND EXITS	4.8 kPa (100 PSF)
MEASURING	2.4 kPa (50 PSF)

SEISMIC SWAY BRACING

PER ARTICLE 4.1.8.1(2) OF THE ONTARIO BUILDING CODE SEISMIC SWAY BRACING DOES NOT APPLY TO NON-STRUCTURAL COMPONENTS AND EQUIPMENT. SHOULD THE BUILDING BE IN SEISMIC CATEGORY SCL OR SCL2, THIS EXEMPTION IS NOT APPLICABLE TO POST-TENSIONED BUILDINGS. BUILDING SEISMIC CATEGORY IS SCL2 THEREFORE SEISMIC SWAY BRACING OF NON-STRUCTURAL COMPONENTS AND EQUIPMENT IS REQUIRED.

CHIMNEY DEMOLITION PROCEDURE

- REFER TO SCAFFOLDING PLAN TO DEMOLITION
- CAREFULLY REMOVE EX. CHIMNEY BRICKS OR BLOCK FROM THE TOP, ONE BY ONE DOWN TO THE EX. ROOF LEVEL AS REQUIRED.
- DO NOT LOAD REMOVED BRICKS ON TOP OF EXISTING OR ROOF. PROVIDE CHAIRS OR SCAFFOLD BUCKETS TO SAFELY TRANSPORT MATERIAL DOWN FROM ROOF OR USE EX. CHIMNEY OPENING FOR BRICK DISPOSAL AREA.
- CLEAN AND CLEAR THE OPENING FOR ANY LOOSE DEBRIS OR DUST. PREPARE SURFACE FOR INFILL.
- PROVIDE 150x150x8mm AROUND EX. CHIMNEY OPENING FASTENED TO EX. PRECAST SLAB w/ 16# HLT MT-HY 200 @ 600 MIN. 150 EMBEDMENT w/ HLT MT-HY 200 ADHESIVE ANCHORING SYSTEM.
- PROVIDE 20x22 GAUGE MIN. STEEL DECK FASTENED OVER EXISTING OPENING. DECK INFILL TO HAVE MINIMUM OF 150MM BEARING ON EXISTING DECK.

REFER TO ARCHITECTURAL FOR EXACT LOCATIONS AND NUMBER OF AREAS

GENERAL NOTES

- CHECK ALL DIMENSIONS ON THESE DRAWINGS WITH ALL OTHER DRAWINGS, INCLUDING BUT NOT LIMITED TO, DRAWINGS PREPARED BY ARCHITECTURAL, MECHANICAL OR ELECTRICAL CONSULTANTS. REPORT ANY INCONSISTENCIES TO THE ENGINEER PRIOR TO COMMENCING WITH THE WORK. DO NOT SCALE THE DRAWINGS.
- THE DESIGN LIVE LOADS ARE INDICATED ON THE DRAWINGS. CONSTRUCTION LOADS SHALL NOT EXCEED THE DESIGN LIVE LOADS.
- THE COMPLETED STRUCTURE IS SHOWN ON THE DRAWINGS. THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY BRACING, SHORING AND ANY OTHER TEMPORARY OR PERMANENT MEASURES AS REQUIRED DURING CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY SUPPORT OF EXISTING OR ADJACENT STRUCTURES AS REQUIRED. ALL BRACING AND SHORING SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER.
- CONSTRUCTION FEATURES NOT FULLY SHOWN ARE COMPARABLE TO SIMILAR CONDITION DETAILS.
- REFER TO OTHER CONSULTANT DRAWINGS FOR DETAILS OF OPENINGS, PITS, CHAMBERS, AND DEPRESSIONS NOT INDICATED ON THE STRUCTURAL DRAWINGS.
- ALL CONSTRUCTION SHALL BE IN CONFORMANCE WITH THE LATEST ONTARIO BUILDING CODE, LATEST APPLICABLE REGULATIONS, AND GOOD CONSTRUCTION PRACTICES.
- THE STRUCTURAL DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL OTHER CONTRACT DRAWINGS AND SPECIFICATIONS.
- CLARIFY ANY QUERIES WITH THE ENGINEER REGARDING THE INTERPRETATION OF THE DRAWINGS, PRIOR TO THE COMMENCEMENT OF ANY WORK.
- KALOS ENGINEERING INC. PROVIDES GENERAL CONFERENCE REVIEW ONLY FOR THE WORK SHOWN ON THESE DRAWINGS. THIS REVIEW IS A PERIODIC REVIEW TO ASCERTAIN THAT THE WORK IS IN GENERAL CONFORMANCE WITH THE PLANS AND SUPPORTING DOCUMENTS PREPARED BY KALOS ENGINEERING INC. THE CONTRACTOR SHALL COORDINATE FIELD REVIEWS WITH KALOS ENGINEERING INC. PRIOR TO COMMENCING THE STRUCTURAL COMPONENTS AS SHOWN ON THESE DRAWINGS. PROVIDE 48 HOURS ADVANCE NOTICE OF EACH REQUIRED FIELD REVIEW. REVIEW BY KALOS ENGINEERING INC. DOES NOT MAKE US GUARANTORS OF THE CONTRACTOR'S WORK. IT REMAINS THE CONTRACTOR'S RESPONSIBILITY TO CONSTRUCT THE WORK IN CONFORMANCE WITH THE CONTRACT DOCUMENTS.
- THE USE OF THESE DRAWINGS IS LIMITED TO THAT IDENTIFIED IN THE REVISIONS COLUMN. DO NOT CONSTRUCT FROM THESE DRAWINGS UNLESS MARKED "ISSUED FOR CONSTRUCTION" IN THE REVISIONS COLUMN BY KALOS ENGINEERING INC. THE DRAWINGS SHALL NOT BE USED FOR TENDER UNLESS SO INDICATED IN THE REVISION COLUMN.
- REFER TO ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR PRELIMINARY LOCATIONS AND ASSEMBLY TYPES OF REQUIRED FIRE RESISTANCE RATING. ALL ENGINEERED PRODUCTS SHALL ACCOUNT FOR APPLICABLE LOAD-RESTRICTED ASSEMBLIES.
- DO NOT CUT OR DRILL ANY OPENINGS IN STRUCTURAL MEMBERS OR ELEMENTS WITHOUT WRITTEN CONSENT OF KALOS ENGINEERING INC.

STRUCTURAL STEEL NOTES

- ALL STRUCTURAL STEEL ELEMENTS, INCLUDING DESIGN OF ELEMENTS AND CONNECTIONS SHALL BE IN ACCORDANCE WITH CA/CSA S16.
- EXCEPT WHERE NOTED OTHERWISE, ALL STRUCTURAL STEEL SHALL CONFORM TO CSA C4221 (300M) EXCEPT IN SECTIONS AND PLATES C4221 (500M), HSS MEMBERS C4221 (500M) CLASS C OR ASTM A500 GRADE C, ANCHOR BOLTS ASTM F1554 (GR 36 or GR 55), COLD FORM SECTIONS ASTM A575 GRADE 550M.
- ALL SECTIONS SHALL BE PRIME PAINTED WITH THE SURFACE PREPARATION AND PAINTING PROCEDURES IN ACCORDANCE WITH CAN/CSA S810 UNLESS NOTED OTHERWISE. ALL STEEL EXPOSED TO THE EXTERIOR TO BE HOT DIP GALVANIZED. SECTIONS TO RECEIVE SPRAY-FIREPROOFING SHALL BE LEFT UNPAINTED. COORDINATE WITH THE ARCHITECTURAL DRAWINGS.
- ALL WELDING SHALL BE CARRIED OUT IN ACCORDANCE WITH CA/CSA S08. THE STEEL FABRICATOR SHALL BE FULLY QUALIFIED UNDER THE REQUIREMENTS BY THE CANADIAN WELDING BUREAU IN CONFORMANCE WITH CAN/CSA W47.1.
- DESIGN ALL MOMENT AND SHEAR CONNECTIONS FOR THE FULL CAPACITY OF THE SMALLER MEMBER IN THE CONNECTION UNLESS OTHERWISE NOTED. MOMENT CONNECTIONS SHALL BE PROVIDED FOR MAJOR AND MINOR AXIS BENDING WHERE NOTED. THE STEEL CONTRACTOR SHALL PROVIDE LOCAL BONDING OF MEMBERS AS REQUIRED FOR CONNECTION FORCES AS PART OF THE CONNECTION DESIGN.
- PROVIDE MINIMUM BEARING LENGTH OF STEEL MEMBERS AS FOLLOWS:
 - ON MASONRY -- 150mm (6")
 - ON STEEL -- 100mm (4")
 - ON BEARING PLATES -- FULL LENGTH OF BEARING PLATE
- THE BASE PLATE AND BEARING PLATE GROUT SHALL BE OF THE CEMENTITIOUS NON-SHANK TYPE AND SHALL BE A MINIMUM OF 20mm (3/4") THICK WITH A COMPRESSIVE STRENGTH OF 50 MPa AT 28 DAYS.
- FULLY WELD BASE PLATES TO COLUMNS AND PROVIDE MINIMUM 6mm (1/4") THICK GAP PLATES ON ALL COLUMNS.
- PROVIDE MINIMUM 125x125x12mm (7/8"x1 1/2") BEARING PLATES FOR ALL STRUCTURAL STEEL $c/w > 2-16mm (5/8")$ ANCHORS, 40mm (1 1/2") LONG WITH 50mm (2") BENT HOOKS UNLESS NOTED OTHERWISE.
- ALL BOLTS SHALL BE TIGHTENED WITH A SUITABLE TORQUE WRENCH IN ACCORDANCE WITH CSA S16.
- ERECT STRUCTURAL STEEL IN ACCORDANCE WITH CSA S16 AND IN CONFORMANCE WITH THE REVERSED SHOP DRAWINGS.
- THE STRUCTURAL STEEL CONTRACTOR SHALL SUPPLY ALL LIFTS, OVER DOORS, WINDOWS, EXITS AND PITS CONNECTIONS, AND ALL BEARING PLATES, ANCHOR BOLTS, WALL ANCHORS, SHU ANCHORS, TRIMMER ANGLES, AND MASONRY CLIPS ON COLUMNS LOCATED WITHIN MASONRY WALLS.
- THE GENERAL CONTRACTOR SHALL PROVIDE TEMPORARY SHORING OF ALL FLASH BEAMS. SHORING SHALL REMAIN IN PLACE UNTIL FLASH BEAM GROUT HAS FULLY CURED.
- THE GENERAL CONTRACTOR IS RESPONSIBLE FOR REVIEWING AND COORDINATING THE STRUCTURAL STEEL SUBMITTALS WITH WORK IN OTHER SPECIFICATION SECTIONS INCLUDING, BUT NOT LIMITED TO, CONCRETE, MASONRY, PRECAST, CLADDING, METAL DECK, METAL STUDS, GLULAMS, CLT, WOOD FRAMING, AND QMS.

MASONRY NOTES

- ALL STRUCTURAL ELEMENTS HAVE BEEN DESIGNED IN ACCORDANCE WITH CSA STANDARD S304.1. ALL MASONRY CONSTRUCTION SHALL BE IN ACCORDANCE WITH CSA STANDARD A371 AND ALL MASONRY CONNECTIONS, REINFORCING, AND TYPING SHALL BE IN ACCORDANCE WITH CSA A370. ALL MORTAR AND GROUT SHALL BE IN ACCORDANCE WITH A718.
- ALL CONCRETE BLOCKS SHALL BE NORMAL WEIGHT TYPE H/16, 1/4" UNLESS NOTED OTHERWISE. MORTAR SHALL BE TYPE S FOR LOAD-BEARING MASONRY AND TYPE N FOR NON-LOAD-BEARING MASONRY.
- GROUT SHALL CONSIST OF ONE PART PORTLAND CEMENT AND THREE PARTS SAND (MAXIMUM AGGREGATE SIZE SHALL BE 14mm (9/16")) WITH WATER TO PROVIDE A MINIMUM 10 MPa COMPRESSIVE STRENGTH AT 28 DAYS. SLUMP SHALL BE 200mm to 250mm (8" TO 10").
- GRouting:
 - a. ALL CELLS CONTAINING REINFORCING SHALL BE GROUTED SOLID.
 - b. ALL MASONRY BELOW BEARING PLATES SHALL BE GROUTED SOLID-FULL-HEIGHT.
 - c. ALL BELOW-BEARING MASONRY SHALL BE GROUTED SOLID.
 - d. BRICK BEAMS SHALL BE GROUTED SOLID.
 - e. GROUT TWO COULDS SOLID AT EACH FLOOR LEVEL TO ACCOMMODATE LEGGER BEAMS.
- REINFORCING:
 - a. PROVIDE VERTICAL REINFORCING AS FOLLOWS UNLESS NOTED OTHERWISE ON THE DRAWINGS:
 - 100mm (4") CONCRETE BLOCK -- 15% VERTICAL AT 600mm (24") O.C.
 - 240mm (10") CONCRETE BLOCK -- 20% VERTICAL AT 600mm (24") O.C.
 - 100mm (4") CONCRETE BLOCK -- 20% VERTICAL AT 600mm (24") O.C.
 - 200mm (8") CONCRETE BLOCK -- 20% VERTICAL AT 600mm (24") O.C.
 - b. 18MM (3/4") ALL OPENINGS WITH TWO VERTICAL BARS ON EACH SIDE OF OPENING. BARS SHALL BE PLACED IN THE FIRST TWO CORES ON EACH SIDE OF THE OPENING AND THE BAR SIZE SHALL MATCH THE WALL REINFORCING UNLESS NOTED OTHERWISE.
 - c. PROVIDE FULL-HEIGHT VERTICAL BARS IN ALL CORES BENEATH BEARING PLATES. THE BAR SIZE SHALL MATCH THE WALL REINFORCING.
 - d. HORIZONTAL REINFORCING SHALL BE GALVANIZED HEAVY-DUTY LASSER TYPE IN EVERY SECOND COURSE UNLESS NOTED OTHERWISE ON THE DRAWINGS.
 - e. DO NOT EXTEND HORIZONTAL REINFORCING THROUGH CONTROL JOINTS UNLESS OTHERWISE NOTED.
- FOUNDATION WALL HEIGHTS AND COURSING SHALL BE BASED ON THE DIMENSIONS OF FINISHING ELEVATION. THE FINISHING THICKNESS, AND THE GROUND FLOOR FINISHED FLOOR ELEVATION. THIS SHALL BE SUPERSEDED WHERE A TOP OF FINISHING ELEVATION IS SPECIFIED. DO NOT COUNT THE COURSING IN THE FOUNDATION SECTIONS.
- PROVIDE A 400mm (16") HIGH BOND BEAM REINFORCED WITH 2-20M BARS IN LOAD-BEARING WALLS BENEATH PRECAST SLABS.
- PROVIDE STEEL LEVELS FOR ALL OPENINGS AND RECESSES INCLUDING OPENINGS FOR MECHANICAL AND ELECTRICAL COMPONENTS. REFER TO THE LIMITS SCHEDULE FOR DETAILS. ALL EXTERIOR LIMITS TO BE HOT DIP GALVANIZED.
- PROVIDE BEARING PLATES BENEATH ALL BEAMS, JOISTS, AND BEAM LIMITS AND GROUT THE PLATE INTO THE WALL.
- BUILD THE MASONRY SOLID AROUND ALL BEAM, LIMIT, AND JOIST PROFILES. LEGGER WALLS IN ABOVE-COURSE SPACES ARE NOT PERMITTED.

DEMOLITION NOTES

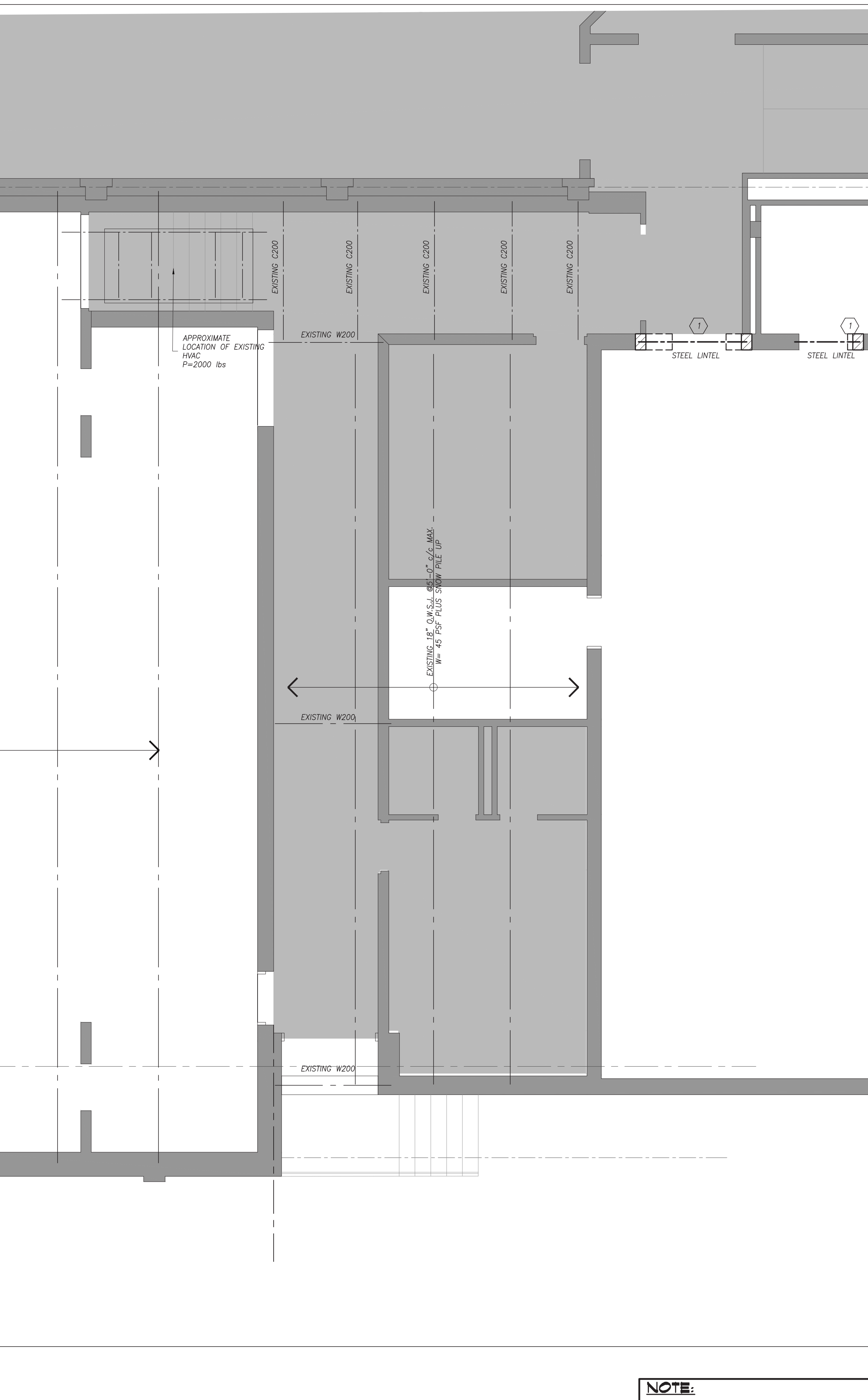
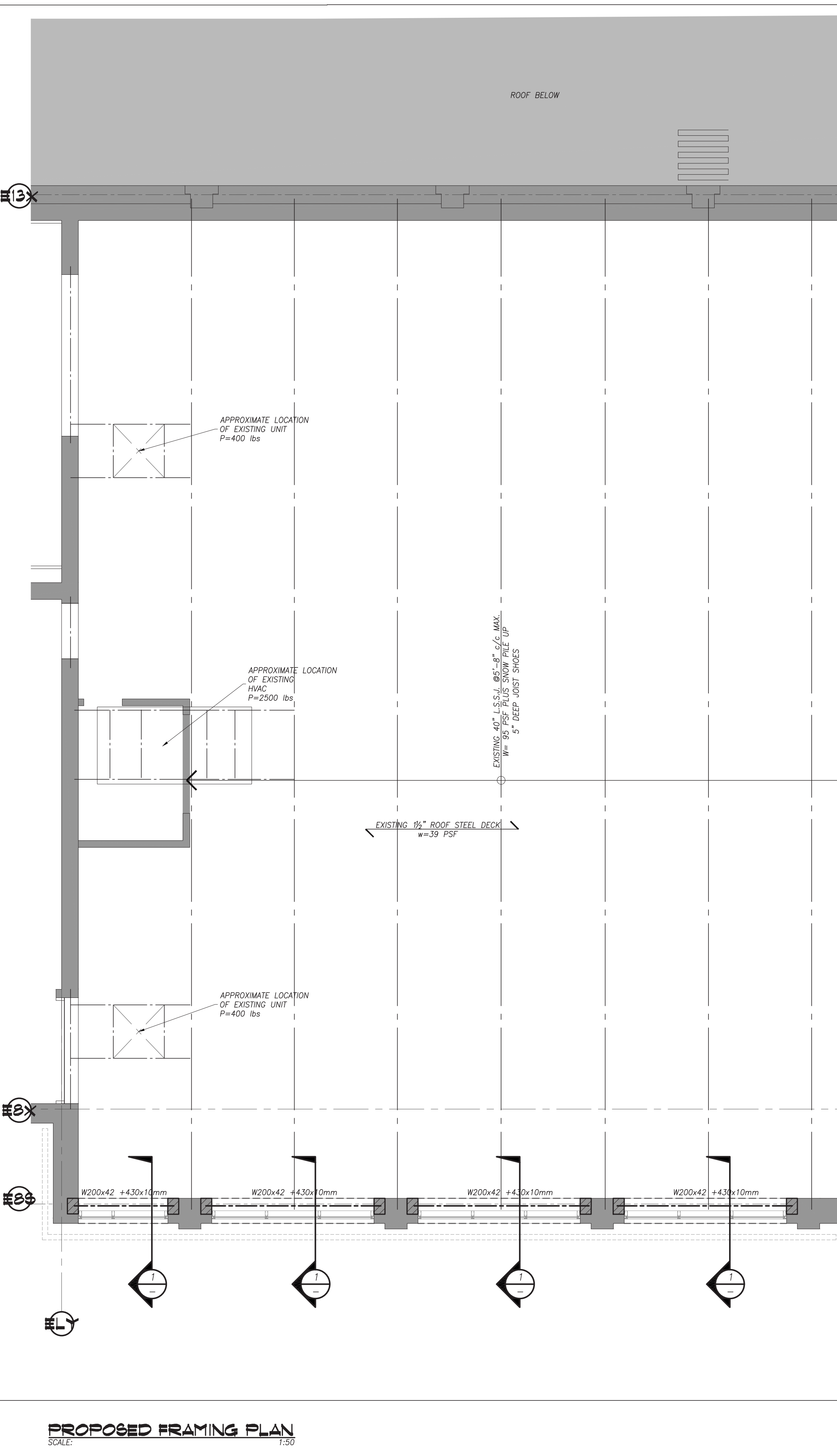
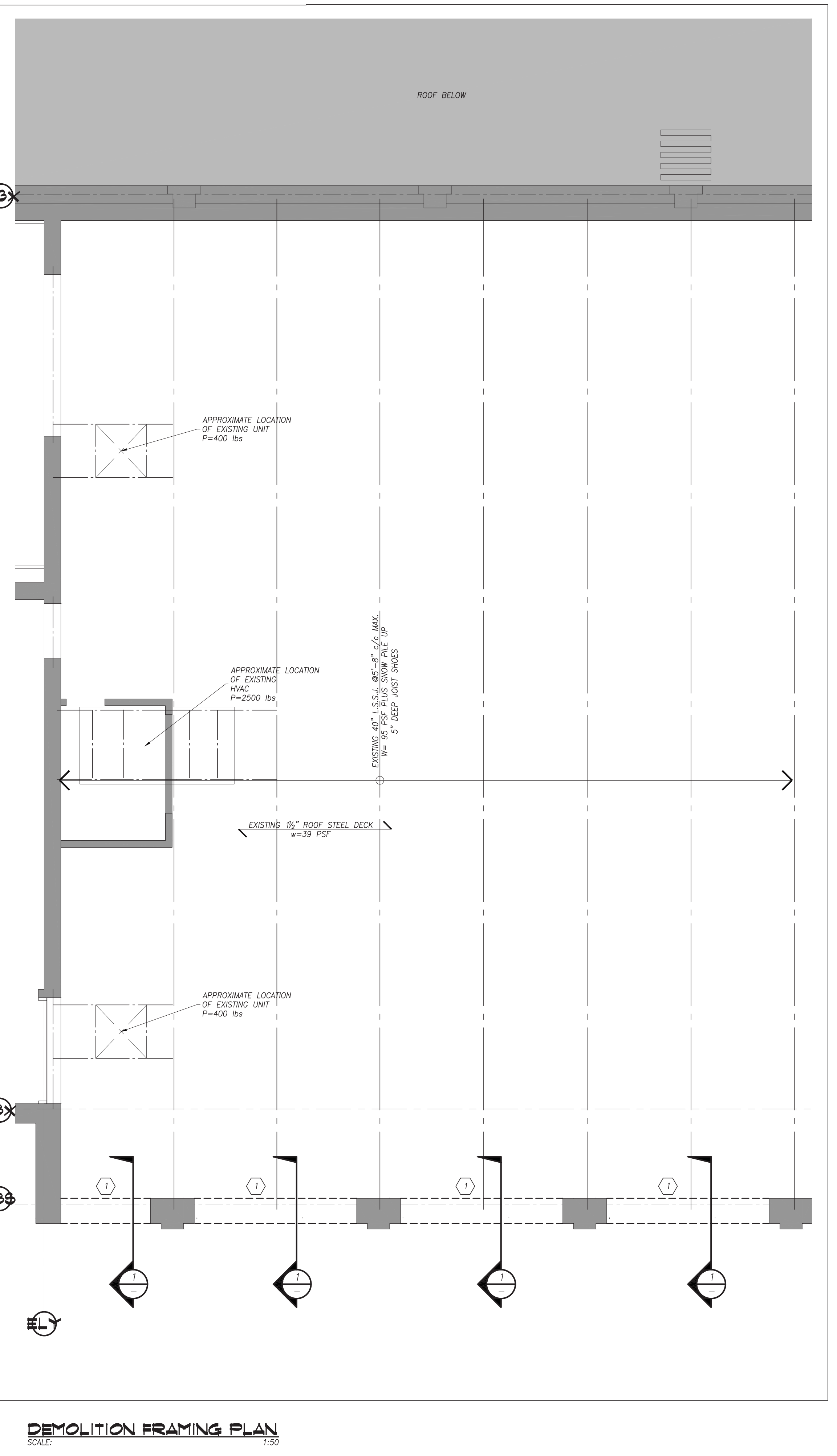
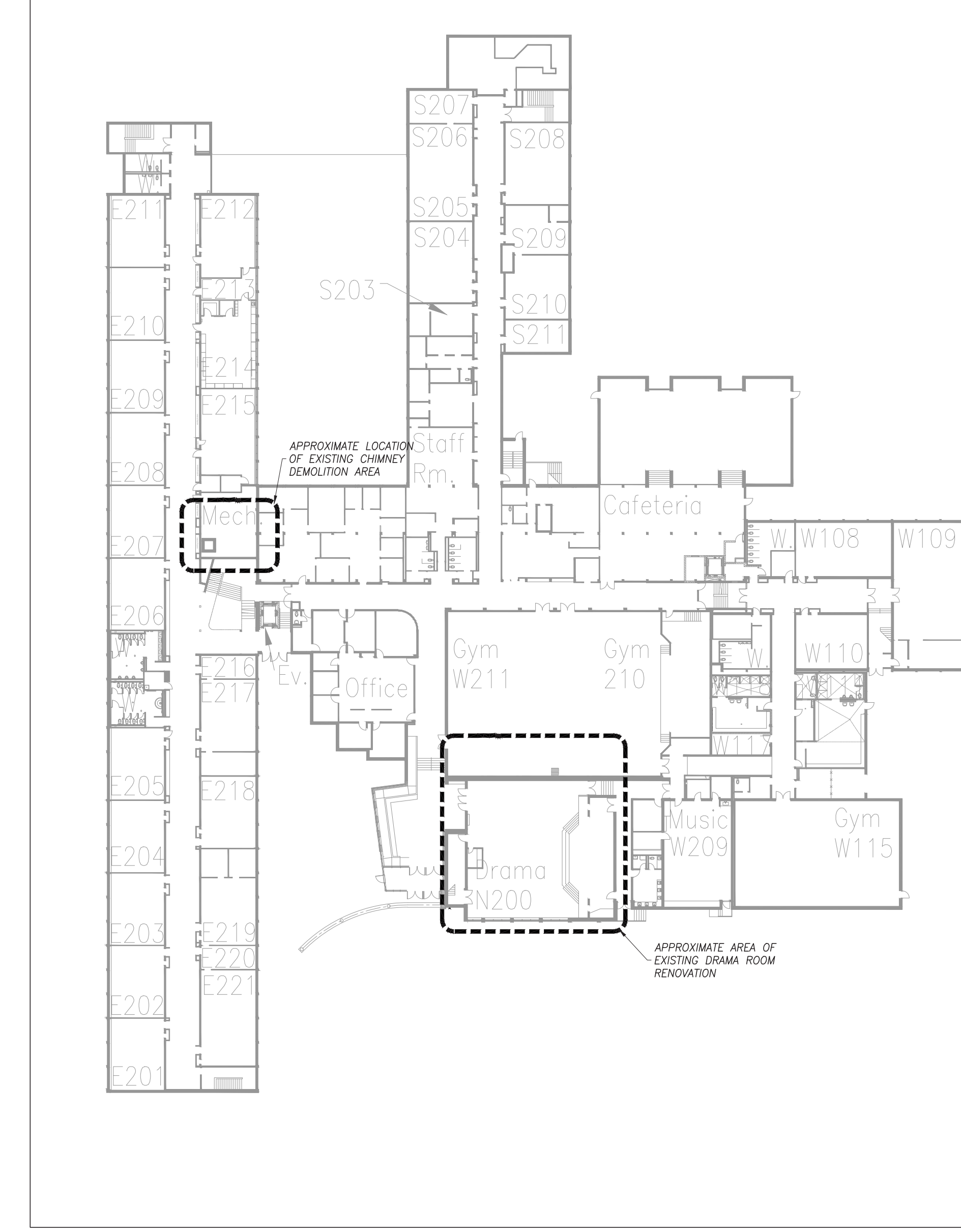
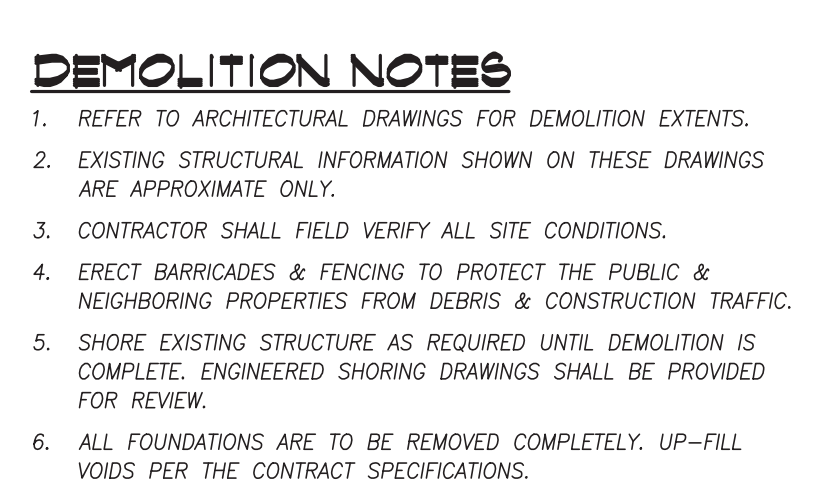
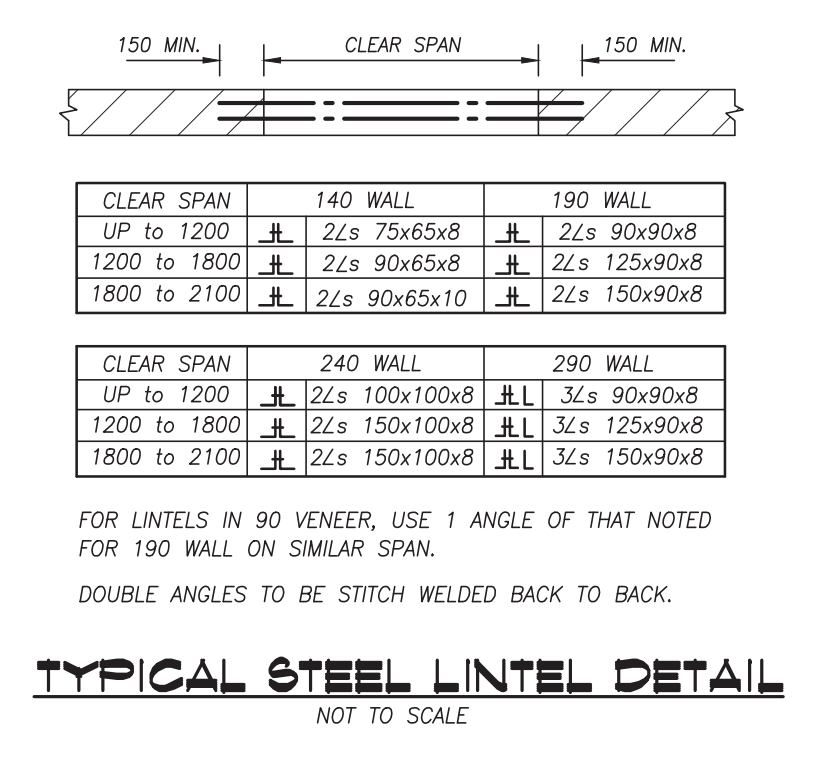
- REFER TO ARCHITECTURAL DRAWINGS FOR DEMOLITION EXTENTS.
- EXISTING STRUCTURAL INFORMATION SHOWN ON THESE DRAWINGS ARE APPROXIMATE ONLY.
- CONTRACTOR SHALL FIELD VERIFY ALL SITE CONDITIONS.
- ERECT BARRICADES & FENCING TO PROTECT THE PUBLIC & NEIGHBORING PROPERTIES FROM DEBRIS & CONSTRUCTION TRAFFIC.
- ALL FOUNDATIONS ARE TO BE REMOVED COMPLETELY. UP-FILL Voids FOR THE CONTRACT SPECIFICATIONS.
- THE CONTRACTOR SHALL ADHERE TO THE REQUIREMENTS OF THE MINISTRY OF LABOUR, TOSH, WSH, AND ENSURE A SAFE CONSTRUCTION SITE.

SHORING NOTES

- ALL FRAMES AND SHORING JACKS TO BE PLUMB AND LEVEL.
- SHORING JACKS TO BE DESIGNED BY THE SUPPLIER FOR THE LOADS AND HEIGHTS SHOWN, INCLUDING BRACING.
- MAX EXTENSION OF SCORINGMANS WILL BE 16" UNLESS NOTED.
- SCAFFOLDING SHALL BE ERECTED IN ACCORDANCE TO C.S.A. CODE S269.1.
- SHORING TO REMAIN IN PLACE UNTIL BEAM AND ALL BRACING IS COMPLETELY INSTALLED.
- CONTRACTOR TO PREPARE AND SUBMIT FULL SHORING DRAWINGS FOR APPROVAL FOR ALL TEMPORARY SUPPORTS. PREPARED AND STAMPED BY PROFESSIONAL ENGINEER, PRIOR TO ANY REMOVALS.

ADDITIONAL NOTES

- PROVIDE TEMPORARY SHORING TO STRUCTURE ABOVE PRIOR TO ANY REMOVALS.
- EXISTING FRAMING SHOWN IS ASSUMED BASED ON SITE REVIEW AND EXISTING DRAWINGS REFERRED TO IN NOTES BELOW. CONTRACTOR TO EXPOSE EXISTING STRUCTURE AND REPORT ANY DISCREPANCIES TO THE ENGINEER.



Project North True North

No.	Revisions	Date
2	ISSUED FOR TENDER	2026-05-25
1	ISSUED FOR PERMIT	2026-05-05
No.	Issue	Date

General Contractor shall check and verify all dimensions and report all errors and omissions to the Architect. Do not scale the drawings. Drawings shall not be used for construction purposes unless issued by the Architect for construction.

Disclaimer: This drawing is being issued at this time in response to a request made by a sub-contractor. The burden of coordinating the information contained in this drawing rests solely on the sub-contractor. The information included in this drawing is subject to change without notice and the Architect does not assume any liability for its content.

Drawing Title: DEMOLITION FRAMING & PROPOSED FRAMING

Scale: AS NOTED Date: 2026-05-05

Drawn by: S.NUYE Checked by: JPC

Job No. 22209 Drawing No. S1.0

NOTE: 1. INFORMATION FROM EXISTING DRAWINGS PREPARED BY SYDNEIS KOTRANAK ARCHITECTS INC. & PHILIP'S PLANNING ENGINEERING LIMITED PROJECT #26852-3, DATED AUG. 16, 1989.