Portland, Maine

DESIGN LIVE LOADS: 2009 IBC/MUEBC, U.O.N. $60 \operatorname{psf}(Pg)$ Snow Wind

100 mph, exp B, 3 second gust Office Stairs 100 psf

STRUCTURAL STEEL:

ASTM A992 Structural Beams: ASTM A36 Angles, misc: ASTM A307 or A36. Anchor Bolts:

Expansion Anchors shall be ICC-ES approved, installed in accordance with manufacturers specifications. Wedge Type

In concrete: In solid masonry: Sleeve Type

Non-shrink grout beneath column base and beam bearing plates shall be non-metallic with minimum compressive strength 5000psi.

All structural steel shall be fabricated and erected per the current edition of AISC Steel Construction Manual. Welding by qualified welders. E70XX electrodes. 3/16" fillet welds, unless noted otherwise.

Except as noted, framed beam connections shall be detailed to develop 0.6 x Allowable Uniform Load values

tabulated in the 9th Edition AISC Manual, Pp. 2-27 and following. All beams shall have full depth web stiffeners each side of webs above and below columns. (3" or as noted) Attach wood nailer plates to beams with 1/2" diameter machine or carriage bolts at maximum 16" o.c., or 3/8"

diameter bolts at 16" with glued contact face, or 5/32" diameter powder actuated drive pins at 12" o.c., U.O.N.

LOOSE LINTELS:

Minimum lintel except as noted, one angle for each 4" of wall thickness to bear 6" each end: L 3-1/2 x 3-1/2 x 1/4 Openings to 4'-0

4'-0 to 5'-4 L 5 x 3-1/2 x 1/4 L 6 x 3-1/2 x 5/16 5'-5 to 6'-6

Expansion anchors shall be approved "wedge" type unless specifically noted to be "sleeve" type.

Chemical anchors shall be approved epoxy or similar adhesive type and shall have current ICC Evaluation Report. Where base

material is not solid, approved screen tubes shall be used. Grout beneath column base and beam-bearing plates shall be

minimum 28-day compressive strength of 7,500 psi,

approved pre-bagged, non-metallic, non-gaseous, bleed free,

non-shrink, when tested in accordance with ASTM C1107 Grade B or C at a flow cone fluid consistency of 20 to 30 seconds

LIGHT GAUGE STRUCTURAL STEEL FRAMING:

Member forming shall conform to AISI Cold-Formed Steel Specifications.

All structural framing (studs, joists, track, runners, bracing, and bridging) shall be galvanized sheet steel conforming to ASTM A525,

Studs and joists 54 mils (16 gauge) and heavier shall be 50 ksi yield.

43 mils (18 gauge) and lighter shall be 33 ksi yield, unless noted otherwise on plan.

Subcontractor shall provide bridging and blocking at a maximum of 6 foot spacing or as required for stability and stiffness of the final assembly wherever sheathing does not provide adequate bracing.

Supplier shall design required jambs, lintels and headers at openings where not specifically detailed.

Member sizes noted on drawings are in the new SSMA standard nomenclature: (##d)(sd)(##w)-(##t)

(##d) Member Depth (inches.hundredths)

(sd) Style Designation (see Style Designation in table below)

(##w) Flange Width (inches.hundredths) (##t) Material Thickness (mils)

(##t) Material Thickness (mils)		(see Mils vs equivalent Gauge in table below)			
(sd) Style Designation	Member Type		(##t) Mils Thickness	Equivalent Gauge	
S	Punched C-Section		18	25	
J	Unpunched C-Section		27	22	
T	Track		30	20 – Drywall	
U	Channel		33	20 – Structural	
F	Furring Channel		43	18	
			54	16	
			68	14	
			07	10	

STRUCTURAL WOOD FRAMING: In-Grade Base Values have been used for design. 2x framing shall be Spruce-Pine-Fir S4S No. 2 and better unless noted. All lumber shall be 19% maximum moisture content, unless noted.

Solid timber beams and posts shall be Douglas Fir-Larch No. 1.

Existing roof purlins have been analyzed using assumed allowable Fb = 1580 psi and E = 1,600,000 psi, similar to Douglas Fir Select Structural, based on findings in limited areas of the roof framing. Existing roof framing throughout the structure should be verified in the field as typical of the assumed conditions. Notify S.I. if conditions other than the indicated assumptions exist.

Studs shall be Spruce-Pine-Fir S4S No. 2 and better.

Top and bottom plates shall be Spruce-Pine-Fir S4S No. 2 and better.

Provide solid blocking between joists under jamb studs of openings.

Wood in contact with concrete shall be pressure-treated Spruce-Pine-Fir S4S No. 2 or Southern Yellow Pine.

Conventional light framing shall comply with IBC Section 2308.

Except as noted otherwise, minimum nailing shall be provided as specified in IBC Table 2304.9.1 "Fastening Schedule."

Plywood and oriented strand board (OSB) floor and roof sheathing shall be APA graded with panel identification index, thickness, and nailing as noted on the drawings.

Nail (or screw to light gauge structural steel framing) wall sheathing with 8d commons (or #10 tek screws to light gauge structural steel framing) at 4" o.c. at panel edges, and 12" o.c. at intermediate framing except as noted.

SHEATH ALL EXTERIOR WALLS. SHEATH INTERIOR WALLS AS SHOWN ON THE DRAWINGS.

BLOCK AND NAIL/SCREW ALL EDGES BETWEEN STUDS. Sheathing shall be continuous from bottom plate to top plate. Cut in "L" and "T" shapes around openings. Lap sheathing over rim

joists min. 4" at all floors to tie upper and lower stud walls together. Minimum height of sheathing panels shall be 16" to assure that plates are tied to studs.

Minimum 3-8d per stud and nail plates with "edge nail" spacing. Sole plate at all perimeter walls and at designated shear walls shall be nailed as for braced panels with 3-16d x 3 1/2" long box nails (coated or deformed shank) per 16". 12d nails are not acceptable.

Pre-engineered, prefabricated trusses shall be designed for the fabricator by a Professional Engineer Registered in the State of

construction, and shall comply with Code Requirements. Truss to truss connections specified shall be by truss supplier, unless specifically noted on the drawings.

Lower chord of gable end trusses shall be anchored to wall plate with framing anchors at 4'-0 spacing and laterally braced to roof

framing at 8'-0 spacing. Truss supplier shall specify all floor and roof truss bracing and bridging.

All roof rafters, joists, trusses, and beams shall be anchored to supports with metal framing anchors. Light gage framing anchors shown or required, shall be Simpson "Strong Tie" and installed with the number and type of nails

recommended by the manufacturer to develop the rated capacity. Note that heavy-duty hangers and skewed hangers may not be stocked locally and require special order from the factory. All beams and trusses shall be braced against rotation at points of bearing.

Unless otherwise indicated, install two lengths of solid blocking x joist depth x 12 inches long in floor framing under column loads. Columns must have a continuous load path to foundation.

Lead holes for lag screws shall be drilled in accordance with Table 6.23 of the AITC Timber Construction Manual, 3rd edition.

FIELD VERIFICATION OF EXISTING CONDITIONS:

Contractor shall thoroughly inspect and survey existing structure to verify conditions that affect the work shown on the drawings. Contractor shall report any variations or discrepancies to the Architect before proceeding.

STRUCTURAL ERECTION AND BRACING REQUIREMENTS:

The structural drawings illustrate the completed structure with elements in their final positions, properly supported and braced. These construction documents contain typical and representative details to assist the contractor.

Details shown apply at all similar conditions unless otherwise indicated.

Although due diligence has been applied to make the drawings as complete as possible, not every detail is illustrated, nor is every exceptional condition addressed.

All proprietary connections shall be installed in accordance with the manufacturers' recommendations.

All work shall be accomplished in a workmanlike manner and in accordance with the applicable code and local ordinances.

The general contractor is responsible for coordination of all work, including layout and dimension verification, materials coordination, shop drawing review, and the work of subcontractors.

Any discrepancies or omissions discovered in the course of the work shall be immediately reported to the architect for resolution.

Continuation of work without notification of discrepancies relieves the architect and engineer from all consequences. Unless otherwise specifically indicated, the drawings do not describe methods of construction.

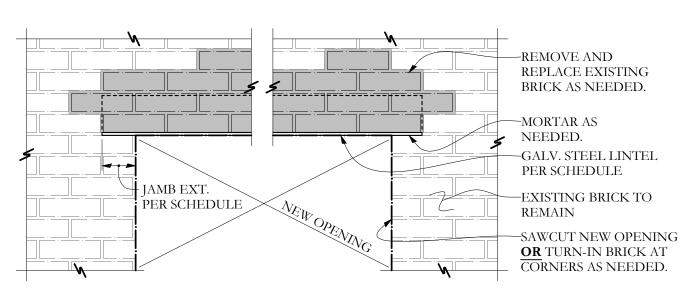
The contractor, in the proper sequence, shall perform or supervise all work necessary to achieve the final completed structure, and to protect the structure, workmen, and others during construction.

Such work shall include, but not be limited to, bracing, shoring for construction equipment, shoring for excavation, formwork, scaffolding, safety devices and programs of all kinds, support and bracing for cranes and other erection equipment.

Do not backfill against basement or retaining walls until supporting slabs and floor framing are in place and securely anchored, unless adequate bracing is provided.

Temporary bracing shall remain in place until all floors, walls, roofs and any other supporting elements are in place.

The architect and engineer bear no responsibility for the above items, and observation visits to the site do not in any way include inspection of them.



OPENING SIZE*	LINTEL PER WYTHE	JAMB EXTENSION
LESS THAN 4'-0	L3 1/2x 3 1/2x 1/4	4"
4'-1 TO 5'-4	L5x 3 1/2 x 1/4	4"
5'-5 TO 6'-6	L6x 3 1/2 x 5/16"	8"

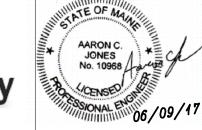
* FOR OPENINGS GREATER THAN LISTED, SEE PLAN. * ALL TEMPORARY SHORING BY G.C. -TYP. * LINTEL SIZE IS PER WYTHE (OR 4") OF MASONRY

NEW LINTEL INSTALLATION IN EXISTING BRICK

	ABBREVIATIONS KEY						
AB	Anchor Rod (Bolt)	EF	Each Face	MACH	Machine	RO	Rough Opening
ADDL	Additional	EJ	Expansion Joint	MASY	Masonry	SC	Slip Critical
ADJ	Adjustable	ELEV	Elevation	MATL	Material	SCH	Schedule
AFF	Above Finished Floor	ELEC	Electric (Electrical)	MAX	Maximum	SDST	Self Drilling Self Tappin
ALT	Alternate	ENGR	Engineer	MB	Machine bolt	SECT	Section
AMT	Amount	EQ	Equal	MECH	Mechanical	SF	Square Feet
ANCH	Anchor, Anchorage	EQUIP	Equipment	MEZZ	Mezzanine	SHT	Sheet
APPROX	Approximate	EQUIV	Equivalent	MFR	Manufacture, -er, -ed	SHTG	Sheathing
ARCH	Architect, -ural	ES	Each Side	MIN	Minimum	SIM	Similar
ATR	All Thread Rod	EST	Estimate	ML	Microllam	SLH	Short Leg Horizontal
AVG	Average	E-W	East to West		(Trus-joist brand LVL)	SLV	Short Leg Vertical
ВС	Bottom of Concrete	EXC	Excavate	МО	Masonry Opening	SOG	Slab on Grade
BL	Brick Ledge	EXP	Expansion	MTL	Metal	SP	Spaces
BLK	Block	EXT	Exterior	NF	Near Face	SPEC	Specifications
BLKG	Blocking	FND	Foundation	NIC	Not In Contract	SQ	Square
BM	Beam	FF	Far Face, Finished Floor	NS	Near Side	ST	Snug Tight
ВОТ	Bottom	F-F	Face to Face	N-S	North to South	STD	Standard
BRG	Bearing	FIG	Figure	NTS	Not to Scale	STIFF	Stiffener
BW	Bottom of Wall	FL	Flush	OCI	OSHA Column Joist	STL	Steel
СВ	Counterbore	FLG	Flange	OD	Outside Diameter	STRUCT	Structure, -al
CF	Cubic Foot	FLR	Floor	OF	Outside Face	SUPT	Support
CG	Center of Gravity	FO	Face of	ОН	Opposite Hand	SY	Square Yard
CIP	Cast in Place	FP	Full Penetration	OPNG	Opening	SYM	Symmetrical
CJ	Construction Joint	FS	Far Side	OPP	Opposite	T&B	Top and Bottom
3	(Control Joint)	FTG	Footing	OSB	Oriented Strand Board	T&G	Tongue and Groove
CLG	Ceiling	GA	Gage (Gauge)	PAF	Powder Actuated Fast'nr	ТВ	Top of Beam
CLR	Clear	GALV	Galvanized	PC	Precast	TC	Top of Concrete
CM	Construction Manager	GC	General Contractor	PCF	Pounds Per Cubic Foot	TD	Top of Deck
	(Management)	GEN	General	PEN	Penetration	THD	Thread
CMU	Concrete Masonry Unit	GL	Glue laminated (Glulam)	PERP	Perpendicular	THK	Thick, -ness
COL	Column	GND	Ground	PL	Property Line	TJ	Top of Joist
COM	Common	GR	Grade	PLF	Pounds per Linear Foot	TL	Total Load
COMB	Combination	GT	Girder Truss	PNL	Panel	TPG	Topping
CONC	Concrete	GYP BD	Gypsum Board	PP	Panel Point	TRANS	Transverse
CONN	Connection	HAS	Headed Anchor Stud	PS	Prestressed	TW	Top of Wall
CONT	Continue (Continuous)	HORIZ	Horizontal	PSF	Pounds per Square Foot	TYP	Typical
COORD	`	НТ	Height	PSI	Pounds per Square Inch	ULT	UltlesatNoted Otherwi
CS	Countersink	ID	Inside Diameter	PSL	Parallel Strand Lumber	UNO	
CTR	Center	IF	Inside Face		(generic term)	VERT	Vertical
CY	Cubic Yard	INT	Interior (Intermediate)	PT (1)	Post Tensioned	VIF	Verify in Field
DAB	Deformed Anchor Bar	JB	Joist Bearing	PT (2)	Pressure Treated	WA	Wedge Anchor
DET	Detail	JST	Joist	PTN	Partition	WP	Work Point
DEV	Develop	JT	Joint	PWD	Plywood	WT	Weight
DIAG	Diagonal	K	Kip (1,000 lbs.)	QTY	Quantity	WWF	Welded Wire Fabric
DIM	Dimension	LD	Load	R	Radius	XS	Extra Strong
DL	Dead Load	LL	Live Load	RD	Roof Drain	XSECT	Cross-section
DN	Down	LLH	Long Leg Horizontal	RE	Reference (refer to)	XXS	Double Extra Strong
DP	Drilled Pier	LLV	Long Leg Vertical	RECT	Rectangle		8
DT	Double Tee	LOC	Location	REINF	Reinforce, -ed, -ing	(E)	Existing
DWG	Drawing	LSL	Laminated Strand	REQ	Required Required	(N)	New
DWL	Dowel		Lumber (generic term)	REQMT		(R)	Remove
	Each	LT	Light	RET	Retaining	1 7	
HA	1.1.215.11	1 1 / 1	וווצווו	1	12.000000000000000000000000000000000000		1
EA ECC	Eccentric	LVL	Laminated Veneer	RM	Room		

Structural Drawing Index		
S1.0	General Notes, Etc.	
S1.1	Upper Level Framing Plan	
S1.2	Roof Framing Plan	
S2.1	Details	





77 Oak Street Portland, ME, 04101 p. 207-774-4614 f. 866-793-7835 www.structuralinteg.com **BUILD WITH CONFIDENCE** © 2017 Aaron C. Jones, PE

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ARCHITECTS

A.I.A.100 Commercial Street Suite 205 Portland, Maine 04101 Phone: 207.774.9057 Email: rfi@muellerarchitects.com

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