16-0164
164 Middle Street
Portland, ME.

DESIGN LIVE LOADS: 2009 IBC/MUEBC, U.O.N.
* Snow 60 psf(Pg)
* Wind 100 mph, exp C, 3 second gust
* Floors 100 psf

WOOD FRAMING:
* Dimension Lumber is designed and shall be supplied using BASE VALUES Design Criteria.
* SPF #2 and better (Maximum Moisture Content 19%) U.O.N.
  Plates: Sill plates: Pressure Treated SPF or Southern Pine:
  "Pressure treated lumber" shall be framing material of the specified species which has been pressure treated with a decay and insect resistant solution, meeting all current standards for wood in contact with concrete or earth.
  Sill plates in contact with masonry or concrete foundations, footings or slabs may be treated Timber Strand LSL (zinc borate treatment). Sodium borate treatment may also be acceptable for sill plate applications when protected from weather.
  Acceptable treatment mediums for wood in contact with earth or in exterior applications include ACQ-C and ACQ-D (Alkaline Copper Quaternary) and copper azole (CBA-A and CBA-B).
  DO NOT USE WOODS WHICH HAVE BEEN TREATED WITH AMMONIA BASED CARRIERS.
  All connectors shall meet the recommendations of the pressure treated wood manufacturer, but shall be not less than Hot Dipped Galvanized meeting requirements of ASTM A653, such as Simpson ZMAX. (G185). All screws, nails and bolts shall match hangers and other connectors, and shall meet ASTM A123 for individual connectors and ASTM A153 for fasteners.
  For durability, it is our recommendation that connectors used in exposed conditions with treated lumber be stainless steel.
  Do not mix galvanized and stainless products.
  Do not allow aluminum to contact treated wood.
* All plywood and oriented strand board (OSB) sheathing shall be engineered grades with APA grade stamp indicating appropriate maximum spacing of supports.
  Roof sheathing: nominal 5/8", OSB 40/20 span rating nailed.
* Nail wall sheathing with 8d commons at 6" o.c. at panel edges, and 12" o.c. intermediate framing U.N.O.
* Minimum nailing shall comply with IBC Table 2304.9.1 except where more or larger nailing shown on drawings.
* Cross bridge all dimension lumber floor joists at midspan and provide solid blocking or rim joists at all joist supports and joist ends.
* 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 and the Truss Plate Institute Requirements.
* Unless otherwise indicated, trusses shall be designed for perpendicular to grain bearing on SPF plates (425 psi). End grain bearing is not allowed unless accepted in writing by S.I.. Design truss bearings for bearing blocks or Truss Bearing Enhancers as required to compensate for overstresses. Specify size, species and nailing for bearing blocks.
* Metal connectors: Simpson Strong Tie unless otherwise noted, installed with number and type of nails to achieve maximum rated capacity. Note that heavy duty and skewed hangers may require special order.
* All beams shall be braced against rotation at points of bearing.
* Drypack grout all beam pockets full after beams are set.
* 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 bolts shall be 60% to 70% of lag shank diameter in compliance with AITC criteria.

STRUCTURAL STEEL:
* Structural Beams: ASTM A992
* Angles, misc: ASTM A36
* Anchor Bolts: ASTM A307 or A36.
* Expansion Anchors shall be ICC-ES approved, installed in accordance with manufacturers specifications.
  In concrete: Wedge Type
  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.

STRUCTURAL ERECTION AND BRACING REQUIREMENTS
* The structural drawings illustrate the completed structure with all elements in their final positions, properly supported and braced. The contractor, in the proper sequence, shall provide proper shoring and bracing as may be required to achieve the final completed structure.
* These plans have been engineered for construction at one specific building site. Builder assumes ALL responsibility for use of these plans at Any Other building site. Plans shall not be used for construction at any other building site without specific review by the engineer.
* Observations of foundation reinforcing or framing required by the owner, lender, insurer, building department or any other party will be accomplished by the engineer at the owner's expense. At least 24 hours advance notice is requested.
* All slabs on grade shall be separated from adjacent structural and finish elements to allow free movement of the slab, unless specifically shown and noted otherwise.

SHOP DRAWINGS
Fabricator and / or supplier of rebar, CMU, steel, steel bar joists and metal decking shall submit shop and erection drawings for architect and engineer review. Submit one reproducible and two prints for each drawing. Allow five working days for review.

SPECIAL INSPECTIONS AND REVIEWS:

All site soils related work and footing excavations prior to placing forms, as well as site drainage, shall be reviewed by geotechnical engineer.

All masonry construction shall be inspected by the designated special inspector.

Normal reviews by Local Building Department.

Duties and responsibilities of the special inspector shall be to observe and/or test the work assigned and outlined above for conformance with the approved construction documents. All discrepancies shall be brought to the immediate attention of the contractor for correction.

The special inspector shall furnish regular reports to the building official, the engineer and architect of record, and other designated persons. Progress reports for continuous inspection shall be furnished weekly. Individual reports of periodic inspections shall be furnished within one week of inspection dates. The reports shall note uncorrected deficiencies, correction of previously reported deficiencies, and changes to the approved construction documents authorized by engineer of record.

The special inspector shall submit a final signed report within 10 days of the final special inspection stating whether the work requiring special inspection was, to the best of the inspector's knowledge and belief, in conformance with the approved construction documents and the applicable workmanship provisions of the International Building Code. Work not in compliance shall be noted in the report.

Special inspection firm shall be:
To be determined, Please contact S.I. Inc. if you would like to retain us to conduct special inspections coordination and or inspection services.

IF THIS SHEET IS NOT 24 X 36 IT IS A REDUCED SCALE PRINT - SCALE ACCORDINGLY
SCALE 1"=1' 3/4"=1' 1/2"=1' 1/4"=1' 1/8"=1' 1/16"=1'

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 Tapping
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 (Trus-joist brand LVL)	SLH	Short Leg Horizontal
AVG	Average	E-W	East to West			SLV	Short Leg Vertical
BC	Bottom of Concrete	EXC	Excavate	MO	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
BOT	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	OCJ	OSHA Column Joist	STL	Steel
CB	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	OH	Opposite Hand	SY	Square Yard
CIP	Cast in Place	FP	Full Penetration	OPNG	Opening	SYM	Symmetrical
CJ	Construction Joint (Control Joint)	FS	Far Side	OPP	Opposite	T&B	Top and Bottom
		FTG	Footing	OSB	Oriented Strand Board	T&G	Tongue and Groove
CLG	Ceiling	GA	Gage (Gauge)	PAF	Powder Actuated Fast'nr	TB	Top of Beam
CLR	Clear	GALV	Galvanized	PC	Precast	TC	Top of Concrete
CM	Construction Manager (Management)	GC	General Contractor	PCF	Pounds Per Cubic Foot	TD	Top of Deck
		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	Coordinate, -tion	HT	Height	PSI	Pounds per Square Inch	ULT	Ultimate
CS	Countersink	ID	Inside Diameter	PSL	Parallel Strand Lumber (generic term)	UNO	Unless Noted Otherwise
CTR	Center	IF	Inside Face			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		
DT	Double Tee	LOC	Location	REINF	Reinforce, -ed, -ing	(E)	Existing
DWG	Drawing	LSL	Laminated Strand Lumber (generic term)	REQ	Required	(N)	New
DWL	Dowel			REQMT	Requirement	(R)	Remove
EA	Each	LT	Light	RET	Retaining		
ECC	Eccentric	LVL	Laminated Veneer Lumber (generic term)	RM	Room		
E-E	End to End			RMO	Rough Masonry Opening		

Structural Drawing Index

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09/30/2016

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REVISIONS

No.	Date	Description

ROOF ALTERATIONS

164 Middle St.
Portland, ME

Project Number	16007
Date	September 30, 2016
Drawn by	MKL
Checked by	

Sheet Name
GENERAL NOTES

S1.0