

**GENERAL NOTES:**

- STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH JOB SPECIFICATIONS AND ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING, AND SITE DRAWINGS. CONSULT THESE DRAWINGS FOR LOCATIONS AND DIMENSIONS OF OPENINGS, CHASES, INSERTS, REGLETS, SLEEVES, DEPRESSIONS, AND OTHER DETAILS NOT SHOWN ON THE STRUCTURAL DRAWINGS.
- ALL DIMENSIONS AND CONDITIONS MUST BE VERIFIED IN THE FIELD. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE PROCEEDING WITH THE AFFECTED PART OF THE WORK.
- THE STRUCTURE IS DESIGNED TO BE SELF SUPPORTING AND STABLE AFTER THE BUILDING IS COMPLETE. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO DETERMINE ERECTION PROCEDURES AND SEQUENCE TO ENSURE SAFETY OF THE STRUCTURE AND PERSONNEL DURING ERECTION. THIS INCLUDES THE ADDITION OF THE NECESSARY SHORING, SHEETING, TEMPORARY BRACING, GUYS OR TIEDOWNS. SUCH MATERIAL SHALL REMAIN THE PROPERTY OF THE CONTRACTOR AFTER COMPLETION OF THE PROJECT.
- ALL APPLICABLE FEDERAL, STATE, AND MUNICIPAL REGULATIONS SHALL BE FOLLOWED, INCLUDING THE FEDERAL DEPARTMENT OF LABOR OCCUPATIONAL SAFETY AND HEALTH ACT.
- IT IS THE OWNER'S SOLE RESPONSIBILITY TO EMPLOY ONE OR MORE SPECIAL INSPECTORS (IF REQUIRED) TO PROVIDE INSPECTIONS IN COMPLIANCE WITH ALL APPLICABLE REQUIREMENTS OF IBC 2006.

**DESIGN NOTES:**

- THIS BUILDING IS DESIGNED TO COMPLY WITH THE 2009 EDITION OF THE INTERNATIONAL BUILDING CODE.
- SNOW LOAD
  - GROUND SNOW LOAD = 60 PSF
  - FLAT ROOF SNOW LOAD = 42 PSF
  - SNOW LOAD IMPORTANCE FACTOR I = 1.0
  - SNOW EXPOSURE FACTOR Ce = 1.0
  - SNOW THERMAL FACTOR Ct = 1.0
  - BALANCE AND UNBALANCED SNOW LOADS IN ACCORDANCE WITH ASCE 7/05
- WIND LOADS:
  - BASIC WIND SPEED V = 95 MPH
  - WIND LOAD IMPORTANCE FACTOR I = 1.0
  - WIND INTERNAL PRESSURE COEFFICIENT GCpI = ±.18
  - Wind Exposure = B
- ROOF DEAD LOAD
  - TOP CHORD = 15.0 PSF
  - BOTTOM CHORD = N/A
  - HVAC UNIT(S) = N/A
- ROOF LIVE LOAD
  - TOP CHORD = 20.0 PSF
  - BOTTOM CHORD = N/A
- EARTHQUAKE LOAD:
  - DESIGN OF EARTHQUAKE LOAD IN ACCORDANCE WITH ASCE 7/05
  - SEISMIC IMPORTANCE FACTOR I = 1.0
  - 0.2s MAPPED SPECTRAL RESPONSE ACCELERATION Ss = per code
  - 1.0s MAPPED SPECTRAL RESPONSE ACCELERATION Si = per code
  - SITE CLASS = CLASS D
  - SPECTRAL RESPONSE COEFFICIENT SDS = per code
  - SPECTRAL RESPONSE COEFFICIENT SDI = per code
  - SEISMIC DESIGN CATEGORY = CATEGORY B
  - BASIC SEISMIC FORCE RESISTING SYSTEM: BEARING WALL SYSTEM = LIGHT FRAMED WALL SYSTEMS SHEATHED WITH WOOD STRUCTURAL PANELS RATED FOR SHEAR RESISTANCE
  - RESPONSE MODIFICATION FACTOR R = 6
  - DEFLECTION AMPLIFICATION FACTOR CD = 4
  - ANALYSIS PROCEDURE = EQUIVALENT LATERAL FORCE PROCEDURE
- DEFLECTION CRITERIA
  - ROOF (LIVE) = L/360
  - ROOF (TOTAL) = L/240
- FLOOR LIVE LOAD
  - OFFICE AREA (EXIST.) = 50psf
  - NEW OPEN OFFICE = 80psf
- FLOOR DEAD LOAD = 15psf

**FOUNDATION NOTES:**

- FOUNDATION DESIGNED BASED ON AN ASSUMED MAXIMUM ALLOWABLE BEARING PRESSURE OF 2500 PSF. IT IS THE RESPONSIBILITY OF THE OWNER/CONTRACTOR TO VERIFY THE SOIL BEARING CAPACITY. NOTIFY THE ENGINEER AND STOP WORK IF CLAY, WET SOILS, FILL, OR OTHER DELETERIOUS MATERIALS ARE ENCOUNTERED.
- DESIGN OF EXTERIOR FOUNDATIONS IS BASED ON A FROST DEPTH OF 4'-6" BELOW FINISHED GRADE.
- NO HORIZONTAL JOINT WILL BE PERMITTED IN THE WALLS UNLESS NOTED OTHERWISE.
- PROVIDE CONTROL JOINTS IN SLABS AT 12 FT O.C. MAX.
- EXCAVATING AND BACK FILLING AT NEW FOUNDATION WALLS SHALL BE DONE SUCH THAT SYMMETRICAL LOADING SHALL BE MAINTAINED ON BOTH SIDES. WHERE DESIGN CONDITIONS REQUIRE DIFFERENT BACK FILL HEIGHTS, WALLS SHALL BE FIRMLY SHORED IN POSITION, AND SHORES SHALL REMAIN UNTIL FLOORS ARE PLACED AND PROPERLY SET, TO PROVIDE FULL SUPPORT.
- CONTRACTOR SHALL BE RESPONSIBLE FOR DESIGN, INSTALLATION, AND FINAL CLEARANCE OF ANY NEEDLING, SHORING, OR BRACING OF EXISTING STRUCTURES.
- VAPOR BARRIER BENEATH SLAB SHALL BE 10 MIL "STEGO WRAP" OR APPROVED EQUAL. POLYETHYLENE IS NOT AN ALTERNATE PRODUCT.

**CONCRETE NOTES:**

- ALL CONCRETE WORK SHALL CONFORM TO ACI-318.
- ALL CONCRETE EXCEPT INTERIOR AND EXTERIOR SLABS ON GROUND SHALL BE 3000 PSI AT 28 DAYS AND A MAXIMUM SLUMP OF 4". ALL INTERIOR AND EXTERIOR SLABS ON GROUND SHALL BE 4000 PSI AT 28 DAYS AND A MAXIMUM SLUMP OF 4". MAXIMUM SIZE AGGREGATE SHALL BE 3/4" (WALL/FOOTINGS) AND 3/8" (SLABS ON GROUND).
- CONCRETE TO REMAIN EXPOSED TO WEATHER SHALL BE AIR ENTRAINED. NO AIR ENTRAINMENT IN INTERIOR CONCRETE SLABS.
- CONCRETE SHALL NOT BE PLACED IN WATER OR ON FROZEN GROUND.
- REINFORCING BARS SHALL CONFORM TO ASTM A615 GRADE 60. DEFORMED BARS SHALL BE DETAILED AND FABRICATED IN ACCORDANCE TO ACI-318 LATEST EDITION, AND PLACED IN ACCORDANCE WITH ACI-318.
- SPLICES OF REINFORCING BARS SHALL BE IN ACCORDANCE WITH ACI-318.
- ANCHOR RODS SHALL CONFORM TO ASTM F1554-36.
- HOOKS NOT DIMENSIONED SHALL BE ACI STANDARD HOOKS.
- CONCRETE COVER OVER REINFORCEMENT SHALL BE AS FOLLOWS:
 

CONCRETE CAST AGAINST EARTH	= 3"
CONCRETE EXPOSED TO EARTH OR WEATHER	= 1 1/2"
CONCRETE NOT EXPOSED TO EARTH OR WEATHER	= 3/4"
- PROVIDE CONTROL JOINTS IN STRUCTURAL SLAB AT 12'-0" ON CENTER MAX.
- PROPORTION DESIGN MIXES TO PROVIDE CONCRETE FOR INTERIOR AND EXTERIOR SLABS-ON-GRADE WITH THE FOLLOWING PROPERTIES:
  - STRENGTH: 4000psi @ 28 DAYS, 3/4" AGGREGATE
  - W/C RATIO: 0.46
  - ENTRAINED AIR: 6% ±1%
  - SLUMP: 3" ± 1"

**LIGHT GAGE METAL STUD NOTES - GENERAL:**

- Deflection Criteria For Studs: Standard Per IBC - Unless Job Specifications Are More Stringent.  
Walls: L/360 At Non-Masonry Backup
- Metal Stud Design Based On Dietrich Industries Standards. See Enclosed Information On Member Properties.  
Calculations Based On Min. Fy = 33 ksi for all materials (Unless noted)
- Fasteners: Unless Noted Otherwise: Use Only The Following Fasteners:
  - P.A.F. = 0.145" dia. Powder Actuated Fastener (Hilti)  
Use "X-U32P8" At 1 1/4" Length For Attachment To Concrete  
Use "X-U16P8" At 3/4" Length For Attachment To Steel
  - Use #10-16 Screws Typical For All Light Gage Steel To Light Gage Steel Connections.  
Screw Design Values Are Based On AISI/LGSEA Values.  
PAFs Based On AISI/LGSEA Values.

**GENERAL COLD FORMED METAL FRAMING NOTES:**

**INSTALLATION:**

- Installation shall be in accordance w/ Dietrich's printed instructions and recommendations.
- Temporary bracing is the responsibility of the contractor. Do not remove bracing until work is permanently stabilized.
- Cutting of steel framing members may be accomplished with a saw or shear. Torch cutting of load bearing members is permitted only if ends are ground smooth.

**MATERIALS:**

- All light gage framing members shall be manufactured from steel that meets the requirements of A.I.S.I. specifications, latest edition.
- Framing components shall be galvanized per ASTM A653, minimum G60 coating.

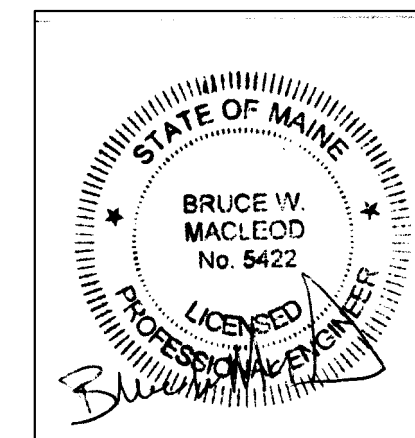
**CONNECTIONS:**

- Fastener penetration through joined materials shall not be less than three exposed threads. Minimum spacing and edge distance of screw fasteners shall not be less than 3/8".
- All clip angles shall match stud gage unless otherwise noted.

**LOAD BEARING MEMBERS: (JOISTS, RAFTERS, AND AXIALLY LOADED STUDS)**

- Both flanges of studs must be attached to track members @ top & bottom.
- All axially loaded members shall be aligned vertically to allow for full transfer of loads down to the foundation.
- Load bearing members shall bear squarely and tightly in their tracks. Provide at least 10 inches of unpunCHED steel at bearing points.
- Stud lateral bridging requirements for walls subject to axial loading - bridging may be provided by any one of the following:
  - 1 1/2" cold rolled U-channel attached w/ clips and No. 6 screws (spacing as required) (6" wide studs, max.)
  - 2" x 20 gage flat strapping applied to both stud faces with one bay of solid blocking every 10' (spacing as required).
  - spazzer bar 5400 bridging running through studs then twist locking (spacing as required) (6" wide studs, max.)
- Joists and Rafters shall have Bridging as Noted on the Plans or Maximum of 8ft oc.

ISSUED 6/14/17



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Form Systems Addition		
200 Riverside Industrial Parkway Portland, Maine		
TITLE: Notes		
DATE: 6/12/17	DRAWN BY: BIM	DRAWING NUMBER:
SCALE: as noted	PROJ NO: 2017-048	S-1