

1-3-13

Lincoln/Haney Engineering Associates, Inc. 6 Federal Street Brunswick, Maine 04011 1-207-729-1061	309 MARGINAL WAY PORTLAND, MAINE	Drawn By: EEF	Dwg. No. S1
	PLAN, SECTION & DETAIL	Checked by: PLL	Date: 1-3-13
		Project No. 2012.134	

STRUCTURAL NOTES

DESIGN LOADS (Reference Code: 2009 International Building Code)

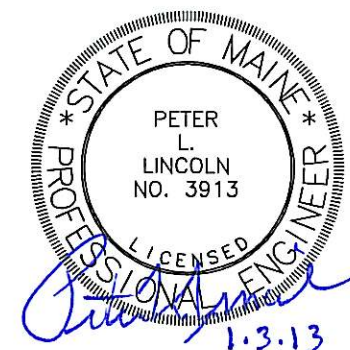
Roof Dead Load	10 psf
Roof Live Load (non-drift area)	50 psf
Roof Live Load (drift area)	126 psf (max)
Wall load	120 psf per foot of wall height

GENERAL NOTES

1. It shall be the responsibility of the Contractor to determine the erection procedure and sequence and provide adequate shoring as required to temporarily support wall loads above the new opening during construction.
2. The Contractor shall verify all dimensions and conditions at the site and report any discrepancies to the Engineer.
3. The Contractor shall be responsible for all shoring, wedging, cutting and patching required for the completion of all phases of the work. Cutting shall be done in a careful manner to avoid damage to adjacent construction which is to remain.
4. Although the Contractor is ultimately responsible for determining the construction sequence and the method of shoring, the following recommendations are offered for consideration:
 - a. Before erecting temporary shoring below existing joists that are supported by the existing CMU wall it is recommended that snow be removed from these joists.
 - b. Temporarily support existing steel joists at the low roof by installing shoring below the bottom chord panel points that are closest to the CMU wall.
 - c. Cut a vertical slot in the existing CMU wall and erect the new steel column.
 - d. Cut a horizontal slot approx. 6" deep and 18" high in the side of the existing CMU wall that is below the high roof area and erect one of the new steel beams.
 - e. Transfer load from the existing CMU wall to the new steel beam by driving steel shims between the top of the new beams and the masonry directly above. During this process monitor the shoring on the far side of the wall and adjust as required to maintain support of the existing steel joists.
 - f. Cut a horizontal slot approx. in the opposite side of the existing CMU and erect the other new steel beam.
 - g. Transfer load from the existing CMU wall to the second new steel beam by driving steel shims between the top of the new beams and the masonry directly above. Adjust shims on the far side of the wall as required to maintain tightness. During the shimming operation keep the shoring "snug" to prevent it from falling but realize that the purpose of the shimming process is to transfer load from the shoring and the CMU wall to the new beams. The estimated dead load deflection of the new beams is 1/4" based on the weight of the roof structure, CMU wall and new beams.
 - h. After final shimming has been completed tack weld the shims in place and provide non-shrink grout to fully fill the space between the top flanges of the new beams and the underside of the 12" CMU above.

STEEL

1. All structural steel shall be detailed, fabricated and erected in accordance with the latest edition of the AISC "Specification for the Design, Fabrication and Erection of Structural Steel for Buildings".
2. Hot rolled steel beams and columns shall conform to ASTM A572, Grade 50. Plates shall conform to ASTM A36.
3. Bolted connections shall be made with 3/4" diameter A325 bolts. Field welding will not be permitted unless specifically indicated on the drawings. Welds shall be made with E70XX electrodes.
4. Fireproof welding blankets shall be provided during field welding operations to protect all adjacent combustible materials and materials that could be damaged by hot weld metal.
5. Fire extinguishers shall be readily accessible during field welding operations.



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