

13-0171 Elevator Addition
 Lancaster St.
 Portland, ME

DESIGN LIVE LOADS: 2009 IBC/MUEBC, U.O.N.
 * Snow 60 psf(Pg)
 * Wind 100 mph, exp B, 3 second gust
 * Main Level Floors 100 psf
 * Upper Level 80 psf

CONCRETE AND REINFORCEMENT:

- * Concrete shall conform to applicable provisions of ACI-301 and 318. Minimum 28 day compressive strength (f'c) as follows:
 Walls/Grade Beams: 4,000 psi w/4-6% air entrainment
 Slabs: 4,500 psi w/4-6% air entrainment and fiber mesh
- * Cement Type: 1/II
- * Deformed reinforcement: ASTM A615 grade 60, except bars specified to be field-bent, stirrups, and ties which shall be grade 40.
- * Fibremesh: 100% virgin polypropylene, fibrillated fibers as manufactured by Fibremesh Co. per ASTM C-1116 type 111 4.1.3 and ASTM C-1116 performance level one, 1.5 lb. per cubic yard.
- * Welded Wire Fabric (WWF): ASTM A185. See also plan.
- * Typical minimum foundation reinforcing: 2 #6 top and bottom, (except as noted) continuous at corners and steps.
- * Reinforcement shall be fabricated and placed per ACI Manual of Standard Practice (ACI-315). At splices, lap bars 50 diameters unless noted otherwise.
- * Minimum 2 #6 around all four sides of all openings, extend min. 2'-0" beyond openings.
- * Concrete cover over reinforcing: 1 1/2" for concrete placed against forms; 3" for concrete placed against earth. See also drawings.
- * In continuous members, splice top bars at mid span and bottom bars over supports.
- * Keep reinforcement clean and free of dirt, oil, and scale. Oil forms prior to placing reinforcement.

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.

MASONRY:

- * Concrete masonry units (CMU) ASTM C90-N-1. Minimum compressive strength 1,900 psi based on average net area. **USE UL LISTED FIRE RATED UNITS, SEE ARCH.**
 - * Mortar: Type "S" or "N".
 - * Grout: 2000 psi at 28 days. Vibrate to consolidate.
 - * Reinforcement: Standard Dur-O-Wall at 16" o.c. in CMU walls with 16" laps.
- Deformed reinforcement shall be ASTM A615 as specified for concrete unless otherwise noted. Laps shall be min. 48 diameters.
- If High Lift Grouting is used, cleanout holes shall be provided and bar-positioners shall be located at bottom and at 120 diameter maximum spacing.
- Horizontal deformed reinforcement shall be placed in precut knock-out bond beam blocks.

LOOSE LINTELS:

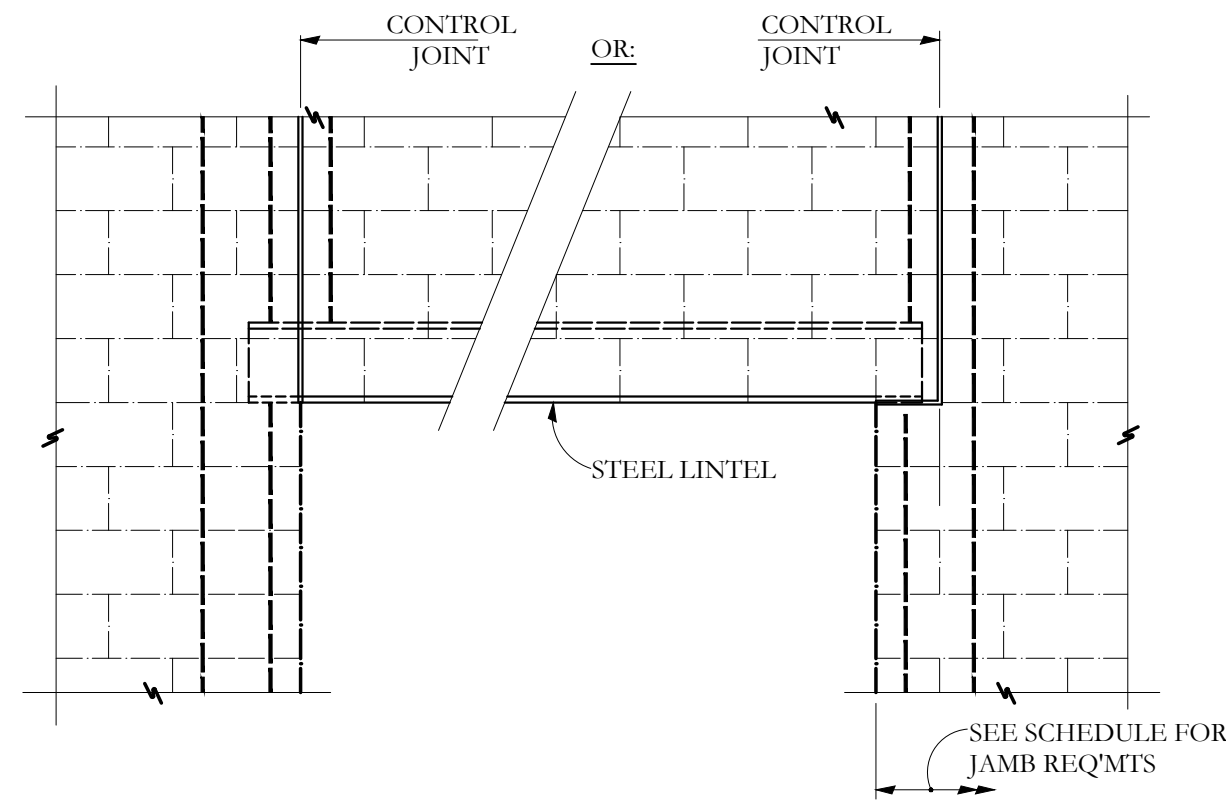
- * Minimum lintel except as noted, one angle for each 4" of wall thickness to bear 6" each end:
 Openings to 4'-0" L 3-1/2 x 3-1/2 x 1/4
 4'-0 to 5'-4" L 5 x 3-1/2 x 1/4
 5'-5 to 6'-6" L 6 x 3-1/2 x 5/16

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, structural steel, 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.

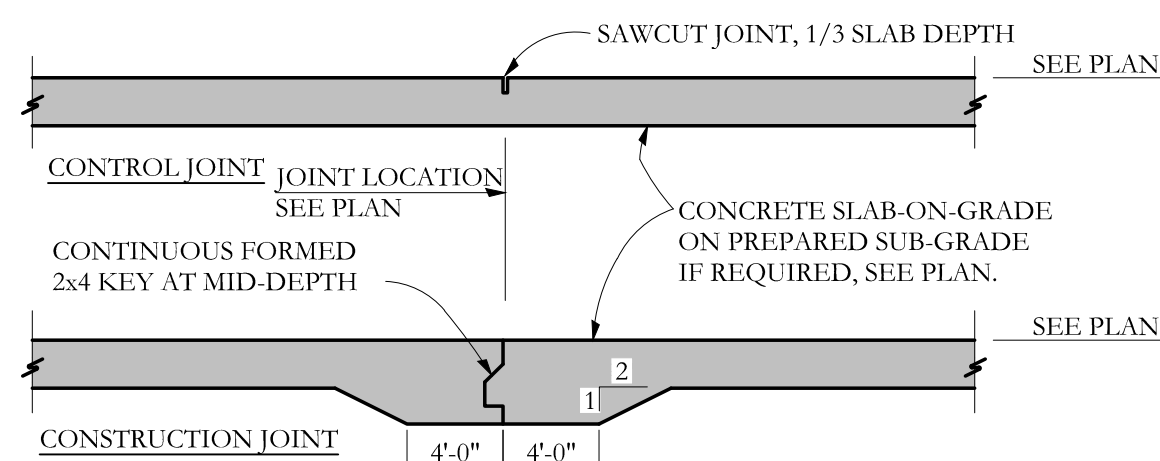


| OPENING SIZE | LINTEL SIZE | JAMB ANCHORS | JAMB EXTENSION | ANCHORS |
|-----------------|--------------------------------|-----------------|----------------|-------------------|
| LESS THAN 4'-0" | C6 x 8.2 OR L3 1/2x 3 1/2x 1/4 | (1) 5/8" O x 6" | 6" | 5/8" O x 6" @ 12" |
| 4'-1 TO 5'-4" | C8 x 11.5 OR L5x 3 1/2 x 1/4 | (2) 5/8" O x 6" | 6" | 5/8" O x 6" @ 12" |
| 5'-5 TO 6'-6" | C8 x 11.5 OR L6x 3 1/2 x 5/16 | (2) 5/8" O x 6" | 10" | 5/8" O x 6" @ 12" |

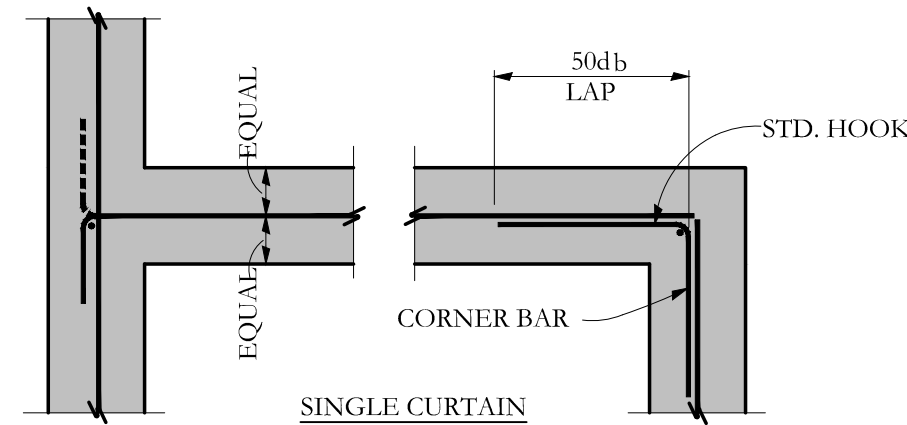
TYPICAL LOOSE LINTEL INSTALLATION
 NO SCALE

Structural Drawing Index

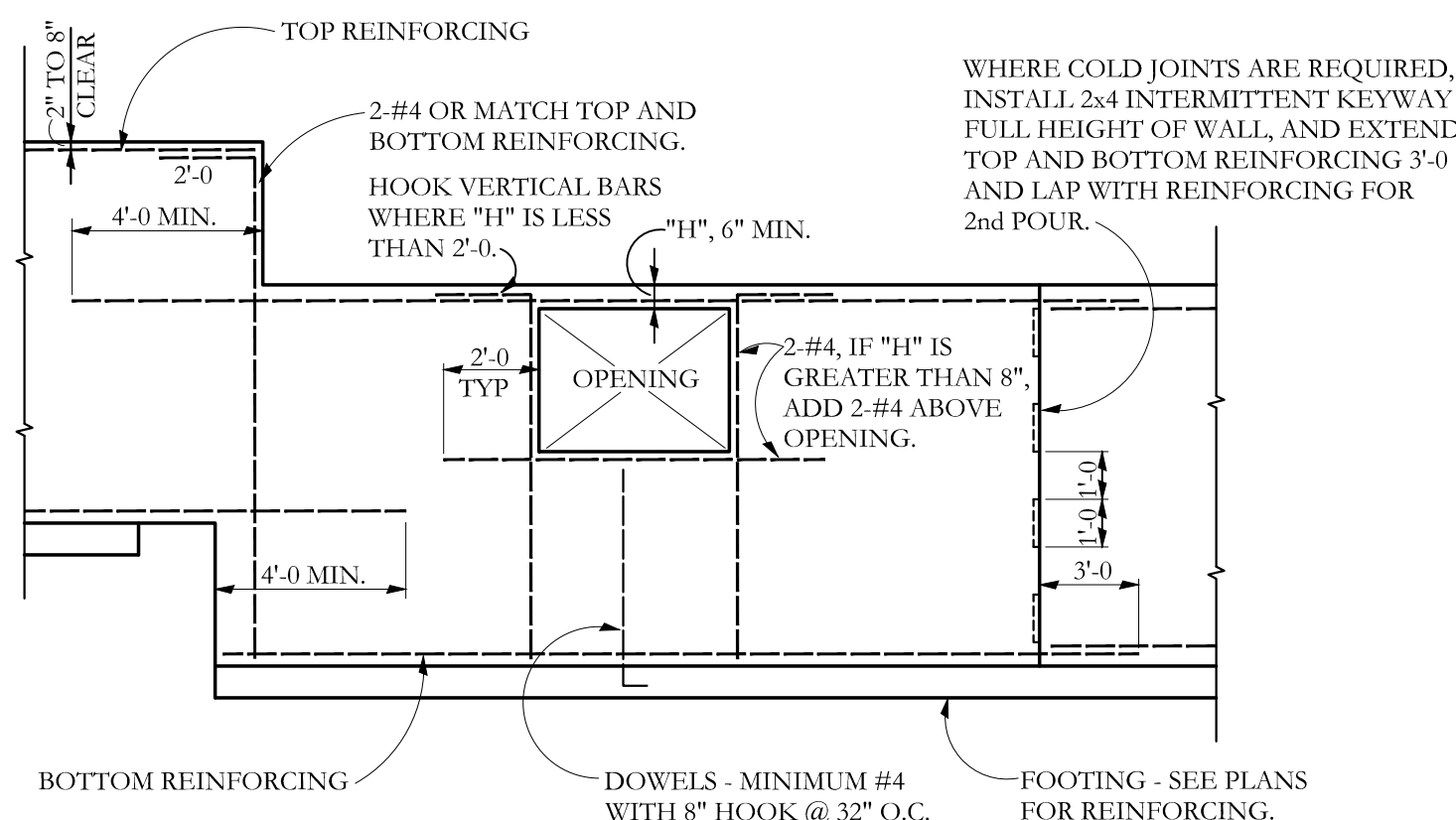
| | |
|------|--------------------------|
| S1.0 | General Notes, Etc. |
| S1.1 | Foundation / Shaft Plans |
| S1.2 | Roof Plans |
| S2.1 | Sections |



TYPICAL JOINTS AT INTERIOR SLAB-ON-GRADE



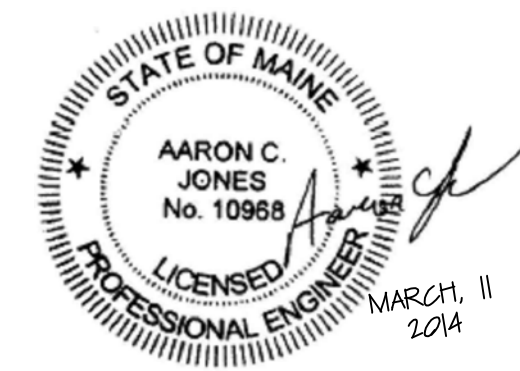
TYPICAL CONCRETE WALL INTERSECTIONS



TYPICAL REINFORCING AT STEPS AND OPENINGS
 NO SCALE

ABBREVIATIONS KEY

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



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NEW ELEVATOR AND LOBBY
 200 LANCASTER STREET
 PORTLAND, MAINE



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REVISIONS:

DATE: 11 MARCH 2014
 PROJECT No.
 DRAWN BY: WRMc
 CHECKED BY: ACJ
 SCALE: AS NOTED
 SHEET TITLE:
 GENERAL NOTES / INDEX

S1.0