

GENERAL:

- 1. Structural drawings shall be used in conjunction with the architectural, mechanical, electrical and shop drawings, and specifications.
2. Unless otherwise noted, sections, details, notes, materials, and methods shown on any drawings are to be considered typical for all similar conditions.
3. In the event of a conflict between plans, specifications, and details, the Structural Engineer shall be notified immediately for clarification.
4. All dimensions, elevations, and conditions must be verified in the field by the Contractor. Any discrepancies shall be brought to the attention of the Structural Engineer before proceeding with the affected portion of the work.
5. The structure has been designed to be self-supporting and stable after the work shown on these drawings has been completed.
6. The Contractor shall provide and maintain shoring and bracing supports as required to preserve stability and prevent movement, settlement, or collapse of adjacent construction to remain.
7. Shop drawings for reinforcing steel (including accessories), and wood framing shall be submitted to the Structural Engineer.
8. Mechanical equipment weights used in the design of supporting elements are indicated on the drawings.
9. Loads, openings, and structure relating to other non-structural disciplines are shown for bidding purposes only.
10. These plans were prepared under the supervision of a licensed professional engineer.
11. TFMoran Inc. assumes no liability for work performed without an acceptable program of testing and inspection as approved by the Engineer of Record.
12. Reproduction of structural drawings for shop drawings is not permitted.
13. All work shall comply with the building codes referenced on these drawings.
14. Do not scale drawings. Contact the Architect or Structural Engineer for dimensions not specifically shown.

CODE:

- 1. Maine Uniform Building Code, which is the 2009 International Building Code, as amended, altered, or deleted by the provisions of the 2015 Amendments.

DESIGN LIVE LOADS:

Table with 2 columns: Description and Value. Includes sections for UNIFORM FLOOR LIVE LOADS, CONCENTRATED FLOOR LOADS, ROOF SNOW LOAD, WIND DESIGN DATA, and EARTHQUAKE DESIGN DATA.

FOUNDATIONS:

- 1. Foundations have been designed to consist of continuous and spread footings bearing on inorganic, undisturbed natural soil or compacted structural fill having an assumed allowable bearing pressure of 1500 pounds per square foot.
2. Structural fill shall be granular material meeting the following gradation requirements:
3. Unless otherwise noted, foundations shall be centered under supported members.
4. The bottom of perimeter and exterior foundations not on solid rock shall be at least -5'-0" below finished grade.
5. Keep foundation excavations free of water at all times.
6. Bottom of excavations shall be reviewed by the Structural or Geotechnical Engineer prior to the placement of concrete.
7. Provide formwork for all footings, walls, and piers.
8. Place backfill simultaneously on both sides of foundation walls to the grades indicated.
9. Provide 3/4" maximum aggregate within 12" of slabs on grade.
10. The bottom three (3) inches of footing excavations shall be finished by hand shovel.
11. Use lean concrete (fc = 1,500 psi) or structural fill for over-excavation of footings.
12. Refer to site, plumbing, mechanical, and electrical drawings for location of pipes and underdrab conduit.
13. Submittals to the Structural Engineer are required for structural fill material.

CONCRETE:

- 1. All concrete work shall conform to the requirements of ACI 301 "Specifications for Structural Concrete" and ACI 318 "Building Code Requirements for Structural Concrete".
2. Concrete shall be a mix designed for ultimate strength in accordance with ACI 211.1 to achieve the following minimum 28-day compressive strengths:
3. Concrete shall conform to the following:
4. Concrete shall not be cast in water or on frozen ground.
5. Mechanically vibrate and consolidate freshly cast concrete around reinforcing bars and against form surfaced to prevent the formation of air or stone pockets, honeycombing, pitting, or planes of weakness.
6. Cure and protect slabs for not less than seven (7) days with a curing compound conforming to ASTM C309 compatible with any intended floor overlay.
7. Top of foundation walls shall be smooth and level.
8. Protect concrete during periods of cold weather concrete as outlined in ACI 308.1 "Standard Specification for Cold Weather Concreting".
9. Horizontal construction joints shall be as indicated on the drawings.
10. Exposed concrete shall be rubbed IMMEDIATELY after removal of forms.
11. Openings in concrete walls shall be located, sized, and reinforced (with the exception of small openings and/or sleeves of a size that will not displace or interrupt the continuity of the reinforcing) as shown on respective details.
12. Column or pier dowels shall be set by template.
13. No pipe shall pass through concrete without permission from the Structural Engineer.
14. Unless otherwise noted, keys shall be 2"x4" with beveled sides.
15. Do not backfill foundation walls until the concrete has been in place for seven (7) days and attained 75% of its design compressive strength.
16. Submittals to the Structural Engineer are required for concrete mix designs including cementitious materials, aggregates, and admixtures.

REINFORCING STEEL:

- 1. Reinforcing steel shall be deformed bars, free from loose rust and scale, and conforming to ASTM A615, Grade 60.
2. Welded wire fabric shall conform to ASTM A185. Lap two squares at joints and tie at 3'-0" o.c.
3. Welded wire fabric shall be supported on continuous steel wire chairs spaced at 24" o.c. on grade.
4. Clear concrete cover over bars shall be as follows unless otherwise noted (see ACI 318 for conditions not noted):
5. Accessories shall have upturned legs and be plastic-dipped after fabrication.
6. Lap reinforcing to develop the full tension capacity of the (smaller) bar.
7. No bars shall be cut or omitted in the field because of sleeves, duct openings or recesses. Bars may be moved aside without change in level with the prior approval of the Structural Engineer.

WOOD:

- 1. Work shall be in accordance with the American Wood Council, ANSI/AF&PA, "National Design Specification for Wood Construction 2001 (NDS)" including "Design Values for Wood Construction", National Forest Products Association.
2. New wood for structural use shall have a moisture content as specified in the "National Design Specification for Wood Construction."
3. Wood construction shall conform to IBC 2003 Chapter 23 and Section 2308 "Conventional Light-frame Construction."
4. Framing for walls and joists shall be Spruce-Pine-Fir (SPF) No. 1/ No. 2 or better.
5. Sheathing panels shall be marked with the American Plywood Association (APA) trademark and shall meet the latest U.S. Product Standard PS 1 or APA PRP-108 Performance Standards.
6. All wall sheathing panels shall be 1/2" thick 32/16 (minimum), APA Rated and all sheathing panel edges shall be blocked, unless otherwise noted.
7. All roof sheathing panels shall be 5/8" thick 40/20 (minimum), C-D Exterior grade, APA rated Exposure 1 meeting DOC PS1 or PS2, unless otherwise noted.
8. Wood to steel and wood to wood bolted connectors shall be made with ASTM A307 bolts with flat washers.
9. See "WOOD FASTENING SCHEDULE" this sheet for minimum fastening requirements.
10. Wood in contact with concrete or masonry shall be pressure treated (P.T.), meeting AWPA U1 standard.
11. The lateral bracing system includes plywood wall and roof sheathing.
12. Laminated Veneer Lumber (LVL) members shall be 2.0E Trusjoist Microllam LVL as manufactured by Weyerhaeuser or approved equivalent.
13. Parallel Strand Lumber (PSL) members shall be 1.8E or 2.0E Trusjoist Parallam PSL as manufactured by Weyerhaeuser or approved equivalent.
14. Laminated Strand Lumber (LSL) members shall be 1.3E Trusjoist TimberStrand LSL as manufactured by Weyerhaeuser or approved equivalent.
15. Provide lateral support at all bearing points and along compression edges at intervals of 24" o.c. or closer.
16. Minimum section width = 1 3/4", 3 1/2", 5 1/4", and 7" members may be combinations of 1 3/4" members.
17. Wood Construction Connectors shall be manufactured by Simpson Strong-Tie Co., Inc. and installed in accordance with the manufacturers recommendations.
18. All wood fasteners and hangers in contact with P.T. framing are to be stainless steel or hot dipped galvanized (min 2.0 oz/Rt*2).

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PRE-ENGINEERED WOOD TRUSSES:

- 1. All pre-engineered wood trusses shall conform to ANSI/TPI-1-2002 "National Design Standards for Metal Plate Connected Wood Truss Construction."
2. The manufacturer of the pre-engineered trusses shall be a Truss Plate Institute (TPI) certified plant.
3. The contractor shall ensure proper handling, bracing, and lateral restraint in accordance with the manufacturer's recommendations.
4. Roof trusses shall be designed for the following uniform loads with 5 1/2" or 3 1/2" max. bearing.
5. Pre-engineered roof trusses to be approved by the Structural Engineer.
6. The contractor shall verify the location of all vents, stacks, risers, drains, etc. before trusses are fixed in place.
7. All trusses shall have hurricane clips installed at each end of each truss.
8. All truss to truss connection designs are the responsibility of the truss manufacturer.
9. All temporary and permanent truss bracing (individual and overall) is the responsibility of the truss designer, u.n.o.

STRUCTURAL STEEL:

- 1. Fabricate and erect structural steel in accordance with the 2005 "Specification for Structural Steel for Buildings" and the "Code of Standard Practice" of AISC.
2. Structural steel wide flange shapes shall conform to ASTM A992.
3. Do not splice structural steel members without written approval of the Structural Engineer.
4. Bolted connections shall be made with three-quarter inch diameter high strength, ASTM A325-N bolts.
5. Anchor bolts shall be ASTM F1554 Gr. 36 headed bolts of the diameters and dimensions detailed.
6. Welding electrodes shall conform to AWS A5.1 E70XX series with proper rod to produce optimum weld (low hydrogen).
7. Unless otherwise noted, bolted connections with slotted holes shall be field-welded with one-quarter inch fillet welds after final field adjustment.
8. Provide 3/8" minimum fitted stiffener plates each side at beams' web framing over columns and at beams supporting columns above.
9. Provide 1/4" thick leveling plate under all column base plates unless otherwise noted.
10. Lintels for exterior masonry and structural steel exposed to weather shall be hot-dip galvanized according to ASTM A123.
11. Steel Primer: Standard Alkyd Primer applied at 2.5 - 3.5 mil DFT shall be used as the standard of quality and performance.
12. The Steel fabricator is responsible for the design and detailing of all connections including moment connections and beam and/or column stiffeners and doublers if required.

STRUCTURAL TESTS AND INSPECTIONS:

- 1. Structural Tests, Inspections, and Reports for concrete construction, steel construction, masonry construction, soils, pier foundations, and other applicable construction shall be promptly submitted in writing to the Structural Engineer and Contractor.
2. Tests and Inspections shall be completed in accordance with IBC 2003, Section 1704 Special Inspections.
3. Remove and replace work where test results indicate that it does not comply with specified requirements.
4. Structural Observations: Notify engineer of progress of construction for coordination of site observations per section 1702 of the International Building Code.

ABBREVIATIONS

AB = ANCHOR BOLT
AFF = ABOVE FINISH FLOOR
ALUM. = ALUMINUM
ALT. = ALTERNATE
ARCH. = ARCHITECTURAL
B/V = BOTTOM OF ...
BM. = BEAM
B.O. = BOTTOM OF ...
BOT. = BOTTOM
BLDG. = BUILDING
CFS = COLD FORMED STEEL
CJ = CONTROL JOINT
CL. = CENTERLINE
CLR. = CLEAR
CMU = CONCRETE MASONRY UNIT
COL. = COLUMN
CONC. = CONCRETE
CONST. = CONSTRUCTION
CONT. = CONTINUOUS
COORD. = COORDINATE

Ø, DIA. = DIAMETER
DIM. = DIMENSION
DIST. = DISTANCE
DN. = DOWN
DWGS. = DRAWINGS
EA. = EACH
EF = EACH FACE
EL. = ELEVATION
ELEV. = ELEVATOR
EMBED. = EMBEDMENT
E.O.D. = EDGE OF DECK
E.O.S. = EDGE OF SLAB
EQ. = EQUAL
EW = EACH WAY
EX. = EXISTING
EXP. = EXPANSION
EXT. = EXTERIOR

FFE = FINISHED FLOOR ELEVATION
FIN. = FINISHED
FLR. = FLOOR
FNDN. = FOUNDATION
FT = FEET
FTG = FOOTING

GA. = GAUGE
GC = GENERAL CONTRACTOR
GALV. = GALVANIZED

HDG = HOT DIPPED GALVANIZED
HORIZ. = HORIZONTAL
HSS = HOLLOW STRUCTURAL SECTION

IF = INSIDE FACE
IN. = INCH
INT. = INTERIOR
K = KIP

LB = POUND
LGM = LIGHT GAUGE METAL
LLH = LONG LEG HORIZONTAL
LLV = LONG LEG VERTICAL

MAX. = MAXIMUM
MIN. = MINIMUM
MO = MASONRY OPENING
MPH = MILES PER HOUR
MTL. = METAL

#, No. = NUMBER
N.T.S. = NOT TO SCALE

O.C. = ON CENTER
OF = OUTSIDE FACE
OPNG. = OPENING

PL. = PLATE
PLF = POUNDS PER LINEAR FOOT
PSF = POUNDS PER SQUARE FOOT
PSI = POUNDS PER SQUARE INCH
P.T. = PRESSURE TREATED

RAD. = RADIUS
REINF. = REINFORCE(D)Y REINFORCING
REQ'D = REQUIRED
REV. = REVISION
RO = ROUGH OPENING

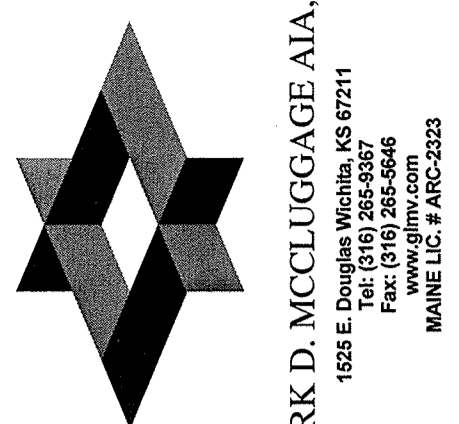
SCHD. = SCHEDULE
SIM. = SIMILAR
SF = SQUARE FEET
SPEC. = SPECIFICATION
STD. = STANDARD
STIFF. = STIFFENER(S)/ STIFFENED
STL. = STEEL

T/ = TOP OF ...
TH. = THICK
T.O. = TOP OF ...
TYP. = TYPICAL

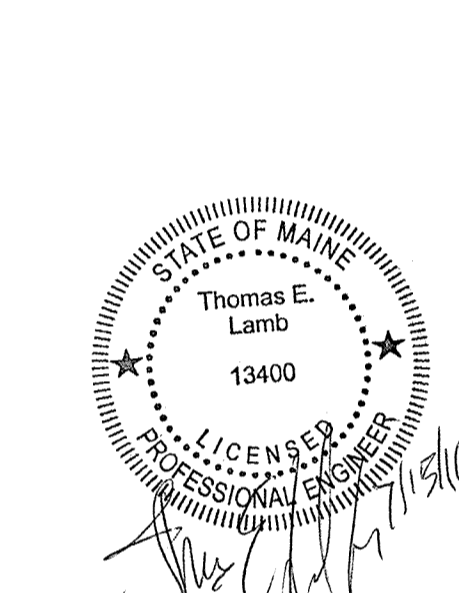
U.N.O. = UNLESS NOTED OTHERWISE

VB = VAPOR BARRIER
VERT. = VERTICAL
V.I.F. = VERIFY IN FIELD

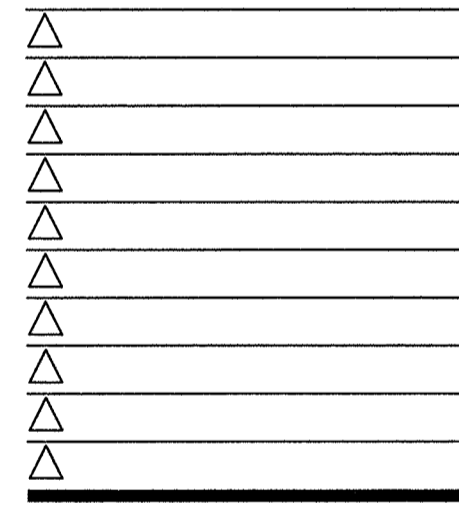
W/ = WITH
W/O = WITHOUT
WS = WATERSTOP
WWW/WWW = WELDED WIRE FABRIC/ MESH



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CONTRACT DATE: 07.15.2016
BUILDING TYPE: CONVERSION
PLAN VERSION: FEBRUARY 2015
SITE NUMBER: XXX-XXX
STORE NUMBER: XXXXX

TACO BELL
1363 WASHINGTON AVE.
PORTLAND, ME



CONVERSION
LIVE MAS - MEDIUM40

GENERAL STRUCTURAL NOTES

S0.1

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