GENERAL NOTES

1. CONSULT ALL PROJECT DRAWINGS FOR LOCATIONS AND DIMENSIONS OF OPENINGS, CHASES, INSERTS, REGLETS, SLEEVES, DEPRESSIONS, AND OTHER DETAILS NOT SHOWN ON STRUCTURAL DRAWINGS.
2. 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.
3. THE CONTRACTOR IS RESPONSIBLE FOR THE STABILITY OF THE STRUCTURE DURING ALL PHASES OF ERECTION AND CONSTRUCTION.
4. DETAILS SHOWN AS "TYPICAL" APPLY TO ALL SIMILAR CONDITIONS.
5. COORDINATION FOR THE PROPER INSTALLATION OF FINISHES, ELECTRICAL, MECHANICAL AND ALL OTHER 'NON-STRUCTURAL' ELEMENTS IN THE BUILDING IS THE RESPONSIBILITY OF OTHERS. WATERPROOFING AND INSULATION DETAILS SHALL BE PROVIDED BY OTHERS. UNLESS SPECIFICALLY DIMENSIONED ON THE DRAWINGS, G.C. COORDINATE THE PLACEMENT OF STRUCTURAL MEMBERS IN CONFORMANCE WITH THE ARCHITECTURAL DRAWINGS AND/OR APPLICABLE CODE REQUIREMENTS.
6. GC COORDINATE INSTALLATION OF FINISH CONTROL JOINTS WITH STRUCTURAL COMPONENTS.
7. DESIGN AND DETAILING OF ALL MASONRY IS THE RESPONSIBILITY OF OTHERS UNLESS SPECIFICALLY NOTED ON THE DRAWINGS.
8. IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO ADEQUATELY PROTECT ALL MATERIALS AND ASSEMBLIES FROM WEATHER DURING CONSTRUCTION. G.C. VERIFY MOISTURE CONTENT OF ALL SUB BASE MATERIALS BEFORE INSTALLATION OF FINISHES; INSTALL ALL FINISHES PER MANUFACTURERS' INSTRUCTIONS.
9. DESIGN OF STAIR ASSEMBLIES, HANDRAILS, GUARDRAILS AND SIMILAR ASSEMBLIES AND THE ADEQUACY OF THE SUPPORTING STRUCTURE IS THE RESPONSIBILITY OF OTHERS UNLESS DETAILED WITHIN THE STRUCTURAL DRAWINGS.

STRUCTURAL DESIGN DATA:

1. REFERENCE CODES:
   - INTERNATIONAL BUILDING CODE (2009)
   - INTERNATIONAL RESIDENTIAL CODE FOR ONE- AND TWO-FAMILY DWELLINGS (2009)
   - ASCE 7-05 MINIMUM DESIGN LOADS FOR BUILDINGS
   - ROOF TRUSS DESIGN SHALL INCLUDE UNBALANCED LOADING
2. FLOOR LIVE LOADS
   - LIVE = 40 PSF
   - SLEEPING ROOMS = 30 PSF
   - EXTERIOR BALCONIES = 40 PSF
   - STORAGE ATTICS = 20 PSF
   - DEAD (3/4" WOOD FINISH) = 15 PSF*
   - DEAD (MAX 1/2" THIN SET TILE) = 25 PSF*
   - * ADD 25 PSF FOR 1.5" CONC TOPPING
   - MAX ALLOWABLE TOTAL LOAD DEFLECTION:
     - WOOD FLOOR = LESSER OF 5/8" OR L/480
     - TILE OR STONE FLOOR = L/720
3. TRUSS DESIGN DEAD LOADS
   - TOP CHORD DEAD LOAD = 15 PSF
   - BOTTOM CHORD DEAD LOAD = 10 PSF
4. ROOF SNOW LOAD DATA:
   - GROUND SNOW LOAD (Pg): 60 PSF
   - FLAT ROOF SNOW LOAD (Pf): 46.2 PSF
   - EXPOSURE FACTOR (Ce): 1.0
   - IMPORTANCE FACTOR (I): 1.0
   - THERMAL FACTOR (Ct) = 1.1
5. WIND DESIGN DATA:
   - BASIC WIND SPEED: 100 MPH (3-SECOND GUST)
   - IMPORTANCE FACTOR: 1.0
   - OCCUPANCY CATEGORY: II
   - EXPOSURE: C
   - INTERNAL PRESSURE COEFFICIENT: +/-0.18
   - COMPONENTS AND CLADDING: 35 PSF
6. CLIMATIC AND GEOGRAPHIC DESIGN DATA:
   - ASSUMED NET ALLOWABLE SOIL BEARING PRESSURE: 2,000 PSF
   - FROST LINE DEPTH = 4'-6"
   - WEATHERING INDEX = SEVERE
   - TERMITE INFESTATION PROBABILITY = NONE TO SLIGHT

SUBMITTALS

CONTRACTOR SHALL SUBMIT COMPLETE SHOP DRAWINGS, INCLUDING:
- ROOF TRUSS CALCULATIONS STAMPED BY AN ENGINEER LICENSED IN MAINE
- ROOF TRUSS ERECTION DRAWINGS
- STRUCTURAL STEEL ERECTION AND FABRICATION DRAWINGS

STRUCTURAL STEEL NOTES

1. STRUCTURAL STEEL FABRICATION, ERECTION, AND CONNECTION DESIGN SHALL CONFORM TO AISC "SPECIFICATION FOR THE DESIGN FABRICATION, AND ERECTION OF STRUCTURAL STEEL" LATEST EDITION, AND THE "CODE OF STANDARD PRACTICE, LATEST EDITION. DESIGN AND DETAIL ALL CONNECTIONS ACCORDING TO AISC.
2. STRUCTURAL STEEL:

   PLATES, CHANNELS, ANGLES: ASTM A36 U.N.O.
   WIDE FLANGE SECTIONS: ASTM A992.
   STRUCTURAL TUBING: ASTM A500 GRADE B46 KSI.
   STUCTURAL PIPE: ASTM A53, GRADE B
3. FIELD CONNECTIONS SHALL BE BOLTED USING 3/4"- DIAMETER ASTM A325N HIGH STRENGTH BOLTS U.N.O. PROVIDE A325 (SC) CONNECTIONS AT ALL MOMENT CONNECTIONS, BRACED FRAMES AND RELIEVING ANGLES.
4. WHERE WELDING IS INDICATED, ALL WELDING SHALL CONFORM TO AWS D1.1-LATEST EDITION. ELECTRODES SHALL BE CONFORM TO AWS A5.1 E70XX
5. DESIGN NON COMPOSITE BEAM CONNECTIONS FOR THE MAXIMUM UNIFORM LOAD CAPACITY OF THE MEMBER.
6. ALL STEEL SHALL BE SHIPPED WITH FABRICATOR'S RUST-INHIBITIVE PRIMER. STEEL PERMANENTLY EXPOSED TO WEATHER (INCLUDING LINTELS FOR EXTERIOR MASONRY) SHALL BE HOT-DIP GALVANIZED PER ASTM A123, UNLESS OTHERWISE NOTED TO BE EPOXY-COATED. PROVIDE VENT HOLES AS REQD IN GALV MEMBERS.
7. ANCHOR BOLTS SHALL BE ASTM A307 HEADED BOLTS OF THE DIAMETERS AND DIMENSIONS DETAILED UNLESS OTHERWISE NOTED ON THE DRAWINGS.
8. COAT ALL COLUMN AND BASE PLATES BELOW SLAB WITH COAL TAR.
9. PROVIDE 3/8" MINIMUM STIFFENER PLATES EACH SIDE OF BEAM WEB AT BEAMS FRAMING OVER COLUMNS AND AT BEAMS SUPPORTING COLUMNS ABOVE.
10. PROVIDE 1/8" THICK LEVELING PLATE UNDER ALL COLUMN BASE PLATES UNLESS OTHERWISE NOTED. LEVELING PLATES SHALL BE SET AND GROUTED PRIOR TO ERECTING COLUMNS PER THE DETAILS SHOWN ON THE DRAWINGS.
11. ALL STEEL POSTS LOCATED WITHIN EXTERIOR FRAMED WALLS REQUIRE 5/8" HOLES THROUGH POST WITHIN 16" OF TOP AND BOTTOM AND 32" O.C. INSTALL 2x STUD TIGHT TO ONE SIDE OF POST WITH 1/2" BOLTS. FASTEN WALL SHEATHING TO EACH STUD WITH TYPICAL EDGE NAILING PATTERN.

LIST OF ABBREVIATIONS

AB	ANCHOR BOLT
ARCH	ARCHITECT
B/FTG	BOTTOM OF FOOTING
BCI	I-JOIST
CJ	CONTROL JOINT
CL	CENTER LINE
CONC	CONCRETE
CMU	CONCRETE MASONRY UNIT
D	DROPPED BEAM
DIA	DIAMETER
DWGS	DRAWINGS
EL	ELEVATION
EF	EACH FACE
EW	EACH WAY
EXIST	EXISTING CONDITION
FTG	CONCRETE FOOTING
HDR	HEADER
HSS	HOLLOW STRUCTURAL STEEL
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LVL	LAMINATED VENEER LUMBER
MIN	MINIMUM
OC	ON CENTER SPACING
PAF	POWDER ACTUATED FASTENER
PL	PLATE
PT	PRESERVATIVE TREATMENT
PSL	PARALLAM
REQD	REQUIRED
RO	ROUGH OPENING
T&B	TOP AND BOTTOM
T/CONC	TOP OF CONCRETE
T/FTG	TOP OF FOOTING
T/WALL	TOP OF WALL
TYP	TYPICAL CONDITION
UNO	UNLESS NOTED OTHERWISE
VIF	VERIFY IN FIELD
W/	WITH

FOUNDATION NOTES

1. FOUNDATIONS SHALL BEAR ON UNDISTURBED NATIVE SOILS HAVING A MINIMUM ALLOWABLE BEARING CAPACITY OF 2,000 PSF OR SHALL BEAR ON COMPACTED STRUCTURAL FILL CONFORMING TO MDOT 703.06 TYPE D GRAVEL ON UNDISTURBED NATIVE SOILS HAVING A MINIMUM ALLOWABLE BEARING CAPACITY OF 2000 PSF. GC NOTIFY ENGINEER IF CLAY SOILS OR LEDGE ARE ENCOUNTERED DURING EXCAVATION AS SPECIAL FOUNDATION DESIGN MAY APPLY.
2. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THE VALIDITY OF THE ASSUMED SUBSURFACE CONDITIONS. TEST BORINGS OR TEST PITS ARE RECOMMENDED TO ASSIST THE CONTRACTOR DURING CONSTRUCTION.
3. THE BOTTOM OF ALL EXTERIOR FOOTINGS SHALL BE AT LEAST 4'-6" BELOW GRADE. GC COORDINATE FOOTING STEP LOCATIONS WITH FINISH GRADES AND SLAB ELEVATIONS TO ENSURE MINIMUM FROST COVERAGE, REINFORCE WALL AND FOOTING STEPS PER TYPICAL DETAILS. THE TOP OF ALL INTERIOR FOOTINGS SHALL BE 8" BELOW TOP OF SLAB (UNO).
4. ALL PAVEMENT, EXISTING FOUNDATIONS AND UNCONTROLLED GRANULAR FILL SHOULD BE REMOVED FROM THE AREA OF THE PLANNED CONSTRUCTION TO AT LEAST 4 FEET BEYOND THE FOOTING LIMIT.
5. COMPACTED STRUCTURAL FILL SHALL BE USED TO BACKFILL TO THE DESIGN FOOTING SUBGRADE AND BENEATH ALL SLABS ON GRADE. STRUCTURAL FILL BELOW SLABS SHALL CONFORM TO MDOT 703.06 TYPE D OR 3/4" CRUSHED STONE. STRUCTURAL FILL BELOW FOOTINGS SHALL CONFORM TO MDOT 703.06 TYPE D GRAVEL OR 1 1/2" CRUSHED STONE.
6. STRUCTURAL FILL SHALL BE PLACED IN UNIFORM LIFTS NOT EXCEEDING 8 INCHES IN LOOSE THICKNESS AND BE COMPACTED BENEATH SLABS TO 95 PERCENT OF MAXIMUM DRY DENSITY PER ASTM D-1557, MODIFIED PROCTOR TEST. COMPACT ADJACENT TO FOUNDATION WALLS SUPPORTING UNBALANCED FILL (RETAINING WALLS) TO 94-96 PERCENT OF MAXIMUM DRY DENSITY PER ASTM D-1557. HAND OPERATED EQUIPMENT SHALL BE USED FOR COMPACTION WITHIN 8 FEET OF NEW FOUNDATION WALL. DO NOT BACKFILL UNTIL THE FLOOR FRAMING IS INSTALLED OR THE WALLS ARE OTHERWISE ADEQUATELY BRACED AND THE CONCRETE HAS CURED FOR AT LEAST SEVEN DAYS.
7. PROVIDE DRAINPIPE AROUND THE PERIMETER OF THE STRUCTURE AT BOTTOM OF FOOTING ELEVATION AND POSITIVE DRAIN TO DAYLIGHT PER APPLICABLE CODES. UNLESS NOTED OTHERWISE ON SITE DRAWINGS, WRAP PIPE IN 6" ALL AROUND OF 3/4" CRUSHED STONE WRAPPED IN MIRAFI 140N FILTER FABRIC. SLOPE DRAIN PER APPLICABLE CODES TO ENSURE ADEQUATE DRAINAGE. REFER TO ARCH/SITE DRAWINGS FOR ADDITIONAL INFORMATION. REFER TO THE ARCHITECTURAL, STRUCTURAL, ELECTRICAL AND MECHANICAL DRAWINGS FOR ANY BONDOUT REQUIREMENTS. SEE TYPICAL CONCRETE DETAILS FOR BONDOUT REINFORCEMENT REQUIREMENTS.
8. SLOPE FOOTING EXCAVATIONS AS REQUIRED FOR STABILITY AND SAFETY PER OSHA REQUIREMENTS.

REINFORCED CONCRETE

1. CONCRETE WORK SHALL CONFORM TO THE LATEST EDITIONS OF THE FOLLOWING:

   ACI 301 "SPECIFICATIONS FOR STRUCTURAL CONCRETE"
   ACI 304 "GUIDE FOR MEASURING, MIXING, TRANSPORTING, AND PLACING CONCRETE"
   ACI 305 "HOT WEATHER CONCRETING"
   ACI 306 "COLD WEATHER CONCRETING"
   ACI 318 "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE"
2. CEMENT: ASTM C150, TYPE I. MAXIMUM AGGREGATE SIZE 3/4". CALCIUM CHLORIDE NOT PERMITTED.
3. CONCRETE FOR FOOTINGS, FOUNDATION WALLS AND PIERS SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 3000 PSI, UNO. WATER-CEMENT RATIO SHALL NOT EXCEED 0.50, UNO.
4. CONCRETE FOR INTERIOR SLABS SHALL HAVE A 28 DAY STRENGTH WITHIN THE RANGE OF 2500 PSI MINIMUM AND 3500 PSI MAXIMUM.
5. CONCRETE FOR EXTERIOR SLABS (INCLUDES ATTACHED AND DETACHED GARAGE SLABS), RAMPS AND STEPS SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 4000 PSI; WATER-CEMENT RATIO SHALL NOT EXCEED 0.45.
6. CONCRETE EXPOSED TO IN SERVICE FREEZE/THAW CYCLES (INCLUDING, BUT NOT LIMITED TO: FOUNDATION WALLS, FOOTINGS, EXTERIOR SLABS) SHALL BE AIR ENTRAINED WITH AN AIR CONTENT OF 5% TO 6%. EXTERIOR SLABS REQUIRE APPLICATION OF A CURING COMPOUND OR USE CURING TARPS. GENERAL CONTRACTOR COORDINATE USE OF EITHER WITH ARCHITECTURAL REQUIREMENTS FOR SLAB - APPEARANCE, SUITABILITY FOR INSTALLATION OF FUTURES FINISHES, ETC.
7. SLUMP SHALL NOT EXCEED 5" +/- 1" PER ASTM C143 UNLESS AN APPROVED WATER REDUCING ADMIXTURE IS USED. MAXIMUM SLUMP AFTER ADDITION OF ADMIXTURE IS 8".
8. SEE ARCHITECTURAL DRAWINGS FOR FOUNDATION DRAINAGE, UNDERSLAB UTILITIES, UNDERSLAB VAPOR BARRIER AND INSULATION ASSOCIATED WITH CONCRETE WORK. ALSO SEE ARCHITECTURAL DRAWINGS FOR CONCRETE FINISHES AND DEPRESSIONS.
9. CONCRETE SHALL NOT BE PLACED IN WATER OR ON FROZEN GROUND. REINFORCEMENT SHALL BE FREE OF FROST, SNOW AND ICE. GENERAL CONTRACTOR SHALL HEAT CONCRETE MATERIALS AND PROTECT CONCRETE AFTER PLACEMENT WHEN PLACING AT OR BELOW 50F TEMPERATURES IN ACCORDANCE WITH ACI306.
10. FORM RELEASE AGENT SHALL BE APPLIED PRIOR TO FORM ERECTION TO AVOID CONTACT WITH REINFORCING STEEL..
11. DEPOSIT CONCRETE IN FORMS IN HORIZONTAL LAYERS NOT DEEPER THAN 18" AND IN A MANNER TO AVOID INCLINED CONSTRUCTION JOINTS. WHERE PLACEMENT CONSISTS OF SEVERAL LAYERS, PLACE EACH LAYER WHILE THE PRECEDING LAYER IS STILL PLASTIC TO AVOID CONSTRUCTION JOINTS.
12. REINFORCING BARS SHALL CONFORM TO ASTM A615 WITH 60,000 PSI YIELD STRENGTH WITH MINIMUM ANCHORAGE AND SPLICE REQUIREMENTS FOR REINFORCING IN ACCORDANCE WITH THE LATEST EDITION OF ACI 318. WELDED WIRE FABRIC SHALL BE 6x6 W1.4xW1.4 AND SHALL CONFORM TO ASTM A-185. PROVIDE IN FLAT SHEETS. LOCATE WWF IN UPPER 1/3 OF SLAB THICKNESS. CUT ALTERNATING WWF STRANDS AT SLAB CONTROL JOINTS PRIOR TO CONCRETE PLACEMENT. FIBER REINFORCEMENT SHALL BE TYPE II SYNTHETIC VIRGIN HOMOPOLYMER POLYPROPYLENE FIBERS PROPORTIONED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS TO PROVIDE EQUIVALENT CRACK CONTROL OF 0.2% STEEL REINFORCEMENT IN ACCORDANCE WITH ACI STANDARDS.
13. MINIMUM CONCRETE PROTECTIVE COVERING FOR REINFORCEMENT, UNLESS NOTED OTHERWISE, SHALL BE AS FOLLOWS:

    FOOTINGS: 3"
    FOUNDATION WALLS: 2"
    EXTERIOR SLABS: 2"
    INTERIOR SLABS: 1"
    PIERS: 1.5" TO TIES
14. REINFORCEMENT SHALL BE CONTINUOUS AROUND CORNERS AND AT INTERSECTIONS. PROVIDE LAPPED BARS AT NECESSARY SPLICES OR HOOKED BARS AT DISCONTINUOUS ENDS. PROVIDE CLASS - B TENSION LAP SPLICES FOR ALL REINFORCING UNLESS OTHERWISE SHOWN ON PLAN.
15. WELDING OF REINFORCEMENT IS NOT PERMITTED.
16. PROVIDE ADDITIONAL REINFORCEMENT AROUND CONCRETE OPENING AS SHOWN ON THE TYPICAL DETAILS.
17. PROVIDE MIN 10 MIL VAPOR BARRIER UNDER INTERIOR SLABS CAST ON GRADE, OR AS SHOWN ON THE ARCHITECTURAL PLANS.
18. CONCRETE WALLS SHALL BE CAST IN ALTERNATE PANELS NOT EXCEEDING 50 FEET LONG. CONSTRUCTION JOINTS MAY BE USED - SEE TYPICAL DETAILS. SLAB CONTROL JOINTS ARE REQUIRED AS SHOWN.
19. ANCHOR BOLTS SHALL BE HOT DIPPED GALVANIZED J BOLT (SIZED PER DETAILS) SPACED 3'-0" OC AND WITHIN 12" OF STEP OR CORNER (UNLESS OTHERWISE NOTED). MINIMUM TWO ANCHOR BOLTS PER ANY WALL SECTION. ANCHOR BOLTS AT MOMENT FRAMES, BRACED FRAMES AND SHEARWALL HOLDOWNS MUST BE GALVANIZED A307 THREADED ROD WITH DOUBLE NUT AT EMBEDDED END AND MIN. 4" PROJECTION ABOVE T/CONC (UNO). SEE DETAILS FOR REQUIRED EMBEDMENT DEPTH.
20. USE NON-SHRINK GROUT BENEATH BASE PLATES & BEARING PLATES.
21. TIE HOLES, BUG HOLES, VOIDS AND SURFACE IRREGULARITIES LARGER THAN 1/2" IN DIAMETER OR DEEPER THAN 1/8", OR BOTH, SHOULD BE EITHER PRETREATED WITH ENGINEER-APPROVED LIQUID FOUNDATION WATERPROOFING OR REPAIRED WITH A LEAN CONCRETE MIX OF GROUT. SEE ASTM D5245, PREPARATION OF CONCRETE SURFACES FOR ADHERED MEMBRANE WATERPROOFING SYSTEMS, FOR FURTHER DETAILS CONCERNING SUBSTRATE PREPARATION.
22. ALL SLABS REQUIRE CONTROL JOINTS. DEPTH OF JOINT SHALL BE 25% OF CONCRETE THICKNESS. CUT ALTERNATING WWF WIRES AT JOINT LOCATION. CUT TOP BARS ONLY AT HAUNCH SLAB CONDITION (OR 50% OF BARS IN SINGLE LAYER INSTALLATION). SAW CUT JOINTS WITH EARLY ENTRY SAW WITHIN ONE TO FOUR HOURS OR WITH A NET SAW AFTER FOUR TO TWELVE HOURS (AS SOON AS CONCRETE CAN BE SAWED WITHOUT AGGREGATE LOOSENING). GC COORDINATE CONTROL JOINT FINISHING REQUIREMENTS WITH ARCHITECT.
23. GC NOTIFY ENGINEER 48 HRS PRIOR TO COMPLETION OF FORMWORK AND PLACEMENT OF REINFORCEMENT.

WOOD TRUSS NOTES (APPLY TO ALL TRUSS TYPES)

1. TRUSSES SHALL BE DESIGNED, FABRICATED, ERECTED AND BRACED IN ACCORDANCE WITH ANSI/TPI 1-1995. ERECTION AND BRACING SHALL CONFORM TO BSCI 1-03. THESE DRAWINGS ACT AS SUPPLEMENTAL INFORMATION TO THE ABOVE MENTIONED DOCUMENTS AND IN NO WAY SUPERCEDE THEM. TRUSSES SHALL BE DESIGNED WITH THE LOADS SHOWN WITHIN THE STRUCTURAL DRAWINGS. DRIFT LOADING SHALL BE APPLIED AS SHOWN WITHIN THE STRUCTURAL DRAWINGS BUT NOT LESS THAN THE PROVISIONS OF ASCE7-05.

2. CONTRACTOR SHALL HANDLE AND INSTALL TRUSSES PER MANUFACTURER'S RECOMMENDATIONS.

3. CONTRACTOR SHALL SUBMIT THE FOLLOWING:
   - TRUSS PLACEMENT DRAWING INDICATING: TRUSS SLOPE, SPAN, SPACING, TRUSS I.D. CORRESPONDING TO TRUSS DESIGN DRAWING, LOCATION OF PERMANENT LATERAL BRACING.
   - TRUSS DESIGN DRAWINGS & CALCULATIONS STAMPED BY A REGISTERED PROFESSIONAL ENGINEERED LICENSED BY THE STATE IN WHICH THE TRUSSES ARE BEINS ERECTED.

4. PERMANENT LATERAL BRACING SHALL BE SPECIFIED BY THE TRUSS DESIGNER. DIAGONAL STRUTS AND CONNECTIONS INDICATED ON THE STRUCTURAL DRAWINGS SHALL BE APPLIED UNLESS NOTIFIED IN WRITING BY THE TRUSS DESIGNER.

5. TRUSS DESIGNER SHALL SPECIFY ALL TRUSS-TO-TRUSS CONNECTIONS AND PROVIDE REACTIONS TO BUILDING DESIGNER WITH SHOP DRAWINGS.

6. IF SPECIFIED AS GABLE TRUSS, PROVIDE VERTICALS AT 2'-0" OC AND DESIGN IN USING LOAD CRITERIA SPECIFIED ON SHEET S1.0.

7. BRACING
- BRACING MEMBERS SHALL BE MINIMUM 2x4 #2 S.P.F. UNLESS NOTED OTHERWISE ON THE STRUCTURAL DWGS.
- WEB LATERAL BRACING SHALL BE SPECIFIED BY THE TRUSS DESIGNER. CONNECTION POINTS SHALL BE INDICATED BY TAG OR MARK ON INDIVIDUAL TRUSSES.
- TEMPORARY BRACING IS REQUIRED TO PREVENT MISALIGNMENT AND POSSIBLE TOPPLING OF TRUSSES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DESIGN AND INSTALL ALL TEMPORARY BRACING.
- THE CONTRACTOR IS RESPONSIBLE FOR ANY ADDITIONAL TEMPORARY BRACING TO ENSURE THE TRUSSES ARE INSTALLED PLUM, LEVEL, SQUARE AND SECURE.

8. ALL TRUSS DESIGNS MUST BE CONSIDERED PIN/ROLLER BEARING CONDITION (TRUSS DESIGNS SHALL NOT REQUIRE BUTTRESS SUPPORT).

FRAMING NOTES:

1. INTERIOR BEARING WALLS CONSIST OF 1/2" PLYWOOD FASTENED TO ONE FACE OF STUD (NAILING SIMILAR TYP EXT WALL SHTG PER S1.0), 2x4 OR 2x6 @16" (SEE DWGS), SIM STUD MATERIAL AS BLOCKING TOENAILED IN EACH STUD BAY AT STUD MIDHEIGHT OR 48" OC, WHICHEVER IS LESS.
2. ALL EXTERIOR WALL CONSTRUCTION IS 2x6 @24", U.N.O. WHEN SUPPORTING FRAMING AT 24". ALL EXTERIOR WALL CONSTRUCTION IS 2x6 @16" WHEN SUPPORTING FRAMING AT 16". STUDS ALIGN WITH FRAMING. LOCATE PLATE BUTT JOINTS OVER STUDS. ALL TOP PLATES MUST SPLICE MIN 48" WITH (2) ROWS 16d NAILS STAGGERED AT 6" OC. WEAVE CORNERS WITH (4)-16d NAILS.
3. ALL STRUCTURAL MEMBERS MUST BE CONTINUOUS. LOCATE SPLICES OVER BEARING, U.N.O.
4. POSTS (2-2x4 AND LARGER) AND JACK STUDS REQUIRE MATCHING BLOCKING STUDS BELOW FLOOR SHEATHING DOWN TO FOUNDATION WALL OR LVL BEAMS. IF POST IS NOT SPECIFIED BELOW A BEAM, PROVIDE CRIPPLE STUDS BELOW ALL BEAMS EQUAL TO OR GREATER THAN THE WIDTH OF THE BEAM ABOVE (EXAMPLE: 3.5" WIDE LVL REQUIRES (3)-2x CRIPPLE STUDS BELOW = 4.5" WIDE)
5. GABLE WALLS AND STAIR WALLS MUST BE BALLOON FRAMED UNLESS OTHERWISE NOTED. PROVIDE BLOCKING TO MATCH STUD WIDTH AT 8' OC.
6. PROVIDE 1-JOIST BLOCKING IN EACH FRAMING BAY OVER INTERIOR BEARING WALLS OR WHEN 1-JOIST IS CONTINUOUS OVER AN EXTERIOR WALL. PROVIDE 1 1/8" WIDE ENGINEERED RIMBOARD AT PERIMETER OF BUILDING, U.N.O.
7. INSTALL ENGINEERED FRAMING PRODUCTS PER MANUFACTURER'S INSTRUCTIONS.
8. ALL FLOOR, ROOF AND DECK/BALCONY FRAMING MEMBERS REQUIRE SIMPSON HANGERS, UNO. CONNECTION HARDWARE IN CONTACT WITH PRESERVATIVE-TREATED LUMBER AND USED IN AN INTERIOR ENVIRONMENT SHALL BE HOT DIPPED GALVANIZED (SIMPSON Z-MAX), OR STAINLESS STEEL WITH MATCHING FASTENERS. CONNECTION HARDWARE IN CONTACT WITH PRESERVATIVE-TREATED LUMBER AND/OR USED IN AN EXTERIOR ENVIRONMENT (INCLUDING HARDWARE IN VENTED SOFFITS) SHALL BE STAINLESS STEEL WITH MATCHING FASTENERS. SEE SIMPSON CATALOG FOR HARDWARE INSTALLATION INSTRUCTIONS, INCLUDING REQUIRED NAIL SIZES. POSTS BEARING ON CONCRETE REQUIRE SIMPSON 'ABA-Z' TYPE POST BASE, UNO. ALL RAFTERS LONGER THAN 8FT REQUIRE SIMPSON 'LRU' TYPE HANGER AT RIDGE BEAM, (6)-12d TOENAILS AT RIDGE BOARD, SIMPSON 'L' TYPE ANGLE AT HIP/VALLEY, AND SIMPSON H2.5 HOLDOWN CLIP AT RAFTER/WALL PLATE CONNECTION. RAFTERS SHORTER THAN 8FT REQUIRE (6)-12d TOENAILS AT RIDGE BEAM/BOARD, SIM TOENAILS AT HIP/VALLEY AND (2)-12d TOANAILS AT RAFTER/WALL PLATE CONNECTION.
9. ALL TIMBER FRAMING SHALL BE IN ACCORDANCE WITH THE NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION (NDS) 2005 EDITION. UNLESS NOTED OTHERWISE, ALL WOOD FRAMING SHALL BE FASTENED IN ACCORDANCE WITH 2009 IBC, SECTION 2304.9
10. FRAMING GRADES:
    A. PRESERVATIVE TREATED 2x FRAMING LUMBER (PT) SHALL BE #2 AND BETTER SOUTHERN YELLOW PINE TREATED IN ACCORDANCE WITH AWPA U3B "EXTERIOR, ABOVE GROUND." WOOD CLOSER THAN 8", OR IN CONTACT WITH GRADE, SHALL BE TREATED IN ACCORDANCE WITH AWPA UC4A "GROUND CONTACT, GENERAL USE." ARCHITECTURALLY EXPOSED TIMBER MAY REQUIRE ALTERNATE SPECIES AND/OR TREATMENT - REFERENCE DRAWINGS.
    B. LUMBER (2x STUDS, JOISTS, RAFTERS) SHALL BE #2 AND BETTER S.P.F. LESS THAN 19% MOISTURE CONTENT
    C. WOOD I-JOISTS: SPECIFIC GRADES SHOWN ON THE DRAWINGS.
    D. LAMINATED VENEER LUMBER (LVL) - 2.0 E, 3100 Fb, 285 Fv
    E. PARALLAM (PSL) - 2.0E AS MANUFACTURED BY TRUS JOIST. PT PSL SHALL BE TREATED WITH WATERBORNE TREATMENT SUITABLE FOR GROUND CONTACT.
    F. LAMINATED STRAND LUMBER (LSL) - 1.55E AS MANUFACTURED BY TRUS JOIST.
    G. TIMBER (LARGER THAN 2x IN ANY DIMENSION, EXCEPT P.T. MATERIAL) SHALL BE #2 AND BETTER EASTERN WHITE PINE, EASTERN HEMLOCK OR DOUGLAS FIR. APPLY 'LAND ARK' LIQUID WAX END SEALER TO ALL TIMBER JOINERY END GRAIN. APPLY 'LAND ARK' EXTERIOR OIL (CLEAR) FINISH TO ALL TIMBER FACES IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS, SEE WWW.HERITAGENATURALFINISHES.COM
11. SHEATHING:
    A. EXTERIOR WALLS AND INTERIOR SHEAR WALLS: 15/32" STRUCTURAL 1, 8d AT 4" O.C. AT PANEL EDGES (ADD 2x4 EDGEWISE BLOCKING AT PANEL EDGES), 8" O.C. WITHIN PANEL U.N.O. NOTE THAT 7/16 ZIP SHEATHING DOES NOT MEET THIS REQUIREMENT.
    B. NAILS DRIVEN INTO PT FRAMING MEMBERS SHALL BE HAND NAILED AND HOT DIPPED GALV. GALV GUN NAILS ARE NOT AN ACCEPTABLE SUBSTITUTE WITHOUT PRIOR ENGINEER APPROVAL.
    C. FLOOR: 23/32" ADVANTECH INSTALLED WITH STRENSTH AXIS PERPENDICULAR TO SUPPORTS. ADHESIVE: 0.25" BEAD OF POLYURETHANE OR SOLVENT-BASED ADHESIVE APPLIED TO CLEAN, DRY FLOOR JOIST. FASTENER: 8d RING SHANK NAIL (10d FOR THICKNESS > 0.75") OR APPROVED SCREW. FASTENER SPACING: 6" O.C. AT EDGES, 12" O.C. WITHIN PANEL.
    D. ROOF: 5/8" ADVANTECH INSTALLED WITH STRENSTH AXIS PERPENDICULAR TO SUPPORTS. 8d AT 6" O.C. AT PANEL EDGES, 12" OC WITHIN PANEL.
    E. NAIL HEAD MUST BE DRIVEN FLUSH. SHTG WITH OVERDRIVEN NAILS MUST BE REFASTENED.
12. ALL BUILT-UP BEAMS AND COLUMNS SHALL BE NAILED AS FOLLOWS (U.N.O.):
    A. COLUMNS, KING/JACK STUDS: 2-10d NAILS AT 8" O.C.
    B. BEAMS LESS THAN 12" DEEP: 2-16d NAILS AT 12" O.C. IN EACH PLY
    C. BEAMS DEEPER THAN 12" (INCLUDING 12"): 3-16d NAILS AT 12" O.C. IN EACH PLY
    D. SIDE-LOADED BEAMS MAY REQUIRE ADDITIONAL CONNECTIONS - SEE FRAMING DETAILS
13. DRILLED EPOXY ANCHORS SHALL BE HOT DIP GALV A307 THREADED ROD WITH SIMPSON 'AT' EPOXY. BLOW HOLES FREE OF DUST AND INSTALL PER MANUFACTURER'S INSTRUCTIONS, TYP U.N.O; DRILLED EXPANSION ANCHORS SHALL BE MECHANICALLY GALVANIZED SIMPSON ⅝"Φ WEDGE-ALL' ANCHOR; RSS SCREWS SHALL BE CLIMATEK COATED AND MANUFACTURED BY GRK FASTENER. RSS SCREWS IN CONTACT WITH PRESERVATIVE-TREATED LUMBER SHALL BE STAINLESS STEEL.
14. ALL STEEL POSTS LOCATED WITHIN EXTERIOR WALLS REQUIRE 5/8" HOLES THROUGH POST WITHIN 12" OF TOP AND BOTTOM AND 32" OC. INSTALL 2x STUD TIGHT TO EACH SIDE OF POST WITH 1/2" BOLTS. FASTEN WALL SHEATHING TO EACH STUD WITH TYPICAL EDGE NAILING PATTERN.
15. CONSULT ENGINEER PRIOR TO SHIMMING ANY STRUCTURAL MEMBER. CEDAR SHIMS ARE NOT ACCEPTABLE.
16. SHEAR WALL TOP AND BOTTOM PLATES MUST BE CONTINUOUS - DO NOT NOTCH OR CUT. LAP TOP AND BOTTOM PLATES MINIMUM 24" AND SECURE WITH TWO ROWS OF 16d NAILS AT 6" OC. SEE SHEAR WALL NOTES FOR ADDITIONAL DETAILS.
17. DOUBLE ALL FLOOR JOISTS/TRUSSES BELOW AND WITHIN 16" OF ALL KITCHEN AND BATHROOM CABINETRY
18. NAILS SHALL BE COMMON WIRE PER ASTM F1667 SIZED AS FOLLOWS UNLESS OTHERWISE APPROVED BY THE ENGINEER:
    18.1. 8d = 0.131" x 2-1/2" LONG
    18.2. 10d = 0.148" x 3" LONG
    18.3. 16d = 0.162" x 3-1/2" LONG

Reviewed for Code Compliance
Inspection Division
Portland, Maine
Date: 09/18/17

Project:
Peaks Island Cottage
Portland, Maine

Notes:

STATE OF MAINE
NATHAN R. MERRILL
No. 12279
LICENSED
PROFESSIONAL ENGINEER

Architect:
Whitten Architects
37 Silver Street
Portland, Maine 04101
Phone: (207) 774-0111
www.whittenarchitects.com

Landscape Architect:
Soren DeNiord Design Studio
43 Wellwood Road
Portland, Maine 04103
Phone: (207) 400-2450

Civil Engineer:
Walsh Engineering Assoc, Inc.
One Karen Drive, Suite 2A
Westbrook, Maine 04092
Phone: (207) 553-9898

Structural Engineer:
Albert Putnam Associates
183 Park Row
Brunswick, Maine 04011
Phone: (207) 729-6230

General Contractor:
Bunton Construction
87 Middle Road
Cumberland