Reviewed for Code Compliance
Inspections Division
Approved with Conditions

Date: 11/06/14

Ⓐ STRUCTURAL NOTES:

1. BUILDING CODE USED: 2009 IBC (INTERNATIONAL BUILDING CODE) PER THE MAINE UNIFORM BUILDING AND ENERGY CODE (MUBEC).
2. DESIGN LOADS ARE AS FOLLOWS:

   ROOF LOADS:
   SNOW: Pf=0.70 x Ce x Ct x I x Pg: Pg=60PSF, Ce=1.0, Ct=1.1, I=1.0
   DESIGN FLAT ROOF LIVE (BALANCED SNOW) Pf= 46 PSF+DRIFTING/SLIDING SNOW.
   DEAD:
   FLAT ROOF (ADHERED EPDM) = 15 PSF

   SEISMIC LOADS:
   S1=0.108 Ss=0.352
   SEISMIC USE GROUP - II
   SEISMIC DESIGN CATEGORY - D
   SITE CLASS E (ASSUMED)
   Sds=0.51, Sd1=0.247, I=1.00
   STRUCTURAL SYSTEM: UNREINFORCED MASONRY SHEAR WALLS.
   ANALYSIS PROCEDURE - EQUIVALENT LATERAL FORCE
   DESIGN MAX. BASE SHEAR FOR WALL WITH NEW OPENINGS= 61 KIPS

   WIND LOAD:
   BASIC WIND SPEED 100 MPH, EXP. B, I=1.00
   DESIGN BASE SHEAR FOR WALL WITH NEW OPENINGS = 6.5 KIPS TRANSVERSE

   NOTE: OWNER HAS ELECTED NOT TO PROVIDE STRUCTURAL UPGRADES TO OTHER MASONRY WALLS, IN ADDITION TO FOUNDATIONS NOTED IN S.W. COLE ENGINEERING REPORT DATED MAY 31, 2011. "IN OUR OPINION, THE EXISTING TIMBER PILE FOUNDATION ARE UNSERVICEABLE. CONSEQUENTLY, WE RECOMMEND THAT RENOVATION PLANS FOR THE EXISTING BUILDING INCLUDE UNDERPINNING EXISTING GRADE BEAMS AND PILE CAPS WHERE TIMBER PILES HAD PREVIOUSLY PROVIDED FOUNDATION SUPPORT" PER S.W. COLE REPORT ON PAGE 6.

Ⓑ GENERAL NOTES:

1. CONTRACTOR SHALL NOT SCALE DRAWINGS.
2. CONTRACTOR SHALL VERIFY ALL DIMENSIONS WITH ARCHITECTURAL PLANS. IN CASE OF CONFLICT OR DIMENSIONS NOT INDICATED, THE ARCHITECT SHALL BE NOTIFIED TO RESOLVE THE DISCREPANCY.
3. DEVIATION FROM DESIGN DRAWINGS IS NOT PERMITTED WITHOUT PRIOR REVIEW BY THE ARCHITECT.
4. THE MORE STRINGENT REQUIREMENTS SHALL GOVERN IN EVENT OF CONFLICT BETWEEN DRAWINGS AND THE PROJECT SPECIFICATIONS.
5. DETAILS AND CONDITIONS NOT INDICATED ON A PART OF THE DRAWINGS SHALL BE CONSIDERED SIMILAR TO THAT SHOWN AT CORRESPONDING PLACES.
6. GENERAL CONTRACTOR SHALL COORDINATE LOCATIONS OF SUMPS, OPENING PITS, BOXES, TRENCHES, SLEEVES, DEPRESSIONS, PENETRATIONS, ETC. WITH ELECTRICAL, MECHANICAL, AND PLUMBING CONTRACTORS.
7. WORK COMPLETED BY THE CONTRACTOR WITHOUT DIMENSIONS OR INFORMATION SHALL BE DONE AT THE CONTRACTORS RISK AND IS TO BE REMOVED AND REINSTALLED TO PROJECT SPECIFICATIONS AT NO ADDITIONAL COST TO THE OWNER.
8. ALL WORK SHALL COMPLY WITH APPLICABLE CODES, LOCAL/STATE/FEDERAL LAWS AND REGULATIONS WITH CURRENT AMENDMENTS.
9. FRAMING AND WALLS SHALL BE TEMPORARILY BRACED BY THE CONTRACTOR UNTIL ALL WALLS, FLOOR, AND ROOF DECKS HAVE BEEN INSTALLED AND ALL CONNECTIONS BETWEEN THESE ELEMENTS HAVE BEEN MADE. ALL FOUNDATION WALLS SHALL HAVE ADEQUATE TEMPORARY BRACING BEFORE BACKFILL IS PLACED AGAINST THEM. TEMPORARY BRACING SHALL NOT BE REMOVED UNTIL ALL WALLS AND DECK ARE FULLY INSTALLED. SHORING, BRACING, AND TEMP. SUPPORT TO BE DESIGNED BY CONTR.
10. ALL CODES AND STANDARDS REFERENCED TO ARE TO BE LATEST EDITIONS WITH CURRENT AMENDMENTS UNLESS OTHERWISE INDICATED.
11. WORK PERFORMED BY THE CONTRACTOR PRIOR TO REVIEW OF SUBMITTALS AND/OR SHOP DRAWINGS IS NOT ALLOWED.
12. CONTRACTOR IS REQUIRED TO CONFORM TO LATEST "OSHA" STANDARDS WITH CURRENT AMENDMENTS.
13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MEANS & METHODS AND DESIGN OF ALL TEMPORARY SHORING, BRACING, AND/OR NEEDLING PRECAUTIONS DURING BUILDING OPERATIONS, PROTECTION OF PUBLIC AND WORKERS. REMOVAL OF WASTE MATERIAL, PROTECTION OF ADJACENT PROPERTY PROTECTION OF HAZARDOUS OPENINGS, SAFETY PRECAUTIONS, AND SANITARY PROVISIONS OF EMPLOYEES AND SUBCONTRACTORS AS REQUIRED FOR THE DURATION OF THE CONTRACT.

Ⓒ STRUCTURAL STEEL NOTES:

1. STRUCTURAL STEEL FABRICATION, ERECTION, AND CONNECTION DESIGN SHALL CONFORM TO THE LATEST EDITION OF AISC "SPECIFICATION FOR THE DESIGN, FABRICATION, AND ERECTION OF STRUCTURAL STEEL".
2. STRUCTURAL STEEL SHAPES TO BE ASTM A992 (GRADE 50).
3. STEEL PLATES, ANGLES, AND MISCELLANEOUS SHAPES TO BE ASTM A36.
4. HOLLOW STRUCTURAL SECTIONS (HSS) TO BE ASTM A500, GRADE B: Fy=46KSI.
5. ALL STRUCTURAL STEEL SHAPES, COLUMNS, PLATES, BARS, ANCHOR RODS, HEADED STUDS, AND BOLTS TO BE NON-PRIMED AND NON-PAINTED.
6. COAT ALL EXPOSED STEEL AND STEEL BELOW GRADE WITH TWO (2) COATS OF TNEMEC HI-BUILD TNEME-TAR SERIES 46H-413 COAL TAR EPOXY. USE TNEMEC APPROVED PRIMER FOR MATERIAL BEING COATED.
7. ALL BOLTED CONNECTIONS TO BE MADE WITH ¾ INCH DIAMETER ASTM A325 HIGH-STRENGTH BOLTS UNLESS NOTED OTHERWISE ON PLANS.
8. WELDING SHALL BE IN ACCORDANCE WITH AWS D1.1-LATEST EDITION. WELDS SHALL BE MADE WITH E70XX ELECTRODES BY CURRENT AISC CERTIFIED WELDERS CERTIFIED FOR THE TYPE OF WELDS TO BE PERFORMED, NO EXCEPTION.
9. STEEL BEAMS AND COLUMNS SHALL BE CUT FROM FULL-LENGTH STOCK. UNAUTHORIZED SPLICES WILL BE CAUSE FOR REJECTION.
10. SUBMIT COMPLETE STRUCTURAL STEEL SHOP DRAWINGS TO SRG ENGINEERING, INC. FOR REVIEW PRIOR TO ANY STEEL FABRICATION AND/OR ERECTION, NO EXCEPTION.
11. ALL COLUMNS TO HAVE FOUR (4) ANCHOR RODS PER LATEST OSHA REQUIREMENTS, UNLESS NOTED OTHERWISE ON PLANS.
12. BEAM SHEAR CONNECTIONS TO BE STANDARD AISC 3/8" THICK ASTM A36 PLATE SHEAR TAB, UNLESS NOTED OTHERWISE ON PLANS.
13. BEAM SHEAR CONNECTIONS TO BE TIGHTENED TO "SNUG-TIGHT" PER AISC.
14. "SLIP-CRITICLE" BOLTED CONNECTIONS MUST BE TIGHTENED TO THE MINIMUM TORQUE PER AISC.
15. ALL FIELD WELDS TO BE INSPECTED AND APPROVED BY AN INDEPENDENT CURRENT CERTIFIED WELD INSPECTOR FOR THE WELD(S) PERFORMED, NO EXCEPTION. PROVIDE WRITTEN REPORT(S) TO SRG ENGINEERING, INC.. WELDS INITIALLY REJECTED BY WELD INSPECTOR MUST BE MADE COMPLIANT AND THEN APPROVED BEFORE PROCEEDING WITH WORK.
16. CONTRACTOR TO SUBMIT COPY OF WELDER CERTIFICATIONS TO SRG ENGINEERING, INC. FOR REVIEW PRIOR TO PERFORMING SHOP AND/OR FIELD WELDING.

Ⓓ SUBMITTALS:

1. THE CONTRACTOR SHALL SUBMIT COMPLETE SHOP DRAWINGS FOR ALL PARTS OF WORK. FABRICATION OR ERECTION OF NEW STRUCTURAL ELEMENTS SHALL NOT COMMENCE WITHOUT REVIEW BY THE ARCHITECT AND ENGINEER. SUBMIT TWO COPIES AND ONE SEPIA, COPY WILL BE REVIEWED AND ONE COPY AND SEPIA WILL BE RETURNED.
2. REQUIRED SUBMITTALS INCLUDE:(WHERE APPLICABLE)
   CONCRETE MIX DESIGN(S)
   CONCRETE REINFORCING INCLUDING BAR SUPPORTS
   CONCRETE WALL CONSTRUCTION JOINT LOCATION PLAN
   STRUCTURAL STEEL MILL CERTIFICATIONS
   STRUCTURAL STEEL FRAMING FABRICATION DRAWINGS
   ENGINEERED LUMBER
   ENGINEERED WOOD TRUSSES WITH STAMPED P.E. CALCULATIONS FOR THE STATE BUILDING IS CONSTRUCTED IN.
   METAL DECKING
   MASONRY STRUCTURAL GROUT
   MASONRY REINFORCING INLCUDING HOLLOW CORE POSITIONING SUPPORTS
   FASTENERS INCLUDING BUT NOT LIMITED TO: NAILS, SCREWS, BOLTS, AND WASHERS.
   WOOD CONNECTORS INCLUDING BUT NOT LIMITED TO: JOIST/BEAM/TRUSS HANGERS, HOLDOWNS, POST CAP/BASES.

Ⓔ STRUCTURAL TESTS AND SPECIAL INSPECTIONS

1. THE OWNER SHALL RETAINED SRG ENGINEERING, INC. (SRG) TO PROVIDE "STRUCTURAL TESTS AND SPECIAL INSPECTIONS" AS REQUIRED IN CHAPTER 17 OF THE 2009 VERSION OF THE IBC CODE. "STRUCTURAL TESTS AND SPECIAL INSPECTIONS" IS REQUIRED BY CODE, NO EXCEPTIONS.

2. SRG ENGINEERING, INC. IS TO BE THE ACTING "SPECIAL INSPECTOR" FOR THIS PROJECT AND WILL SUB-CONTRACT "SPECIAL INSPECTION" SERVICES TO S.W. COLE ENGINEERING, INC. (SWC).

3. CONTRACTOR MUST NOTIFY SWC IN GRAY, MAINE AT TEL# (207) 657-2866 A MINIMUM OF 2 BUSINESS DAYS PRIOR TO PERFORMING TESTING AND INSPECTION SERVICES. FAILURE TO NOTIFY APPROPRIATELY MAY CAUSE A DELAY IN WORK.

4. ANY WORK PERFORMED BY THE CONTRACTOR THAT HAS NOT HAD "STRUCTURAL TESTS AND SPECIAL INSPECTION" SERVICES PERFORMED PER IBC REQUIREMENTS WILL NEED TO BE REMOVED AND REPLACED AT THE CONTRACTOR'S EXPENSES, NO EXCEPTIONS.

5. "STRUCTURAL TESTS AND SPECIAL INSPECTIONS" WILL BE CONDUCTED FOR THE FOLLOWING, BUT NOT LIMITED TO:
   SUBGRADE
   DRAINAGE
   STRUCTURAL FILL
   GEOFOAM
   REINFORCING/ANCHOR BOLTS/EMBED ITEMS
   CONCRETE
   STRUCTURAL STEEL
   STRUCTURAL STEEL BOLTED AND WELDED CONNECTIONS
   METAL DECKING AND RELATED FASTENING
   MASONRY
   MASONRY STRUCTURAL GROUT
   MASONRY MORTAR
   METAL PAN STAIR SYSTEMS
   WOOD FRAMING
   WOOD SHEAR WALLS
   FLOOR AND ROOF DIAPHRAMS
   EMBEDED ITEMS

NOTES:
1. PROVIDE DUR-O-WALL 9 GAUGE JOINT REINF. @ 16" O.C. UN.O.
2. PROVIDE BOND BEAMS W/ 2 #4 CONT. @ TOP OF ALL WALLS, AND 1ST COURSE ABOVE MASONRY LINTELS (ANGLES).
3. ALL REINFORCED CELLS ARE TO BE GROUTED SOLID.
4. LAP BARS AT SPLICES MIN. 48 BAR DIAMETERS.
5. BARS AROUND OPENINGS TO EXTEND MIN. 48 Db PAST EDGE.
6. SUBMIT MASONRY REINFORCING SHOP DRAWINGS FOR REVIEW. SEE THE GENERAL NOTES & SPECS FOR SPECIFIC REQUIREMENTS.
7. PROVIDE CORNER BARS FOR BOND BEAM REINF W/ 36" LAP.

MASONRY DETAILS
NO SCALE

NOTE:
1. ALL CORES RECEIVING BARS TO BE GROUTED SOLID, FULL HEIGHT.
2. REINFORCING SHOWN IS IN ADDITION TO TYPICAL C.M.U. WALL REINF.
3. SEE MASONRY NOTES FOR ADDITIONAL INFORMATION.

TYPICAL C.M.U. WALL OPENING REINFORCING DETAIL

STATE OF MAINE
STEVEN R. GRANT
No. 6825
PROFESSIONAL ENGINEER

REV:	BY:	DATE:	STATUS:

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM SRG ENGINEERING, INC. ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO SRG ENGINEERING, INC.

SRG ENGINEERING, INC.
CONSULTING STRUCTURAL ENGINEERS
P.O. BOX 925
GRAY, ME 04039
TEL: (207) 657-7323
EMAIL: SRG@SRGENG.COM

PROJECT NO.	EDR	DESIGN	CHKD	DRAWN
14-058	SRG	SRG	SRG	SRG

NOTES AND MASONRY DETAILS
OF
UHAUL MOVING & STORAGE
PORTLAND, MAINE
FOR
GEMSTONE GENERAL CONTRACTORS
MANCHESTER, NEW HAMPSHIRE

DATE	SCALE
09.18.14	AS NOTED

SHEET S1 OF 2