FOUNDATIONS:

1. THE SITE SHALL BE PREPARED IN ACCORDANCE WITH THE GEOTECHNICAL REPORT PREPARED BY S. W. COLE ENGINEERING, INC. DATED JUNE 7, 2013 AND ENTITLED "PROPOSED BUILDING ADDITION AND PARKING LOT. 53 SEWALL STREET. PORTLAND. MAINE (DRAFT). FOUNDATION DESIGNS BASED ON THE SOILS REPORT REFERENCED ABOVE. FOUNDATION SYSTEMS HAVE BEEN DESIGNED WITH AN ASSUMED BEARING CAPACITY OF 3000 PSF. THE ALLOWABLE BEARING PRESSURE SHALL BE VERIFIED BY THE OWNER'S TESTING AGENCY PRIOR TO PLACING FOOTING CONCRETE.

2. ALL FOOTING BOTTOMS SHALL BE INSPECTED AND APPROVED, IN WRITING, BY A REGISTERED SOILS ENGINEER PRIOR TO PLACING CONCRETE. WRITTEN APPROVAL SHALL SPECIFY THAT THE SOIL HAS THE CAPACITY TO SUPPORT THE DESIGNED BEARING PRESSURE.

3. ALL BEDDING AND FILL PROFILES BENEATH SLABS ON GRADE AND FOUNDATION FOOTINGS SHALL COMPLY WITH THE RECOMMENDATIONS PROVIDED IN THE GEOTECHNICAL REPORT REFERENCED ABOVE.

4. FOUNDATION WALL REINFORCING WILL BE ADJUSTED AS REQUIRED NOT TO INTERFERE WITH BASE PLATE

5. EXCAVATIONS FOR BUILDING FOUNDATIONS AND STRUCTURES SHALL BE IN ACCORDANCE WITH OSHA REQUIREMENTS. BRACED EXCAVATIONS SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER REGISTERED IN THE PROJECT STATE. DO NOT UNDERMINE EXISTING ADJACENT FOUNDATIONS.

6. INTERSECTING CONCRETE WALLS SHALL BE TIED WITH #4 L-BARS 3'-0" LONG (BENT 18-INCHES - 18-INCHES), SPACED AT 12-INCHES ON-CENTER, OUTSIDE FACE ONLY.

7. IN NO CASE SHALL HEAVY EQUIPMENT BE PERMITTED CLOSER THAN 8'-0" FROM ANY FOUNDATION/BASEMENT WALL. IF THE CONTRACTOR DEEMS IT NECESSARY TO OPERATE SUCH EQUIPMENT CLOSER THAN 8'-0", THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE AND, AT HIS OWN EXPENSE, PROVIDE ADEQUATE SUPPORTS OR WALL BRACES TO WITHSTAND THE ADDITIONAL LOADS

8. FOUNDATION WALL CONTROL JOINTS SHALL BE PLACED AS SHOWN ON THE BUILDING ELEVATIONS (EXTERIOR) AND AT A MAXIMUM SPACING OF 15'-0" (INTERIOR).

9. CONCRETE SHALL NOT BE PLACED ON FROZEN GROUND OR IN WATER.

1. CONCRETE WORK SHALL COMPLY WITH ACI 301 "SPECIFICATIONS FOR STRUCTURAL CONCRETE BUILDINGS": ACI 318 "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE"; AND ACI 315 "ACI DETAIL MANUAL", AND CRSI "MANUAL OF STANDARD PRACTICE".

2. CONTRACTOR SHALL PROVIDE TIES AND BRACING WHERE NECESSARY DURING CONSTRUCTION, TO REMAIN IN PLACE UNTIL THE STRUCTURES ARE COMPLETE.

a. FOOTING AND FOUNDATION WALLS: 3500 PSI AT (28) DAYS. SLUMP SHALL NOT EXCEED 4-INCHES. INTERIOR SLABS-ON-GRADE: 3,500 PSI CONCRETE AT (28) DAYS. SLUMP SHALL NOT EXCEED 3-

INTERIOR ELEVATED SLABS-ON-DECKING: 3,500 PSI LIGHTWEIGHT (110 PCF) CONCRETE AT (28) DAYS. SLUMP SHALL NOT EXCEED 5-INCHES.

EXTERIOR SLABS ON GRADE SIDEWALKS, AND STAIRS SHALL BE 4000 PSI AT (28) DAYS. SLUMP SEE SPECIFICATIONS SECTION 033000 FOR FURTHER CAST-IN-PLACE CONCRETE REQUIREMENTS.

4. 4-INCH SLABS-ON-GRADE SHALL BE REINFORCED WITH 6 X 6 X W2.9 X W 2.9 WWM UNLESS OTHERWISE NOTED. ELEVATED 4 INCH SLABS-ON-DECK SHALL BE REINFORCED WITH 6X6XW1.4 X W1.4 WWM. 6-INCH SLABS ON GRADE SHALL BE REINFORCED WITH #4 BARS AT 18-INCHES ON-CENTER UNLESS OTHERWISE

5. WALLS EXCEEDING 90 FEET SHALL CONTAIN EXPANSION JOINTS AT 90 FEET ON CENTER SPACING.

6. ALL CONSTRUCTION JOINTS FOR SLABS SHALL BE KEY JOINTED AT MID-SPAN WITH REINFORCING DISCONTINUOUS AT JOINT.

7. FLOOR SLAB CONTROL JOINTS (INCLUDING ELEVATED SLAB) SHALL BE PLACED AS SHOWN ON THE FOUNDATION PLAN (SLAB ON GRADE) OR AS DIRECTED BY THE ENGINEER (ELEVATED SLABS). UNLESS OTHERWISE NOTED. CONTROL JOINTS WILL BE SPACED NOT TO EXCEED 12'-0" ON-CENTER IN BOTH DIRECTIONS AND SHALL BE FILLED WITH SEALANT AT THE COMPLETION OF THE PROJECT.

8. CONTRACTOR WILL CHECK WITH EACH TRADE TO ASSURE CORRECT LOCATION, SIZE, LINE AND ELEVATION OF SLEEVES, BOND-OUTS, ETC. REQUIRED IN CONCRETE FLOORS AND WALLS.

9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FLOOR DRAIN SETTING FOR ELEVATION AND PLUMBNESS TO ASSURE COMPLETE AREA DRAINAGE.

10. WELDING OF REINFORCEMENT IS NOT PERMITTED.

11. EXPOSED CONCRETE SHALL BE NEATLY FINISH-RUBBED.

12. MECHANICAL EQUIPMENT RESTING ON THE CONCRETE FLOOR SLAB SHALL HAVE A 4-INCH HIGH CONCRETE PAD UNDERNEATH, EXTENDING A MINIMUM OF 6-INCHES BEYOND UNIT EDGE (EACH DIRECTION), REINFORCED WITH #3 BARS AT 18-INCHES ON-CENTER EACH WAY.

13. STRUCTURAL STEEL BELOW FINISH FLOOR SHALL RECEIVE (2) COATS OF BITUMINOUS MASTIC.

14. ADMIXTURES CONTAINING CALCIUM CHLORIDE SHALL NOT BE USED. CONCRETE SHALL NOT BE IN DIRECT CONTACT WITH ALUMINUM.

15. PROVIDE IN SLABS ON GRADE (2) BARS 4'-0" LONG AT EACH REENTRANT CORNER AND BOTH SIDES OF

16. REFER TO ACI 318 (LATEST EDITION) FOR MINIMUM CONCRETE COVER FOR REINFORCING STEEL.

17. UNLESS OTHERWISE NOTED, REINFORCING LAP SPLICES SHALL BE ACI CLASS B SPLICES USING THE FOLLOWING LAP LENGTHS:

18. COORDINATE SLAB DEPRESSIONS WITH ARCHITECTURAL DRAWINGS.

19. SLAB THICKNESSES (ELEVATED OR ON-GRADE) INDICATED ON THE DRAWINGS ARE MINIMUMS. PROVIDE SUFFICIENT CONCRETE TO ACCOUNT FOR STRUCTURE DEFLECTION AND/OR SUBGRADE FLUCTUATIONS IN ORDER TO OBTAIN SPECIFIED SLAB ELEVATIONS AT THE FLATNESS AND LEVELNESS INDICATED IN THE

20. DRILLED-IN ANCHOR BOLTS OR REBAR DOWELS SHALL BE INSTALLED AS FOLLOWS:

LOCATE ANCHOR BOLTS OR DOWELS TO AVOID CUTTING EXISTING REBAR.

 DEPTH IS BASED ON A CLEAN HOLE WITH ROUGH SIDES. ROTARY PERCUSSION EQUIPMENT AND COURSE ROCK CUTTING CHISELS ARE RECOMMENDED. DIAMOND CORE BITS SHOULD BE AVOIDED AS EMBEDMENT LENGTHS MAY NEED TO BE INCREASED. HOLE SIZE TO BE PER MANUFACTURER'S

CLEAN HOLES WITH COMPRESSED AIR OR VACUUM, REMOVE ANY FREE-STANDING WATER AND ALLOW

• GROUT ANCHOR BOLTS OR DOWELS WITH HILTI HIT HY-150 ADHESIVE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. (HILTI HVA ADHESIVE CAPSULE MAY BE SUBSTITUTED FOR THE HILTI HIT HY-150 ADHESIVE.)

21. FOOTINGS SHALL BEAR ON VIRGIN SOIL OR STRUCTURAL BACKFILL COMPACTED TO ACHIEVE 95 PERCENT RELATIVE COMPACTION AS DETERMINED BY THE MODIFIED PROCTOR TEST (ASTM D1557)

CONTRACTORS SHALL CONFORM TO SAFETY REQUIREMENTS OF THE OWNER, AIA DOCUMENT A201, OSHA SAFETY AND HEALTH STANDARDS, AND OTHER LOCAL AUTHORITIES IN CONNECTION WITH THE

PUBLICATION, UNLESS NOTED OTHERWISE. 3 NOTES ON THESE DRAWINGS SHALL NOT SUPERSEDE OR REPLACE INFORMATION PROVIDED IN THE SPECIFICATIONS ANY INCONSISTENCIES WITH THE DRAWINGS AND SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO PROCEEDING WITH THE AFFECTED PORTIONS OF THE

2. REFERENCED STANDARDS OR PUBLICATIONS SHALL PERTAIN TO THE MOST CURRENT DATA, STANDARD OR

4. STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH THE SPECIFICATIONS, AS WELL AS THE ARCHITECTURAL, MECHANICAL, PLUMBING, ELECTRICAL AND CIVIL DRAWINGS. . ALL DIMENSIONS AND ELEVATIONS SHOWN ON STRUCTURAL DRAWINGS, WITH THE EXCEPTION OF STRUCTURAL MEMBER SIZES, ARE GENERATED BY OTHER DISCIPLINES. ANY DIMENSIONS OR ELEVATIONS OMITTED OR NOT SHOWN ON THE STRUCTURAL DRAWINGS SHOULD BE OBTAINED FROM THE DRAWINGS OF THE OTHER DISCIPLINES. ANY INCONSISTENCIES WITH THE DRAWINGS AND SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO PROCEEDING WITH THE AFFECTED PORTIONS OF THE WORK.

5. IF DIFFERENCES OCCUR WITHIN OR BETWEEN THE DRAWINGS AND SPECIFICATIONS REGARDING MATERIALS, STRENGTHS OR QUANTITIES, THE BETTER, HIGHER STRENGTH, AND GREATER QUANTITY INDICATED, SPECIFIED OR NOTED SHALL BE PROVIDED.

6. THE CONTRACTOR SHALL VISIT THE SITE AT A DESIGNATED TIME APPROVED BY THE OWNER, TO VERIFY EXISTING CONDITIONS, DIMENSIONS, LOCATION OF EXISTING UTILITIES, ETC. THE CONTRACTOR SHALL NOTIFY ENGINEER OF ANY DISCREPANCIES WITHOUT EXCEPTION.

7. THE STRUCTURE HAS BEEN DESIGNED AS A SELF-SUPPORTING SYSTEM ONCE ALL WORK CONTAINED ON THESE DRAWINGS HAS BEEN COMPLETED. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ERECTION PROCEDURES AND SEQUENCE OF INSTALLATION TO ENSURE SAFETY OF THE BUILDING AND ITS OCCUPANTS DURING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MEANS AND METHODS AND TEMPORARY SHORING, 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.

WORK SHALL BE DONE IN AN ORDERLY AND PROFESSIONAL MANNER. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL WORK TO BE DONE BY SUBCONTRACTORS, LOCAL AUTHORITIES, STATE AGENCIES AND/OR UTILITY COMPANIES WHICH MAY HAVE JURISDICTION OVER THIS PROJECT.

9. UTILITY EXTENSIONS AND CONNECTIONS SHALL BE IN ACCORDANCE WITH STATE AND LOCAL CODES OR AS INDICATED BY THE SPECIFICATIONS.

10. CONTRACTOR SHALL REVIEW AND SUBMIT COMPLETE SHOP DRAWINGS FOR ALL SPECIFIED PARTS OF THE WORK, INCLUDING SHORING AND CONSTRUCTION METHODS/SEQUENCING WHERE APPLICABLE. NO PORTION OF THE WORK COVERED BY THESE SHOP DRAWINGS SHALL COMMENCE UNTIL RETURNED APPROVED SHOPS ARE RECEIVED BY THE CONTRACTOR. SEE SPECIFICATIONS FOR SPECIFIC SHOP

11. THE CONTRACTOR IS RESPONSIBLE FOR REPLACING ANY EXISTING ITEMS DAMAGED BY NEW CONSTRUCTION, AND FOR ANY INCIDENTAL REPAIRS OF EXISTING FINISHED SURFACES DISTURBED BY NEW CONSTRUCTION; SUCH REPAIRS SHALL MATCH EXISTING TO THE OWNER'S SATISFACTION.

12. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING, HANDLING, AND STORAGE OF ITEMS/MATERIALS TO REMAIN THE PROPERTY OF THE OWNER WITH THE OWNER'S REPRESENTATIVE.

13. CONTRACTOR SHALL PROVIDE AND INSTALL MATERIALS NECESSARY TO CONNECT ELEVATOR SUPPORT BEAMS AND/OR GUIDE RAILS TO THE STRUCTURE. LOCATION AND SIZE OF MEMBERS AND INSERTS SHALL BE CONFIRMED WITH THE ELEVATOR MANUFACTURER.

14. SPECIAL INSPECTIONS AS REQUIRED BY IBC 2009 SECTION 1704 SHALL BE PERFORMED BY AN INSPECTION AGENCY CONTRACTED BY THE OWNER FOR ALL STEEL. CONCRETE AND SOIL ACTIVITIES. SPECIFIC REQUIREMENTS FOR STEEL TESTING ARE OFFERED IN THE STRUCTURAL NOTES SECTION OF S000.

**GENERAL NOTES** 

PROVIDE AND INSTALL MASONRY LINTELS FOR MASONRY WALL OPENINGS UNLESS INDICATED OTHERWISE ON DRAWINGS. PROVIDE MASONRY LINTELS OF SIZE AND REINFORCEMENT AS FOLLOWS:

A - OPENINGS UP TO 3'-11" (UNLESS NOTED OTHERWISE): PROVIDE 8-INCH HIGH C.M.U. LINTEL W/ (2) #4 BARS IN 8-INCH WIDE B - OPENINGS 4'-0" TO 8'-0" (UNLESS OTHERWISE NOTED): PROVIDE 16-INCH HIGH C.M.U. LINTEL (2) #6 BARS IN 8-INCH WIDE

INSTALL FOR OPENINGS AND PENETRATIONS IN BRICK WALLS UP TO 3'-11" WIDE (UNLESS OTHERWISE NOTED) 4"X3 1/2"X 1/4" STEEL ANGLE LINTEL. FOR OPENINGS AND PENETRATIONS BETWEEN 4'-0" AND 8'-0" WIDE (UNLESS OTHERWISE NOTED) (1) 6"X3 1/2"X 1/4" STEEL ANGLE LINTEL.

3. CONCRETE MASONRY AND BRICK VENEER LINTELS SHALL HAVE 8-INCH (MIN) END BEARING UNLESS OTHERWISE NOTED.

4. CONCRETE MASONRY BLOCK WALLS WITH VERTICAL REINFORCING SHALL HAVE CORES FILLED WITH 3000 PSI CONCRETE. INSTALLATION OF REINFORCEMENT SHALL BE CONTINUOUS AND RUN UNOBSTRUCTED BY BAR JOIST SEAT/BEARING PLATE ARRANGEMENTS. HORIZONTAL REINFORCEMENT SHALL BE PROVIDED @ 16-INCHES ON-CENTER VERTICALLY.

5. PROVIDE VERTICAL CONTROL, EXPANSION OR CONTRACTION JOINTS SPACED AT 15'-O" ON-CENTER (MAX) AND LOCATE JOINTS AT EACH SIDE OF DOOR OPENINGS WHERE POSSIBLE FOR INTERIOR MASONRY WALLS. CONTROL JOINTS FOR EXTERIOR MASONRY WALLS SHALL BE AS INDICATED IN THIS NOTE OR AS SHOWN ON EXTERIOR ELEVATIONS.

6. OMIT REBAR/GROUTING IN MASONRY CELLS WHICH SHALL RECEIVE ROOF DRAIN LEADERS, CONDUITS, ETC. REQUIRED REINFORCEMENT SHALL BE INSTALLED IN THE ADJACENT CELL AND SHALL BE GROUTED SOLID.

7. HOLLOW CONCRETE BLOCK UNITS: GRADE N. 1000 PSI, MINIMUM COMPRESSIVE STRENGTH, WALL DESIGN STRENGTH, F'M =

8. LAY UNITS IN RUNNING BOND - CORNERS SHALL HAVE A STANDARD BOND BY OVERLAPPING UNITS.

10. GROUT: (3000) PSI MINIMUM 28 DAY COMPRESSIVE STRENGTH. ROD GROUT IMMEDIATELY AFTER POURING AND AGAIN APPROX.

11. MAXIMUM GROUT LIFT WITHOUT CLEANOUTS SHALL NOT EXCEED 4'-0" IN BLOCK WALLS.

12. TIE VERTICAL REINFORCING AT EACH END AND AT 8'-0" MAXIMUM VERTICAL SPACING USING SINGLE WIRE AND LOOP TYPE TIES AS MANUFACTURED BY A.A. WIRE PRODUCTS COMPANY OR APPROVED EQUAL.

13. IN 8-INCH WALLS, PROVIDE VERTICAL REINFORCING IN CENTER OF GROUT, AT CENTER OF WALL, CONTINUOUS FULL HEIGHT OF WALL AS FOLLOWS: A - (1) #5 VERTICAL AT CORNERS, INTERSECTIONS, WALL ENDS, JAMBS AND EACH SIDE OF EXPANSION OR CONTROL JOINTS.

- (1) #5 VERTICAL AT 48-INCHES ON-CENTER TYPICAL. (UNLESS NOTED ON PLAN)
- (1) #5 VERTICAL IN EACH CORE WITHIN 12-INCHES OF WALL CORNERS. 14. PLACE BOND BEAM REINFORCING CONTINUOUS THROUGH EXPANSION AND CONTROL JOINTS, WRAPPING BARS WITH 1/8-INCH THICK BOND BREAKING TAPE 24-INCHES BOTH SIDES OF JOINT. DO NOT SPLICE BOND BEAM REINFORCING WITHIN 6'-0" OF AN

15. PROVIDE CONTINUOUS WIRE LATHE GROUT BARRIERS AS REQUIRED UNDER FIRST COURSE OF GROUTED (3000 PSI CONC.)

16. PROVIDE LADDER TYPE #9 JOINT REINFORCING AT 16-INCHES VERTICAL SPACING IN WALLS.

17. WET MASONRY WALLS THOROUGHLY FOR (3) CONSECUTIVE DAYS IMMEDIATELY AFTER PLACEMENT IF TEMPERATURES ARE/WILL BE ABOVE 80°F DURING THE DAY.

18. NO EXPANSION BOLTS SHALL BE ALLOWED IN MASONRY WALLS. (CHEMICAL ANCHORS ONLY)

19. MASONRY LAID IN OUTSIDE AIR TEMPERATURES BELOW 40°F SHALL BE PROTECTED IN ACCORDANCE WITH THE PROVISIONS OF

THE "IMIAWC RECOMMENDED PRACTICES AND GUIDE SPECIFICATIONS FOR COLD WEATHER MASONRY"

20. MASONRY BLOCK CORES BELOW FINISH FLOOR SHALL BE FILLED SOLID WITH CONCRETE.

**MASONRY NOTES** 

49 DARTMOUTH STREET

PORTLAND, MAINE 04101

207-775-1059

www.pdtarchs.com

**Allied Engineering** 

Portland, Maine 04103

T: 207.221.2260

ALLIED PROJECT No.:

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S. K. HEF

No. 7133

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JOHNWALL

PDT JOB NO.

DRWN. CHK

**ISSUE: SITE AND** 

**FOUNDATION** PACKAGE

JUNE 13, 2013

STRUCTURAL .

INFORMATION

**GENERAL** 

SHEET

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SCALE:

TITLE

PDT Architects

CAD FILE:

12064 S.rvt

**FOUNDATION NOTES**