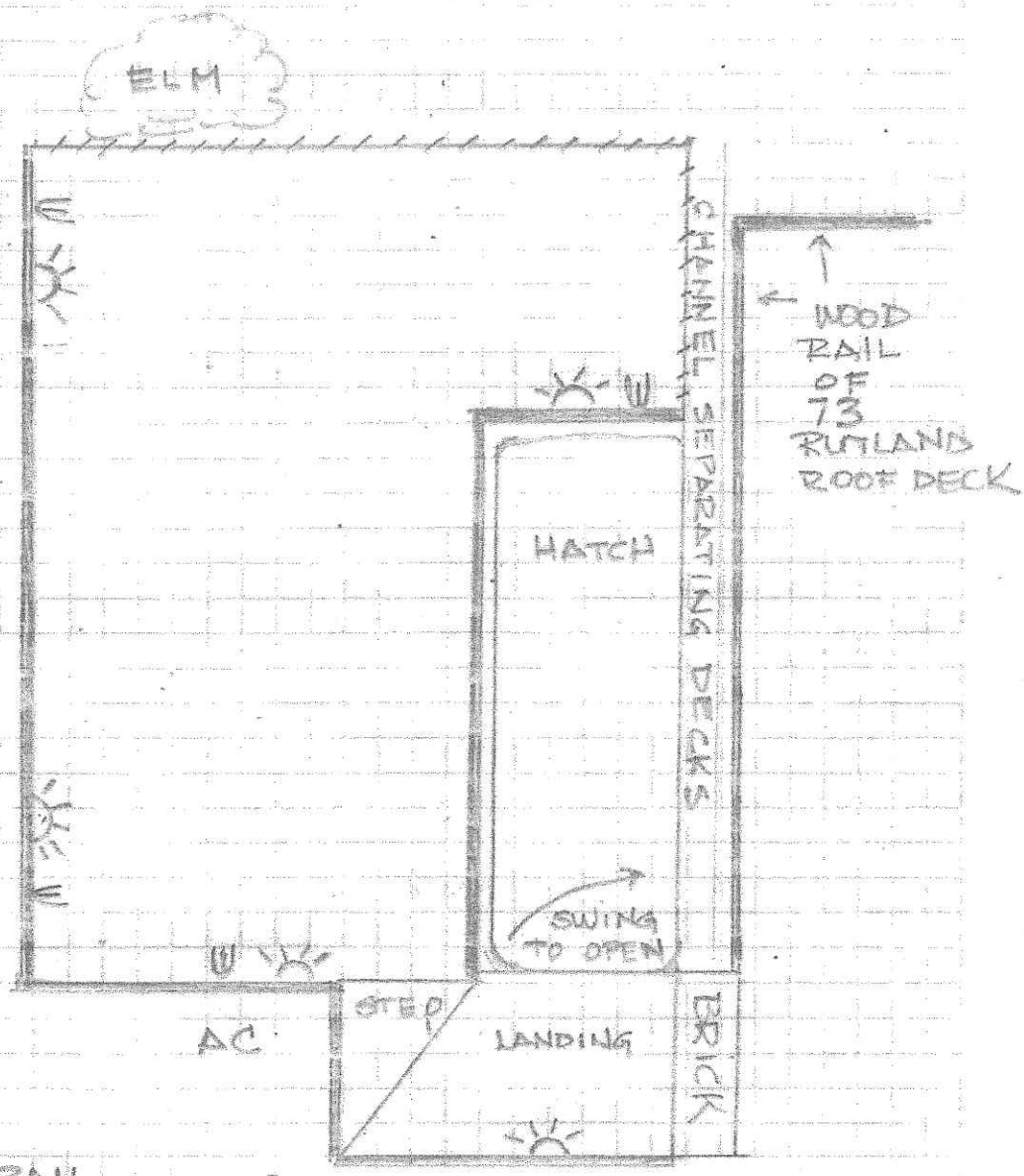
SILVA ROOF DECK
71 RUTLAND APT 4



WOOD RAIL

IRON RAIL

WALL SCONSE (5)

ELECTRICAL OUTLET (4)

NOT IN SCALE!

GENERAL NOTES:

1. THE SCOPE OF THESE PLANS IS LIMITED TO THE STRUCTURAL REQUIREMENTS TO REBUILD THE FIRE-DAMAGED ROOF DECK IN KIND. ARCHITECTURAL, ELECTRICAL, AND MECHANICAL (PLUMBING AND HVAC) REQUIREMENTS (IF ANY) ARE NOT ADDRESSED IN THESE PLANS.

2. IT IS THE INTENT OF THE ENGINEER OF RECORD (ENGINEER) THAT THIS WORK BE PERFORMED IN CONFORMANCE WITH ALL REQUIREMENTS OF THE AUTHORITIES HAVING JURISDICTION OVER THIS TYPE OF CONSTRUCTION AND OCCUPANCY.

3. ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE LATEST EDITIONS (UNLESS NOTED OTHERWISE) OF THE FOLLOWING BUILDING CODES AND STANDARDS:

   A. THE EIGHTH EDITION OF THE MASSACHUSETTS BUILDING CODE AND AMENDMENTS TO THE 2009 INTERNATIONAL BUILDING CODE AND 2009 INTERNATIONAL EXISTING BUILDING CODE (IEBC).

   B. "NDS" – NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION, 2005 EDITION.

4. ALL EXISTING INFORMATION GIVEN ON THE CONTRACT DRAWINGS SUCH AS DIMENSIONS, SIZES, ELEVATIONS, ETC. SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR. IF DISCREPANCIES ARE FOUND OR ANY CONDITIONS ARE UNCOVERED WHICH ARE NOT CONSISTENT WITH THE STRUCTURAL DRAWINGS OR ARE STRUCTURALLY INADEQUATE, THE CONTRACTOR SHALL SEEK APPROVAL OF THE ENGINEER PRIOR TO PROCEEDING WITH THE AFFECTED WORK.

5. PRIOR TO REMOVAL OF EXISTING STRUCTURAL ELEMENTS, THE CONTRACTOR SHALL EXPOSE THE EXISTING FRAMING FOR INSPECTION AND VERIFICATION. ANY DISCREPANCIES WILL BE ADDRESSED BY THE ENGINEER PRIOR TO CONTINUING WITH THE AFFECTED WORK.

6. THE CONTRACTOR IS RESPONSIBLE FOR THE MEANS AND METHODS OF CONSTRUCTION. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO DETERMINE THE PROCEDURE, SEQUENCE, AND TEMPORARY BRACING AS TO INSURE THE SAFETY OF THE BUILDING AND ITS COMPONENT PARTS DURING CONSTRUCTION.

7. THE CONTRACTOR SHALL SUPPLY, LOCATE, AND BUILD INTO THE WORK ALL INSERTS, ANCHORS, ANGLES, PLATES, OPENINGS, SLEEVES, HANGERS, SLAB DEPRESSIONS, OR OTHER COMPONENTS AS MAY BE REQUIRED TO ATTACH AND ACCOMMODATE OTHER WORK.

8. ALL DETAILS AND SECTIONS SHOWN ON THE STRUCTURAL DRAWINGS ARE INTENDED TO BE TYPICAL AND SHALL BE CONSTRUED TO APPLY TO ANY SIMILAR SITUATION ELSEWHERE IN THE WORK EXCEPT WHERE INDICATED OTHERWISE.

9. REFER TO THE STRUCTURAL DRAWINGS FOR ALL STRUCTURAL DETAILS AND SECTIONS. THE CONTRACTOR SHALL CONTACT THE ENGINEER FOR CLARIFICATION IN CASES OF CONFLICT BETWEEN THE STRUCTURAL DRAWINGS AND ANY DRAWINGS PREPARED BY OTHERS PRIOR TO COMMENCING WORK.

DESIGN LOADS:

1. THE STRUCTURE HAS BEEN DESIGNED IN ACCORDANCE WITH THE BUILDING CODE AND/OR MORE RESTRICTIVE REQUIREMENTS FOR LOADS AS GIVEN BELOW UNLESS SPECIFIC AREAS OF THE DRAWINGS INDICATE DIFFERENT LOADING CRITERIA.

2. ROOF LOADS:
   A. ROOF DEAD LOAD: 15 PSF
   B. DECK AND STRUCTURE: ACTUAL WEIGHT OF MATERIALS
   C. ROOF LIVE LOAD: 20 PSF
   D. ROOF DECK LIVE LOAD: 40 PSF
   E. FLAT ROOF SNOW LOAD, Pf: 30 PSF + DRIFT
   (Pg = 40 PSF, Ce = 1.0, Ct = 1.0)
   F. SLOPED ROOF SNOW LOAD, Ps: 28 PSF + DRIFT
   (Pg = 40 PSF, Ce = 1.0, Ct = 1.0, Cs = 0.88)

4. DESIGN CRITERIA:
   A. WIND DESIGN:
   B. BASIC WIND SPEED, V: 105 MPH
   C. OCCUPANCY CATEGORY: II
   D. WIND IMPORTANCE FACTOR, I: 1.0
   E. WIND EXPOSURE: B

5. DEFLECTION CRITERIA:
   A. ROOF FRAMING:
   LIVE LOAD: L/360
   TOTAL LOAD: L/240

MASONRY:

1. MASONRY WORK SHALL CONFORM TO ALL REQUIREMENTS OF THE IRC 2009 AND ACI 530/ASCE5/TMS 402 "BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES".

2. MORTAR SHALL CONFORM TO ASTM C270, TYPE S WITH 28 DAY COMPRESSIVE STRENGTH OF 1800 PSI, TESTED PER ASTM C780. ALL MASONRY BELOW GRADE SHALL HAVE MORTAR CONFORMING TO TYPE M, WITH 28 DAY COMPRESSIVE STRENGTH OF 2,500 PSI. MASONRY CEMENT, PRE-MIXED MORTAR AND RETARDANT ADDITIVES SHALL NOT BE USED.

3. GROUT SHALL CONFORM TO ASTM C476, FINE OR COARSE GROUT, WITH 28 DAY COMPRESSIVE STRENGTH OF 2,500 PSI. GROUT SHALL BE FREE OF FLY ASH AND CHLORIDE.

4. FOR COLD WEATHER AND HOT WEATHER CONSTRUCTION AND PROTECTION REQUIREMENTS COMPLY WITH ALL REQUIREMENTS OF ACI 530.1/ ASCE 6/ TMS 602 "SPECIFICATIONS FOR MASONRY STRUCTURES".

STRUCTURAL STEEL:

1. STRUCTURAL STEEL CONSTRUCTION SHALL CONFORM WITH THE LATEST AISC 303 "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES", AISC 360 "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS", INCLUDING COMMENTARY, AND APPLICABLE PROVISIONS OF AWS D1.1 "STRUCTURAL WELDING CODE".

2. WHERE CONNECTIONS ARE NOT FULLY DETAILED IN DRAWINGS INCLUDE ALL STEEL-TO-STEEL CONNECTIONS AND STEEL-TO-STEEL PORTION OF ALL CONNECTIONS TO OTHER MATERIALS. DESIGN CONNECTIONS FOR SPECIFIC FORCES WHERE SHOWN ON THE DRAWINGS. WHERE SPECIFIC FORCES ARE NOT SHOWN, DESIGN SHALL BE FOR MAXIMUM CONDITIONS BASED ON CAPACITIES OF CONNECTING MEMBERS.

3. STRUCTURAL STEEL ANGLES, PLATES, AND BARS SHALL BE ASTM A36. STRUCTURAL SQUARE OR RECTANGULAR TUBE SHAPES SHALL BE ASTM A500, GRADE B (FY = 46 KSI).

4. BOLTS SHALL BE ASTM A325N. ALL HIGH-STRENGTH BOLTS SHALL BE TIGHTENED TO THE SNUG-TIGHT CONDITION AS DEFINED BY AISC UNLESS NOTED OTHERWISE.

5. ANCHOR BOLTS AND PLAIN THREADED RODS AND ANCHORS SHALL BE ASTM A36 OR A307, GRADE A.

6. BOLTS, ANCHOR BOLTS, EXPANSION BOLTS, ETC., SHALL BE INSTALLED WITH STEEL WASHERS.

7. WELDING ELECTRODES SHALL CONFORM TO AWS D1.1, GRADE E70XX. E90 SERIES ELECTRODES SHALL BE USED FOR ASTM A706 REINFORCING BARS. ALL WELDING SHALL BE DONE BY WELDERS HOLDING VALID CERTIFICATES ISSUED BY AN ACCEPTED TESTING AGENCY AND HAVING CURRENT EXPERIENCE IN TYPE OF WELDS SHOWN ON THE DRAWINGS OR NOTES. ALL WELDING PER AMERICAN WELDING SOCIETY STANDARDS. CONTRACTOR MAY SHOP WELD OR FIELD WELD AT THEIR DISCRETION. SHOP WELDS OR FIELD WELDS SHALL BE SHOWN ON SHOP DRAWINGS. FULL PENETRATION WELDS SHALL BE TESTED AND CERTIFIED BY AN INDEPENDENT TESTING LABORATORY.

8. BEAMS, COLUMNS AND BRACES SHALL NOT BE SPLICED WITHOUT PRIOR APPROVAL OF STRUCTURAL ENGINEER.

9. DRYPACK GROUT FOR COLUMN BASE PLATES AND BEARING PLATES SHALL BE NONMETALLIC SHRINKAGE-RESISTANT GROUT WITH A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 5000 PSI.

10. ALL STEEL EXPOSED TO THE EXTERIOR SHALL BE HOT-DIPPED GALVANIZED.

WOOD NOTES:

1. ALL STRUCTURAL LUMBER SHALL CONFORM TO THE LATEST EDITION OF THE NFPA "NATIONAL DESIGN SPECIFICATION (NDS) FOR WOOD CONSTRUCTION" AND SUPPLEMENT "DESIGN VALUES FOR WOOD CONSTRUCTION", 2005 EDITION.

2. UNLESS NOTED OTHERWISE, ALL WOOD FRAMING EXPOSED TO WEATHER SHALL BE PRESERVATIVE PRESSURE TREATED SOUTHERN PINE NO. 2 OR BETTER.

3. ALL NAILING SHALL BE IN ACCORDANCE WITH TABLE 2304.9.1 OF THE 2009 INTERNATIONAL BUILDING CODE (IBC), UNLESS OTHERWISE NOTED.

4. ALL CONNECTIONS SHALL CONFORM TO THE CURRENT EDITION OF THE NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION, AND THE CONTRACT DOCUMENTS.

5. ALL STRUCTURAL LUMBER SHALL BE STAMPED IN ACCORDANCE WITH THE AMERICAN INSTITUTE OF TIMBER CONSTRUCTION'S "CONSTRUCTION MANUAL".

6. DO NOT NOTCH, DRILL OR SPLICE JOISTS, BEAMS OR LOAD BEARING OR STRUCTURAL STUDS WITHOUT PRIOR APPROVAL OF STRUCTURAL ENGINEER.

7. ALL NAIL HOLES IN JOIST HANGERS AND MISCELLANEOUS FRAMING ANCHORS SHALL BE FILLED WITH NAILS OF THE LARGEST SIZE SHOWN IN THE MANUFACTURER'S LATEST CATALOG. ALL HANGERS OR CONNECTORS IN CONTACT WITH PRESSURE PRESERVATIVE TREATED LUMBER OR WHERE EXPOSED TO WEATHER SHALL BE ZMAX OR HDG COATED, PER SIMPSON SPECIFICATIONS.

8. WOOD AND ASSOCIATED MATERIALS SHALL BE AS FOLLOWS:
   A. PARALLEL STRAND LUMBER PLUS SL2 (PSL PLUS): Fb=1,827psi, Fv=187psi, Fc(⊥) = 1,506psi E=1,460,000psi
   B. NAILS: SMOOTH-COMMON, BOX OR DEFORMED SHANKS WITH MINIMUM AVERAGE BENDING YIELD STRENGTHS AS SHOWN: 80 KSI FOR SHANK DIAMETER OF 0.192 INCH (20D COMMON NAIL), 90 KSI FOR SHANK DIAMETERS LARGER THAN 0.142 INCH BUT NOT LARGER THAN 0.177 INCH, AND 100 KSI FOR SHANK DIAMETERS OF 0.142 INCH OR LESS.
   C. ANCHOR BOLTS: ASTM A307 GALVANIZED
   D. CONNECTORS: SIMPSON STRONG-TIE (GALVANIZED) OR EQUAL
   E. EPOXY ANCHORS: HILTI HY70 OR EQUAL
   F. GLUE: STRUCTURAL GRADE ADHESIVE (WATERPROOF)

COORDINATION:

1. THE CONTRACT STRUCTURAL DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE MEANS OR METHOD OR SEQUENCE OF CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR AND PROVIDE ALL MEASURES NECESSARY TO PROTECT THE STRUCTURE DURING CONSTRUCTION. THESE MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO: BRACING, SHORING OF LOADS DUE TO CONSTRUCTION EQUIPMENT, ETC. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN AND IMPLEMENTATION OF ALL SCAFFOLDING, BRACING AND SHORING. OBSERVATION VISITS TO THE SITE BY THE STRUCTURAL ENGINEER SHALL NOT INCLUDE INSPECTION OF THE ABOVE ITEMS. THE STRUCTURAL ENGINEER WILL NOT BE RESPONSIBLE FOR THE CONTRACTOR'S MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES OF CONSTRUCTION, NOR WILL THE STRUCTURAL ENGINEER BE RESPONSIBLE FOR CONSTRUCTION SITE SAFETY, OR THE SAFETY PRECAUTIONS AND THE PROGRAMS INCIDENT THERETO.

2. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND COORDINATE SITE CONDITIONS WITH THE DRAWINGS PRIOR TO CONSTRUCTION. ANY DISCREPANCIES AND OMISSIONS SHALL BE RESOLVED WITH THE ENGINEER PRIOR TO CONSTRUCTION AND PRIOR TO PROCEEDING. DO NOT USE SCALED DIMENSIONS. WHERE ANY DISCREPANCIES OCCUR BETWEEN PLANS, DETAILS, STRUCTURAL NOTES AND SPECIFICATIONS, THE GREATER REQUIREMENTS SHALL GOVERN. WHERE NO SPECIFIC DETAIL IS SHOWN, CONSTRUCTION SHALL CONFORM TO SIMILAR WORK ON THE PROJECT.

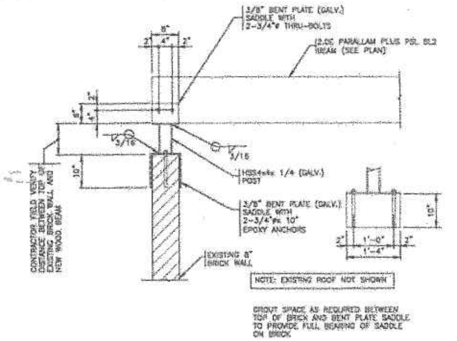
3. NOT ALL OPENINGS, BLOCKOUTS, INSERTS, CURBS, PADS, PIPING, DUCTWORK, EQUIPMENT, OR SITEWORK ITEMS AND DIMENSIONS PERTAINING THERETO ARE SHOWN ON THE STRUCTURAL DRAWINGS. REFER TO ARCHITECTURAL, MECHANICAL, PLUMBING, ELECTRICAL AND CIVIL DRAWINGS WHERE APPLICABLE. IT IS THE GENERAL CONTRACTOR'S RESPONSIBILITY TO COORDINATE WITH OTHER DISCIPLINES AND THE SUBCONTRACTORS AND EQUIPMENT SUPPLIERS/MANUFACTURERS. EQUIPMENT BEING SUPPORTED BY OR SUSPENDED FROM THE STRUCTURE SHALL BE COORDINATED WITH THE MANUFACTURER OF ANY PRE-ENGINEERED FRAMING OR COMPONENTS. WHERE EQUIPMENT WEIGHT IS NOT SHOWN ON THE STRUCTURAL DRAWINGS, VERIFY ACTUAL WEIGHT AND PROVIDE TO STRUCTURAL ENGINEER FOR CONFIRMATION OF THE STRUCTURE'S CAPACITY. ALL OPENINGS SHALL BE PROPERLY REINFORCED AS APPROVED BY THE ENGINEER.

4. CONSTRUCTION MATERIALS SHALL BE SPREAD OUT IF PLACED ON FRAMED FLOORS OR ROOFS SO AS NOT TO EXCEED THE DESIGN LIVE LOAD PER SQUARE FOOT.

5. ALL PRE-ENGINEERED/PREFABRICATED ITEMS AND MATERIALS SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S REQUIREMENTS AND ALTERATIONS ARE ALLOWED ONLY WITH WRITTEN PERMISSION FROM THE MANUFACTURER. THIRD PARTY ENGINEER'S STAMP MAY BE REQUIRED.

6. ALL DETAILS SHOWN SHALL BE INCORPORATED INTO THE PROJECT AT ALL APPROPRIATE LOCATIONS, WHETHER SPECIFICALLY INDICATED OR NOT. TYPICAL DETAILS MAY OR MAY NOT BE CUT ON THE DRAWINGS, AND DETAILS MAY OR MAY NOT BE CUT AT ALL SPECIFIC LOCATIONS, BUT SHALL APPLY UNLESS NOTED OTHERWISE.

7. FOR CLARITY, ALL EXISTING ROOF, FLOOR AND WALL OPENINGS MAY NOT BE SHOWN ON STRUCTURAL DRAWINGS. FOR EXACT SIZE, NUMBER AND LOCATION OF OPENINGS, VERIFY IN FIELD.



3/8" BENT PLATE (GALV.) SADDLE WITH 2-3/4"ø THRU-BOLTS
(2)-DE PARALLAM PLUS PSL SL2 BEAM (SEE PLAN)
HSS4x4x 1/4 (GALV.) POST
3/8" BENT PLATE (GALV.) SADDLE WITH 2-3/4"ø x 10" EPOXY ANCHORS
EXISTING 8" BRICK WALL
CONTRACTOR FIELD VERIFY DISTANCE BETWEEN TOP OF EXISTING BRICK WALL AND NEW WOOD BEAM
NOTE: EXISTING ROOF NOT SHOWN
GROUT SPACE AS REQUIRED BETWEEN TOP OF BRICK AND BENT PLATE SADDLE TO PROVIDE FULL BEARING OF SADDLE ON BRICK

2 NEW WOOD BEAM CONNECTION TO EXISTING BRICK WALL

SCALE: 3/4" = 1'-0"

PLAN NOTES

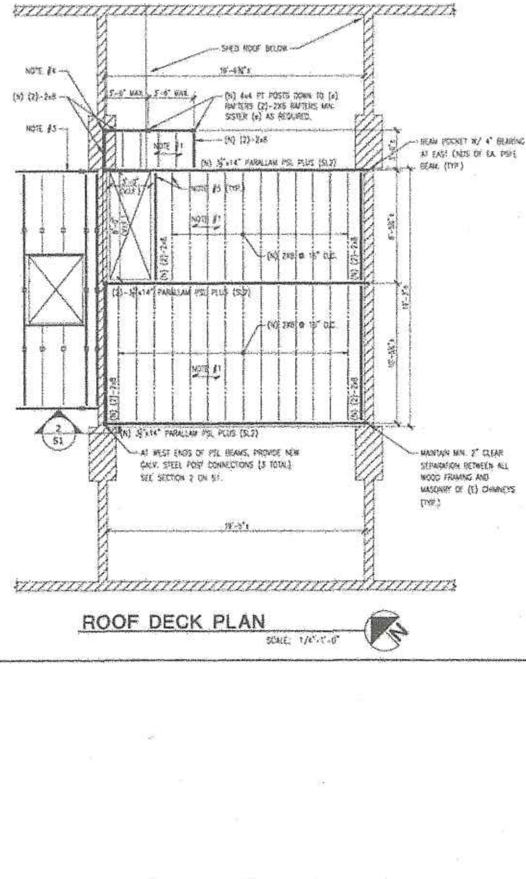
1. ⟵⟶ – INDICATES DIRECTION OF SPAN OF NEW 2x PLANK DECKING

2. ± INDICATES ESTIMATED EXISTING DIMENSIONS. ALL EXISTING CONDITIONS AND DIMENSIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR.

3. THE CONTRACTOR SHALL COORDINATE THE EXTENTS OF THE NEW DECK WITH THE NEW/EXISTING DECK(S) AT THE ADJACENT PROPERTIES TO AVOID CONFLICTS BETWEEN THE STRUCTURES.

4. PROVIDE 4X4 PT POST DOWN TO PARTY WALL AT PARTIALLY REMOVED AND ABANDONED CHIMNEY (V.I.F.). SET POST ON SIMPSON STRONG-TIE ABA44Z WITH 5/8"ø EPOXY ANCHOR SET 6" INTO TOP OF SOLID AND SOUND BRICK MASONRY.

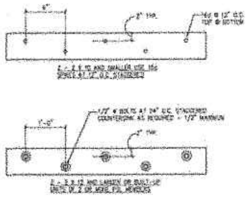
5. AT ENDS OF 2x8 JOISTS, PROVIDE SIMPSON STRONG-TIE LUS28 JOIST HANGERS. AT ENDS OF (2)-2x8 BEAMS PROVIDE LUS28-2 HANGERS.



SHED ROOF BELOW
NOTE #4
NOTE #5
(N) 4x4 PT POSTS DOWN TO (E) RAFTERS (2)-2X6 RAFTERS MIN. SISTER (E) AS REQUIRED.
BEAM POCKET W/ 4" BEARING AT EAST ENDS OF EA. PSL BEAM. (TYP.)
(N) 2X8 @ 16" O.C.
(N) 3½"x14" PARALLAM PSL PLUS (SL2)
AT WEST ENDS OF PSL BEAMS, PROVIDE NEW GALV. STEEL POST CONNECTIONS (3 TOTAL) SEE SECTION 2 ON S1.
MAINTAIN MIN. 2" CLEAR SEPARATION BETWEEN ALL WOOD FRAMING AND MASONRY OF (E) CHIMNEYS (TYP.)

ROOF DECK PLAN

SCALE: 1/4"=1'-0"



1 BUILT-UP WOOD MEMBERS

SCALE: 3/4" = 1'-0" TYPICAL DETAIL

VERTEX

ROOF DECK FRAMING PLAN AND DETAILS

71 RUTLAND STREET
BOSTON, MA 02118

REVISIONS

JOB NO. 47850 DATE 12/1/17 SCALE AS NOTED

SHEET S1