GENERAL NOTES

- THE FOLLOWING NOTES ARE INTENDED TO BE USED AS OUTLINED SPECIFICATIONS FOR THIS PROJECT. THE REFERENCED STANDARDS ARE CONSIDERED TO BE PART OF THE WORK.
- STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH ARCHITECTURAL MECHANICAL, ELECTRICAL, PLUMBING, AND SITE DRAWINGS. CONSULT THESE DRAWINGS FOR LOCATIONS AND DIMENSIONS OF OPENINGS. CHASES. INSERTS. REGLETS. SLEEVES. DEPRESSIONS, AND OTHER DETAILS NOT SHOWN ON STRUCTURAL DRAWINGS.
- ALL DIMENSIONS AND CONDITIONS MUST BE VERIFIED IN THE FIELD. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT BEFORE PROCEEDING WITH THE AFFECTED PART OF THE WORK.
- THE STRUCTURE IS DESIGNED TO BE SELF SUPPORTING AND STABLE ONLY AFTER THE STRUCTURAL WORK CONTAINED IN THE STRUCTURAL DRAWINGS IS COMPLETED. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO DETERMINE ERECTION PROCEDURES AND SEQUENCE TO ENSURE THE SAFETY OF THE BUILDING AND ITS COMPONENTS DURING ERECTION. THIS INCLUDES THE ADDITION OF NECESSARY SHORING, SHEETING, TEMPORARY BRACING, GUYS OR TIEDOWNS. SUCH MATERIAL SHALL REMAIN THE PROPERTY OF THE CONTRACTOR AFTER COMPLETION OF THE PROJECT.
- SECTIONS AND DETAILS SHOWN ON ANY STRUCTURAL DRAWINGS SHALL BE CONSIDERED TYPICAL FOR SIMILAR CONDITIONS AS DETERMINED BY THE ENGINEER.
- ALL APPLICABLE FEDERAL, STATE, AND MUNICIPAL REGULATIONS SHALL BE FOLLOWED. INCLUDING THE FEDERAL DEPARTMENT OF LABOR OCCUPATIONAL SAFETY AND HEALTH ACT (OSHA).

30 PSF

40 PSF

<u>DESIGN LOADS</u>

BUILDING CODE: MAINE UNIFORM BUILDING AND ENERGY CODE, INTERNATIONAL RESIDENTIAL CODE. 2009 EDITION ASCE 7-05 MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES.

DESIGN FLOOR LIVE LOADS: SLEEPING ROOMS ALL OTHER AREAS 3. DESIGN ROOF SNOW LOAD:

GROUND SNOW LOAD (Pg): 60 PSF SNOW EXPOSURE FACTOR (Ce): SNOW LOAD IMPORTANCE FACTOR (Is): 1.0 SNOW LOAD THERMAL FACTOR (Ct): 46.2 PSF + DRIFT FLAT ROOF SNOW LOAD (Pf):

DESIGN WIND LOAD: 100 MPH BASIC WIND SPEED: WIND LOAD IMPORTANCE FACTOR (Iw): 1.0 **WIND EXPOSURE:** INTERNAL PRESSURE COEFFICIENT: ±0.18 COMPONENTS & CLADDING LOADS PER ASCE 7-05

<u>FOUNDATION NOTES (SOIL SUPPORTED)</u>

- FOUNDATION DESIGN IS BASED ON SHALLOW SPREAD FOOTINGS BEARING ON SUITABLE UNDISTURBED NATIVE SOILS AND/OR NEW COMPACTED STRUCTURAL FILL EXTENDING TO UNDISTURBED NATIVE SOIL.
- IT IS THE CONTACTOR'S SOLE RESPONSIBILITY TO VERIFY EXISTING SOIL CONDITIONS AND TO BRING ANY DISCREPANCIES TO THE ATTENTION OF THE ARCHITECT PRIOR TO COMMENCING PLACEMENT OF FOUNDATIONS.
- PRESUMPTIVE BEARING CAPACITY OF 3000 PSF.
- EXTEND BOTTOM OF EXTERIOR FOOTINGS AT LEAST 4.5 FEET BELOW THE FINAL EXTERIOR GRADE FOR PROTECTION AGAINST FROST.
- ALL PAVEMENT. EXISTING FOUNDATIONS AND UNCONTROLLED GRANULAR FILL SHALL BE REMOVED FROM THE AREA OF THE PLANNED FOUNDATION TO AT LEAST 4 FEET BEYOND THE FOOTING LIMIT.
- COMPACTED STRUCTURAL FILL SHALL BE USED TO BACKFILL TO THE DESIGN FOOTING SUBGRADE AND BENEATH ALL SLABS ON GRADE. STRUCTURAL FILL SHALL BE A CLEAN SAND-GRAVEL MIXTURE MEETING THE FOLLOWING GRADATION:

<u>EN OR SIEVE SIZE</u>	PERCENT PASSING
6 INCH	100
3 INCH	90-100
1/4 INCH	<i>25</i> – <i>90</i>
ŃO. 40	0-30
NO. 200	0-5

- STRUCTURAL FILL SHALL BE PLACED IN UNIFORM LIFTS NOT EXCEEDING 8 INCHES IN LOOSE THICKNESS AND SHALL BE COMPACTED TO 95 PERCENT OF MAXIMUM DRY DENSITY PER ASTM D1557, MODIFIED PROCTOR TEST. COMPACT ADJACENT TO FOUNDATION WALLS SUPPORTING UNBALANCED FILL (RETAINING WALLS) TO 94 TO 96 PERCENT OF MAXIMUM DRY DENSITY PER ASTM D1557. HAND OPERATED EQUIPMENT SHALL BE USED FOR COMPACTION WITHIN 8 FEET OF NEW FOUNDATION
- NO BACKFILL SHALL BE PLACED AGAINST FOUNDATION WALLS RETAINING EARTH, UNLESS WALLS ARE ADEQUATELY BRACED TO PREVENT MOVEMENT OR STRUCTURAL DAMAGE.
- PROVIDE PVC DRAINPIPE AROUND THE PERIMETER OF THE STRUCTURE. LOCATE AT THE BOTTOM OF THE FOUNDATION WALLS AND PROVIDE POSITIVE GRAVITY FLOW TO PROPERLY DESIGNED OUTLET. REFER TO SITE DRAWINGS FOR ADDITIONAL INFORMATION.
- O. SOILS EXPOSED AT THE BASE OF ALL SATISFACTORY FOUNDATION EXCAVATIONS SHALL BE PROTECTED AGAINST ANY DETRIMENTAL CHANGE IN CONDITION, SUCH AS DISTURBANCE FROM RAIN OR FROST. SURFACE RUNOFF SHALL BE DRAINED AWAY FROM THE EXCAVATIONS SHALL BE ADEQUATELY PROTECTED FROM RAINFALL OR FREEZING CONDITIONS. GROUNDWATER SHALL BE ANTICIPATED FOR EXCAVATIONS AND APPROPRIATE DEWATERING MEASURES SHALL BE EMPLOYED.
- . SLOPE FOOTING EXCAVATIONS AS REQUIRED FOR STABILITY AND SAFETY IN ACCORDANCE WITH OSHA REQUIREMENTS. PROVIDE SHEETING OR SHORING IN ACCORDANCE WITH OSHA GUIDELINES. BRACED EXCAVATIONS SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF MAINE.

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OTHER THAN FOR WHICH IT IS SPECIFICALLY FURNISHED AND MUST BE RETURNED TO BECKER STRUCTURAL ENGINEERS INC. ON COMPLETION OF WORK, IF REQUESTED.

CONCRETE NOTES

- CONCRETE WORK SHALL CONFORM TO "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE (ACI 318 LATEST)," AND "SPECIFICATIONS FOR STRUCTURAL CONCRETE (ACI 301-LATEST)". THESE PUBLICATIONS ARE AVAILABLE THROUGH THE AMERICAN CONCRETE INSTITUTE (248) 848-3800.
- 2. GENERAL CONTRACTOR, CONSTRUCTION MANAGER AND/OR OWNER'S CLERK OF THE WORKS SHALL HAVE AVAILABLE ON SITE AT ALL TIMES A COPY OF ACI "FIELD REFERENCE MANUAL SP-15 (LATEST)". THIS PUBLICATION IS AVAILABLE THROUGH THE AMERICAN CONCRETE INSTITUTE (248) 848-3800.
- 3. CONCRETE SHALL BE CONTROLLED CONCRETE, PROPORTIONED, MIXED, AND PLACED IN ACCORDANCE WITH THE PROVISIONS SET FORTH IN ACI 318-LATEST.
- 4. <u>CONCRETE MIX DESIGN:</u>

FOOTINGS & FOUNDATION WALLS: STRENGTH: 3500 PSI @ 28 DAYS

AGGREGATE: 3/4"

- W/C RATIO: 0.55 MAX ENTRAINED AIR: $6\% \pm 1 + 1/2\%$
- E. SLUMP: 4" MAX INTERIOR SLABS ON GRADE:
- A. STRENGTH: 3000 PSI @ 28 DAYS AGGREGATE: 3/4" W/C RATIO: 0.55 MAX
- ENTRAPPED AIR ONLY (NO ENTRAINMENT): 3% MAX SLUMP: 4" MAX

- ADD AIR ENTRAINING ADMIXTURE AT MANUFACTURER'S PRESCRIBED RATE TO RESULT IN CONCRETE AT POINT OF PLACEMENT HAVING THE ABOVE NOTED AIR
- ADDITIONAL SLUMP MAY BE ACHIEVED BY THE ADDITION OF A MIDRANGE OR HIGH RANGE WATER REDUCING ADMIXTURE. MAXIMUM SLUMP AFTER ADDITION OF ADMIXTURE SHALL BE 6 INCHES AND 8 INCHES RESPECTIVELY.

5. CONCRETE MIXING:

- JOB-SITE MIXING OF CONCRETE WILL NOT BE PERMITTED. READY-MIX CONCRETE MUST COMPLY WITH THE REQUIREMENTS OF ASTM C94, AND AS SPECIFIED HEREIN. PROVIDE BATCH TICKET FOR EACH BATCH DISCHARGED AND USED IN WORK, INDICATING PROJECT NAME, MIX TYPE, MIX TIME, BATCH QUANTITY, AND <u>PROPORTIONS OF INGREDIENTS</u>.
- 6. CONCRETE SHALL NOT BE PLACED IN WATER OR ON FROZEN GROUND.
- 7. PROVIDE PVC SLEEVES WHERE PIPES PASS THROUGH EXTERIOR CONCRETE OR SLABS CAST ON GRADE. ADJACENT SLEEVES SHALL BE SPACED A MINIMUM OF THREE DIAMETERS APART. NO PENETRATIONS SHALL BE MADE THROUGH FOOTINGS WITHOUT WRITTEN PERMISSION FROM
- 8. REINFORCING BARS SHALL CONFORM TO ASTM A615 GRADE 60 DEFORMED BARS AND SHALL BE DETAILED, FABRICATED AND PLACED IN ACCORDANCE WITH ACI 315, LATEST EDITION.
- 9. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185 AND SHALL BE PROVIDED IN FLAT SHEETS. LAP TWO SQUARES AT ALL JOINTS AND TIE AT 3'-0" ON CENTER.
- 10. COMPLETE SHOP DRAWINGS AND SCHEDULES OF ALL REINFORCING STEEL SHALL BE PREPARED BY THE CONTRACTOR AND SUBMITTED TO THE STRUCTURAL ENGINEER FOR REVIEW. PROVIDE AND SCHEDULE ON THE SHOP DRAWINGS ALL NECESSARY ACCESSORIES TO HOLD REINFORCEMENT SECURELY IN POSITION. MINIMUM REQUIREMENTS SHALL BE: HIGH CHAIRS AT 4'-0" O.C. WITH CONTINUOUS # 5 SUPPORT BARS; SLAB BOLSTERS, CONTINUOUS AND 3'-6" O.C.; BEAM BOLSTERS AT 5'-0" O.C.
- 11. MINIMUM CONCRETE PROTECTIVE COVERING FOR REINFORCEMENT, UNLESS NOTED OTHERWISE, SHALL BE AS FOLLOWS:
 - SURFACES CAST AGAINST AND PERMANENTLY IN CONTACT WITH EARTH, 3.0" FORMED SURFACES IN CONTACT WITH EARTH OF EXPOSED TO WEATHER #5 BARS, 5/8" DIAMETER WIRE, AND SMALLER, 1.5"
 - #6 THROUGH #11 BARS, 2.0" SURFACES NOT IN CONTACT WITH EARTH OR EXPOSED TO WEATHER WALLS, SLABS, JOISTS #11 AND SMALLER, 1.0"
- 13. REINFORCEMENT SHALL BE CONTINUOUS AROUND CORNERS AND AT INTERSECTIONS. PROVIDE LAPPED BARS AT NECESSARY SPLICES OR HOOKED BARS AT DISCONTINUOUS ENDS. SEE SCHEDULE FOR REQUIRED REBAR LAP SPLICE LENGTHS.
- 14. WELDING OF REINFORCEMENT IS NOT PERMITTED.
- 15. CONTRACTION/CONTROL JOINTS SHOWN ON DRAWINGS ARE MANDATORY. OMISSIONS, ADDITIONS, OR CHANGES SHALL NOT BE MADE EXCEPT WITH THE SUBMITTAL OF A WRITTEN REQUEST TOGETHER WITH DRAWINGS OF THE PROPOSED JOINT LOCATIONS FOR APPROVAL BY THE STRUCTURAL ENGINEER.
- 16. CONCRETE SHALL BE PLACED WITHOUT HORIZONTAL CONSTRUCTIONS JOINTS EXCEPT WHERE SHOWN OR NOTED. VERTICAL CONSTRUCTION JOINTS AND STOPS IN CONCRETE WORK SHALL BE MADE AT MIDSPAN OR AT POINTS OF MINIMUM SHEAR.
- 17. ALL GROUT BENEATH BASE PLATES & BEARING PLATES SHALL BE "5-STAR" 5000 PSI NON-SHRINK GROUT BY U.S. GROUT CORP., OR APPROVED EQUAL

STRUCTURAL STEEL NOTES

- 1. STRUCTURAL STEEL FABRICATION, ERECTION, AND CONNECTION DESIGN SHALL CONFORM TO AISC "SPECIFICATION FOR THE DESIGN FABRICATIONS, AND ERECTION OF STRUCTURAL STEEL" LATEST EDITION, AND THE "CODE OF STANDARD PRACTICE", LATEST EDITION.
- 2. STRUCTURAL STEEL: STEEL PLATES, SHAPES, AND BARS, CONFORM TO ASTM A36 UNLESS NOTED OTHER WISE (U.N.O.). STRUCTURAL STEEL SHAPES DESIGNATED ON THE DRAWINGS FOR WIDE-FLANGE SECTIONS: ASTM A992 (ASTM A572 GRADE 50 WITH SPECIAL REQUIREMENTS PER AISC TECHNICAL BULLETIN #3 DATED MARCH,
- 3. STRUCTURAL TUBING: CONFORM TO ASTM A500 GRADE B46 KSI.
- 4. FIELD CONNECTIONS SHALL BE BOLTED USING ASTM A325N HIGH STRENGTH BOLTS (U.N.O.) EXCEPT WHERE SLIP CRITICAL CONNECTIONS ARE REQUIRED AND NOTED BY A325 (SC) ON THE DRAWINGS. PROVIDE SLIP CRITICAL (SC) CONNECTIONS AT ALL MOMENT CONNECTIONS, BRACED FRAMES, RELIEVING ANGLES AND AS OTHERWISE NOTED. USE A490 BOLTS WHERE INDICATED.
- 5. WHERE WELDING IS INDICATED, ALL WELDING SHALL CONFORM TO AWS D1.1—LATEST EDITION. ELECTRODES SHALL CONFORM TO AWS A5.1 E70XX SERIES WITH PROPER ROD TO PRODUCE OPTIMUM WELD (LOW HYDROGEN)
- 6. SEE CONCRETE NOTES AND DRAWINGS FOR ANCHOR BOLT INFORMATION, TYP.
- 8. PROVIDE 1/4" THICK LEVELING PLATE AND 3/4"± OF NON SHRINK GROUT UNDER ALL COLUMN BASE PLATES UNLESS OTHERWISE NOTED. LEVELING PLATES SHALL BE SET AND GROUTED PRIOR TO ERECTING COLUMNS. LEVELING NUTS MAY BE USED AS AN ALTERNATE PROVIDED BASEPLATES ARE SHIMMED IN ACCORDANCE WITH AISC SPECIFICATIONS UNTIL SUCH TIME AS THE BASEPLATE IS GROUTED.
- 9. PROVIDE 3/8" MINIMUM STIFFENER PLATES EACH SIDE OF BEAM WEB AT BEAMS FRAMING OVER COLUMNS AND AT BEAMS SUPPORTING COLUMNS ABOVE.
- 10. SUBMIT SHOP DRAWINGS FOR REVIEW.
- 10. COAT ALL COLUMNS, BASE PLATES AND BRACE ELEMENTS ENCASED IN CONCRETE OR BELOW GRADE WITH BITUMINOUS MASTIC ON TNEMEC H.B. TNEMECOL (46-465) COAL TAR PAINT, U.N.O.

STRUCTURAL STEEL NOTES CONT

- 11. ALL STAIR STRUCTURES AND RAILING ASSEMBLIES SHALL BE DESIGNED BY A SPECIALTY ENGINEER ENGAGED BY THE FABRICATOR. ALL DESIGNS SHALL MEET THE REQUIREMENTS OF THE INDICATED BUILDING CODE. COORDINATE ALL DETAILS WITH THE ARCHITECTURAL DRAWINGS AND SUBMIT COMPLETE FABRICATION DRAWINGS WITH ALL NECESSARY SUPPORTING ENGINEERING CALCULATIONS FOR REVIEW. DRAWINGS AND CALCULATIONS SHALL BE STAMPED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE WHERE THE PROJECT WILL BE CONSTRUCTED.
- 12. STEEL FINISHES:
- ALL INTERIOR STEEL IN HEATED AREAS SHALL BE FABRICATED AND SHIPPED PRIME PAINTED STEEL, U.N.O. - ALL EXTERIOR STEEL, STEEL IN UNHEATED AREAS OR STEEL EXPOSED TO VIEW SHALL RECEIVE A COATING. COORDINATE COATINGS WITH ARCHITECT.
- ALL INTERIOR STEEL IN UNHEATED AREAS OR EXPOSED TO VIEW SHALL BE PAINTED WITH: SURFACE PREPARATION SSPC-SP2 OR SP3 HAND OR POWER TOOL CLEANING PRIMER (SHOP APPLIED): TNEMEC SERIES V10 TNEME-PRIMER (2.5-3.5 MILS DFT) FINISH COAT (FIELD APPLIED): TNEMEC SERIES 1029 ENDURATONE (2 COATS, EACH 2.0-3.0 MILS DFT)
- HOT DIPPED GALVANIZED STEEL AS INDICATED ON THE DRAWINGS.

WOOD FRAMING NOTES

- 1. LUMBER TO CONFORM TO THE NATION DESIGN SPECIFICATION FOR WOOD CONSTRUCTION (NDS). EDITION AS REFERENCED BY IBC AND IRC. SHEATHING TO CONFORM TO AMERICAN PLYWOOD ASSOCIATION (APA).
- 2. DIMENSIONAL LUMBER: No.2 GRADE OR BETTER SPRUCE-PINE-FIR (SPF), NGLA GRADED. NELMA GRADED SPF-S WILL NOT BE ACCEPTED AS AN EQUAL SUBSTITUTE. KILN-DRIED OR SEASONED TO 19% MAXIMUM MOISTURE CONTENT.
- 3. STRUCTURAL COMPOSITE LUMBER: LAMINATED VENEER LUMBER (LVL), PARALLEL STRAND LUMBER (PSL), AND LAMINATED STRAND LUMBER (LSL) BY WEYERHAEUSER, BOISE, OR APPROVED PRODUCTS (SUBMIT DATA). INSTALLATION AND FASTENING OF PLIES ACCORDING TO MANUFACTURER'S DETAILS.
- BEAMS AND HEADERS (LVL & PSL): MODULUS OF ELASTICITY (E) = 2,000,000 PSI (MIN). ALLOWABLE BENDING STRESS, Fb = 2,600 PSI (MIN), ALLOWABLE SHEAR STRESS, Fv = 285 PSI (MIN). POSTS AND COLUMNS (LVL & PSL):
- E = 1,800,000 PSI (MIN)
- Fb = 2,400 PSI (MIN)Fv = 190 PSI (MIN)
- STUDS (LSL): E = 1,500,000 PSI (MIN)
- Fb = 2,250 PSI (MIN)Fv = 285 PSI (MIN)
- 4. I-JOISTS AND RIM BOARD FRAMING SYSTEM: MANUFACTURED BY WEYERHAEUSER (TJI), BOISE (BCI), OR APPROVED PRODUCTS (SUBMIT DATA). INSTALLATION AND FASTENING ACCORDING TO MANUFACTURER'S DETAILS.
- 5. PRESERVATIVE TREATED (PT) LUMBER: No.2 GRADE OR BETTER SOUTHERN PINE (SP OR SYP) TREATED WITH MICRONIZED COPPER AZOLE (MCA) OR ALKALINE COPPER QUATERNARY (ACQ). MCA & ACQ PRESERVATIVE CONTENT: 0.15 PCF. USE ONLY HOT-DIP GALVANIZED OR STAINLESS STEEL NAILS AND FASTENERS, OR COATED FASTENERS APPROVED FOR USE IN PT LUMBER AND EXTERIOR APPLICATION.
- 6. SHEATHING & SUBFLOOR: PLYWOOD OR OSB WOOD STRUCTURAL PANELS STAMPED RATED SHEATHING, EXPOSURE 1. APPLY SHEATHING WITH LONG EDGES AND FACE GRAIN PERPENDICULAR TO FRAMING.
- FLOORS: 3/4 INCH NOMINAL TONGUE & GROOVE (T&G) GLUED TO ALL FRAMING AND USE RING SHANK OR ANNULAR NAILS.
- ROOF: 5/8 INCH NOMINAL. USE T&G FOR 24" O.C. FRAMING. WALLS: 1/2 INCH NOMINAL.
- NAIL SHEATHING AND SUBFLOOR TO ALL FRAMING AND BLOCKING USING GALVANIZED 8d BOX NAILS 0.113"x2 3/8" (MIN) OR
- BRIGHT 8d COMMON NAILS 0.131"x2 1/2" (MIN) AS FOLLOWS: FLOORS: 6" O.C. PANEL EDGES, 12" O.C. WITHIN PANELS. WALLS: 6" O.C. PANEL EDGES, 12" O.C. WITHIN PANELS (SEE S1.4 & S1.5 FOR NAILING REQUIREMENTS AT SHEARWALL)
- FOR NAILING REQ'S. ROOF: 4" O.C. PANEL EDGES, 8" O.C. WITHIN PANELS.
- 7. NAIL BUILT-UP LUMBER BEAMS, HEADERS, AND POSTS AS FOLLOWS: BEAMS AND HEADERS: (3) ROWS 12d BOX NAILS (0.128"x31/4" MIN) @ 12" O.C. POSTS AND COLUMNS: (2) ROWS 12d BOX NAILS @ 8" O.C IN EACH PIECE.
- 8. FASTENING NOT SPECIFIED IN THESE NOTES OR ON THE DRAWINGS SHALL CONFORM TO THE FASTENING SCHEDULE AND TABLES IN IBC OR IRC CODES AS REQUIRED BY THE PROJECT TYPE. FASTENERS SHALL CONFORM TO:
- FLOORS: ASTM F1667 THROUGH BOLTS: ANSI B18.2.1 WITH HEX HEAD & NUT AND WASHER AGAINST WOOD. LAG SCREWS: ANSI B18.2.1 WITH HEX HEAD & WASHER. HOLE FOR BOLT OR LAG SCREW TO BE 1/32" TO 1/16" LARGER IN DIAMETER
- THAN BOLT OR LAG SCREW SHANK. LEAD HOLE FOR LAG SCREW THREADS: 60% TO 75% OF SHANK DIAMETER FOR SP OR SYP, LVL & PSL. 40% TO 70% OF SHANK DIAMETER FOR SPF.
- 9. ALL WOOD FRAMING CONNECTION HARDWARE (JOIST HANGERS, POST BASES, SHEARWALL HOLDOWNS, ETC) TO BE MANUFACTURED BY SIMPSON STRONG—TIE, OR APPROVED EQUAL (SUBMIT DATA). ALL CONNECTION HARDWARE SHALL BE ZINC COATED G-90 (MIN) CONNECTION HARDWARE USED WITH PRESERVATIVE TREATED LUMBER (PT) AND/OR EXTERIOR APPLICATION SHALL BE GALVANIZED G185 (ZMAX). USE FASTENERS OF SAME MATERIAL & COATING AS CONNECTOR AS SPECIFIED BY MANUFACTURER. REFER TO MANUFACTURER'S LITERATURE FOR PROPER CONNECTOR HANDLING AND INSTALLATION GUIDELINES.
- 10. FASTENERS USED WITH PT LUMBER AND EXTERIOR EXPOSED FRAMING (OTHER THAN THOSE IN SIMPSON OR EQUAL CONNECTORS) SHALL BE HOT-DIPPED GALVANIZED INCLUDING NUTS AND WASHERS (ASTM A153).
- 11. LOAD BEARING STUD WALLS CAPPED WITH DOUBLE TOP PLATES HAVING END JOINTS OFFSET OVERLAPPED 4'-0" (MIN) AND NAILED WITH (12) 10d OR 12d SPACED @ 8" O.C. OVERLAP TOP PLATES AT CORNERS AND INTERSECTIONS AND NAIL WITH (4) 10d OR
- 12. PROVIDE BLOCKING UNDER POSTS MATCHING SIZE OF POST. PROVIDE POST OF MATCHING MATERIAL AND SIZE UNDERNEATH POST & BLOCKING WHERE ABOVE A STUD WALL (U.N.O.).
- 13. HOLES IN FRAMING FOR ELECTRICAL, PLUMBING, HEATING, AND MECHANICAL COMPONENTS MUST MEET THE GUIDELINES AND REQUIREMENTS IN THE IBC AND IRC CODES FOR LUMBER. HOLES IN LVL, PSL, LSL, AND I-JOISTS MUST MEET THE GUIDELINES AND REQUIREMENTS OF THE MANUFACTURER.

WOOD TRUSS NOTES

<u>GENERAL</u>

- TRUSSES SHALL BE DESIGNED, FABRICATED, ERECTED, AND BRACED IN ACCORDANCE WITH WTCA/TPI BCSI "BUILDING COMPONENT SAFETY INFORMATION" GUIDEBOOK LATEST EDITION.
- 2. ERECTION AND TEMPORARY BRACING SHALL CONFORM TO WTCA/TPI BCSI "BUILDING COMPONENT SAFETY INFORMATION" GUIDEBOOK LATEST EDITION.

- SEE ROOF FRAMING PLAN(S) FOR TRUSS ORIENTATION, SPACING, AND LOCATIONS.
- 2. SEE TRUSS ELEVATIONS FOR GENERAL TRUSS PROFILES. SEE ARCHITECTURAL DRAWINGS FOR ALL TRUSS PROFILES AND DIMENSIONS NOT SHOWN ON STRUCTURAL
- 3. TEMPORARY BRACING SHALL BE LEFT IN PLACE AND SERVE AS PART OF THE PERMANENT BRACING SYSTEM. REFERENCE TRUSS SUBMITTAL FOR PERMANENT BRACING LOCATION INFORMATION. TRUSS ENGINEER SHALL DESIGN TRUSSES TO MINIMIZE PERMANENT LATERAL BRACING REQUIRED TO BE INSTALLED IN THE FIELD.
- 4. TRUSS ENGINEER SHALL PROVIDE ALL CONNECTION DESIGN FOR TRUSS TO TRUSS CONNECTIONS.
- 5. ALL TRUSSES SHALL BE DESIGNED FOR TRANSIENT LOAD CASES INDICATED IN THE BUILDING CODE, INCLUDING UNBALANCED AND SKIP LOADINGS.
- 6. ROOF TRUSS DESIGN LOADS: SEE ROOF TRUSS ELEVATIONS FOR LOADING REQUIREMENTS OR THE FOLLOWING: TOP CHORD DEAD LOAD = 30 PSF (MIN)
- CHORD SNOW LOAD = 46.2 PSF (MIN) + DRIFT (SEE DRIFT PLAN). REFER TO DESIGN LOADS BOTTOM CHORD DEAD LOAD = 10 PSF (MIN)
- BOTTOM CHORD LIVE LOAD = 10 PSF (MIN) NON-CONCURRENT WITH SNOW LOAD VERTICAL TRUSS DEFLECTION = L/360 MINIMUM OR 1" MAXIMUM (SNOW LOAD). HORIZONTAL TRUSS DEFLECTION = 3/4" MAXIMUM (SNOW LOAD). SEE ROOF PLAN FOR ADDITIONAL LOADING REQ'D FOR FIRE PIT AND DUE TO 2x ROOF OVERHANG
- 7. FLOOR TRUSS DESIGN LOADS:
- SEE FLOOR TRUSS DIAGRAMS FOR LOADING REQUIREMENTS OR THE FOLLOWING:
- TOP CHORD DEAD LOAD = 20 PSF (MIN)TOP CHORD LIVE LOAD = 40 PSF (MIN) REFER DESIGN LOADS
- BOTTOM CHORD DEAD LOAD = 10 PSF (MIN)
- BOTTOM CHORD LIVE LOAD = 5 PSF (MIN) NON-CONCURRENT WITH LIVE LOADS VERTICAL TRUSS DEFLECTION = L/480 MINIMUM OR 3/4" MAXIMUM (LIVE LOAD).

TRUSS SUBMITTALS

- 1. TRUSS MANUFACTURER SHALL SUBMIT A TRUSS PLACEMENT DRAWING INDICATING THE FOLLOWING: A. SLOPE
- B. SPAN C. SPACING
- D. TRUSS NUMBER THAT CORRESPONDS TO TRUSS ERECTION DRAWING. E. LOCATION OF PERMANENT LATERAL BRACING, LOCATION OF BRACING SHALL BE INDICATED ON THE TRUSSES BY EITHER A TAG OR A PAINT MARK.
- 2. TRUSS DESIGN DRAWINGS AND CALCULATIONS STAMPED BY A LICENSED PROFESSIONAL ENGINEER IN THE STATE OF MAINE.

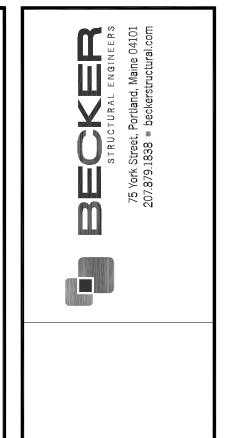
G. REQUIRED PERMANENT TRUSS BEARING AND BRACING LOCATIONS

- 3. TRUSS DESIGN DRAWINGS SHALL INCLUDE THE FOLLOWING:
- A. SLOPE, SPAN, AND SPACING B. LOCATIONS OF ALL JOINTS C. REQUIRED BEARING WIDTHS
- D. CHORD AND WEB MEMBER SIZE, GRADE, AND SPECIES E. CALCULATED SNOW LOAD, LIVE LOAD, AND TOTAL LOAD VERTICAL AND HORIZONTAL
- F. MAXIMUM AXIAL TENSION AND COMPRESSION FORCES IN EACH OF THE TRUSS MEMBERS TO ENABLE THE BUILDING DESIGNER TO REVIEW THE SIZE, CONNECTIONS, AND ANCHORAGE OF PERMANENT CONTINUOUS LATERAL BRACING.

REBAR LAP SPLICE TABLE LAP LENGTH BAR SIZE 3,000 PS1 16" 22" 27"

> NOT FOR CONSTRUCTION 2/12/18 100% CD ARCH REVIEW SET

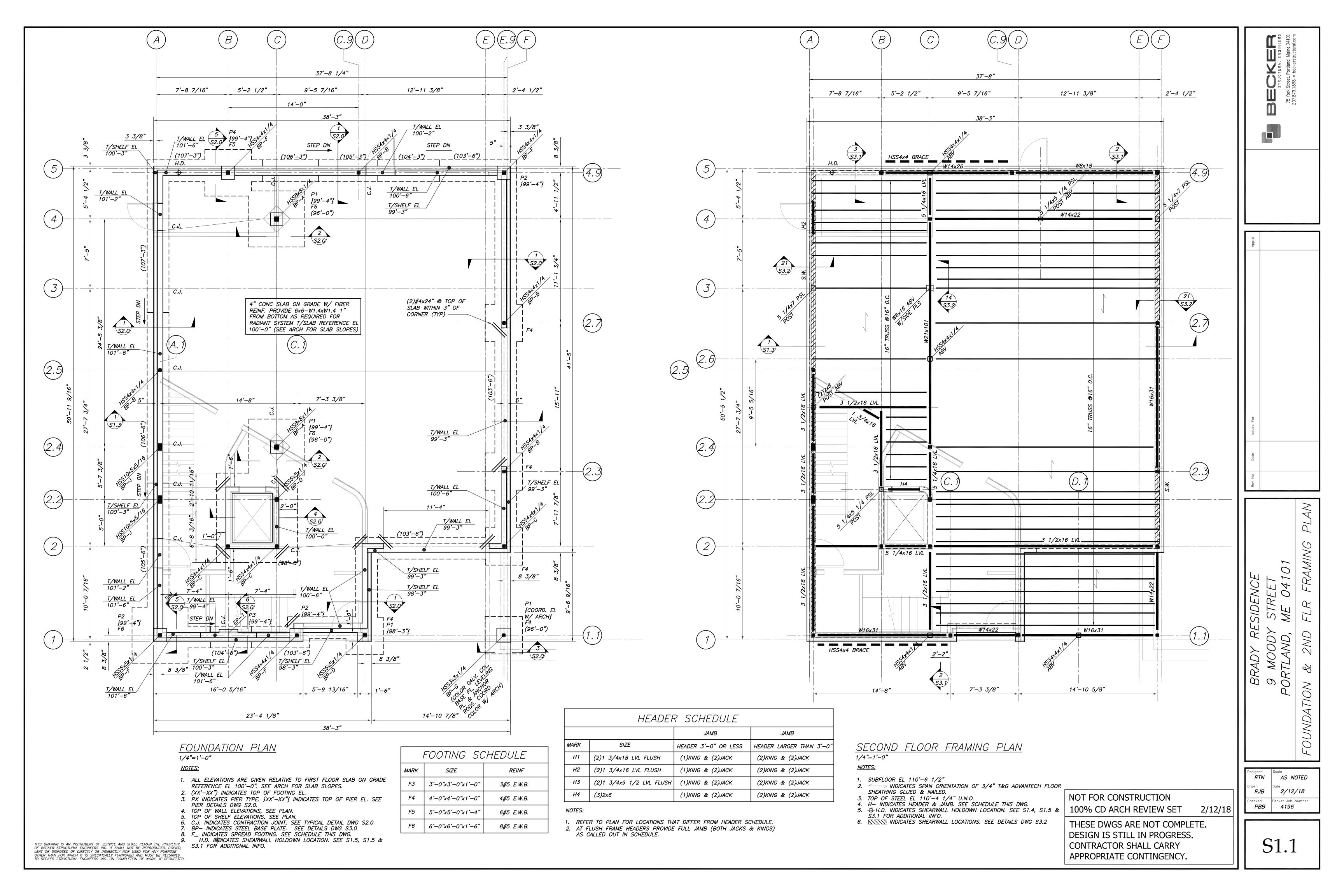
THESE DWGS ARE NOT COMPLETE. DESIGN IS STILL IN PROGRESS. CONTRACTOR SHALL CARRY APPROPRIATE CONTINGENCY.

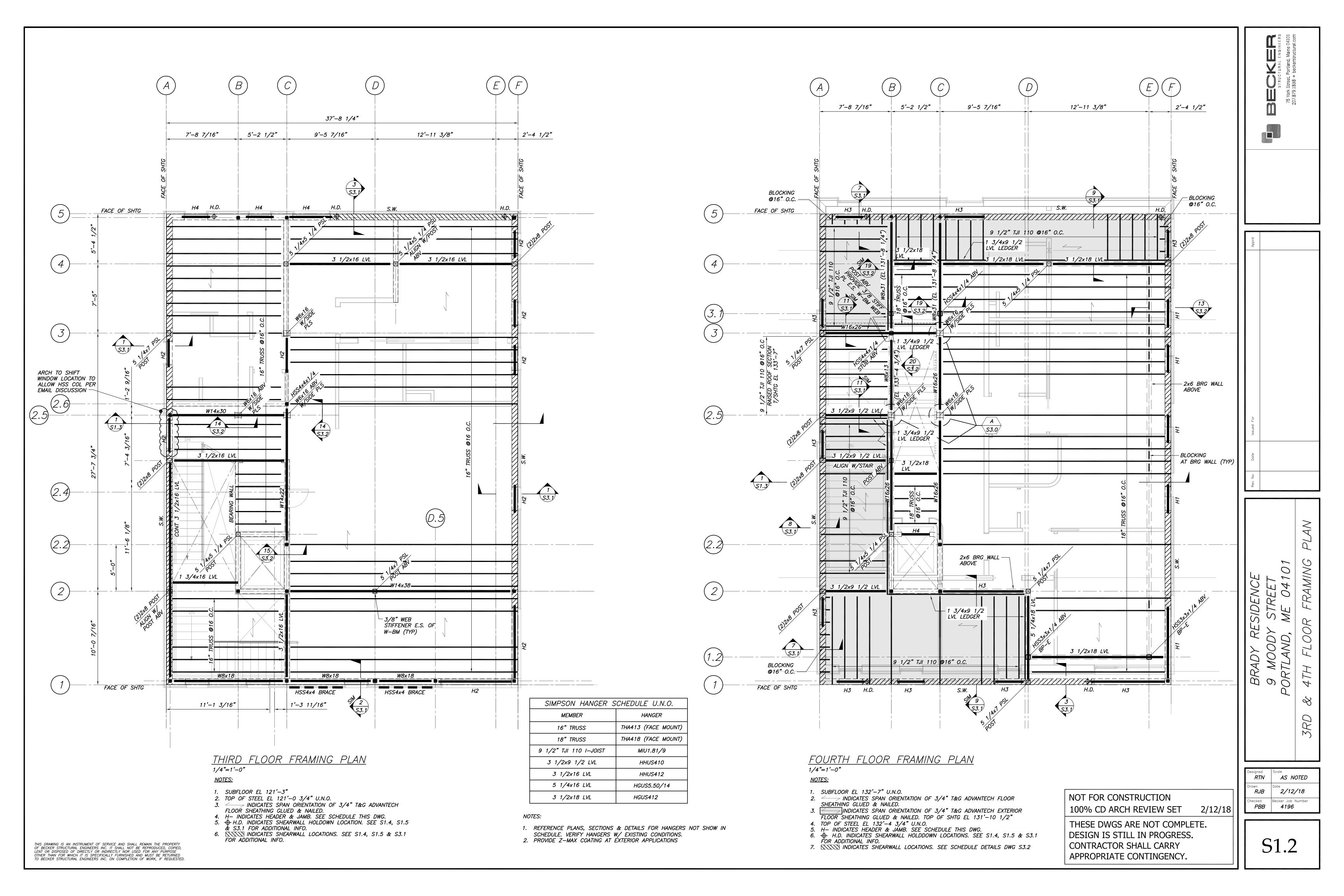


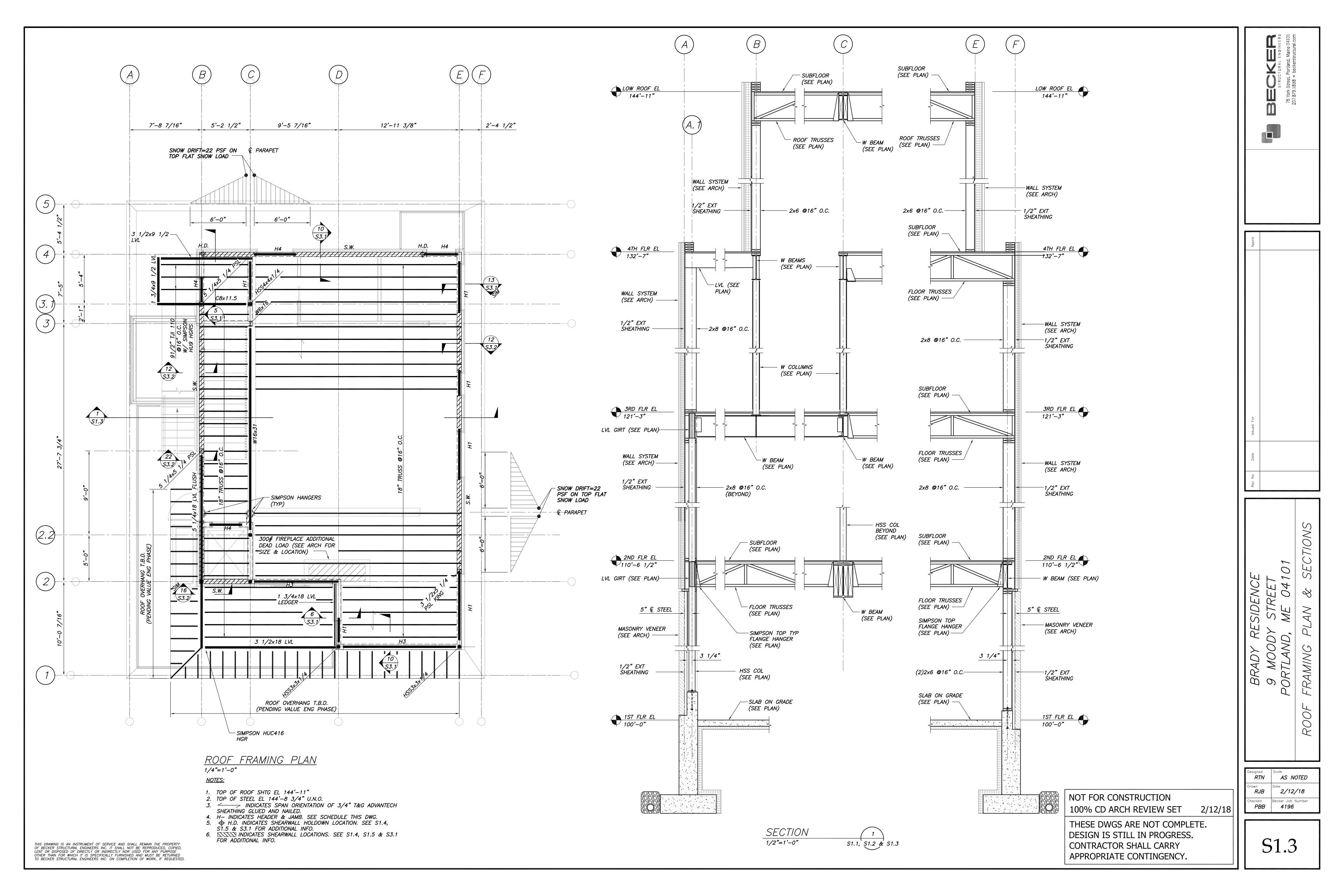
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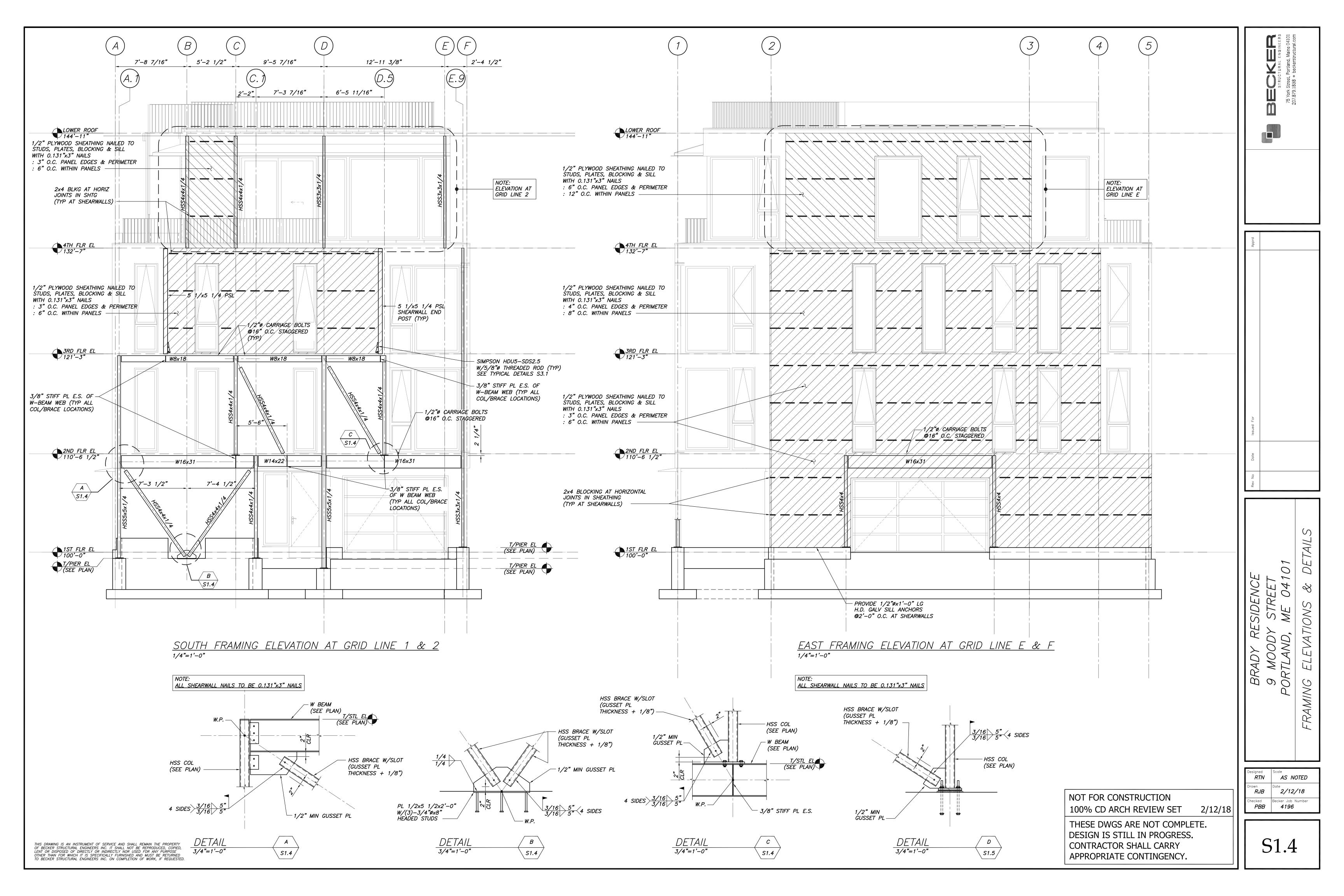
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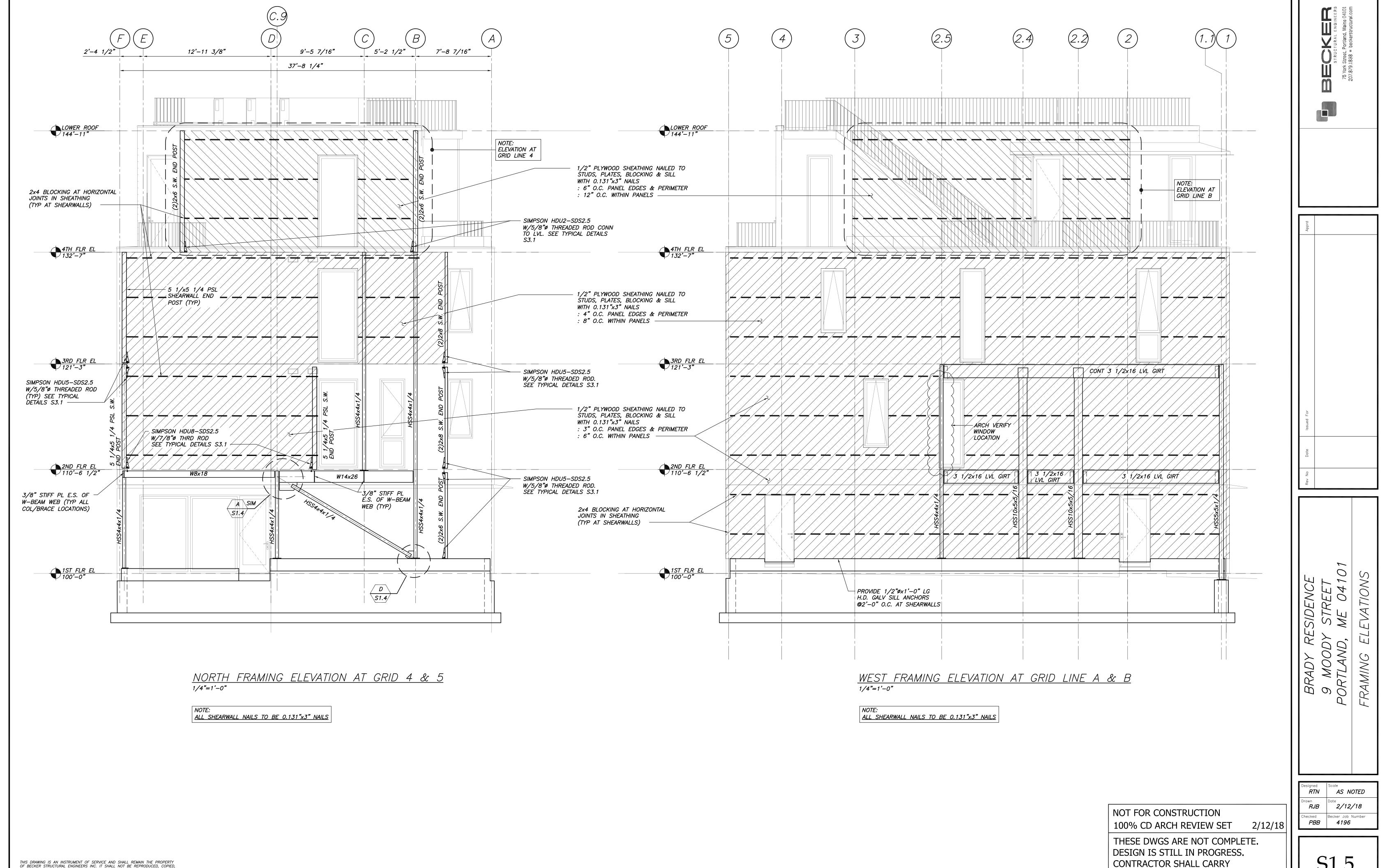
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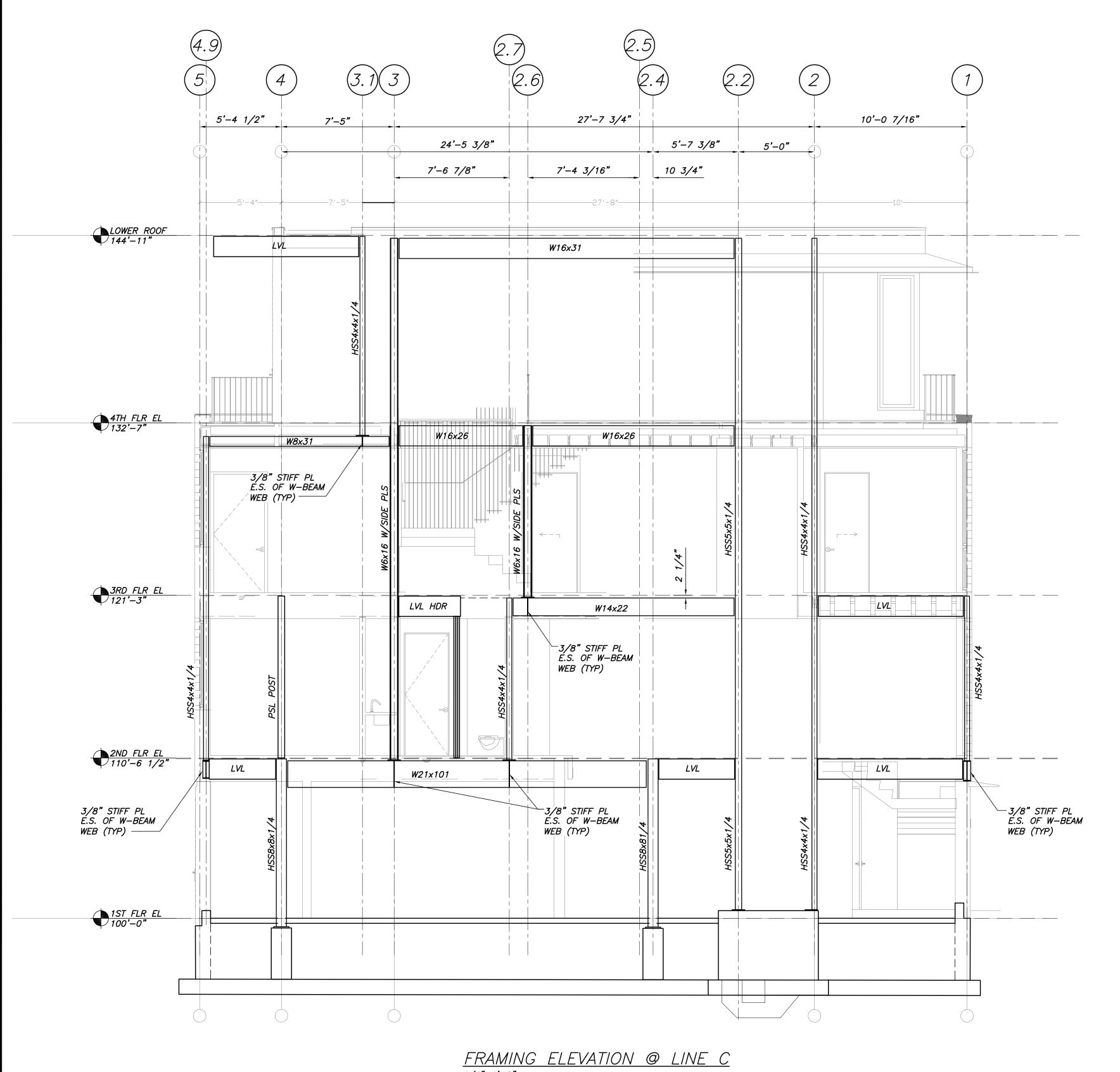




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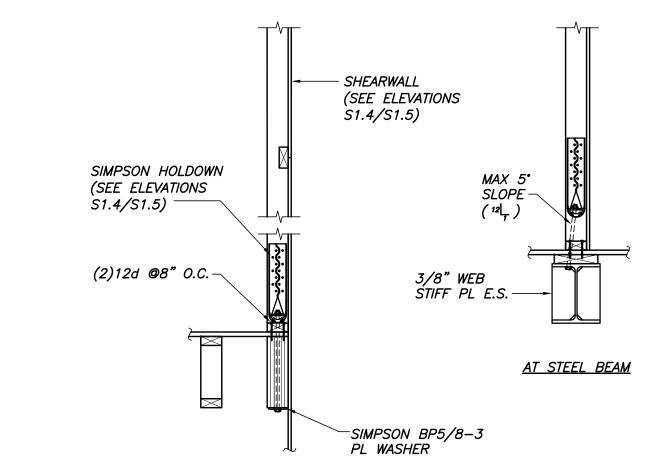
S1.5

APPROPRIATE CONTINGENCY.

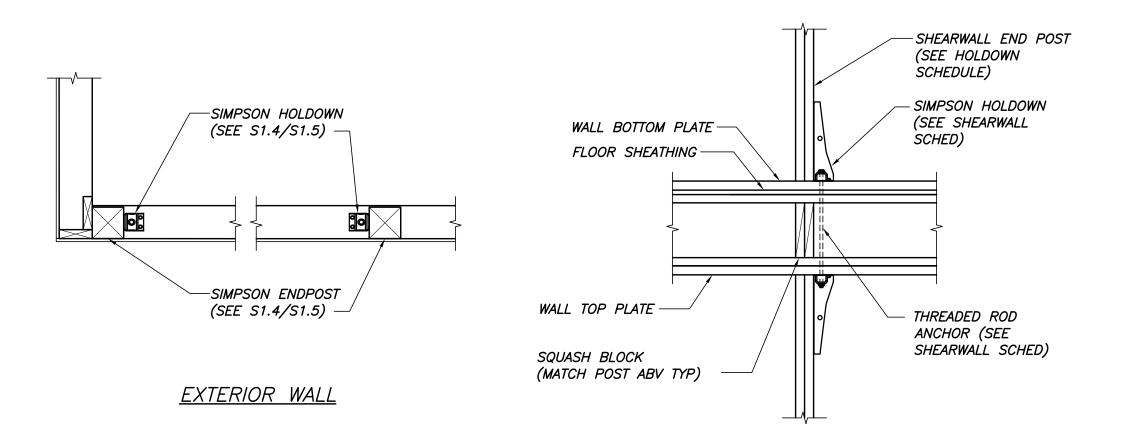


FRAMING ELEVATION @ LINE C

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TYPICAL SHEARWALL HOLDOWN TO BEAM DETAIL



TYPICAL HOLDOWN DETAILS

WALL TO FLOOR SYSTEM

SHEARWALL DETAILS

NOT FOR CONSTRUCTION 100% CD ARCH REVIEW SET

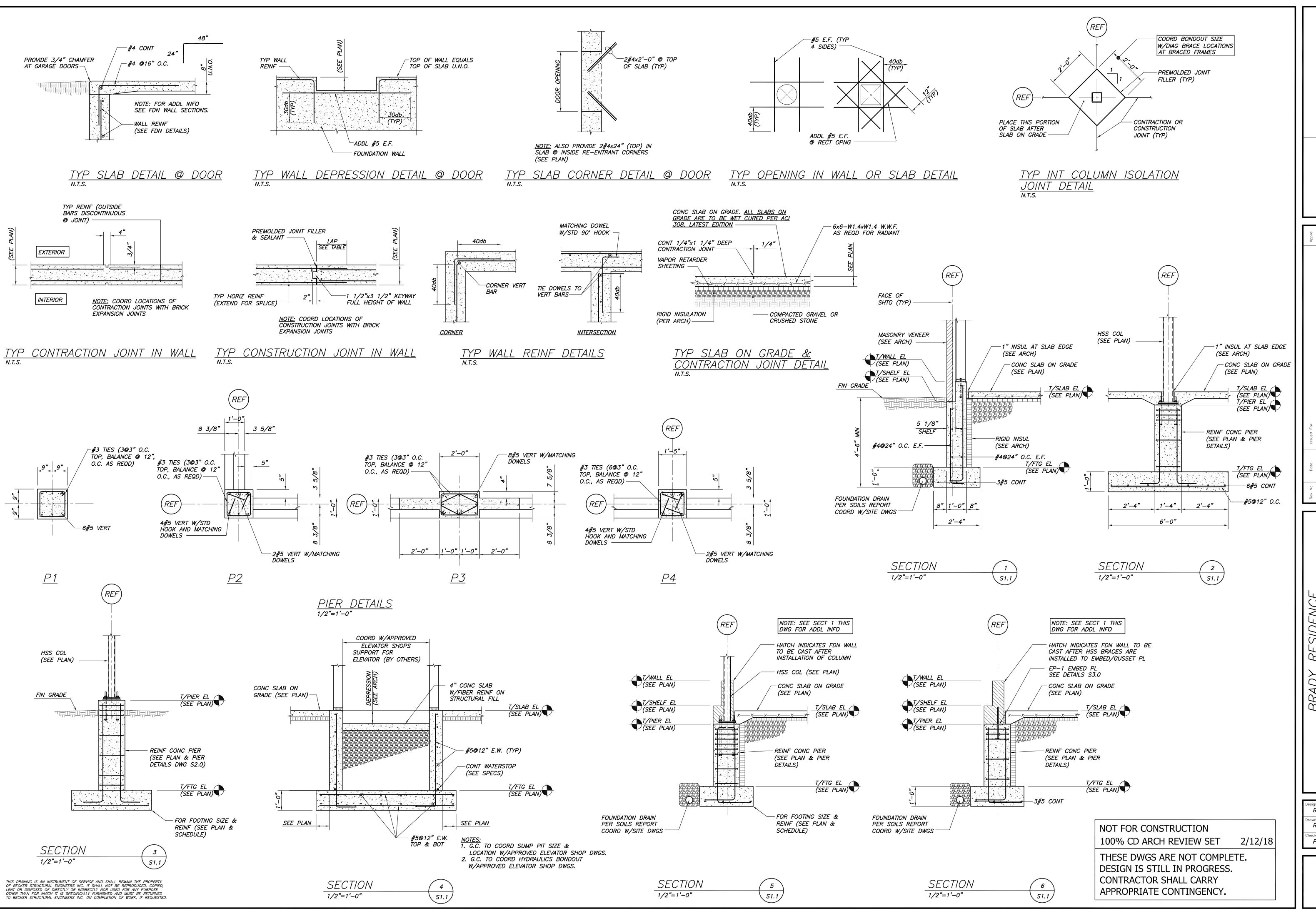
THESE DWGS ARE NOT COMPLETE. DESIGN IS STILL IN PROGRESS. CONTRACTOR SHALL CARRY APPROPRIATE CONTINGENCY.

BRADY RESIDENCE 9 MOODY STREET PORTLAND, ME 04101

AS NOTED RJB 2/12/18 Checked Becker Job Number
PBB 4196

S1.6

2/12/18



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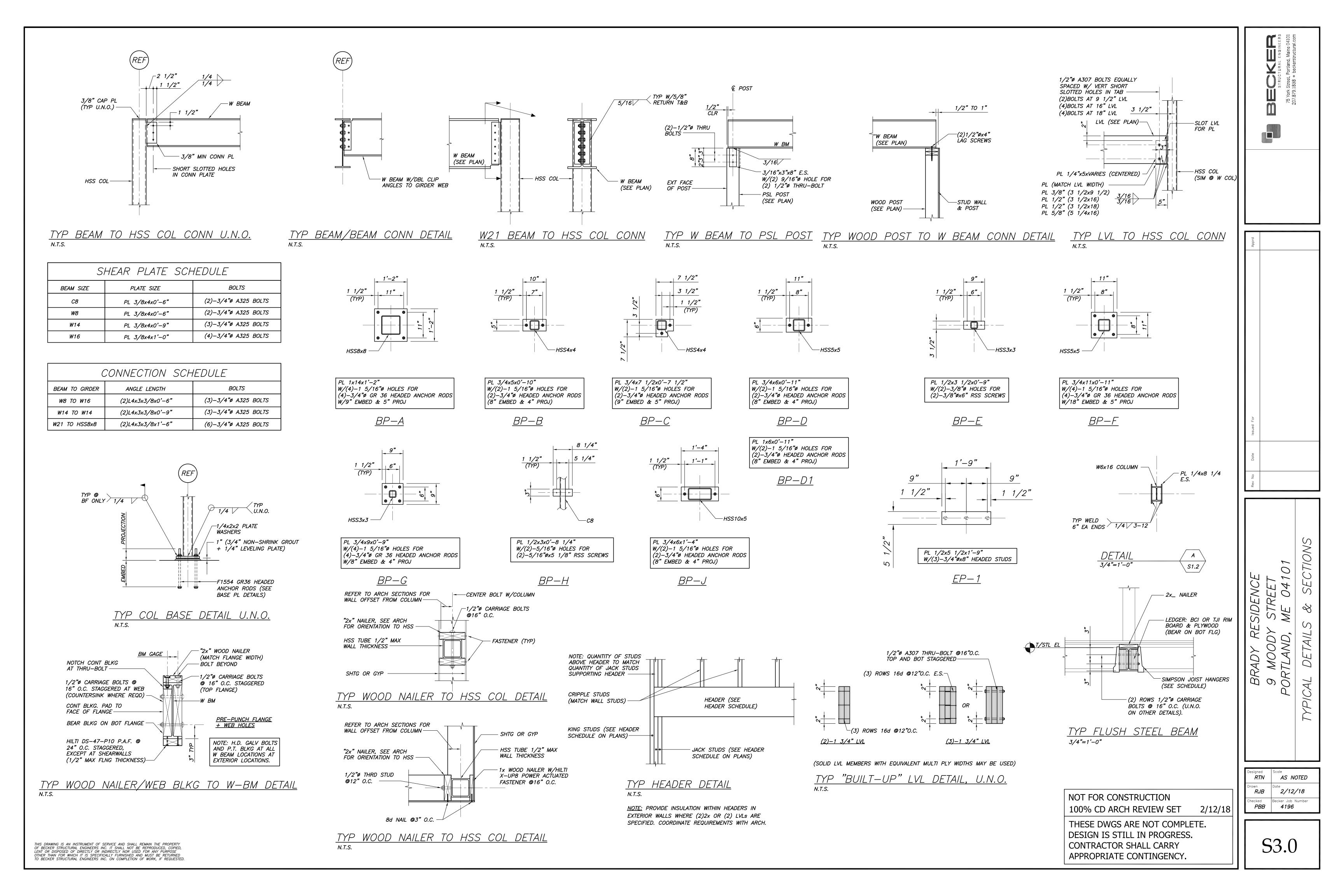
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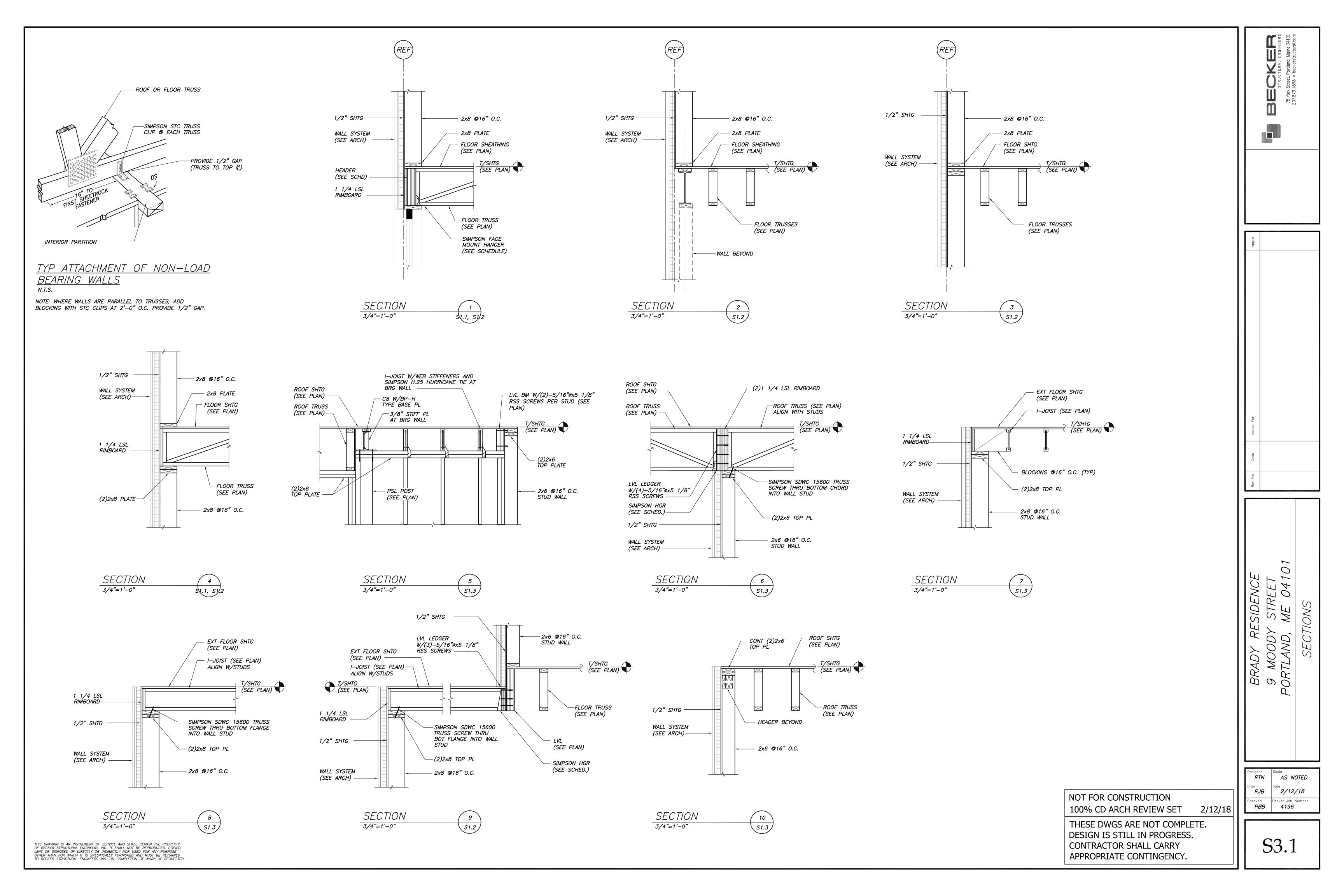
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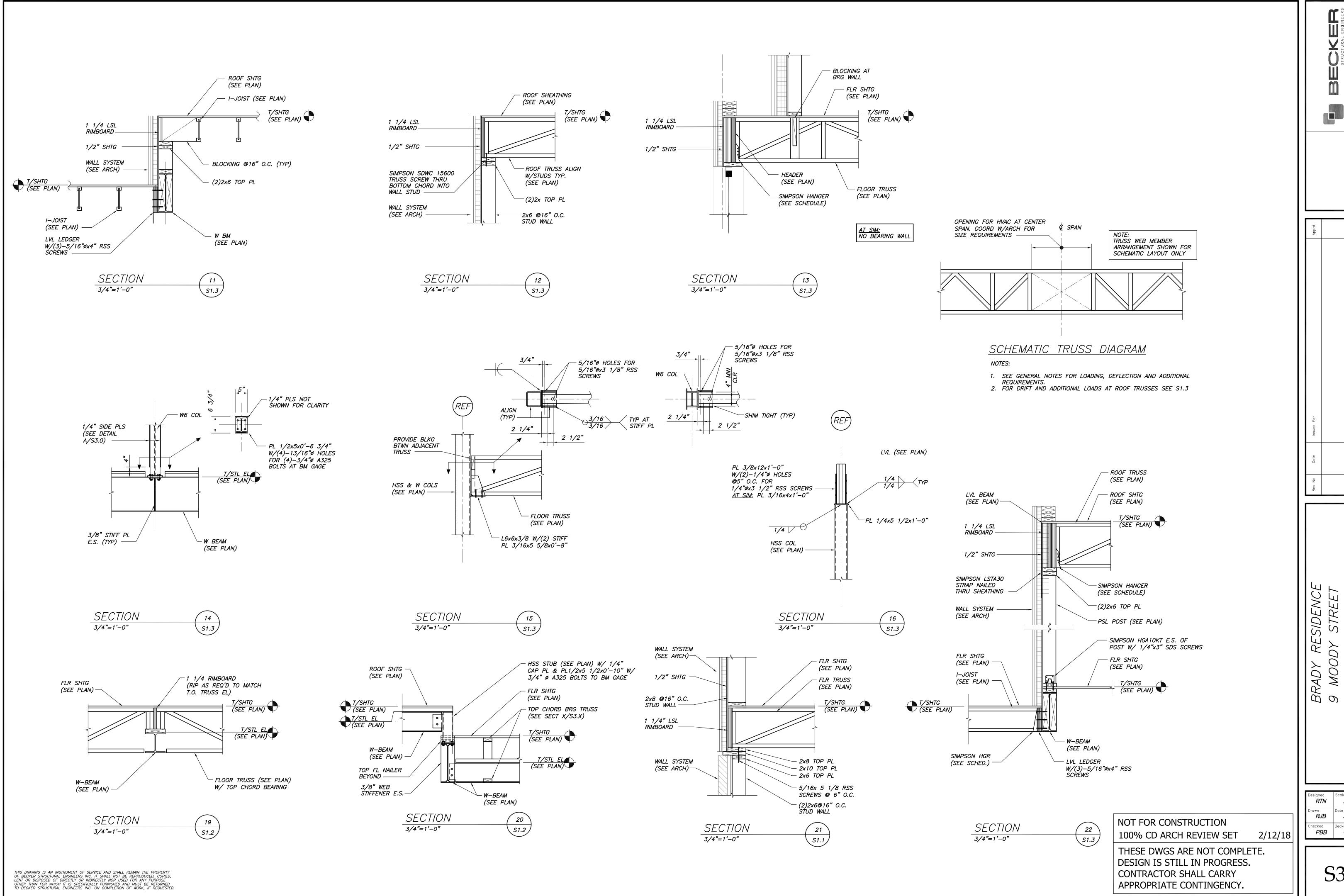
Town
RJB 2/12/18

Tecked Becker Job Number
PBB 4196

S2.0







0 BRADY RESIDENCE 9 MOODY STREET PORTLAND, ME 0410

> AS NOTED 2/12/18 Becker Job Number PBB 4196

> > S3.1