POTTER RESIDENCE

CODE DATA

THIS BUILDING HAS BEEN DESIGNED UNDER THE 2021 VIRGINIA RESIDENTIAL BUILDING CODE.

BUILDING CODE DATA:

AREA TABULATION

BASEMENT	1743 S.F.
FLOOR AREA	1743 S.F.
FRONT PORCH AREA	252 S.F.
REAR PORCH AREA	348 S.F.
SIDE STOOP AREA	36 S.F.
TOTAL AREA	4122 S.F.

INSULATION & THERMAL EFFICIENCY DESIGN CRITERIA

COMPONENT	R-VALUE	U-VALUE	SHGC
ROOF	R-49 BATT	N/A	N/A
SLOPED CEILINGS	R-49 BATT	N/A	N/A
2ND FLOOR WALLS	R-15 BATT	N/A	N/A
1ST FLOOR WALLS	R-15 BATT	N/A	N/A
BASEMENT WALLS	R-11 BLANKET	N/A	N/A
CRAWLSPACE WALLS	N/A	N/A	N/A
CANTILEVERED FLOORS	N/A	N/A	N/A
FLOORS OVER UNCONDITIONED SPACE	N/A	N/A	N/A
UNDER SLAB	N/A	N/A	N/A
WINDOWS	N/A	0.30	0.30
EXTERIOR DOORS	N/A	0.30	N/A

PROJECT DESCRIPTION:

THIS PROJECT IS FOR THE CONSTRUCTION OF A NEW SINGLE FAMILY DWELLING UNDER THE 2021 VIRGINIA RESIDENTIAL CODE

DESIGN LOADS

WIND SPEED = 90 MPH
WIND SPEED (3 SECOND GUST) = 115 MPH
ROOF LIVE & SNOW = 30 PSF
ATTIC LIVE (BOTTOM CHORD) = 20 PSF
ROOF DEAD (TOP CHORD) = 7 PSF
FLOOR LIVE (U.N.O.) = 40 PSF
SLEEPING ROOMS LIVE = 30 PSF
SOIL BEARING VALUE (ASSUMED) = 2,000 PSF
GROUND SNOW LOAD = 30 PSF
EXPOSURE CATAGORY = B
IMPORTANCE FACTOR = CATAGORY I
SNOW EXPOSURE FACTOR = 1.0
SEISMIC USE GROUP = B
FROST DEPTH = 24"

PROJECT DIRECTORY

BUILDER: SACRA CUSTOM HOMES
4505 PARTLOW ROAD
PARTLOW, VA 22534
(540)582-2397

PROJECT LOCATION:

ENGINEER/DESIGNER:
DESIGNS UNLIMITED, INC.
6360 TENNIS COURT
BOSTON, VA 22713
(540)212-8330

DRAWING LIST

A1 - COVER SHEET
A2 - SPECIFICATION SHEET
A3 - FOUNDATION PLAN
A4 - FLOOR PLAN
A5 - FRONT & RIGHT ELEVATIONS
A6 - REAR & LEFT ELEVATIONS
A7 - BIULDING SECTION
A8 - WALL BRACING PLAN
A9 - NARROW WALL DETAILS

ABBREVIATIONS

AB - ANCHOR BOLT
AFF - ABOVE FINISHED FLOOR
APC - ARCH. PRECAST CONCONCRETE
ARCH - ARCHITECTURAL
BLDG - BUILDING
BM - BEAM
BOT - BOTTOM
BRG - BEARING
CA - CANTILEVER
CIP - CAST IN PLACE
CJ - CONTROL JOINT
CLG - CEILING
CLR - CLEAR
CMU - CONCRETE MASONRY UNIT
COL - COLUMN
CONC - CONCRETE
CONN - CONNECTION
CONT - CONTINUOUS
COORD - COORDINATE
DIA - DIAMETER
DIAG - DIAGONAL
DIM - DIMENSION
DL - DEAD LOAD
DN - DOWN
DWGS - DRAWINGS
EA - EACH
EJ - EXPANSION JOINT
EL - ELEV
ELEV - ELEVATOR
EOS - EDGE OF SLAB
EQ - EQUAL
EQUIP - EQUIPMENT
EXIST - EXISTING
EW - EACH WAY
EXP - EXPANSION
EXT - EXTERIOR
FFE - FINISHED FLOOR ELEVATION
FLR - FLOOR
FLT - FLAT BAR
FRT - FIRE RETARDANT TREATED
FTG - FOOTING
GA - GAUGE
GALV - GALVANIZED
GC - GENERAL CONTRACTOR
HK - HOOK
HORIZ - HORIZONTAL
HS - HIGH STRENGTH
HT - HEIGHT
INT - INTERIOR
JBE - JOIST BEARING ELEVATION
JT - JOINT
LBS - POUNDS
LGST - LIGHT GAUGE STEEL TRUSS
LL - LIVE LOAD
LLH - LONG LEG HORIZONTAL
LLV - LONG LEG VERTICAL
LSH - LONG SIDE HORIZONTAL
LSV - LONG SIDE VERTICAL
LVL - LAMINATED VENEER LUMBER
LW - LIGHT WEIGHT
MAS - MASONRY
MAX - MAXIMUM
MECH - MECHANICAL
MFR - MANUFACTURER
MISC - MISCELLANEOUS
MIN - MINIMUM
NO. - NUMBER
NIC - NOT IN CONTRACT
NTS - NOT TO SCALE
NW - NORMAL WEIGHT
OC - ON CENTER
OPP - OPPOSITE
OH - OPPOSITE HAND
OWSJ - OPEN WEB STEEL JOIST
PDF - POWER DRIVEN FASTENER
PL - PLATE
PLF - POUNDS PER LINEAR FOOT
POJ - PLANE OF JOIST
PSF - POUNDS PER SQUARE FOOT
PSI - POUNDS PER SQUARE INCH
REF - REFERENCE
REINF - REINFORCING
REQD - REQUIRED
SIM - SIMILAR
SOG - SLAB ON GRADE
SPA - SPACE
STD - STANDARD
STIFF - STIFFENER
TBE - TRUSS BEARING ELEVATION
T&B - TOP AND BOTTOM
T&G - TONGUE AND GROOVE
TOS - TOP OF STEEL
TYP - TYPICAL
UNO - UNLESS NOTED OTHERWISE
VERT - VERTICAL
WCJ - WALL CONTROL JOINT
WT - WEIGHT
WWF - WELDED WIRE FABRIC
(H) - HIGH
(L) - LOW

GEORGE C. STEPHENSON
No. 026648
3-25-25

ENGINEER: DESIGNS UNLIMITED, INC.
6360 TENNIS COURT
BOSTON, VA 22713
(540)212-8330

ISSUED 3-16-25
REVISED

CONTRACTOR: SACRA CUSTOM HOMES
4505 PARTLOW ROAD
PARTLOW, VA 22534
(540)582-2397

DESIGN BY: CS
DRAWN BY: JG
CHECKED BY: TS

PROJECT TITLE: POTTER RESIDENCE

DRAWING TITLE: COVER SHEET

PROJ. NO.25.056

DATE: 3-16-25

SHEET NO.

A1

GENERAL NOTES

ENGINEER / DESIGNER
CHUCK STEPHENSON, P.E.
6360 TENNIS COURT
BOSTON, VA 22713
(540)547-2662

APPROVED FOR CONSTRUCTION

ENGINEER________________________ ________
CHUCK STEPHENSON, P.E. DATE

OWNER________________________ ________
DATE

OWNER________________________ ________
DATE

________________________ ________
BUILDING OFFICIAL DATE

________________________ ________
HEALTH DEPARTMENT DATE

DESIGN CODE = VRC 2021

1.0 GENERAL CONDITIONS

1.01 THESE PLANS AND SPECIFICATIONS ARE THE SOLE PROPERTY OF THE ENGINEER, ANY UNAUTHORIZED USE OF THESE PLANS WITHOUT THE WRITTEN CONSENT OF THE ENGINEER IS PROHIBITED.

1.02 CONSTRUCTION SHALL COMPLY WITH THE LATEST ENFORCED EDITION OF IRC AND/OR IBC BASIC BUILDING CODE AS WELL AS ALL OTHER APPLICABLE LOCAL CODES AND AMENDMENTS.

1.03 THE WORK SHALL BE IN ACCORDANCE WITH INTERPRETATIONS OF THE LOCAL BUILDING OFFICIAL. IF THE INTERPRETATION OF THE LOCAL BUILDING OFFICIAL IS AT VARIANCE WITH THESE DOCUMENTS, INFORM THE ENGINEERING DEPARTMENT PRIOR TO PROCEEDING. THE ENGINEER SHALL NOT BE RESPONSIBLE FOR THE SAFETY AND CONSTRUCTION PROCEDURES, TECHNIQUES, OR THE FAILURE OF THE SUB-CONTRACTOR TO CARRY OUT THE WORK IN ACCORDANCE WITH THE DRAWINGS, SPECIFICATIONS, OR THE REQUIRED CODES. SUB-CONTRACTOR'S SHALL VERIFY ALL DIMENSIONS AND JOB CONDITIONS SUFFICIENTLY IN ADVANCE OF WORK TO BE PERFORMED SO AS TO ASSURE THE ORDERLY PROGRESS OF WORK.

1.04 THE ENGINEERING DEPARTMENT SHALL BE NOTIFIED PROMPTLY OF ANY DISCREPENCIES IN INFORMATION AND OF ANY DISCREPENCIES BETWEEN FIELD CONDITIONS AND INFORMATION ON THE DRAWINGS PRIOR TO CONSTRUCTION. THESE PLANS ARE SUBJECT TO MODIFICATION AS NECESSARY TO MEET CODE REQUIREMENTS OR TO FACILITATE MECHANICAL/PLUMBING INSTALLATIONS OR TO INCORPORATE DESIGN IMPROVEMENTS.

1.05 DO NOT SCALE DRAWINGS.

1.06 THE GENERAL NOTES AND TYPICAL DETAILS APPLY THROUGHOUT THE JOB UNLESS INDICATED OTHERWISE. WHERE CONDITIONS ARE NOT SPECIFICALLY SHOWN OR DETAILED, THE CHARACTER AND QUALITY OF THE WORK SHALL BE THE SAME AS THAT INDICATED FOR SIMILAR CONDITIONS.

1.07 IN CASE OF ANY DISCREPANCIES BETWEEN THESE NOTES AND NOTES ON THE STRUCTURAL DRAWINGS, THE STRUCTURAL NOTES SHALL TAKE PRECEDENT.

1.08 SUB-CONTRACTORS SHALL MAINTAIN THE PREMISES CLEAN AND FREE OF TRASH BY PLACING CONSTRUCTION DEBRIS IN THE AREA DESIGNATED BY THE BUILDER AND SHALL PROTECT ALL ADJACENT WORK FROM DAMAGE, SOILING, PAINT OVERSPRAY, ETC. NO DEBRIS OF ANY KIND SHALL BE PLACED IN THE BACKFILL. SUB-CONTRACTORS ARE RESPONSIBLE FOR LOCATING ALL UNDERGROUND SERVICES PRIOR TO EXCAVATION. BUILDING TO BE CONSTRUCTED ACCORDING TO SUBMITTED PLOT PLAN ALONG WITH THIS PLAN FOR PERMITTING PURPOSE IN REFERENCE TO THE PROPERTY LINE WITH ALL MINIMUM SETBACK REQUIREMENTS ACHIEVED.

1.09 DESIGN LOADS ARE AS FOLLOWS

	DEAD LOAD	LIVE LOAD
ROOF TOP CHORD	10 PSF	30 PSF
ROOF BOTTOM CHORD	10 PSF	20 PSF
UPPER FLOORS (SLEEPING)	10 PSF	30 PSF
UPPER FLOORS (OTHER AREAS)	10 PSF	40 PSF
LOWER FLOOR (LIVING)	10 PSF	40 PSF
WIND LOAD 90 MPH		
GARDEN BATH TUB	50 PSF	

NOTE: BOTTOM CHORD RECEIVES LIVE LOAD ONLY IN ATTIC AREA WHERE CLEAR HEIGHT EXCEEDS 42 INCHES.

1.10 THE BASIC STABILITY OF THE STRUCTURE IS DEPENDANT UPON THE DIAPHRAGM ACTION OF THE FLOORS, WALLS & ROOF ACTING TOGETHER. SUB-CONTRACTORS TO PROVIDE ALL GUYS, BRACES, STRUTS, ETC. AS REQUIRED TO ACCOMMODATE ALL LIVE, DEAD, AND WIND LOADS UNTIL ALL FINAL CONNECTIONS BETWEEN THESE ELEMENTS ARE MADE.

1.11 IT IS THE RESPONSIBILITY OF THE SUB-CONTRACTORS TO VERIFY AND CONSTRUCT ALL RATED ASSEMBLIES TO COMPLY EXACTLY WITH THE REQUIREMENTS OF THE TEST REPORTS LISTED. ALL FIRE RATED ASSEMBLIES ARE CONTINUOUS UNLESS OTHERWISE NOTED. ASSEMBLY MATERIALS SHALL TAKE PRECEDENCE OVER MATERIALS SPECIFIED IN THESE DRAWINGS.

1.12 ALL SUB-CONTRACTORS SHALL BE REQUIRED TO SEAL HORIZONTAL AND VERTICAL PENETRATIONS IN THE EXTERIOR WALL CAUSED BY THEIR TRADE.

1.13 ALL SHEATHING PENETRATIONS CAUSED BY ERECTION SHALL BE PATCHED AND REPAIRED ACCORDING TO MANUFACTURERS SPECIFICATIONS.

1.14 CRAWL SPACE SHALL BE PROVIDED UNDER FLOOR JOISTS NOT LESS THAN 18" IN DEPTH AND SUCH SPACE SHALL BE VENTED WITH SCREENED OPENINGS HAVING A CLEAR AREA OF NOT LESS THAN ONE THIRD OF ONE PERCENT OF THE ENCLOSED BUILDING AREA. (IF APPLICABLE)

1.15 BASEMENT AND FOUNDATION WALLS ARE DEPENDANT UPON THE COMPLETED INSTALLATION OF FLOORS FOR THEIR STABILITY. SUB-CONTRACTOR SHALL NOT PLACE BACKFILL UNTIL THESE ELEMENTS ARE COMPLETELY INSTALLED OR SUB-CONTRACTOR HAS PROVIDED SHORING AND BRACING.

1.16 THE ENGINEER ACCEPTS NO RESPONSIBILITY FOR THE STRUCTURE DUE TO FIELD MODIFICATIONS WITHOUT PRIOR APPROVAL OF THE ENGINEER, ITEMS WHICH ARE SHOWN ON THE PLANS BUT NOT ADHERED TO, VARIANCE FROM SEALED ROOF TRUSS OR FLOOR TRUSS LAYOUTS, VARIANCE OF ANY APPLICABLE CODE, OR FAILURE OF SUB-CONTRACTORS TO PRODUCE ACCEPTABLE WORK IN A WORKMANLIKE MANNER.

2.0 SITE WORK

2.01 THESE DRAWINGS DO NOT COVER SITE WORK, EXCAVATION, GRADING OR LANDSCAPING. REFER TO THE SITE DRAWINGS PREPARED BY THE CIVIL ENGINEER FOR THESE ITEMS. ALL SITE WORK WHALL BE PERFORMED IN ACCORDANCE WITH THE FINAL SOILS COMPACTION, GEOLOGICAL REPORTS AND APPROVED SITE GRADING PLAN ACCEPTED BY THE ENGINEER AND THE BUILDING DEPARTMENT.

2.02 EXCAVATION SHALL BE SUFFICIENT TO PROVIDE FULL DESIGN DIMENSIONS OR TO ALLOW FOR FORMING AS REQUIRED. NO FOOTINGS SHALL BE PLACED ON FROZEN EARTH. FOOTING SHALL BE SIZED FOR AND BEAR ON UNDISTURBED SOIL OR ENGINEERED FILL CAPABLE OF SUPPORTING 2000 PSF.

2.03 BACKFILL AND COMPACTION – USE ONLY CLEAN WELL GRADED EARTH CONTAINING NO ORGANIC MATERIAL, TRASH, MUCK, ROOTS, LOGS, STUMPS, CONCRETE, ASPHALT OR OTHER DETERIOUS SUBSTANCES. BACKFILL SHALL BE COMPACTED TO 95% OF MAXIMUM DENSITY AS DETERMINED BY THE ASTM D698 STANDARD PROCTOR TEST. DO NOT BACKFILL AGAINST MASONRY WALLS UNTIL SUPER STRUCTURE IS IN PLACE. PRIOR TO PLACING FILL, THE EXISTING SURFACE SHALL BE CLEARED OF ALL REFUSE OR ORGANIC MATERIALS. BACKFILL IN LAYERS OF 8" DEPTH.

2.04 STEPS ON DEPTH OF FOOTINGS/FOUNDATION WILL VARY ACCORDING TO LOCAL SITE OR FROST CONDITIONS.

3.0 CONCRETE

3.01 ALL PLAIN AND REINFORCED CONRETE SHALL COMPLY WITH REQUIREMENTS IN ACI 318 & ALL LOCAL CODES.

3.02 CONCRETE USED FOR FOOTING, BASEMENT SLABS, AND INTERIOR SLABS ON GRADE SHALL BE 5 1/2 BAG MIX 3000 PSI MIN. POURED FOUNDATION WALLS SHALL BE 5 1/2 BAG MIX 3000 PSI MIN. ALL EXTERIOR CONCRETE WORK INCLUDING PORCHES AND GARAGE SLABS SHALL BE 4" MIN. 3500 PSI AIR ENTAINED CONCRETE WITH 6"x6" #10 WWM.

3.03 STEPS OR DEPTH OF FOOTING/FOUNDATION WILL VARY ACCORDING TO LOCAL SITE OR FROST CONDITIONS.

3.04 SLABS ON GRADE – 4" THICK WITH WWM PLACED MIDWAY IN SLAB THICKNESS, SLABS POURED ON 10 MIL POLY FILM VAPOR BARRIER ON MINIMUM 4" GRAVEL, OVERLAP JOINTS OF BARRIER 12", SEAL OR TAPE ALL PENETRATIONS.

3.05 FORM WORK TO BE WELL BRACED, TRUE TO DIMENSION, LEVEL AND PLUMB.

3.06 PERIMETER INSULATION ON GRADE SLAB CONDITION SHALL BE 1" x 24" RIGID R-5 MIN. INSTALLED BY CONCRETE SLAB CONTRACTOR.

3.07 FOUNDATION DRAINS SHALL BE INSTALLED BY CONCRETE SUB-CONTRACTOR BUT LOCATED AT BUILDER'S DISCRETION ACCORDING TO LOCAL SITE CONDITIONS. DRAIN DISCHARGE TO CONFORM WITH APPROVED SITE PLAN.

3.08 SUMP PUMP PIT SHALL BE INSTALLED BY CONCRETE SUB-CONTRACTOR, LOCATED AT BUILDER'S DISCRETION.

3.09 ANY PLUMBING PIPE PASSING UNDER A FOOTING OR THROUGH A FOUNDATION WALL SHALL BE PROVIDED WITH A RELIEVING ARCH OR SLEEVE TWO PIPE SIZES GREATER THAN THE PIPE PASSING THROUGH THE WALL.

3.10 INSTALL STEEL REINFORCING IN SLABS AS REQUIRED BY LOCAL CODE AND SITE CONDITIONS AND THESE DRAWINGS.

3.11 RAILINGS OR HANDRAILS SHALL BE INSTALLED ON ANY EXTERIOR PORCH OR STAIR AT OR ABOVE 3 RISERS.

3.12 TOP COURSES OF C.M.U. FOUNDATION WALLS SHALL BE FILLED OR SOLID INCLUDING THE COURSES UNDER ANY STEEL BEAM.

3.13 GARAGE SLABS SHALL BE NOMINAL 4" CONCRETE OVER 4" OF WASHED GRAVEL ON COMPACTED OR UNDISTURBED EARTH LOCATED A MINIMUM OF 4" FROM ADJACENT DOOR SILL HEIGHT.

3.14 ALL WOOD FRAMING MEMBERS WHICH REST ON EXTERIOR FOUNDATION WALLS SHALL BE 8" ABOVE FINISH GRADE AND P.T.

3.15 BUILDING FOUNDATIONS HAVE BEEN DESIGNED BASED ON AN ASSUMED SOIL BEARING CAPACITY OF 2000 PSF. ADDITIONAL ENGINEERING IS REQUIRED IF SOIL BEARING CAPACITY IS LESS THAN 2000 PSF.

4.0 MASONRY

4.01 THE MAXIMUM VERTICAL DISTANCE OF UNBALANCED FILL MEASURED FROM THE TOP OF THE LOWER LEVEL FLOOR SLAB TO OUTSIDE FINISHED GRADE SHALL NOT EXCEED THE FOLLOWING

TYPE OF WALL	HEIGHT OF FILL
8"CMU	4'-0"
12" CMU	6'-0"
8" POURED CONCRETE	6'-0"

NOTE: SEE IRC R404 FOR ADDITIONAL INFORMATION

4.02 PARGING – NOT LESS THAN 3/8" PORTLAND CEMENT PARGING FROM FOOTING TO FINISH GRADE. PARGING SHALL BE COVERED WITH A COAT OF APPROVED BITUMINOUS MATERIAL APPLIED AT THE RECOMMENDED RATE BELOW GRADE.

4.03 LINTELS FOR MASONRY WALLS SEE SECTION 5.0 METALS.

4.04 MASONRY VENEER CONSTRUCTION – TO HAVE VERTICAL TIES AT 16" O.C. AND HORIZONTAL TIES AT 32" O.C. FLASH AT BASE AND PROVIDE WEEP HOLES AT 24" O.C. BRICK SIZE SHALL BE MODULAR 2 1/4" BY 3 5/8" BY 7 5/8" UNLESS OTHERWISE SPECIFIED. MINIMUM OF 1" AIR SPACE SHALL BE MAINTAINED BETWEEN THE FACE BRICK OF VENEER AND FRAME WALL CONSTRUCTION.

4.05 USE TYPE S MORTAR FOR MASONRY BELOW GRADE IN CONTACT WITH EARTH.

4.06 USE TYPE N MORTAR FOR EXTERIOR ABOVE-GRADE LOAD BEARING AND NON-LOAD BEARING WALLS.

5.0 METALS

5.01 FOUNDATION ANCHOR BOLTS SHALL BE PROVIDED AT MAXIMUM 4'-0" O.C. INTERVALS AND PLACED 12" FROM THE END OF EACH SECTION WITH MINIMUM TWO ANCHOR BOLTS PER SECTION OF WALL. ANCHOR BOLT SHALL BE MINIMUM 1/2" DIAMETER AND SHALL BE EMBEDDED IN FOUNDATION IN DEPTH MINIMUM 8" OF POURED IN PLACE CONCRETE AND NOT LESS THAN 15" IN GROUTED UNIT MASONRY. ANCHOR BOLT CAN BE SUBSTITUTED WITH METAL STRAP PER MANUFACTURERS SPECIFICATION. ALL BEARING PLATES SHALL BEAR ON MINIMUM 8" DEEP SOLID MASONRY.

5.02 ALL METAL ANCHORS, FASTENERS, JOIST HANGERS, ETC. TO BE GALVANIZED. ALL STRUCTURAL STEEL TO CONFORM TO ASTM 36. PIPE TO BE A53. TUBE TO BE A500 OR A501. DETAILING TO BE IN ACCORDANCE WITH AISC STRUCTURAL STEEL DETAILING MANUAL.

5.03 VENEER TIES SHALL BE 22 GAUGE GALVANIZED, CORRUGATED 7/8 WD METAL.

5.04 STEEL LINTELS – FOR ALL OPENINGS AND RECESSES IN BRICK OR BRICK FACED MASONRY WALLS PROVIDE ONE STEEL ANGLE FOR EACH 4 INCHES OF WALL THICKNESS. STEEL ANGLES TO HAVE MINIMUM 6" BEARING AT EACH END. HORIZONTAL LEG SHALL BE 3 1/2" UNLESS OTHERWISE SHOWN.

LINTEL SHEDULE (UNLESS OTHERWISE NOTED ON PLANS)

STEEL ANGLE	OPENING SIZE
L-1 3 1/2"x3 1/2"x1/4"	UP TO 3'-0"
L-2 4"x3 1/2"x5/16"	3'-0" TO 5'-0"
L-3 5"x3 1/2"x3/8"	5'-0" TO 7'-0"
L-4 6"x4"x5/8"	7'-0" TO 9'-0"

5.05 NAILING SCHEDULE PER MANUFACTURER'S RECOMMENDED STANDARDS, BUT NOT LESS THAN REQUIRED BY CODE.

5.06 HOLES SHALL NOT BE CUT THROUGH BEAMS UNLESS INDICATED OR APPROVED BY ENGINEER

6.0 CARPENTRY AND WALL CONSTRUCTION

6.01 ALL WOOD AND WOOD CONSTRUCTION SHALL COMPLY WITH SPECIFICATIONS AND CODES WITH MODIFICATIONS AS SPECIFIED WITHIN: A. AMERICAN INSTITUTE OF TIMBER CONSTRUCTION (STANDARD MANUAL) B. NATIONAL FOREST PRODUCTS ASSOCIATION – NATIONAL DESIGN SPECIFICATIONS FOR WOOD CONSTRUCTION C. SOUTHERN PINE INSPECTION BUREAU – STANDARD GRADING RULES FOR SOUTHERN PINE LUMBER D. TRUSS PLATE INSTITUTE – DESIGN SPECIFICATIONS FOR LIGHT METAL PLATE CONNECTED WOOD TRUSSES (TPI-1985) E. AMERICAN PLYWOOD ASSOCIATION – GUIDE TO PLYWOOD FOR FLOORS, PLYWOOD SHEATHING FOR WALLS AND ROOFS. F. AMERICAN WOOD PRESERVERS ASSOCIATION STANDARDS.

6.02 ALL PARTITIONS SHALL BE 2 x 4 STUD CONSTRUCTION UNLESS OTHERWISE NOTED. BEARING WALLS SHALL HAVE STUD PLACEMENT 16" O.C. MAXIMUM ALIGNED UNDER FLOOR STRUCTURE MEMBERS V-1" NON-LOAD BEARING INTERIOR PARTITION SHALL BE 16" O.C. MAXIMUM.

6.0 CARPENTRY AND WALL CONSTRUCTION CONTINUED

6.03 ALL EXTERIOR WALLS SHALL BE SHEATHED WITH STYROFOAM SHEATHING IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS. CORNER BRACING AND INTERMEDIATE BRACING WILL BE REQUIRED AND CONFORM TO CODE.

6.04 ALL BASEMENT INTERIOR BEARING WALLS SHALL BE SHEATHED WITH A MINIMUM OF 1/2" GYPSUM BOARD ON ONE SIDE. REFER TO WALL SECTION SHEET FOR STRUCTURAL INFORMATION. ALL WORK SHALL BE IN COMPLETE ACCORDANCE WITH ALL APPLICABLE CODES. REQUIREMENTS AND REGULATIONS OF ALL GOVERNING AUTHORITIES AND UTILITY COMPANIES HAVING JURISDICTION OVER THIS WORK.

6.05 ALL DIMENSIONS SHOWN ON PLANS ARE FRAMING DIMENSIONS UNLESS NOTED OTHERWISE. NOMINAL DIMENSIONS OF LUMBER ARE SHOWN ON THE PLANS AS FOLLOWS:

NOMINAL DIMENSIONS	AS SHOWN
3	2 1/2
4	3 1/2
6	5 1/2
8	7 1/4
10	9 1/4
12	11 1/4

6.06 ALL BEARING PARTITIONS SHALL HAVE 2-2x4 TOP PLATE AND 1-2x4 BOTTOM PLATE WITH STUDS SPACED AT 16 INCHES ON CENTER. ALL NON-BEARING PARTITIONS SHALL HAVE 2-2x4 TOP PLATE AND 1-2x4 BOTTOM PLATE WITH STUDS SPACED AT 16 INCHES ON CENTER.

6.07 TOP OF ROUGH OPENING FOR WINDOWS SHALL BE 6' 11 1/4" ABOVE FINISHED FLOOR FOR ALL LEVELS, UNLESS NOTED OTHERWISE.

6.08 INTERIOR STAIRWAYS SHALL HAVE A MINIMUM CLEAR WIDTH OF 36" WITH A MINIMUM OF 6'-8" HEADROOM. HANDRAILS SHALL HAVE A MINIMUM HEIGHT OF 30" AND A MAXIMUM HEIGHT OF 34" MEASURED VERTICALLY ABOVE THE NOSE OF THE TREAD. HANDRAILS SHALL HAVE A MAXIMUM 3 1/2" PROJECTION INTO THE STAIR. MAXIMUM RISER HEIGHT IS 8 1/4" AND A MINIMUM TREAD DEPTH IS 9". THE MINIMUM WIDTH OF WINDERS WHERE REQUIRED IN STAIR UNITS SHALL BE 6" WITH A MINIMUM DEPTH OF 9" AT A POINT NOT MORE THAN 12" FROM THE NARROWEST SIDE. PORCHES, BALCONIES OR RAISED FLOOR SURFACES LOCATED MORE THAN 24" ABOVE THE FLOOR OR GRADE BELOW SHALL HAVE GUARDRAIL SYSTEMS, SHALL BE BUILT WITH A 4" MAXIMUM SPACING BETWEEN VERTICAL MEMBERS AND SUCH THAT A 4" SPHERE CANNOT PASS THROUGH ANY POINT.

6.09 SMOKE DETECTORS SHALL BE LOCATED IN EACH STORY OF THE DWELLING UNIT, INCLUDING BASEMENTS AND ALSO IN THE IMMEDIATE VICINITY OF BEDROOMS. EACH SMOKE DETECTOR SHALL OPERATE ON AN ALTERNATING CURRENT PRIMARY SOURCE OF ELECTRIC POWER WITH BATTERY BACK UP. THE DETECTORS SHALL BE WIRED IN SUCH A MANNER THAT THE ACTUATION OF THE ALARM WILL ACTUATE ALL OF THE ALARMS WITHIN THE DWELLING UNIT.

6.10 FIREPLACE CHIMNEY TO BE MINIMUM 2'-0" ABOVE NEAREST 10'-0" PORTION OF ROOF. FACTORY BUILT FIREPLACES SHALL BE INSTALLED PER MANUFACTURER'S PRINTED INSTRUCTIONS AND IN ACCORDANCE WITH NFPA 211 AND U.L.

6.11 UNFINISHED BASEMENTS SHALL HAVE A MINIMUM CEILING HEIGHT OF 7'-9 1/2" MEASURED TO THE UNDERSIDE OF THE FLOOR JOISTS. THE MINIMUM HEIGHT BELOW BASEMENT BEAMS AND DUCTS SHALL BE 6'-10".

6.12 NATURAL LIGHT AND VENTILATION MINIMUM REQUIREMENTS: BASEMENT LIGHT/VENT AREA = 2%/1% FLOOR AREA LIGHT AREA PER ROOM = 8% FLOOR AREA VENTILATION AREA PER ROOM = 4% FLOOR AREA.

6.13 FIRESTOPPING SHALL BE PROVIDED AT ALL INTERCONNECTIONS BETWEEN VERTICAL AND HORIZONTAL SPACES SUCH AS SOFFITS AND DROPPED CEILINGS. FIRESTOPPING SHALL ALSO BE PROVIDED IN CONCEALED SPACES BETWEEN STAIRWAY STRINGERS AT THE TOP AND BOTTOM OF THE RUN.

6.14 SHELVING – ALL SHELVING SHALL BE 5/8" FILLED FLAKEBOARD WITH TAPERED FRONT EDGE, STRAP AND METAL BRACKETS, 42" O.C. MAXIMUM.

6.15 PLYWOOD – ALL PLYWOOD USED STRUCTURALLY SHALL MEET THE PERFORMANCE STANDARDS AND ALL OTHER REQUIREMENTS OF APPLICABLE U.S. COMMERCIAL STANDARDS FOR THAT TYPE, GRADE AND SPECIES OF PLYWOOD AND SHALL BE SO IDENTIFIED BY AN APPROVED TESTING AGENCY.

6.16 JOISTS AND GIRDERS – SEE FRAMING PLANS FOR SIZE AND SPACING ALL SHALL HAVE 1150# BENDING STRESS, 1,400,000# MODULUS OF ELASTICITY AND MAXIMUM 19% MOISTURE CONTENT UNLESS NOTED OTHERWISE.

6.17 DESIGN, FABRICATION AND INSTALLATION OF TRUSSES AND SHEET METAL CONNECTORS SHALL BE IN ACCORDANCE WITH THE TRUSS PLATE INSTITUTE – TPI-2002. BRACING OF WOOD TRUSSES TO BE IN ACCORDANCE WITH TRUSS PLATE INSTITUTE, INC. PUBLICATION: BRACING WOOD TRUSSES: COMMENTARY AND RECOMMENDATIONS: BCSI. AN ACCESS DOOR OF NOT LESS THAN 21" BY 30" NET FREE CLEAR OPENING OR ATTIC STAIRWAY OF EQUAL OR GREATER DIMENSION SHALL BE INSTALLED FOR ACCESS TO ALL ATTIC SPACES HAVING A CLEAR HEIGHT OVER 30". ATTIC SPACES CREATED BY KNEE WALLS LESS THAN 5' IN HEIGHT CONCEALING AREAS NOT LOCATED OVER THE MAIN STRUCTURE ARE NOT REQUIRED TO HAVE ACCESS.

6.18 ALL TRUSSES ARE STAMPED AND CERTIFIED BY A REGISTERED ENGINEER AND MEET TPI MANUFACTURER MINIMUM REQUIREMENTS. HEADERS SHALL BE PROVIDED OVER EACH OPENING IN EXTERIOR BEARING WALLS. HEADERS MAY BE OF TWO PIECES OF NOMINAL 2" FRAMING LUMBER OF EQUIVALENT SIZE. A WALL STUD SHALL BE AT EACH SIDE OF THE OPENINGS OF 3' OR LESS WIDE. EACH END OF THE HEADER SHALL REST ON A SINGLE HEADER STUD OR MAY BE SUPPORTED BY FRAMING ANCHORS ATTACHED TO THE WALL STUD. FOR OPENINGS MORE THAN 3' BUT NOT MORE THAN 6' WIDE, EACH END OF THE HEADER SHALL REST ON A SINGLE HEADER STUD. FOR OPENINGS MORE THAN 6' WIDE EACH END OF THE HEADER SHALL REST ON TWO HEADER STUDS.

6.19 MINIMUM WOOD HEADER SIZES FOR OPENINGS ARE:

OPENING	1 STORY ABOVE	2 STORIES ABOVE
3'	2-2x6'S	2-2x8'S
4'	2-2x8'S	2-2x10'S
5'	2-2x10'S	2-2x12'S
6'	3 1/2"x7 1/4" PLS/LVL	3 1/2"x9 1/4" PSL/LVL
7'	3 1/2"x9 1/4" PSL/LVL	3 1/2"x11 1/4" PSL/LVL
8'	3 1/2"x11 1/4" PSL/LVL	3 1/2"x11 1/4" PSL/LVL
9'	3 1/2"x11 1/4" PSL/LVL	N/A

6.20 INTERGRAL GARAGE/DWELLING SEPERATION:
WALLS – UL DESIGN U305 W/ 1 3/4" SOLID CORE DOOR
CEILINGS – 5/8" TYPE 'X' GYPSUM DRYWALL

6.21 SILL PLATE TREATED TO MEET AMERICAN WOOD PRESERVERS INSTITUTE STANDARD LP-2 OR LP-4 WHERE INCIDATED ON PLANS.

6.22 ALL EXPOSED EXTERIOR LUMBER, LUMBER IN CONTACT WITH MASONRY, OR CONCRETE SHALL BE PRESSURE PRESERVATIVE TREATED IN ACCORDANCE WITH INDUSTRY STANDARDS. PROVIDE FIRE RETARDANT SHEATHING AND LUMBER WHERE INDICATED ON DRAWINGS.

6.23 MAXIMUM MOISTURE CONTENT OF ALL LUMBER SHALL BE 19%.

6.24 STRENGTH OF FRAMING MATERIAL – ALL FRAMING LUMBER SHALL BE HEM FIR, GRADE 2 OR BETTER HAVING THE FOLLOWING MINIMUM PROPERTIES:

A. BENDING STRESS "FB" = 1000 PSI FOR SINGLE MEMBER USE
BENDING STRESS "FB" = 1500 PSI FOR REPETITIVE MEMBER USE
HORIZONTAL SHEAR "FV" = 75 PSI
COMPRESSION PERPENDICULAR TO GRAIN "FC" = 405 PSI
COMPRESSION PARALLEL TO GRAIN "FCLL" = 875 PSI
MODULUS OF ELASTICITY "E" = 1,400,000 PSI

B. ALL STRUCTURAL POSTS SHALL BE SOUTHERN YELLOW PINE GRADE 2 OR BETTER HAVING THE FOLLOWING MINIMUM PROPERTIES:
BENDING STRESS "FB" = 1200 PSI FOR SINGLE MEMBER USE
BENDING STRESS "FB" = 1400 PSI FOR REPETITIVE MEMEBER USE
HORIZONTAL SHEAR "FV" = 90 PSI
COMPRESSION PERPENDICULAR TO GRAIN "FC" = 565 PSI
COMPRESSION PARALLEL TO GRAIN "FCLL" = 1000 PSI
MODULUS OF ELASTICITY "E" = 1,600,000 PSI

C. PLYWOOD LAMINATED (MICROLAM) BEAMS SHALL HAVE THE FOLLOWING MINIMUM PROPERTIES:
SHALL BE 1-3/4" WIDE
BENDING STRESS "FB" = 2800 PSI
HORIZONTAL SHEAR "FV" = 250 PSI
MODULUS OF ELASTICITY "E" = 2,000,000 PSI
TENSION PARALLEL TO GRAIN = 1850 PSI
COMPRESSION PERPENDICULAR TO GRAIN = 550 PSI
COMPRESSION PARALLEL TO GRAIN 2700 PSI

D. PREFABRICATED STRUCTURAL TIMBER BEAMS SHALL CONFORM TO ONE OF THE FOLLOWING SPECIFICATIONS:
-MICROLAM (ML) – NRB-126
-PARALLAM (PL) – NER-296
-ASI – BOCA 82-47,
SBCCI-8302
KBO-4035
-GNI – BOCA 85-5
SBCCI-8525
HUD SEB-1091

E. CUTTING AND NOTCHING OF FLOOR JOISTS SHALL CONFORM TO THE FOLLOWING: OR PER MANUFACTURER'S SPECIFICATIONS.
-NOTCH DEPTH AT THE ENDS OF THE MEMBER SHALL NOT EXCEED ONE-FOURTH OF THE DEPTH OF THE MEMBER.
-THE TENSION SIDE OF BEAMS, JOISTS AND RAFTER OR FOUR INCHES OR GREATER NOMIAL THICHNESS SHALL NOT BE NOTCHED, EXCEPT AT ENDS OF MEMBERS.
-HOLES BORED OR CUT INTO JOISTS SHALL NOT BE CLOSER THAN TWO INCHES TO THE TOP OR BOTTOM OF THE JOISTS. THE DIAMETER OF THE HOLE SHALL NOT EXCEED ONE-THIRD THE DEPTH OF THE JOISTS.

6.0 CARPENTRY AND WALL CONSTRUCTION CONTINUED

F. PREFABRICATED TIMBER SHALL BE INSTALLED AND BRACED PER MANUFACTURER'S RECOMMENDATION. TIMBER MEMBER SHALL NOT BE CUT OR DRILLED UNLESS SO AUTHORIZED BY THE MANUFACTURER.

G. WHERE DOUBLE MEMBERS ARE INDICATED ON THE DRAWINGS, MECHANICALLY FASTEN BOTH MEMBERS IN A MANNER SUCH THAT BOTH MEMBERS SHARE THE SUPERIMPOSED LOADS, INCLUDING LOADS FROM HEADERS.

6.25 WOOD FLOOR AND ROOF TRUSSES SHALL BE DESIGNED AND FABRICATED BY THE TRUSS MANUFACTURER AND SHALL COMPLY WOTH THE NATIONAL DESIGN SPECIFICATION FOR STRESS GRADE LUMBER AND ITS FASTENINGS. SUBMIT SHOP DRAWINGS AND CALCULATIONS SEALED BY A P.E. TO THE JURISDICTIONAL PLAN REVIEWER AS REQUIRED BY GOVERNMENT AUTHORITY.

6.26 WOOD JOISTS SHALL HAVE A MINIMUM BEARING OF 1 1/2" WOOD. FLOOR TRUSSES TO HAVE MINIMUM BEARING AS PER MANUFACTURER'S RECOMMENDATIONS.

6.27 PREFAB JOISTS AND BEAM HANGERS SHALL BE SIZED AND ATTACHED PER MANUFACTURER'S RECOMMENDATIONS. HOLES THROUGH WOOD I'S SHALL NOT EXCEED MANUFACTURER'S RECOMMENDATIONS. NO CUTS OR HOLES ARE ALLOWED THROUGH TOP OR BOTTOM CHORD.

6.28 SUBFLOOR TO BE 3/4" T AND G OSB STANDARD UNLESS OTHERWISE NOTED. ROOF DECK TO BE 1/2" OSB WITH EXTERIOR GLUE UNLESS NOTED OTHERWISE. DIRECT BEARING AT ALL EDGES, GLUED AND NAILED. ALL END JOINTS SHALL BE STAGGERED. THE LONG SIDE OF THE OSB SHALL BE LAID AT RIGHT ANGLES TO THE JOIST AND TRUSSES AND PARALLEL TO THE STUDS. USE METAL CLIPS WITH 1/2" ROOF SHEATHING, AS REQUIRED.

6.29 ALL WOOD BLOCK, NAILERS, ETC. SHALL BE ATTACHED TO STEEL OR CONCRETE FRAMING WITH POWER ACTUATED FASTENEERS OR 3/8" DIAMETER BOLTS UNLESS NOTED OTHERWISE. FASTENERS SHALL BE SPACED AT 24" MAXIMUM O.C. AND SHALL BE STAGGERED. FASTENERS SHALL HAVE A MINIMUM CAPACITY OF 100 POUNDS IN SHEAR AND PULLOUT UNLESS NOTED OTHERWISE. PROVIDE DRAFTSTOPPING IN THE FLOOR TO SUBDIVIDE THE OPEN SPACE IN AREAS NOT EXCEEDING 500 SQ.FT. (ALL MECHANICAL CHASES, PLUMBING PIPES, WIRE HOLES OR ANY VOIDS BETWEEN FLOORS TO BE DRAFTSTOPPED).

7.0 THERMAL AND MOISTURE PROTECTION

7.01 THE STRUCTURE SHALL BE EQUIPPED WITH A CONTROLLED METHOD OF WATER DISPOSAL THAT WILL COLLECT AND DISCHARGE ALL ROOF DRAINAGE TO THE GROUND SURFACE AT LEAST 5' FROM THE FOUNDATION IN THE FORM OF 5" ALUMINUM SEAMLESS GUTTERING WITH 3" BY 5" DOWNSPOUTS SPILLING ONTO CONRETE SPLASH BLOCKS.

7.02 ALUMINUM FLASHING SHALL CONFORM TO ASTM A-525, DESIGNATION G-90 HOT-DIP GALVANIZED, MILL PHOSPHATIZED. FLASHING SHALL BE INSTALLED AT ALL ROOF TO WALL CONDITIONS INCLUDING BUT NOT LIMITED TO PORCHES, DORMERS, AND FIREPLACE CHIMNEY CHASES. FLASHING SHALL ALSO BE INSTALLED AT PROJECTIONS OF WOOD BEAMS THROUGH EXTERIOR WALLS, ALL EXTERIOR OPENINGS INCLUDING DOORS AND WINDOWS, AND ELSEWHERE AS REQUIRED TO PROVIDE WATERTIGHT/WEATHERPROOF PERFORMANCE.

7.03 OPEN VALLEYS SHALL BE FLASHED WITH MIN. NO. 28 GAUGE GALVANIZED CORROSION-RESISTANT SHEET METAL AND SHALL EXTEND MIN. 8" FROM CENTER LINE – EACH WAY. CLOSED VALLEY FLASHING SHALL BE 2 LAYERS 90# MINERAL SURFACED CAP SHEET WITH BOTTOM LAYER MINIMUM 12" WIDE AND TOP LAYER 24" WIDE, CEMENTED TOGETHER. CLOSED VALLEYS MAY ALSO BE OF 36" WIDE FOIL ROOFING MATERIAL NOT LESS THAN NO.50 IN VALLEY OVER THE UNDERLAYMENT.

7.04 PROVIDE NON-CORROSIVE ALUMINUM DRIP EDGE FLASHING AT ROOF EDGE. COMPOSITION SHINGLES SHALL BE APPLIED TO ROOF DECK SURFACE PREPARED WITH 15# ASPHALT FELT AND SHALL BE FASTENED ACCORDING TO MANUFACTURER'S PRINTED INSTRUCTIONS BUT NOT LESS THAN FOUR NAILS PER EACH STRIP SHINGLE MORE THAN 36" WIDE, AND TWO NAILS PER EACH INDIVIDUAL SHINGLE LESS THAN 20" WIDE. COMPOSITION SHINGLES SHALL NOT BE USED FOR ANY ROOF PITCH LESS THAN 4/12.

7.05 WALLS ADJACENT TO UNFINISHED SPACE (LOWER LEVEL) SHALL HAVE R-11 BATT INSULATION WITH NO VAPOR BARRIER.

7.06 ROUGH CARPENTRY CONTRACTORS SHALL INSTALL FIBERGLASS SILL SEALER BETWEEN ALL SILL PLATES AND TOP OF FOUNDATION WALLS.

7.07 ALL SHEATHING PENETRATIONS DURING CONSTRUCTION SHALL BE PATCHED AND REPAIRED ACCORDING TO MANUFACTURER'S SPECIFICATIONS.

7.08 PROVIDE SOFFIT VENTS AND RIDGE VENTS OR GABLE END VENTS SHOWN ON DRAWINGS. ATTIC VENTILATION SHALL BE PROVIDED ALLOWING A NET FREE VENTILATING AREA OF THE SPACE NOT LESS THAN 1 TO 300 GIVEN THAT 50% OF ALL OUTLET VENTILATORS SHALL BE PLACED IN THE UPPER PORTION OF THE SPACE TO BE VENTILATED WITH THE REMAINDER OR INLET VENTILATION. CATHEDRAL CEILING APPLICATIONS SHALL MAINTAIN A 1" AIRSPACE MINIMUM CLEARANCE BETWEEN THE UNDERSIDE OF THE ROOF DECK AND THE INSULATION FOR CROSS VENTILATION. PROVIDE AND INSTALL FIBERGLASS BLOWN LOOSE FILL INSULATION TO A DEPTH SUFFICIENT TO ACHIEVE AN INSULATION ONLY VALUE THROUGH THE CAVITY OF R-30. PROVIDE AND INSTALL 3 1/2" THICK GLASS FIBER BATT INSULATION COVERED WITH A VAPOR RETARDER OF NOT LESS THAN 4 MIL POLYETHYLENE STAPLED TO STUDS WITH AND INSULATION ONLY VALUE OF R-13 SO AS TO ACHIEVE A TOTAL R VALUE FOR THE THROUGH CAVITY SECTION OF NOT LESS THAN R-16 IN ALL EXTERIOR WALLS OF ALL ENCLOSED HEATED OR COOLED SPACES AS SHOWN ON THE DRAWINGS.

7.09 VAPOR BARRIERS TO FACE CONDITIONED SIDE OF SPACE. A HEAT/LOSS GAIN CALCULATION ALONG WITH A BTU CALCULATION SHALL BE SUPPLIED WHEN ANY ONE ASSEMBLY DOES NOT MEET THE REQUIRED THERMAL VALUE. THE COMPONENTS OF THE REMAINING COMPLAINT ASSEMBLIES MAY BE INCREASED SO AS TO BRING THE ENTIRE COMBINATION OF ASSEMBLIES INTO COMPLIANCE. PROVIDE AND INSTALL BATT INSULATION AT WINDOW/DOOR SHIM LOCATIONS AND SEAL ALL WINDOWS AND DOORS WITH A NON-HARDENING SEALANT SO AS TO PROVIDE A POSITIVE BARRIER AGAINST MOISTURE AND AIR PASSAGE. INSULATION SHALL BE FIT TIGHT WITHIN SPACES AND TIGHT TO AND BEHIND MECHANICAL AND ELECTRICAL SERVICES WITHIN THE PLANE OF INSULATION. LEAVE NO GAPS OR VOIDS. EXTERIOR JOINT IN THE BUILDING ENVELOPE INCLUDING BUT NOT LIMITED TO WINDOWS, BETWEEN WALLS, AND ROOF/CEILINGS, OPENINGS OF UTILITY PENETRATIONS, AND ALL OTHER SUCH OPENINGS SHALL BE CAULKED, GASKETED, OR WEATHERSTRIPPED.

7.10 INSULATE EXTERIOR WALLS BETWEEN ALL FLOOR JOIST/TRUSSES WITH R-16 BATT INSULATION FOR 2x4 WALL CONSTRUCTION AND R-19 BATT INSULATION FOR 2x6 WALL CONSTRUCTION.

8.0 DOORS AND WINDOWS

8.01 WINDOWS AND DOORS SHALL BE INSTALLED AS DRAWN ACCORDING TO THE SPECIFICATIONS OF THE ENGINEER. ALL UNITS SHALL BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS AND SHALL BE SIZED AS INDICATED BY THE MANUFACTURER.

8.02 EXTERIOR ENTRANCE DOORS 1-3/4" SOLID WOOD CORE OR HOLLOW METAL 20 GAUGE, FILLED WITH SOLID SLAB POLYSTYRENE, HINGES FOR DOORS UP TO 7'-2" IN HEIGHT AND 2" PAIR FOR DOORS TO 8'-0" IN HEIGHT. FRAMES TO BE MINIMUM 16 GAUGE GALVANIZED STEEL SEE DRAWINGS FOR RAISED PANEL DESIGN. PROVIDE COMPLETE WEATHER STRIPPING AND METAL THRESHOLD.

8.03 GARAGE TO UNIT DOORS TO BE METAL OR SOLID WOOD CORE 1-3/4".

8.04 FOR DOOR AND WINDOW SIZES REFER TO SCHEDULE OR PLANS.

8.05 GLAZING IN LOCATIONS SUBJECT TO HUMAN IMPACT SUCH AS ENTRY DOORS AND SIDELIGHT, SLIDING GLASS DOORS, SHOWER DOORS, TUB ENCLOSURES AND STORM DOORS SHALL BE FULLY TEMPERED IN ACCORDANCE WITH THE BOCA CODE. FIXED PANELS WITH AREA IN EXCESS OF 9 SQ.FT. WITH THE LOWEST EDGE LESS THAN 18" ABOVE THE FINISHED FLOOR OR WALKING SURFACE WITHIN 36" OF SUCH GLAZING UNLESS A HORIZONTAL MEMBER NOT LESS THAN 1 1/2" WIDTH LOCATED BETWEEN 24" AND 36" ABOVE THE WALKING SURFACE SHALL BE FULLY TEMPERED.

8.06 ALL SLIDING/SWINGING DOORS AND WINDOWS OPENING TO THE EXTERIOR SHALL BE FULLY WEATHERSTRIPPED, CAULKED, GASKETED OR OTHERWISE TREATED TO LIMIT AIR INFILTRATION.

8.07 EVERY SLEEPING ROOM SHALL HAVE AT LEAST ONE OPERABLE WINDOW OR DOOR FOR EMERGENCY EGRESS OR RESCUE. EGRESS WINDOWS SHALL HAVE A MAXIMUM SILL HEIGHT OF 44" ABOVE FINISHED FLOOR AND SHALL HAVE A MINIMUM NET CLEAR OPENING OF 5.7 SQ.FT. WITH A MINIMUM CLEAR HEIGHT OF 24" AND MINIMUM CLEAR OPENING WIDTH OF 20". GRADE FLOOR WINDOWS MAY HAVE A MINIMUM CLEAR OPENING OF 5 SQ.FT.

8.08 ALL OPERABLE WINDOWS SHALL HAVE NONCORROSIVE SCREENS AND SASH LOCKS.

9.0 FINISHES

9.01 GYPSUM WALLBOARD SHALL BE INSTALLED IN ACCORDANCE WITH U.S. GYPSUM RECOMMENDATIONS AND SHALL MEET THE REQUIREMENTS OF IRC 2003 AND OTHER APPLICABLE CODES. TYPICAL INTERIOR PARTITIONS TO HAVE 1/2" TAPERED EDGE TAPED AND FINISHED. PROVIDE 5/8" TYPE X FIRE-RATED GYPSUM BOARD AT WALLS & CEILING WHERE CALLED FOR ON THE DRAWINGS.

9.02 GYPSUM WALLBOARD SHALL NOT BE INSTALLED UNTIL WEATHER PROTECTION FOR THE INSTALLATION IS PROVIDED.

9.03 ALL EDGES AND ENDS OF GYPSUM BOARD SHALL OCCUR ON FRAMING MEMBERS EXCEPT THOSE EDGES PERPENDICULAR TO FRAMING MEMBERS.

9.04 INSTALL MOISTURE RESISTANT GYPSUM BOARD AT ALL BATHROOMS AND WHERE MOISTURE CONDITIONS EXIST.

9.05 CERAMIC TILE SHALL BE 4 1/4" x 4 1/4" GLAZED TILE, THINSET APPLICATION ON WATER RESISTANT DRYWALL. PROVIDE BASE AND MISCELLANEOUS TRIM. PROVIDE MARBLE THRESHOLD FOR TRANSITION BETWEEN CERAMIC FLOOR TILE AND OTHER FLOOR FINISHES. FLOOR TILE SHALL BE NON-SLIP.

9.06 RESILIENT FLOORING – SHALL BE SHEET VINYL OR VINYL COMPOSTION TILES INSTALLED AS PER MANUFACTURER'S SPECIFICATIONS.

9.07 PROVIDE SUITABLE FLOOR UNDERLAYMENT FOR ALL CERAMIC AND RESILIENT FLOORING.

9.08 APPLICATION OF PAINT AND OTHER COATINGS SHALL BE IN STRICT ACCORDANCE WITH MANUFACTURER'S DIRECTIONS. READY – MIXED PAINT SHALL NOT BE THINNED. ALL INTERIOR AND EXTERIOR SURFACES SHALL RECEIVE THE PAINTER'S FINISH EXCEPT COLOR COORDINATED FACTORY FINISH SURFACES. TOP AND BOTTOM OF ALL DOORS SHALL BE SEALED AND PAINTED. ALL SURFACES TO BE FINISHED OR PAINTED SHALL BE FREE OF FOREIGN MATERIAL SUCH AS DIRT, GREASE, ASPHALT, RUST, ETC. APPLICATION OF PAINT AND STAIN SHALL BE IN A WORKMAN LIKE MANNER PROVIDING A SMOOTH SURFACE. APPLICATION RATE SHALL BE AS RECOMMENDED BY THE MANUFACTURER. APPLICATION MAY BE BY BRUSH, ROLLER, OR SPRAY. PAINT SHALL BE PER THE ENGINEERS COLOR SCHEDULE AND SPECIFICATIONS.

9.09 PAINT INTERIOR
CEILINGS – LATEX FLAT, 2 COATS OVER 1 PRIME COAT
WALLS – LATEX FLAT, 2 COATS OVER 1 PRIME COAT
TRIM – LATEX SEMI-GLOSS, 2 COATS OVER 1 PRIME COAT
KITCHENS AND BATH ROOMS
CEILING – LATEX SEMI-GLOSS, 2 COATS OVER 1 PRIME COAT
WALLS – LATEX SEMI-GLOSS, 2 COATS OVER 1 PRIME COAT

9.10 PAINT EXTERIOR
TRIM COAT PRIME (2) COAT FINISH. COLOR SELECTED BY THE ENGINEER.

10.0 MECHANICAL

10.01 ALL PIPES, DUCTS, VENTS, WIRING, AND CHASES WHICH PENETRATE CEILINGS DIRECTLY BELOW TRUSSES OR ROOF ASSEMBLIES SHALL BE DRAFTSTOPPED.

10.02 ALL EXHAUST FANS SHALL VENT TO THE EXTERIOR.
KITCHEN RANGE EXHAUST: 100 CFM
BATHROOM & POWDER ROOM: 50 CFM

10.03 AIR HANDLER SHALL BE STANDARD, SIZE AND MODEL AS PER HEAT LOSS/HEAT GAIN CALCULATIONS.

10.04 PER LOCAL CODE REQUIREMENTS, DWELLING SHALL BE EQUIPPED THROUGHOUT WITH AUTOMATIC SPRINKLER SYSTEM DESIGNED AND INSTALLED IN ACCORDANCE WITH NFPA 13D (ONE AND TWO FAMILY).

10.05 SANITARY: COLD AND HOT WATER: AND ALL OTHER PIPING SHALL CONFOM TO THE REQUIREMENTS, LOCAL AND STATE. PROVIDE OVERFLOW PANS AND DRAINS WITH WASHER AND/OR WATER HEATER WHEN LOCATED ABOVE A FINISHED SPACE. PROVIDE 1 1/2" CONDENSATE LINE FROM WATER HEATER AND AIR HANDLER UNDER SLAB TO SUMP PIT.

10.06 ALL DRYERS TO BE VENTED TO EXTERIOR SIDE ON ROOM OF HOUSE.

11.0 ELECTRICAL

11.01 THE INTENT OF THE ELECTRICAL PLAN IS TO INDICATE IN GENERAL, A DESCRIPTION OF THE ELECTRICAL SYSTEM FOR THE STRUCTURE. ALL WORK SHALL COMPLY WITH THE NATIONAL ELECTRICAL CODE, STATE CODES, AND LOCAL ORDINANCES. SUB-CONTRACTOR SHALL COORDINATE ALL WORK WITH OTHER TRADES. TERMINAL HOOKUP IS REQUIRED OF ALL FIXTURES, APPLIANCES, MOTORS, FANS, AND CONTROLS. ELECTRICAL SYSTEM LAYOUTS ARE GENERALLY DIAGRAMMATIC, LOCATION OF OUTLETS AND EQUIPMENT IS APPROXIMATE UNLESS OTHERWISE SPECIFIED. EXACT ROUTING OF WIRING AND LOCATIONS OF OUTLETS SHALL BE GOVEREND BY STRUCTURAL CONDITIONS AND OBSTRUCTIONS. WIRING FOR EQUIPMENT REQUIRING MAINTENANCE SHALL BE READILY ACCESSIBLE. ALL ELECTRIC BREAKERS WITHIN THE PANEL BOX SHALL BE LABELED. ONE ELECTRIC METER BASE SHALL BE PROVIDED PER UNIT. ONE ELECTRIC PANEL BOX SHALL BE PROVIDED ACCORDING TO THE SIZING REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE. ALL SWITCHED OUTLETS TO BE HALF-HOT. GFI OUTLETS SHALL BE LOCATED AS SPECIFIED ON THE ELECTRICAL PLAN IN KITCHEN, BATHS, GARAGES AND EXTERIOR APPLICATIONS. ALL LIGHT FIXTURES EXPOSED TO WEATHER SHALL BE INSTALLED IN A WEATHERPROOF MANNER INSTALL LIGHT FIXTURES PER ENGINEER'S SCHEDULE.

11.02 SMOKE DETECTORS ARE REQUIRED AND SHALL BE INSTALLED INSIDE OF EACH SEPERATE SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDROOMS AND ON EACH ADDITIONAL STORY OF THE DWELLING INCLUDING BASEMENT. ALL DETECTORS SHALL BE APPROVED AND LISTED AND SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.

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No. 026648
3-25-25

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REVISED

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DESIGN BY: CS
DRAWN BY: JG
CHECKED BY: TS

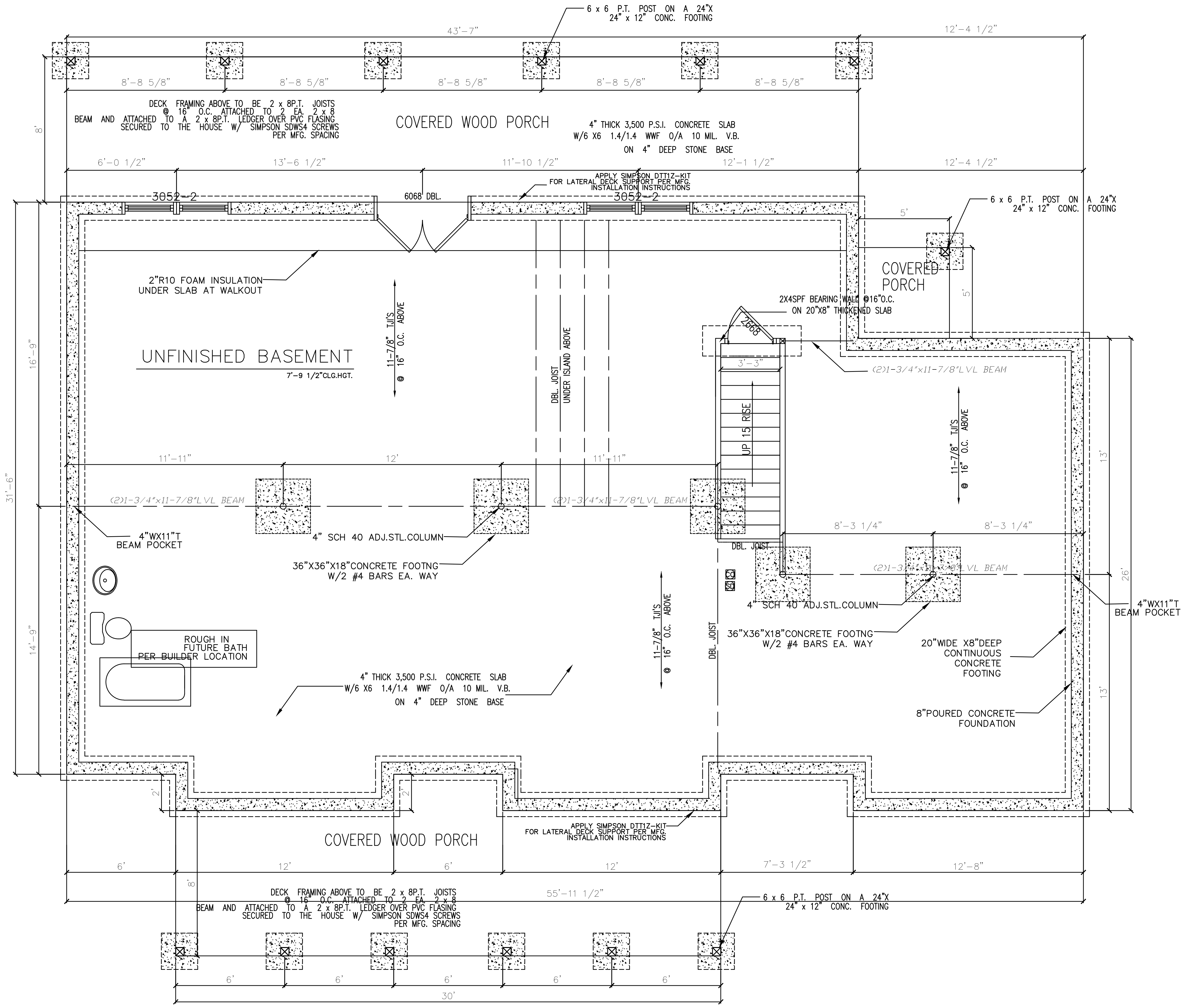
PROJECT TITLE: POTTER RESIDENCE

DRAWING TITLE: SPECIFICATION SHEET

PROJ. NO.25.056

DATE: 3-16-25

SHEET NO.
A2
2 OF 9



FOUNDATION PLAN
SCALE 1/4=1'

0 4' 8' 16'
SCALE: 1/4" = 1'-0"

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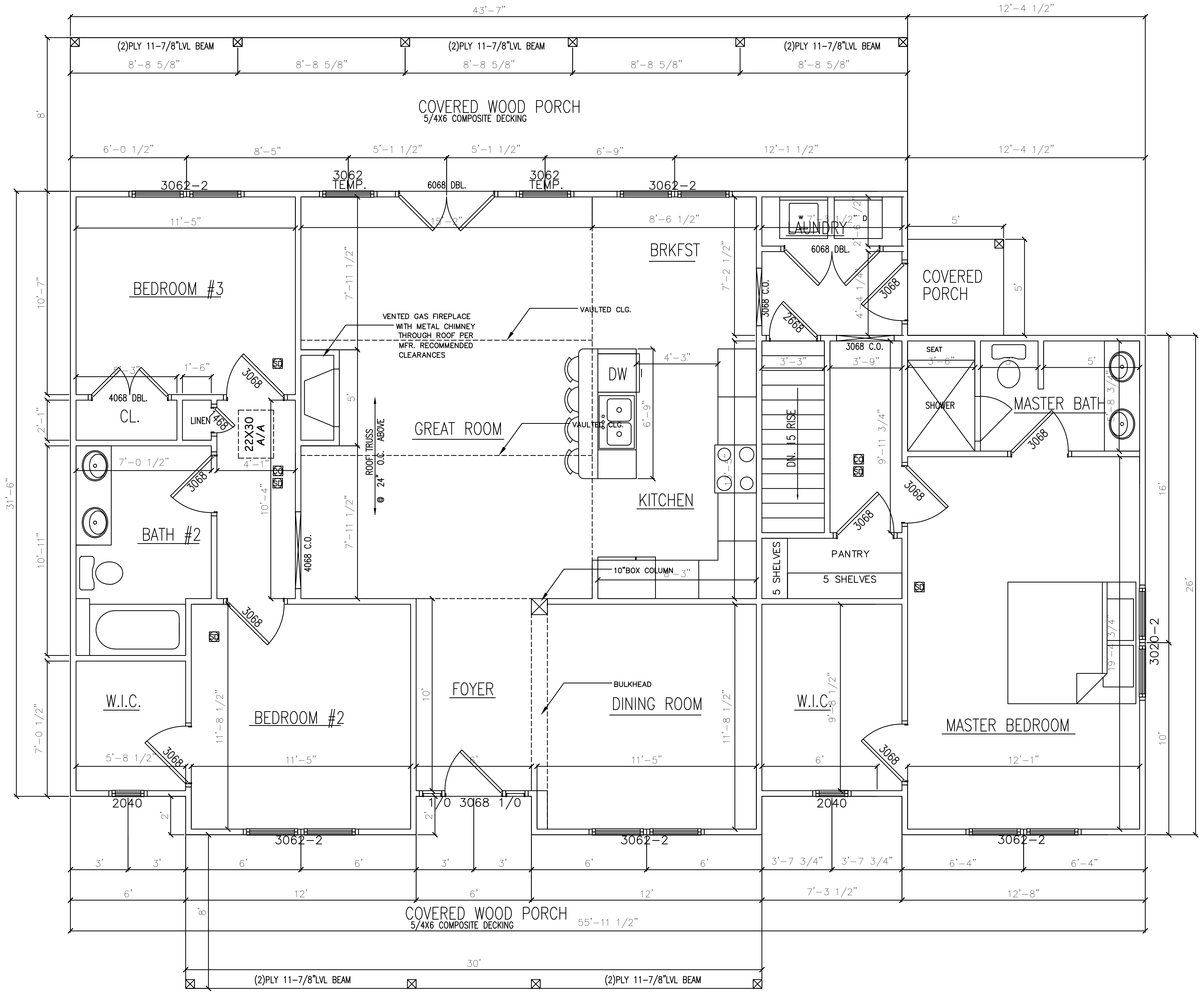
PROJECT TITLE: POTTER RESIDENCE

DRAWING TITLE: FLOOR PLAN

PROJ. NO. 25.056

DATE: 3-16-25

SHEET NO.
A3
3 OF 9



FLOOR PLAN
SCALE 1/4=1'

GENERAL NOTES

* ALL EXTERIOR WALLS ARE TO BE 2 x 4 #2 SPF @ 16" O.C. & DIMENSIONED TO FACE OF STUD U.N.O.
* ALL INTERIOR WALLS ARE TO BE 2 x 4 #2 SPF @ 16" O.C. & DIMENSIONED TO FACE OF STUD U.N.O.
* ALL FIRST FLOOR WALL HEIGHTS ARE 9' 1-1/8" U.N.O.
* ALL BASEMENT WALL HEIGHTS ARE 8' 9-1/2" U.N.O.
* ALL 3' OPENING BEARING WALL HEADERS ARE 2 - 2x12 #2 SPF U.N.O.
* ALL 6' OPENING BEARING WALL HEADERS ARE 2 - 1-3/4X9-1/2 LVL U.N.O.
* ALL FOUNDATION CONCRETE TO HAVE A MINIMUM COMPRESSIVE STRENGTH
OF 3,000 P.S.I. AT 28 DAYS U.N.O.
* FOUNDATION DESIGN BASED ON ALLOWABLE SOIL BEARING CAPACITY OF 1,500 P.S.F.
* FOUNDATION DESIGN BASED ON NON-EXPANSIVE SOILS.
* ALL FOOTINGS TO BE SET A MINIMUM OF 24" BELOW FINISHED GRADE.
* HEAD ALL WINDOWS AT 8' A.F.F. U.N.O.
* INSTALL GFI OUTLETS PER NEC IN ALL BATHROOMS, KITCHEN, AND EXTERIOR
* PROVIDE CO DETECTORS ON EACH FLOOR AS SHOWN

0 4' 8' 16'
SCALE: 1/4" = 1'-0"

COMMONWEALTH OF VIRGINIA
GEORGE C. STEPHENSON
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CS	JG	TS

PROJECT TITLE: POTTER RESIDENCE

DRAWING TITLE: FLOOR PLAN

PROJ. NO. 25.056

DATE: 3-16-25

SHEET NO.
A4

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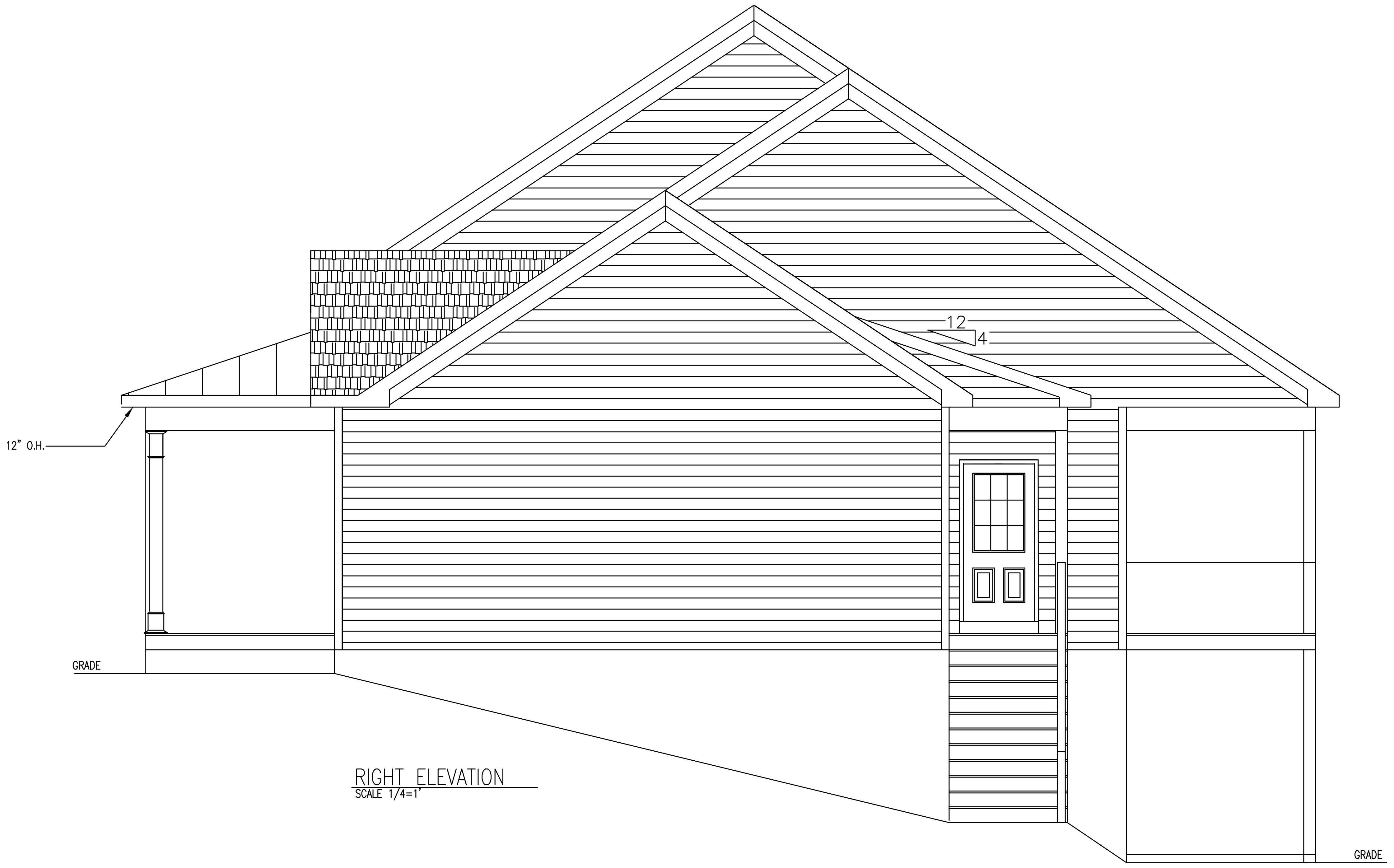
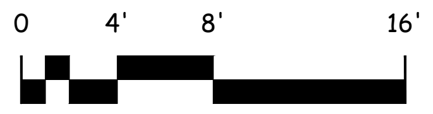
FRONT ELEVATION
SCALE 1/4=1'



RIGHT ELEVATION
SCALE 1/4=1'



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

COMMONWEALTH OF VIRGINIA
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PROJECT TITLE: POTTER RESIDENCE

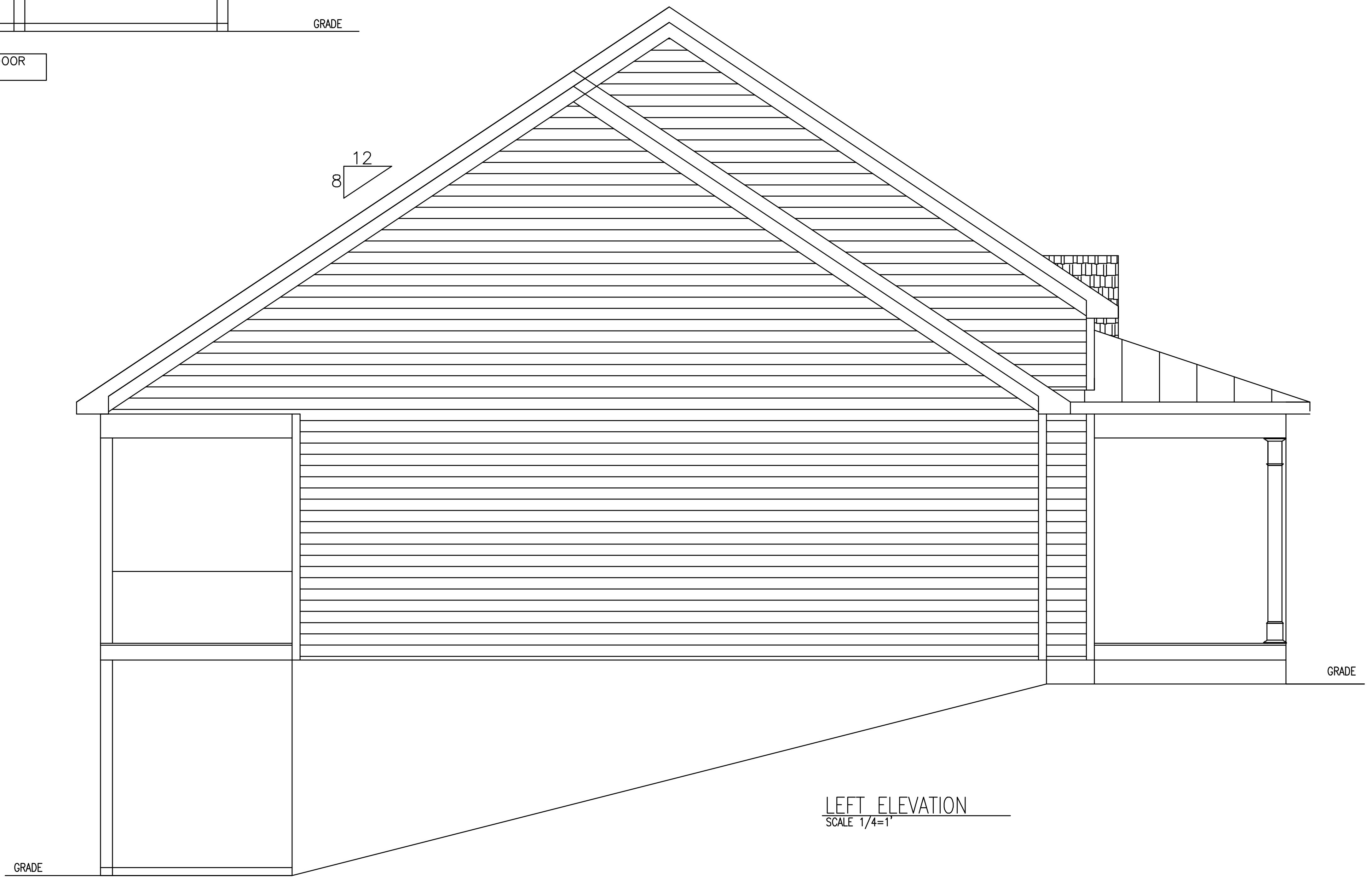
DRAWING TITLE: FRONT & RIGHT ELEVATIONS

PROJ. NO. 25.056

DATE: 3-16-25

SHEET NO.
A5
5 OF 9

REAR ELEVATION
SCALE 1/4=1'



LEFT ELEVATION
SCALE 1/4=1'

0 4' 8' 16'
SCALE: 1/4" = 1'-0"

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DRAWN BY: JG
CHECKED BY: TS

PROJECT TITLE: POTTER RESIDENCE

DRAWING TITLE: REAR & LEFT ELEVATIONS

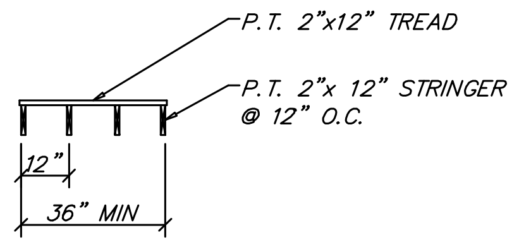
PROJ. NO. 25.056

DATE: 3-16-25

SHEET NO. A6

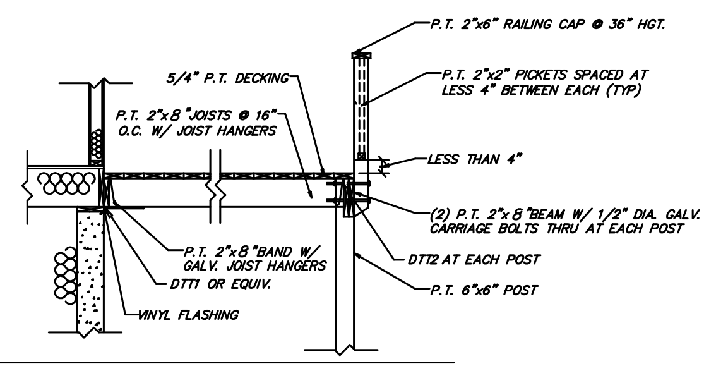
6 OF 9

GEORGE C. STEPHENSON
No. 026648
3-25-25

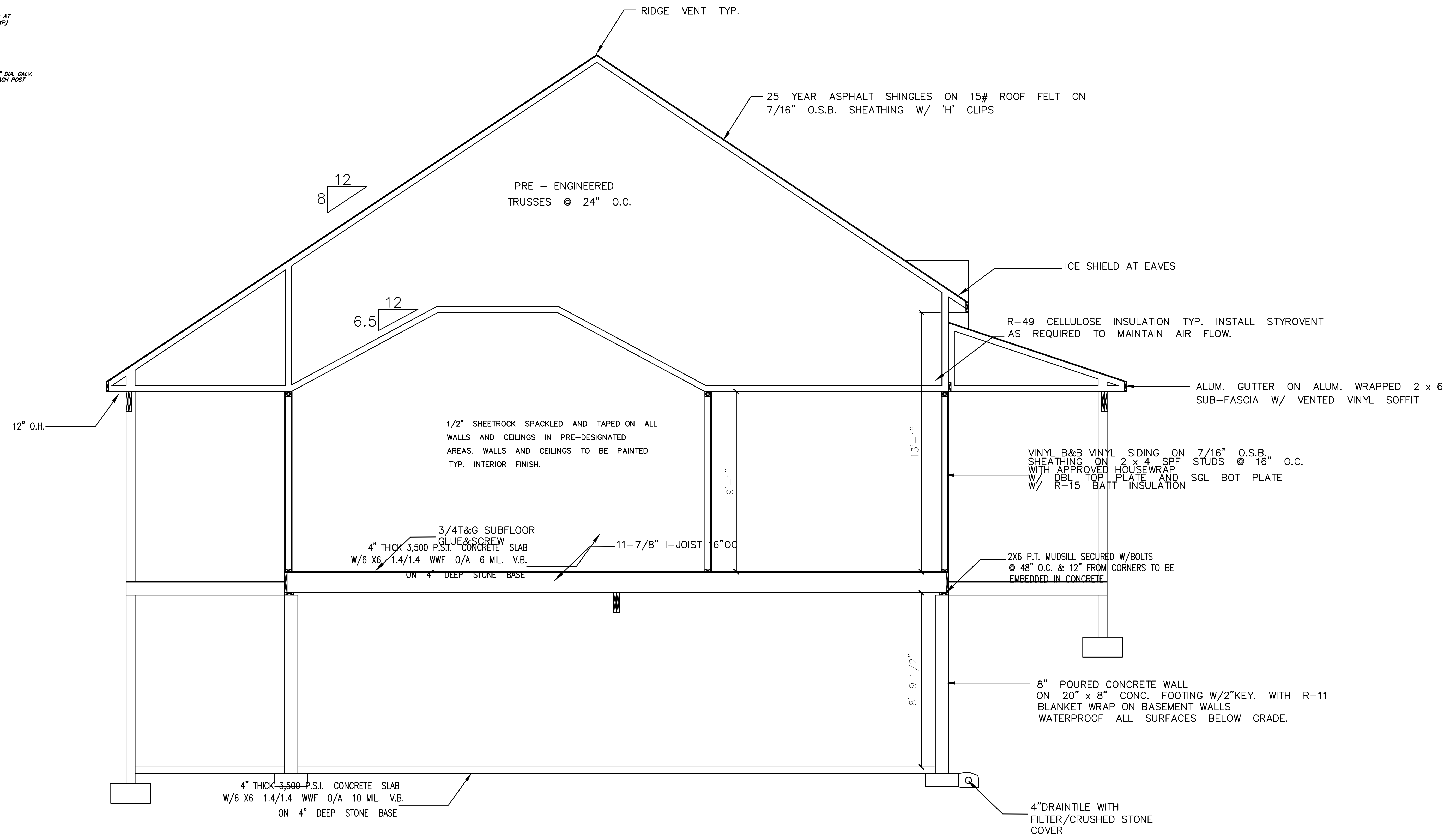


TREAD DETAIL

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

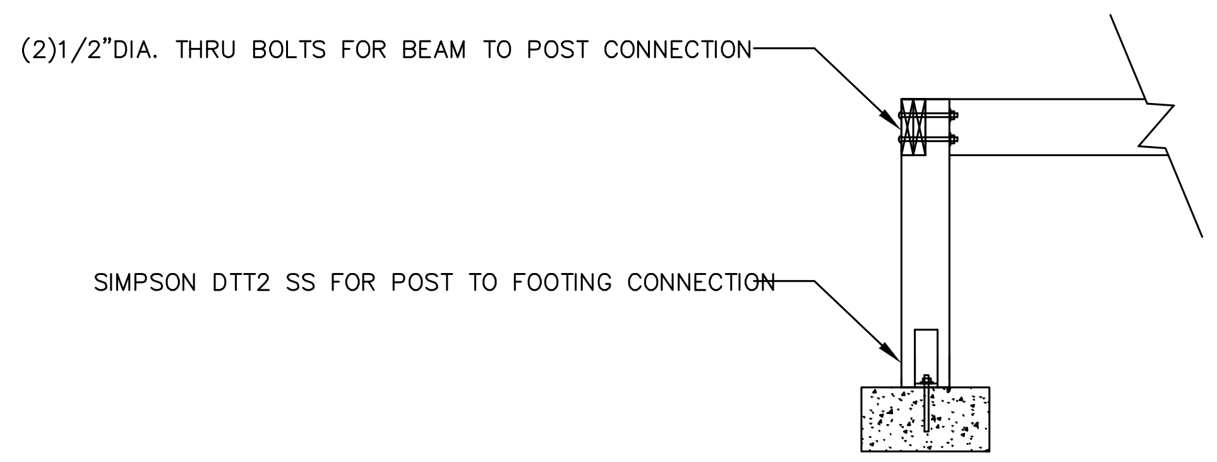


HAND RAIL DETAIL 2



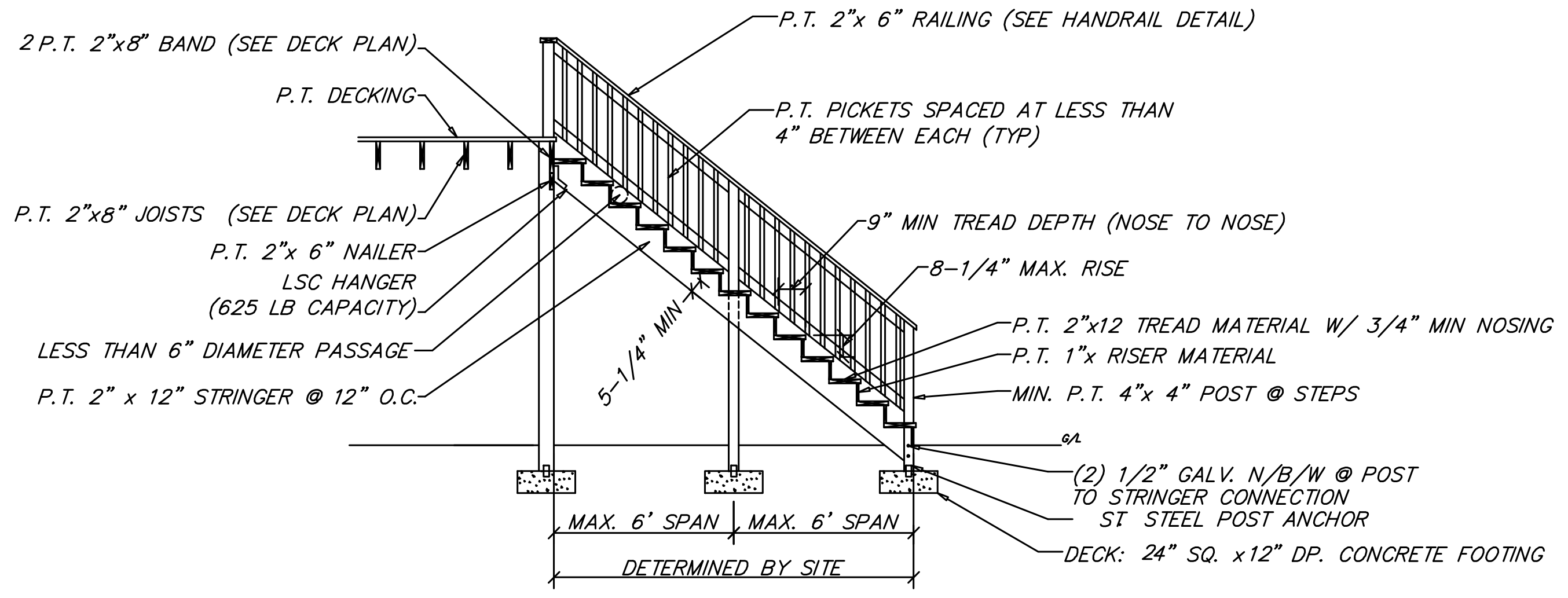
BUILDING SECTION

SCALE 1/4=1'



POST CONNECTION

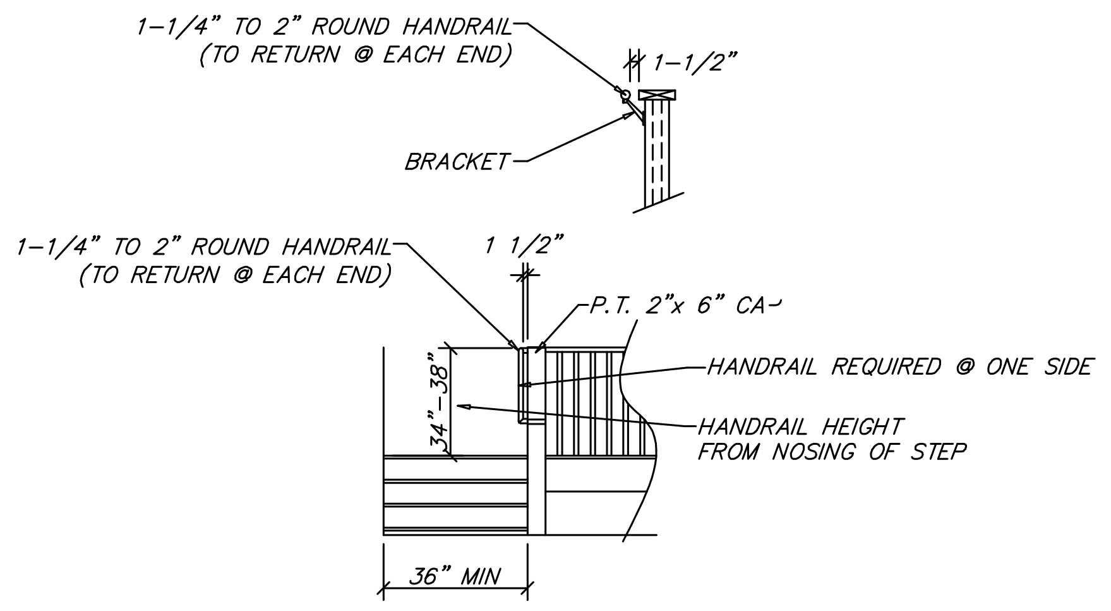
SCALE 1/2=1'



DECK STAIR SECTION

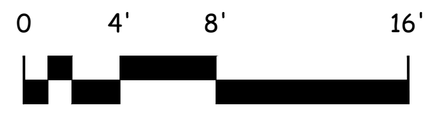
SCALE: 1/4" = 1'-0"

NOTE:
ALL STAIRWAYS TO BE ILLUMINATED PER R303.7



HAND RAIL DETAIL

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



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

ENGINEER: DESIGNS UNLIMITED, INC.
6350 TENNIS COURT
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(540)212-8330

ISSUED 3-16-25
REVISED

CONTRACTOR: SACRA CUSTOM HOMES
4505 PARTLOW ROAD
PARTLOW, VA 22534
(540)582-2397

DESIGN BY: CS
DRAWN BY: JG
CHECKED BY: TS

PROJECT TITLE: POTTER RESIDENCE

DRAWING TITLE: BUILDING SECTION

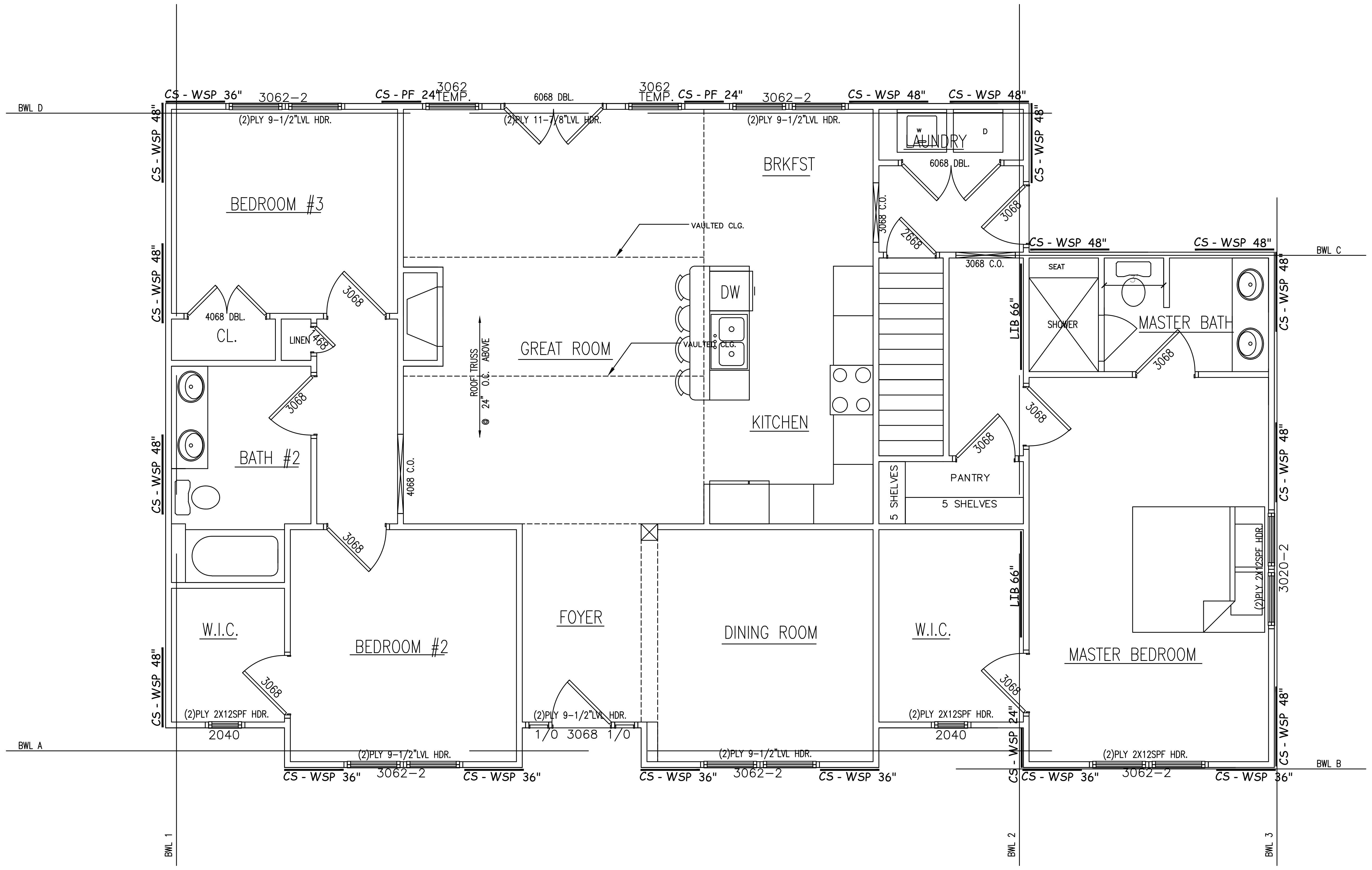
PROJ. NO. 25.056

DATE: 3-16-25

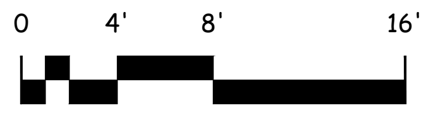
SHEET NO. A7

7 OF 9

GEORGE C. STEPHENSON
No. 026648
3-25-25



WALL BRACING PLAN
SCALE 1/4=1'



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

GEORGE C. STEPHENSON
No. 026648
3-25-25

ENGINEER: DESIGNS UNLIMITED, INC.
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ISSUED 3-16-25
REVISED

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DESIGN BY: CS
DRAWN BY: JG
CHECKED BY: TS

PROJECT TITLE: POTTER RESIDENCE

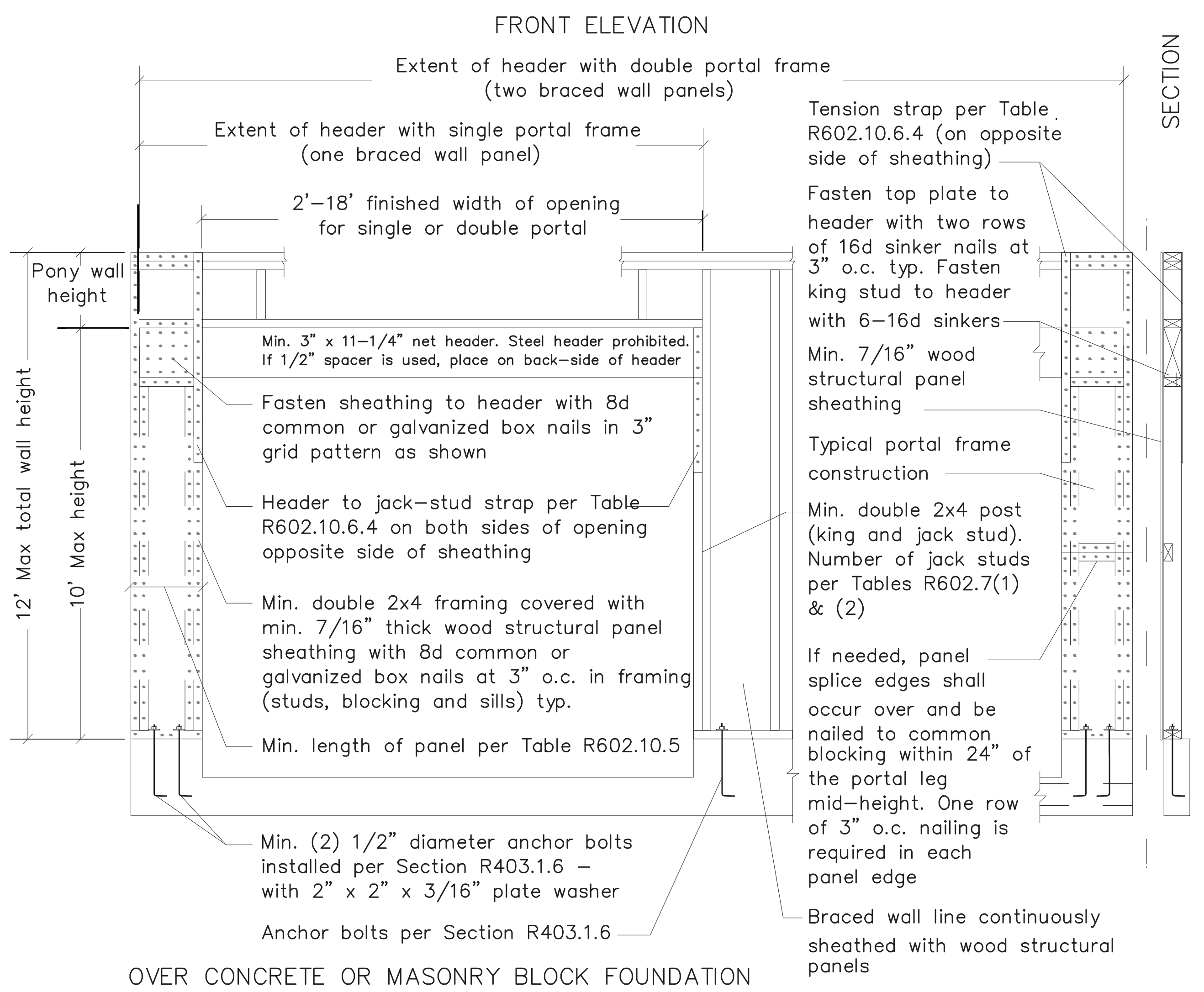
DRAWING TITLE: FIRST FLOOR WALL BRACING PLAN

PROJ. NO. 25.056

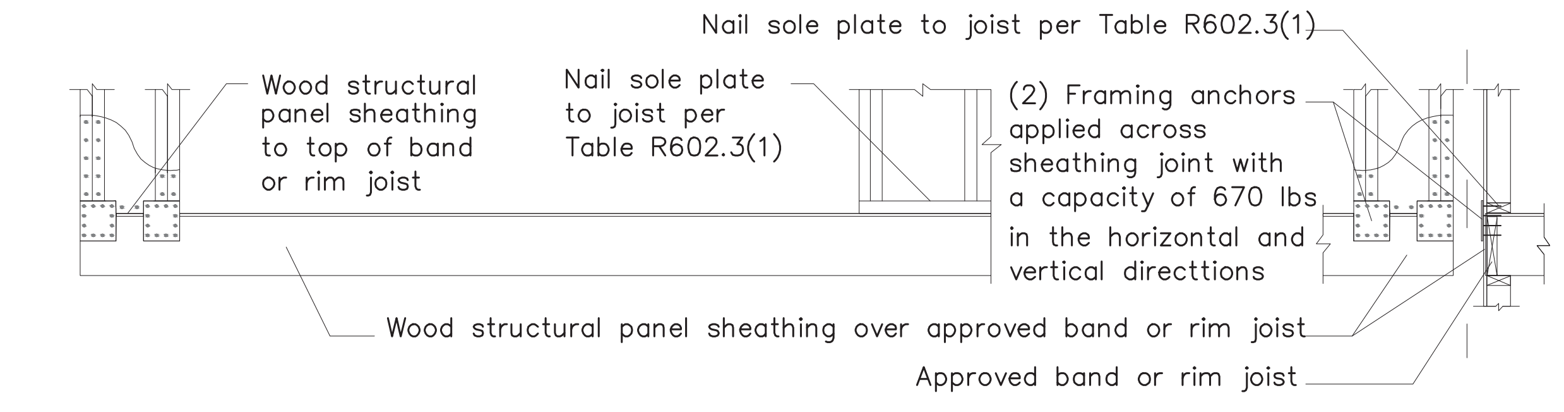
DATE: 3-16-25

SHEET NO. A8

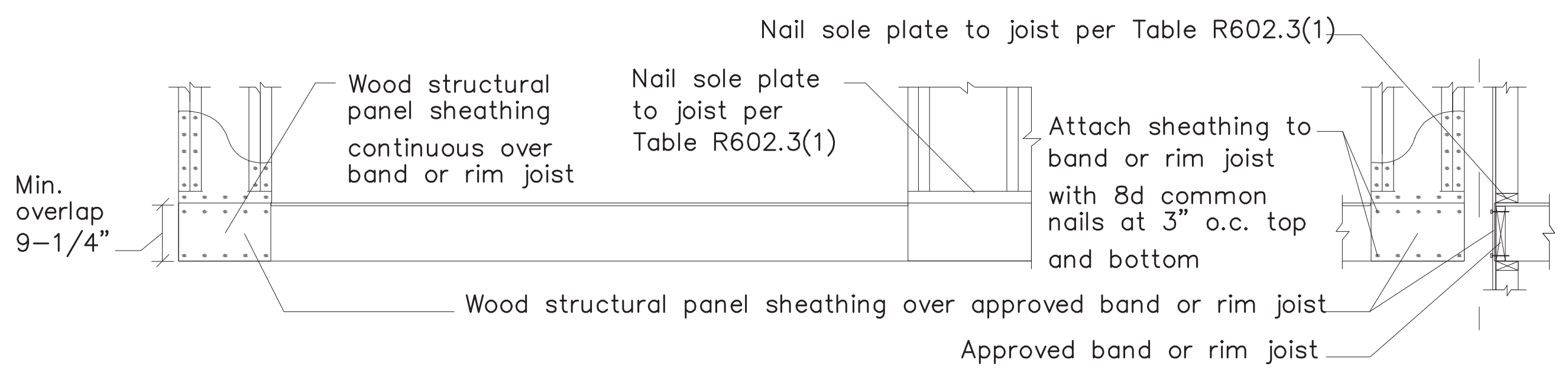
8 OF 9



OVER CONCRETE OR MASONRY BLOCK FOUNDATION



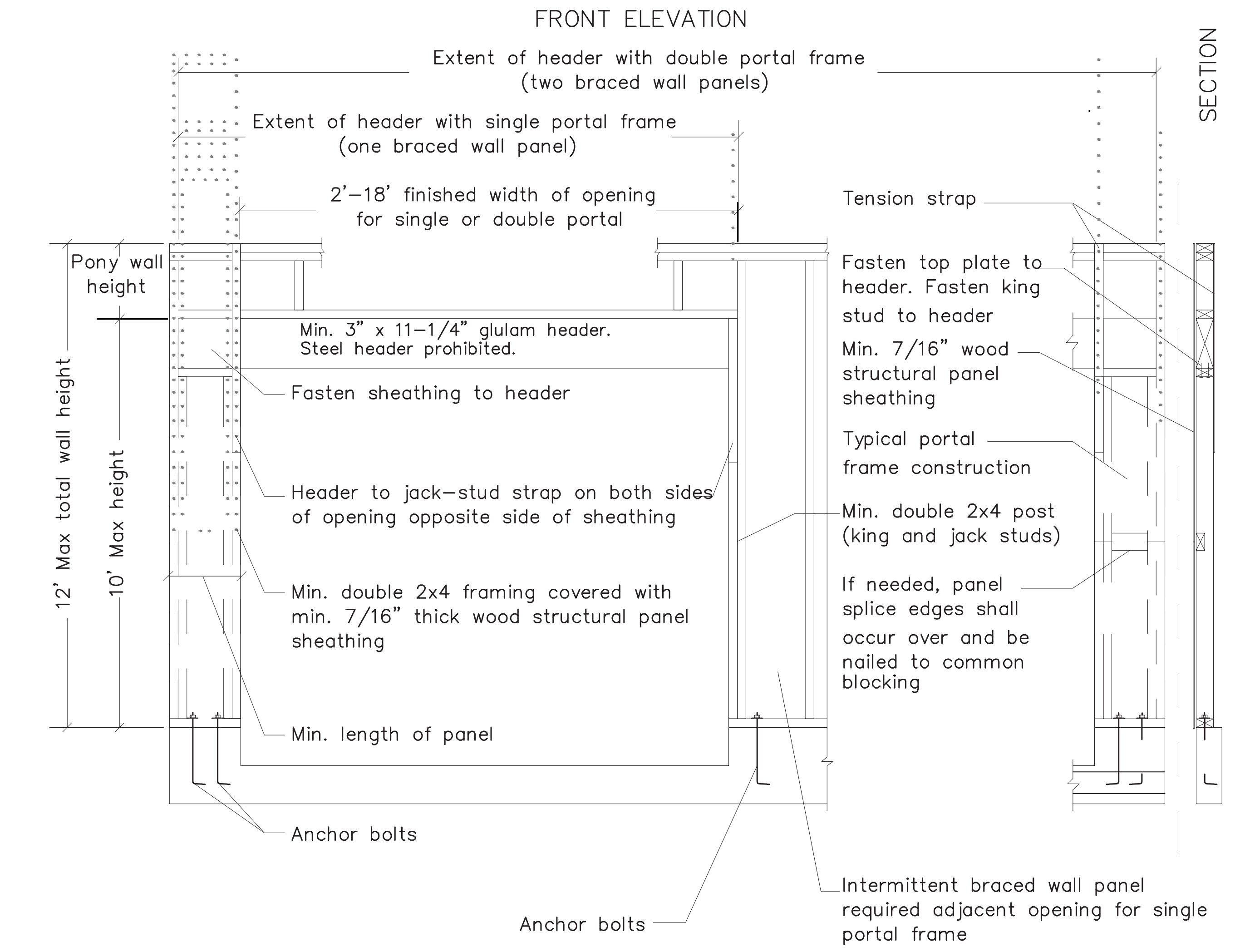
OVER RAISED WOOD FLOOR – FRAMING ANCHOR OPTION
(When portal sheathing does not lap over band or rim joist)



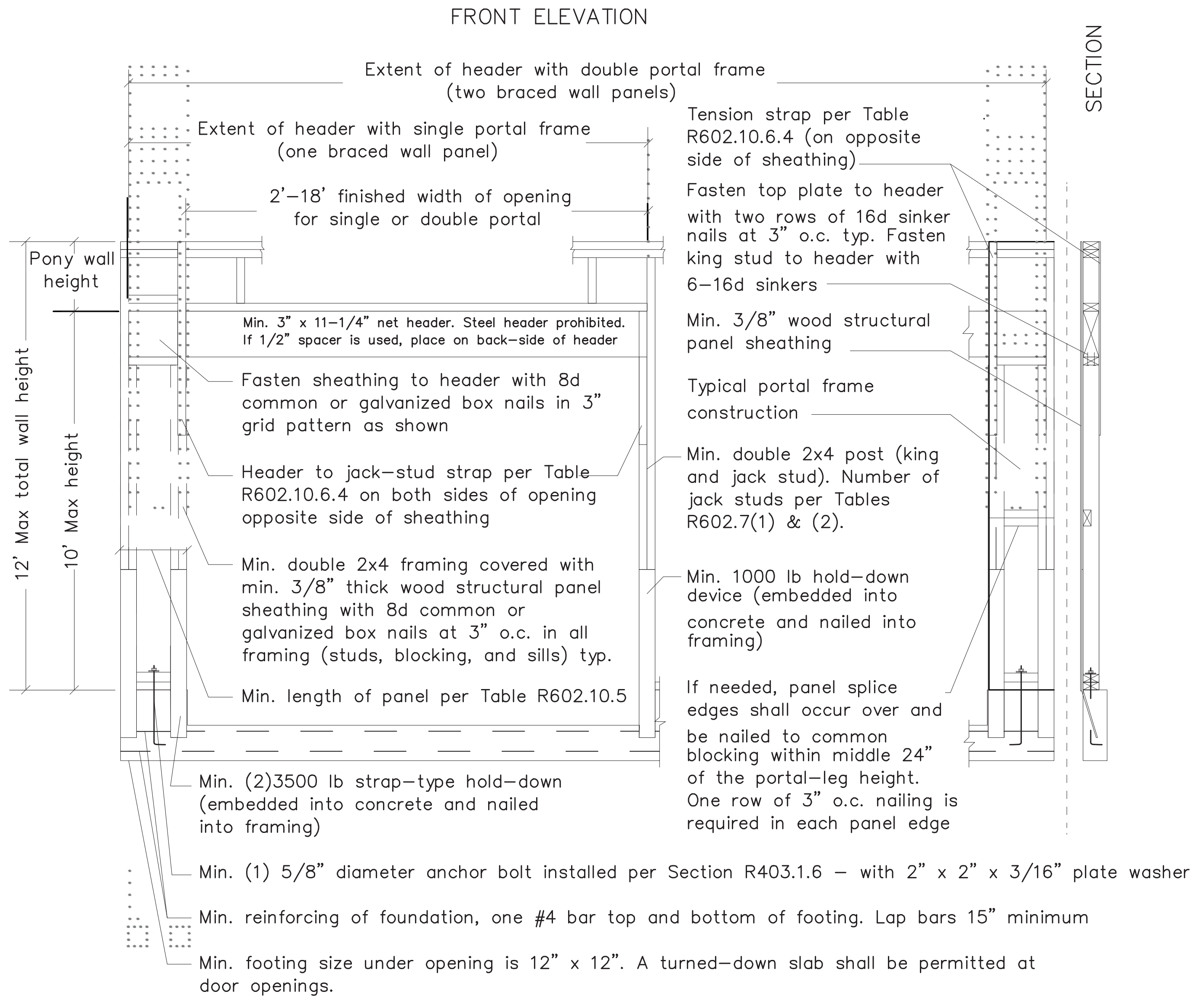
OVER RAISED WOOD FLOOR – OVERLAP OPTION
(When portal sheathing laps over band or rim joist)

CS-PF DETAIL
2021 VIRGINIA RESIDENTIAL CODE

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



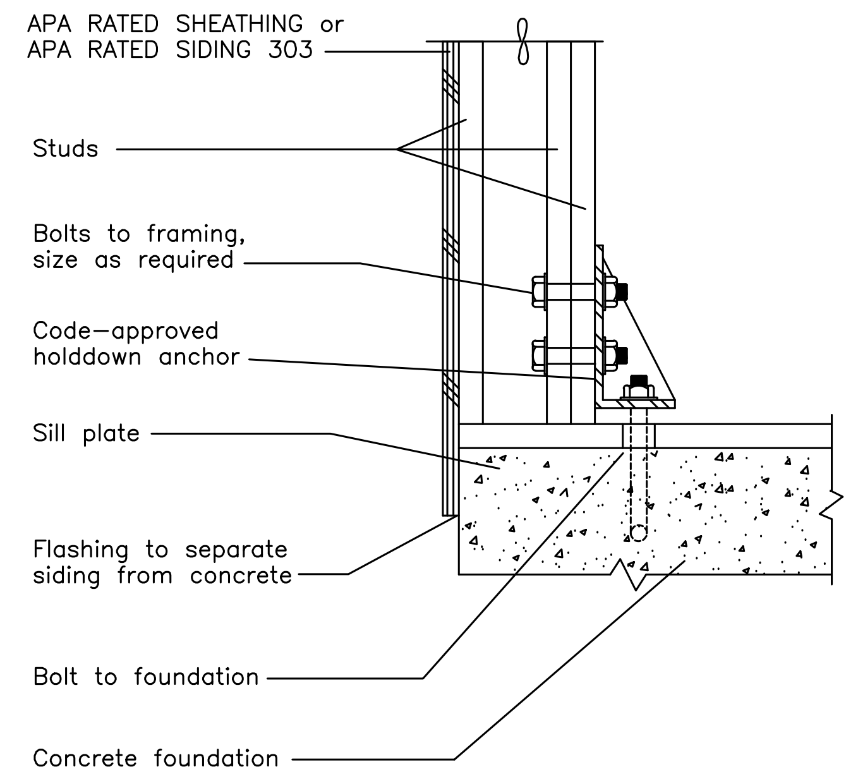
PFG DETAIL
2021 VIRGINIA RESIDENTIAL CODE

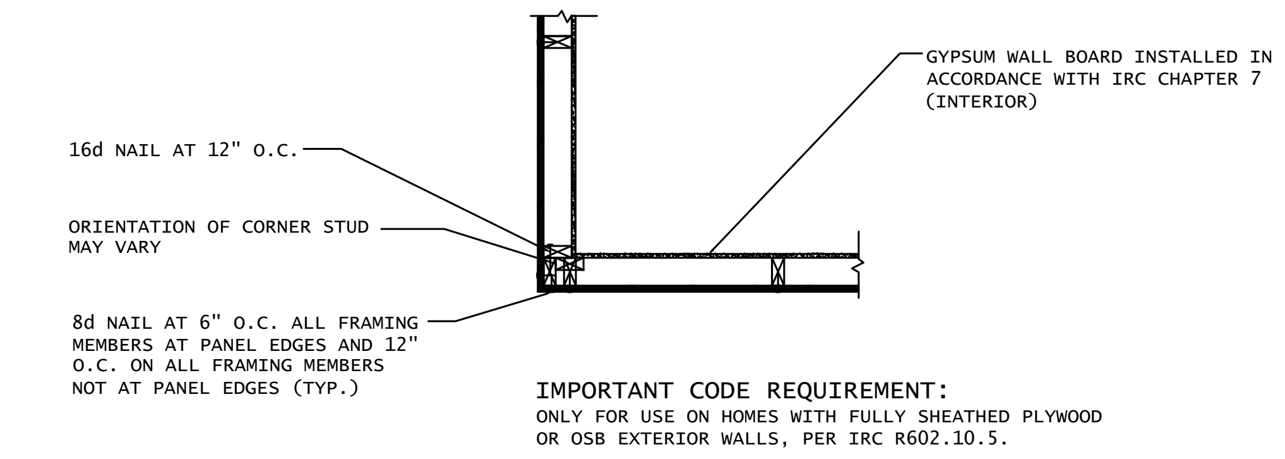


PFH DETAIL
2021 VIRGINIA RESIDENTIAL CODE

SHEAR WALL FOUNDATION ANCHOR

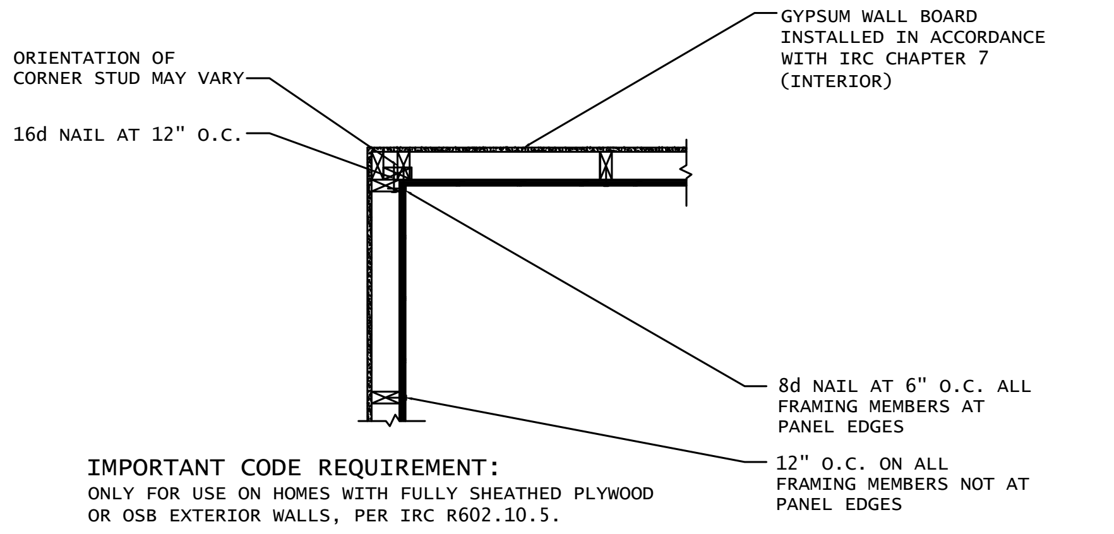
High shear wall overturning moments may be transferred by a fabricated steel bracket such as this.
Regular foundation bolts may be all that is required in some cases.





IMPORTANT CODE REQUIREMENT:
ONLY FOR USE ON HOMES WITH FULLY SHEATHED PLYWOOD OR OSB EXTERIOR WALLS, PER IRC R602.10.5.

EXAMPLE OF OUTSIDE CORNER DETAIL
PER IRC R602.10.5



IMPORTANT CODE REQUIREMENT:
ONLY FOR USE ON HOMES WITH FULLY SHEATHED PLYWOOD OR OSB EXTERIOR WALLS, PER IRC R602.10.5.

EXAMPLE OF INSIDE CORNER DETAIL
PER IRC R602.10.5

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No. 026648
3-25-25

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REVISED

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DESIGN BY: CS
DRAWN BY: JG
CHECKED BY: TS

PROJECT TITLE: POTTER RESIDENCE
DRAWING TITLE: NARROW WALL DETAILS

PROJ. NO.25.056
DATE: 3-16-25
SHEET NO.
A9
9 OF 9