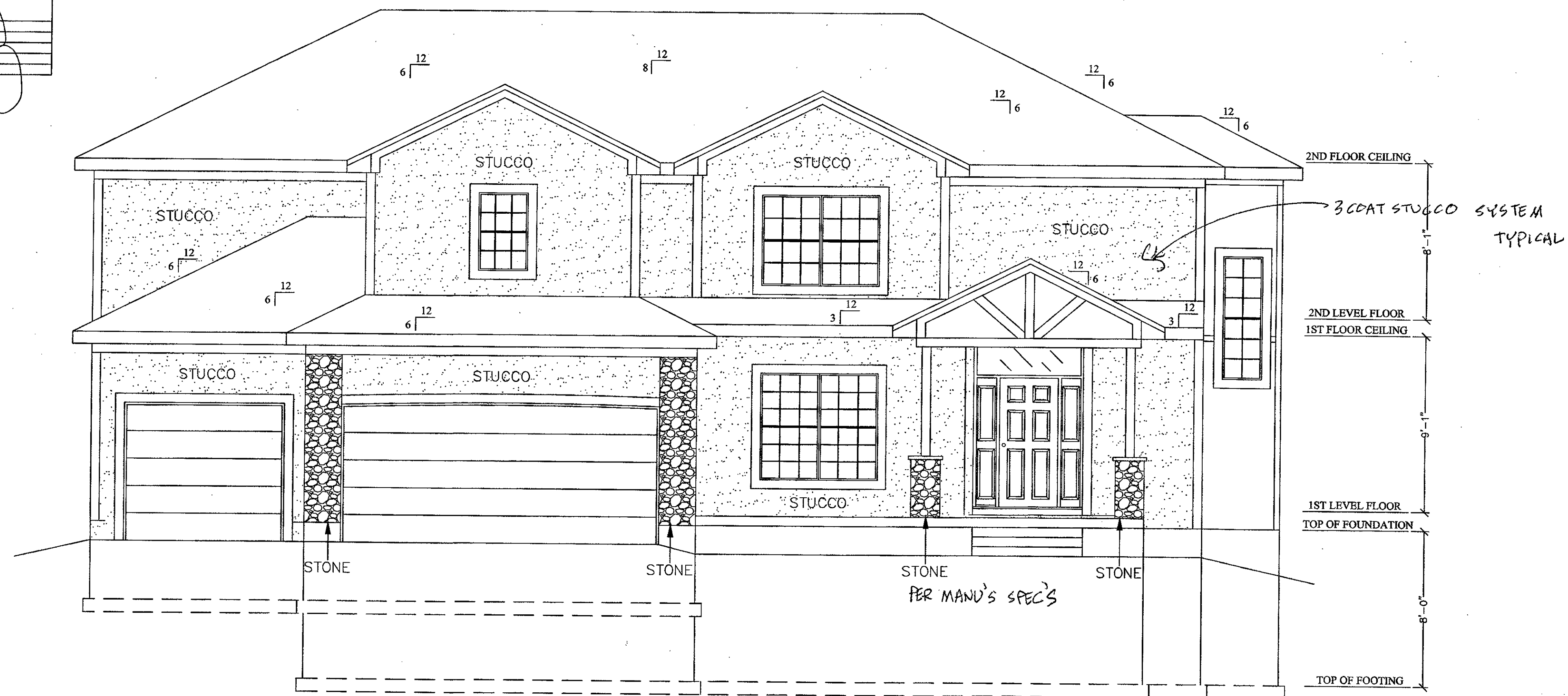
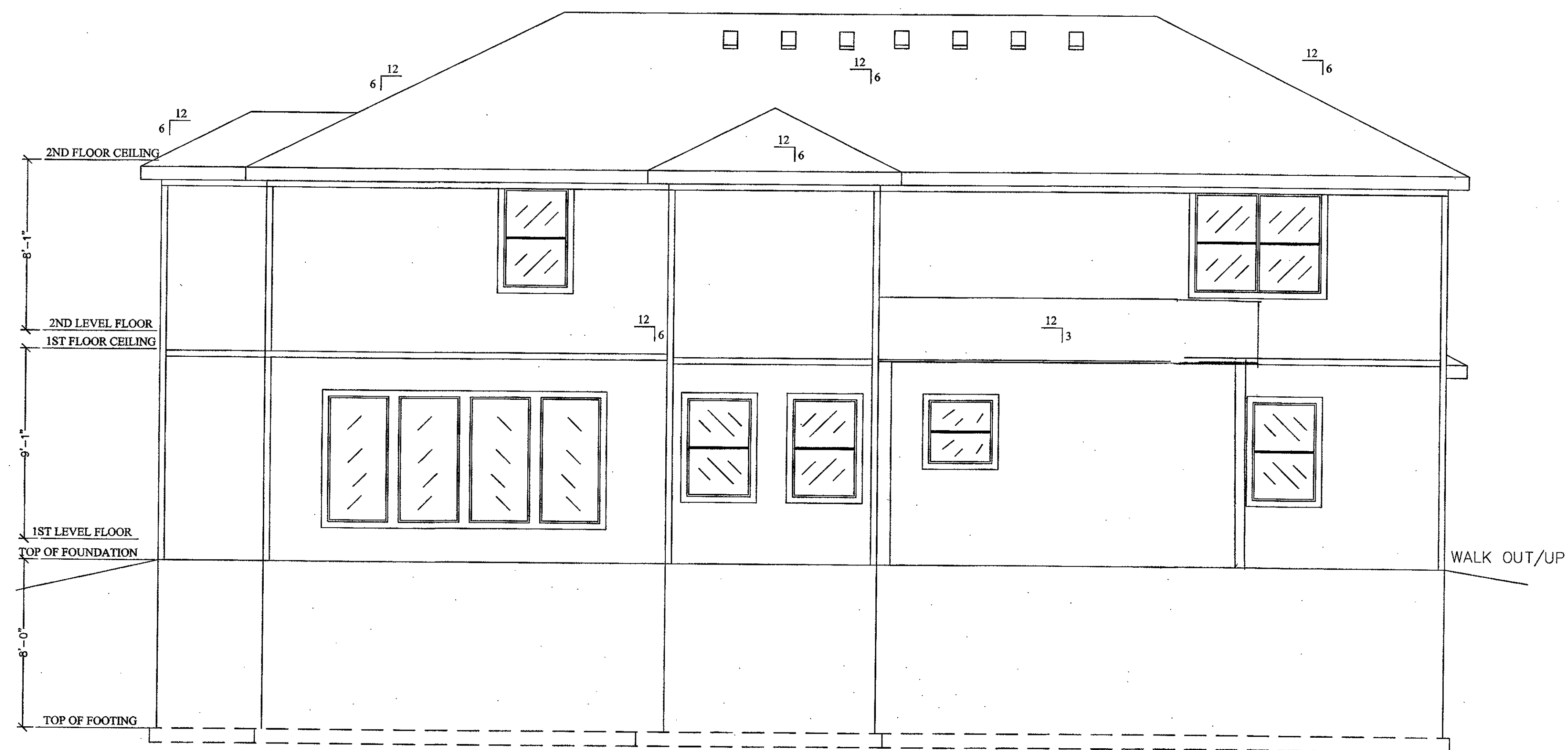


RESIDENTIAL AREA:		2710	
RESIDENTIAL LIVING AREA		1173	
RESIDENTIAL UN-FINISHED BASEMENTS		960	
RESIDENTIAL GARAGE			
RESIDENTIAL LIVING AREA 2			
ROOFING MATERIAL	COMP	NUMBER OF BATHROOMS	3.5
NUMBER OF BEDROOMS	5	NUMBER OF STORIES	2
NUMBER OF LIVING UNITS	1	TOTAL LIVING AREA	2710
SEWER CONNECTION FEE	20		

OPT. COVERED PATIO 216 #1



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



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

DESCRIPTION:
FRONT/REAR ELEVATIONS

MODEL:

BRANTLY B

DATE:

2/20/21

ARCHITECT IS NOT RESPONSIBLE FOR THE STRUCTURAL ELEMENTS OF THESE PLANS. A STRUCTURAL ENGINEER MAY NEED TO VERIFY ALL STRUCTURAL ASPECTS OF THESE PRINTS BEFORE CONSTRUCTION BEGINS. FIELD CONDITIONS MAY BE DIFFERENT FROM PLAN. ALL STATE AND LOCAL CODES TAKE PRECEDENCE OVER THESE PLANS. CONTRACTOR WILL BE RESPONSIBLE FOR PLAN INTEGRITY AND CODE COMPLIANCE.

Cobey Creek Lot 27
528 SE Carter Rd.
Lee's Summit, MO

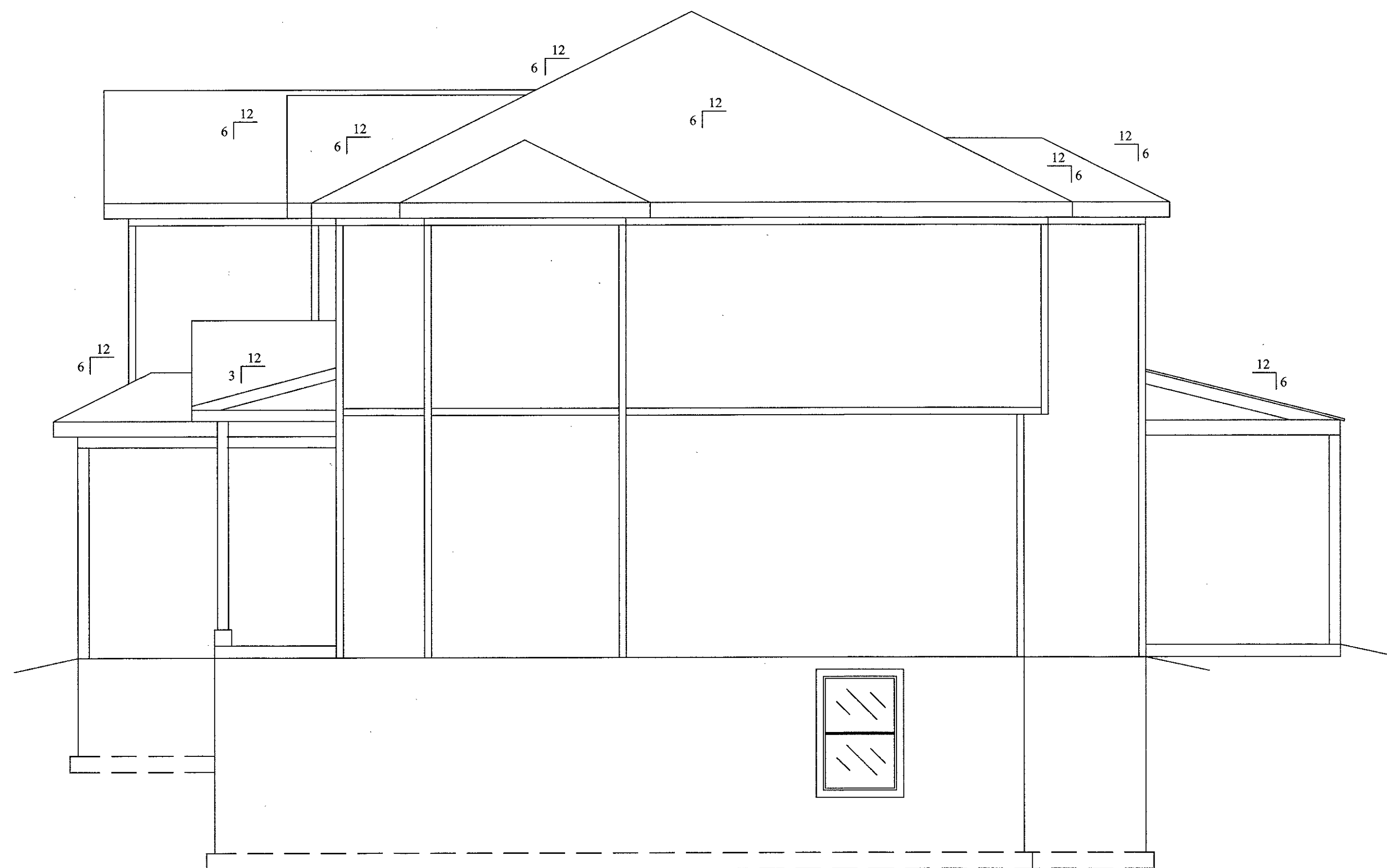
BUILD
SET



THIS DRAWING IS THE PROPERTY OF BILLY SPELLERBERG AND IS NOT TO BE REPRODUCED, MODIFIED, OR USED FOR ANY OTHER PROJECT, OR EXTENSION OF THIS PROJECT, EXCEPT BY AGREEMENT WITH THIS COMPANY.

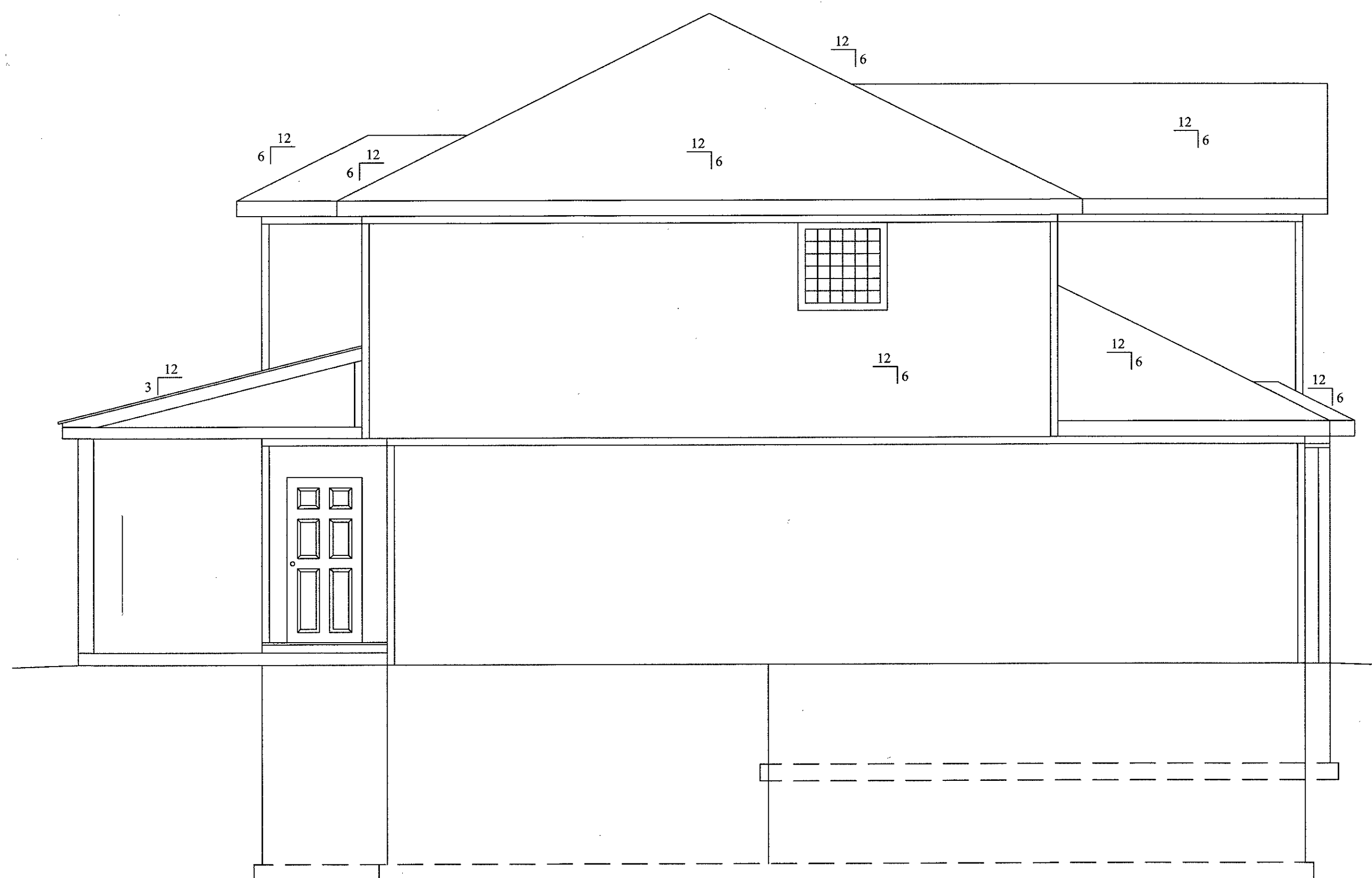
1 of 6

SHEET NO:



RIGHT ELEVATION

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



LEFT ELEVATION

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

DESCRIPTION:

LEFT / RIGHT ELEVATIONS

MODEL:

BRANTLY B

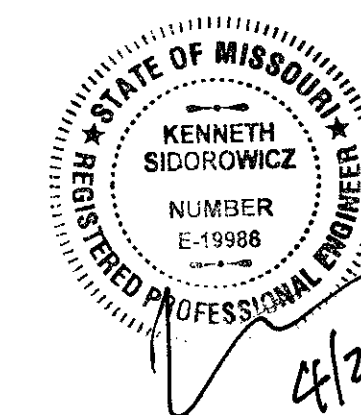
DATE:

2/20/21

ARCHITECT IS NOT RESPONSIBLE FOR THE STRUCTURAL ELEMENTS OF THESE PLANS. A STRUCTURAL ENGINEER MAY NEED TO VERIFY ALL STRUCTURAL ASPECTS OF THESE PRINTS BEFORE CONSTRUCTION BEGINS. FIELD CONDITIONS MAY BE DIFFERENT FROM PLAN. ALL STATE AND LOCAL CODES TAKE PRECEDENCE OVER THESE PLANS. CONTRACTOR WILL BE RESPONSIBLE FOR PLAN INTEGRITY AND CODE COMPLIANCE.

Cobey Creek Lot 27
528 SE Carter Rd.
Lee's Summit, MO

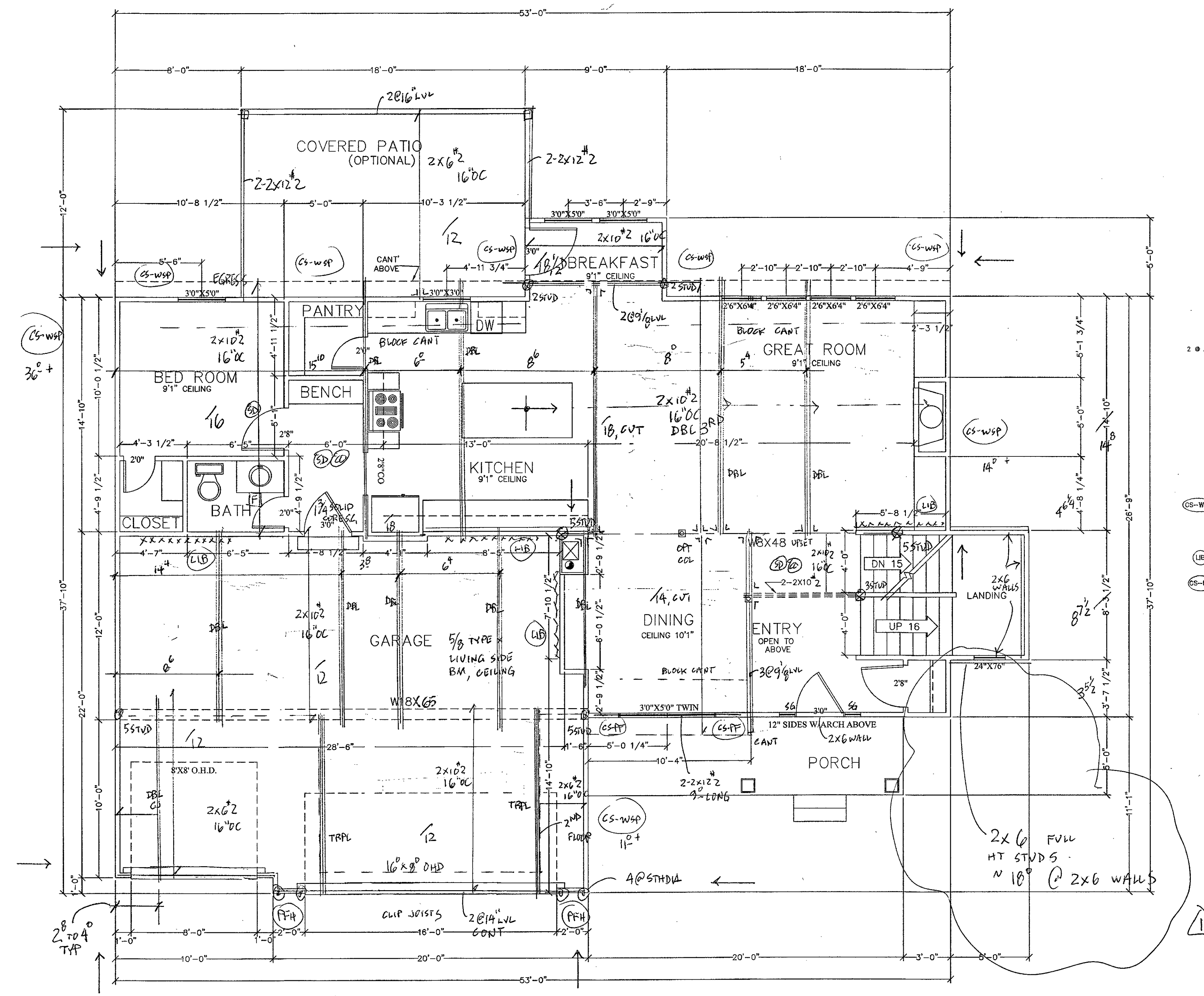
BUILD
SET



THIS DRAWING IS THE PROPERTY OF BILLY SPELLERBERG AND IS NOT TO BE REPRODUCED, MODIFIED, OR USED FOR ANY OTHER PROJECT, OR EXTENSION OF THIS PROJECT, EXCEPT BY AGREEMENT WITH THIS COMPANY.

2 of 6

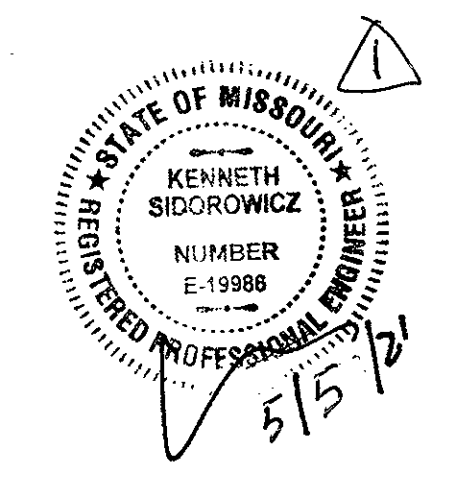
SHEET NO:



FIRST FLOOR PLAN
SCALE: 1/4" = 1'-0"

1ST SQUARE FEET = 1173
2ND SQUARE FEET = 1537
TOTAL SQUARE FEET = 2710

- 2 @ A35, 1 each Hdr.
Visible nailing for inspection
- DE/L WIN
HOUSE IS SHEATHED W/ 3/8" OSB
APA PANELS, SMART PANEL OR
EQUAL, INSTALLED PER MANU.
SPECS. SHIP LAPPED PANELS
REQUIRE NAILING OF OVER AND
UNDER PANELS SEPARATELY.
- INT SHALL BE SIMPSON STRAP
(CS16)
- HEADER LENGTHS ARE SHOWN
FOR CS-PF
- SIDING LAPS RIM
2x4, 9' PLATE, FULL HT. STUDS
S.C. = SELF CLOSING
D2 GN #25 FOR WINDOWS
CS = CONTINUOUSLY SHEATHED
EC = END CONDITION
SEE D2 FOR INSULATION VALUES
EC#18, 16" LONG CS18 STRAP,
CENTERED ON SUBFLOOR, FILL
ALL NAIL HOLES.



DESCRIPTION:
FIRST FLOOR FRAMING

MODEL:
BRANTLY B
DATE:
2/20/21

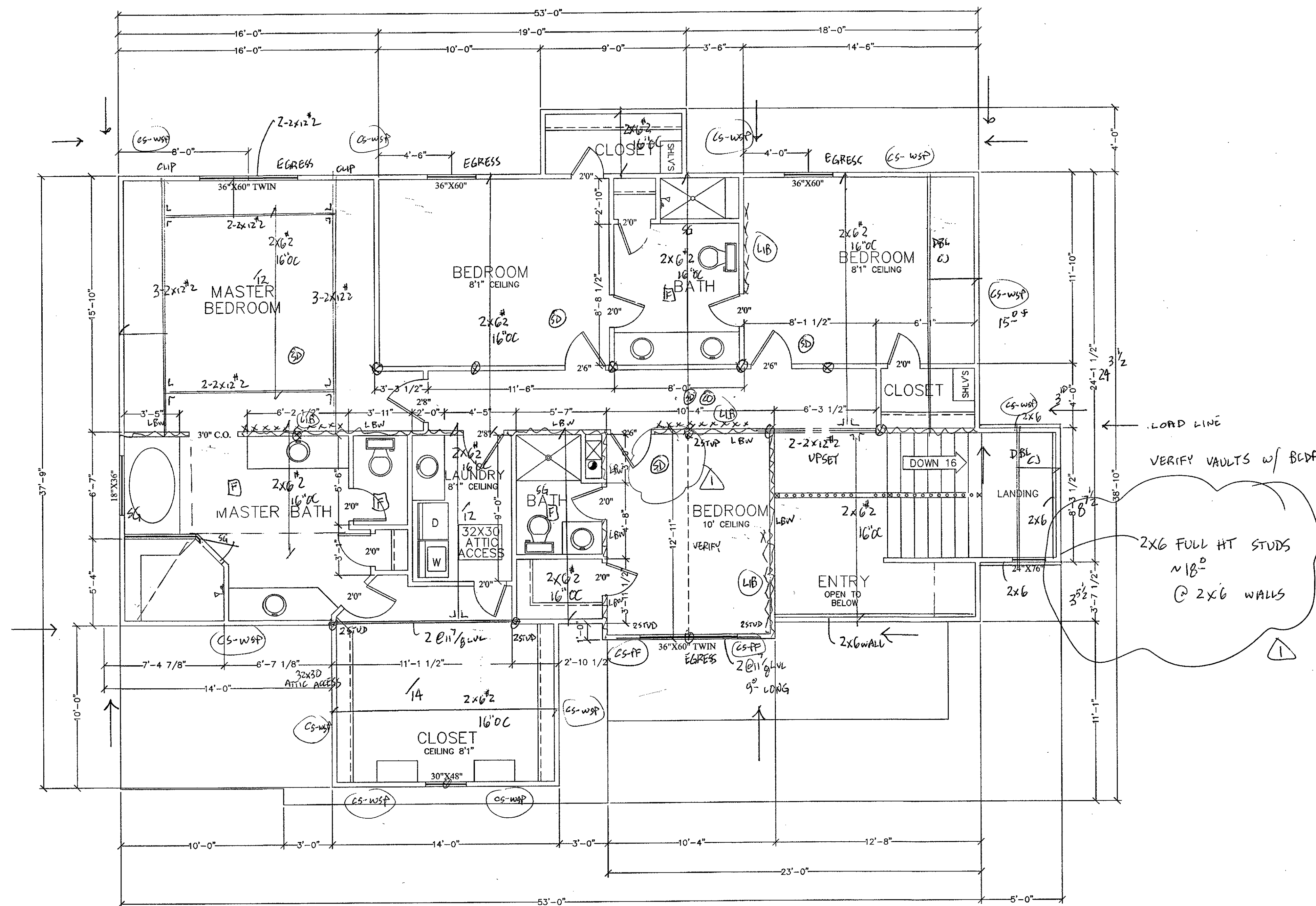
ARCHITECT IS NOT
RESPONSIBLE FOR THE
STRUCTURAL ELEMENTS OF
THESE PLANS. A STRUCTURAL
ENGINEER MAY NEED TO
VERIFY ALL STRUCTURAL ASPECTS
OF THESE PRINTS BEFORE
CONSTRUCTION BEGINS. FIELD
CONDITIONS MAY BE DIFFERENT
FROM PLAN. ALL STATE AND
LOCAL CODES TAKE PRECEDENCE OVER
THESE PLANS. CONTRACTOR WILL BE
RESPONSIBLE FOR PLAN INTEGRITY
AND CODE COMPLIANCE

Cobey Creek Lot 27
528 SE Carter Rd.
Lee's Summit, MO

BUILD
SET

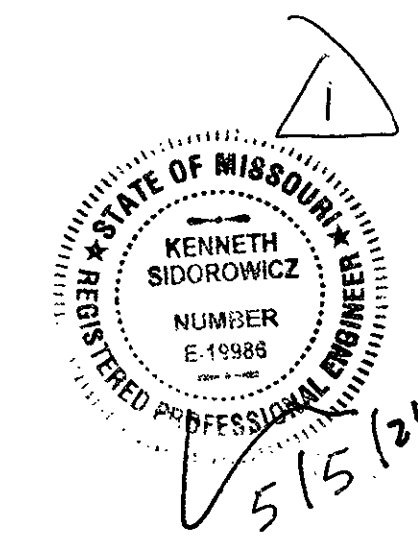
THIS DRAWING IS THE
PROPERTY OF BILLY
SPELLERBERG AND IS
NOT TO BE REPRODUCED,
MODIFIED, OR USED FOR
ANY OTHER PROJECT, OR
EXTENSION OF THIS PROJECT,
EXCEPT BY AGREEMENT WITH
THIS COMPANY.

3 of 6
SHEET NO:



SECOND FLOOR PLAN
SCALE: 1/4" = 1'-0"

2ND SQUARE FEET = 1537



DESCRIPTION:
SECOND FLOOR FRAMING
ROOF FRAMING PLAN

MODEL:
BRANTLY B
DATE:
2/20/21

ARCHITECT IS NOT RESPONSIBLE FOR THE STRUCTURAL ELEMENTS OF THESE PLANS. A STRUCTURAL ENGINEER MAY NEED TO VERIFY ALL STRUCTURAL ASPECTS OF THESE PRINTS BEFORE CONSTRUCTION BEGINS. FIELD CONDITIONS MAY BE DIFFERENT FROM PLAN. ALL STATE AND LOCAL CODES TAKE PRECEDENCE OVER THESE PLANS. CONTRACTOR WILL BE RESPONSIBLE FOR PLAN INTEGRITY AND CODE COMPLIANCE

Cobey Creek Lot 27
528 SE Carter Rd.
Lee's Summit, MO

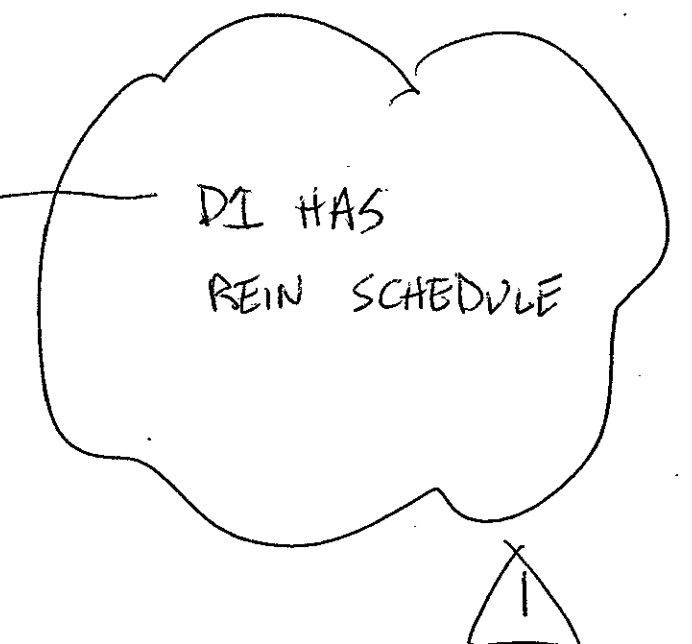
BUILD SET

THIS DRAWING IS THE PROPERTY OF BILLY SPELLERBERG AND IS NOT TO BE REPRODUCED, MODIFIED, OR USED FOR ANY OTHER PROJECT, OR EXTENSION OF THIS PROJECT, EXCEPT BY AGREEMENT WITH THIS COMPANY.

4 of 6

SHEET NO:

2 POSTS ADJUSTIBLE



- (A) 36x36x12 PAD
W/ (6) #4's E.W.
3" SCH 40 COL. UNO ALL PADS
- (B) 42x42x14 PAD
W/ (7) #4's E.W.
- (C) 48x48x16 PAD
W/ (8) #4's E.W.

DESCRIPTION:

FOUNDATION

MODEL:
BRANTLY B
DATE:
2/20/21

ARCHITECT IS NOT RESPONSIBLE FOR THE STRUCTURAL ELEMENTS OF THESE PLANS. A STRUCTURAL ENGINEER MAY NEED TO VERIFY ALL STRUCTURAL ASPECTS OF THESE PRINTS BEFORE CONSTRUCTION BEGINS. FIELD CONDITIONS MAY BE DIFFERENT FROM PLAN. ALL STATE AND LOCAL CODES TAKE PRECEDENCE OVER THESE PLANS. CONTRACTOR WILL BE RESPONSIBLE FOR PLAN INTEGRITY AND CODE COMPLIANCE

Cobey Creek Lot 27
528 SE Carter Rd.
Lee's Summit, MO



THIS DRAWING IS THE
PROPERTY OF BILLY
SPELLERBERG AND IS
NOT TO BE REPRODUCED,
MODIFIED, OR USED FOR
ANY OTHER PROJECT, OR
EXTENSION OF THIS PROJECT,
EXCEPT BY AGREEMENT WITH
THIS COMPANY.

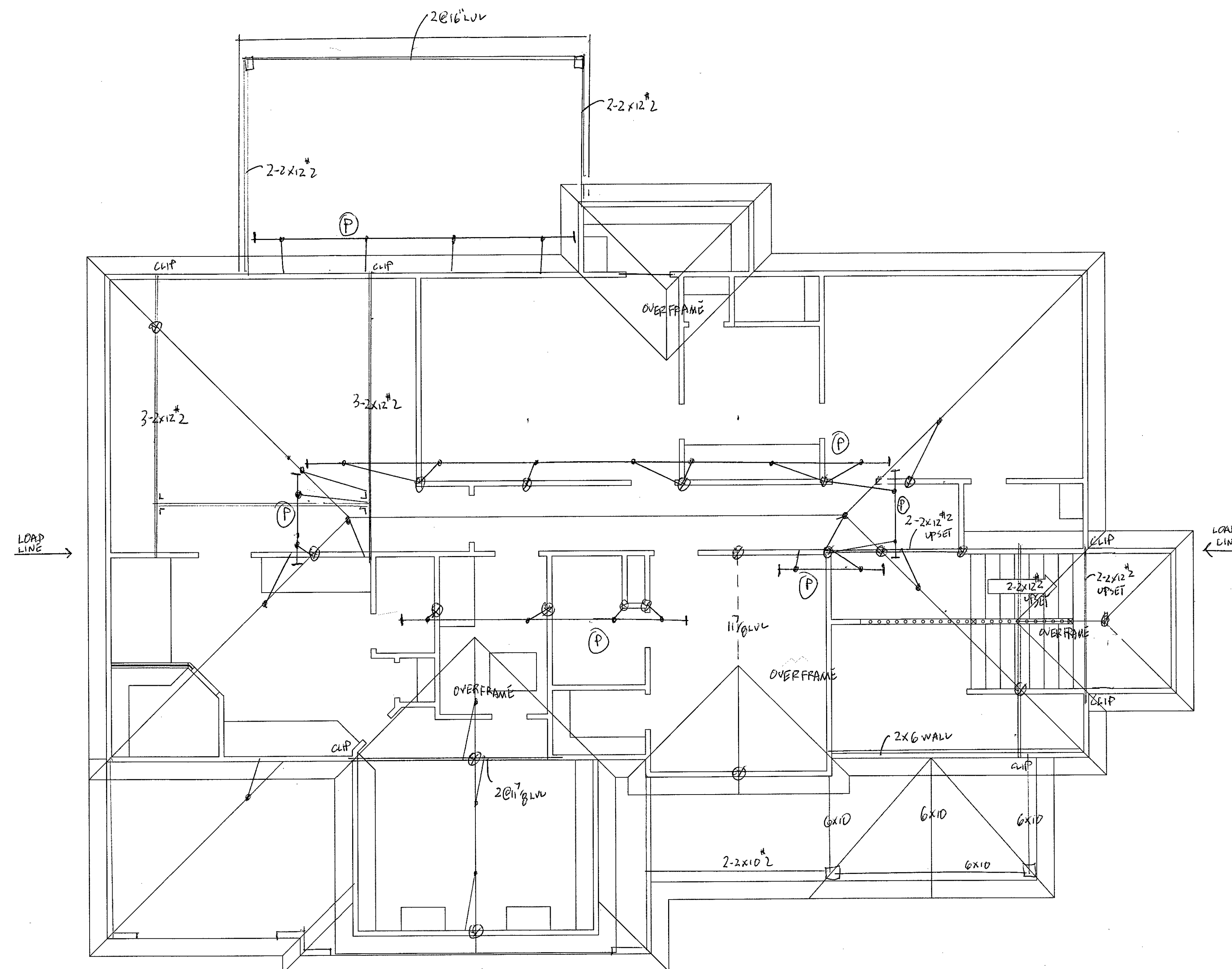
SHEET NO: 5 of 6

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

1

STATE OF MISSOURI ★ ENGINEER
KENNETH SIDCROWICZ
NUMBER
E-19996
EXPIRATION DATE 08-01-2010
REGISTERED PROFESSIONAL ENGINEER

5/5/21



ROOF

ASPHALT SHINGLES - 2/2 MIN
WOOD SHINGLES/SHAKES - 3/2 MIN
CONCRETE TILES - 24/2 MIN
FLASHING - 1/2 MIN
ALL ROOF PENETRATIONS
AND INTERSECTIONS

RAPFITS & CO. AND JOISTS
COLLAR TIE AT UPPER THIRD POINT, 4" OC, 2 X 4 MIN
CEILING JOIST ARE TURNED AND REQUIRED FOR Rafter TIEB

ROOF/RAFTER HANGERS AND STRAPS AS REQD
CROSSBRACES REQD @ 4/8" DIA SORTITS FOR
COOF RUMP W/ SORTITS > 2" DIA
NET AREA OPENING = 1/2 QUALE OF VERTICAL AREA

ATTIC VENTILATION
VENT EACH EXPOSURE ATTIC SPACE
NET AREA OPENING = 1/2 QUALE OF VERTICAL AREA

UNUSERS NOTED
MAXIMUM ARE 2 X 8 OR DFL @ 12" OC
Rafter TIE 4" MIN

PROVIDE VERTICAL LOAD SUPPORT AT THE NOTED
LOAD POINTS FOR THE RAIS, VALLEYS, PURLES, AND POSSES
LITTLE SUPPORT LES TO THE
ALL RAIS, VALLEYS AND POSSES ARE TIEED FOR
THE VERTICAL CORRS, RIDGES AND RIDGES

COMP TIE

PURIN	LES CO	LES CO
2 X 8	4" OC	4" OC
2 X 10	4" OC	4" OC
2 X 12	4" OC	4" OC

COMP TIE

SUPPORT LES	MAX LENGTH	MAX LENGTH
2 X 8 @ 2 X 4 T+DANCE	4" OC	4" OC
2 X 10 @ 2 X 4 T+DANCE	4" OC	4" OC
2 X 12 @ 2 X 4 T+DANCE	4" OC	4" OC
2 X 8 @ 2 X 4 T+DANCE	4" OC	4" OC

ALL 2X8 UNO

THIS JOIST CONNECTION FACTOR

H ₁ / H ₂	1/2	1/3	1/4
1/2	1/2	1/3	1/4
1/3	1/3	1/4	1/5
1/4	1/4	1/5	1/6
1/5	1/5	1/6	1/7
1/6	1/6	1/7	1/8
1/7	1/7	1/8	1/9
1/8	1/8	1/9	1/10
1/9	1/9	1/10	1/11
1/10	1/10	1/11	1/12
1/11	1/11	1/12	1/13
1/12	1/12	1/13	1/14
1/13	1/13	1/14	1/15
1/14	1/14	1/15	1/16
1/15	1/15	1/16	1/17
1/16	1/16	1/17	1/18
1/17	1/17	1/18	1/19
1/18	1/18	1/19	1/20
1/19	1/19	1/20	1/21
1/20	1/20	1/21	1/22
1/21	1/21	1/22	1/23
1/22	1/22	1/23	1/24
1/23	1/23	1/24	1/25
1/24	1/24	1/25	1/26
1/25	1/25	1/26	1/27
1/26	1/26	1/27	1/28
1/27	1/27	1/28	1/29
1/28	1/28	1/29	1/30
1/29	1/29	1/30	1/31
1/30	1/30	1/31	1/32
1/31	1/31	1/32	1/33
1/32	1/32	1/33	1/34
1/33	1/33	1/34	1/35
1/34	1/34	1/35	1/36
1/35	1/35	1/36	1/37
1/36	1/36	1/37	1/38
1/37	1/37	1/38	1/39
1/38	1/38	1/39	1/40
1/39	1/39	1/40	1/41
1/40	1/40	1/41	1/42
1/41	1/41	1/42	1/43
1/42	1/42	1/43	1/44
1/43	1/43	1/44	1/45
1/44	1/44	1/45	1/46
1/45	1/45	1/46	1/47
1/46	1/46	1/47	1/48
1/47	1/47	1/48	1/49
1/48	1/48	1/49	1/50
1/49	1/49	1/50	1/51
1/50	1/50	1/51	1/52
1/51	1/51	1/52	1/53
1/52	1/52	1/53	1/54
1/53	1/53	1/54	1/55
1/54	1/54	1/55	1/56
1/55	1/55	1/56	1/57
1/56	1/56	1/57	1/58
1/57	1/57	1/58	1/59
1/58	1/58	1/59	1/60
1/59	1/59	1/60	1/61
1/60	1/60	1/61	1/62
1/61	1/61	1/62	1/63
1/62	1/62	1/63	1/64
1/63	1/63	1/64	1/65
1/64	1/64	1/65	1/66
1/65	1/65	1/66	1/67
1/66	1/66	1/67	1/68
1/67	1/67	1/68	1/69
1/68	1/68	1/69	1/70
1/69	1/69	1/70	1/71
1/70	1/70	1/71	1/72
1/71	1/71	1/72	1/73
1/72	1/72	1/73	1/74
1/73	1/73	1/74	1/75
1/74	1/74	1/75	1/76
1/75	1/75	1/76	1/77
1/76	1/76	1/77	1/78
1/77	1/77	1/78	1/79
1/78	1/78	1/79	1/80
1/79	1/79	1/80	1/81
1/80	1/80	1/81	1/82
1/81	1/81	1/82	1/83
1/82	1/82	1/83	1/84
1/83	1/83	1/84	1/85
1/84	1/84	1/85	1/86
1/85	1/85	1	

STATE OF MISSOURI
KENNETH SIDOROWICZ
NUMBER E-19986
REGISTERED PROFESSIONAL ENGINEER
4/24/21

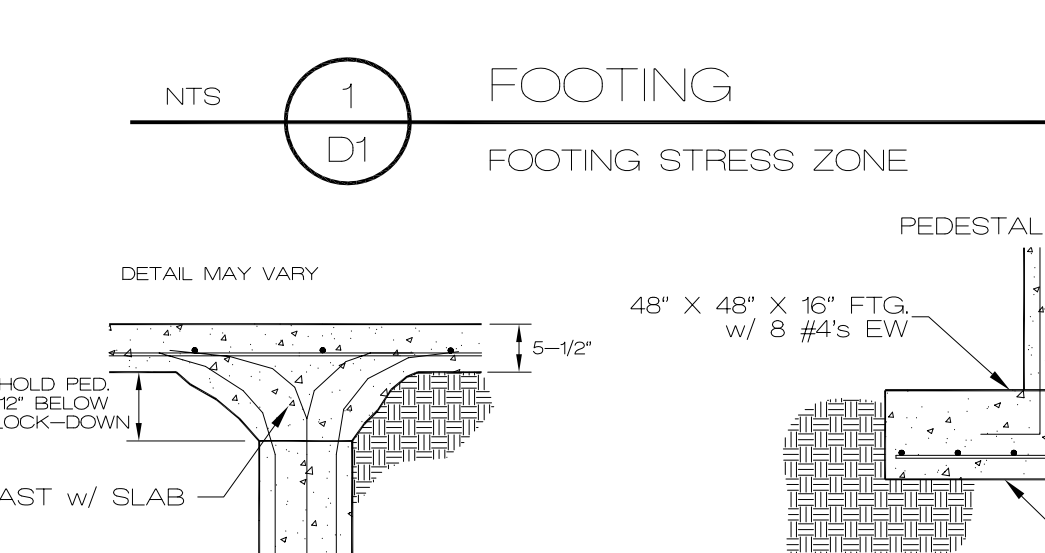
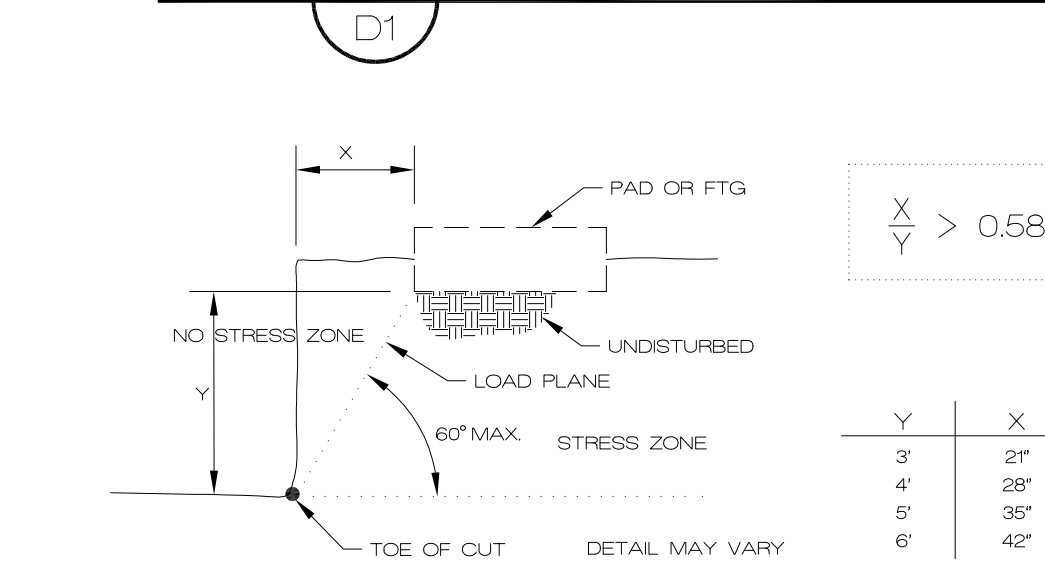
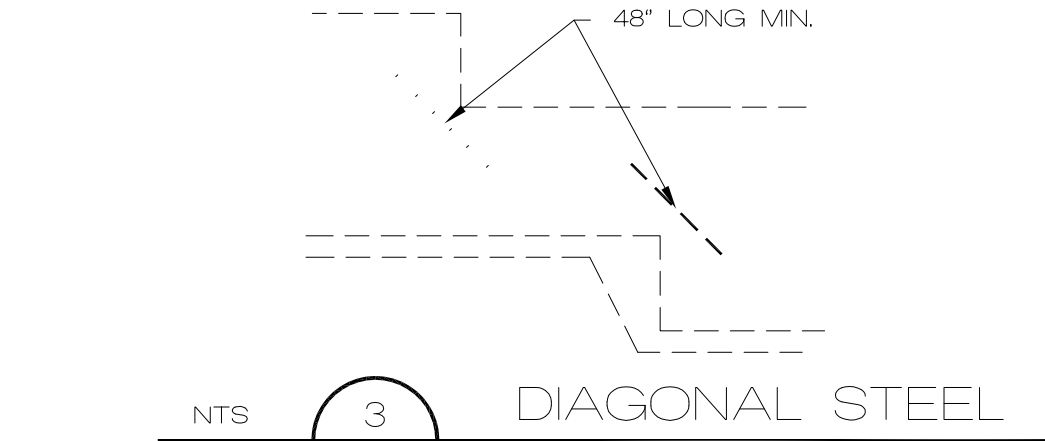
SHEET NO:

DIVISION 1 – GENERAL REQUIREMENTS

- DESIGN AND CONSTRUCTION WORK FOR THIS PROJECT SHALL CONFORM TO THE REQUIREMENTS OF THE 2018 IRC.
- FURNISH ALL LABOR, MATERIALS, AND EQUIPMENT NECESSARY TO COMPLETE THE WORK AS SHOWN OR INFERRED BY THE DRAWINGS.
- DESIGN FACTORS:
 - GROUND SNOW LOAD (INCLUDING DRIFTING SNOW) 20 PSF
 - WIND SPEED EXPOSURE B)
 - SEISMIC CATEGORY (A), GROUND ACCELERATION = NA
- DESIGN LOADS (PSF, UNLESS NOTED OTHERWISE):
 - ROOF (LL/DL) SEE TABLE
 - FLOOR (LL/DL) SEE TABLE
 - CEILING (LL/DL) SEE TABLE. (0/10 TRUSSES)
- DO NOT SCALE DRAWINGS. IF DIMENSIONS ARE IN QUESTION, OBTAIN CLARIFICATION FROM A / E BEFORE CONTINUING CONSTRUCTION.
- THE CONTRACTOR SHALL EXAMINE ACTUAL JOB CONDITIONS AND BE RESPONSIBLE FOR VERIFYING ALL DIMENSIONS AND ELEVATIONS SHOWN ON THE PLANS. IF ERRORS, OMISSIONS, OR DISCREPANCIES ARE FOUND THEY SHALL BE REPORTED TO THE DESIGN PROFESSIONAL BEFORE PROCEEDING WITH THE WORK.
- DIMENSIONS FOR NEW CONSTRUCTION ARE TO FACE OF FINISH OR COLUMNS AND FACE OF CONCRETE, WOOD, OR MASONRY WALLS UNLESS OTHERWISE INDICATED. DIMENSIONS INDICATE NOMINAL DIMENSIONS RATHER THAN ACTUAL DIMENSIONS.
- CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL TRADES EVEN IF THE TRADE IS UNDER A SEPARATE CONTRACT.
- PROVIDE SUFFICIENT STUDS AND BLOCKING WHERE REQUIRED TO SUPPORT EQUIPMENT AND/OR MISCELLANEOUS ITEMS, I.E., LOAD POINTS, TYPICAL CASEWORK, CABINETS, GRAB BARS ETC.
- PRETREAT FOUNDATION FOR TERMITES AS REQUIRED.
- GARAGE DOORS AND FRAMES SHALL BE DESIGNED AND INSTALLED TO MEET THE 115 MPH WIND LOAD RESISTANCE REQUIREMENTS OF DASHMA 108 AND ASTM E 330.
- ALL EXTERIOR DOORS, INCLUDING THE DOOR LEADING FROM THE GARAGE TO THE DWELLING UNIT, SHALL INCORPORATE THE PHYSICAL SECURITY PROVISIONS OF THE JURISDICTION IN WHICH THE CONSTRUCTION TAKES PLACE.

DIVISION 2 – EARTHWORK

- ALL PROPERTY MARKERS SHALL BE EXPOSED.
- ALL FOOTINGS ARE DESIGNED TO BEAR ON NATURAL UNDISTURBED SOIL CAPABLE OF ADEQUATELY SUSTAINING A MINIMUM BEARING PRESSURE OF 1500 PSF. IF SUITABLE UNDISTURBED BEARING CAPACITY IS NOT ENCOUNTERED AT THE ELEVATION INDICATED ON THE DRAWINGS, CONTRACTOR SHALL NOTIFY THE ENGINEER OF RECORD IMMEDIATELY.
- ALL TOPSOIL, ORGANIC MATERIAL, AND EXISTING STRUCTURES SHALL BE REMOVED FROM BUILDING AREA AND FROM AREAS TO BE PAVED. STOCKPILE ALL TOPSOIL FOR REUSE.
- REFERENCE THE SOILS REPORT FOR ALL FILL CONDITIONS.
- OVEREXCAVATE BUILDING AREA BELOW SLAB SUBGRADE ELEVATION AND REPLACE WITH MATERIAL PER SOILS REPORT, VERIFY.
- SITE EROSION CONTROL SHALL COMPLY WITH ALL STATE AND LOCAL ORDINANCES.
- IN-SITU SOIL CONDITIONS, SEE SOILS REPORT OR 1500 PSF BEARING & 60 PCF EQUIVALENT FLUID WEIGHT.
- SOIL CONDITIONS AT THE DEPTH OF EXCAVATION FOR THE FOOTING SHALL BE UNIFORM AND CONSISTENT. NOTIFY THE ENGINEER OF RECORD OF ANY INCONSISTENCIES.
- CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING AND DISPOSING OF ANY EXCESS EXCAVATION MATERIALS AND FOR OBTAINING AND SUPPLYING ADDITIONAL FILL MATERIAL AS REQUIRED.



DIVISION 3 – CONCRETE

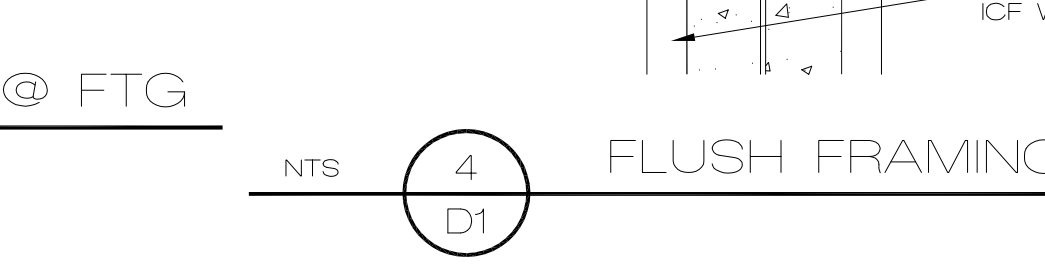
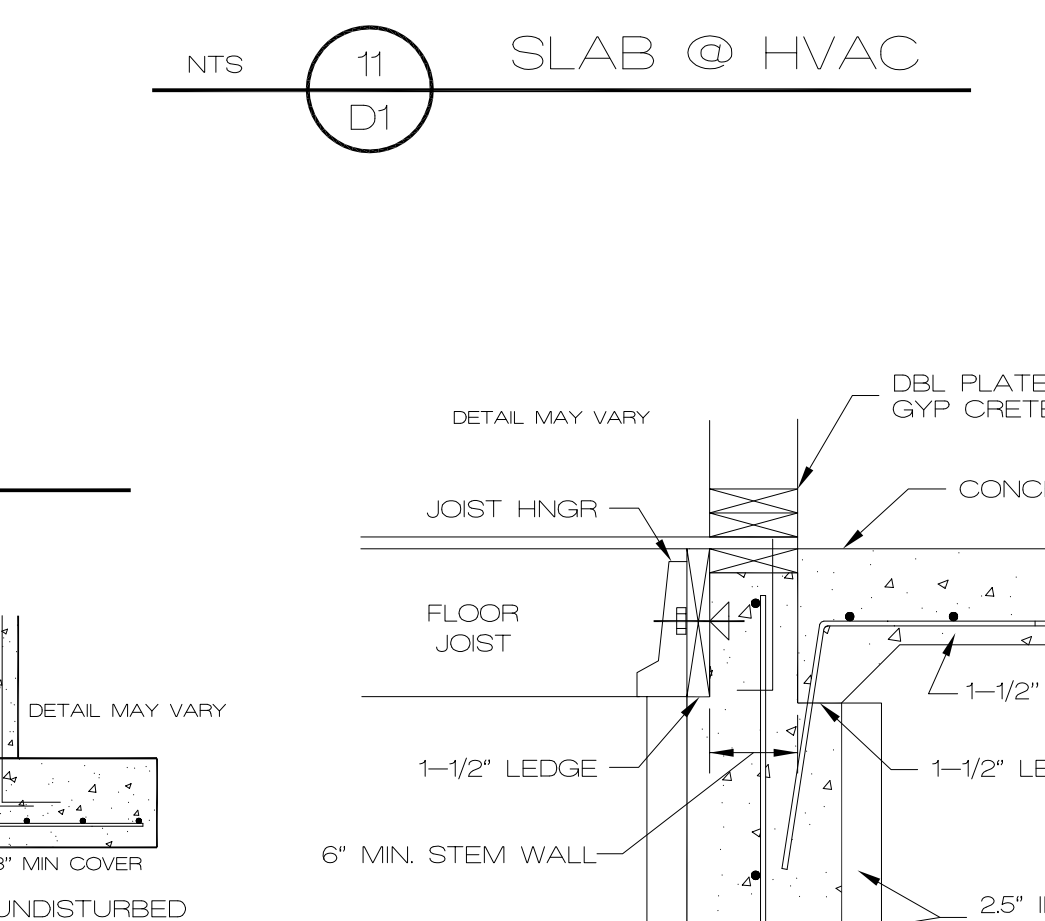
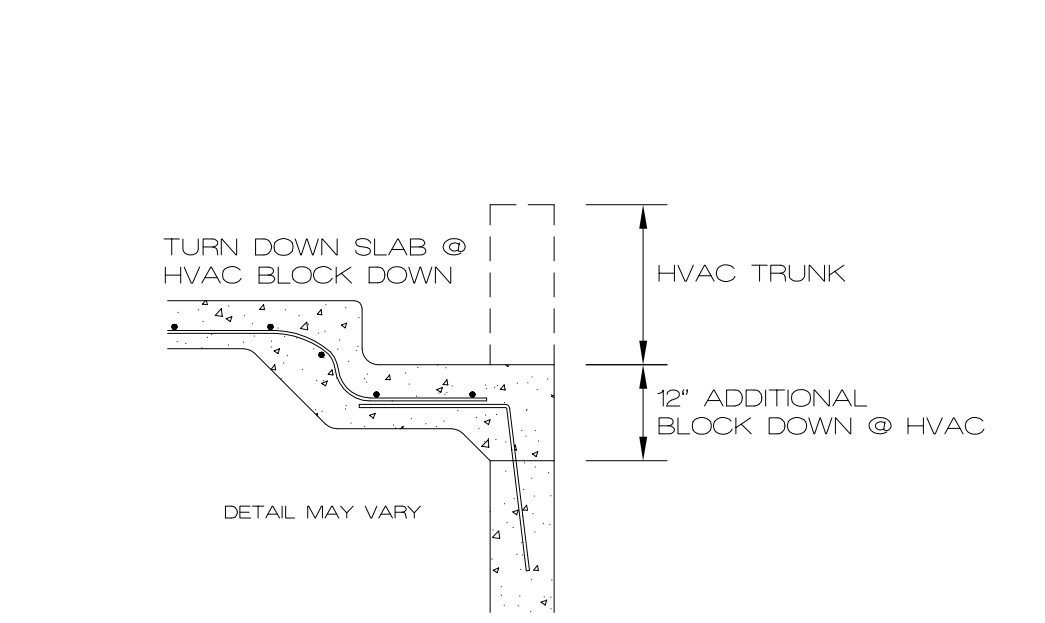
- ALL CONCRETE WORK SHALL CONFORM TO THE REQUIREMENTS OF ACI 308 BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE AND ACI 332 REQUIREMENTS FOR RESIDENTIAL CONCRETE CONSTRUCTION.
- CONCRETE MATERIALS SHALL COMPLY WITH:
 - CEMENT – ASTM C 150 TYPE 1
 - AGGREGATE – ASTM C 33, MAXIMUM AGGREGATE SIZE 3/4"
 - WATER – POTABLE, WATER/CEMENT RATIO 5 (MAX)
 - AIR-ENTRAINING ADMIXTURE – ASTM C 260
 - WATER-REDUCING ADMIXTURE – ASTM C 494, INCLUDING SUPERPLASTICIZERS
 - FLY ASH – ASTM C 618, CLASS C
- CONCRETE SHALL DEVELOP THE FOLLOWING MINIMUM 28 DAY DESIGN COMPRESSIVE STRENGTH (f'c):
 - TYPE OF CONSTRUCTION
 - COMP. STRENGTH (f'c)

TYPE OF CONSTRUCTION	COMP. STRENGTH (f'c)
A) FOOTINGS, WALLS, AND SLABS	SEE TABLE
B) EXTERIOR SLABS AND CURBS (AIR-ENTRAINED CONCRETE)	SEE TABLE

CONCRETE PROPORTIONS SHALL BE ESTABLISHED ON THE BASIS OF FIELD EXPERIENCE AND/OR TRIAL MIXTURES IN ACCORDANCE WITH ACI 318-89 SECTIONS 5.2 AND 5.3. WHEN FLY ASH IS UTILIZED IN THE MIX, MIX SHALL CONTAIN A WATER-REDUCER. FLY ASH SHALL BE ADDED AT THE RATE OF NOT MORE THAN 100 POUNDS PER CUBIC YARD AND CEMENT SHALL BE REDUCED BY NOT MORE THAN 15 PERCENT BY WEIGHT.

- PROPORTION AND DESIGN MIXES TO RESULT IN CONCRETE SLUMP AT A POINT OF PLACEMENT OF NOT MORE THAN 4" TO 5".
- USE AIR-ENTRAINING ADMIXTURES IN EXTERIOR EXPOSED CONCRETE TO RESULT IN CONCRETE AT POINT OF PLACEMENT HAVING AIR CONTENT OF 5 TO 7 PERCENT ENTRAINED AIR.
- ALL PLUMBING AND ELECTRICAL ROUGH-INS MUST BE COMPLETE, INSPECTED AND APPROVED BEFORE REQUESTING THE SLAB INSPECTION.
- CONCRETE WORK EXECUTION:
 - MINIMUM CONCRETE COVER FOR REINFORCING SHALL BE, UNLESS NOTED OTHERWISE ON DRAWINGS:
 - CAST AGAINST AND EXPOSED TO EARTH 3"
 - EXPOSED TO EARTH OR WEATHER 2"
 - NOT EXPOSED TO EARTH OR WEATHER 1 1/2"
 - IN CORNERS OF GRADE BEAMS PROVIDE CORNER REINFORCEMENT, LAP TWO FEET EACH DIRECTION IN OUTSIDE FACE, MATCHING SIZE AND SPACING OF HORIZONTAL REINFORCEMENT.
 - PROVIDE CONTROL JOINTS IN SLABS-ON-GRADE AT NOT GREATER THAN 20 FEET ON CENTER IN EACH DIRECTION. SAW CUT CONTROL JOINTS MINIMUM 1/4 OF THE SLAB DEPTH, AS SOON AFTER SLAB FINISHING AS POSSIBLE WITHOUT DISLODGING AGGREGATE. (DO NOT SAW CUT STRUCTURAL SLABS w/o APPROVAL).
- BATCH TICKETS SHALL BE SUBMITTED TO A CONTRACTORS REPRESENTATIVE PRIOR TO OFF LOADING. ANY CONCRETE MORE THAN 45 MINUTES OUT PRIOR TO STARTING PLACEMENT SHALL BE REJECTED.
- THE MAXIMUM ADDITION OF WATER SHALL BE LIMITED TO 1 GALLON PER YARD, NOTE THAT THIS ADDITION SHALL BE USED TO CONTROL HEAT ONLY (NOT SLUMP).
- PUMPS SHALL NOT BE PRIMED IN FORMS.

- REINFORCEMENT:
 - ALL REINFORCING BARS SHALL BE A615, GR40 MIN. LAP SPLICES 18" MIN FOR #4 BAR SEE TABLE
 - WELDED WIRE FABRIC SHALL BE ASTM A185, LAP AT LEAST ONE FULL MESH AND LACE SPLICES WITH WIRE
 - REBAR SHALL BE CLEAN, AND FREE FROM RUST AND OIL PRIOR TO THE PLACEMENT OF CONCRETE. REBAR SHALL BE TIED AND SECURED AS REQUIRED TO PREVENT DISPLACEMENT IN THE FORMS.
 - TIE STEEL TO PREVENT DISPLACEMENT. HOOK AND TIE STEEL AS POSSIBLE. TIES, CHAIRS, OR OTHER PRODUCTS SHALL BE PROTECTED WHEN LOCATED NEAR EXPOSED SURFACES.
 - STEEL SHALL BE STORED ON SITE ABOVE GRADE, AND COVERED AS REQUIRED FOR PROTECTION FROM RAIN AND OTHER POSSIBLE DAMAGE.
- ADJUST FOUNDATION FOR SITE AND SOIL CONDITIONS AND VERIFY WITH EOR.



DIVISION 4 – MASONRY

- COMPRESSIVE STRENGTH OF CONCRETE MASONRY CONSTRUCTION (CMU) SHALL BE AS FOLLOWS (PSI). MASONRY STRENGTH NOT SPECIFICALLY NOTED ON PLAN SHALL BE (f'm) 1500 PSI.

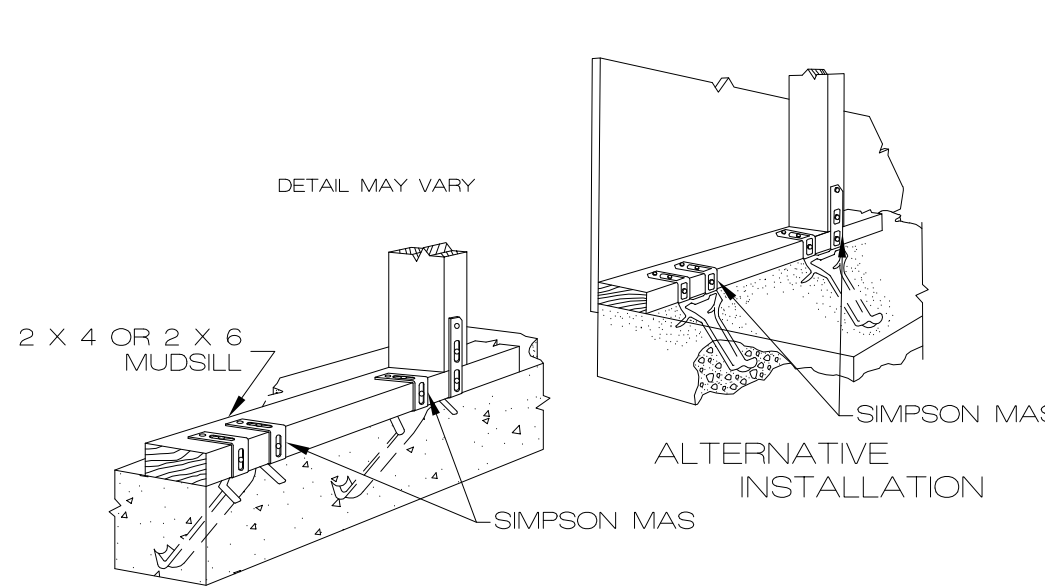
MASONRY STRENGTH (f'm DESIGN)	1500
BLOCK STRENGTH	1900
MORTAR STRENGTH	800
GROUT STRENGTH	2000
- CONCRETE BLOCK SHALL BE HOLLOW LOAD-BEARING CONCRETE CONFORMING TO ASTM C 90, TYPE N-III. ALL BLOCKS SHALL BE PLACED IN RUNNING BOND CONSTRUCTION (UNLESS OTHERWISE NOTED) WITH ALL VERTICAL CELLS IN ALIGNMENT.
- MORTAR MIX SHALL CONFORM TO THE REQUIREMENTS OF ASTM C 270, TYPE M OR S. TYPE M MORTAR SHALL BE USED WHERE MASONRY IS IN CONTACT WITH SOIL.
- GROUT SHALL CONFORM TO THE REQUIREMENTS OF ASTM C 476, USE SUFFICIENT WATER FOR GROUT TO FLOW INTO ALL JOINTS OF THE MASONRY WITHOUT SEGREGATION. ALL CELLS IN CONCRETE BLOCKS CONTAINING REINFORCING SHALL BE FILLED SOLID WITH GROUT. ALL MASONRY BELOW FINISHED FLOOR OR GRADE SHALL BE GROUTED SOLID. HOLD GROUT DOWN 1-1/2" BELOW TOP OF BLOCK AT GROUT LIFT JOINTS AND AT CONCRETE PLACED OVER MASONRY.
- MINIMUM INTEL, WHERE NOT ON PLANS, SHALL HAVE A MINIMUM OF 2 – #5s CONTINUOUS HORIZONTAL BARS IN BOTTOM OF BOND BEAM OR INTEL BLOCK AND SHALL BE GROUTED SOLID TO A MIN. DEPTH OF 24". ALL INTEL REINFORCING AND GROUT SHALL EXTEND 2' MINIMUM PAST JAMBS UNLESS NOTED OTHERWISE ON PLANS OR DETAILS.
- LAP REINFORCING 48 BAR DIAMETERS. STAGGER LAP SPLICES A MINIMUM OF ONE LAP LENGTH.
- MASONRY VENEER SHALL BE ATTACHED TO SUPPORT WALL FRAMING WITH 3/8" DIAMETER WALL TIES OR DOVETAIL-TYPE METAL TIES OF EQUIVALENT STIFFNESS EMBEDDED INTO HORIZONTAL MORTAR JOINTS. MAXIMUM VERTICAL SPACING OF TIES SHALL BE 16". MAXIMUM HORIZONTAL SPACING SHALL BE 24". TIES IN ALTERNATE COURSES SHALL BE STAGGERED. PROVIDE #9 WIRE REINFORCING IN HORIZONTAL MORTAR JOINTS AT 16" OC. ENGAGE #9 WIRE WITH WALL ANCHOR TIES. CONSTRUCTION JOINTS IN MASONRY VENEER WALLS SHALL BE LOCATED PER THE DRAWINGS.
- WATERPROOFING, DRAINAGE PLANE, AND INSTALLATION PER ADOPTED BUILDING CODE.

DIVISION 5.5 – MISC. STRUCTURAL STEEL

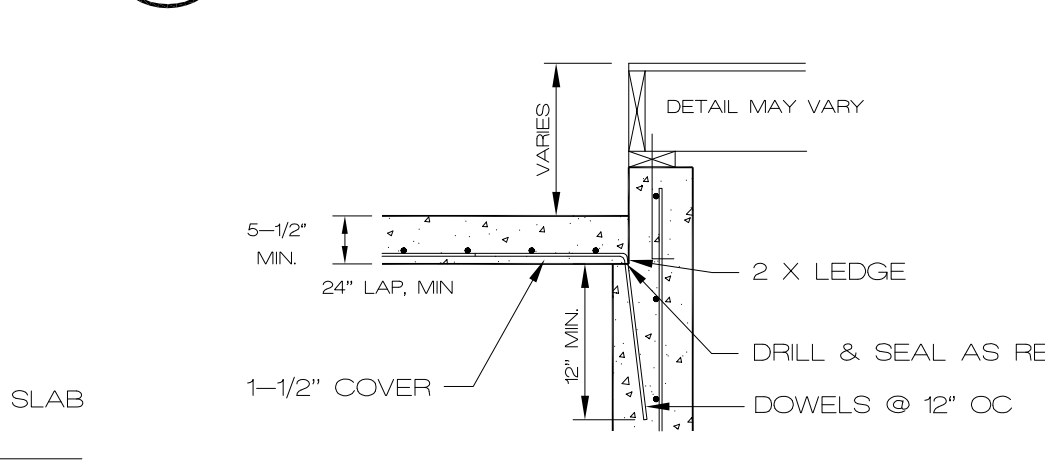
- ALL MISCELLANEOUS STRUCTURAL STEEL WORK SHALL CONFORM TO THE REQUIREMENTS OF AISC SPECIFICATIONS FOR DESIGN, FABRICATION, AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS.
- MISCELLANEOUS STRUCTURAL STEEL MATERIAL SHALL COMPLY WITH:
 - STRUCTURAL STEEL – ASTM A992
 - STEEL PIPE COLUMNS – ASTM A53 GRADE B(Sch 40 TP)
 - ANCHOR BOLTS – ASTM A307 GRADE A, NON-HEADED TYPE UNLESS OTHERWISE NOTED.
- FLITCH PLATES SHALL HAVE 3/4" DIA. BOLTS @ 16" OC, STAGGERED TOP AND BOTTOM BETWEEN JOIST LAYOUT.



* RETURN WALLS ALLOW FOR BACKFILL w/o FLOOR DECK IN PLACE FOR 60 PCF EQUIVALENT FLUID WEIGHT SOIL. NO HEAVY EQUIPMENT OR SURCHARGE LOADING.



OPT. MUDSILL ANCHORAGE ALTERNATIVE TO J-BOLTS



SLAB @ WALL SLAB ON FILL CONCRETE OR CMU

CONC STRENGTH	
FTQ	REQD STRENGTH
WALL	3000 psi
SLAB	3500 psi
SUS-SLAB	7 SACK MIX

DIVISION 6 – ROUGH CARPENTRY

- ALL ROUGH CARPENTRY WORK SHALL CONFORM TO THE REQUIREMENTS OF NIPFA NATIONAL DESIGN SPECIFICATIONS OF WOOD CONSTRUCTION, TP1 DESIGN SPECIFICATIONS FOR LIGHT METAL PLATE CONNECTED WOOD TRUSSES, APA PLYWOOD DESIGN SPECIFICATIONS, DOC PS 1 PRODUCT STANDARD FOR CONSTRUCTION AND INDUSTRIAL PLYWOOD, DOC PS 55 STRUCTURAL GLUED LAMINATED TIMBER, AND APPLICABLE SECTIONS OF THE INTERNATIONAL BUILDING CODE.
- ROUGH CARPENTRY MATERIALS SHALL COMPLY WITH:
 - LUMBER – S4S, S-DRY, KD, OR S-GRN GRADE MARKED, COMPLYING WITH PS 20, GRADED UNDER WWPA OR SPIB RULES.
 - STUDS: STUD GRADE
 - HEADER: #2 DOUGLAS FIR MIN TYPICAL
 - RAFTER: #2 DOUGLAS FIR
 - PLATES: #2 DOUGLAS FIR
 - BLOCKING: #2 DOUGLAS FIR
 - METAL FRAMING FASTENERS – ASTM A 153, HOT-DIP GALVANIZED FASTENERS, EQUAL TO SIMPSON STRONG-TIE CONNECTORS COMPLYING WITH APPLICABLE ICC-ES REPORTS.
 - PLYWOOD – APA RATED SHEATHING, COMPLYING TO PS 1.
 - LVL – LAMINATED VENEER LUMBER SHALL BE GRADE 2800 F-20E AND SHALL MEET THE REQUIREMENTS OF APPLICABLE ICC-ES REPORTS.
 - GLULAM BEAMS – COMBINATION 24F-V3 IN ACCORDANCE WITH AITC A1901.
- EXTERIOR WALL AND ROOF SHEATHING SHALL BE 5/8" APA RATED SHEATHING 24/0 EXTERIOR GLUED (MIN FOR 16" OC STUD SPACING, NAIL SHEATHING TO SUPPORT MEMBERS WITH 8D COMMON NAILS AT 6" ON CENTER ALONG EDGE SUPPORTS AND 12" ON CENTER ALONG FIELD SUPPORTS UNLESS NOTED OTHERWISE. PROVIDE SOLID BLOCKING AT ALL UNSUPPORTED PANEL EDGES, 4/8 GUN NAILS.

NOTE: ROOF SHEATHING SHALL BE 5/8" APA RATED SHEATHING FOR TILE ROOF, OR AS REQUIRED BY MANUFACTURER.

- INTERIOR SHEAR WALL SHEATHING WHERE NOTED SHALL BE 5/8" APA RATED SHEATHING 24/0 EXTERIOR GLUED (MIN FOR 16" OC STUD SPACING, NAIL SHEATHING TO SUPPORT MEMBERS WITH 8D COMMON NAILS AT 4" ON CENTER ALONG EDGE SUPPORTS AND 6" ON CENTER ALONG FIELD SUPPORTS UNLESS NOTED OTHERWISE. PROVIDE SOLID BLOCKING AT ALL UNSUPPORTED PANEL EDGES.
- ATTACH METAL FRAMING FASTENERS TO FRAMING MEMBERS WITH MINIMUM NUMBER AND SIZE OF NAILS LISTED IN THE APPLICABLE ICC-ES REPORTS.
- WOOD TRUSS SYSTEM, TRUSS JOIST SYSTEM AND GLULAM SYSTEM FOR ROOFS:
 - DESIGN, FABRICATE, AND ERECT IN ACCORDANCE WITH BCSI STANDARDS AND NDS SPECIFICATIONS.
 - DESIGN LOADS:
 - 25 PSF SNOW LIVE LOAD
 - 10 PSF DEAD LOAD TOP CHORD (20 TILE)
 - 10 PSF DEAD LOAD BOTTOM CHORD
 - SUBMIT SHOP DRAWINGS, INCLUDING DESIGN CALCULATIONS, MATERIAL STRESSES, GRADE AND SPECIES OF WOOD, AND PLACEMENT DRAWING.
- DEFAULT HEADER SIZE NOT SPECIFIED SPANNING 8'-0" MAX SHALL BE 2 – 2 X 10 #2, WITH 2 STUD SUPPORT.
- ALL HEADERS OVER 4'-0" SHALL HAVE DOUBLE TRIMMER @ EACH SUPPORT, OR AS SPECIFIED, UNO.
- SOLID BLOCKING BETWEEN JOISTS @ 36" OC FOR JOISTS PARALLEL TO THE EXTERIOR FOUNDATION WALL, MIN. 48" OR 3 JOIST SPACES.
- ALL FLUSH FRAMING @ HEADERS OR GIRDERS SHALL BE HANGERED.
- BLOCK BETWEEN JOISTS @ SUPPORTS OR OVER BEAMS.
- RATED CONSTRUCTION FOR PROJECTIONS INTO SETBACKS AS REQD.
- DOUBLE JOIST BELOW PARALLEL NONBEARING WALLS ON LAYOUT, SINGLE JOIST OR JOIST JOINT STRUCTURE BELOW LOAD-BEARING WALLS AS NOTED ON PLANS.

FOUNDATION PER JOCOBO RESIDENTIAL FOUNDATION GUIDELINE

WALL REINFORCING					
8" THICK	8' - 9'		10" THICK		
	8'	9'	8'	9'	10'
3000, GR40	16	12	24	16	12
3500, GR40	16	12	24	24	12
3000, GR60	24	16	24	20	16
3500, GR60	24	16	24	24	16
HOR. REIN. MIN. GR40 #4					
One bar 12" from top & 24" oc max					
4 #4	5 #4		4 #4	5 #4	6 #4

GARAGE SLAB

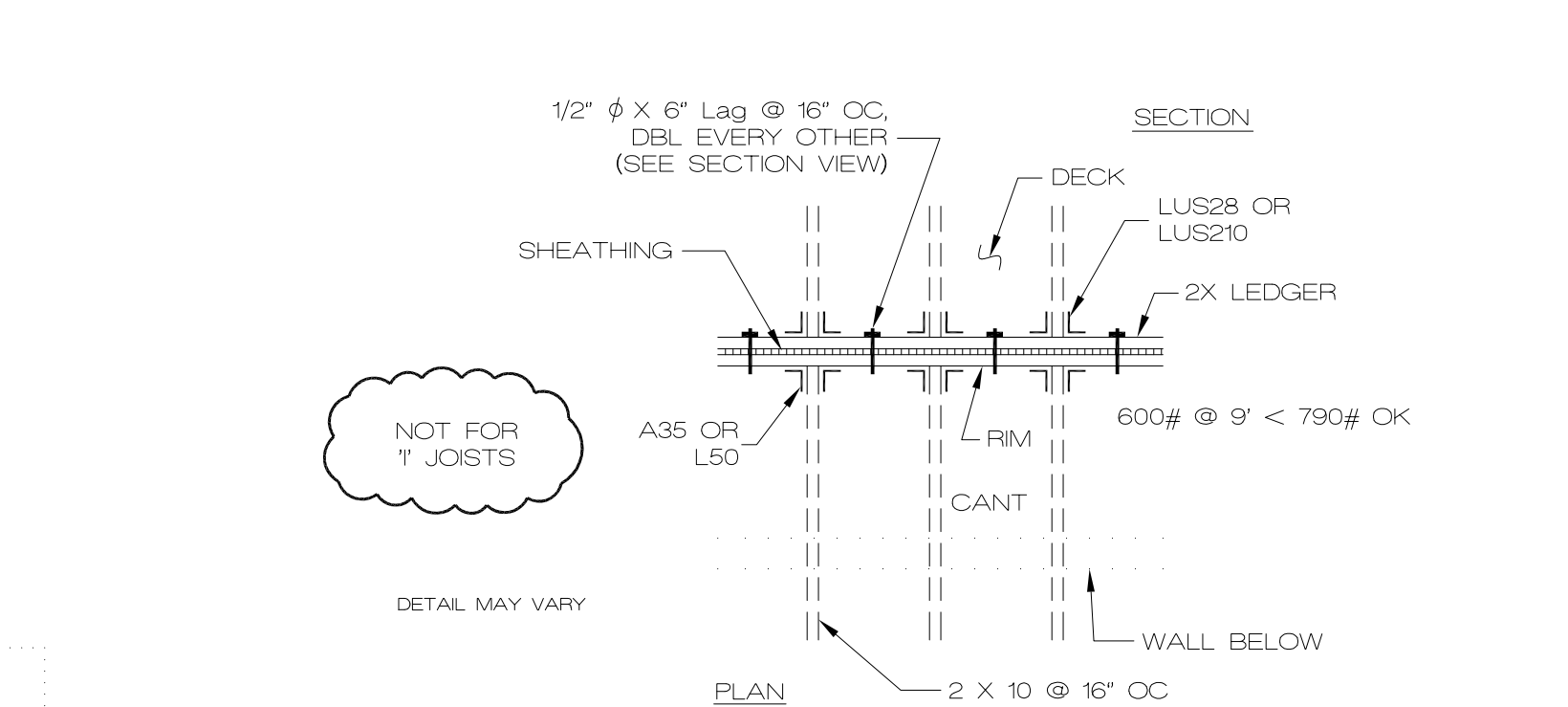
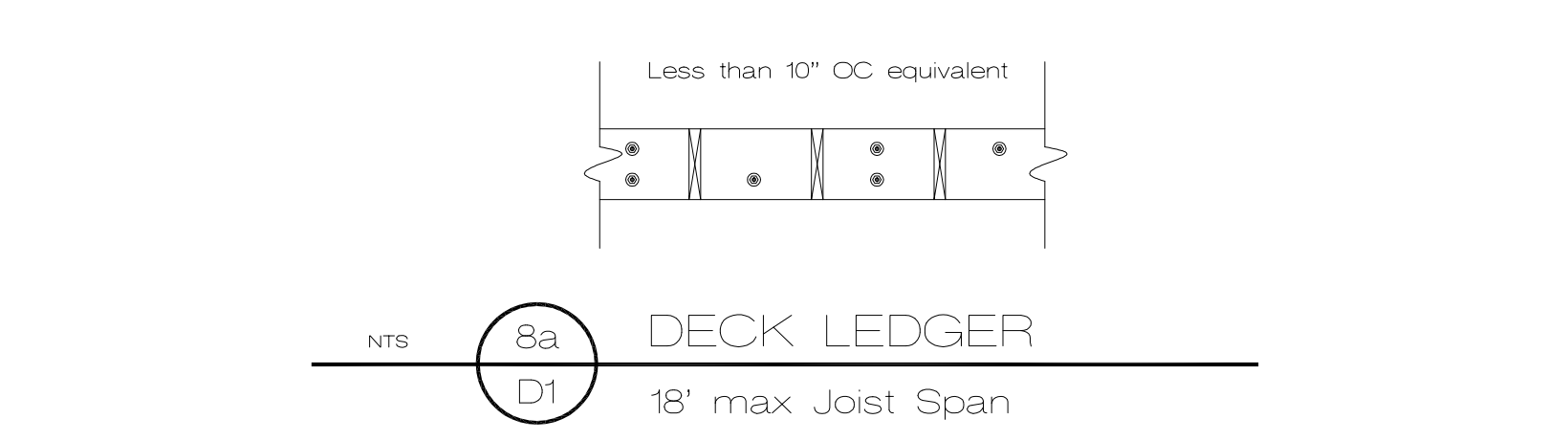
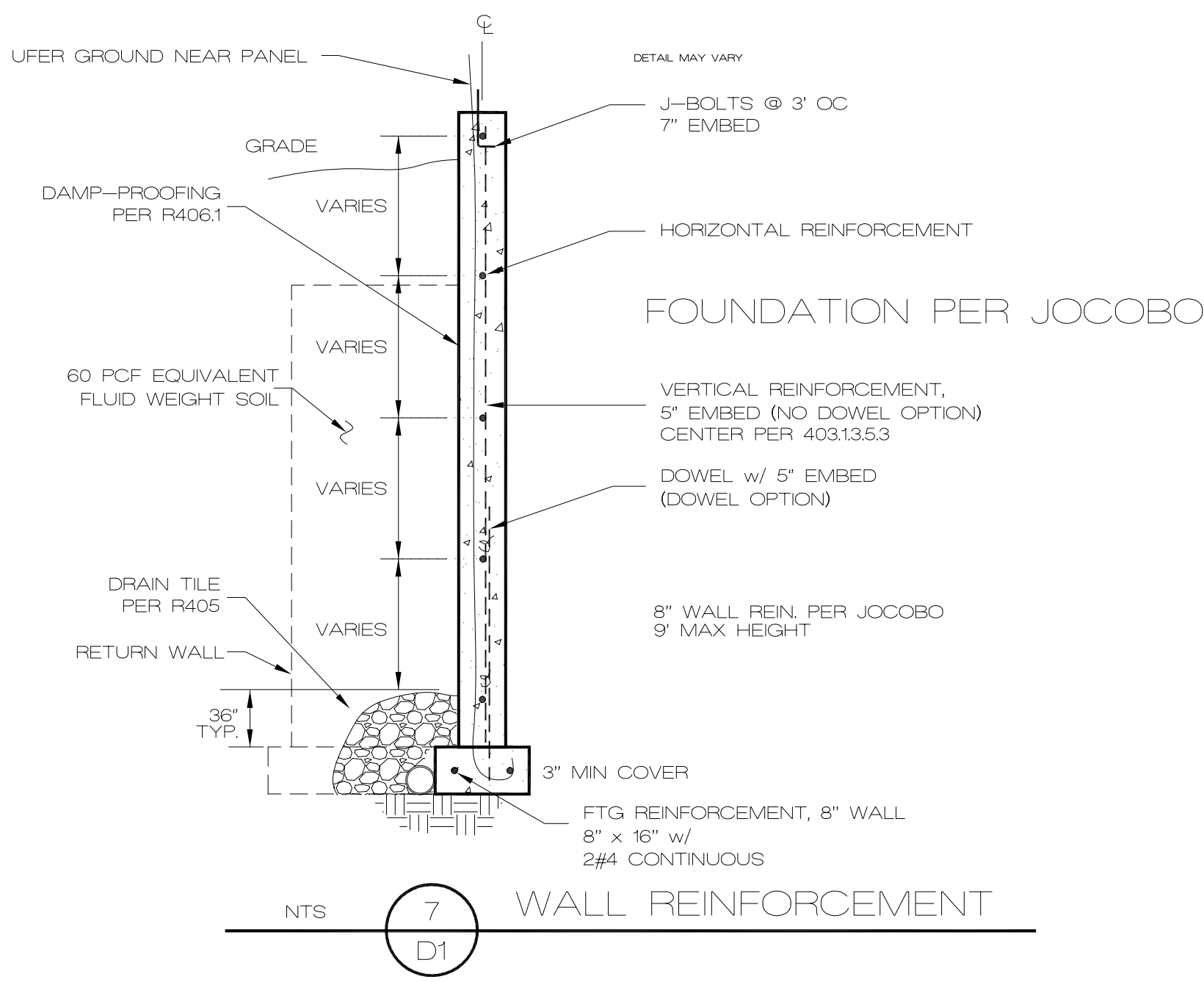
$$M_{max} = \frac{w_u \cdot l^2}{14} \rightarrow 27,206 \text{ \#-in}$$
$$a = \frac{A_s \cdot f_y}{0.85 \cdot f'_c \cdot b} \rightarrow 0.022'$$
$$\phi M_n = \phi A_s \cdot f_y \cdot (d - \frac{a}{2}) = 0.9(0.22)(4000)(4 - 0.22/2) = 28,008 \text{ \#-in} > 27,206 \text{ (OKAY)}$$

∴ Use #4 @ 12" OC EW 15'-6" (+/-) MODULE

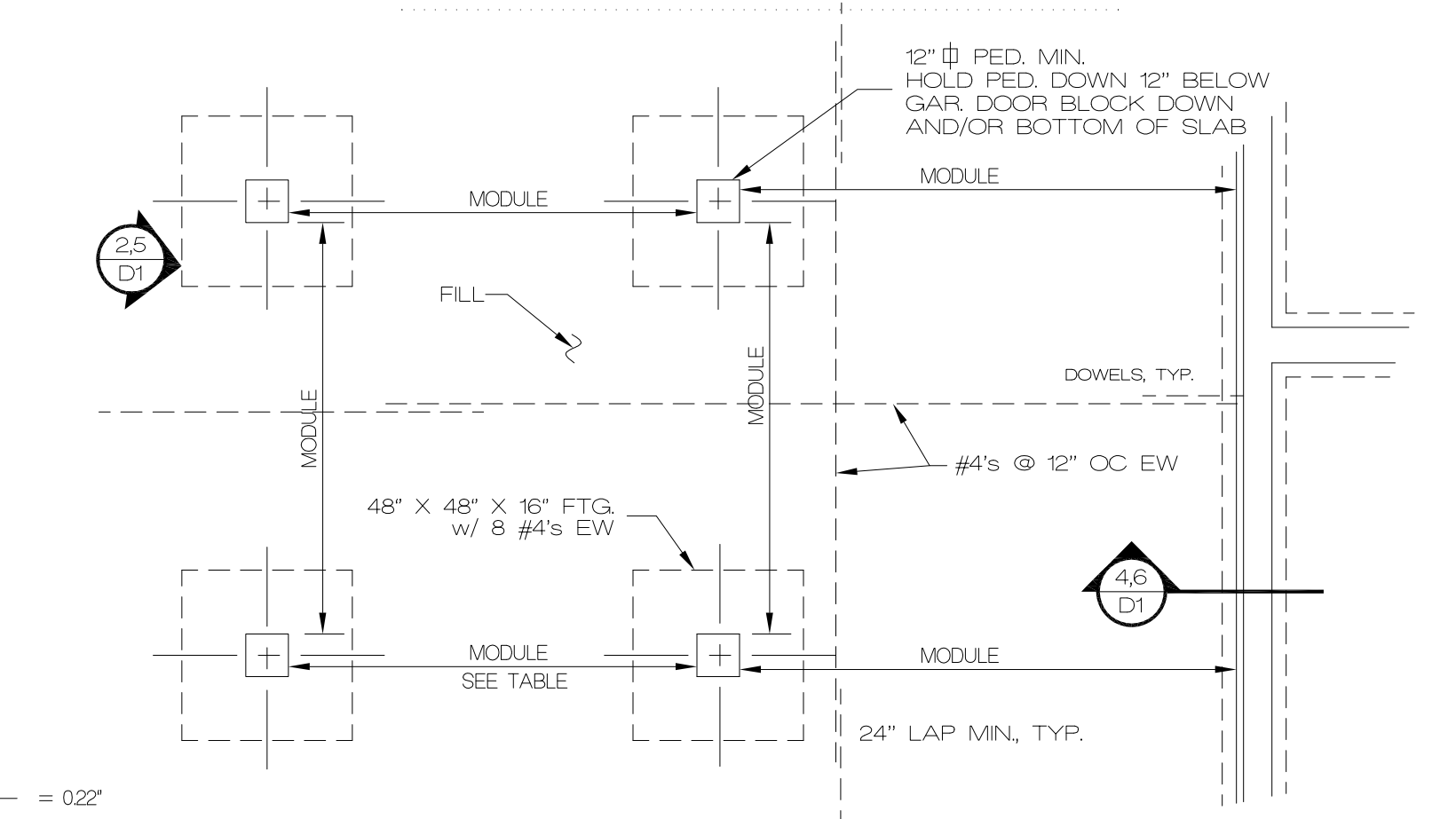
BASEMENT SLAB

$$M_{max} = \frac{w_u \cdot l^2}{14} \rightarrow 25,951 \text{ \#-in}$$
$$a = \frac{A_s \cdot f_y}{0.85 \cdot f'_c \cdot b} \rightarrow 0.022'$$
$$\phi M_n = \phi A_s \cdot f_y \cdot (d - \frac{a}{2}) = 0.9(0.22)(4000)(4 - 0.22/2) = 28,008 \text{ \#-in} > 25,951 \text{ (OKAY)}$$

∴ Use #4 @ 12" OC EW 15'-6" (+/-) MODULE



STRUCT. SLAB MODULE SPACING	
SLAB TYPE	MODULE SPACING
BASEMENT	15'-6"
GARAGE	12'-6"
(MODULE ALSO APPLIES @ OVERDIG)	



STRUCTURAL SLAB ON FILL DO NOT SAW CUT STRUCTURAL SLABS w/o APPROVAL VERIFY ALL STRUCTURAL SLAB DETAILS w/ ENGINEER DO NOT ISOLATE COLUMNS FROM STRUCTURAL SLABS

Ken Sidorowicz, PC

ISSUE DATE	
REVISIONS	11/2/15

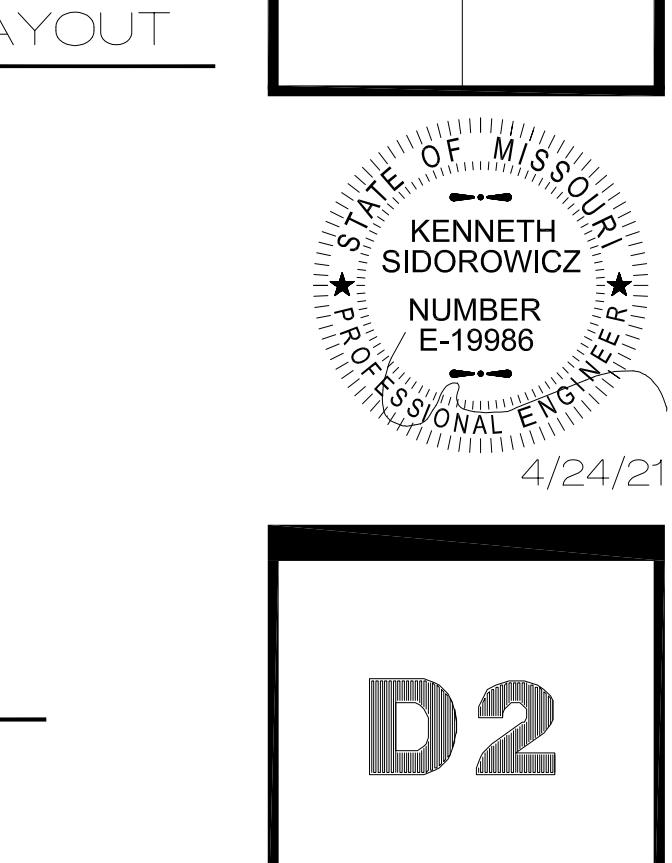
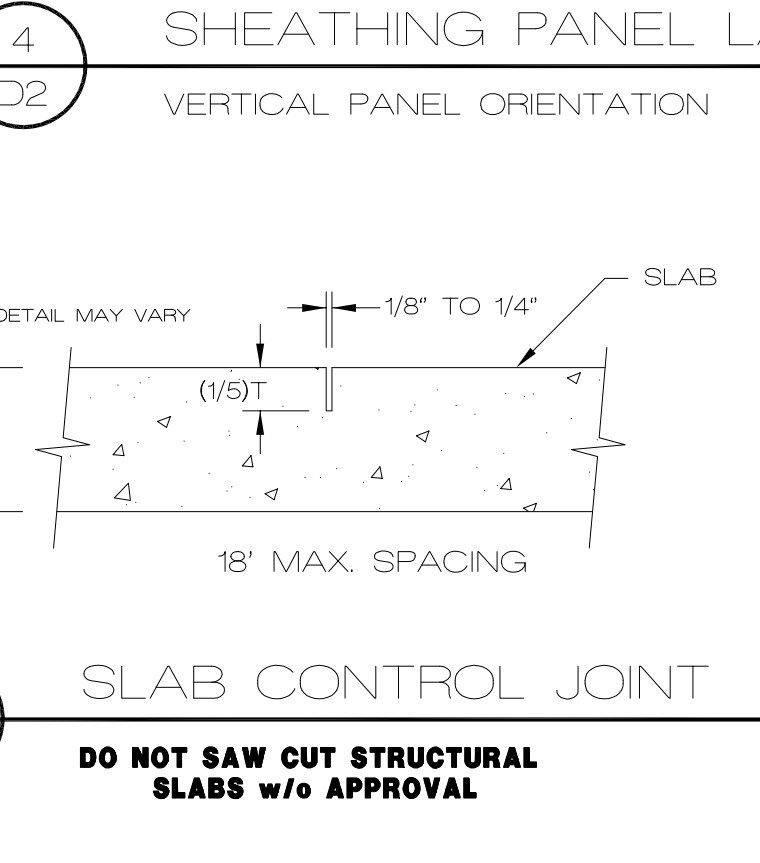
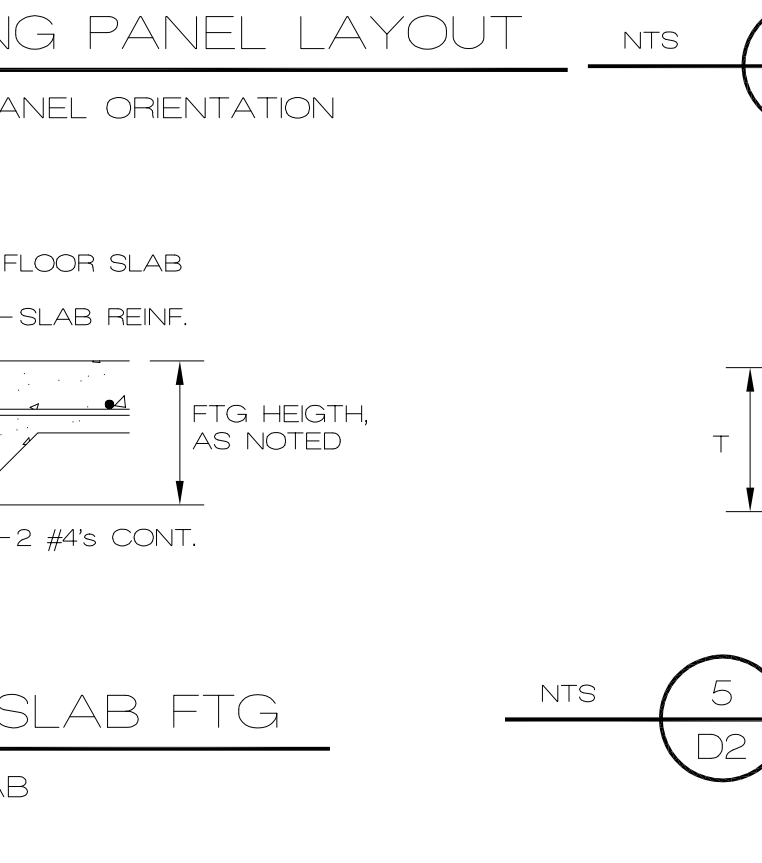
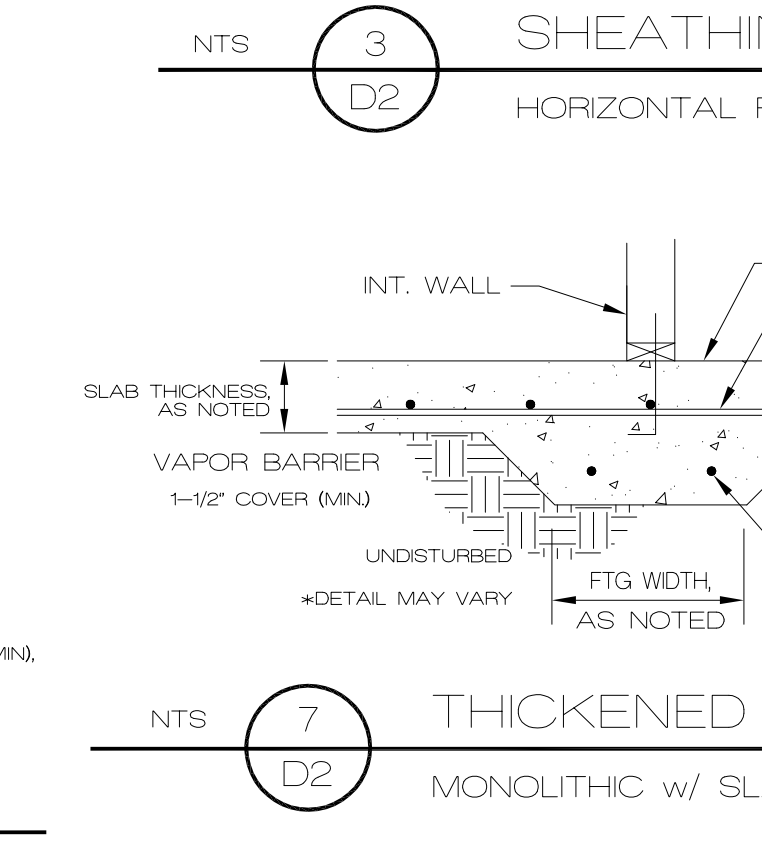
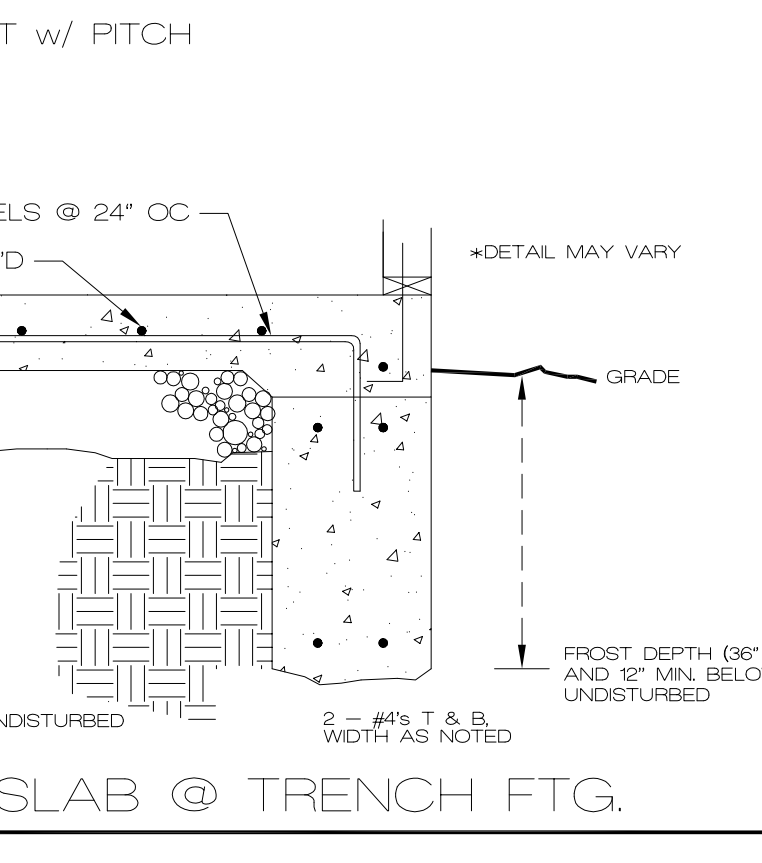
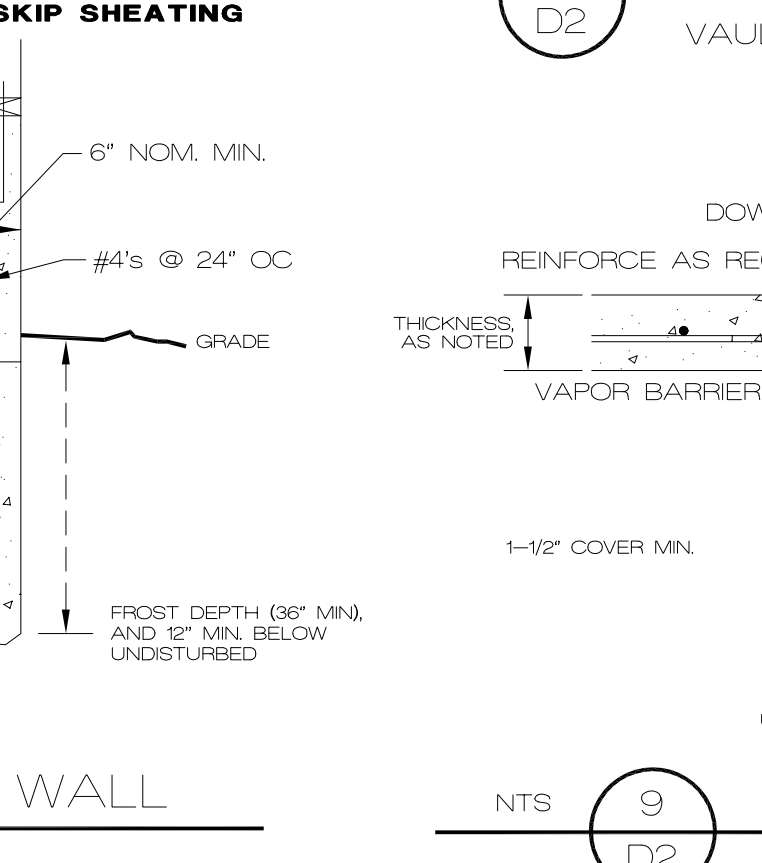
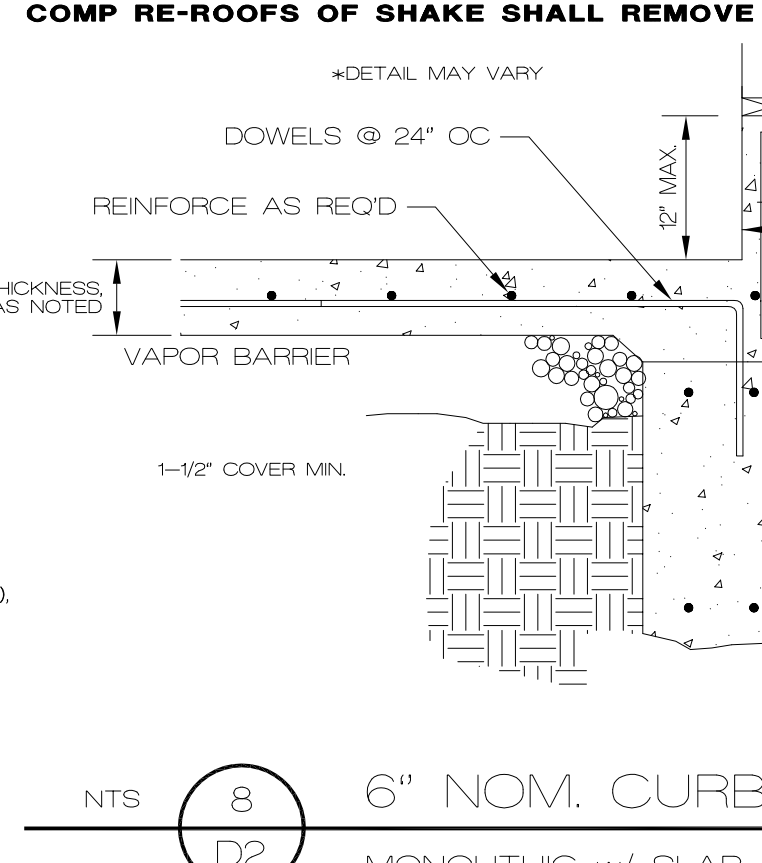
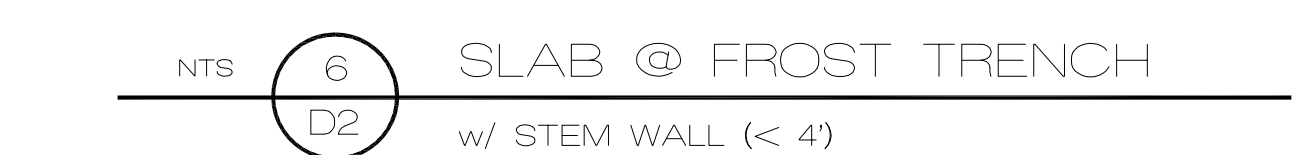
2018 DETAIL SHEET



4/24/21

D1

P.O. Box 12089, Parkville, Missouri 64152
Tel. (816) 741-0852 Fax (816) 741-0858



2

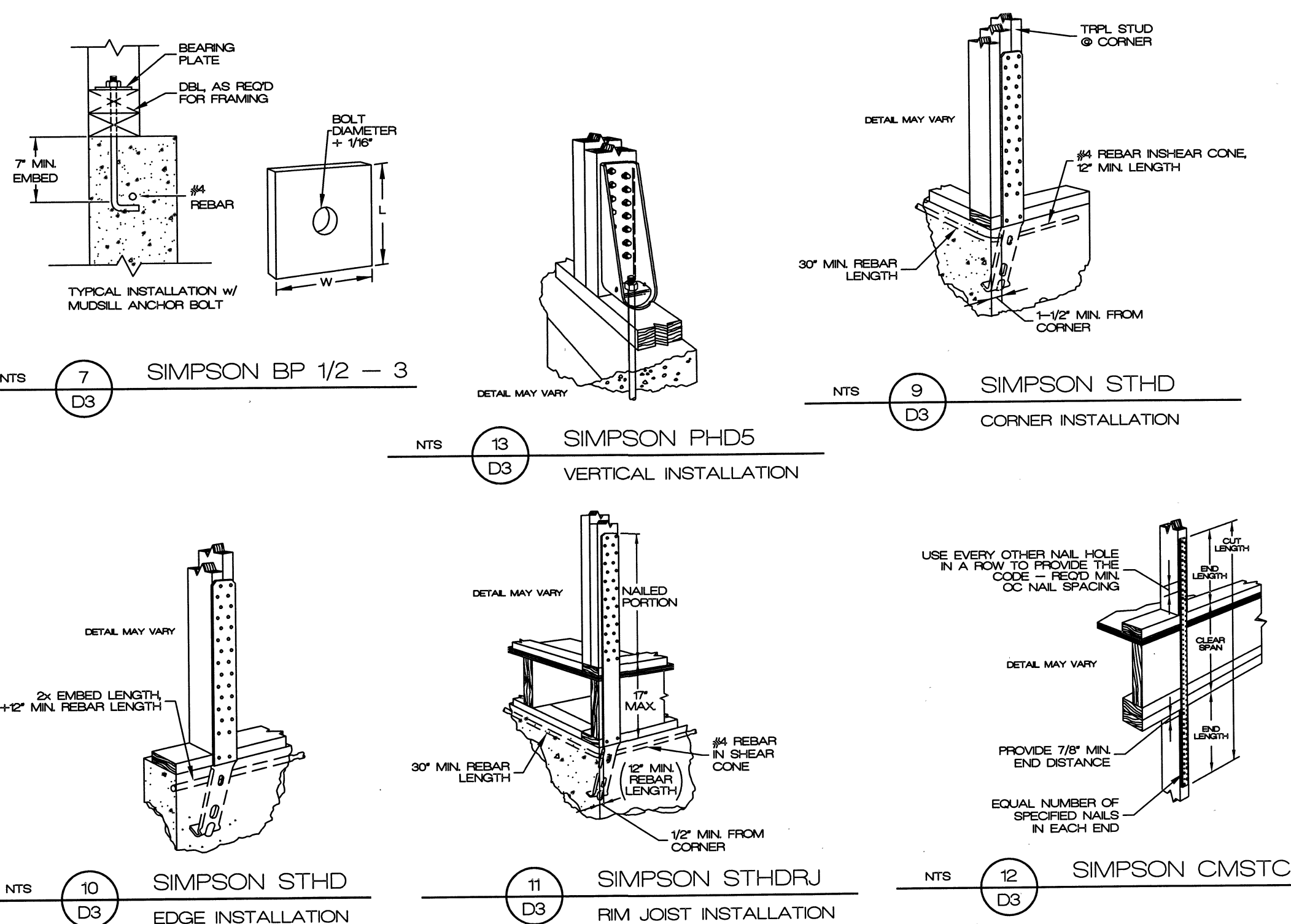
STAPLES NOT PERMITTED IN KCMO

FASTENER SCHEDULE FOR STRUCTURAL MEMBERS

Item	Description of building elements	Number & type of fastener (notes: a, b, c)	Spacing of fasteners
Roof			
1	Blocking between joists or rafters to top plate, toe nail	3-8d (2-1/2" x 0.135)	2' toe nail side 1, 1' toe nail side 2 (note j)
2	Ceiling joists to plate, toe nail	3-8d (2-1/2" x 0.135)	
3	Ceiling joists not attached to parallel rafter, laps over partitions, face nail	3-10d (3" x 0.148)	
4	Collar tie rafter, face nail or 1-1/4" x 20 ga. ridge strap	3-10d (3" x 0.148)	
5	Rafter to plate, toe nail, note trusses use STC clips at NLB walls and speed holdowns	3-10d (3" x 0.148) or 3-10d (3" x 0.148)	
6	Toe nail	4-16d (3-1/2" x 0.357)	
7	Face nail	3-16d (3-1/2" x 0.357)	
Wall			
7	Built-up studs-face nail	10d (5" x 0.287)	24" o.c.
8	Assembling studs at intersecting wall corners, face nail	16d (3-1/2" x 0.357)	12" o.c.
9	Built-up header, two pieces w/ 1/2" spacer	16d (3-1/2" x 0.357)	16" o.c. along each edge
10	Continued header, two pieces	16d (3-1/2" x 0.357)	16" o.c. along each edge
11	Continuous header to stud, toe nail	4-8d (2-1/2" x 0.135)	
12	Double studs, face nail	10d (5" x 0.287)	24" o.c.
13	Double top plates, face nail	10d (5" x 0.287)	24" o.c.
14	Double top plates, min. 48" offset of end joints, face nail in lapped area	8-16d (3-1/2" x 0.357)	16" o.c.
15	Sole plate to joist or blocking, face nail	2-16d (3-1/2" x 0.357)	16" o.c.
16	Sole plate to joist or blocking at braced wall panels	3-8d (2-1/2" x 0.135) or 2-16d (3-1/2" x 0.357)	
17	Stud to sole plate, toe nail	3-8d (2-1/2" x 0.135) or 2-16d (3-1/2" x 0.357)	
18	Top or sole plate to stud, end nail	2-8d (2-1/2" x 0.135)	
19	Top plates, face at corners and intersections, face nail	2-16d (3-1/2" x 0.357)	
20	1" brace to each stud and plate, face nail	2-8d (2-1/2" x 0.135)	
21	1" x 6" sheathing to each bearing, face nail	2 staples 1-3/4"	
22	1" x 6" sheathing to each bearing, face nail	2-8d (2-1/2" x 0.135)	
23	Wider than 1" x 6" sheathing to each bearing, face nail	3 staples 1-3/4"	
Floor			
24	Joist to sill or girder, toe nail	3-8d (2-1/2" x 0.135)	
25	1" x 6" joist to top plate, toe nail (roof applications also)	8d (2-1/2" x 0.135)	6" o.c.
26	1" x 6" joist to blocking to sill plate, toe nail	8d (2-1/2" x 0.135)	6" o.c.
27	1" x 6" subfloor or less to each joist, face nail	2-8d (2-1/2" x 0.135)	
28	2" subfloor to joist of girder, blind and face nail	2 staples 1-3/4"	
29	2" planks (plank & beam - floor and roof)	2-16d (3-1/2" x 0.357)	
30	Built-up girders and beams, 2" lumber layers	2-16d (3-1/2" x 0.357)	
31	Ledger strip supporting joists or rafters	3-16d (3-1/2" x 0.357)	
Spacing of Fasteners			
Description of building materials		Description of fastener (notes: b, c, e)	Intermediate supports (inches) (notes: c, e)
Wood structural panels, subfloor, roof and interior wall sheathing to framing and particleboard wall sheathing to framing			
32	3/8" to 1/2"	8d common (2" x 0.135) nail (subfloor, wall) (note j)	12 (note: g)
33	1/2" to 3/4"	8d common (2-1/2" x 0.135) nail (roof)	12 (note: g)
34	3/4" to 1"	10d common (3" x 0.148) nail or 8d deformed (2-1/2" x 0.135) nail	12
Other wall sheathing (note h)			
35	1/2" structural cellulose fiberboard	1-1/2" galv. roofing nail, 7/16" crown or 1" crown staple 16 ga., 1-1/4" long	6
36	25/32" structural cellulose fiberboard sheathing (note d)	1-3/4" galv. roofing nail, 7/16" crown or 1" crown staple 16 ga., 1-1/2" long	6
37	1/2" gypsum sheathing (note d)	1-1/2" galvanized roofing nail, staple galv., 1-1/2" long, 1-1/4" screws, Type W or S	7
38	5/8" gypsum sheathing (note d)	1-3/4" galvanized roofing nail, staple galv., 1-5/8" long, 1-5/8" screws, Type W or S	7
Wood structural panels, combination subfloor underlayment to framing			
39	3/4" and less	8d deformed (2" x 0.135) nail or 8d common (2-1/2" x 0.135) nail	12
40	7/8" to 1"	8d common (2-1/2" x 0.135) nail or 8d deformed (2-1/2" x 0.135) nail	12
41	1-1/8" to 1-1/4"	10d common (3" x 0.148) nail or 8d deformed (2-1/2" x 0.135) nail	12

For S: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 mile per hour = 0.447 m/s, 1 psi = 6.895 kPa

- All nails are smooth-common, box or deformed shank except where otherwise stated. Nails used for framing and sheathing connections shall have minimum average bending yield strengths as shown: 80 ksi (551 MPa) for shank diameter of 0.062 inch (20d common nail, 90 ksi (620 MPa) for shank diameters larger than 0.062 inch but not larger than 0.077 inch, and 100 ksi (689 MPa) for shank diameters of 0.082 inch or less.
- Staples are 16 gauge wire and have a minimum 7/16-inch crown width.
- Nails shall be spaced at not more than 6 inches on center at all supports where spans are 48 inches or greater.
- Four-foot-by-8-foot or 4-foot-by-9-foot panels shall be applied vertically.
- Spacing of fasteners not included in the table shall be verified w/ ECR.
- For regions having basic wind speed of 100 mph or greater, 8d deformed nails shall be used for attaching plywood and wood structural panel roof sheathing to framing within minimum 48-inch distance from gable end walls, if mean roof height is more than 25 feet up to 35 feet maximum.
- For regions having basic wind speed of 100 mph or less, nails for attaching wood structural panel roof sheathing to gable end wall framing shall be spaced 6 inches on center. When basic wind speed is greater than 100 mph, nails for attaching panel roof sheathing to intermediate supports shall be spaced 6 inches on center for minimum 48-inch distance from ridge, eave and gable end walls and 6 inches on center to gable end wall framing.
- Gypsum sheathing shall conform to ASTM C 398 and shall be installed in accordance with GA 263. Fiberboard sheathing shall conform to ASTM C 208.
- Spacing of fasteners on floor sheathing panel edges applies to panel edges supported by framing members and at all floor perimeter joints. Spacing of fasteners on roof sheathing panel edges applies to panel edges supported by framing members and at all roof perimeter joints. Blocking of roof or floor sheathing panel edges perpendicular to the framing members shall not be required except at intersection of adjacent roof planes. Floor and roof perimeter shall be supported by framing members or solid blocking.
- Where a rafter is fastened to an adjacent parallel ceiling joist in accordance with this schedule, provide two toe nails on one side of the rafter and toe nails from the ceiling joist to top plate in accordance with this schedule. The toe nail on the opposite side of the rafter shall not be required.

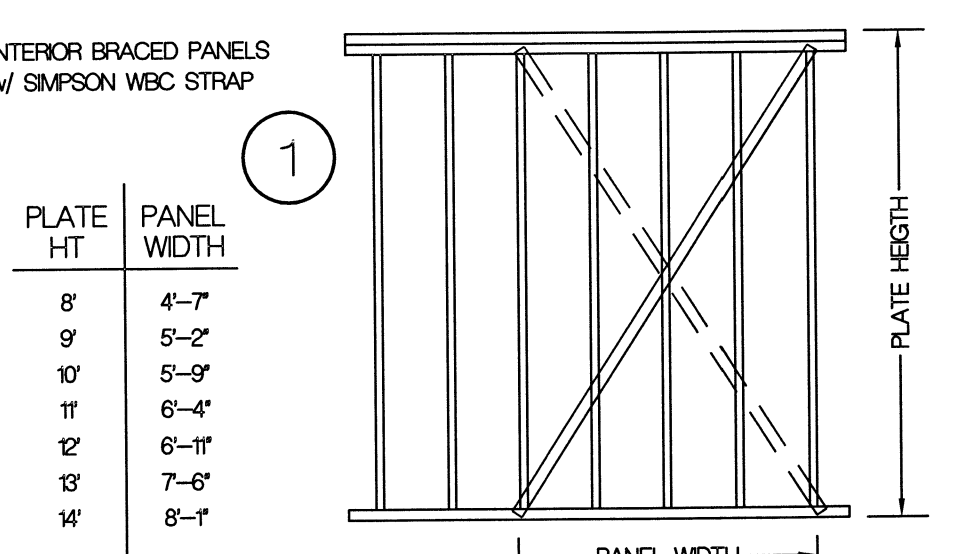


ALL METHODS	DESCRIPTION	CONSTRUCTION
1 LIB	METAL STRAP METHOD	SIMPSON CS16 STRAP NAILED TO STUDS SPACED AT 16" OC MAXIMUM. STRAPS SHALL BE INSTALLED IN 'V' OR 'X' PATTERN AT THE BRACE LOCATION AND FOR THE SPECIFIED LENGTH, ALTERNATIVE TO LET IN 1 X 4.
2 WSP/CS-WSP	SHEATHING METHOD	7/16" STRUCTURAL SHEATHING OVER STUDS SPACED 16" OC w/ 8d COMMON NAILS AT 6" OC EDGE AND 12" FIELD. HORIZONTAL JOINTS SHALL BE BLOCKED FOR ANCHORAGE.
3 PFH	GARAGE DOOR PORTAL	6 TO 1 ASPECT RATIO, HEADER LENGTH AS SPECIFIED WITH FULL PANEL SHEATHING AT UPPER CORNERS CUTOUT FOR THE OPENING. BLOCKING AT HORIZONTAL JOINTS. NOTE FULL 4" WIDTH CUTOUT PANELS REQ'D AT CORNERS. STHD10 & LSTA STRAPS
4 CS-PF	PORTALS	HEADER LENGTH AS SPECIFIED EXTENDED TO NEXT LAYOUT STUD, 18" MINIMUM WIDTH. FULL PANEL SHEATHING REQ'D WITH CUTOUTS FOR OPENINGS. HORIZONTAL BLOCKING AT EDGES.

J' BOLT SPACING FOR SHEAR WALLS IS 3' OC WITH STRAPS AS NOTED.

SHEAR WALL SCHEDULE

LOAD TABLE		
LOCATION	MIN. DL (PSF)	MIN. LL (PSF)
EXTERIOR BALCONIES	10	60
DECKS	10	40
CEILING w/o STORAGE	5	10
CEILING w/ STORAGE	10	20
NON-SLEEPING ROOMS	10	40
SLEEPING ROOMS	10	30
ROOF-LIGHT COVERING	10	25
ROOF-HEAVY COVERING	20	25



INT. BRACED WALL PANEL
LIB, METAL STRAP ALT. TO LET IN 1 X 4

2018 International Residential Code
Third Printing: Sep 2019

ISSUE DATE
REVISIONS

CHAPTER 6 WALL CONSTRUCTION

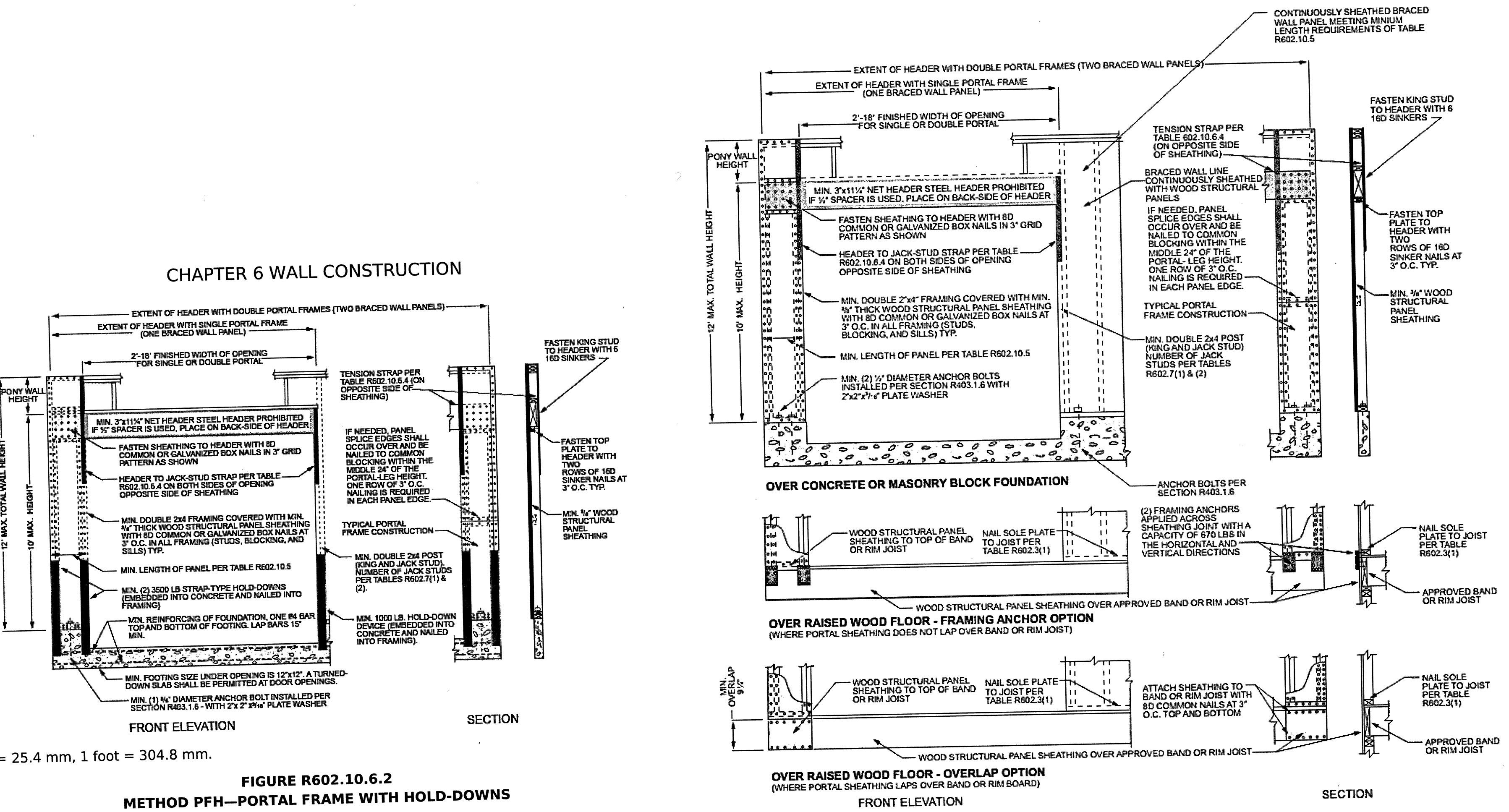


FIGURE R602.10.6.2
METHOD PFH—PORTAL FRAME WITH HOLD-DOWNS

FIGURE R602.10.6.4
METHOD CS-PF—CONTINUOUSLY SHEATHED PORTAL FRAME PANEL CONSTRUCTION

2018 DETAIL SHEET

STATE OF MISSOURI

KENNETH SIDOROWICZ

REGISTERED PROFESSIONAL ENGINEER

NUMBER E-19986

4/24/21

D3

Ken Sidorowicz, PC

P.O. Box 12089, Parkville, Missouri 64152
Tel. (816) 741-0862 Fax (816) 741-0868