

RESIDENTIAL AREA:			
RESIDENTIAL, LIVING AREA	1239		
RESIDENTIAL, UN-FINISHED BASEMENTS	1239		
RESIDENTIAL, GARAGE	680		
RESIDENTIAL, LIVING AREA 2	1558		
ROOFING MATERIAL	COMP	NUMBER OF BATHROOMS	3.5
NUMBER OF BEDROOMS	4	NUMBER OF STORIES	2
NUMBER OF LIVING UNITS	1	TOTAL LIVING AREA	2797
SEWER CONNECTION FEE	21		

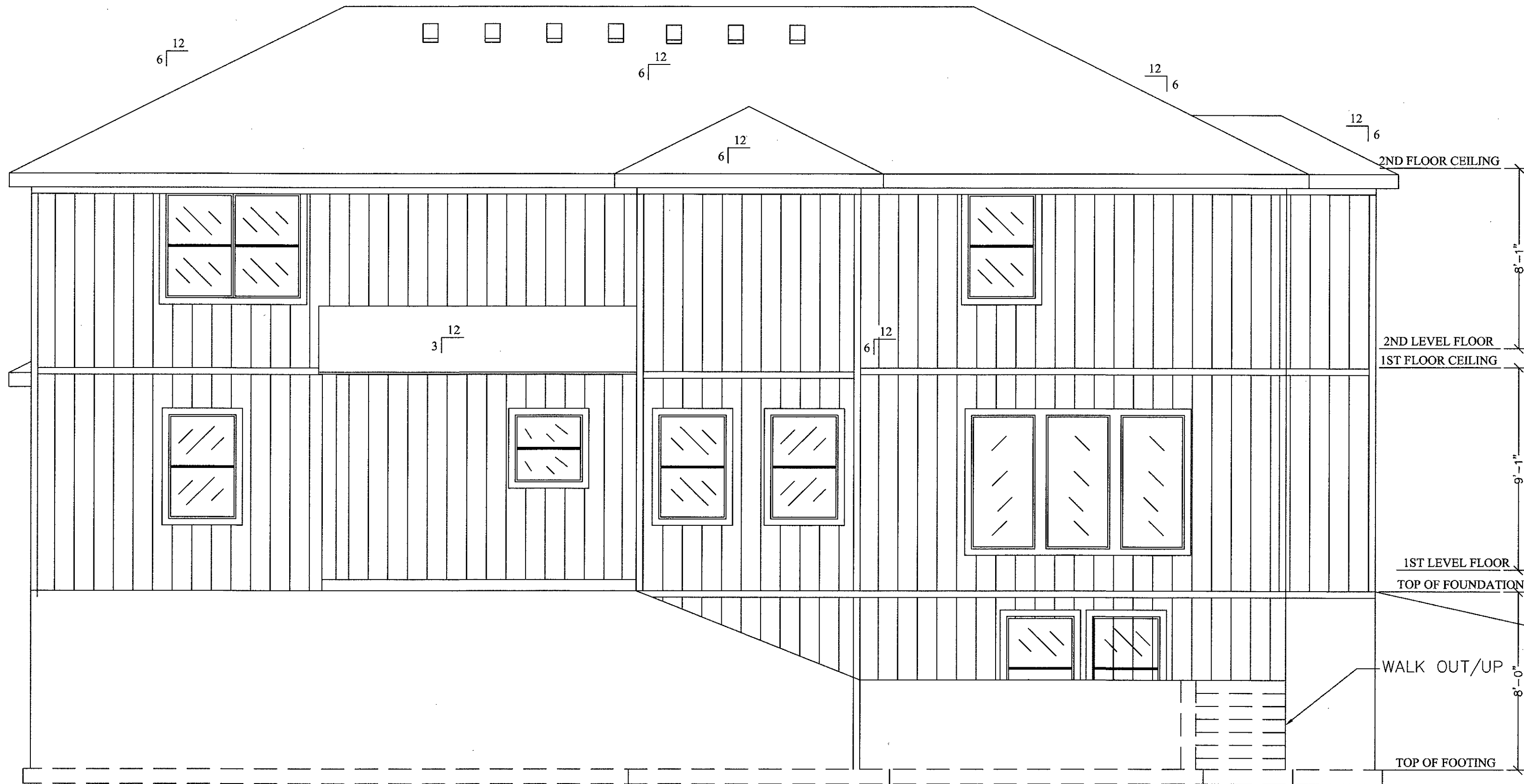
RELEASE FOR  
CONSTRUCTION  
AS NOTED ON PLANS REVIEW  
DEVELOPMENT SERVICES  
LEE'S SUMMIT, MISSOURI

02/02/2021



FRONT ELEVATION

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



BACK ELEVATION

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

DESCRIPTION:  
FRONT/REAR ELEVATIONS

MODEL:

DAVIS

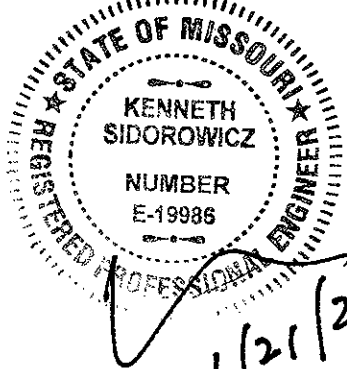
DATE:

11/5/20

4524 SW Nautilus Pl  
Lee's Summit MO  
64082

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THESE PLANS. A STRUCTURAL  
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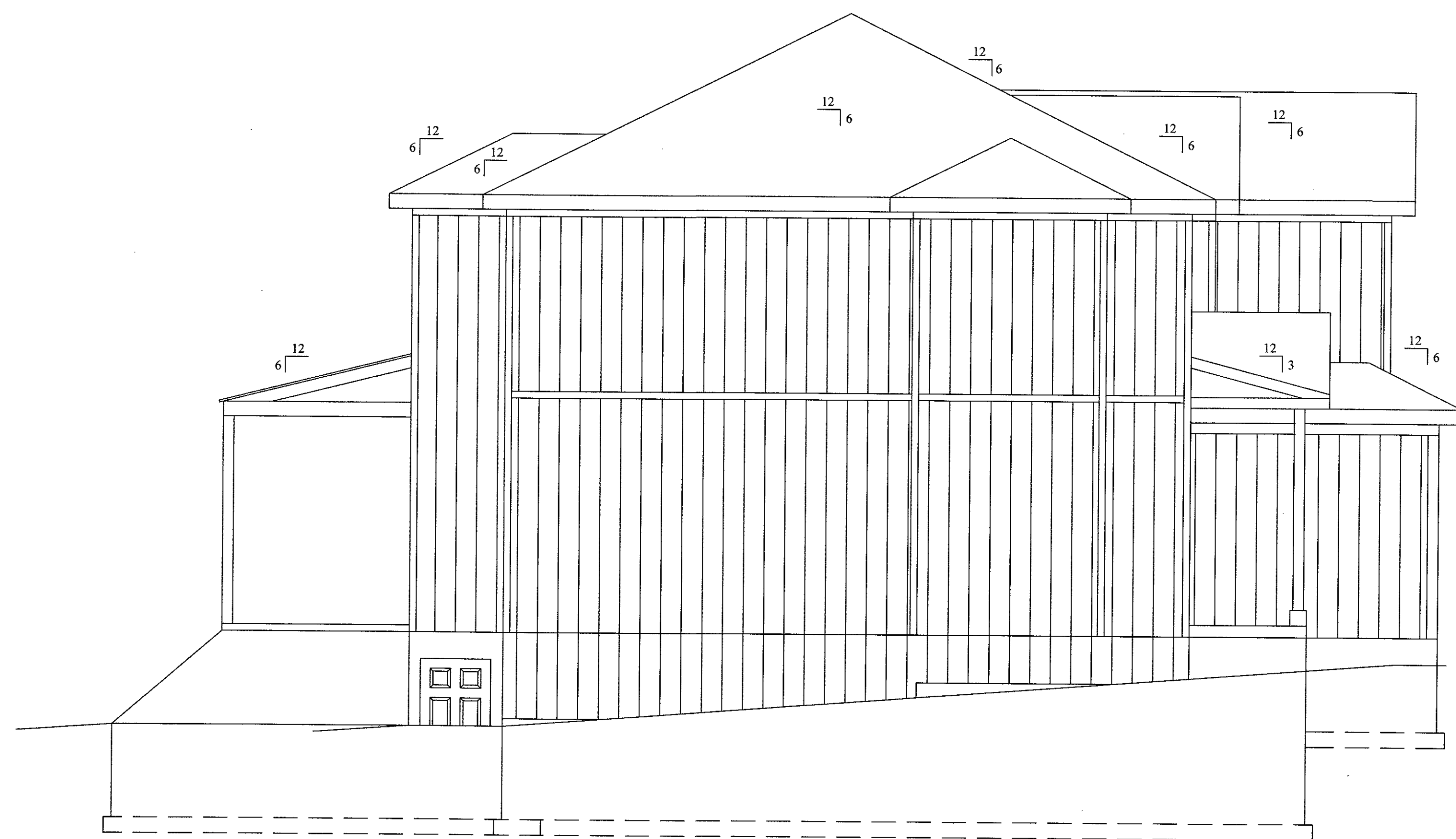
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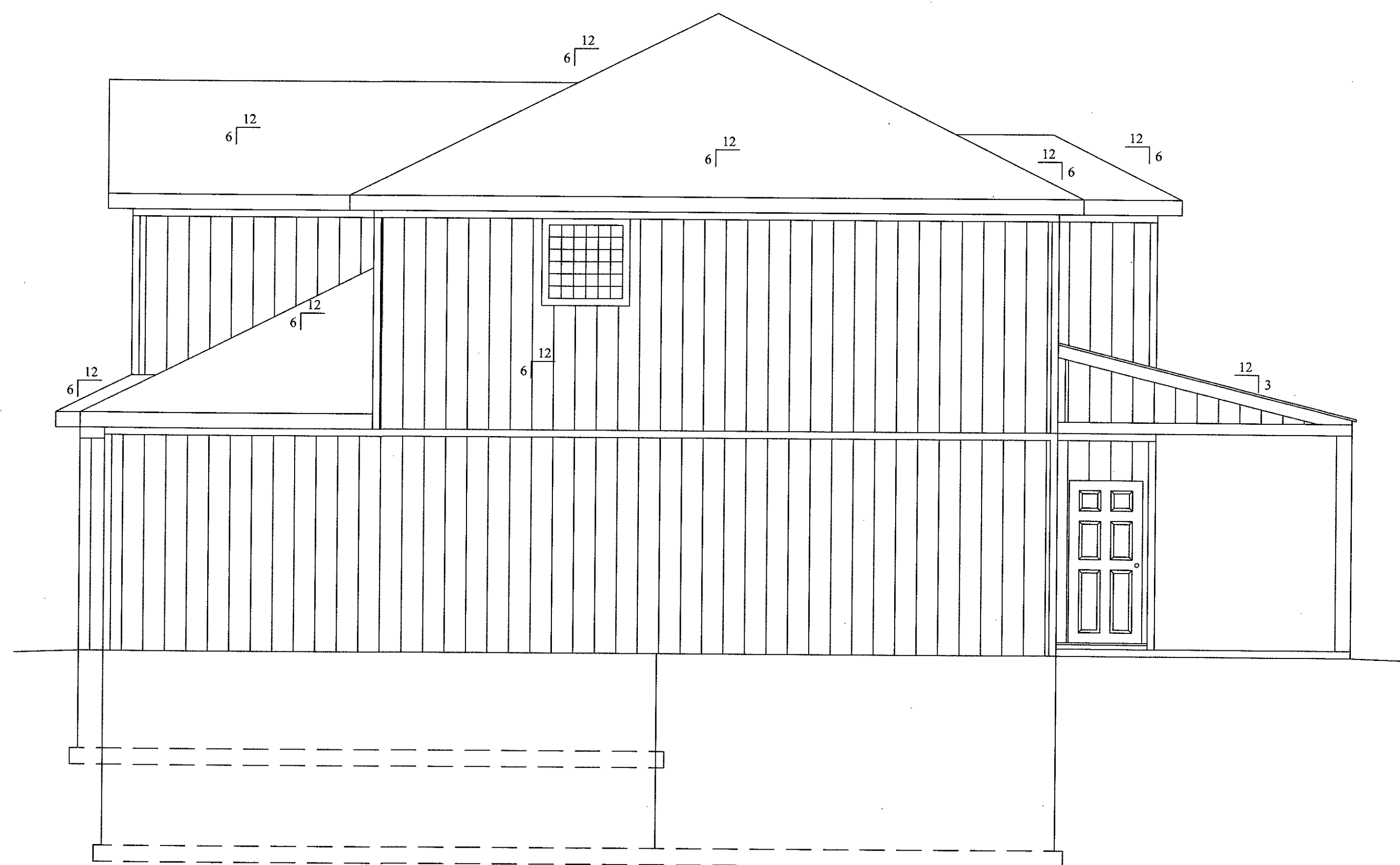
1 of 6

SHEET NO:



RIGHT ELEVATION

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



LEFT ELEVATION

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

CRB

DESCRIPTION:

LEFT / RIGHT ELEVATIONS

MODEL:

DAVIS

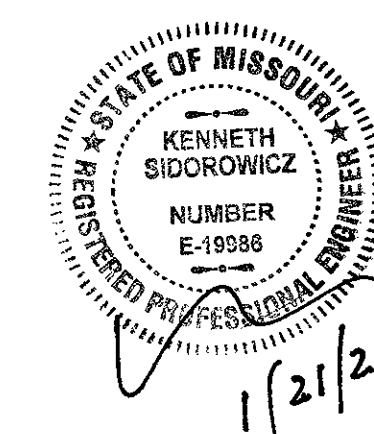
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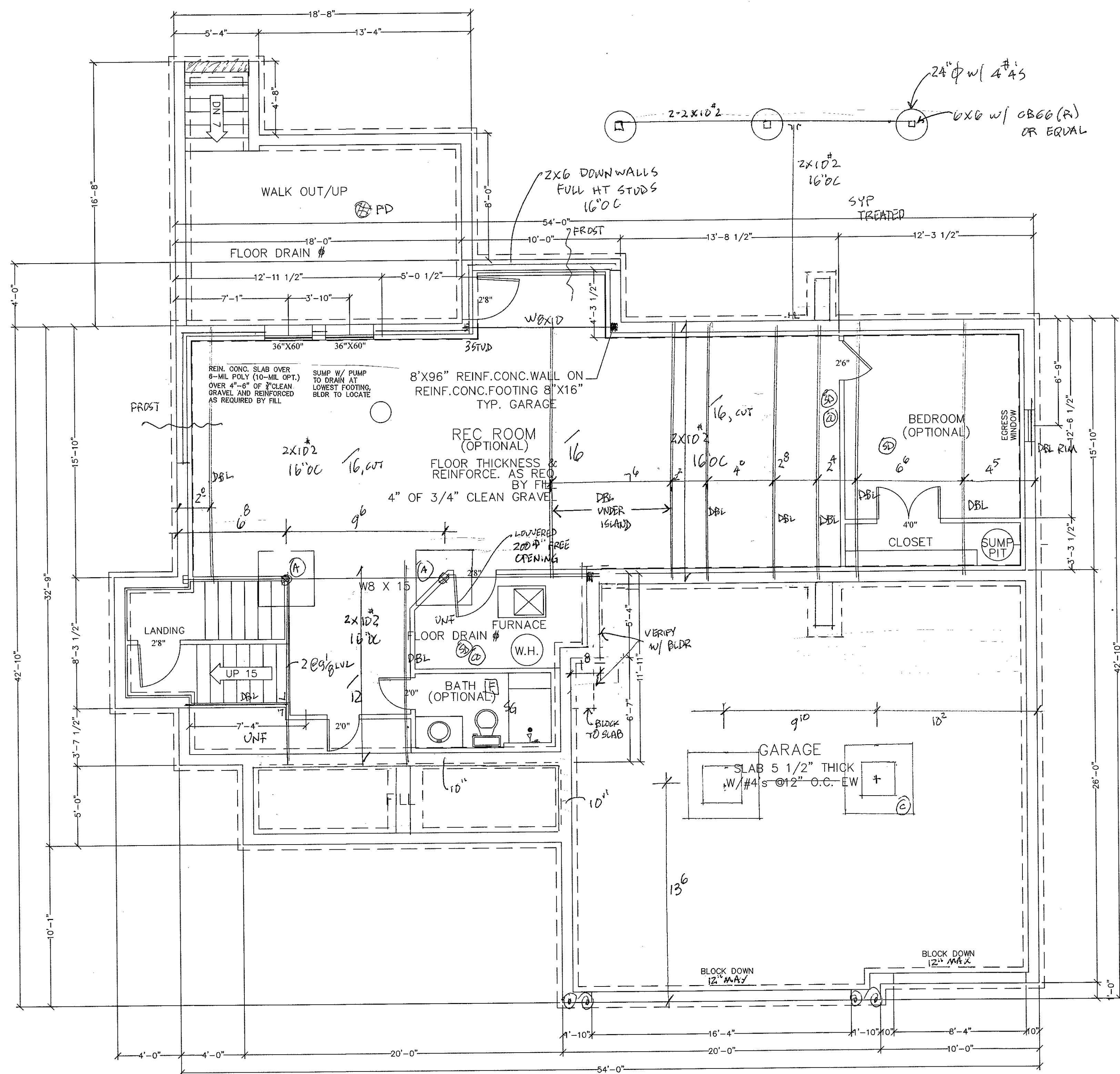


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SHEET NO:





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

- ① 30x30x12 PAD W/ (8) #4's E.W. 3" SCH 40 COIL UNO ALL PADS
- ② 42x42x14 PAD W/ (7) #4's E.W.
- ③ 48x48x16 PAD W/ (8) #4's E.W.



DESCRIPTION:  
FOUNDATION

MODEL:  
DAVIS  
DATE:  
11/5/20

4524 SW NAUTILUS PLACE  
LSMD  
64082

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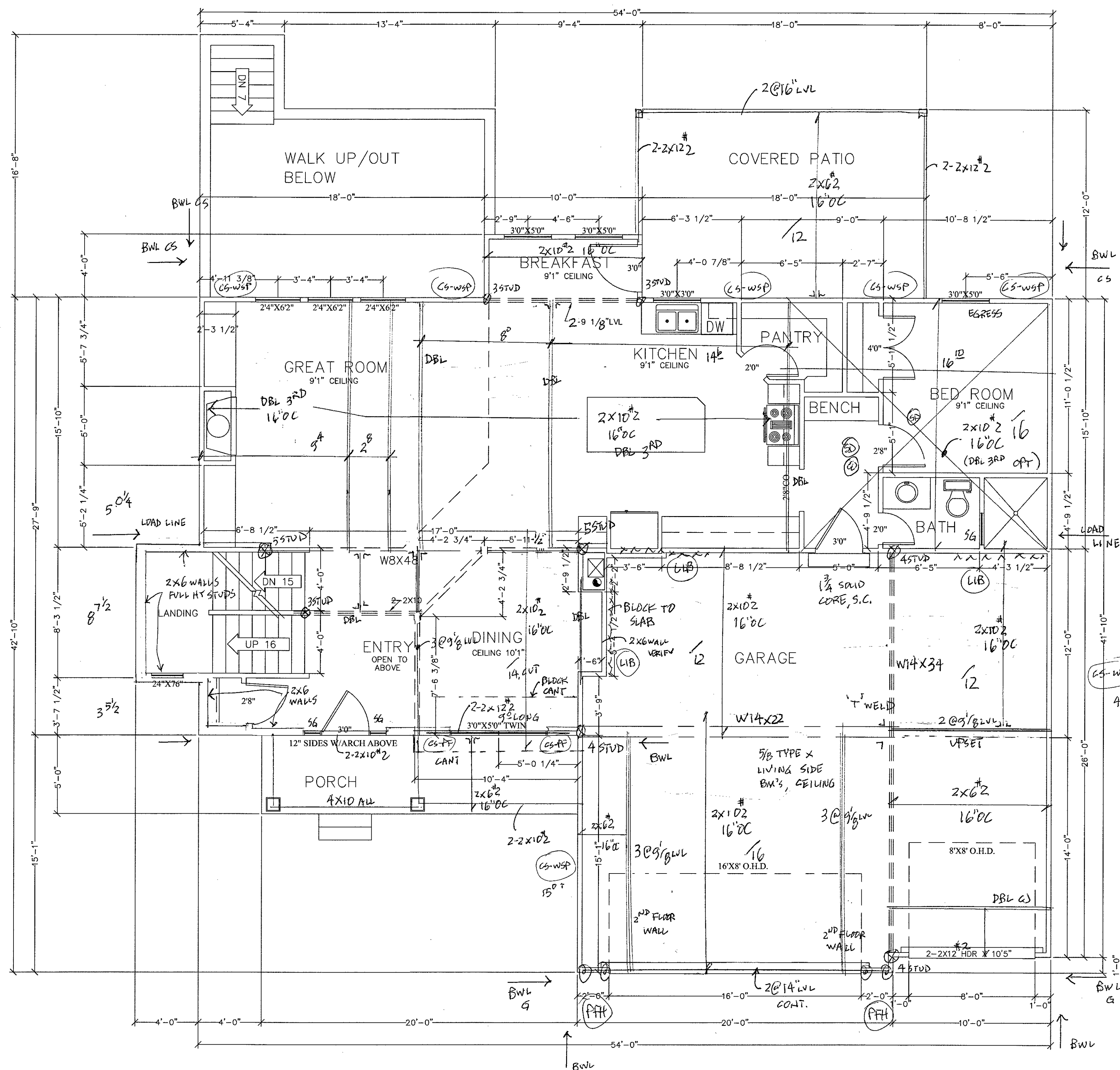
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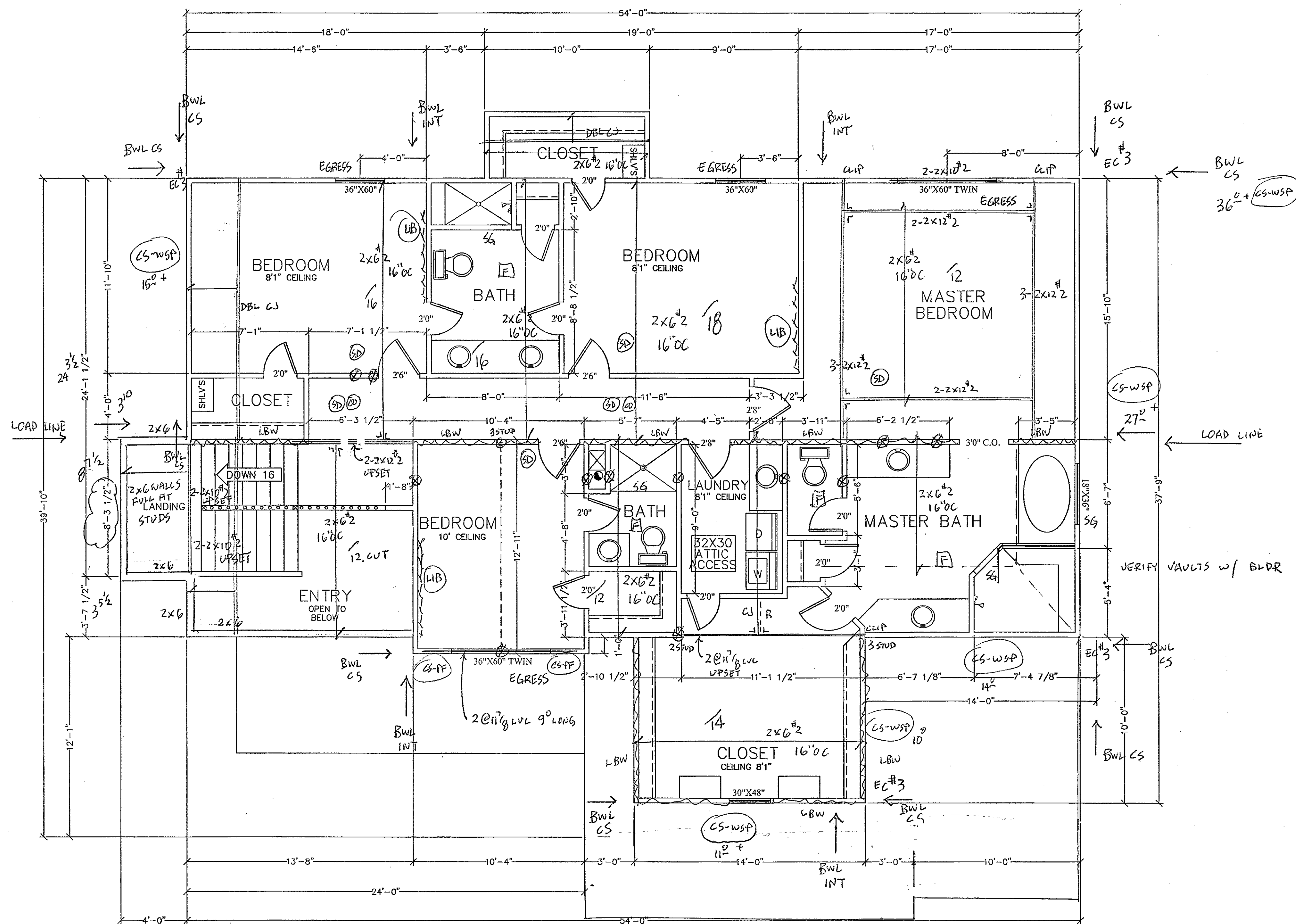
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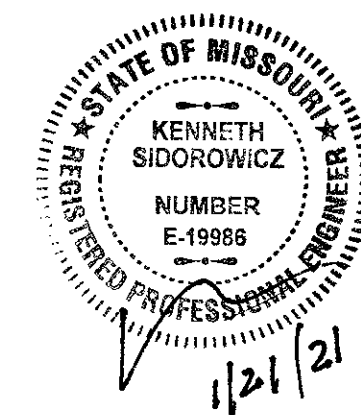






2ND SQUARE FEET = 1558

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



DESCRIPTION:  
SECOND FLOOR FRAMING  
ROOF FRAMING PLAN

MODEL:

DAVIS

DATE:

11/5/20

4524 SW Nautilus Pl  
Lee's Summit MO  
64082

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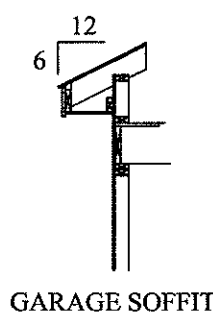
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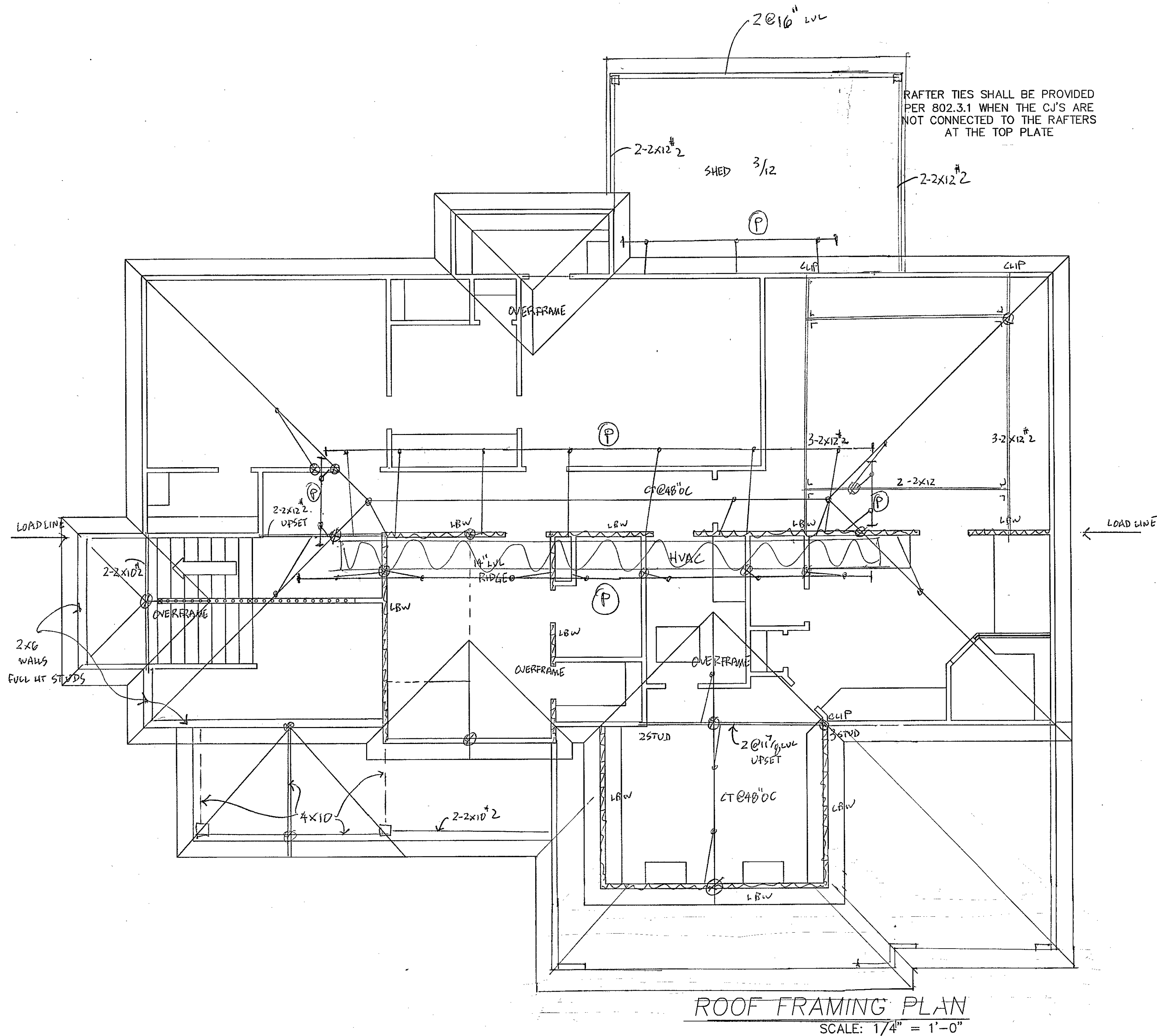
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GARAGE SOFFIT



RAFTER TIES SHALL BE PROVIDED  
PER 802.3.1 WHEN THE C/J'S ARE  
NOT CONNECTED TO THE RAFTERS  
AT THE TOP PLATE

ROOF: ASPHALT SHINGLES - 2/8 MIN.  
WOOD SHAKES/SHINGLES - 3/8 MIN.  
CONCRETE TILES - 2/8 MIN.  
FLASH & CONVEYERS/FLASH ALL ROOF PENETRATIONS  
AND INTERSECTIONS

RAFTERS & CEILING JOISTS:  
COLLAR TIES AT UPPER THIRD POINT 48" OC 2x4 MIN.  
CEILING JOISTS ARE TURNED AS REQUIRED FOR RAFTER TIES

ROOF/RAFTER HANGERS AND STRAPS AS REQ'D  
OUTSIDE EDGE 3/8 GABLE END BOARDS FOR  
CEILING JOIST 2x4 2x8 2x10 2x12  
OUTSIDE EDGE 3/8 GABLE END BOARDS FOR TILE ROOF

ATTIC VENTILATION:  
VENT EACH ENCLOSED ATTIC SPACE  
NET AREA OPENING = 1/60th OF VENTED AREA

UNLESS NOTED:  
RAFTERS ARE 2x8 @ 16" OC  
MAX SPAN 17'-0"

PROVIDE VERTICAL LOAD SUPPORT AT THE NOTED  
LOAD POINTS FOR HIPS, VALLEYS, PURLINS & RIDGES  
LET-IN SUPPORT LUGS TO KNUIN  
ALL HIPS, VALLEYS & RIDGES ARE SIZED FOR  
THE RAFTER DEPTH, PITCH AND LOAD, ALL 2x8 VNO

RAFTER	CEILING	TILE
2x8	2x8	2x8
2x10	2x10	2x10
2x12	2x12	2x12

SUPPORT LUG	MAX LENGTH	TILE
2x8 w/ 2x4 T-BRACE	8'-0"	7'-0"
2x10 w/ 2x4 T-BRACE	10'-0"	10'-0"
2x12 w/ 2x4 T-BRACE	12'-0"	12'-0"
2x8 w/ 2x4 T-BRACE	8'-0"	7'-0"

HEEL JOINT CONNECTION FACTOR	
H <sub>2</sub> / H <sub>1</sub>	15
1/2	13
1/3	11
1/4	9
1/5	7
1/6	5
1/7	3
1/8	1

\*ALL ROOF FRAMING MEMBERS  
ARE SIZED AS BEAMS AND BRACED  
TO LUGS, HEADERS OR OTHER  
STRUCTURE

H<sub>2</sub> = HEIGHT OF CEILING JOIST OR RAFTER TIES MEASURED  
VERTICALLY ABOVE TOP OF RAFTER SUPPORT WALL  
H<sub>1</sub> = HEIGHT OF ROOF RISE MEASURED VERTICALLY ABOVE  
THE TOP OF THE RAFTER SUPPORT WALL

DESCRIPTION:

FIRST FLOOR FRAMING

MODEL:

DAVIS

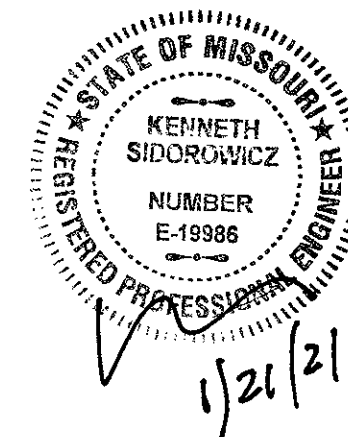
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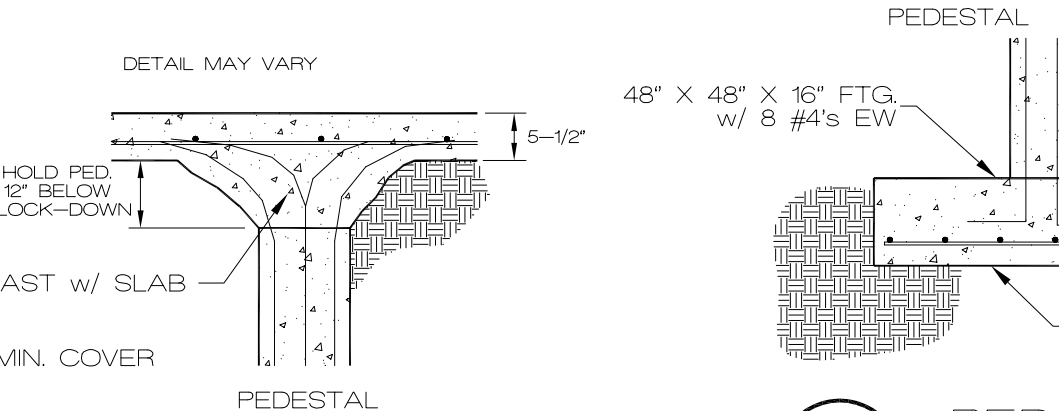
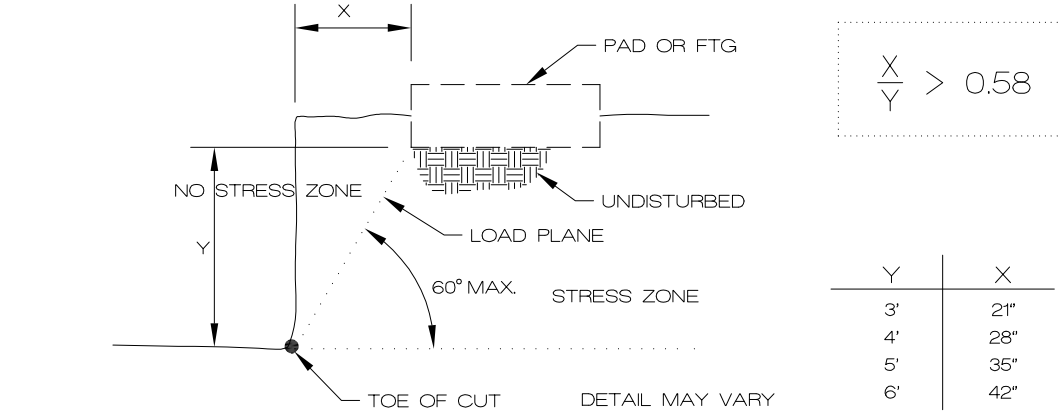
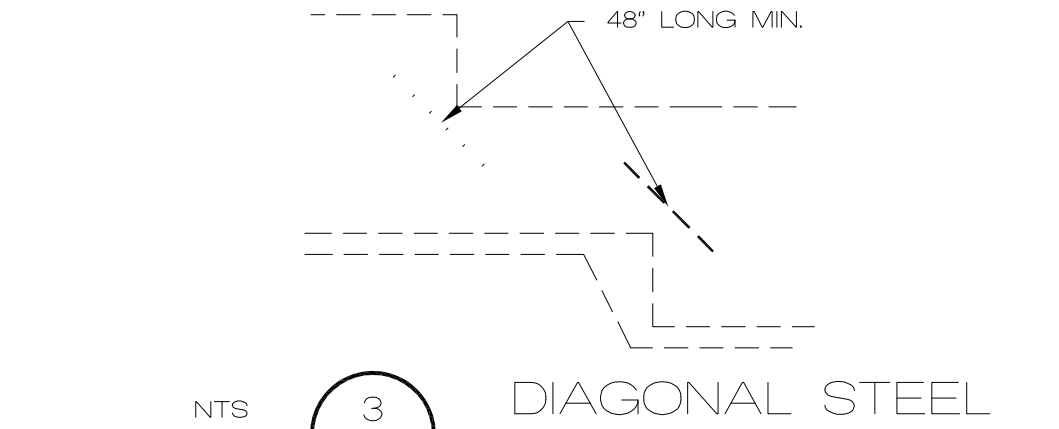


## DIVISION 1 - GENERAL REQUIREMENTS

- 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) 115 MPH
  - SEISMIC CATEGORY (A), GROUND ACCELERATION = NA
- DESIGN LOADS (PSF, UNLESS NOTED OTHERWISE):
  - ROOF (L/D/L) SEE TABLE
  - FLOOR (L/D/L) SEE TABLE
  - CEILING (L/D/L) 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, IE, 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 DASHA 108 AND ASTM E 530.
- 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 CAPACITY 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.

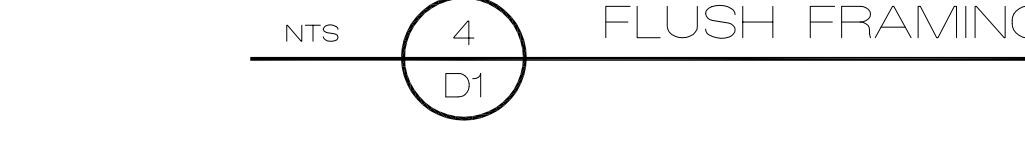
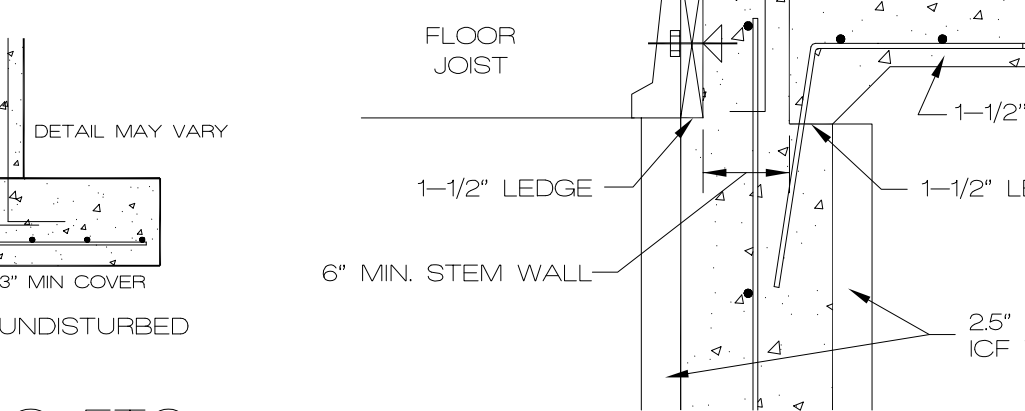
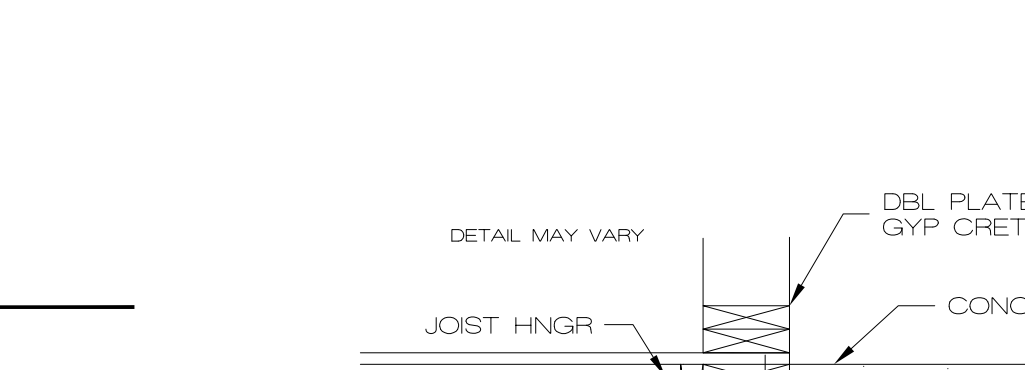
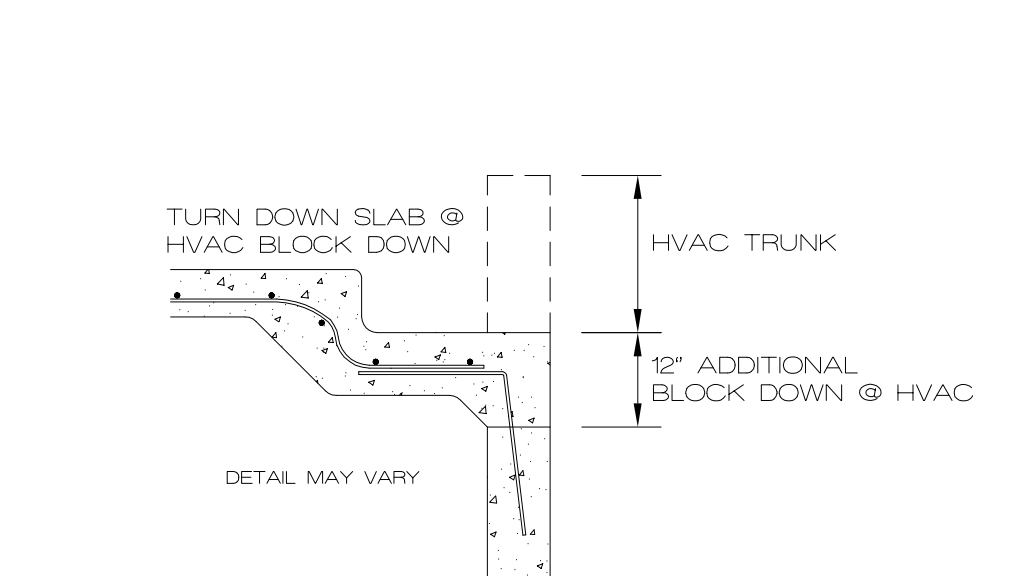


## DIVISION 3 - CONCRETE

- ALL CONCRETE WORK SHALL CONFORM TO THE REQUIREMENTS OF ACI 318 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'<sub>c</sub>):
  - TYPE OF CONSTRUCTION
  - FOOTINGS, WALLS, AND SLABS
  - EXTERIOR SLABS AND CURBS (AIR-ENTRAINED CONCRETE)
- CONCRETE PROPORTIONS SHALL BE ESTABLISHED ON THE BASIS OF FIELD EXPERIENCE AND/OR TRIAL MIXTURES IN ACCORDANCE WITH ACI 318-19 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 1/2" OF THE SLAB DEPTH, AS SOON AFTER SLAB FINISHING AS POSSIBLE WITHOUT DISLOCATING AGGREGATE. (DO NOT SAW CUT STRUCTURAL SLABS w/o APPROVAL).
- BATCH TICKETS SHALL BE SUBMITTED TO A CONTRACTOR'S 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 SPICES 18" MIN FOR #4 BAR, SEE TABLE
  - WELDED WIRE FABRIC SHALL BE ASTM A185, LAP AT LEAST ONE FULL MESH AND LACE SPICES 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'<sub>m</sub>) 1500 PSI.

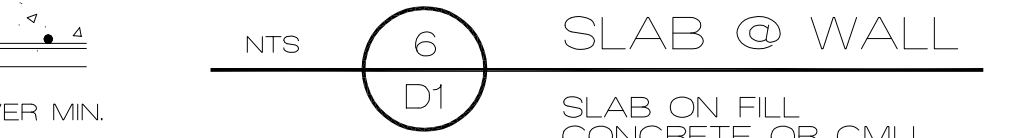
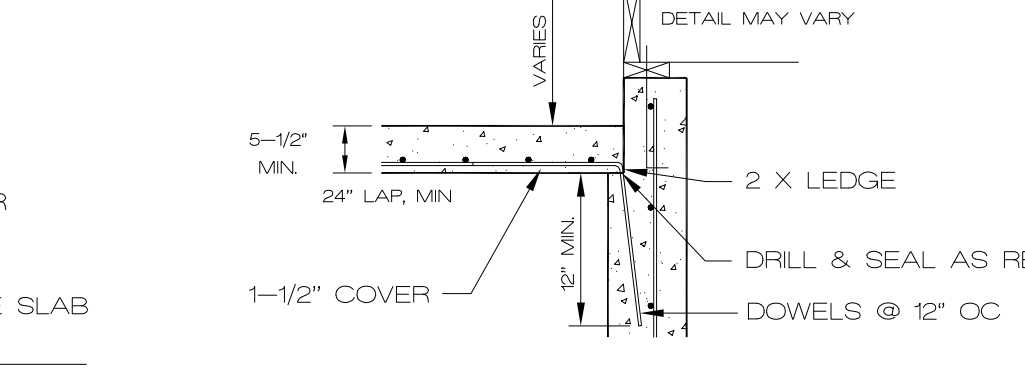
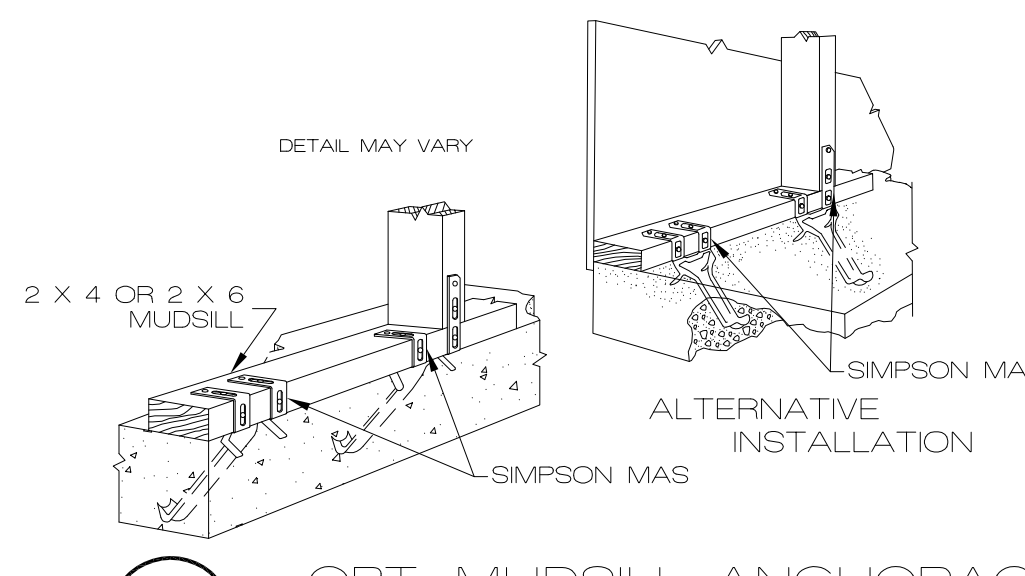
MASONRY STRENGTH (f' <sub>m</sub> DESIGN)	1500
BLOCK STRENGTH	1900
MORTAR STRENGTH	1800
GROUT STRENGTH	2000
- CONCRETE BLOCK SHALL BE HOLLOW LOAD-BEARING CONCRETE MASONRY UNITS CONFORMING TO ASTM C 90, TYPE N-IL. ALL BLOCKS SHALL BE PLACED IN RUNNING BOND CONSTRUCTION (UNLESS OTHERWISE NOTED) WITH ALL 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 1-3/4" BELOW TOP OF BLOCK AT GROUT LIFT JOINTS AND AT CONCRETE PLACED OVER MASONRY.
- MINIMUM LATEL WHERE NOT ON PLANS, SHALL HAVE A MINIMUM OF 2 #5s CONTINUOUS HORIZONTAL BARS IN BOTTOM OF BOND BEAM OR LINTEL BLOCK AND SHALL BE GROUTED SOLID TO A MIN. DEPTH OF 24". ALL LINTEL REINFORCING AND GROUT SHALL EXTEND 2' MINIMUM PAST JAMBS UNLESS NOTED OTHERWISE ON PLANS OR DETAILS.
- LAP REINFORCING 48 BAR DIAMETERS. STAGGER LAP SPICES 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.
  - 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, UNDO.
- 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 OFF LAYOUT. STRUCTURE BELOW LOAD-BEARING WALLS AS NOTED ON PLANS.

RETURN WALLS	
WALL HT. ABOVE FLOOR	RETURN SPACING (HOLD DOWN 24" BELOW GRADE)
LESS THAN 4'	RETURN WALLS NOT REQD
4' TO 9'	16"-4" ON CENTER (MAX.), AND WITHIN 8' OF STEP DOWN OR AS SHOWN

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



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 NFPA NATIONAL DESIGN SPECIFICATION OF WOOD CONSTRUCTION, TPI 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 56 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 #20E AND SHALL MEET THE REQUIREMENTS OF APPLICABLE ICC-ES REPORTS.
  - GLULAM BEAMS - COMBINATION 24F-V3 IN ACCORDANCE WITH AITC A190.1
- 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.
- 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 12" 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, UNDO.
- 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 OFF LAYOUT. STRUCTURE BELOW LOAD-BEARING WALLS AS NOTED ON PLANS.

- DEFAULT: HEADER SIZE NOT SPECIFIED SPANNING 8'-0" MAX SHALL BE 2 - 2 X 10 #2, WITH 2 STUD SUPPORT.
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- DOUBLE JOIST BELOW PARALLEL, NONBEARING WALLS ON LAYOUT, SINGLE JOIST OFF LAYOUT. STRUCTURE BELOW LOAD-BEARING WALLS AS NOTED ON PLANS.

## FOUNDATION PER JOCOBO RESIDENTIAL FOUNDATION GUIDELINE

WALL REINFORCING	
8" THICK	10" THICK
	8" 9" 10"
3000, GR40	16 12 24 16 12
3500, GR40	16 12 24 16 12
3000, GR60	24 16 24 20 16
3500, GR60	24 16 24 24 16

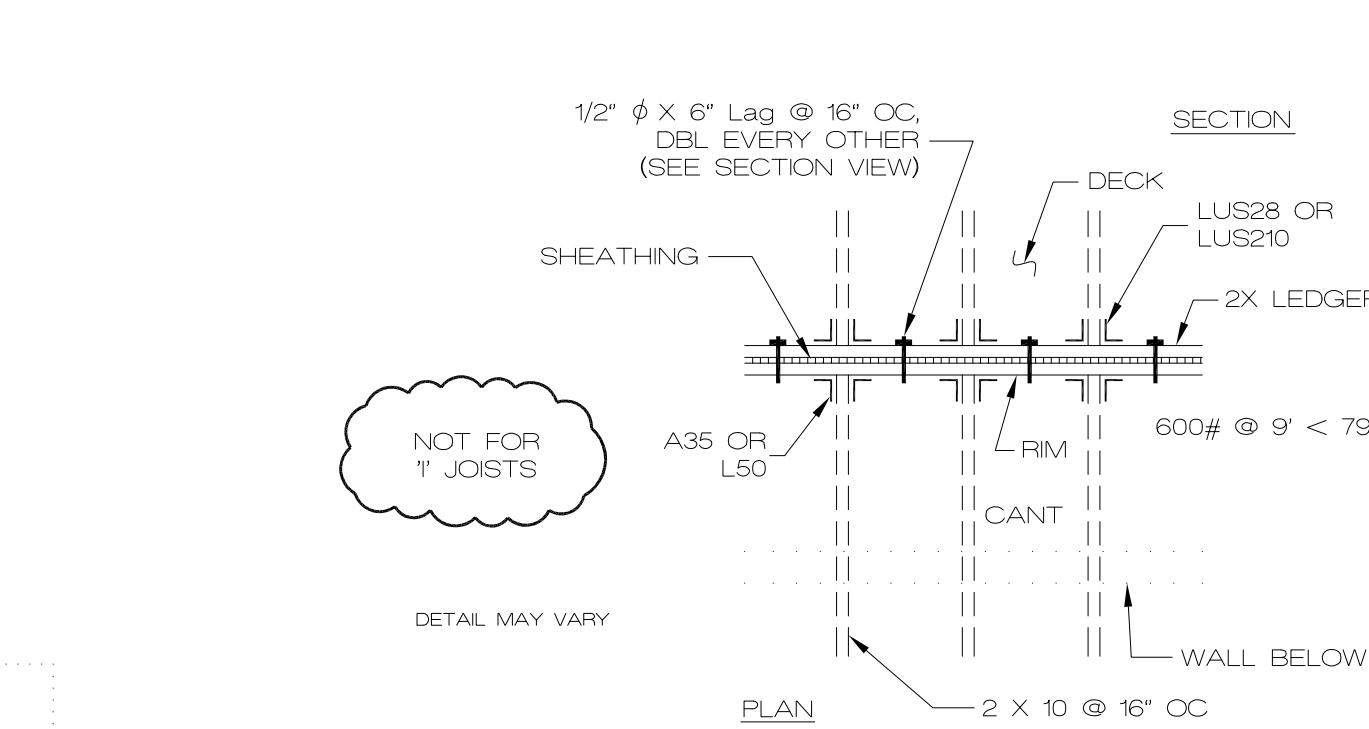
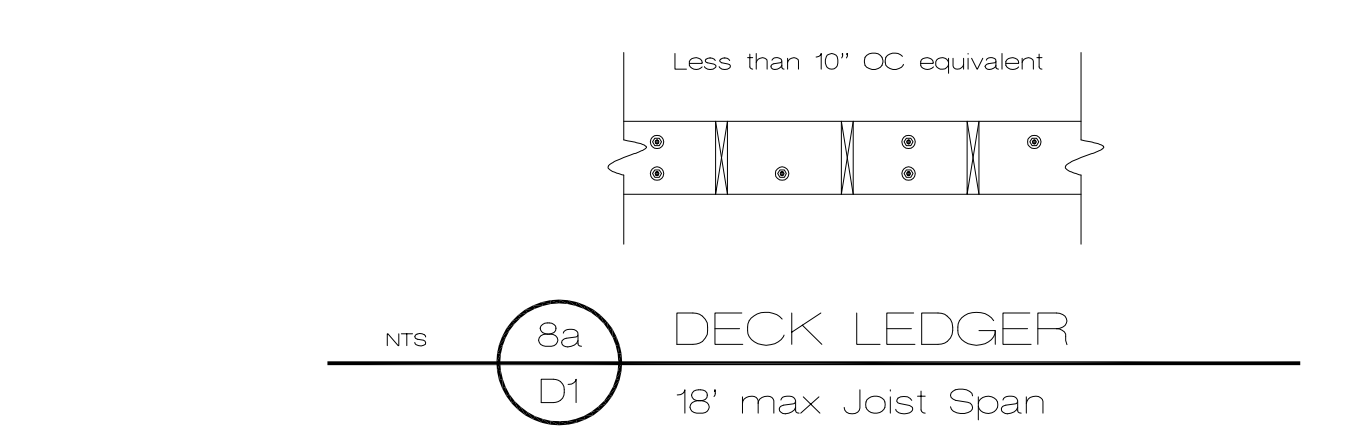
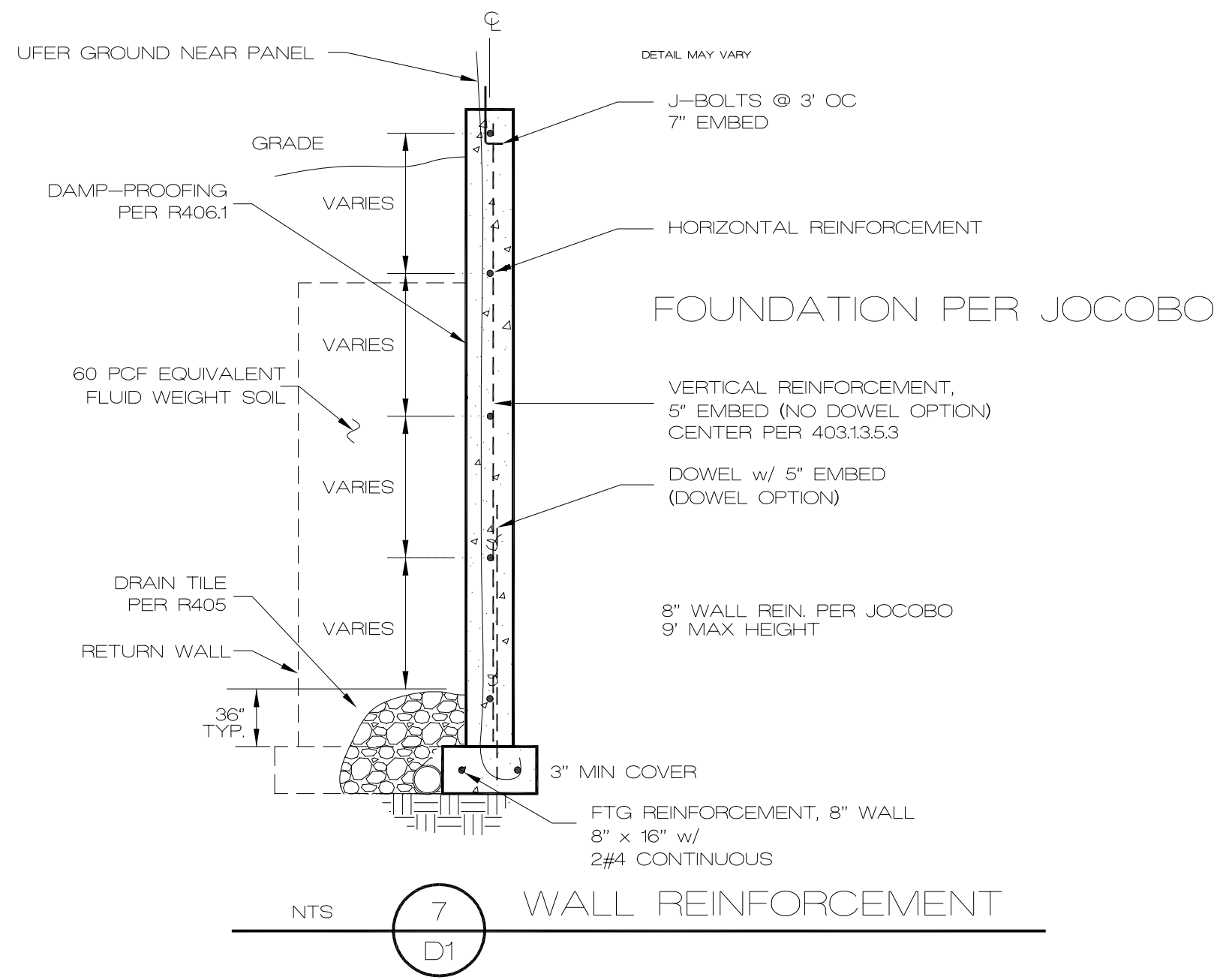
HOR. REIN. MIN. GR40 #4

One bar 12" from top & 24" oc max

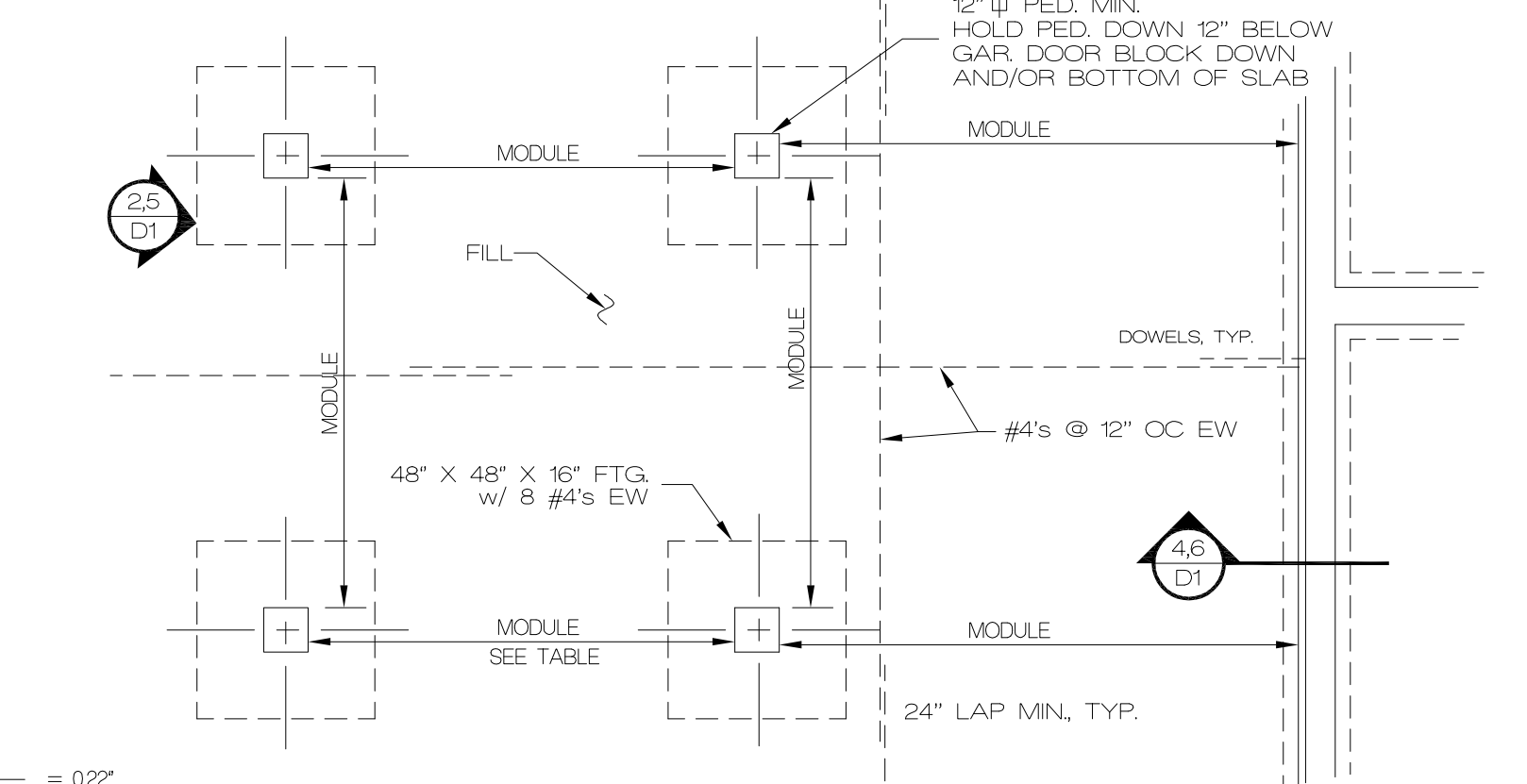
GARAGE SLAB: 100 # / ft<sup>2</sup> (LL) 67 # / ft<sup>2</sup> (CL) w<sub>s</sub> = 12(DU) + 16(LL) = 240 # / ft<sup>2</sup> (TL) 40 # / ft<sup>2</sup> (LL) 67 # / ft<sup>2</sup> (CL) w = 12(DU) + 16(LL) = 144 # / ft<sup>2</sup> (TL)

BASEMENT SLAB:  $M_{max} = \frac{w_s \cdot L^2}{14} \rightarrow 27206 \# \cdot ft$   $a = \frac{A_s \cdot f_y}{0.85 \cdot f'_c \cdot b} = \frac{40000 \cdot 0.2}{0.85 \cdot 3500 \cdot 12} = 0.22$   $\phi M_n = \phi A_s \cdot f_y \cdot (d - \frac{a}{2}) = 0.9(0.2)(40000)(4 - 0.22/2) = 28,008 \# \cdot ft > 27,206 (OKAY)$   $\therefore$  Use #4 @ 12" OC EW 12'-6" (+/-) MODULE

BASEMENT SLAB:  $M_{max} = \frac{w \cdot L^2}{14} \rightarrow 25,951 \# \cdot ft$   $a = \frac{A_s \cdot f_y}{0.85 \cdot f'_c \cdot b} = \frac{40000 \cdot 0.2}{0.85 \cdot 3500 \cdot 12} = 0.22$   $\phi M_n = \phi A_s \cdot f_y \cdot (d - \frac{a}{2}) = 0.9(0.2)(40000)(4 - 0.22/2) = 28,008 \# \cdot ft > 25,951 (OKAY)$   $\therefore$  Use #4 @ 12" OC EW 8'-6" (+/-) MODULE



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



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

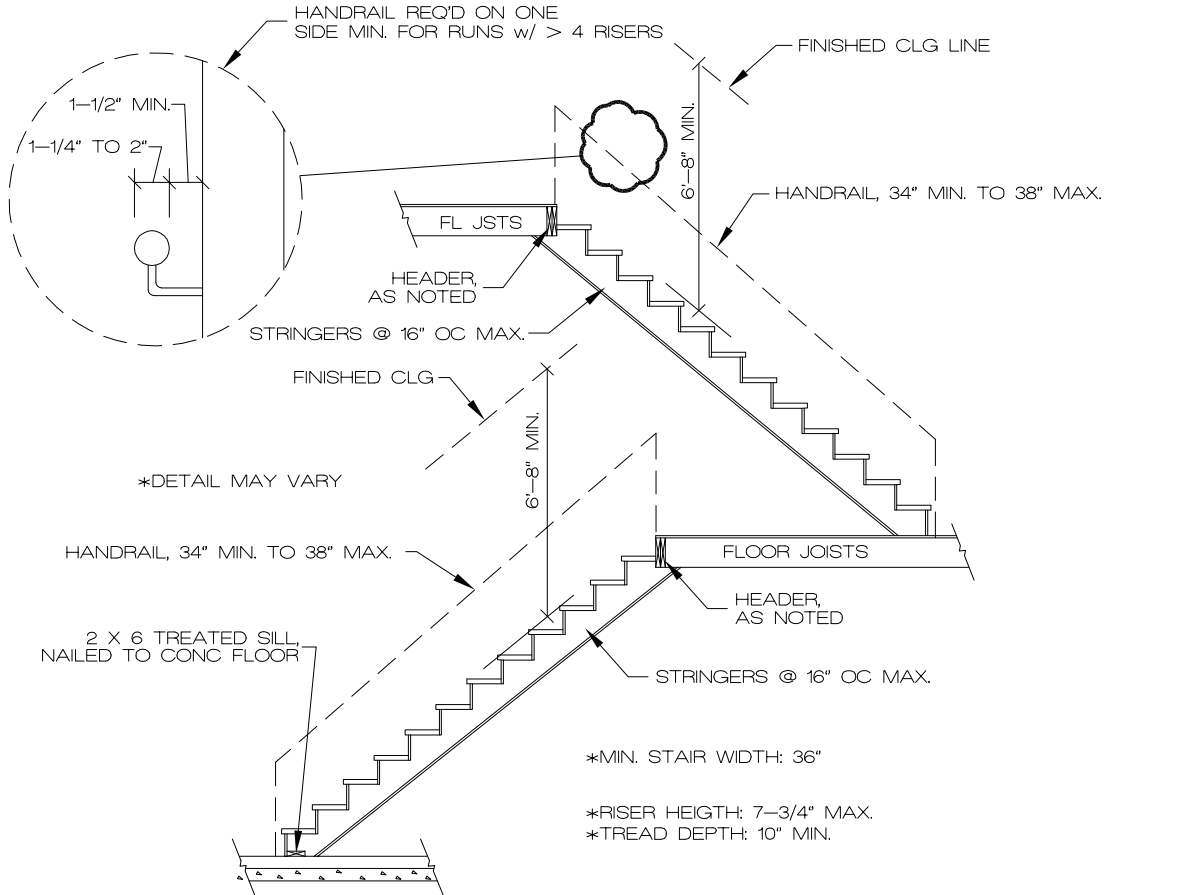
2018 DETAIL SHEET

STATE OF MISSOURI  
KENNETH SIDOROWICZ  
NUMBER E-19986  
PROFESSIONAL ENGINEER

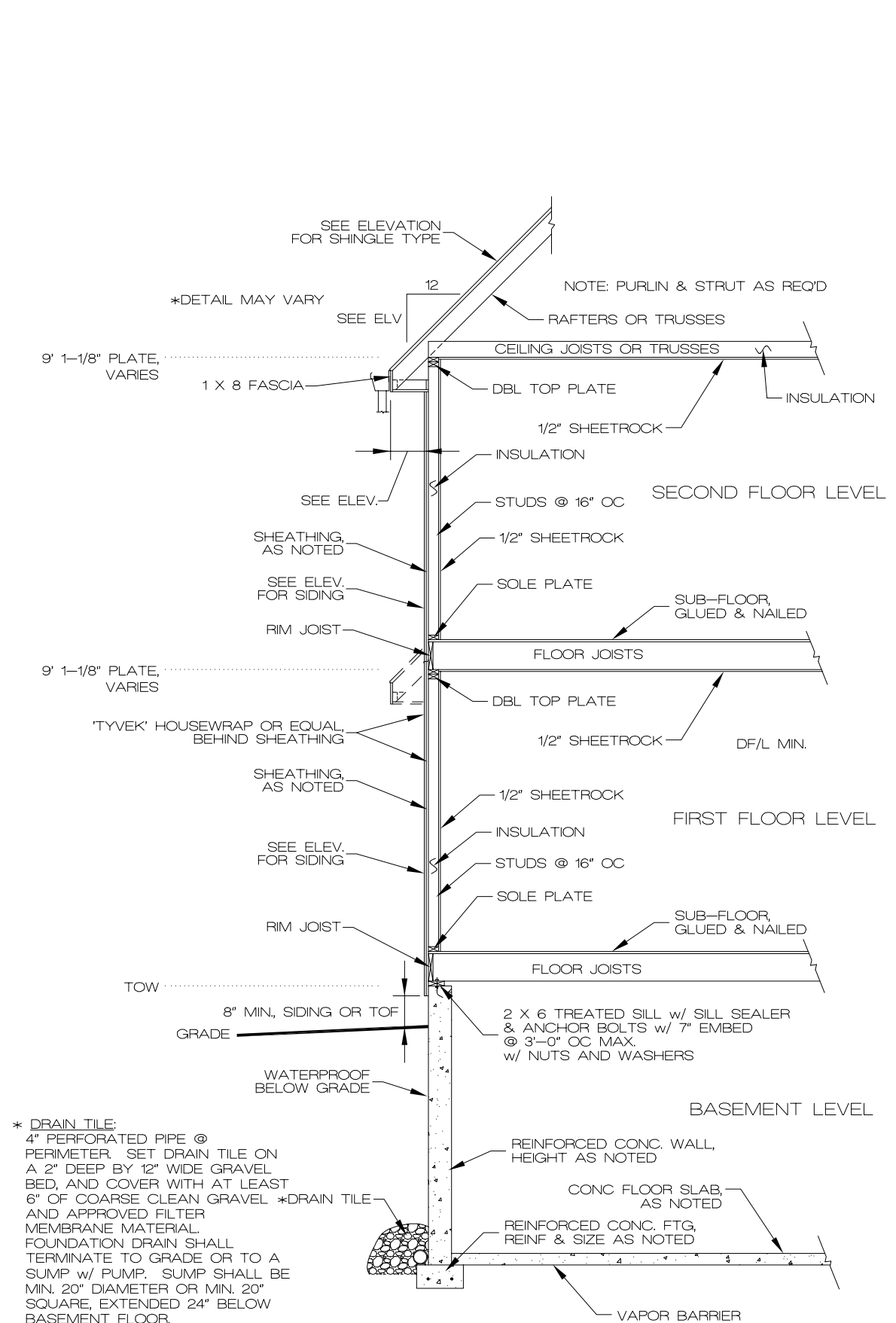
1/21/21

D1

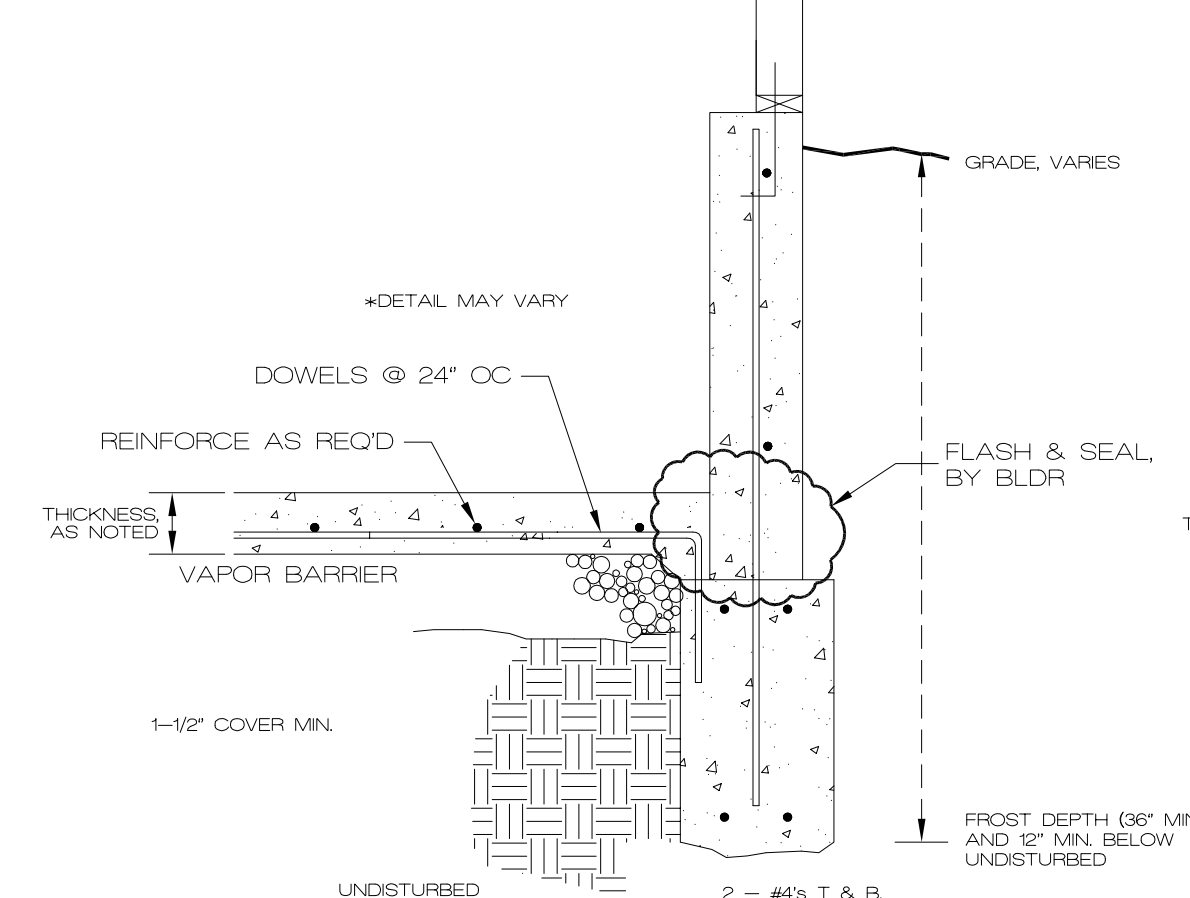




NTS 1 D2 STAIR SECTION



NTS 2 D2 EXTERIOR WALL SECTION

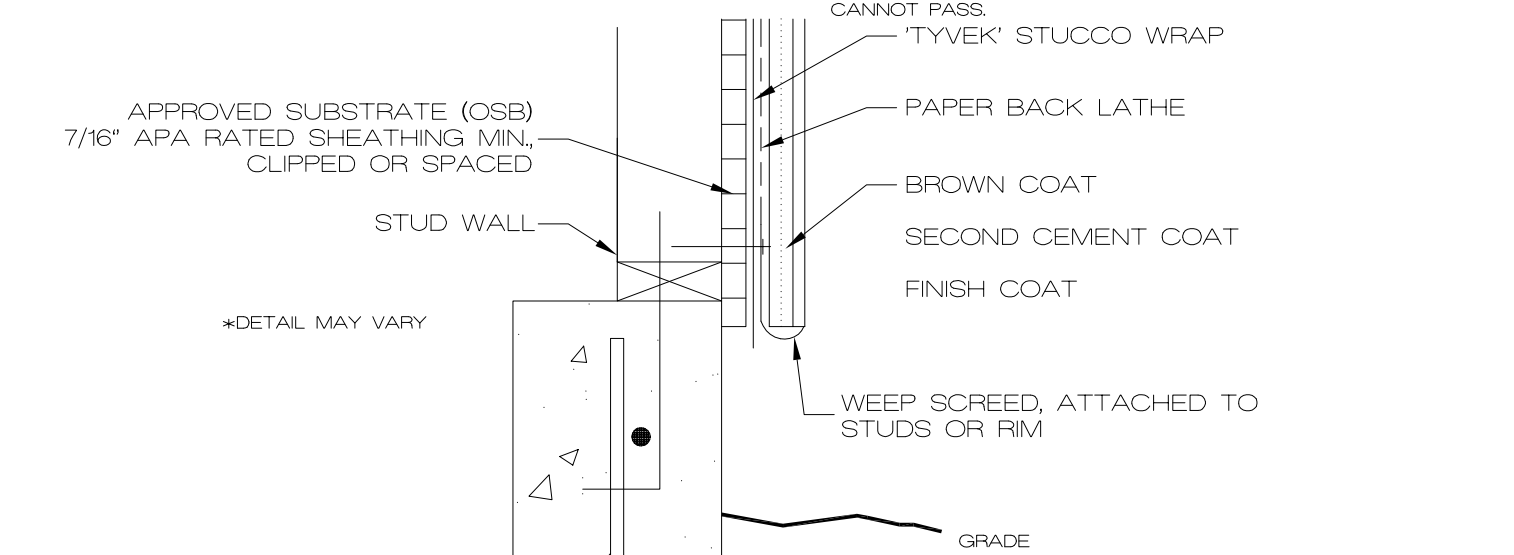


NTS 6 D2 SLAB @ FROST TRENCH  
w/ STEM WALL (< 4)

GENERAL NOTES

- GLASS - GLAZING IN THE FOLLOWING LOCATIONS SHALL BE OF APPROVED SAFETY GLAZING MATERIALS: STORM DOORS, PANELS ADJACENT TO A DOOR WITHIN THE NEAREST VERTICAL EDGE IS WITHIN A 24" ARC OF THE DOOR IN A CLOSED POSITION AND ON BOTH SIDES OF THE DOOR. 60" OF THE FLOOR WALLS ENCLOSING STAIRWAYS AND LANDINGS WHERE THE GLASS IS WITHIN 60" OF THE TOP OR BOTTOM OF THE STAIR ENCLOSURES FOR STAIR TUBES SHOWERS AND GLASS EXCEEDING 9 SF; AND WHOSE BOTTOM EDGE IS LESS THAN 18" AFF; OR WALKING SURFACE WITHIN 36". A MINIMUM OF ONE EGRESS WINDOW SHALL BE PROVIDED IN EACH BEDROOM AND ONE FROM THE BASEMENT WITH A MINIMUM OPERABLE AREA OF 5.7 SF. MINIMUM HEIGHT OF 24 INCHES AND MINIMUM WIDTH OF 20 INCHES. THE OPERABLE PORTION SHALL NOT EXCEED 44 INCHES AFF. WATER RESISTANT WINDOW SILL AS REQ'D.
- SMOKE DETECTORS - PROVIDE SMOKE ALARMS IN EACH SLEEPING ROOM OUTSIDE OF EACH SLEEPING AREA AND ON EACH FLOOR AT THE STAIRS INCLUDING BASEMENTS. ALARMS SHALL BE INTERCONNECTED SO THE ACTIVATION OF ONE ALARM WILL ACTIVATE ALL THE SMOKE DETECTORS IN THE DWELLING.
- CARBON MONOXIDE DETECTORS REQ'D OUTSIDE EACH SLEEPING AREA IN DWELLING UNITS WITH FUEL-FIRED APPLIANCES AND/OR ATTACHED GARAGES, AND IN APURANCE AREAS.
- INSULATION REQUIREMENTS - HERE'S COMPLIANCE REPORT OR COMPLY WITH 2018 IRC PREScriptive REQUIREMENTS.
- ATTIC VENTILATION - THE NET FREE VENTILATION AREA SHALL BE NOT LESS THAN 1/50 OF THE AREA OF THE SPACE BEING VENTILATED. THE NET VENTILATION AREA MAY BE REDUCED TO 1/300 IF 50% TO 80% OF THE REQUIRED VENTILATION AREA IS PROVIDED BY VENTILATORS LOCATED IN THE UPPER PORTION OF THE SPACE TO BE VENTILATED. AT LEAST 3 FT. ABOVE EAVES. PROVIDE DIRECTLY APPLIED TO UNDERSIDE OF RAFTERS SHALL BE SIZED TO ALLOW A MINIMUM OF 1 INCH CLEAR VENTED AIR SPACE ABOVE THE INSULATION. ATTICS WITH A MINIMUM VERTICAL CLEAR HEIGHT OF LESS THAN 30 INCHES ARE NOT REQ'D TO HAVE ACCESS OPENING.

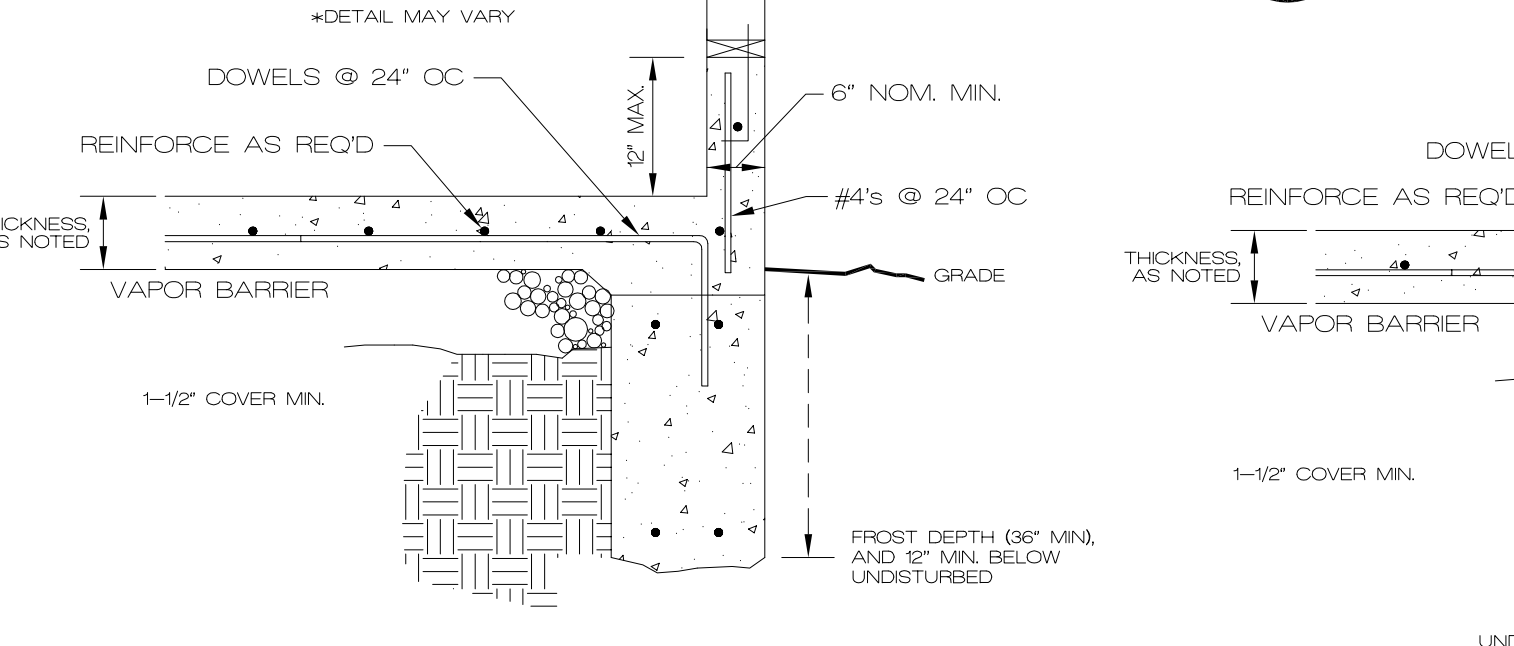
- THIS REQUIREMENT IS WAIVED FOR A COCOON SYSTEM MAKE-UP AIR REQ'D
- MAKE-UP/AIR/COMBUSTION AIR - MAKE-UP OR COMBUSTION AIR SHALL BE PROVIDED FROM OUTSIDE AS REQ'D FOR EXHAUST OVER 400 cfm FURNACE OR WH THRU ROOF OR OUTSIDE WALL.
  - HVAC IGNITION SOURCE - EQUIPMENT AND APPLIANCES WITH AN IGNITION SOURCE THAT ARE LOCATED IN THE GARAGE OR GARAGE CLOSET SHALL BE ELEVATED SUCH THAT THE SOURCE OF IGNITION IS NOT LESS THAN 18" ABOVE THE FLOOR OR ARE LISTED AS FLAMMABLE VAPOR RESISTANT AND FOR INSTALLATION WITHOUT ELEVATION.
  - EXHAUST AIR - ALL EXHAUST FANS SHALL EXHAUST DIRECTLY TO THE BUILDING EXTERIOR.
  - GARAGE FLOOR SLOPE - GARAGE FLOORS SHALL SLOPE 2% MIN. TO THE GARAGE DOORS, AN OPEN TRENCH OR AN UNTRAPPED DRAIN THAT DISCHARGES DIRECTLY TO THE TO THE EXTERIOR GRADE.
  - FINISHED GRADE - THE FINISHED GRADE OF THE YARD SHALL SLOPE 6" MIN. WITHIN THE FIRST 10 FEET, THEN 2% MIN. IN ALL OTHER AREAS.
  - WINDOWS - WINDOW FLASHING AND INSTALLATION MANUAL FROM MANUFACTURER SHALL BE ON SITE.
  - WATER HEATER - PROVIDE MEANS OF CONTROLLING PRESSURE CAUSED BY THERMAL EXPANSION IF THE WATER SERVICE IS PROTECTED BY A PRESSURE REGULATOR.
  - A WATER TEMPERATURE LIMITING DEVICE IS REQUIRED ON BATHTUBS AND JACUZZIS LIMITING THE TEMPERATURE TO 120°F.
  - SUMP - THE SUMP PIT SHALL BE EQUIPPED WITH A PUMP AND DEDICATED RECEPTACLE. IN UNFINISHED PORTIONS OF THE BASEMENT, RECEPTABLES SHALL HAVE GFI PROTECTION.



NTS 16 D2 3 COAT STUCCO DETAIL  
144 FT<sup>2</sup> MAX. MODULE FOR CONTROL JOINT GRID

LOAD TABLE		
LOCATION	MIN. DL (PSF)	MIN. LL (PSF)
DECKS & BALCONIES	10	40
CEILING w/o STORAGE	10	10
CEILING w/ LIMITED ACCESS STORAGE	10	20
NON-SLEEPING ROOMS	10	40
SLEEPING ROOMS	10	30
ATTICS SERVED BY MAN DOOR	10	40
ROOF-LIGHT COVERING	10	20
ROOF-HEAVY COVERING	20	20

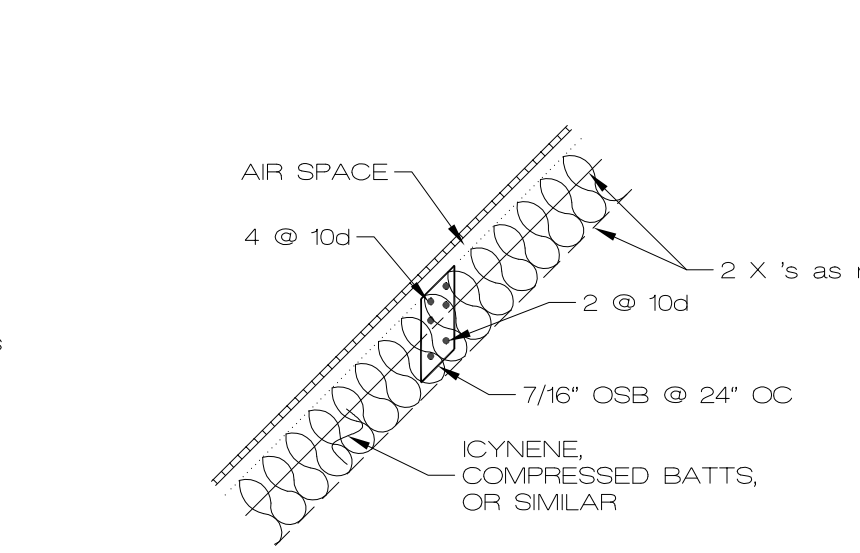
COMP RE-ROOFS OF SHAKE SHALL REMOVE SKIP SHEATHING



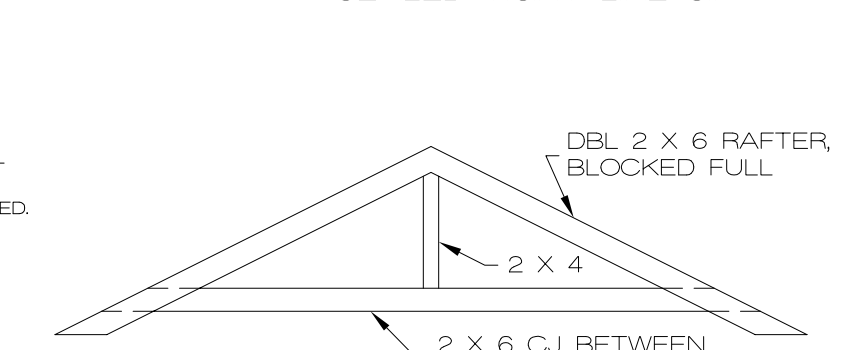
NTS 8 D2 6" NOM. CURB WALL  
MONOLITHIC w/ SLAB

- ENERGY EFFICIENCY NOTES
- HERS COMPLIANCE PATH
  - THE BUILDING THERMAL ENVELOPE SHALL BE SEALED PER 2018 IRC SECTION N102.41 AND TABLE N102.41.
  - DUCTS, AIR HANDLERS, FILTER BOXES AND BUILDING CAVITIES USED AS DUCTS SHALL BE SEALED PER 2018 IRC SECTION N103.2

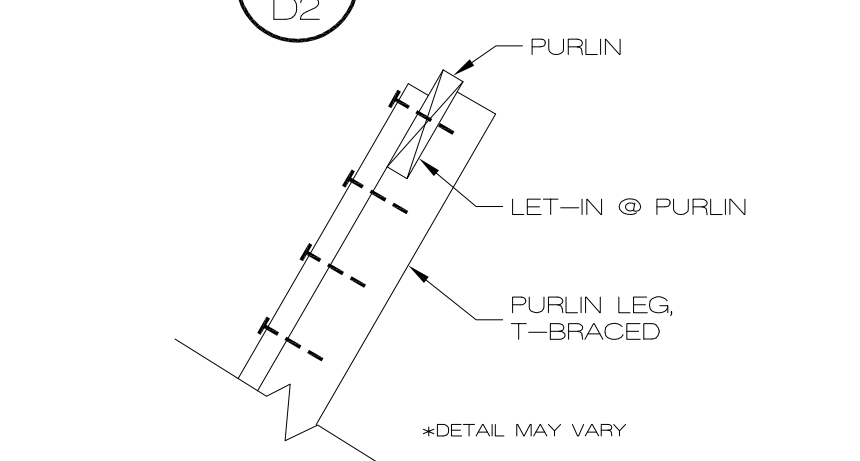
- INSULATION VALUES :
- |                                  |                         |
|----------------------------------|-------------------------|
| CEILING                          | R49                     |
| CATHEDRAL VAULT                  | R30                     |
| EXTERIOR WALLS                   | R19                     |
| U-VALUES - 35 OR LOWER           | SHGC VALUES 35 OR LOWER |
| FLOOR OVER OUTSIDE AIR OR GARAGE | R30                     |
| UNFINISHED BSMT WALLS            | NONE                    |
| FINISHED BSMT WALLS              | R8 AGAINST FDN          |
| DUCTS OUTSIDE OF COND. SPACE     | R8                      |



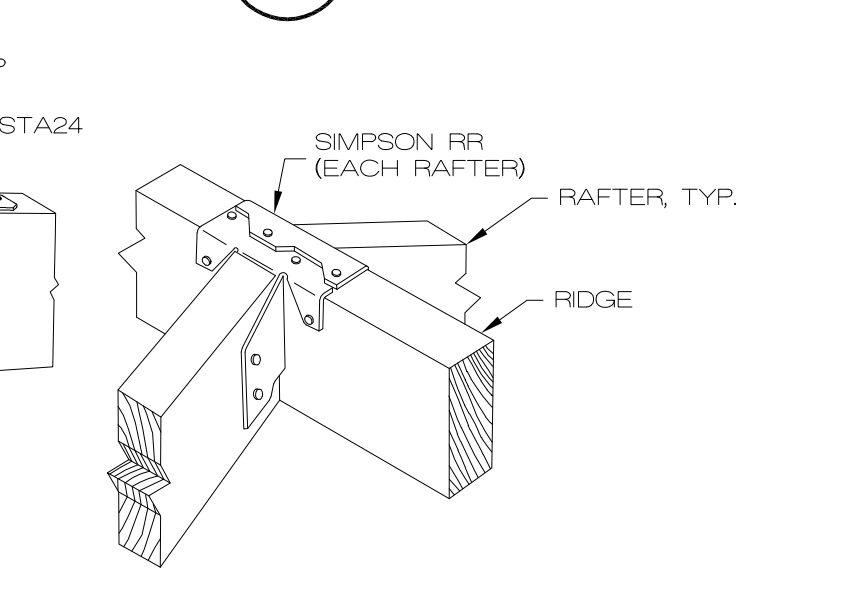
NTS 18 D2 CEILING FUR DOWN  
'COCOON' OPT., NO AIR SPACE, SEALED TIGHT LIKE SIP



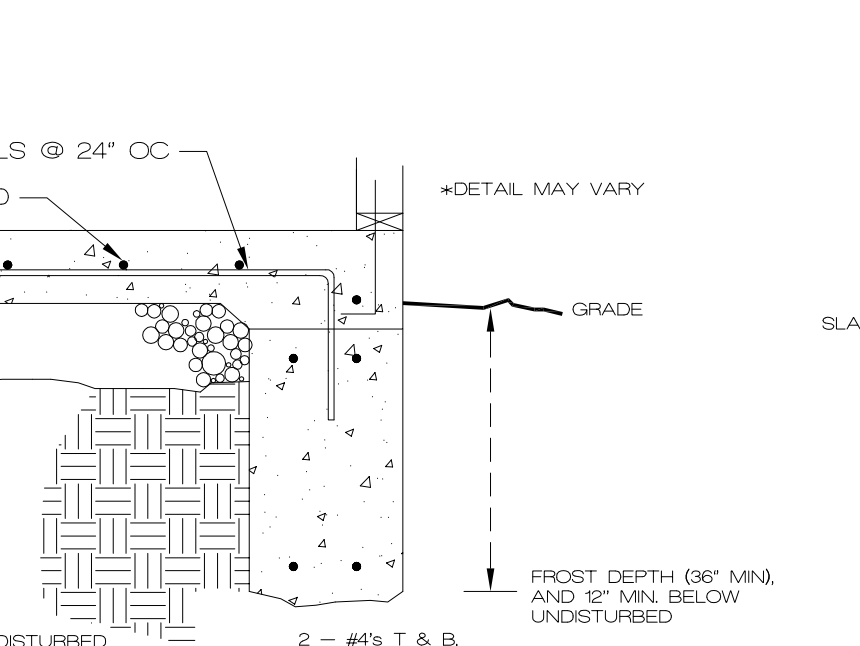
NTS 14 D2 A-TRUSS



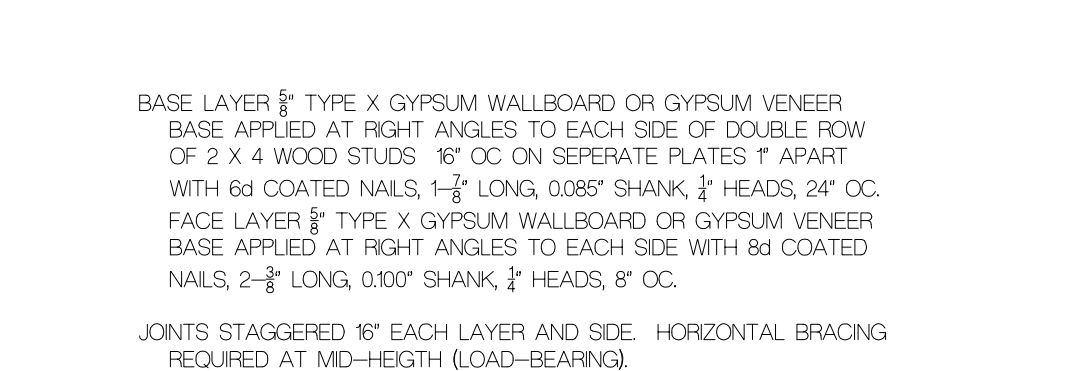
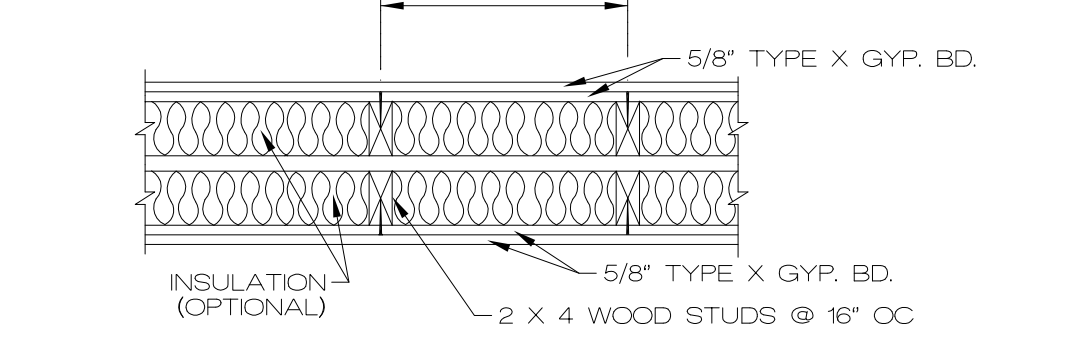
NTS 15 D2 PURLIN LEG



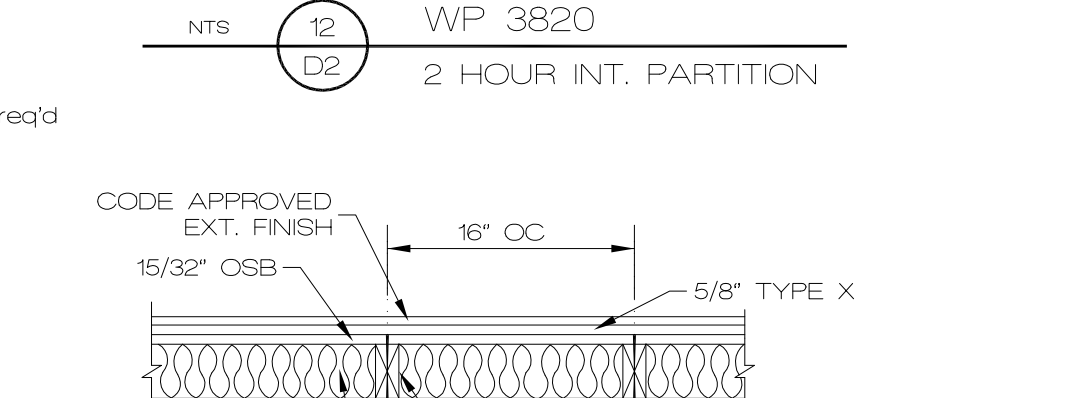
NTS 19 D2 ROOF FRAMING @ VAULT  
VAULT w/ PITCH



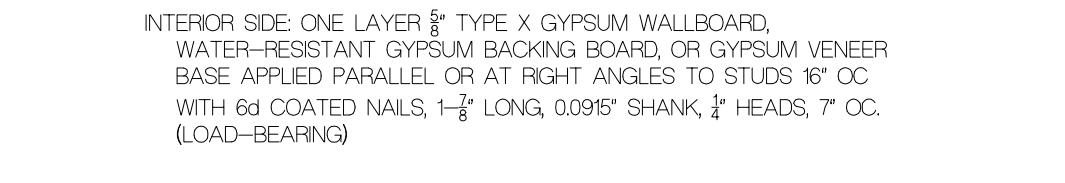
NTS 7 D2 THICKENED SLAB FTG.  
MONOLITHIC w/ SLAB



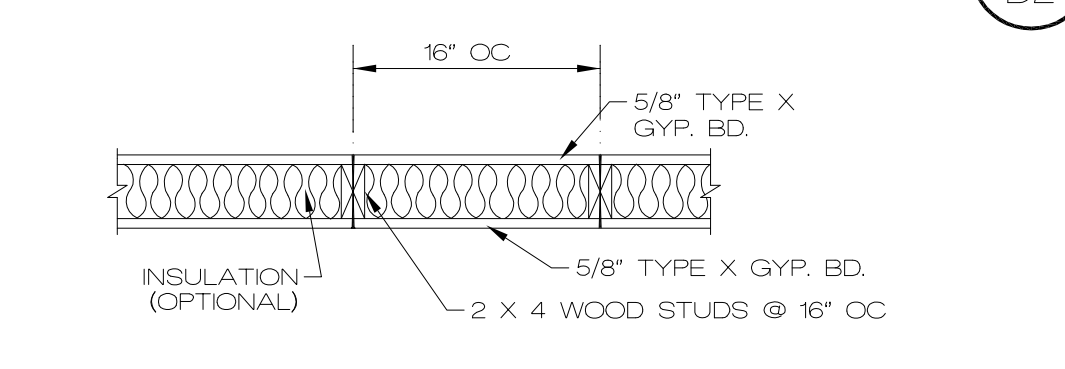
NTS 12 D2 WP 3820  
2 HOUR INT. PARTITION



NTS 11 D2 U344

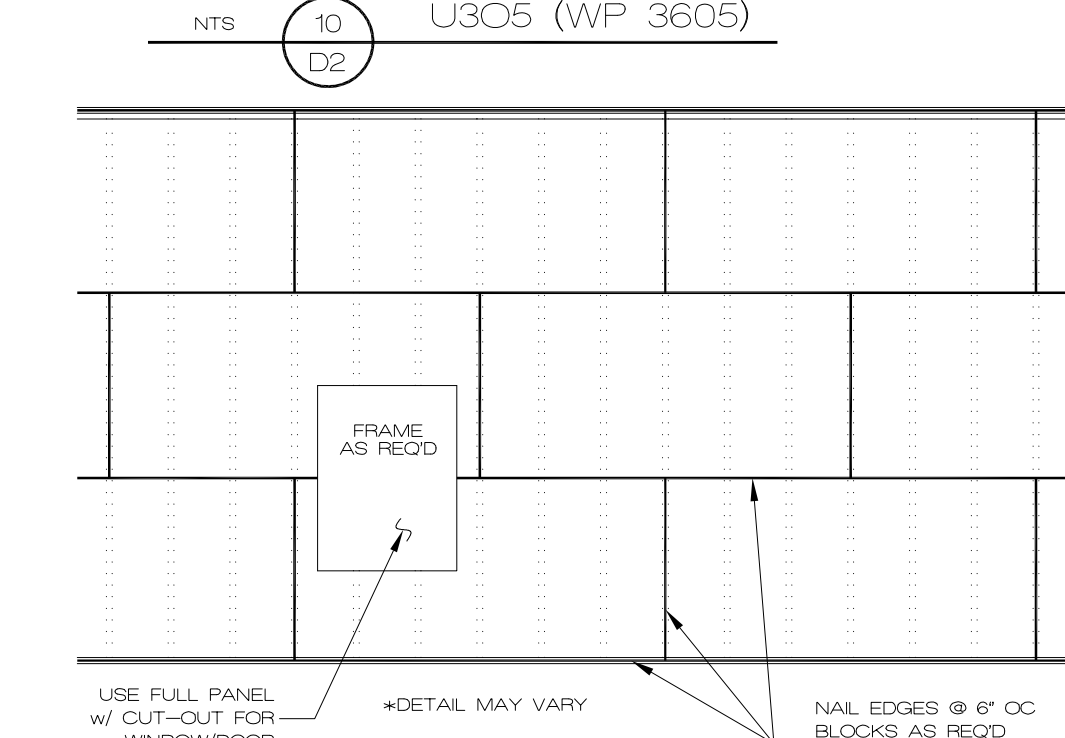


NTS 13 D2 SEPERATION FIREWALL/FLOOR SECTION  
WP 3820 (Wall), FC 5517 or Equal (Floor/Ceiling)

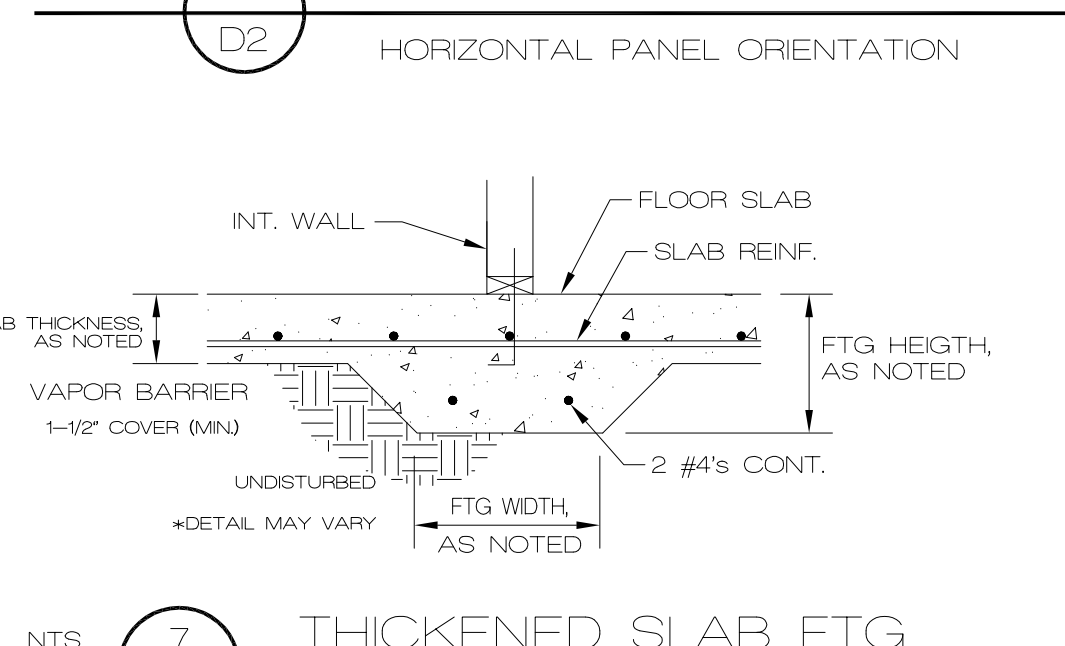


NTS 17 D2 EGRESS WELL  
WATERTIGHT WELL, 36\"/>

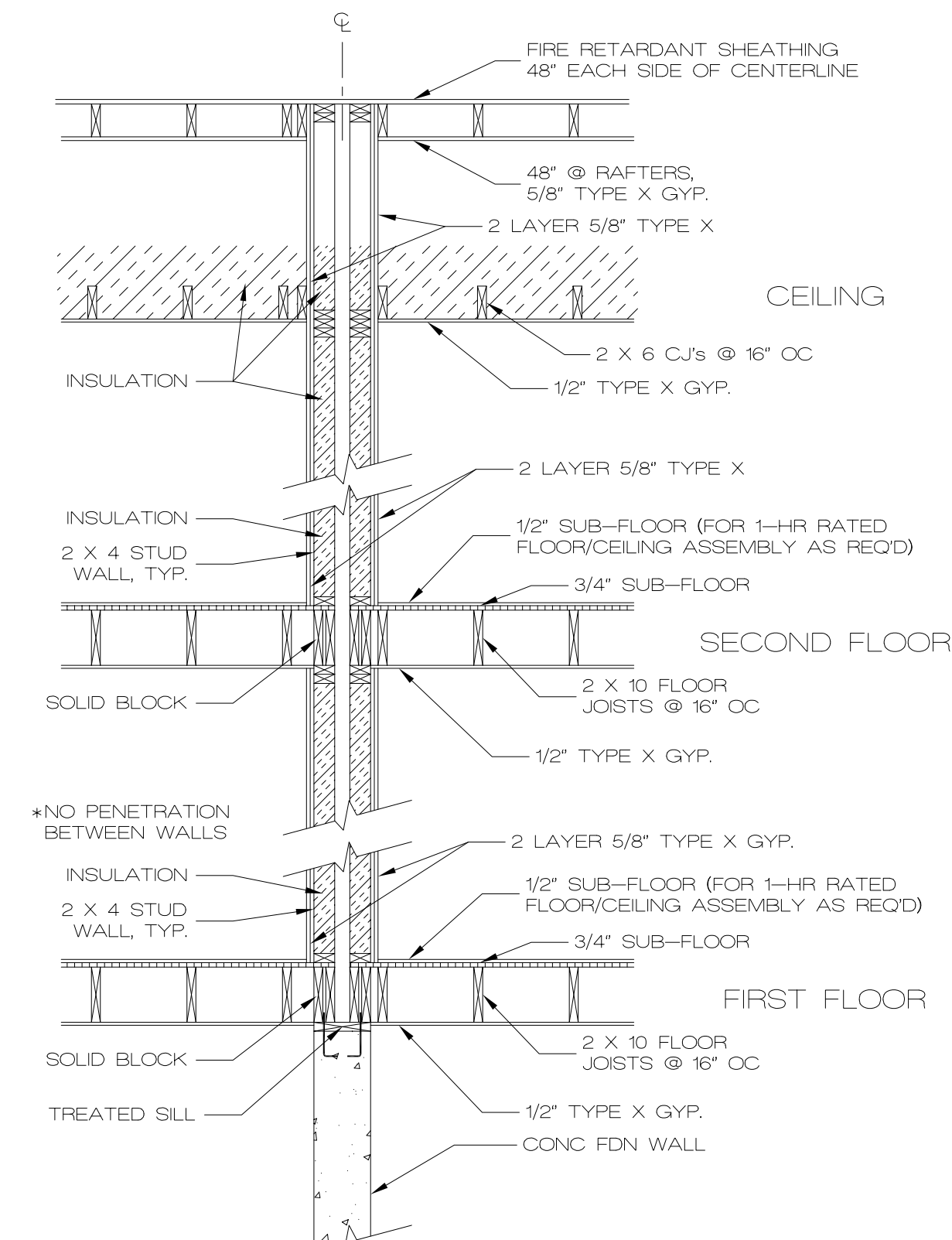
NTS 10 D2 U305 (WP 3605)



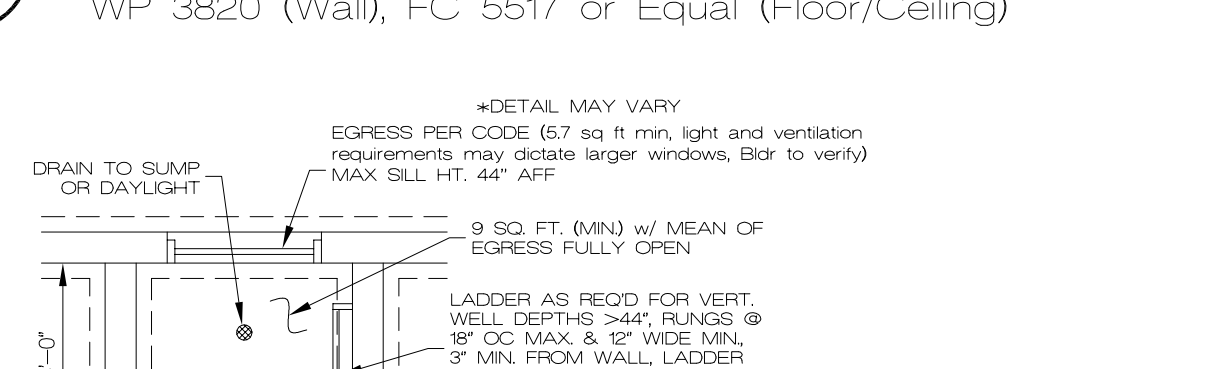
NTS 3 D2 SHEATHING PANEL LAYOUT  
HORIZONTAL PANEL ORIENTATION



NTS 5 D2 SLAB CONTROL JOINT  
DO NOT SAW CUT STRUCTURAL SLABS w/o APPROVAL

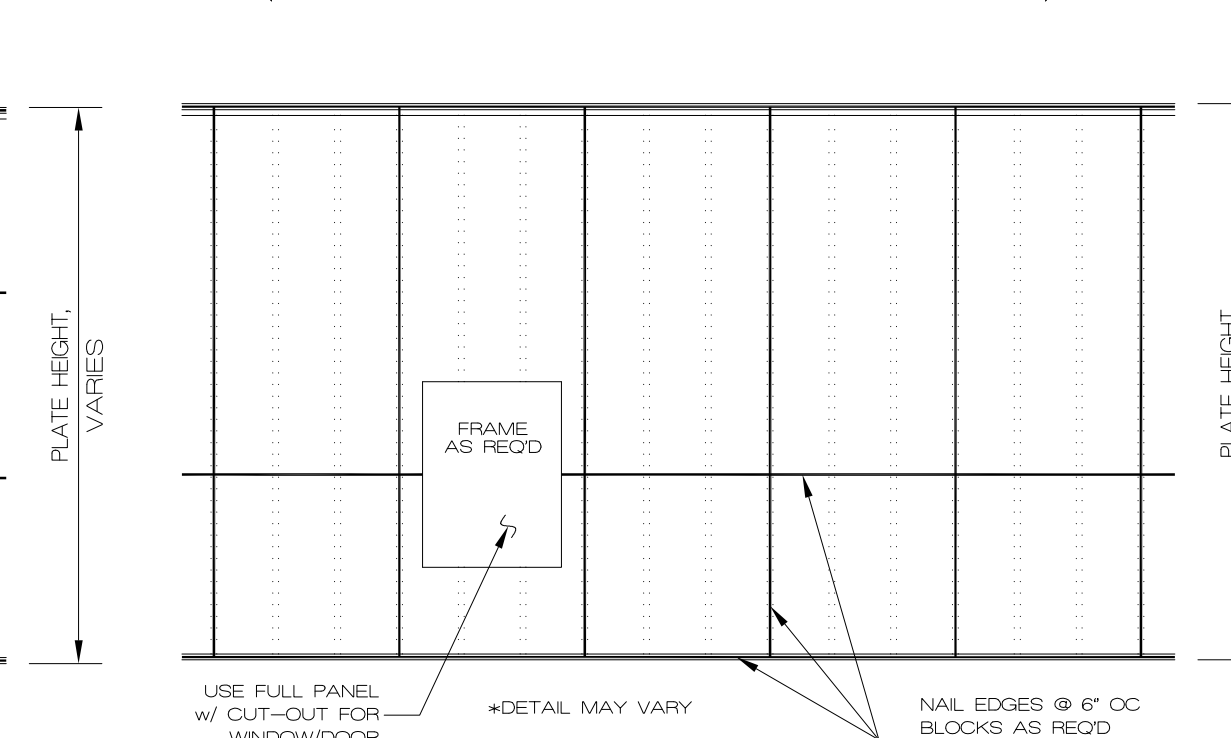


NTS 13 D2 SEPERATION FIREWALL/FLOOR SECTION  
WP 3820 (Wall), FC 5517 or Equal (Floor/Ceiling)

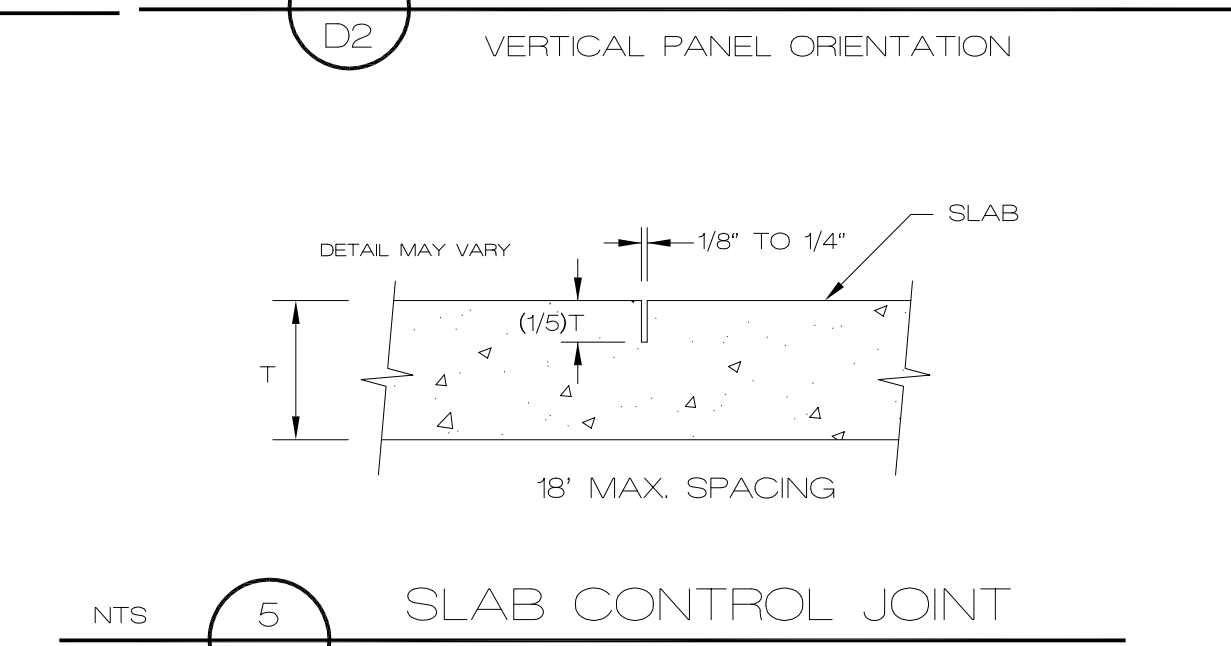


NTS 17 D2 EGRESS WELL  
WATERTIGHT WELL, 36\"/>

NTS 10 D2 U305 (WP 3605)



NTS 3 D2 SHEATHING PANEL LAYOUT  
HORIZONTAL PANEL ORIENTATION



NTS 5 D2 SLAB CONTROL JOINT  
DO NOT SAW CUT STRUCTURAL SLABS w/o APPROVAL

Ken Sidorowicz, PC

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

ISSUE DATE

REVISIONS

2018 DETAIL SHEET

STATE OF MISSOURI  
KENNETH SIDOROWICZ  
NUMBER E-19986  
Professional Engineer

1/21/21

D2



02/02/2021

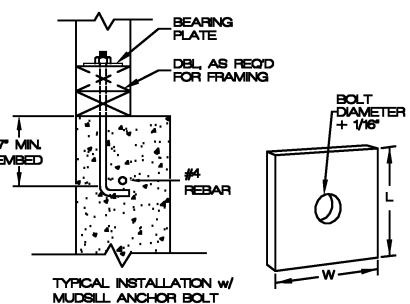
## STAPLES NOT PERMITTED IN KCMO

### FASTENER SCHEDULE FOR STRUCTURAL MEMBERS

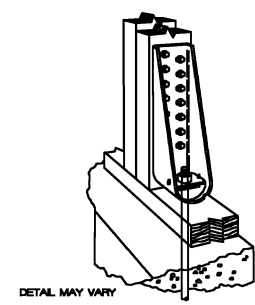
Item	Description of building elements	Number & type of fastener (notes to, c, d)	Spacing of fasteners
<b>Roof</b>			
1	Blocking between joists or rafters to top plate, toe nail	3-8d (2-1/2" x 0.137)	
2	Ceiling joists to plate, toe nail	3-8d (2-1/2" x 0.137)	
3	Ceiling joists not attached to parallel rafter, lap over partition, face nail	3-7d	
4	Ceiling to rafter, face nail or 1-1/4" x 20 ga. ridge strap	3-10d (3" x 0.147)	
5	Rafter to plate, toe nail, note trusses use BTC clips at NLB walls and aspect holdowns	3-10d or 3-10d (3-1/2" x 0.135, 0.147)	2' toe nail side 1', 1 toe nail side 2' (note j)
6	Roof rafters to ridge, valley or hip rafters		
7	Toe nail	4-10d (3-1/2" x 0.137)	
8	Face nail	3-10d (3-1/2" x 0.137)	
<b>Wall</b>			
9	Build-up studs-face nail	10d (3" x 0.137)	24" o.c.
10	Build-up studs at intersecting wall corners, face nail	10d (3-1/2" x 0.137)	24" o.c.
11	Build-up header, two pieces w/ 1/2" spacer	10d (3-1/2" x 0.137)	16" o.c. along each edge
12	Continuous header to stud, toe nail	10d (3-1/2" x 0.137)	16" o.c. along each edge
13	Double studs, face nail	10d (3" x 0.137)	24" o.c.
14	Double top plates, face nail	10d (3" x 0.137)	24" o.c.
15	Double top plates, min. 16" offset of end joints, face nail in lap area	10d (3-1/2" x 0.137)	24" o.c.
16	Double top plates, min. 16" offset of end joints, face nail in lap area	10d (3-1/2" x 0.137)	24" o.c.
17	Side plate to joint or blocking, face nail	10d (3-1/2" x 0.137)	16" o.c.
18	Side plate to joint or blocking at braced wall panels	3-10d (3-1/2" x 0.137)	16" o.c.
19	Stud to side plate, toe nail	3-8d (2-1/2" x 0.137) or 2-10d (3-1/2" x 0.137)	
20	Top or side plate to stud and nail	2-10d (3-1/2" x 0.137)	
21	Top plates, lap at corners and intersections, face nail	2-10d (3-1/2" x 0.137)	
22	2' brace to each stud and plate, face nail	2-8d (3-1/2" x 0.137)	
23	7" x 6" sheathing to each bearing, face nail	2 staples 1-3/4"	
24	7" x 6" sheathing to each bearing, face nail	2 staples 1-3/4"	
25	7" x 6" sheathing to each bearing, face nail	2 staples 1-3/4"	
26	Wider than 7" x 6" sheathing to each bearing, face nail	3 staples 1-3/4"	
27	Wider than 7" x 6" sheathing to each bearing, face nail	3 staples 1-3/4"	
28	Wider than 7" x 6" sheathing to each bearing, face nail	3 staples 1-3/4"	
29	Wider than 7" x 6" sheathing to each bearing, face nail	3 staples 1-3/4"	
30	Wider than 7" x 6" sheathing to each bearing, face nail	3 staples 1-3/4"	
31	Wider than 7" x 6" sheathing to each bearing, face nail	3 staples 1-3/4"	
32	Wider than 7" x 6" sheathing to each bearing, face nail	3 staples 1-3/4"	
33	Wider than 7" x 6" sheathing to each bearing, face nail	3 staples 1-3/4"	
34	Wider than 7" x 6" sheathing to each bearing, face nail	3 staples 1-3/4"	
35	Wider than 7" x 6" sheathing to each bearing, face nail	3 staples 1-3/4"	
36	Wider than 7" x 6" sheathing to each bearing, face nail	3 staples 1-3/4"	
37	Wider than 7" x 6" sheathing to each bearing, face nail	3 staples 1-3/4"	
38	Wider than 7" x 6" sheathing to each bearing, face nail	3 staples 1-3/4"	
39	Wider than 7" x 6" sheathing to each bearing, face nail	3 staples 1-3/4"	
40	Wider than 7" x 6" sheathing to each bearing, face nail	3 staples 1-3/4"	
41	Wider than 7" x 6" sheathing to each bearing, face nail	3 staples 1-3/4"	
42	Wider than 7" x 6" sheathing to each bearing, face nail	3 staples 1-3/4"	
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For 8-1 inch = 254 mm, 1 foot = 3048 mm, 1 mile per hour = 0.447 m/s, 1 psi = 6896 MPa

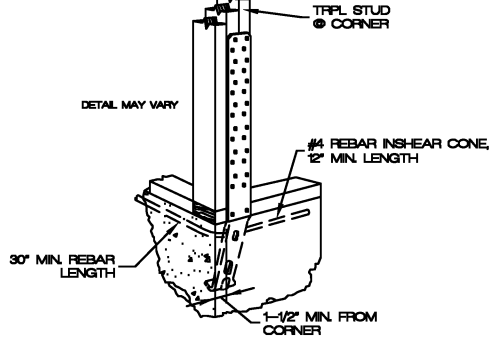
- All nails are smooth-common, box or deformed shanks except where otherwise stated. Nails used for framing and sheathing connections shall have minimum average bending yield strengths as shown: 80 ksi (551 MPa) for shank diameter of 0.082 inch (551 common nail, 80 ksi (551 MPa) for shank diameter larger than 0.082 inch but not larger than 0.177 inch, and 100 ksi (689 MPa) for shank diameter of 0.177 inch or less.
- Staples are 9 gauge wire and have a minimum 700-psi on diameter crown wire.
- 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-8-foot panels shall be spaced vertically.
- Spacing of fasteners not treated in the table shall be verified w/ D3.
- For regions having basic wind speed of 100 mph or greater, deformed nails shall be used for attaching plywood and wood structural panel sheathing to framing within minimum 48-inch distance from gable end walls. If mean roof height is more than 25 feet, up to 36 feet maximum.
- For regions having basic wind speed of 100 mph or less, nails for attaching wood structural panel 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 ridges, eaves and gable end walls and 4 inches on center to gable end wall framing.
- Quarry sheathing shall conform to ASTM D58 and shall be installed in accordance with CSA S10. Reinforced 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 walls. Spacing of fasteners on roof sheathing panel edges applies to panel edges supported by framing members and at all roof perimeter walls. 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.



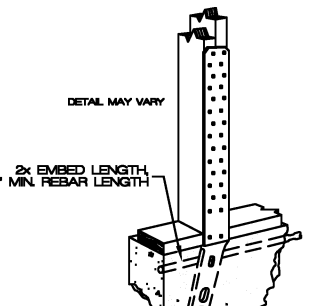
NTS 7 D3 SIMPSON BP 1/2 - 3



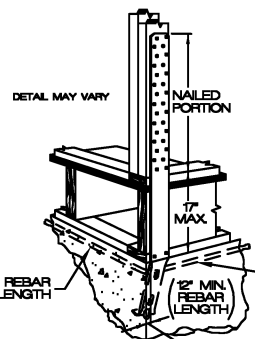
NTS 13 D3 SIMPSON PHD5 VERTICAL INSTALLATION



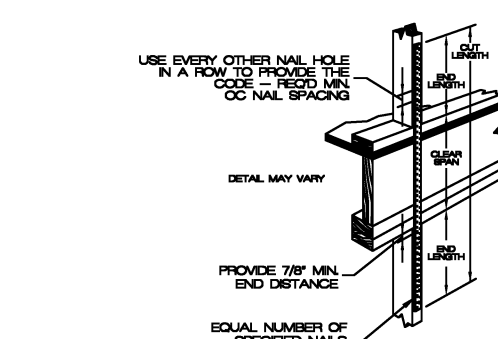
NTS 9 D3 SIMPSON STD CORNER INSTALLATION



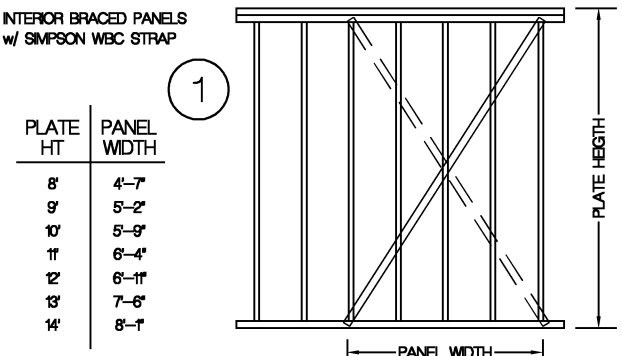
NTS 10 D3 SIMPSON STD EDGE INSTALLATION



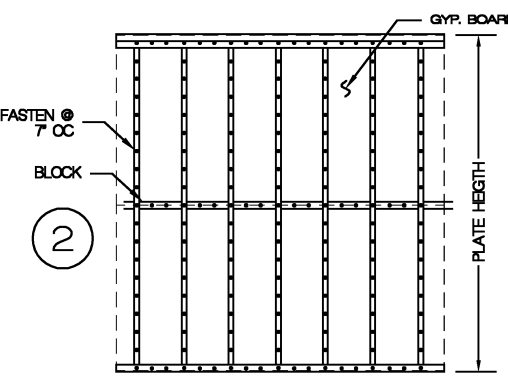
NTS 11 D3 SIMPSON STDH RIM JOIST INSTALLATION



NTS 12 D3 SIMPSON CMSTC



NTS 1 D3 INT. BRACED WALL PANEL LIB, METAL STRAP ALT. TO LET IN 1 X 4



NTS 2 D3 INT. BRACED WALL PANEL DRYWALL METHOD, GB

### SHEAR WALL

1 LIB

### DESCRIPTION

METAL STRAP METHOD

### CONSTRUCTION

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 GB

### DESCRIPTION

DRYWALL METHOD

1/2" MIN. GYPSUM BOARD OVER STUDS SPACED 24" OC MAXIMUM AND FASTENED AT 7" OC WITH 5d COOLER OR #6 BUGLE HEAD. HORIZONTAL JOINTS SHALL BE BLOCKED FOR ANCHORAGE.

3 WSP/CS-WSP

### DESCRIPTION

SHEATHING METHOD

7/16" STRUCTURAL SHEATHING OVER STUDS SPACED 16" OC w/ 8d COMMON NAILS AT 4" OC EDGE AND 12" FIELD. HORIZONTAL JOINTS SHALL BE BLOCKED FOR ANCHORAGE.

4 PFH

### DESCRIPTION

GARAGE DOOR PORTAL

6 TO 1 ASPECT RATIO. HEADER LENGTH AS SPECIFIED WITH FULL PANEL SHEATHING AT UPPER CORNERS CUTOFF FOR THE OPENING. BLOCKING AT HORIZONTAL JOINTS. NOTE FULL 4" WIDTH CUTOFF PANELS REQ'D AT CORNERS. STD10 & LSTA STRAPS

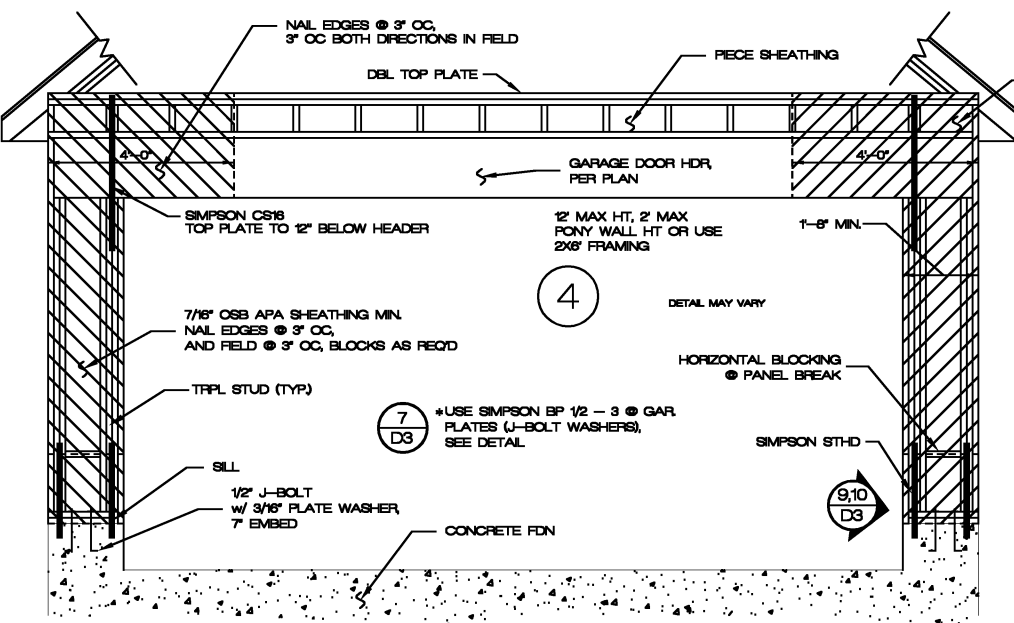
5

### DESCRIPTION

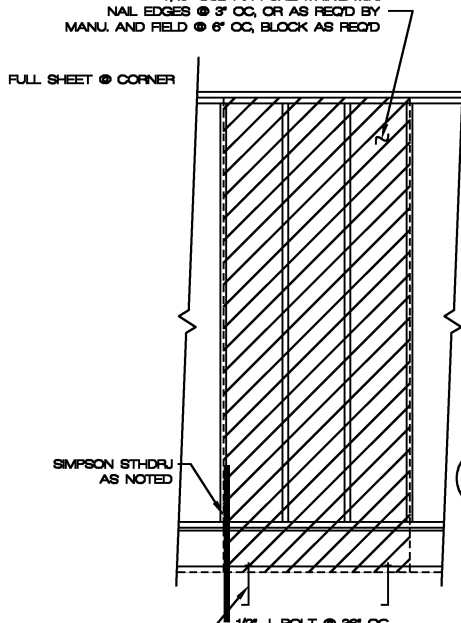
SINGLE STORY PORTAL

HEADER LENGTH AS SPECIFIED EXTENDED TO NEXT LAYOUT STUD, 18" MINIMUM WIDTH, 9" FULL PANEL SHEATHING REQ'D WITH CUTOFFS FOR OPENINGS. HORIZONTAL BLOCKING AT EDGES.

### SHEAR WALL SCHEDULE



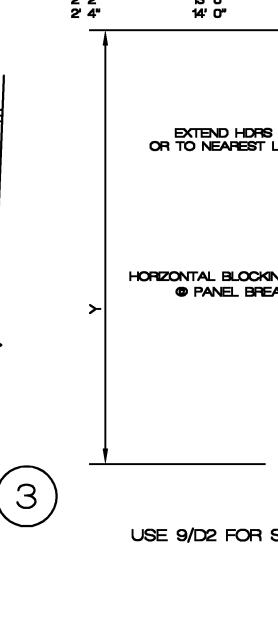
NTS 4 D3 GARAGE DOOR PORTAL FRAME GARAGE



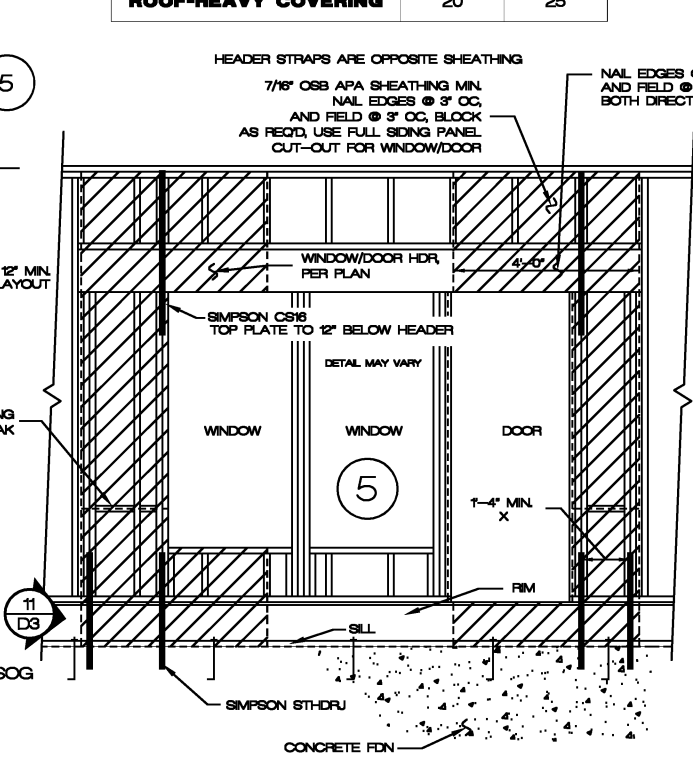
NTS 3 D3 EXTERIOR BRACED WALL PANEL ABW

### SINGLE STORY PORTAL

NTS 5 D3



USE 9/16" FOR SOG



NTS 5 D3 SINGLE STORY PORTAL CS- PF SINGLE STORY PORTAL

### 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

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ISSUE DATE

REVISIONS

2018 DETAIL SHEET



1/21/21

D3