

8542 SUNELL LANE
ELLICOTT CITY MD
21043

REVISED

SCOPE OF WORK

THE SCOPE OF WORK IS TO ADD SUNROOM
IN THE BACK

DESCRIPTION OF USE: SINGLE FAMILY
TYPE OF CONSTRUCTION: WOOD FRAME
SPRINKLERS: NO
LEVELS: 3

APPLICABLE CODES

INTERNATIONAL BUILDING CODE 2024
INTERNATIONAL RESIDENTIAL CODE 2024
INTERNATIONAL MECHANICAL CODE 2024
INTERNATIONAL ENERGY CONSERVATION CODE 2024

GENERAL AND CONSTRUCTION NOTES

- INSULATION AND WEATHERSTRIPPING
1. BEAMS AND LINTELS
MINIMUM 89MM END BEARING FOR WOOD BEAMS, WITH 190MM SOLID MASONRY BENEATH THE BEAM.
PROVIDE SOLID BLOCKING THE FULL WIDTH OF THE SUPPORTED MEMBER UNDER ALL CONCENTRATED LOADS.

2. INSULATION AND WEATHERPROOFING:
CEILING WITH ATTIC RSI 7.00
EXTERIOR WALL RSI 3.34
EXPOSED FLOOR RSI 4.40

3. SUPPLY DUCTS IN UNHEATED SPACE INSULATION SHALL BE PROTECTED WITH GYPSUM BOARD OR AN EQUIVALENT INTERIOR FINISH, EXCEPT FOR UNFINISHED BASEMETNS.

4. CAULKING SHALL BE PROVIDED FOR ALL EXTERIOR DOORS AND WINDOWS BETWEEN THE FRAME AND THE EXTERIOR CLADDING.

5. WEATHERSTRIPPING SHALL BE PROVIDED ON ALL DOORS AND ACCESS HATCHES TO THE EXTERIOR, EXCEPT DOOR FROM A GARAGE TO THE EXTERIOR.

6. EXTERIOR WALL, CEILINGS AND FLOOR SHALL BE CONSTRUCTED SO AS TO PROVIDE A CONTINUOUS BARRIER TO THE THE PASSAGE OF WATER VAPOUR FROM THE INTERIOR AND TO THE LEAKAGE OF AIR FROM THE EXTERIOR.
- NATURAL VENTILATION

1. EVERY ROOF SPACE ABOVE AN INSULATED CEILING SHALL BE VENTILATED WITH UNOBSTRUCTED OPENINGS EQUAL TO NOT LESS THAN 1/300 OF THE INSULATED CEILING AREA.

2. INSULATED ROOF SPACES NOT INCORPORATING AN ATTIC SHALL BE VENTILATED WITH UNOBSTRUCTED OPENING TO NOT LESS THAN 1/150 OF THE INSULATED CEILING AREA.

3. ROOF VENTS SHALL BE UNIFORMLY DISTRIBUTED WITH MIN 25% AT TOP OF THE SPACE AND 25% AT BOTTOM.

4. MINIMUM NATURAL VENTILATION WHERE MECHANICAL IS NOT PROVIDED:
BATHROOM 0.09M2
OTHER ROOMS 0.28M2

LEGEND			
ALUM	ALUMINUM	LTL	LINTEL
CONC	CONCRETE	ME	MATCH EXISTING
D/B	DEAD BOLT	MIN	MINIMUM
DIA.	DIAMETER	MANU	MANUFACTURER
D.J.	DOUBLE JOIST	MAX	MAXIUMUM
DN	DOWN	N.T.S.	NOT TO SCALE
DW	DISH WASHER	O.A.	OPEN AIR
DWG	DRAWING	O.C.	ON-CENTER
E.P.	ELECTRICAL PANEL	P.T.	PRESSURE TREATED
EQ	EQUAL	PREFIN	PREFINISHED
FD	FLOOR DRAIN	RAD.	RADIUS
FR	FRIDGE	S.L.	STEEL LINTEL
FTG	FOOTING	SF	STEP FOOTING
FDN.	FOUNDATION	SIM	SIMILAR
HMD	HOLLOW METAL DOOR	SPF	SPRUCE PIN FIR
HMDI	HOLLOW METAL DOOR INSULATED	ST	STOVE
HMF	HOLLOW METAL FRAME	T.J.	TRIPLE JOIST
HMFI	HEAT RECOVERY VENTILATOR	TYP	TYPICAL
HWH	HOT WATER HEATER	U.N.O.	UNLESS NOTED OTHERWISE
		U/S	UNDERSIDE

NOTE: 2024 IECC ENERGY
ALL SMOKE ALARMS REQUIRED TO MEET CURRENT CODE
50PSF SNOW LOAD FOR ROOF DESIGN



DRAWINGS INDEX

NAME	DESCRIPTION
G1	COVER PAGE
A0	PROPOSED FIRST FLOOR ADDITION PLAN
A1	ELEVATIONS
A2	ROOF PLAN
S1 - S7	STRUCTURAL



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NOTES

STAMP

SHEET INFO

SHEET NO. A0

FLOOR PLAN



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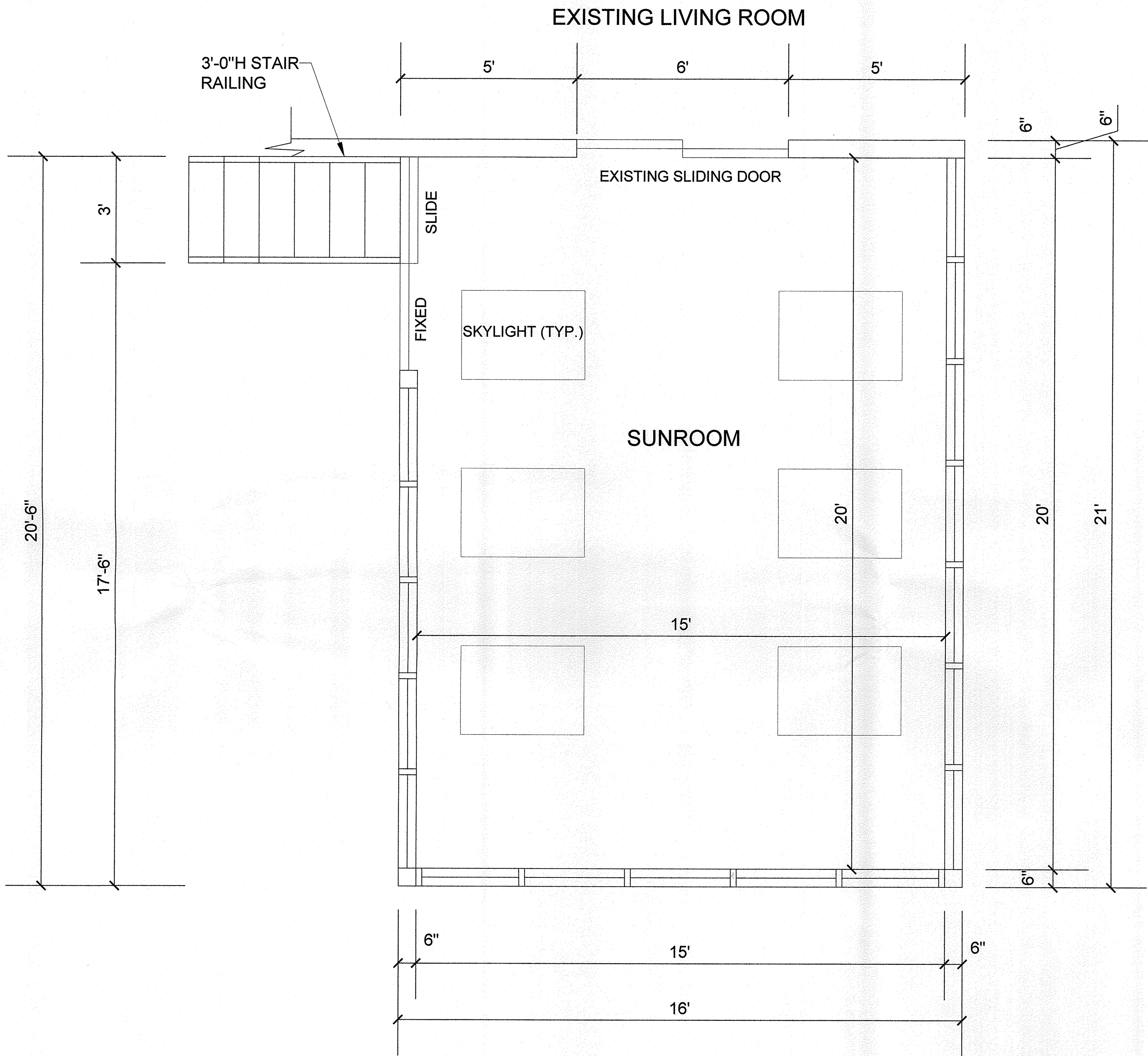
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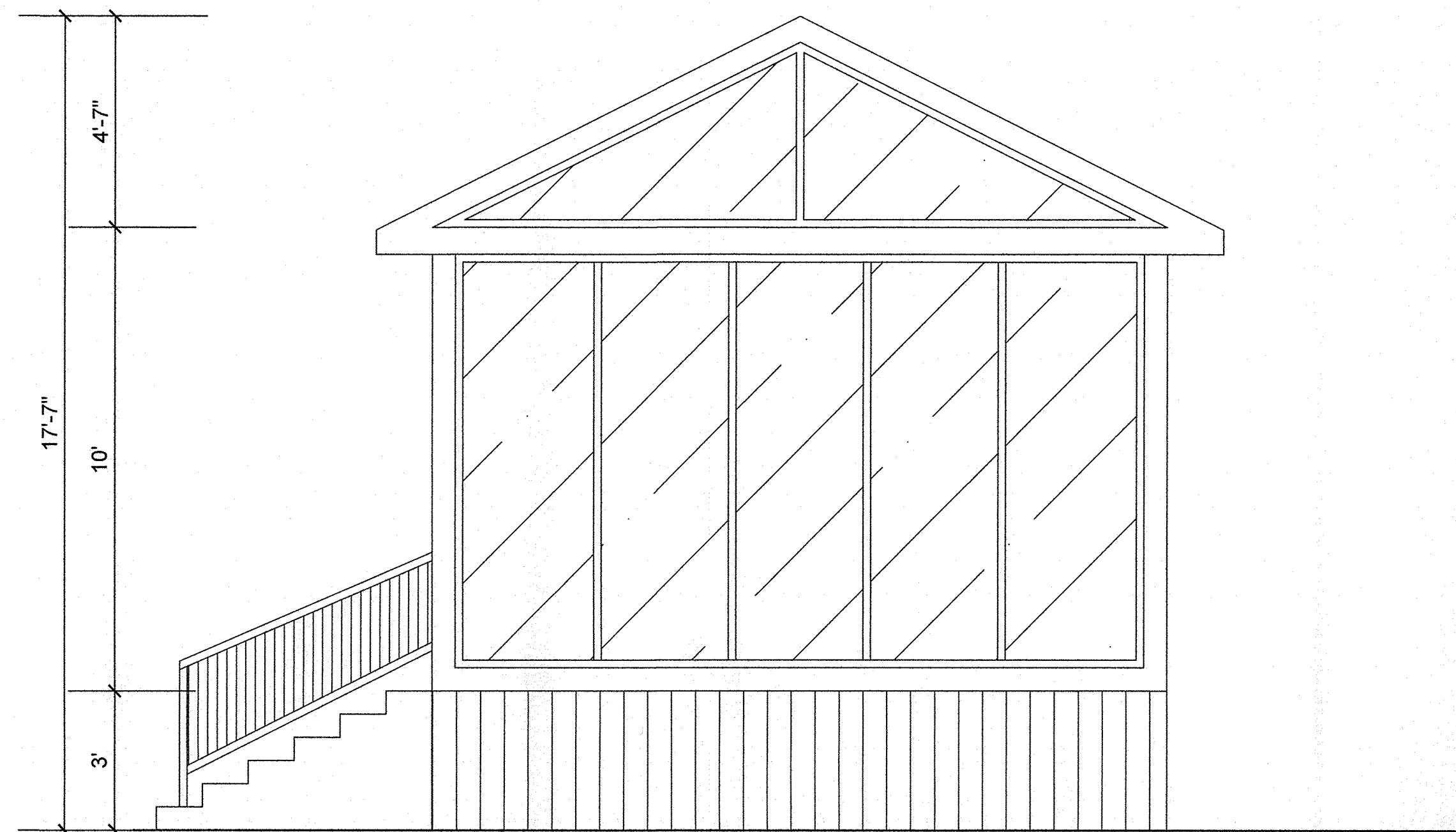
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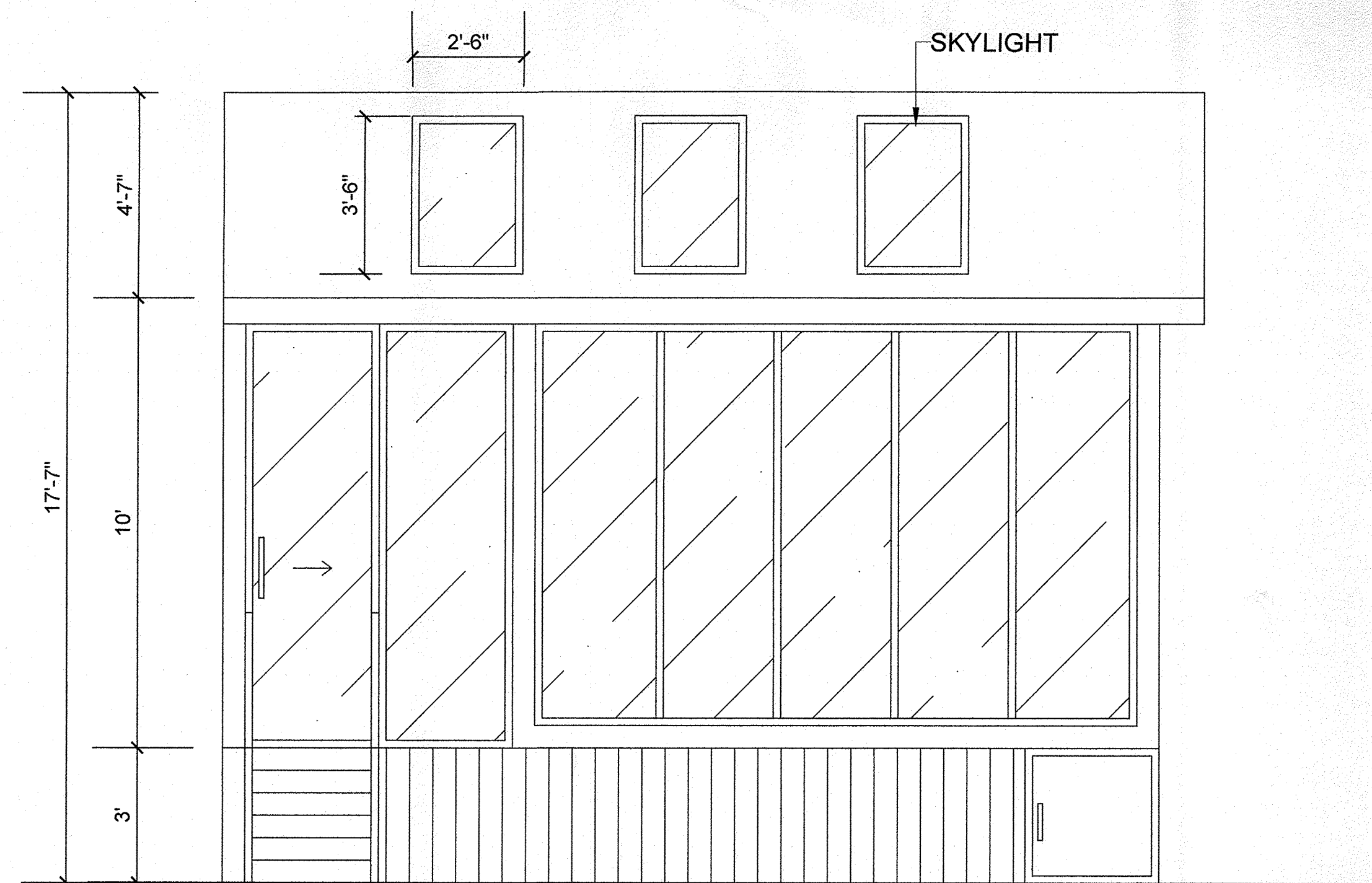
FLOOR PLAN



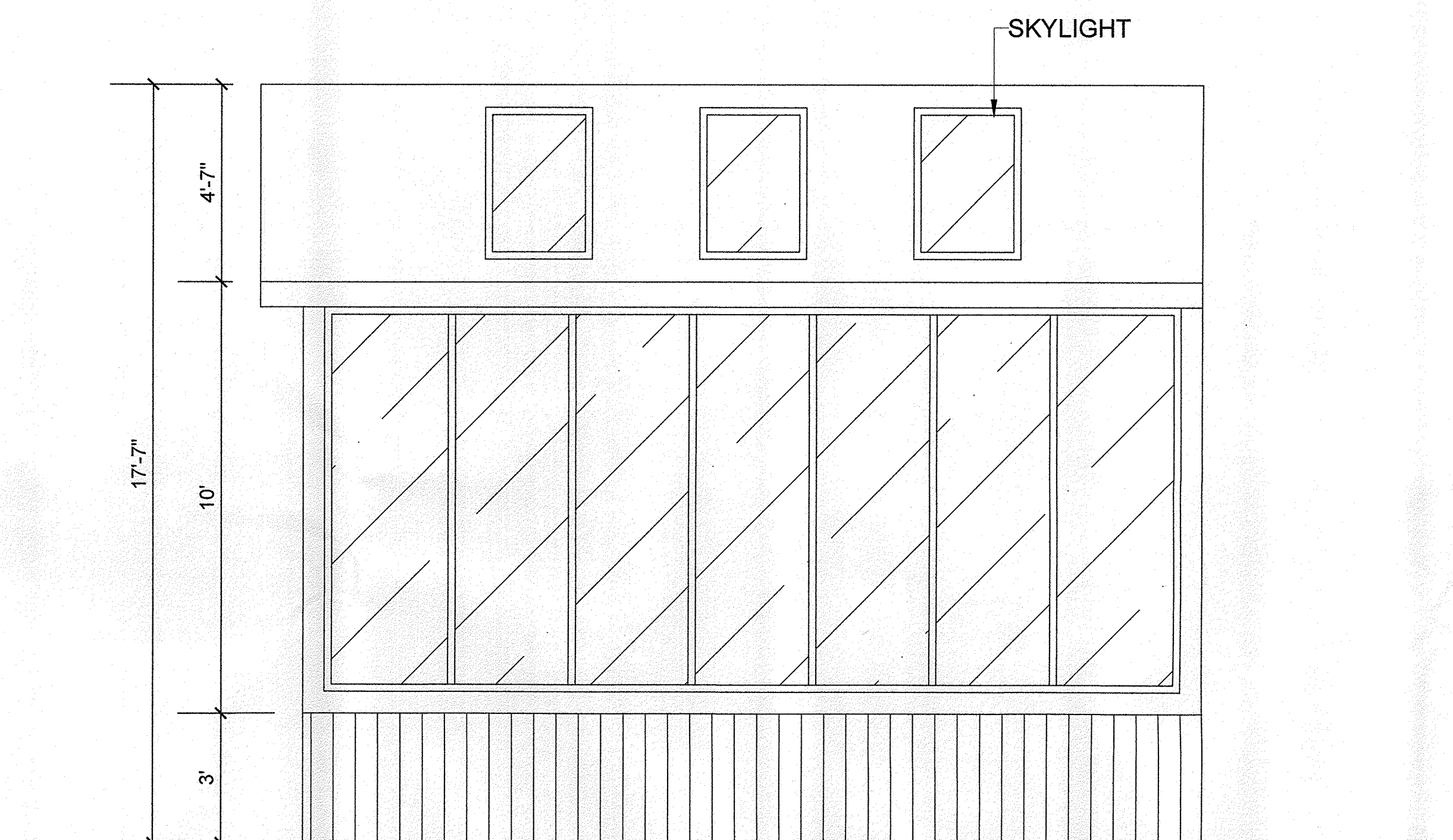
FLOOR PLAN
1/2"=1'-0"



FRONT ELEVATION
3/8"=1'-0"



LEFT SIDE ELEVATION
3/8"=1'-0"



RIGHT SIDE ELEVATION
3/8"=1'-0"

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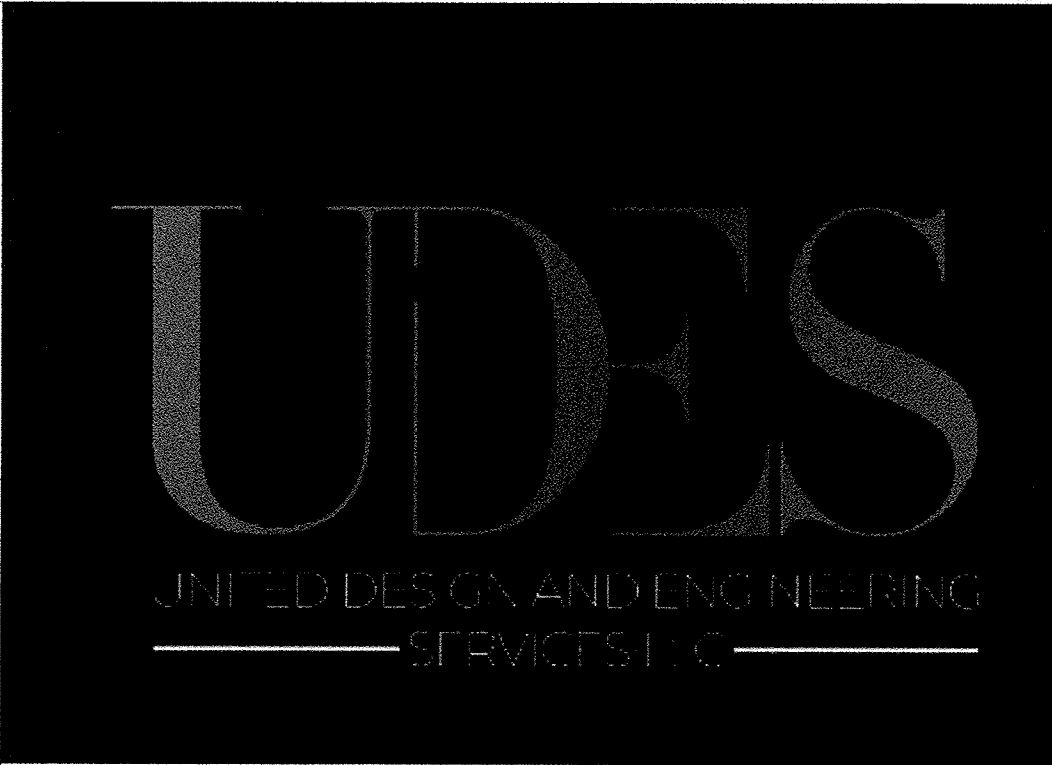
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SHEET INFO

SHEET NO. A1

ELEVATIONS



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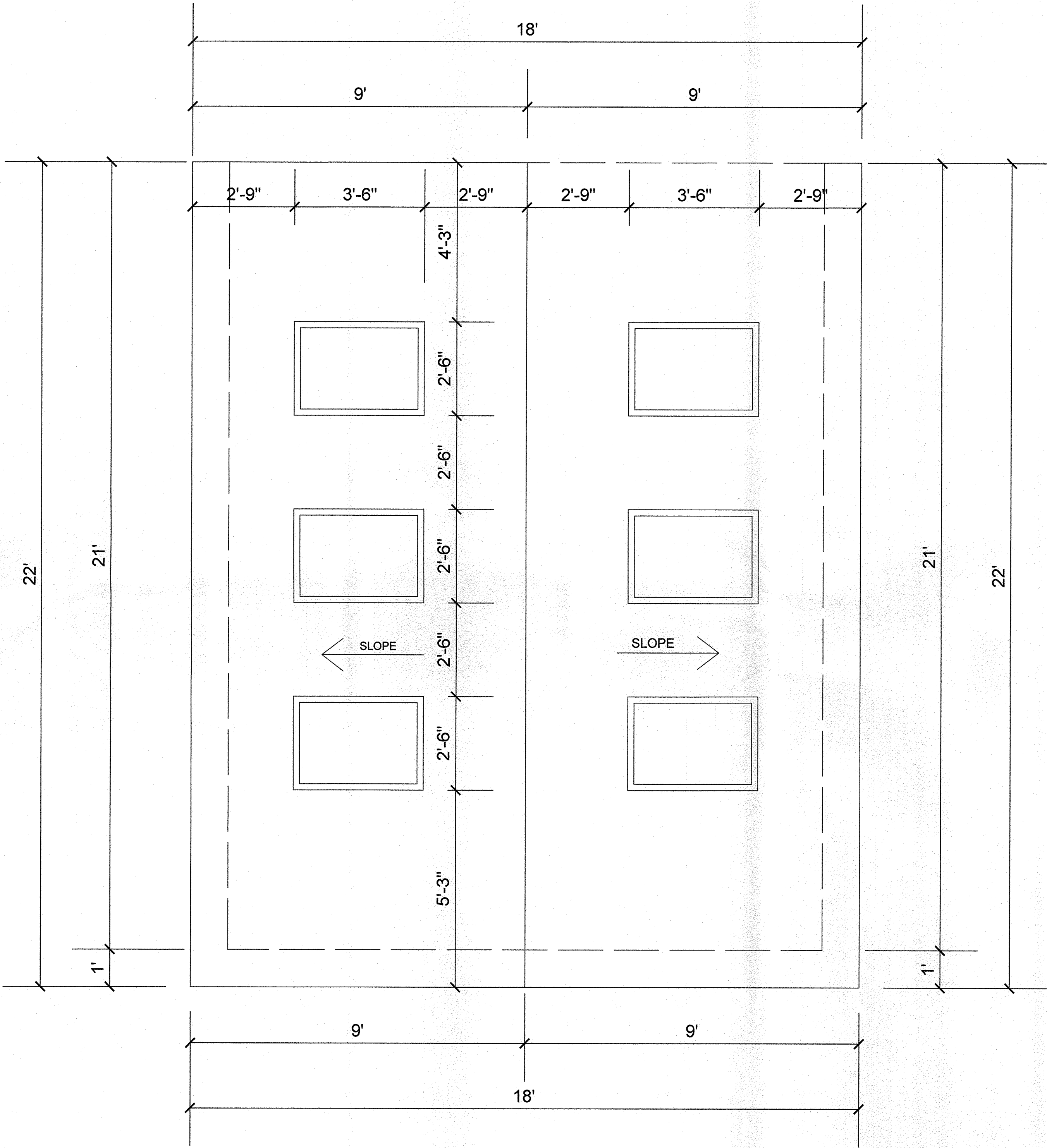
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SHEET INFO
SHEET NO. A2

ROOF PLAN



ROOF PLAN
1/2"=1'-0"

1. CONCRETE:
ALL CONCRETE SHALL BE STONE AGGREGATE UNLESS NOTED.

MINIMUM CONCRETE 28-DAY COMPRESSIVE STRENGTH SHALL SE AS FOLLOWS:

CLASS	STRENGTH AT 28 DAYS (PSI)	TYPE	LOCATION
A	3000	STD. WT.	INTERIOR SLABS, FDN WALL AND FT

2. CONCRETE REINFORCEMENT:

DEFORMED BARS:FY = 80 KSI ASTM A615

WELDED WIRE FABRIC:FY = 70 KSI ASTM A185

3. REFERENCE MANUALS: MOST RECENT EDITION OF THE FOLLOWING:

ACI 315 "ACI DETAILING MANUAL"
ACI 318 "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE"
CRSI MSP "MANUAL OF STANDARD PRACTICE"
AWS D1.4 "STRUCTURAL WELDING CODE REINFORCING STEEL"
CRSI "RECOMMENDED PRACTICE FOR PLACING REINFORCING BAR"

4. THE REINFORCING STEEL CONTRACTOR SHALL FABRICATE ALL REINFORCEMENT AND FURNISH ALL NECESSARY CHAIRS, SPACER BARS AND SUPPORTS NECESSARY TO SECURE THE REINFORCEMENT UNLESS SHOWN OTHERWISE ON THE PLANS AND/OR DETAILS.

5. CONCRETE REINFORCEMENT SHALL BE PLACED ACCORDING TO ACI AND CRSI RECOMMENDED PRACTICE FOR PLACING REINFORCING BARS.

6. CLEAR COVER FOR CONCRETE REINFORCEMENT:

FOOTINGS 2" SIDES, 3" BOTTOM
PEDESTALS 2" TO TIES
FOUNDATION WALLS:
 EXTERIOR FACE 2"
 INTERIOR FACE 1"
SLAB ON GRADE: CENTER OF SLAB

7. COMPRESSION LAP SPLICES FOR GRADE 60 BARS SHALL BE 30 BAR DIAMETER MINIMUM UNLESS DETAILED OTHERWISE WHEN BARS OF DIFFERENT SIZES ARE LAP SPLICED IN COMPRESSION, SPLICE LENGTH SHALL BE THE LARGER OR THE DEVELOPMENT LENGTH OF THE LARGER BAR OR THE SPLICE LENGTH OF THE SMALLER BAR. TENSION LAP SPLICES SHALL BE AS DETAILED

8. LAP SPLICES SHALL BE IN ACCORDANCE WITH THE TABLE SHOWN IN THE DRAWINGS UNLESS NOTED OTHERWISE. WHERE CLASSES ARE NOT CALLED OUT ON DRAWINGS, USE CLASS 'A' SPLICES.

9. LAP SPLICES SHALL BE IN ACCORDANCE WITH THE FOLLOWING TABLE UNLESS NOTED OTHERWISE. WHERE CLASSES ARE NOT CALLED OUT ON DRAWINGS, USE CLASS 'A' SPLICES.

10. SPLICES FC = 3,000 PSI. FY =60,000 PSI, NORMAL WEIGHT

TENSION SPLICES (INCHES)		COMPRESSION SPLICES			
BAR SIZE	TOP BARS	OTHER BARS	(INCHES)		
#3	22	28	17	22	12
#4	29	38	22	29	15
#5	36	47	28	36	19
#6	43	56	33	43	23
#7	63	81	48	63	26
#8	72	93	55	72	30

COMPRESSION DOWELS EMBEDMENT = 22 X BARS DIAMETER

1. ENGINEERED WOOD TRUSSES/RAFTER SHALL BE DESIGNED FOR THE FOLLOWING MINIMUM LOADS:
ROOF RAFTER: 20 PSF DL (INCLUDING SELF WT), 20 PSF LL
FLOOR TRUSS TOP CHORD: 10 PSF DL (INCLUDING TRUSS WEIGHT), 40PSF LL
FLOOR TRUSS BOTTOM CHORD: 5 PSD DL, 10 PSF LL (NOT CONCURRENT W/ TOP CHORD LL)
*WIND AND SEISMIC LOADS SHALL CONFORM TO ASCE 7-10 AND LOCAL BUILDING DEPT. *

2. TRUSS MAXIMUM DEFLECTION SHALL NOT EXCEED L/240 FOR TOTAL LOAD OR L/360 FOR LIVE LOAD.

3. LUMBER GRADE FOR ENGINEERED WOOD TRUSSES SHALL BE DF #2 OR BETTER.

4. TRUSS TOP CHORDS SHALL BE 2X4 MINIMUM. TRUSS WEBS SHALL BE 2X4 MINIMUM.

5. MAXIMUM LOAD DURATION FACTOR SHALL NOT BE GREATER THAN 1.15.

MAXIMUM PLATE BEARING STRESS FC = 625 PSI. IF BEARING STRESS ON THE TOP PLATE EXCEEDS 625 PSI, THE TRUSS DESIGN SHALL INCLUDE ALL OF THE REQUIRED BEARING IMPROVEMENTS.

6. DESIGN AND CONSTRUCTION OF ALL ENGINEERED WOOD TRUSSES SHALL CONFORM TO THE CURRENT EDITION OF THE IBC. THE DESIGN MANUFACTURE AND QUALITY ASSURANCE SHALL CONFORM TO TPI 1.

7. ALL TRUSSES SHALL BE DESIGNED FOR ALL LOADING FROM MECHANICAL, ELECTRICAL, FIRE SPRINKLER, HVAC AND OTHER SUPER IMPOSED LOADS. TRUSS DESIGNER SHALL CORRELATE LOAD LOCATIONS WITH MECHANICAL, PLUMBING AND ELECTRICAL PLANS.

8. ALL TRUSS SHOP DRAWINGS AND CALCULATIONS SHALL BE SUBMITTED TO THE ENGINEER OF RECORD FOR REVIEW AND APPROVAL PRIOR TO FABRICATION, SHOP DRAWINGS SHALL BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE WHERE THIS PROJECT IS BEING CONSTRUCTED.

9. TRUSS ERECTION SHALL BE ACCORDING TO TRUSS MANUFACTURERS RECOMMENDATIONS.

10. TRUSS DESIGNER SHALL DESIGN ENTIRE TRUSS SYSTEM, INCLUDING ALL TEMPORARY BRACING, PERMANENT LATERAL BRACING, AND TRUSS TO TRUSS CONNECTIONS THAT ARE REQUIRED. TRUSS MEMBERS AND COMPONENTS SHALL NOT BE CUT, NOTCHED, DRILLED, SPLICED OR OTHERWISE ALTERED IN ANY WAY WITHOUT WRITTEN CONCURRENCE AND APPROVAL OF THE TRUSS MANUFACTURER AND THE ENGINEER OF RECORD.

DIMENSIONAL LUMBER

1 SOUTHERN PINE (12" WIDE)

FB = 1,250 PSI

FT = 675 PSI

FV T 175 PSI

FC = 1,600 PSI

E g 1,700 KSI

STUDS TOP AND BOTTOM PLATES:

#2 SOUTHERN PINE (2"-4" WIDE)

FB = 1500 PSI

FV = 175 PSI

FT = S26PS)

FC = 1650 PSI

E = 1,500 KSI

(Fb = 6' WIDE)

(Fb = 1250 PSI)

FV = 175 PSI

FT = 725 PSI

E = 1600 KSI

LAMINATED VENEER LUMBER (LVL):

GRADE 1 BE

FB = 2,400 PSI

FV = 235 PSI

E = 1,800 KSI

PARALLEL STRAND LUMBER:

FB =2,117 PSI

FC= 2,000 PSI

E=1,660 KSI

ALL EXTERIOR FRAMING SHALL BE SOUTHER YELLOW PINE GRADE 1 OR BETTER, AND SHALL BE PRESSURE-TREATED <PT> WITH ALKALINE COPPER QUAT (ACQ) OR COPPER AZOLE (CBA/A AND CA-B). NOT SODIUM BORATE (SBX). THE SOUTHERN YELLOW PINE HAVING THE FOLLOWING MINIMUM PROPERTIES (BASED ON 2X12 LUMBER);

FB = 1,000 PSI

FV- 175 PSI

FC = 565 PSI

FCJJ = 1,400 PSI

E = 1,600 KSI

1. ALL DIMENSIONAL LUMBER SHALL BE DF#2 GRADE OR BETTER. SAWN LUMBER SHALL BE IDENTIFIED BY THE GRADE MARK OF A LUMBER GRADING OR INSPECTION AGENCY THAT HAS BEEN APPROVED BY AN ACCREDITATION BODY THAT COMPLIES WITH DOC PS 20 OR EQUIVALENT.

2. ALL SHEATHING TO BE APA RATED SHEATHING EXPOSURE 1 AND SHALL CONFORM TO THE REQUIREMENTS FOR THEIR TYPE IN DOC PS1 OR PS2. ALL EXTERIOR WALL ARE REQUIRED TO BE SHEATHED. ALL SHEATHING SHALL HAVE SPAN RATINGS ACCORDING TO THE FOLLOWING:
FLOOR W/ 12" JOIST/TRUSS SPACING..... 24/12
FLOOR W/ 16" JOIST/TRUSS SPACING..... 32/16
FLOOR W/ 24" JOIST/TRUSS SPACING..... 48/24
ROOF W/ 12" JOIST/TRUSS SPACING..... 12/0
ROOF W/ 16" JOIST/TRUSS SPACING..... 24/0
ROOF W/ 48" JOIST/TRUSS SPACING..... 48/24
WALL W/ 12" JOIST/TRUSS SPACING..... 16/0
WALL W/ 16" JOIST/TRUSS SPACING..... 24/0

3. ALL LUMBER, TIMBER, PLYWOOD, REQUIRED TO BE TREATED SHALL CONFORM TO THE REQUIREMENTS OF THE APPLICABLE ANPA STANDARD U1 AND M4 FOR THE SPECIES, PRODUCT, PRESERVATIVE AND END USE. PRESERVATIVE TREATED WOOD SHALL BEAR THE QUALITY MARK OF AN INSPECTION AGENCY THAT MAINTAINS CONTINUING SUPERVISION, TESTING, AND INSPECTION OVER THE QUALITY OF THE PRESERVATIVE TREATED WOOD.

4. THE FOLLOWING SHALL BE PRESERVATIVE TREATED LUMBER OF REDWOOD:
A. ALL WALL SILL PLATES ON A CONCRETE SLAB THAT ARE IN DIRECT CONTACT WITH EARTH.
B. WOOD FRAMING MEMBERS THAT REST ON EXTERIOR FOUNDATION WALLS AND ARE LESS THAN 8" FROM EXPOSED EARTH.
C. WOOD FRAMING MEMBERS AND FURRING STRIPS ATTACHED DIRECTLY TO THE INTERIOR OF EXTERIOR MASONRY OR CONCRETE WALLS BELOW GRADE.
D. WOOD JOISTS THAT ARE CLOSER THAN 18" OR WOOD GIRDERS THAT ARE CLOSER THAN 12" FROM EXPOSED EARTH IN CRAWL SPACES OR UNEXCAVATED AREAS LOCATED WITHIN THE PERIMETER OF THE BUILDING FOUNDATION.

5. PROVIDE SOLID BLOCKING FOR ALL VERTICAL LOAD PATHS TO FOUNDATION. PROVIDE 1 TRIMMER ON EACH SIDE OF ALL OPENINGS LESS THAN 4'-0" WIDE. PROVIDE 2 TRIMMERS MIN. ON EACH SIDE OF ALL OPENINGS 4'-0" WIDE AND GREATER. A MINIMUM 2 STUDS SHALL BE PROVIDED AT ALL VERTICAL EDGES OF SHEAR WALLS, GIRDER TRUSSES, AND BEAMS UNLESS NOTED OTHERWISE.

6. BUILT UP BEAMS SHALL BE FASTENED ACCORDING TO THE FOLLOWING:
(2) & (3) PLY MEMBERS WITH PLIES UP TO 1-3/4" THICK:
12" DEEP BEAMS: (2) ROWS OF 16D COMMON NAILS AT 12" O.C.
14" AND DEEPER: (3) ROWS OF 16D COMMON NAILS AT 12" O.C.
*NAILED CONNECTIONS REQUIRE AN ADDITIONAL ROW OF NAILS WHEN NAIL SIZE IS SMALLER THAN SPECIFIED ABOVE.
(4) PLY MEMBERS WITH PLIES UP TO 1-3/4" THICK AND (2) PLY MEMBERS WITH PLIES 3-1/2" THICK:
12" DEEP BEAMS: (2) STAGGERED ROWS OF 1/2"
14" AND DEEPER: (3) STAGGERED ROWS OF 1/2"

7. OPENINGS SHALL BE FRAMED WITH THE MINIMUM KING STUDS AS FOLLOWS:
OPENINGS UP TO 2'-0": 1 KING STUD AT EACH SIDE OF OPENING
OPENINGS UP TO 4'-0": 2 KING STUDS AT EACH SIDE OF OPENING
OPENINGS UP TO 8'-0": 3 KING STUDS AT EACH SIDE OF OPENING
OPENINGS UP TO 12'-0": 4 KING STUD AT EACH SIDE OF OPENING
OPENINGS UP TO 16'-0": 5 KING STUD AT EACH SIDE OF OPENING

8. SIMPSON H1 IS REQUIRED AT EACH END EACH ROOF TRUSS UNLESS NOTED OTHERWISE. NAIL TJ'S TO TOP PLATE W/ (1) 8D BOX NAIL EACH SIDE. DRIVE NAILS AT AN ANGLE AT LEAST 1-1/2" FROM END OF EACH FLOOR JOIST.

9. PROVIDE 1 1/8" WIDE TIMBER STRAND OR EQUIVALENT FOR ALL RIM JOISTS.

10. BEARING, SHEAR AND EXTERIOR STUDS SHALL BE CAPPED WITH DOUBLE TOP PLATES INSTALLED TO PROVIDE OVERLAPPING AT CORNERS AND AT INTERSECTIONS WITH OTHER PARTITITIONS. END JOINTS IN DOUBLE TOP PLATES SHALL BE OFFSET AT LEAST 48".

11. DOUBLE TOP PLATES SHALL BE NAILED WITH 16D NAILS @ 16" O.C. A MINIMUM OF 8-16D NAILS SHALL BE PLACED EACH SIDE OF TOP PLATE SPLICES UNLESS NOTED OTHERWISE.

12. NON BEARING INTERIOR PARTITION WALLS SHALL BE FRAMED A MINIMUM OF 1/2" SHORTER THAN BEARING WALLS TO ACCOMMODATE TRUSS DEFLECTION AND PRESERVE THE INTENDED LOAD PATH.

13. JOISTS WITH CANTILEVERS LARGER THAN 1'-6" AND WITHOUT A DIRECT APPLIED CEILING SHALL HAVE CONTINUOUS BLOCKING INSTALLED AT THE 1/3 POINTS OF THE BACK SPAN UNLESS NOTED OTHERWISE.

14. FLOOR JOISTS SPANNING 16'-0" OR MORE WITHOUT A DIRECT APPLIED CEILING SHALL HAVE ROWS OF CONTINUOUS BLOCKING INSTALLED AT A MAXIMUM SPACING OF 8'-0" O.C.

10. PARTITION WALLS THAT ARE PARALLEL WITH FLOOR JOISTS SHALL BE SUPPORTED WITH DOUBLE JOISTS OR CROSS BLOCKING BETWEEN THE TWO CLOSEST ADJACENT JOISTS UNLESS NOTED OTHERWISE ON THE CONSTRUCTION DRAWINGS.

11. ALL METAL HARDWARE TO BE SIMPSON STRONG TIE OR EQUAL AND INSTALLED ACCORDING TO MANUFACTURERS REQUIREMENTS.

12. HOLES FOR BOLTS SHALL BE DRILLED AT THE SAME NOMINAL DIAMETER OF THE BOLT +1/16".

13. HOLES FOR LAG SCREWS AND WOOD SCREWS SHALL BE DRILLED THE SAME NOMIAL LENGTH AND DIAMETER OF THE SHANK. LAG SCREWS AND WOOD SCREWS SHALL NOT BE DRIVEN INTO PLACE.

14. NAIL SHANK DIAMETER AND LENGTHS SHALL CONFORM TO THE FOLLOWING:
8D.....0.131" ØX2.50"
10D.....0.148" ØX3.00"
12D.....0.148" ØX3.25"
16D.....0.162" ØX3.50"
20D.....0.192" ØX4.00"
30D.....0.207" ØX4.50"
40D.....0.225" ØX5.00"

15. STAPLES MAY BE SUBSTITUTED FOR NAILS TO FASTEN STRUCTURAL SHEATHING TO SUPPORTING MEMBERS PROVIDED THAT THE STAPLES HAVE A CROWN WIDTH OF 7/16" AND SHALL BE INSTALLED WITH THEIR CROWNS PARALLEL TO THE LONG DIMENSION OF THE FRAMING MEMBERS. SUBSTITUTE STAPLES FOR NAILS ACCORDING TO THE FOLLOWING:
8D COMMON NAILS.....14 GAUGE 1 1/2" STAPLES
10D COMMON NAILS.....13 GAUGE 1 1/2" STAPLES
8D COMMON NAILS AT 6" O.C.....16 GAUGE STAPLES AT 4" O.C.
8D COMMON NAILS AT 4" O.C.....16 GAUGE STAPLES AT 2 1/2" O.C.
8D COMMON NAILS AT 12" O.C.....16 GAUGE STAPLES AT 7/4" O.C.

16. FASTENERS INSTALLED INTO PRESERVATIVE TREATED WOOD AND FIRE RETARDANT TREATED WOOD SHALL BE OF HOT DIPPED ZINC-COATED GALVANIZED STEEL, STAINLESS STEEL, SILICON BRONZE OR COPPER. THE COATING WEIGHTS FOR ZINC-COATED FASTENERS SHALL BE IN ACCORDANCE WITH ASTM A153. CAST IN AND POST INSTALLED BOLTS SHALL BE PERMITTED TO BE OF MECHANICALLY DEPOSITED ZINC-COATED STEEL WITH COATING WEIGHTS IN ACCORDANCE WITH ASTM B685, CLASS 55 MINIMUM. WASHERS AND OTHER HARDWARE IN CONTACT WITH FASTENERS SHALL BE OF THE SAME ANTI-CORROSIVE TREATMENT AS THE FASTENERS THEY ARE IN CONTACT WITH.

17. SHEATHING FASTENERS SHALL BE DRIVER FLUSH BUT SHALL NOT FRACTURE THE SHEATHING SURFACE.

18. SILL PLATES OF EXTERIOR WALLS AND INTERIOR BEARING WALLS MUST BE ANCHORED TO THE FOUNDATION WITH A MINIMUM OF 1/2"x10" ANCHOR BOLTS @ 72" O.C. THERE SHALL BE A MINIMUM OF TWO BOLTS PER PIECE WITH ONE BOLT LOCATED NOT MORE THAN 12" OR LESS THAN 4" FROM EACH END OF EACH PIECE. A PROPERLY SIZED NUT AND STANDARD CUT WASHER SHALL BE TIGHTENED ON EACH BOLT TO THE PLATE.

19. SHEAR WALL SILL PLATE ANCHOR BOLTS SHALL INCLUDE 0.229"x3"x3" STEEL PLATE WASHERS BETWEEN THE SILL PLATE AND NUT. 0.229"x3"x3" STEEL PLATE WASHERS ARE PERMITTED TO HAVE A DIAGONALLY SLOTTED HOLE WITH A WIDTH OF UP TO 3/16" LARGER THAN THE BOLT DIAMETER AND A SLOT LENGTH NOT TO EXCEED 1-3/4" IF A STANDARD CUT WASHER IS PLACED BETWEEN THE PLATE WASHER AND THE NUT. PLATE WASHERS SHALL EXTEND TO WITHIN 1/2" OF THE EDGE OF THE BOTTOM PLATE ON THE SHEATHED SIDE OF THE SHEAR WALL. SHEAR WALL SILL PLATES SHALL BE ANCHORED TO THE FOUNDATION WITH A MINIMUM OF 2 ANCHOR BOLTS PER PIECE WITH ONE BOLT LOCATED NOT MORE THAN 12" OR LESS THAN 4" FROM EACH END OF EACH PIECE.

20. CAST IN ANCHOR BOLTS FOR INTERIOR BEARING AND SHEAR WALLS MAY BE REPLACED WITH SIMPSON STRONG-BOLTS, SIMPSON TITEN HD, OR HILTI KWIK BOLT TY ANCHORS OF THE SAME DIAMETER AND 4-1/2" MINIMUM EMBEDMENT. INTERIOR SHEAR WALL ANCHOR BOLTS MAY ALSO BE EPOXIED INTO CONCRETE WITH SIMPSON SET-XP HILTI HIT-RE 500-SD EPOXY AND A MINIMUM 4-1/2" EMBEDMENT.

STRUCTURAL CRITERIA

ANALYSIS ITEMS

GRAVITY LOADS (IRC 2021 TABLE 1607.1, 1608.2 & ASCE 7-16 TABLE C3-1)

ROOF LIVE: 30 PSF
ROOF DEAD: 15 PSF
GROUND SNOW LOAD: 30 PSF
FLOOR LIVE: HABITABLE ATTICS AND SLEEPING AREA 30 PSF
ALL OTHER AREA 40 PSF
FLOOR DEAD: 20 PSF

DEFLECTION CRITERIA N/A PSF

ROOF MEMBERS L/360
Δ(TOTAL LOAD) L/240

FLOOR MEMBERS L/360
Δ(LIVE) L/240
Δ(TOTAL LOAD)

WALLS L/240
Δ(LIVE)

SEISMIC DESIGN PARAMETERS (ASCE 7-16 12.8)

SEISMIC DESIGN CATEGORY: 8
SITE CLASS: D
OCCUPANCY CATEGORY: II
IMPORTANCE FACTOR, I_p: 1.00
RESPONSE MOD. FACTOR, R: 6.5
OVER STRENGTH FACTOR, Ω: 2.5
DEFLECTION AMPLIFICATION FACTOR, C_d: 4.0
BASIC SIESMIC-FORCE-RESISTING SYSTEM(S): LIGHT FRAMED WALLS SHEATHED W/ WOOD STRUCTURAL PANELS

DESIGN BASE SHEAR, V: C_sW
SEISMIC DESIGN COEFFICIENT, C_s: 0.096
ANALYSIS PROCEDURE USED: EQUIVALENT LATERAL FORCE
S_s: 0.054
S_i: 0.033
F_a: 1.6
F_v: 2.4
S₀: 0.053
S_{0s}: 0.043

WIND DESIGN PARAMETERS (ASCE 7-16)

BASIC WIND SPEED: 115 MPH
EXPOSURE: B
IMPORTANCE FACTOR, I_w: 1.00

OCCUPANCY CATEGORY: II
COMPONENTS AND CLADDING DESIGN WIND LOADS TO BE PER ASCE 7-16

GENERAL NOTES

1. CONTRACTOR TO VERIFY ALL DIMENSIONS, SPANS, AND CONDITIONS WITH ARCHITECTURAL DRAWINGS. IF ANY OMISSIONS, MISTAKES, OR DISCREPANCIES ARE FOUND TO EXIST WITHIN THE CONSTRUCTION DRAWINGS, THE ENGINEER SHALL BE PROMPTLY NOTIFIED SO THAT HE MAY HAVE THE OPPORTUNITY TO TAKE WHATEVER STEPS NECESSARY TO RESOLVE THEM. FAILURE TO PROMPTLY NOTIFY THE ENGINEER OF SUCH CONDITIONS SHALL ABSOLVE THE ENGINEER FROM ANY RESPONSIBILITY FOR THE CONSEQUENCES OF SUCH A FAILURE.

2. IF DISCREPANCIES ARE FOUND, THE MORE STRINGENT SPECIFICATION SHALL BE FOLLOWED. CONTRACTOR RESPONSIBLE FOR ADEQUATE BRACING OF STRUCTURAL MEMBERS, WALLS, AND NON-STRUCTURAL ITEMS DURING CONSTRUCTION

3. THE ENGINEER AND HIS CONSULTANTS DO NOT WARRANT OR GUARANTEE THE ACCURACY AND COMPLETENESS OF THE WORK HEREIN BEYOND A REASONABLE DILIGENCE. IF ANY OMISSIONS, MISTAKES, OR DISCREPANCIES ARE FOUND TO EXIST WITHIN THE WORK PRODUCT, THE ENGINEER SHALL BE PROMPTLY NOTIFIED SO THAT HE MAY HAVE THE OPPORTUNITY TO TAKE WHATEVER STEPS NECESSARY TO RESOLVE THEM. FAILURE TO PROMPTLY NOTIFY THE ENGINEER OF SUCH CONDITIONS SHALL ABSOLVE THE ENGINEER FROM ANY RESPONSIBILITY FOR THE CONSEQUENCES OF SUCH A FAILURE.

4. MANY PORTIONS OF THESE DRAWINGS, NOTES AND SPECIFICATIONS ARE THE RESULT OF DEMANDS BY VARIOUS APPROVING AGENCIES THAT MUST BE PERFORMED AS PART OF THIS WORK. ANY ACTIONS TAKEN WITHOUT THE KNOWLEDGE AND CONSENT OF THE ENGINEER SHALL BECOME THE RESPONSIBILITY NOT OF THE ENGINEER, BUT OF THE PARTIES RESPONSIBLE FOR MAKING THE CHANGE AND TAKING ACTION TO DO SO. ACTIONS TAKEN WITHOUT THE KNOWLEDGE AND CONSENT OF THE ENGINEER OR THE CONTRADICTION TO THE ENGINEER'S WORK PRODUCT, THE INTENT AND/OR RECOMMENDATIONS, SHALL BECOME THE RESPONSIBILITY NOT OF THE ENGINEER, BUT OF THE PARTIES RESPONSIBLE FOR TAKING SUCH ACTION. THE ENGINEER SHOULD BE CONTACTED IN MATTERS OF ANY AND ALL CHANGES TO THE DRAWINGS AND SPECIFICATIONS HEREIN WITHOUT EXCEPTION.

5. NON STRUCTURAL FRAMING REQUIREMENTS ARE NOT SPECIFIED ON STRUCTURAL DRAWINGS. SEE ARCHITECTURAL DRAWINGS FOR ANY ADDITIONAL FRAMING REQUIRED.

6. CONTRACTOR SHALL ASSURE THAT ALL PRODUCTS AND HARDWARE ARE USED PER MANUFACTURER'S RECOMMENDATIONS.

7. CONTRACTOR SHALL PROVIDE NAME OF AN APPROVED FABRICATOR OR ICC EVALUATION REPORT FOR STEEL ROOF JOISTS, STEEL FLOOR JOISTS, AND STEEL DECKING TO BUILDING OFFICIAL FOR APPROVAL PRIOR TO CONSTRUCTION.

8. CONTRACTOR SHALL PROVIDE NAME OF AN APPROVED FABRICATOR FOR ALL FABRICATED STRUCTURAL COMPONENTS TO BUILDING OFFICIAL FOR APPROVAL PRIOR TO CONSTRUCTION

9. CONTRACTOR SHALL PROVIDE NAME OF AN APPROVED SPECIAL INSPECTION AGENCY AND QUALIFICATION OF INDIVIDUAL TO BUILDING OFFICIAL FOR APPROVAL PRIOR TO CONSTRUCTION.

DEFERRED SUBMITTALS

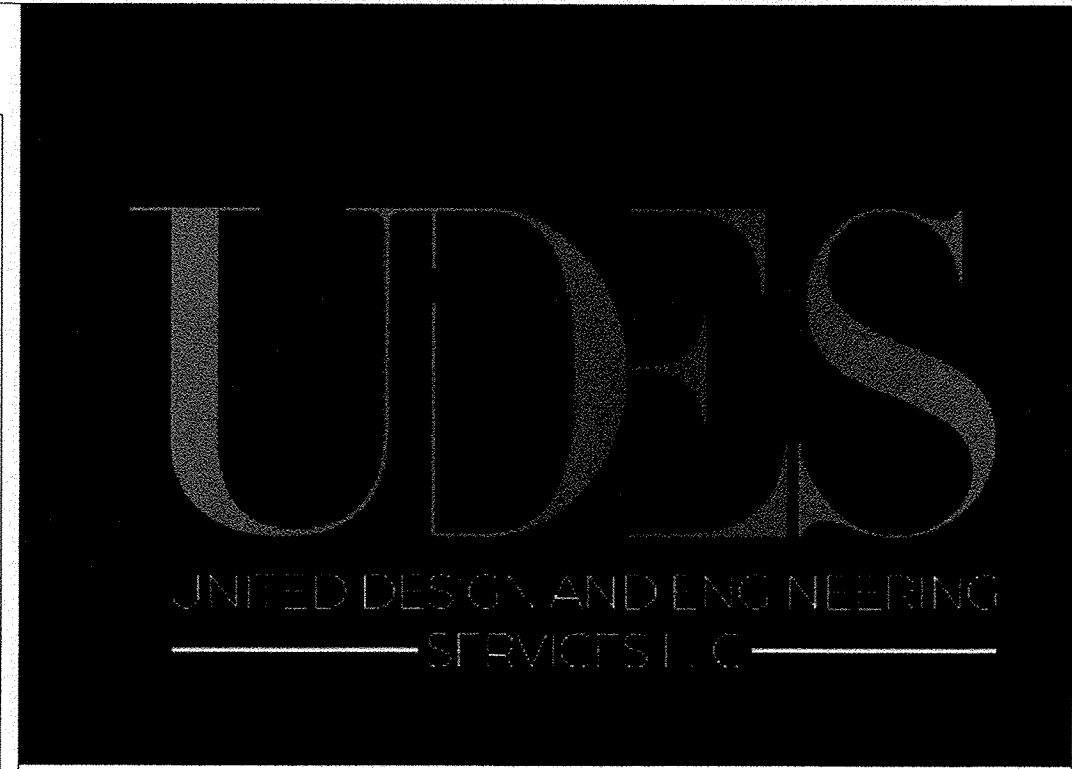
1. FOR ALL DEFERRED SUBMITTAL ITEMS, CONTRACTOR SHALL SUBMIT CONSTRUCTION DETAILS AND DRAWINGS PRIOR TO CONSTRUCTION WITH CALCULATIONS STAMPED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE WHERE THE PROJECT IS BEING CONSTRUCTED.

2. ALL DEFERRED SUBMITTAL ITEMS SHALL BE APPROVED BY THE ENGINEER OF RECORD AND SUBMITTED TO THE CITY BUILDING DEPARTMENT PRIOR TO CONSTRUCTION.

3. THE FOLLOWING ITEMS SHALL BE CONSIDERED AS DEFERRED SUBMITTAL ITEMS:
A. ENGINEERED WOOD ROOF TRUSSES
B. ENGINEERED WOOD FLOOR TRUSSES

SHEET LIST

#	NAME
S1	GENERAL NOTES
S2	FOUNDATION PLAN
S3	CEILING FRAMING PLAN
S4	ROOF FRAMING PLAN
S5	CROSS-SECTIONAL DETAIL
S6	CROSS-SECTIONAL DETAIL

**APPLICANT**

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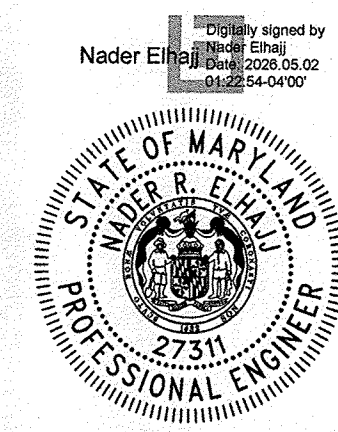
OWNER

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ADDRESS

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NOTES

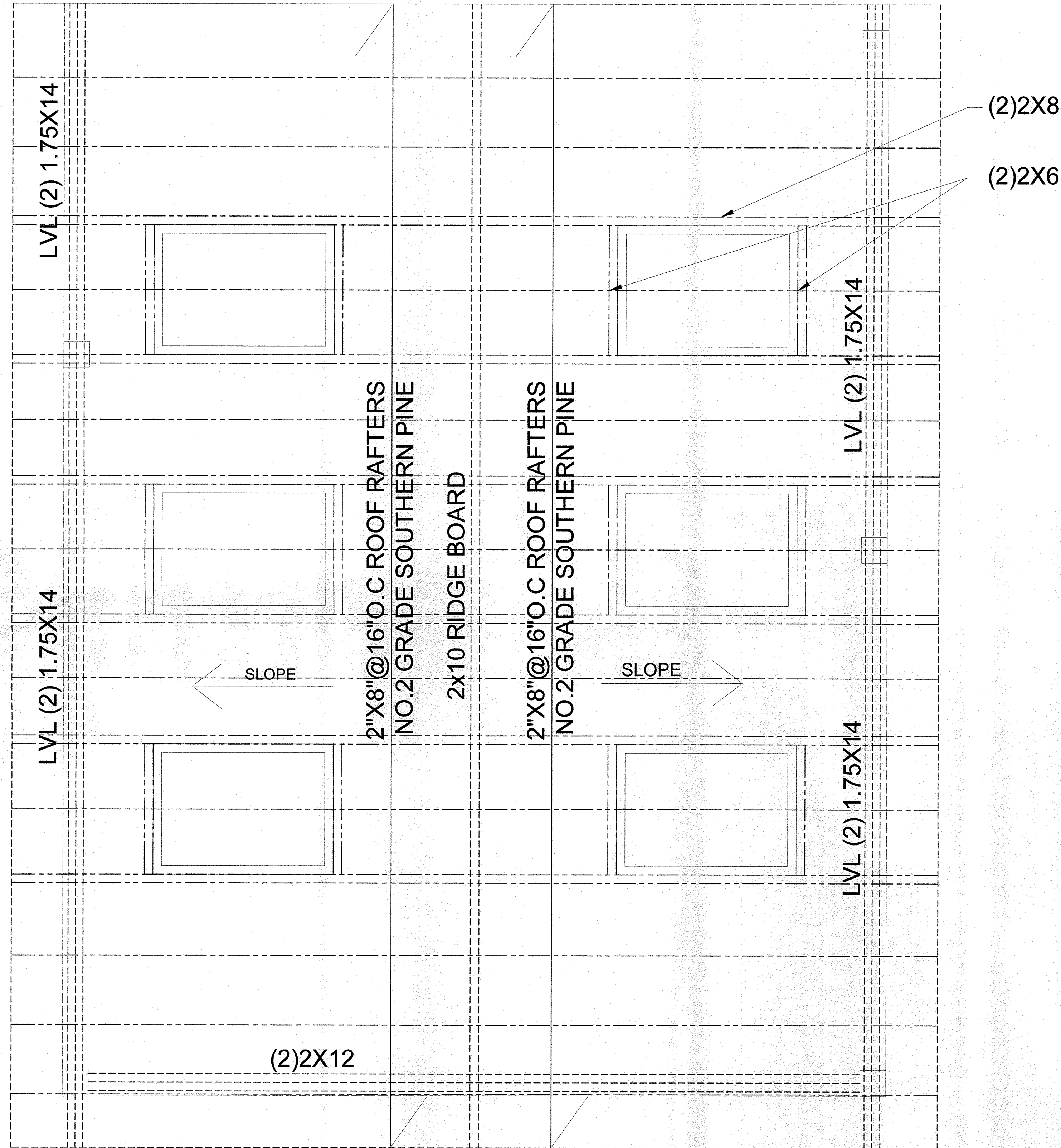
STAMP

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SHEET INFO

SHEET NO. S1

NOTES



1
S3

CEILING FRAMING PLAN

SCALE: 1/2"=1'

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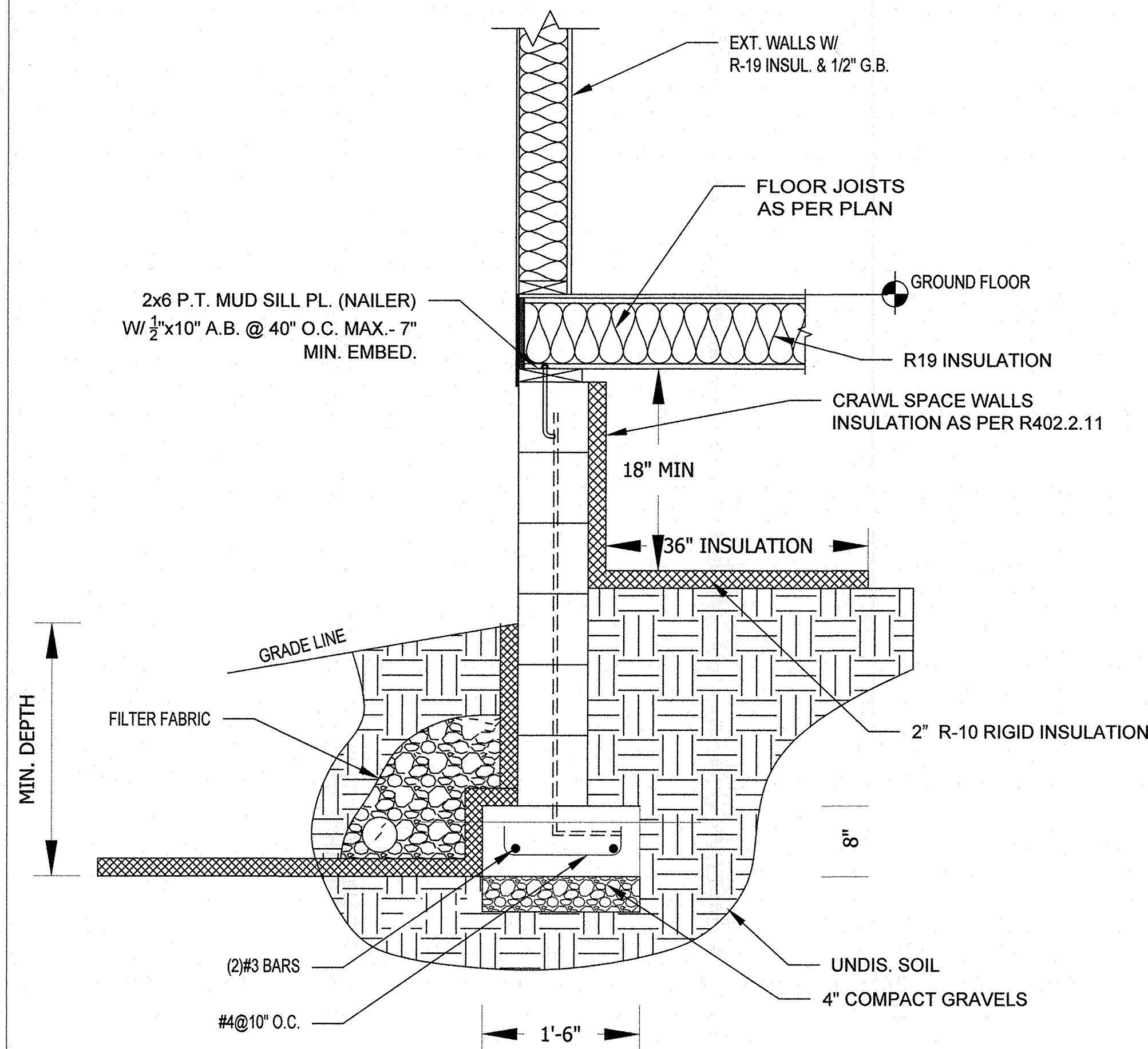


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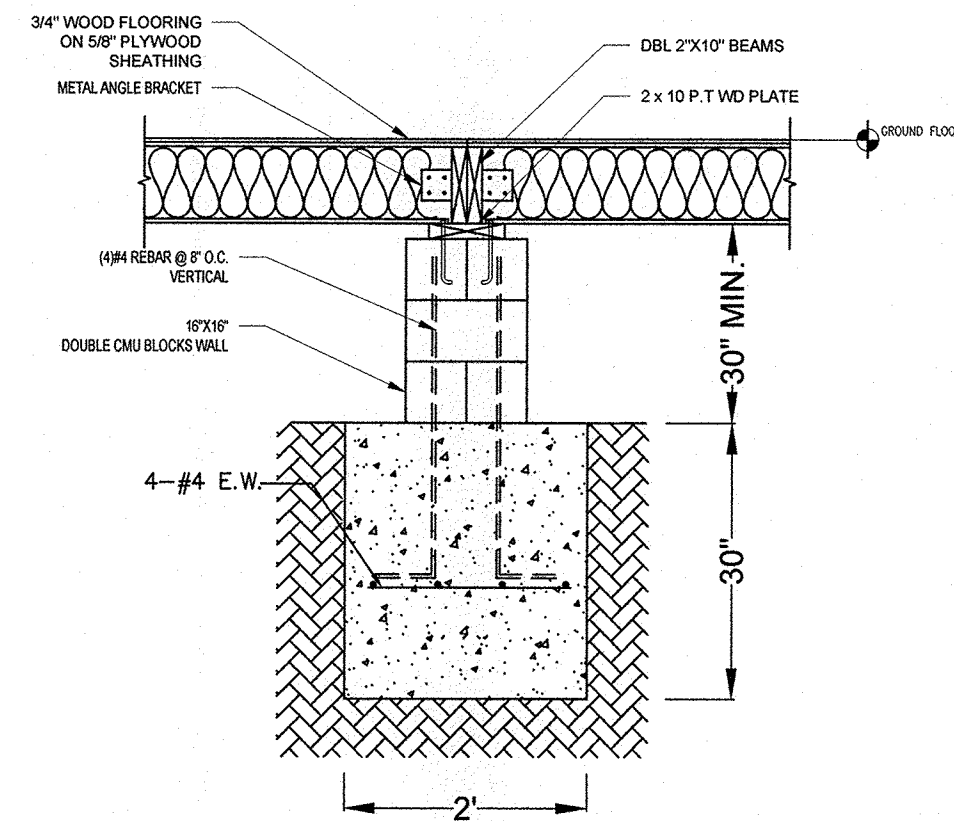
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SHEET NO. **S3**

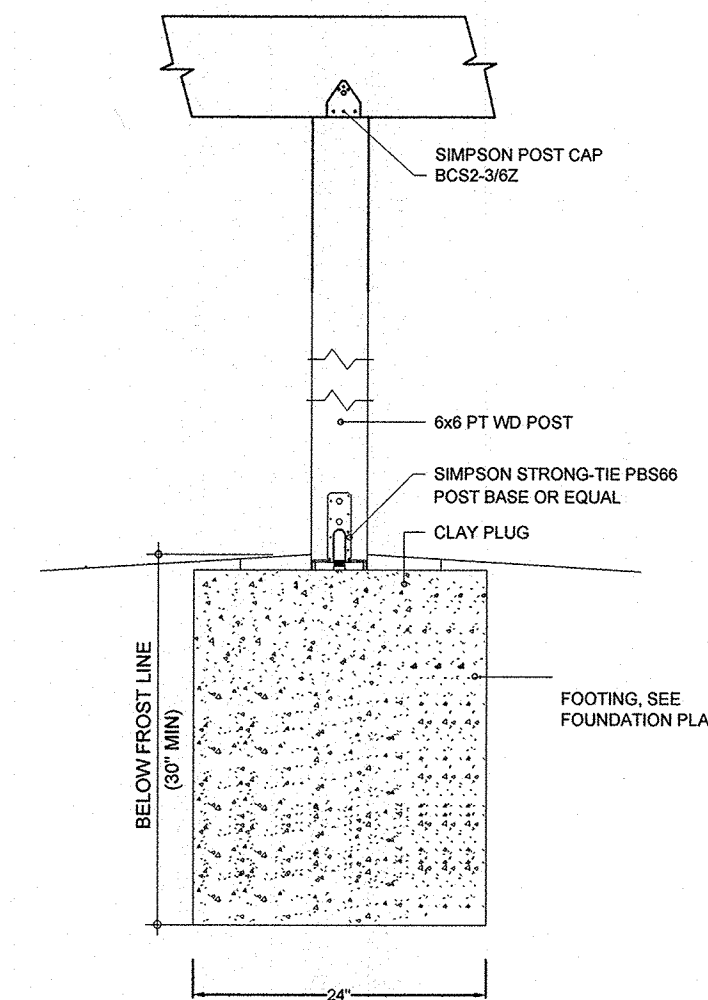
**CEILING
FRAMING PLAN**



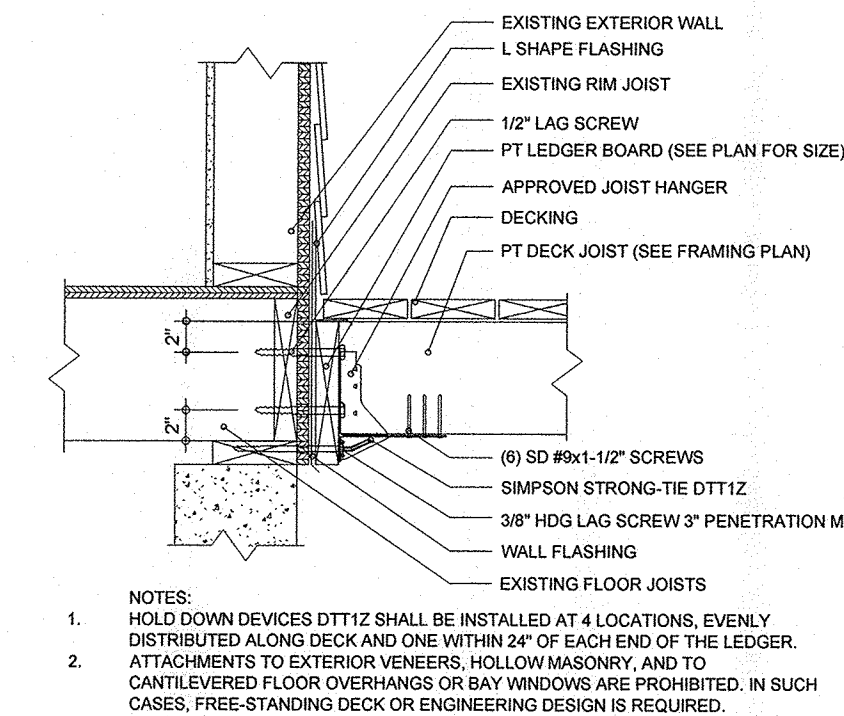
1 CROSS SECTION DETAIL
S5 SCALE: 1"=1'



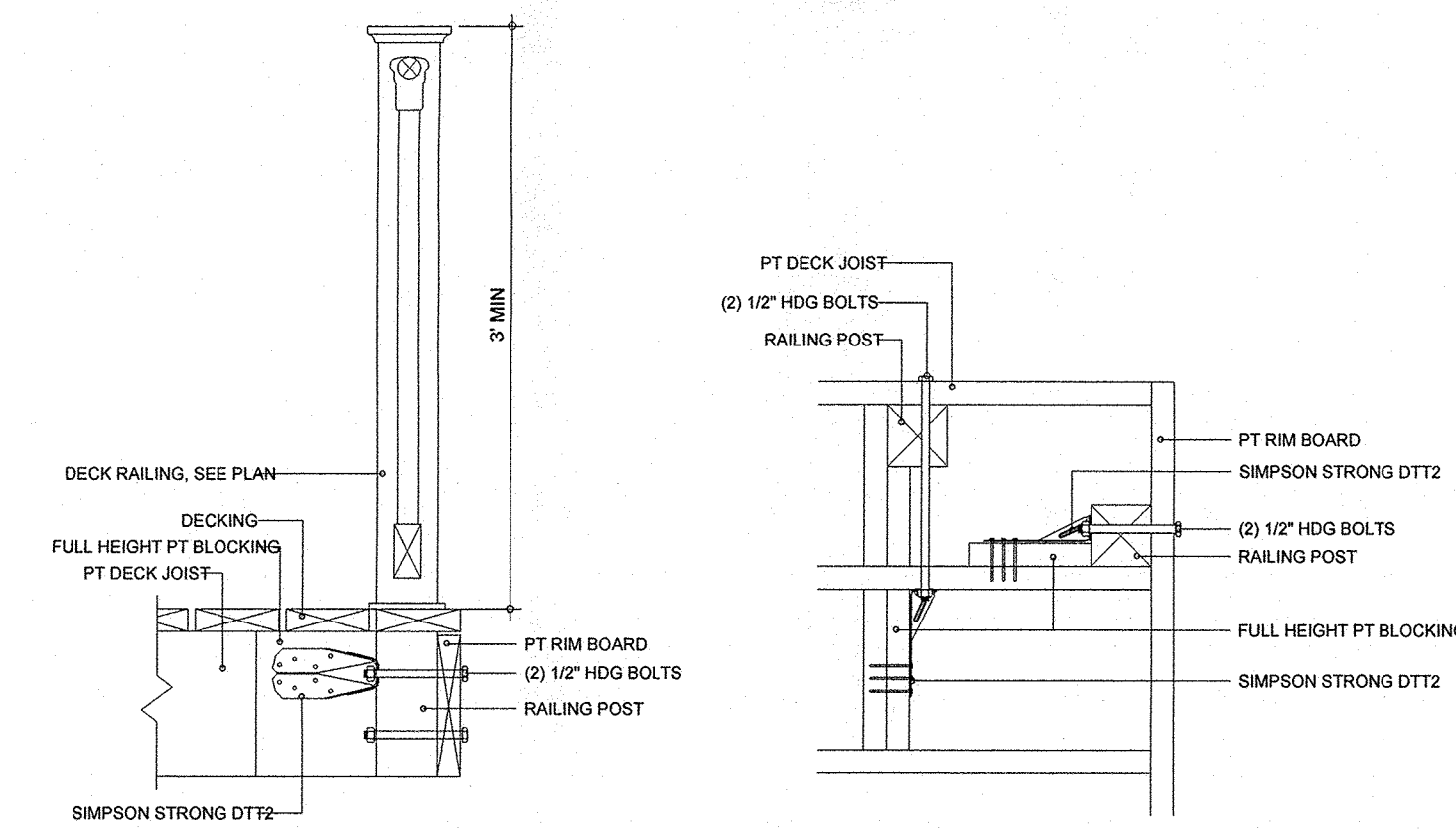
2 CROSS SECTION DETAIL
S5 SCALE: 1"=1'



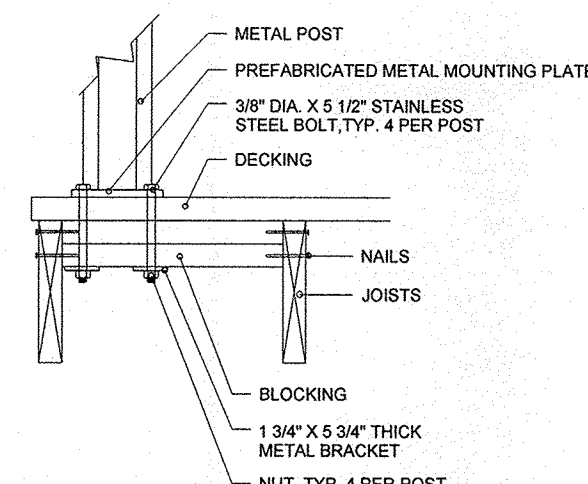
3 CROSS SECTION DETAIL
S5 SCALE: 1"=1'



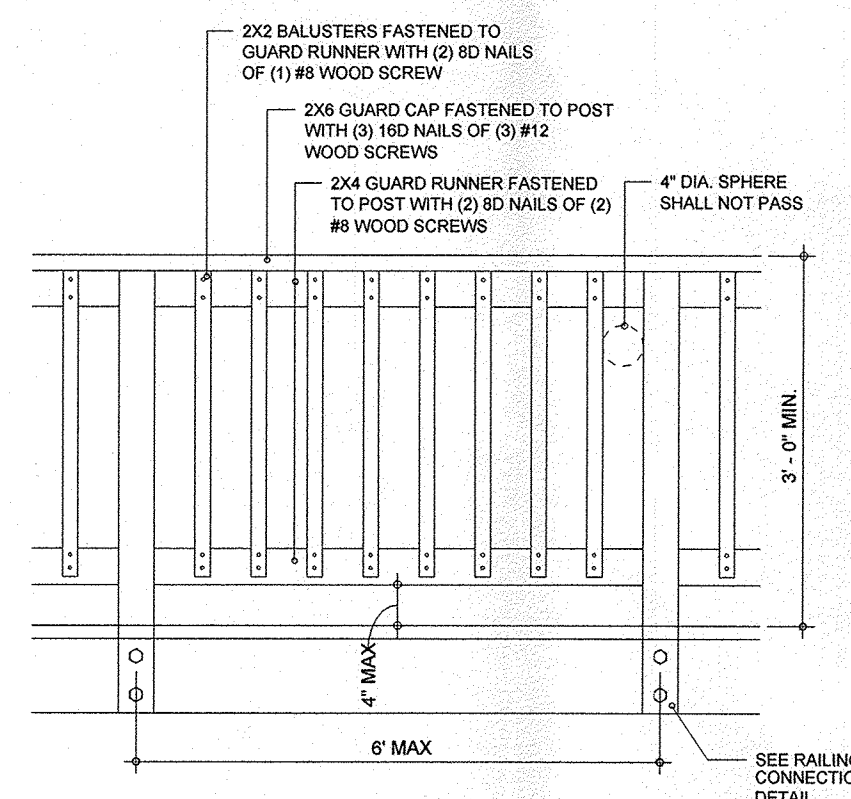
4 LEDGER BOARD CONNECTION
S5 SCALE: 1"=1'



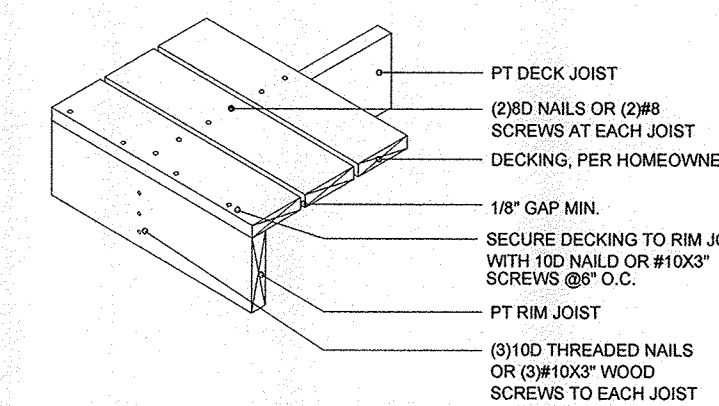
5 SECTION VIEW
S5 RAILING CONNECTION DETAIL
SCALE: 1"=1'



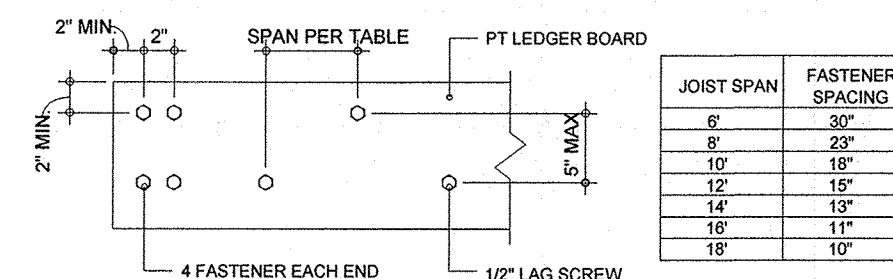
ALTERNATE CONNECTION



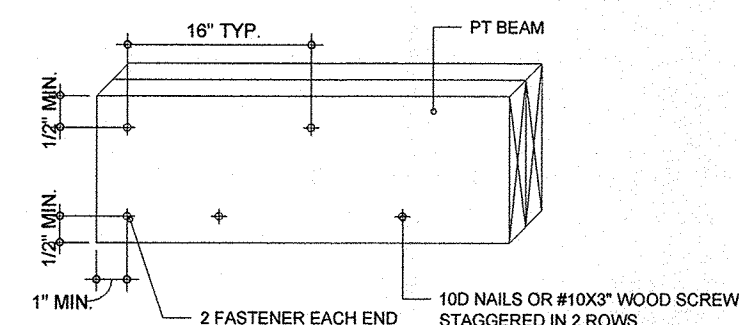
7 TYPICAL WOOD RAILING
S5 SCALE: 1"=1'



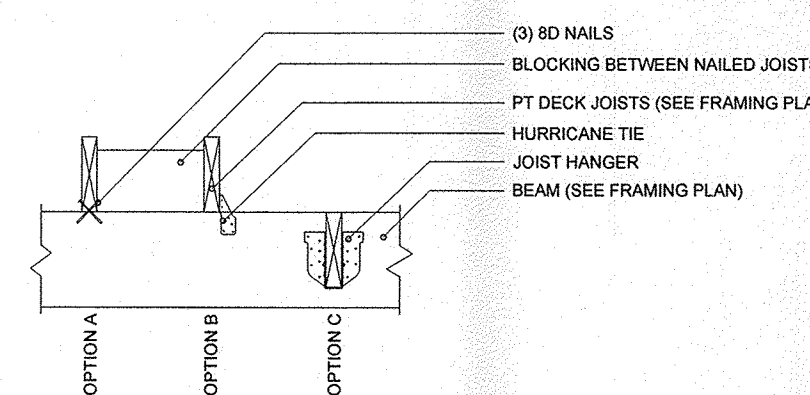
8 FLOOR FASTENERS
S5 SCALE: 1"=1'



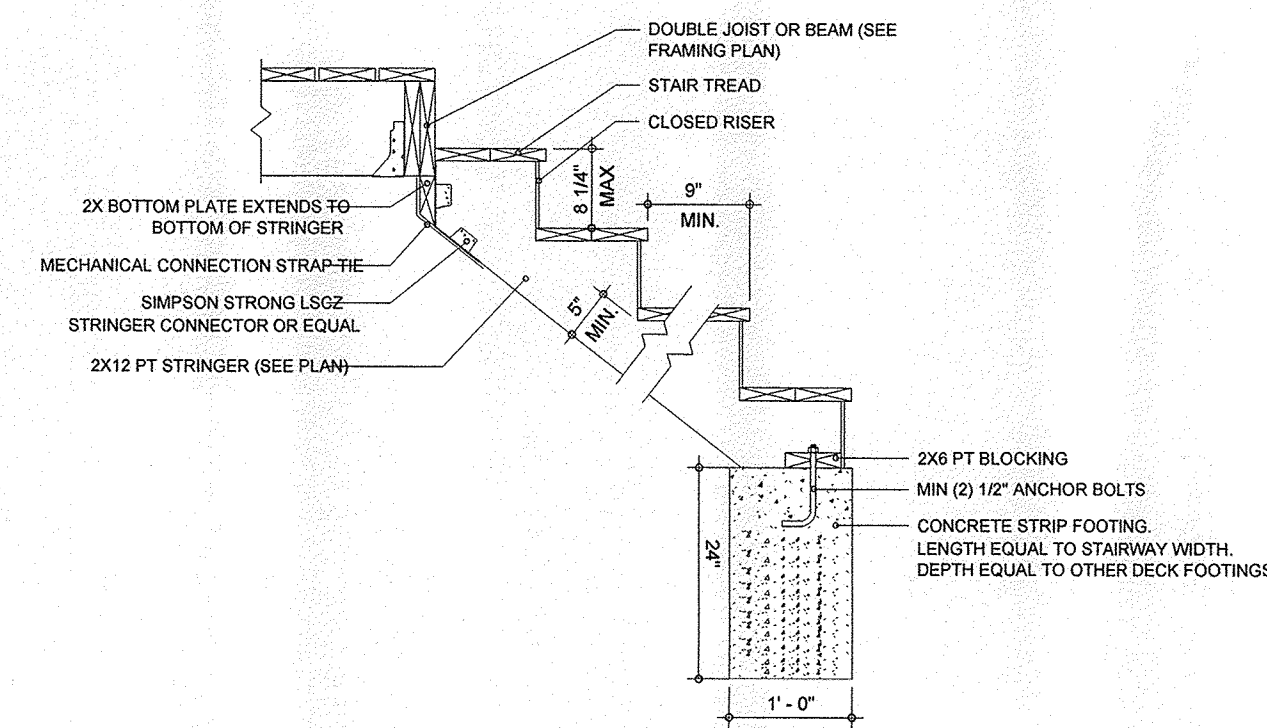
9 LEDGER BOARD FASTENERS
S5 SCALE: 1"=1'



10 BEAM PLY FASTENING
S5 SCALE: 1"=1'



11 JOIST TO BEAM CONNECTION
S5 SCALE: 1"=1'



12 STRINGER CONNECTION
S5 SCALE: 1"=1'

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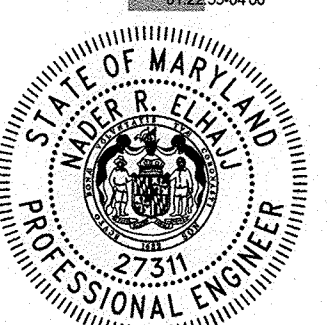
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NOTES

STAMP

Digitally signed by
Nader Elmasry
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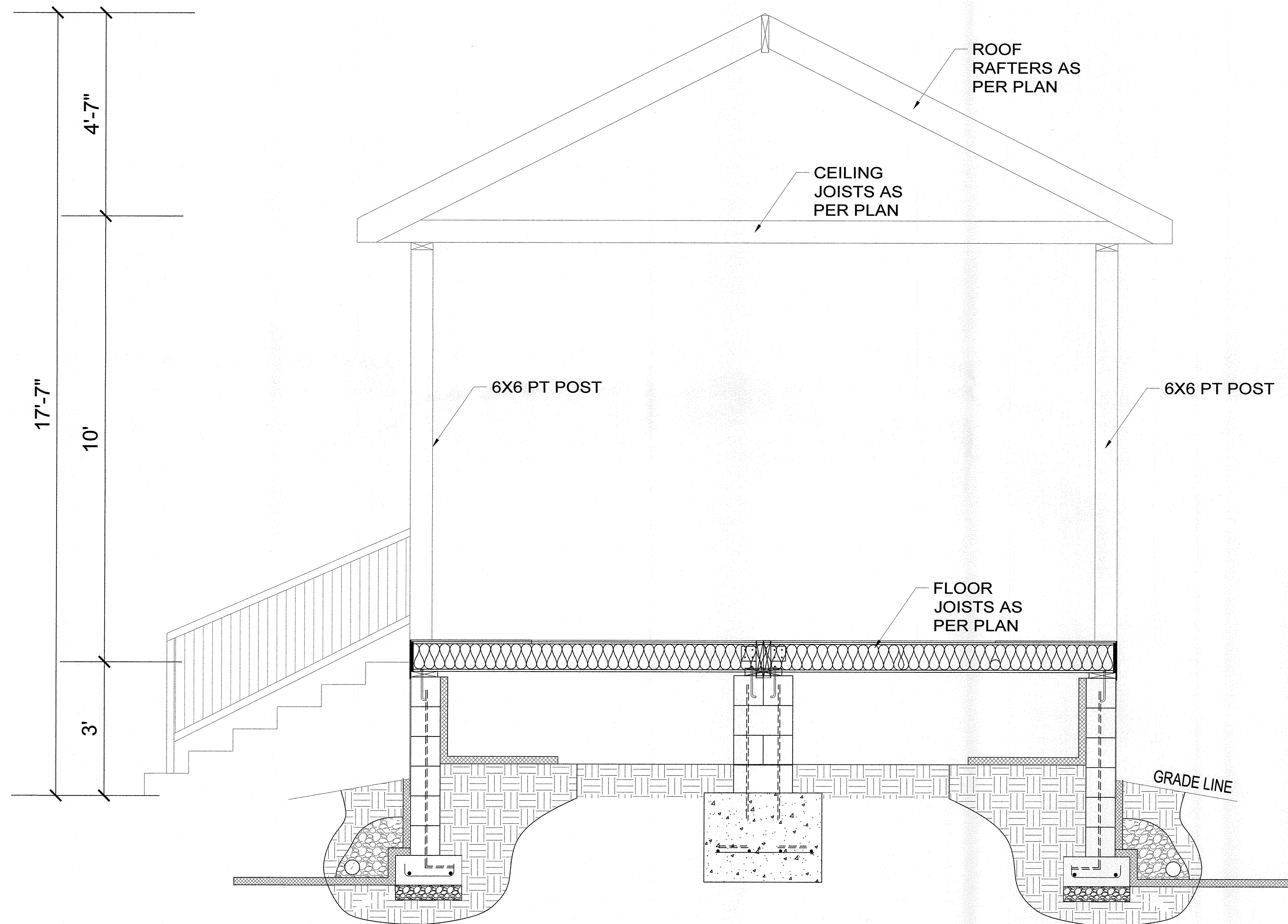


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SHEET INFO

SHEET NO. S5

FOUNDATION PLAN



1
S6

CROSS-SECTIONAL DETAIL

SCALE: 1/2"=1'



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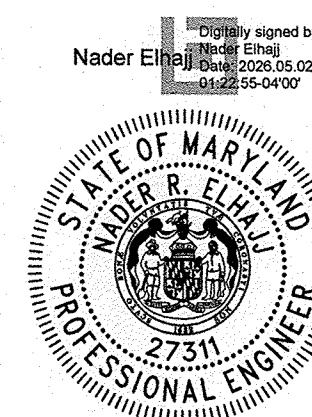
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SHEET INFO

SHEET NO.

S6

**CROSS-SECTIONAL
DETAIL**