

**BUILDING DATA:**

NEW SINGLE FAMILY DWELLING OCCUPANCY: R3  
NEW ATTACHED GARAGE OCCUPANCY: U (ACCESSORY TO R-3)  
NEW STORAGE AREA ABOVE GARAGE OCCUPANCY: U (ACCESSORY TO R-3)  
CONSTRUCTION TYPE: VB  
HIGH-FIRE SEVERITY ZONE (WUI): YES  
SPRINKLERS: YES (DEFERRED SUBMITTAL)  
PV: YES (DEFERRED SUBMITTAL)  
ACTUAL SQUARE FOOTAGE:  
SINGLE-FAMILY DWELLING = 2490 S.F.  
ATTACHED GARAGE = 840 S.F.  
FRONT COVERED PATIO = 200 S.F.  
FIRST REAR COVERED PATIO = 157 S.F.  
SECOND REAR COVERED PATIO = 320 S.F.

**GOVERNING CODES IN EFFECT FOR THIS PROJECT:**  
2019 EDITIONS OF THE CALIFORNIA BUILDING CODE (CBC)  
2019 CALIFORNIA GREEN BUILDING CODE (CGBC)  
2019 CALIFORNIA PLUMBING CODE (CPC)  
2019 CALIFORNIA MECHANICAL CODE (CMC)  
2019 CALIFORNIA ELECTRICAL CODE (CEC)  
2019 CALIFORNIA ENERGY CODE (CEnc)



**SHEET INDEX:**

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- S2.1: EAST / WEST ELEVATIONS
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- S4: SECOND FLOOR PLAN/ ELECTRICAL PLAN & CROSS-SECTIONS
- S5: FOUNDATION PLAN AND DETAILS
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- WSWH2: SIMP STRONG-WALL FRAMING DETAILS

**CONCRETE & REINFORCEMENT**

- 1) Concrete shall meet the following minimum compression strength at 28 days:
 

Slab of grade	2500 psi
Foundations	2500 psi
- 2) Minimum reinforcing steel cover requirements:
 

Cast against and exposed to earth	3"
Formed and exposed to earth or weather	2"
Not exposed to weather:	
Slab, walls, & joist	3/4"
Beams & columns	1 1/2"
- 3) Reinforcing steel shall conform to ASTM A-615, grade 40 for #4 and smaller bars and grade 60 for #5 and larger bars. Steel shall be kept clean and free of rust scales.
- 4) Reinforcing bars shall be in as long as lengths as practicable. All reinforcing steel shall be "cold bent". All reinforcing bars shall extend as far as possible and end in a standard hook unless detailed otherwise. At corners and intersections bars shall return a minimum of 18". All reinforcing bars shall be lapped a minimum of 40 bar diameters or 20".
- 5) Reinforcing, anchor bolts, and inserts shall be rigidly held in place prior to placing concrete.

**ROUGH CARPENTRY**

- 1) All joist, studs, plates, blocking, beams, posts, and ledgers shall be S4S Douglas Fir #2 unless otherwise noted. Each piece of sawn framing lumber shall be identified by the grade mark of a 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 PS20 or equivalent.
- 2) Wood structural panels, when used structurally (including those used for siding, roof and wall sheathing, subflooring diaphragms), shall conform to the requirements for their type in Doc PS1 or PS2. Each panel or members shall be identified for grade and glue type by the trademarks of an approved testing and grading agency. Structural plywood shall be CD grade with exterior glue. CXC plywood shall be used at all eave areas of roof, maximum unframed holes in sheathing shall be 3" in diameter.
- 3) Wood in contact with concrete shall be pressure treated Douglas Fir or Hem Fir. Wood required by 2019 CRC, section R317.1 or Hem Fir. Wood required by 2019 CRC, section R317.1 to be preservative treated shall conform to the requirements of the AWPA Standard U1 for species, product, preservative and end use. Preservatives shall be listed in Section 4 of AWPA U1. Each piece of preservative treated wood shall bear the quality mark of an inspection agency that maintains continuing supervision, testing and inspection over the quality of the preservation - treated wood, and shall include the following information:
  - \*Identification of treated manufacturer
  - \*Type of preservation used
  - \*Minimum preservation retention (pcf)
  - \*AWPA standard to which the product is treated
  - \*Identify of the accredited inspection agency
- 4) Nails shall be common wire except that nails used in exterior applications shall be galvanized box. Pre-drill holes where wood tends to split.
- 5) Joist hangers, metal connectors, and other miscellaneous timber connectors shall be per Simpson Company, San Leandro, California or equal. Nail at all pre-drilled holes, per manufacture instructions, unless noted otherwise.
- 6) Machine bolts and anchor bolts shall conform to ASTM A-307. Provide plates or malleable iron washers under head and nut where bearing is against wood. Bolt holes in wood shall be 1/16" larger than bolt sizes, unless otherwise noted. Nuts shall be tightened when placed and retightened before closing in.
- 7) All nailing not specifically called out shall be per Table R502.3(1) Fastening Schedule of the 2019 CRC.
- 8) All double plates shall be lapped a minimum of 4'-0" at splices with 8-16d each side.
- 9) Where plumbing, heating, or other ducts are placed in a partition requiring the cutting of double top plates, a Simpson LSTA24 strap shall be fastened to each side of the top plate.
- 10) Contractor shall install sufficient structural sheathing or bracing to provide adequate stability to the structure during construction.
- 11) Anchor bolts to be 3" diameter x 10" long embedded 7" into concrete with nut and 3"x3"x.229" plate washer, within 12" and minimum 3/4" of ends of plates and corners, and 4'-0" o.c. maximum spacing unless otherwise noted on shearwall schedule, plans, or details.
- 12) Top of foundation and individual piers foundations to be a minimum of 8" above adjacent finished grade.
- 13) Cutting and notching of wood studs:
  - a) In exterior walls and bearing partitions, any wood stud is permitted to be cut or notched to a depth not exceeding 25 percent of its width.
  - b) Cutting or notching of studs to a depth not greater than 60 percent of the width of the stud is permitted in non bearing partitions supporting no loads other than the weight of the partition.
- 14) Bored holes in wood studs:
  - a) A hole not greater in diameter than 40 percent of the stud width is permitted to be bored in any wood stud.
  - b) Bored holes not greater than 60 percent of the width of the stud are permitted in non bearing partitions or any wall where each bored stud is doubled.
  - c) In no case shall the edge of the bored hole be nearer than 5/8" inch to the edge of stud.
  - d) Bored holes shall not be located at the same section of stud as a cut or notch.
- 15) Sill plate anchor bolts, nuts and plate washers shall be hot dipped zinc-coated galvanized steel, stainless steel or mechanically deposited zinc coated steel in accordance with CBC 2304.10.5

**HERS FEATURE SUMMARY:**

- BUILDING LEVEL VERIFICATION:**
- QUALITY INSULATION INSTALLATION (QII)
  - INDOOR AIR QUALITY VENTILATION
  - KITCHEN RANGE HOOD
- COOLING SYSTEM VERIFICATIONS:**
- MINIMUM AIRFLOW
  - VERIFIED EER
  - VERIFIED SEER
  - VERIFIED REFRIGERANT CHARGE
  - FAN EFFICACY WATTS/CFM
- HEATING SYSTEM VERIFICATIONS**
- NONE
- HVAC DISTRIBUTION SYSTEM VERIFICATION:**
- DUCT LEAKAGE TESTING
  - LOW-LEAKAGE AIR HANDLING UNIT
- DOMESTIC HOT WATER SYSTEM VERIFICATION:**
- NONE

**GENERAL STRUCTURAL NOTES**

**DESIGN CRITERIA**

- 1) Codes and Standards, 2019 CRC & 2019 CBC and any applicable local codes.
- 2) Ground Base Snow Load = 46 psf
- 3) Roof Snow Load = 32 psf & Dead Load = 18 psf (max.)
- 4) Solar Panel Dead Load = 3 psf
- 5) Wind 110 mph - Exposure B
- 6) Seismic Design Category C (Site Class "D", Fa = 1.54, Fv = 2.02, SMS = 0.647, SM1 = 0.427, SDS = 0.431, SD1 = 0.284)

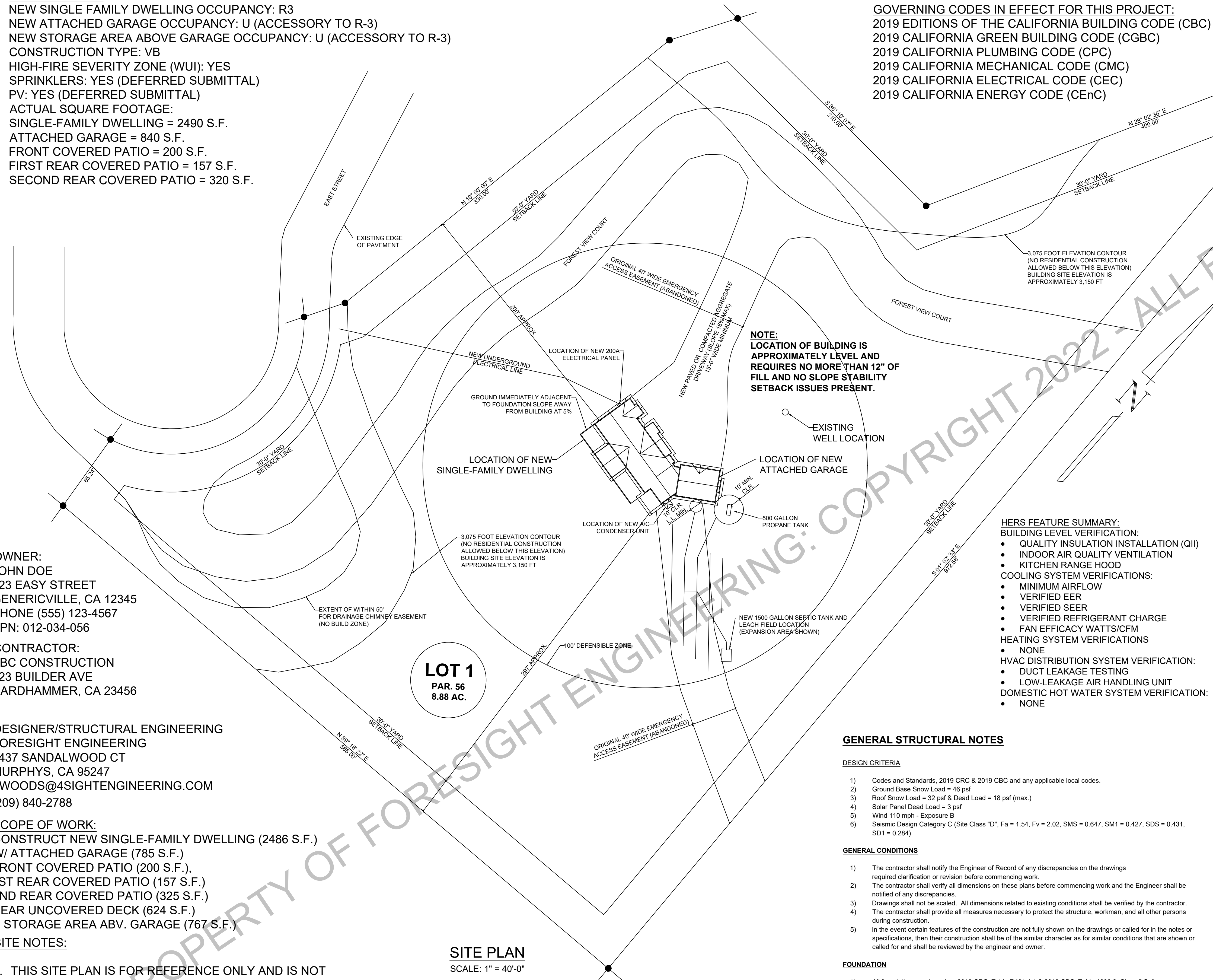
**GENERAL CONDITIONS**

- 1) The contractor shall notify the Engineer of Record of any discrepancies on the drawings required clarification or revision before commencing work.
- 2) The contractor shall verify all dimensions on these plans before commencing work and the Engineer shall be notified of any discrepancies.
- 3) Drawings shall not be scaled. All dimensions related to existing conditions shall be verified by the contractor.
- 4) The contractor shall provide all measures necessary to protect the structure, workman, and all other persons during construction.
- 5) In the event certain features of the construction are not fully shown on the drawings or called for in the notes or specifications, then their construction shall be of the similar character as for similar conditions that are shown or called for and shall be reviewed by the engineer and owner.

**FOUNDATION**

- 1) All foundations are based on 2019 CRC, Table R401.4.1 & 2019 CBC, Table 1806.2, Class 5 Soil
  - A) Allowable Bearing = 1500 PSF
  - B) Lateral Bearing = 100 PSF
  - C) Frictional Sliding Resistance = 130 PSF x Contact Area or max. 1/3 x Dead Load
- 2) All foundations shall bear on firm, undisturbed native soil or on engineered fills as or shown on the drawings.
- 3) All footing excavations shall be neat. Over excavations in depth and width shall be filled with concrete. All loose soils shall be removed from excavations prior to placement of concrete.
- 4) All footings shall be level or stepped unless noted otherwise.
- 5) The contractor shall be responsible for determining the exact locations for all anchor bolts, holdown anchors and straps, and embeds, prior to placement of concrete and/or installation of structural framing members.

**NOTE:**  
LOCATION OF BUILDING IS APPROXIMATELY LEVEL AND REQUIRES NO MORE THAN 12" OF FILL AND NO SLOPE STABILITY SETBACK ISSUES PRESENT.



**LOT 1**  
PAR. 56  
8.88 AC.

**SITE PLAN**  
SCALE: 1" = 40'-0"

**OWNER:**  
JOHN DOE  
123 EASY STREET  
GENERICVILLE, CA 12345  
PHONE (555) 123-4567  
APN: 012-034-056

**CONTRACTOR:**  
ABC CONSTRUCTION  
123 BUILDER AVE  
HARDHAMMER, CA 23456

**DESIGNER/STRUCTURAL ENGINEERING**  
FORESIGHT ENGINEERING  
1437 SANDALWOOD CT  
MURPHYS, CA 95247  
ZWOODS@4SIGHTENGINEERING.COM  
(209) 840-2788

**SCOPE OF WORK:**  
CONSTRUCT NEW SINGLE-FAMILY DWELLING (2486 S.F.)  
W/ ATTACHED GARAGE (785 S.F.)  
FRONT COVERED PATIO (200 S.F.),  
1ST REAR COVERED PATIO (157 S.F.)  
2ND REAR COVERED PATIO (325 S.F.)  
REAR UNCOVERED DECK (624 S.F.)  
& STORAGE AREA ABV. GARAGE (767 S.F.)

**SITE NOTES:**

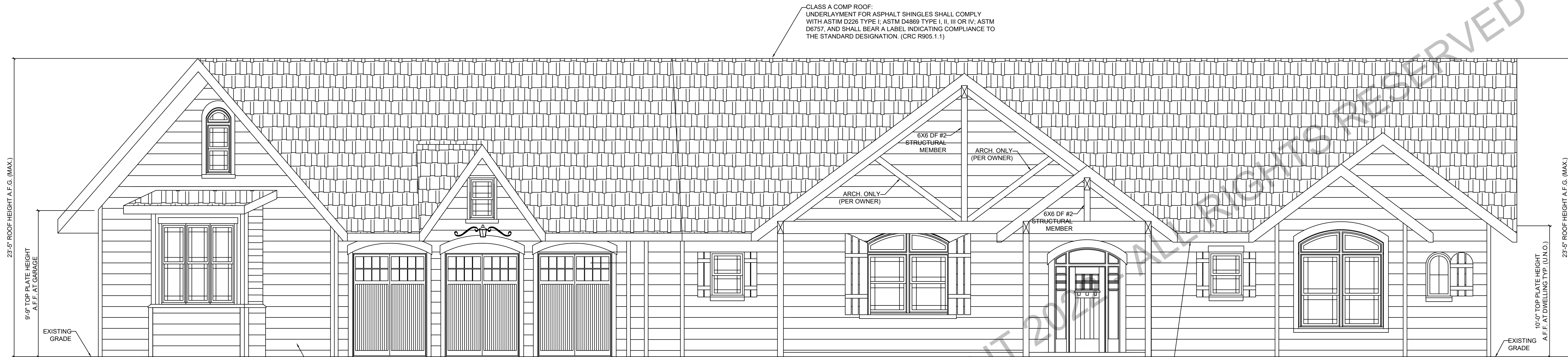
1. THIS SITE PLAN IS FOR REFERENCE ONLY AND IS NOT INTENDED AS AN ACCURATE SURVEY OF THIS PARCEL.
2. OWNER OR CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF PROPER SETBACKS.
3. PROPERTY CORNER PINS OF PROPERTY LINES MUST BE VERIFIED PRIOR TO START OF EXCAVATION.
4. OWNER OR CONTRACTOR SHALL VERIFY EXACT LOCATION OF ALL OVERHEAD AND UNDERGROUND UTILITIES PRIOR TO START OF CONSTRUCTION.

CA CE# 91654  
JOB XXXX-XXX

FORESIGHT ENGINEERING  
1437 SANDALWOOD DR  
MURPHYS, CA 95247  
WEBSITE: WWW.4SIGHTENGINEERING.COM

XXXX-XXX JOHN DOE NEW DECK REPLACEMENT  
123 EASY STREET  
GENERICVILLE, CALIFORNIA 12345  
APN 012-034-056

SHEET  
S1



**NORTH ELEVATION**  
SCALE: 1/4" = 1'-0"

**EXTERIOR ELEVATION NOTES:**

- PROVIDE BASE AND CAP FLASHING PER R905.2.8.1. INSTALL VALLEY LININGS PER CRC R905.2.8.2
- BASE FLASHING AGAINST A VERTICAL SIDEWALL SHALL BE CONTINUOUS OR STEP FLASHING AND SHALL BE A MINIMUM OF 4" IN HEIGHT AND 4" IN WIDTH AND SHALL DIRECT WATER AWAY FROM THE VERTICAL SIDEWALL ONTO THE ROOF OR INTO THE GUTTER PER CRC R905.2.8.3
- PROVIDE FLASHING AND COUNTER-FLASHING AT THE JUNCTURE OF ROOF VERTICAL SURFACES PER CRC R905.3.8
- APPROVED CORROSION RESISTANT FLASHINGS SHALL BE INSTALLED AT ALL OF THE FOLLOWING LOCATIONS (CRC R703):
  1. EXTERIOR WINDOW AND DOOR OPENINGS
  2. AT THE INTERSECTION OF CHIMNEYS OR OTHER MASONRY CONSTRUCTION WITH FRAME OR STUCCO WALLS, WITH PROJECTING LIPS ON BOTH SIDES UNDER STUCCO COPINGS
  3. UNDER AND AT THE ENDS OF MASONRY, WOOD OR METAL COPINGS AND SILLS
  4. CONTINUOUSLY ABOVE ALL PROJECTED WOOD TRIM
  5. WHERE EXTERIOR PORCHES, DECKS OR STAIRS ATTACH TO A WALL OR FLOOR ASSEMBLY OF WOOD-FRAME CONSTRUCTION
  6. AT WALL AND ROOF INTERSECTIONS
  7. AT BUILT-IN GUTTERS
- SILL HEIGHTS AT EMERGENCY ESCAPE AND RESCUE OPENINGS SHALL NOT EXCEED 44" ABOVE FINISHED FLOOR

CLASS A COMP ROOF:  
UNDERLAYMENT FOR ASPHALT SHINGLES SHALL COMPLY WITH ASTM D226 TYPE I; ASTM D4889 TYPE I, II, III OR IV; ASTM D6757, AND SHALL BEAR A LABEL INDICATING COMPLIANCE TO THE STANDARD DESIGNATION. (CRC R905.1.1)

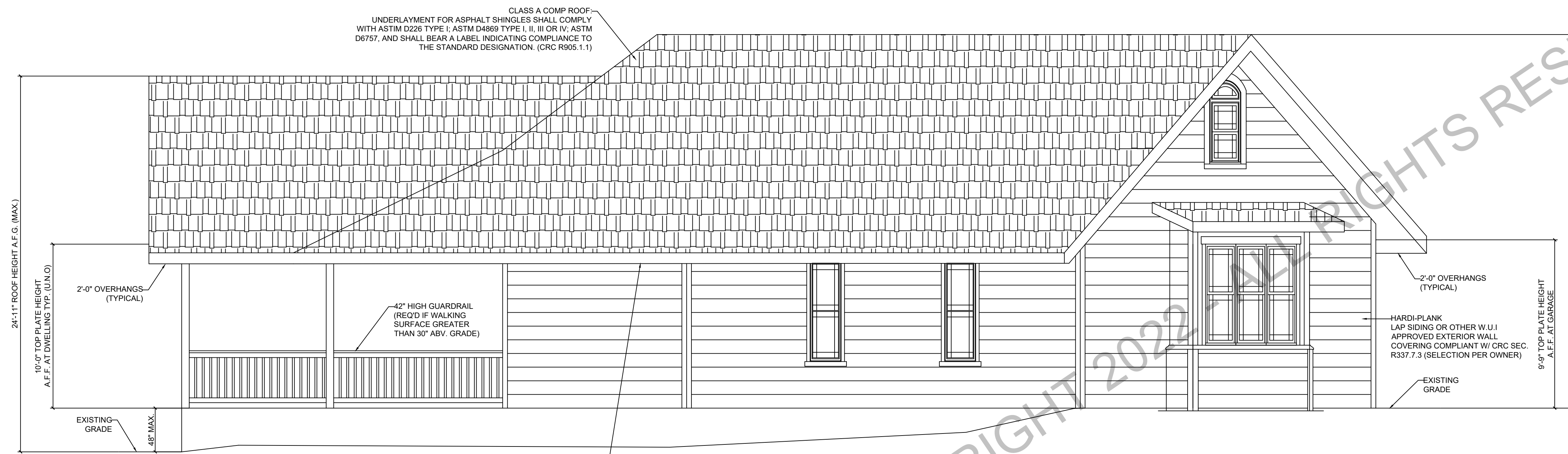


**SOUTH ELEVATION**  
SCALE: 1/4" = 1'-0"



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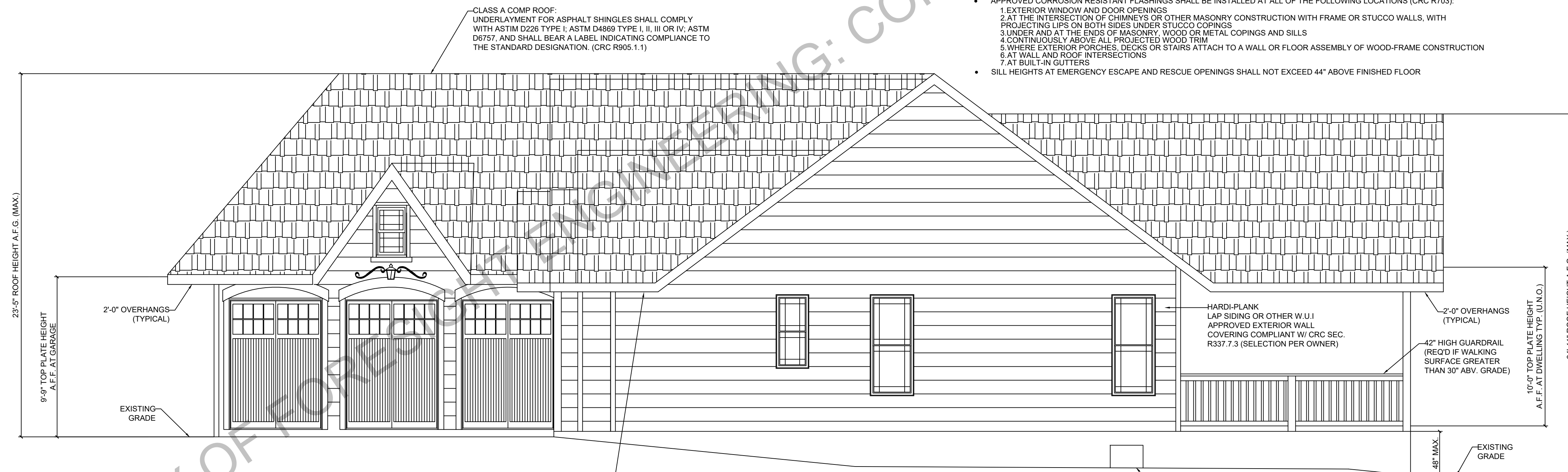


**EAST ELEVATION**  
SCALE: 1/4" = 1'-0"

NEW ROOF GUTTERS PROVIDED WITH THE MEANS TO PREVENT THE ACCUMULATION OF LEAVES AND DEBRIS IN THE GUTTER PER CRC R337.5.4. GUTTERS SHALL COLLECT AND DISCHARGE ROOF DRAINAGE TO THE GROUND SURFACE AT LEAST 5 FEET FROM FOUNDATION WALLS PER CRC R801.3.

**EXTERIOR ELEVATION NOTES:**

- 1. PROVIDE BASE AND CAP FLASHINGS PER R905.2.8.1. INSTALL VALLEY LININGS PER CRC R905.2.8.2
- 2. BASE FLASHING AGAINST A VERTICAL SIDEWALL SHALL BE CONTINUOUS OR STEP FLASHING AND SHALL BE A MINIMUM OF 4" IN HEIGHT AND 4" IN WIDTH AND SHALL DIRECT WATER AWAY FROM THE VERTICAL SIDEWALL ONTO THE ROOF OR INTO THE GUTTER PER CRC R905.2.8.3
- 3. PROVIDE FLASHING AND COUNTER-FLASHING AT THE JUNCTURE OF ROOF VERTICAL SURFACES PER CRC R905.3.8
- 4. APPROVED CORROSION RESISTANT FLASHINGS SHALL BE INSTALLED AT ALL OF THE FOLLOWING LOCATIONS (CRC R703):
  1. EXTERIOR WINDOW AND DOOR OPENINGS
  2. AT THE INTERSECTION OF CHIMNEYS OR OTHER MASONRY CONSTRUCTION WITH FRAME OR STUCCO WALLS, WITH PROJECTING LIPS ON BOTH SIDES UNDER STUCCO COPINGS
  3. UNDER AND AT THE ENDS OF MASONRY, WOOD OR METAL COPINGS AND SILLS
  4. CONTINUOUSLY ABOVE ALL PROJECTED WOOD TRIM
  5. WHERE EXTERIOR PORCHES, DECKS OR STAIRS ATTACH TO A WALL OR FLOOR ASSEMBLY OF WOOD-FRAME CONSTRUCTION
  6. AT WALL AND ROOF INTERSECTIONS
  7. AT BUILT-IN GUTTERS
- 5. SILL HEIGHTS AT EMERGENCY ESCAPE AND RESCUE OPENINGS SHALL NOT EXCEED 44" ABOVE FINISHED FLOOR



**WEST ELEVATION**  
SCALE: 1/4" = 1'-0"

NEW ROOF GUTTERS PROVIDED WITH THE MEANS TO PREVENT THE ACCUMULATION OF LEAVES AND DEBRIS IN THE GUTTER PER CRC R337.5.4. GUTTERS SHALL COLLECT AND DISCHARGE ROOF DRAINAGE TO THE GROUND SURFACE AT LEAST 5 FEET FROM FOUNDATION WALLS PER CRC R801.3.

24"X16" (MIN.) UNDER-FLOOR ACCESS OPENING

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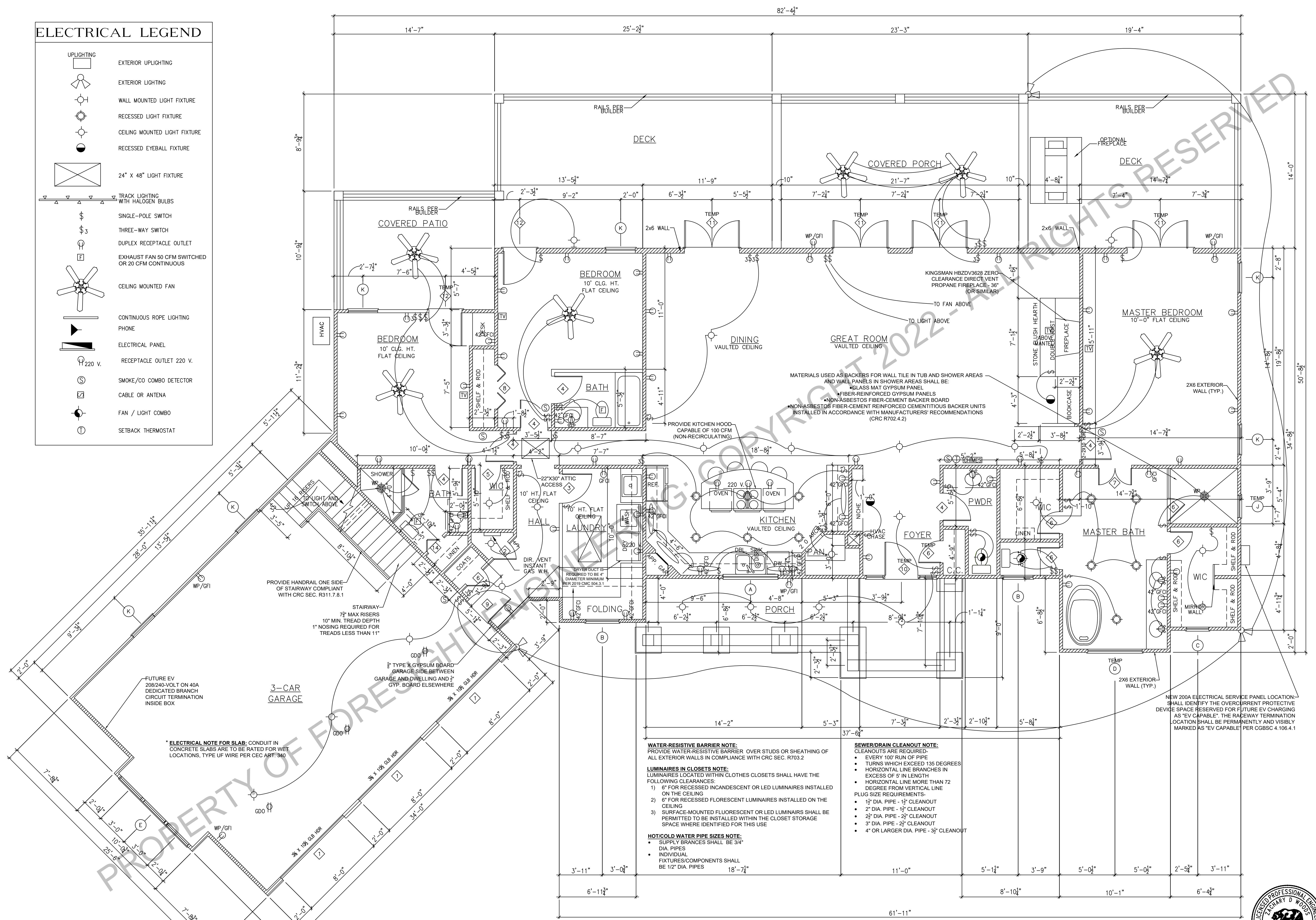
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SHEET

S2.1

**ELECTRICAL LEGEND**

	UPLIGHTING
	EXTERIOR LIGHTING
	WALL MOUNTED LIGHT FIXTURE
	RECESSED LIGHT FIXTURE
	CEILING MOUNTED LIGHT FIXTURE
	RECESSED EYEBALL FIXTURE
	24" X 48" LIGHT FIXTURE
	TRACK LIGHTING WITH HALOGEN BULBS
	SINGLE-POLE SWITCH
	THREE-WAY SWITCH
	DUPLEX RECEPTACLE OUTLET
	EXHAUST FAN 50 CFM SWITCHED OR 20 CFM CONTINUOUS
	CEILING MOUNTED FAN
	CONTINUOUS ROPE LIGHTING
	PHONE
	ELECTRICAL PANEL
	RECEPTACLE OUTLET 220 V.
	SMOKE/CO COMBO DETECTOR
	CABLE OR ANTENNA
	FAN / LIGHT COMBO
	SETBACK THERMOSTAT



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

\*DOOR & WINDOW SCHEDULE - SEE SHT. S4

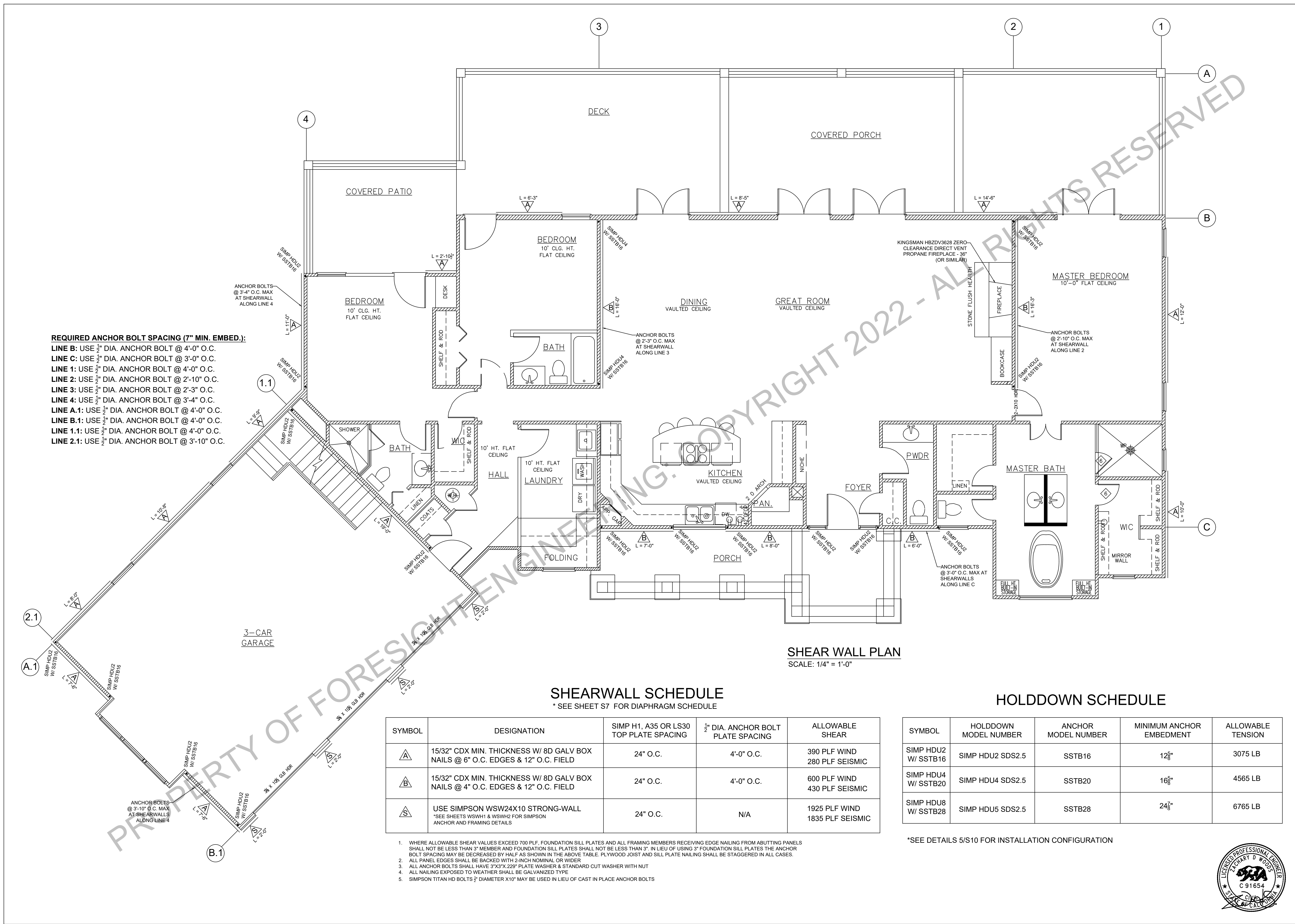


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 1437 SANDALWOOD DR  
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 WEBSITE: WWW.4SIGHTENGINEERING.COM

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**REQUIRED ANCHOR BOLT SPACING (7" MIN. EMBED.):**  
**LINE B:** USE 1/2" DIA. ANCHOR BOLT @ 4'-0" O.C.  
**LINE C:** USE 1/2" DIA. ANCHOR BOLT @ 3'-0" O.C.  
**LINE 1:** USE 1/2" DIA. ANCHOR BOLT @ 4'-0" O.C.  
**LINE 2:** USE 1/2" DIA. ANCHOR BOLT @ 2'-10" O.C.  
**LINE 3:** USE 1/2" DIA. ANCHOR BOLT @ 2'-3" O.C.  
**LINE 4:** USE 1/2" DIA. ANCHOR BOLT @ 3'-4" O.C.  
**LINE A.1:** USE 1/2" DIA. ANCHOR BOLT @ 4'-0" O.C.  
**LINE B.1:** USE 1/2" DIA. ANCHOR BOLT @ 4'-0" O.C.  
**LINE 1.1:** USE 1/2" DIA. ANCHOR BOLT @ 4'-0" O.C.  
**LINE 2.1:** USE 1/2" DIA. ANCHOR BOLT @ 3'-10" O.C.

**SHEAR WALL PLAN**  
 SCALE: 1/4" = 1'-0"

**SHEARWALL SCHEDULE**  
 \* SEE SHEET S7 FOR DIAPHRAGM SCHEDULE

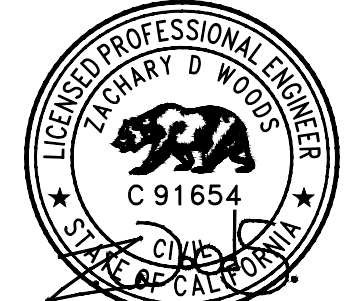
SYMBOL	DESIGNATION	SIMP H1, A35 OR LS30 TOP PLATE SPACING	1/2" DIA. ANCHOR BOLT PLATE SPACING	ALLOWABLE SHEAR
A	15/32" CDX MIN. THICKNESS W/ 8D GALV BOX NAILS @ 6" O.C. EDGES & 12" O.C. FIELD	24" O.C.	4'-0" O.C.	390 PLF WIND 280 PLF SEISMIC
B	15/32" CDX MIN. THICKNESS W/ 8D GALV BOX NAILS @ 4" O.C. EDGES & 12" O.C. FIELD	24" O.C.	4'-0" O.C.	600 PLF WIND 430 PLF SEISMIC
S	USE SIMPSON WSW24X10 STRONG-WALL *SEE SHEETS WSWH1 & WSWH2 FOR SIMPSON ANCHOR AND FRAMING DETAILS	24" O.C.	N/A	1925 PLF WIND 1835 PLF SEISMIC

**HOLDDOWN SCHEDULE**

SYMBOL	HOLDDOWN MODEL NUMBER	ANCHOR MODEL NUMBER	MINIMUM ANCHOR EMBEDMENT	ALLOWABLE TENSION
SIMP HDU2 W/ SSTB16	SIMP HDU2 SDS2.5	SSTB16	12 3/8"	3075 LB
SIMP HDU4 W/ SSTB20	SIMP HDU4 SDS2.5	SSTB20	16 3/8"	4565 LB
SIMP HDU8 W/ SSTB28	SIMP HDU5 SDS2.5	SSTB28	24 3/8"	6765 LB

\*SEE DETAILS 5/S10 FOR INSTALLATION CONFIGURATION

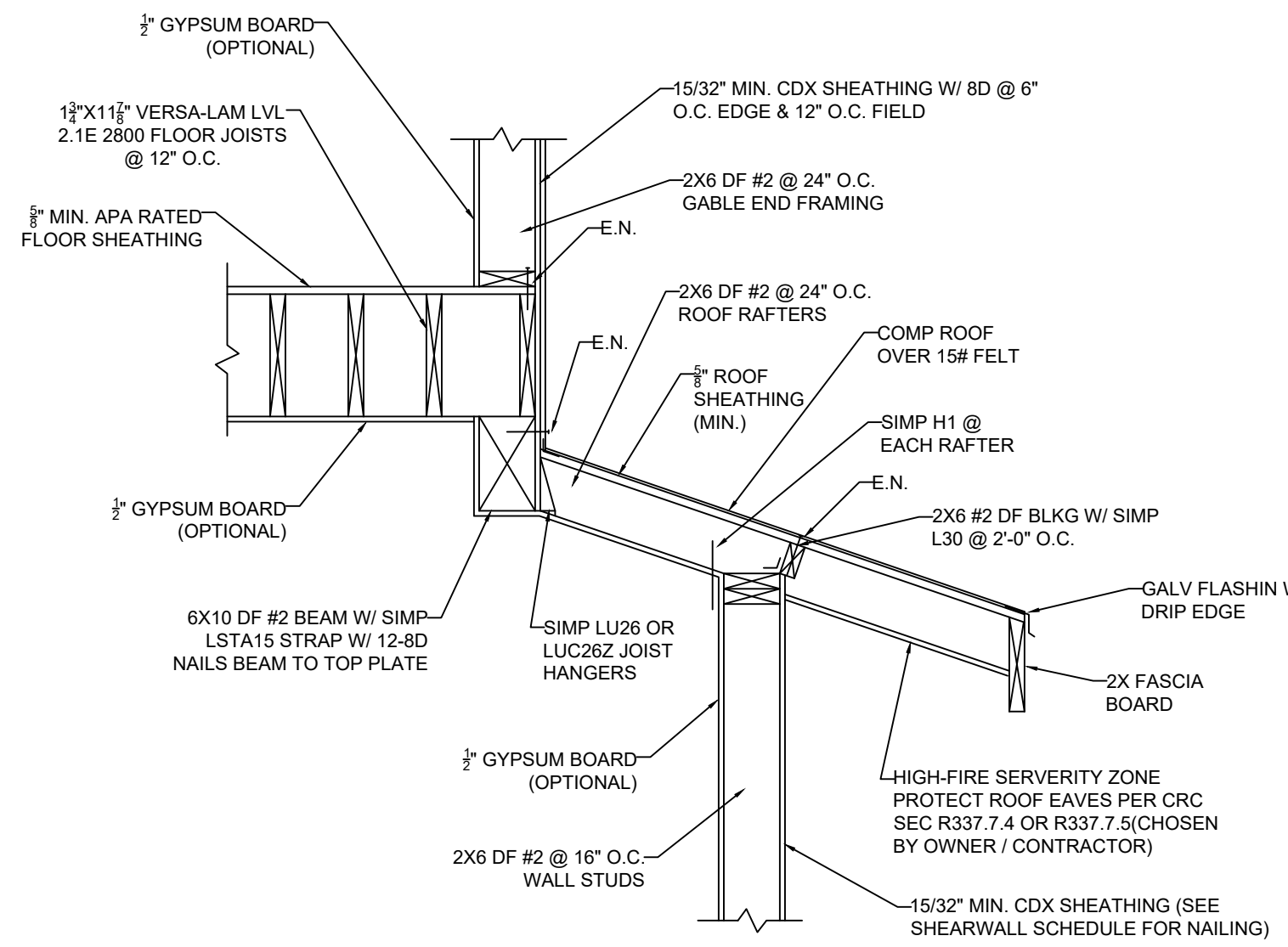
1. WHERE ALLOWABLE SHEAR VALUES EXCEED 700 PLF, FOUNDATION SILL PLATES AND ALL FRAMING MEMBERS RECEIVING EDGE NAILING FROM ABUTTING PANELS SHALL NOT BE LESS THAN 3" MEMBER AND FOUNDATION SILL PLATES SHALL NOT BE LESS THAN 3". IN LIEU OF USING 3" FOUNDATION SILL PLATES THE ANCHOR BOLT SPACING MAY BE DECREASED BY HALF AS SHOWN IN THE ABOVE TABLE. PLYWOOD JOIST AND SILL PLATE NAILING SHALL BE STAGGERED IN ALL CASES.  
 2. ALL PANEL EDGES SHALL BE BACKED WITH 2-INCH NOMINAL OR WIDER  
 3. ALL ANCHOR BOLTS SHALL HAVE 3"X3"X.229" PLATE WASHER & STANDARD CUT WASHER WITH NUT  
 4. ALL NAILING EXPOSED TO WEATHER SHALL BE GALVANIZED TYPE  
 5. SIMPSON TITAN HD BOLTS 3/2" DIAMETER X10" MAY BE USED IN LIEU OF CAST IN PLACE ANCHOR BOLTS



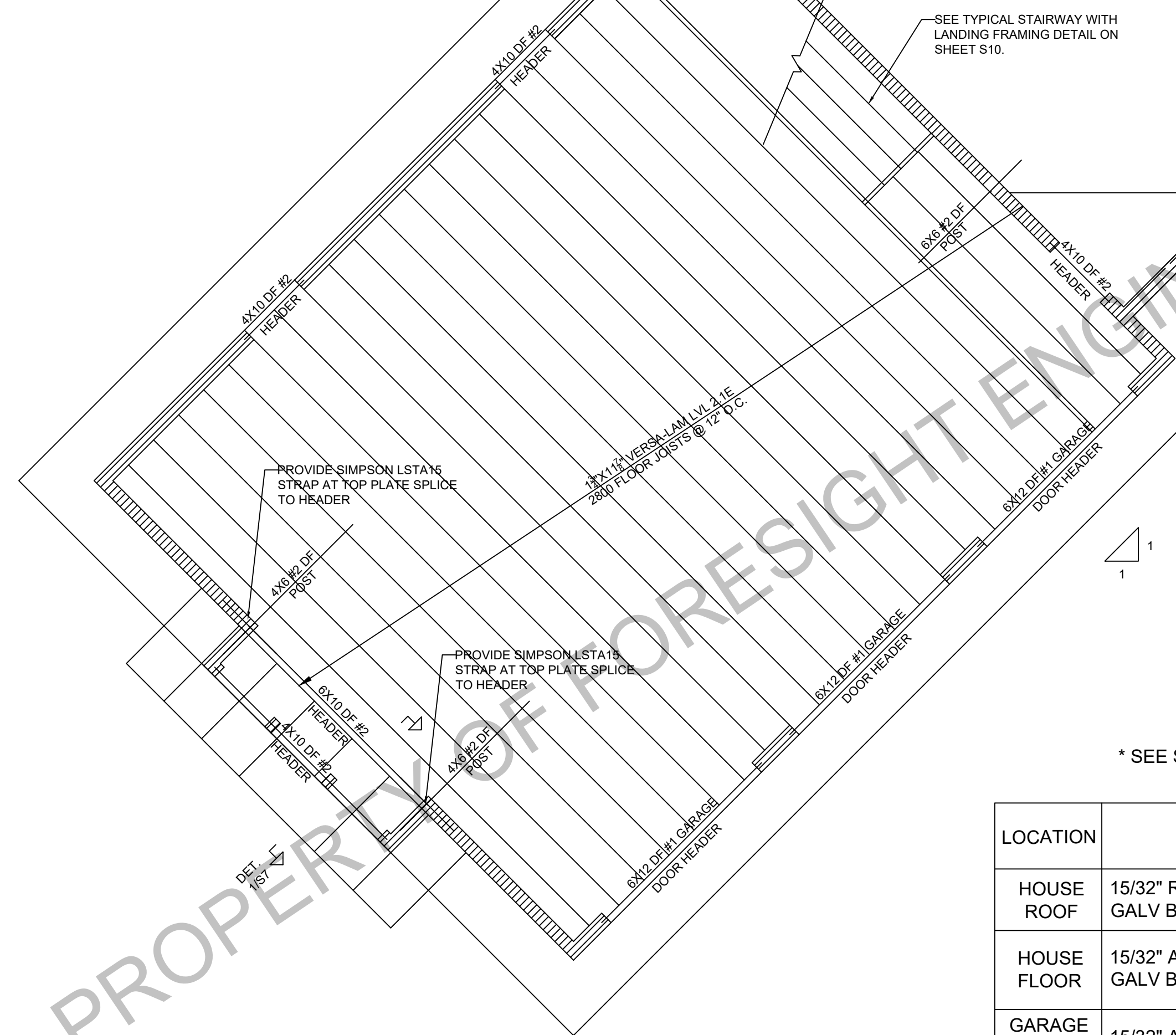
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 1437 SANDALWOOD DR JOB XXXX-XXX  
 MURPHYS, CA 95247 (209) 840-2788  
 WEBSITE: WWW.4SIGHTENGINEERING.COM

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 123 EASY STREET  
 GENERICVILLE, CALIFORNIA 12345  
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SHEET  
 S6



**DETAIL 1/S7**  
SCALE: 3/4" = 1'-0"



**DIAPHRAGM SCHEDULE**

\* SEE SHEET S6 FOR SHEARWALL AND HOLDOWN SCHEDULES

LOCATION	DESIGNATION	ALLOWABLE SHEAR
HOUSE ROOF	15/32" RATED APA STRUCTURAL SHEATHING W/ 10D GALV BOX NAILS @ 6" O.C. EDGES & 12" O.C. FIELD (MIN.)	400 PLF WIND 285 PLF SEISMIC
HOUSE FLOOR	15/32" APA RATED STRUCTURAL SHEATHING W/ 10D GALV BOX NAILS @ 6" O.C. EDGES & 12" O.C. FIELD (MIN.)	400 PLF WIND 285 PLF SEISMIC
GARAGE ROOF/ ATTIC FLR.	15/32" APA RATED STRUCTURAL SHEATHING W/ 10D GALV BOX NAILS @ 6" O.C. EDGES & 12" O.C. FIELD (MIN.)	400 PLF WIND 285 PLF SEISMIC

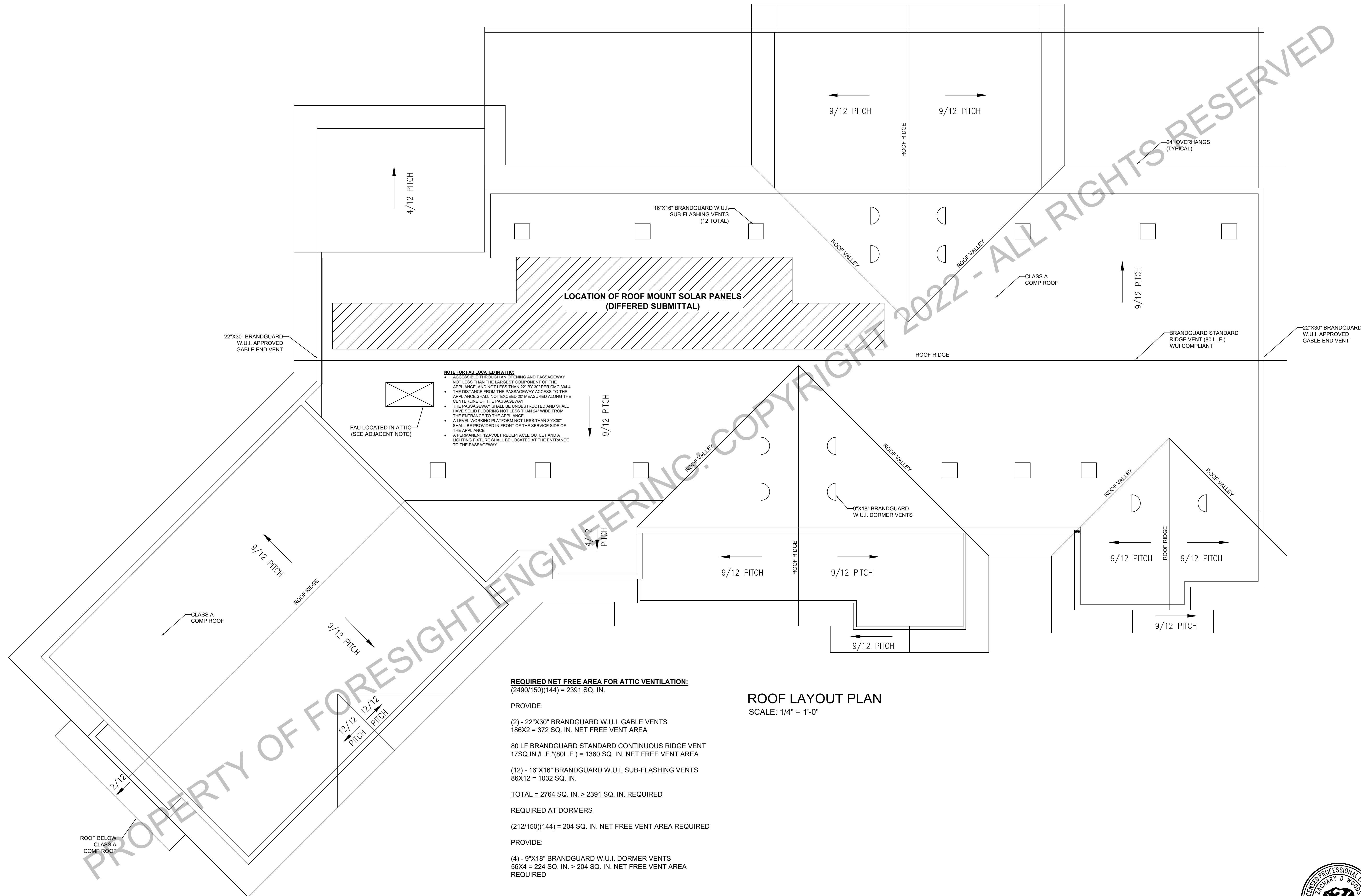
**STORAGE ABOVE GARAGE FLOOR FRAMING**  
SCALE: 1/4" = 1'-0"



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 JOB XXXX-XXX  
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SHEET  
**S7**



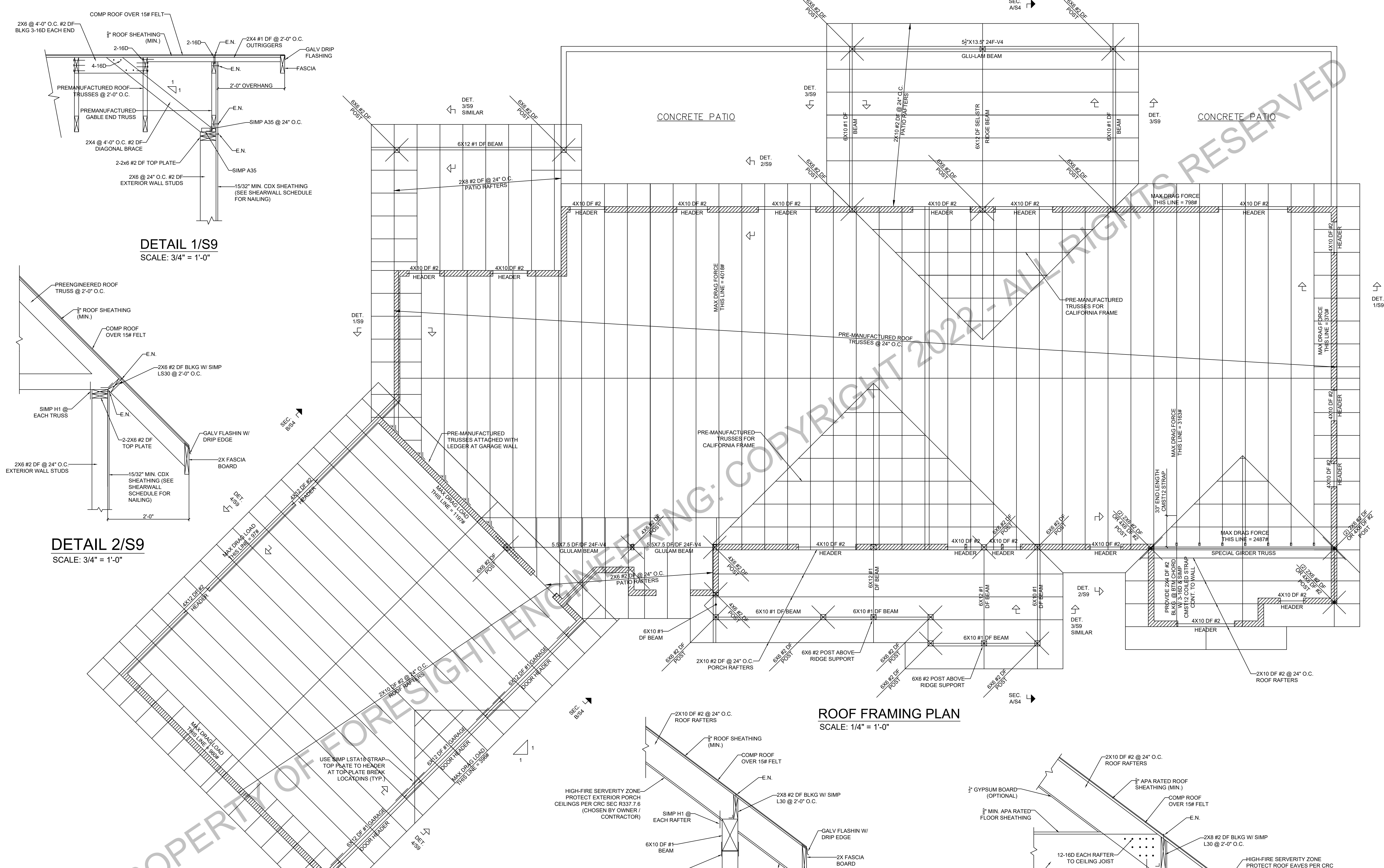
**ROOF LAYOUT PLAN**  
SCALE: 1/4" = 1'-0"

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XXXX-XXX JOHN DOE NEW DECK REPLACEMENT  
 123 EASY STREET  
 GENERICVILLE, CALIFORNIA 12345  
 APN 012-034-056



**DETAIL 1/S9**  
SCALE: 3/4" = 1'-0"

**DETAIL 2/S9**  
SCALE: 3/4" = 1'-0"

**ROOF FRAMING PLAN**  
SCALE: 1/4" = 1'-0"

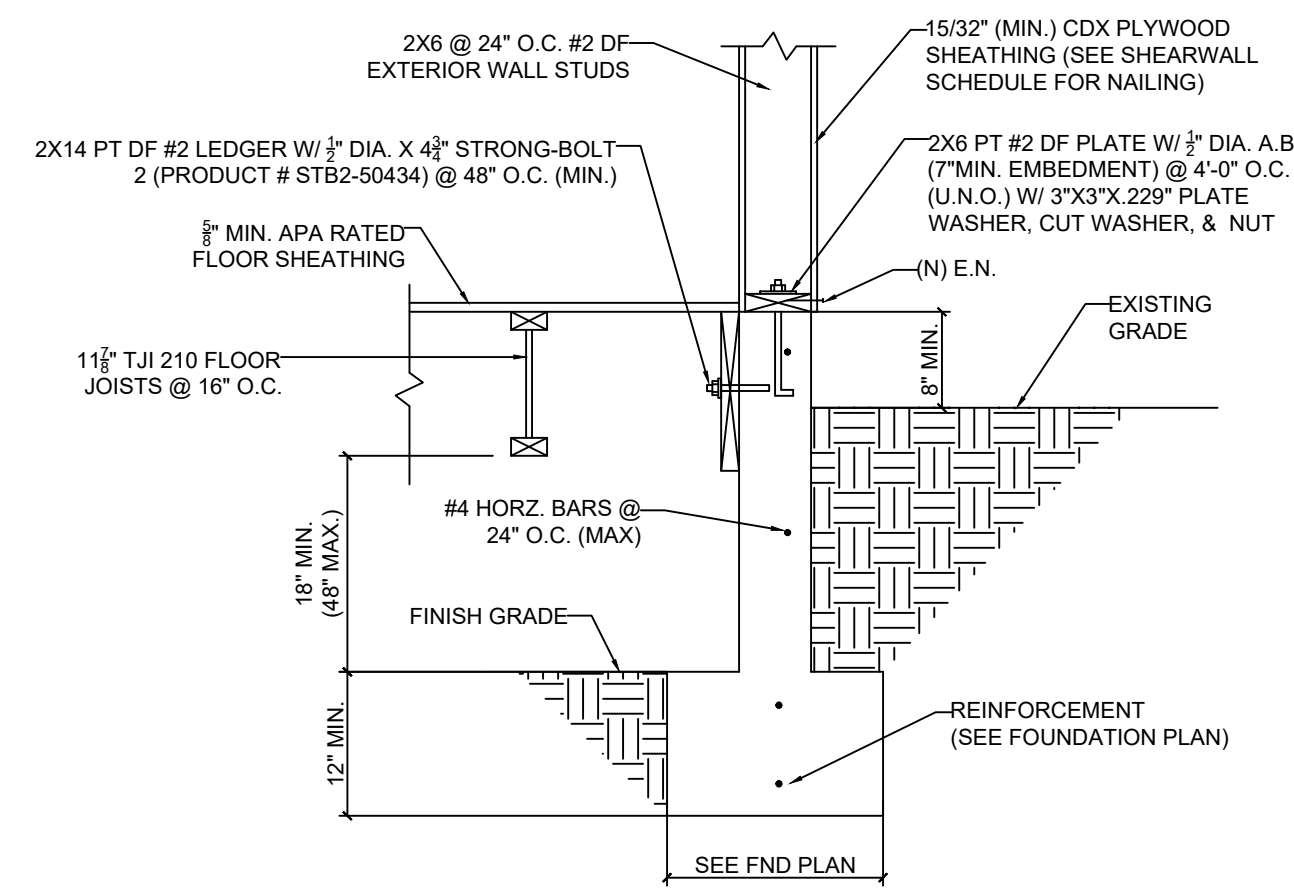
**DETAIL 3/S9**  
SCALE: 3/4" = 1'-0"

**DETAIL 4/S9**  
SCALE: 3/4" = 1'-0"

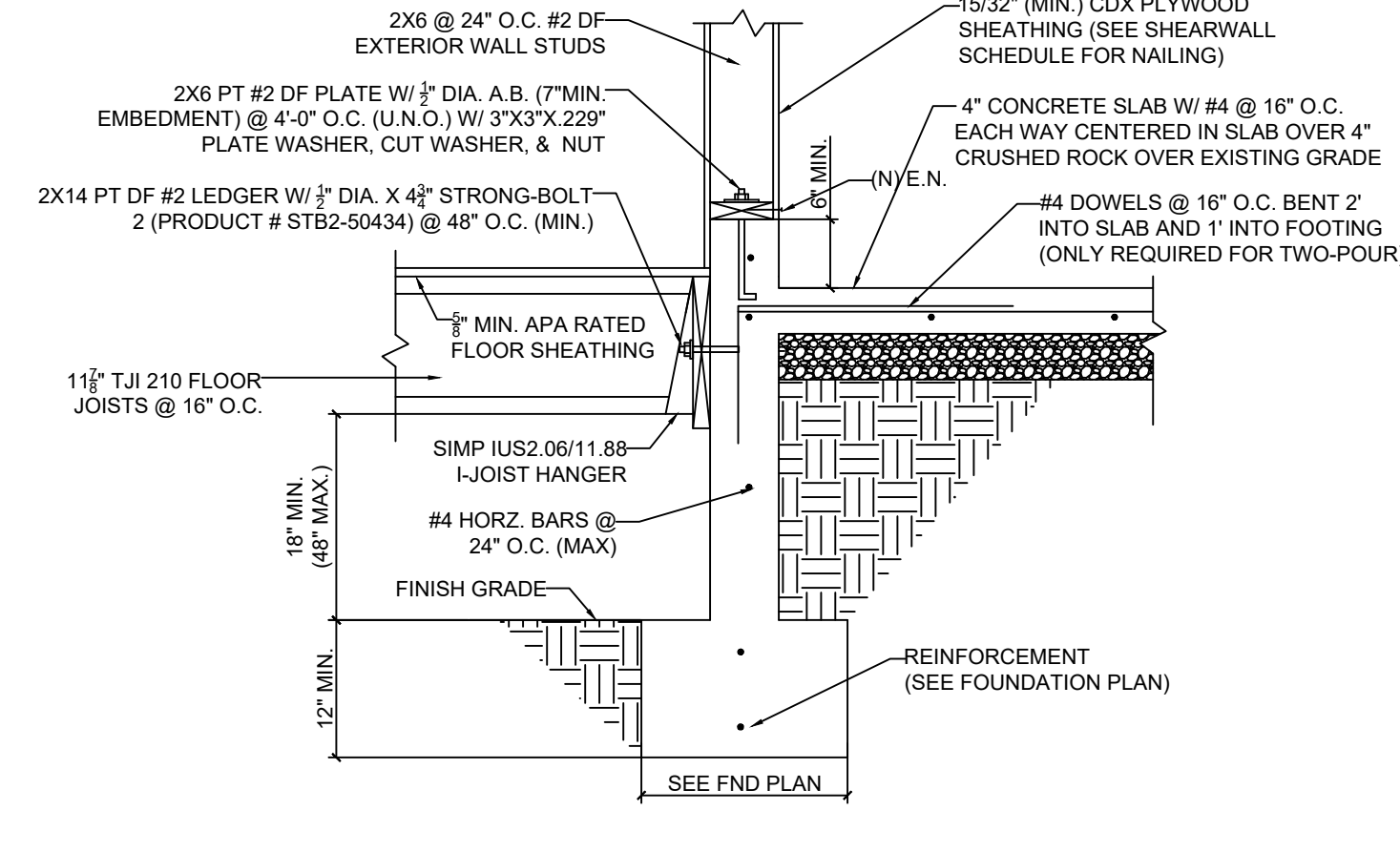
**IMPORTANT NOTE:**  
10'-0" TOP PLATE/BEAM HEIGHT FOR ALL WALLS/BEAMS SUPPORTING PREMANUFACTURED ROOF TRUSS & 9'-9" TOP PLATE/BEAM HEIGHT FOR ALL WALLS/BEAMS SUPPORTING 2X10 ROOF RAFTERS TO ENSURE ROOF AND EAVES ARE FLUSH



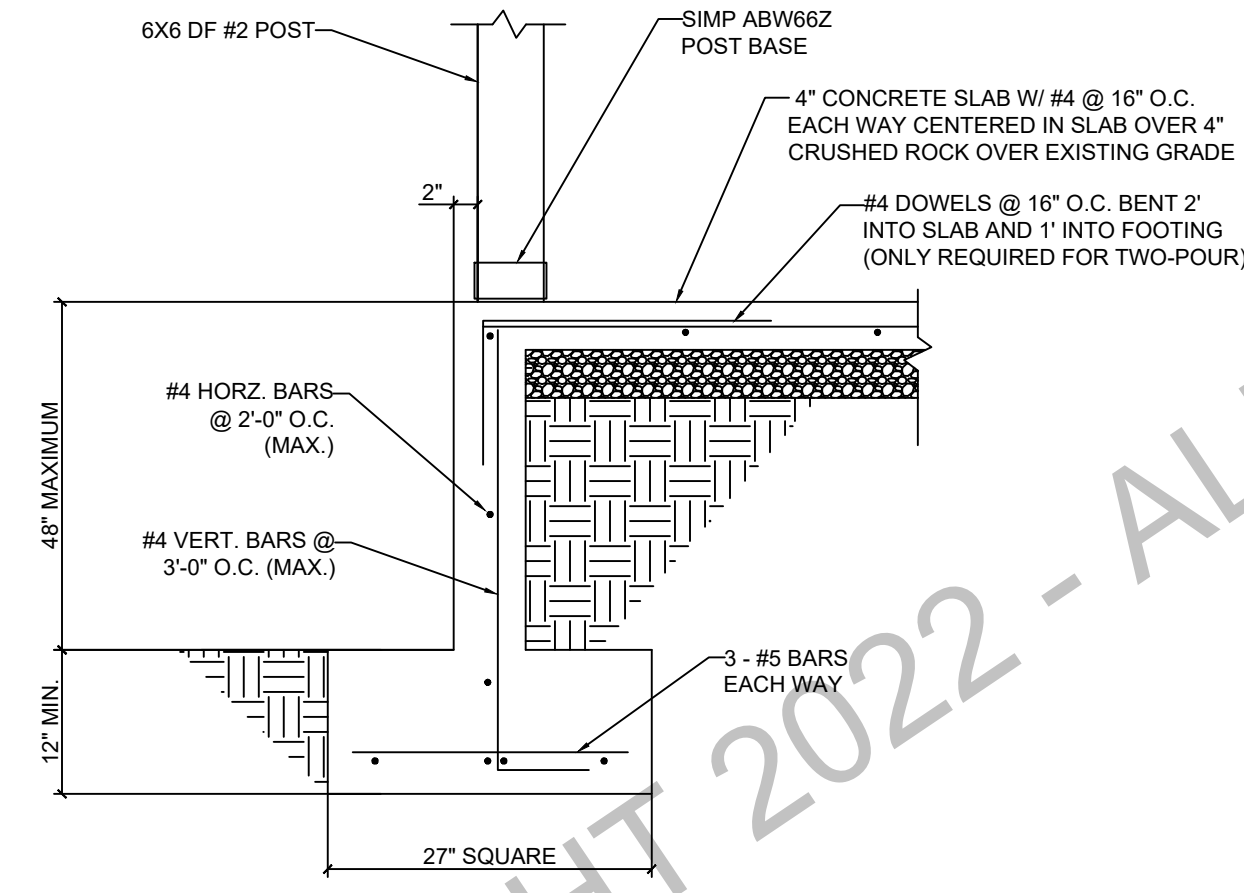
CA CE# 91654  
 JOB XXXX-XXX  
 (209) 840-2788  
 WEBSITE: WWW.4SIGHTENGINEERING.COM  
 FORESIGHT ENGINEERING  
 1437 SANDALWOOD DR  
 MURPHYS, CA 95247  
 XXXX-XXX JOHN DOE NEW DECK REPLACEMENT  
 123 EASY STREET  
 GENERICVILLE, CALIFORNIA 12345  
 APN 012-034-056  
 SHEET  
 S9



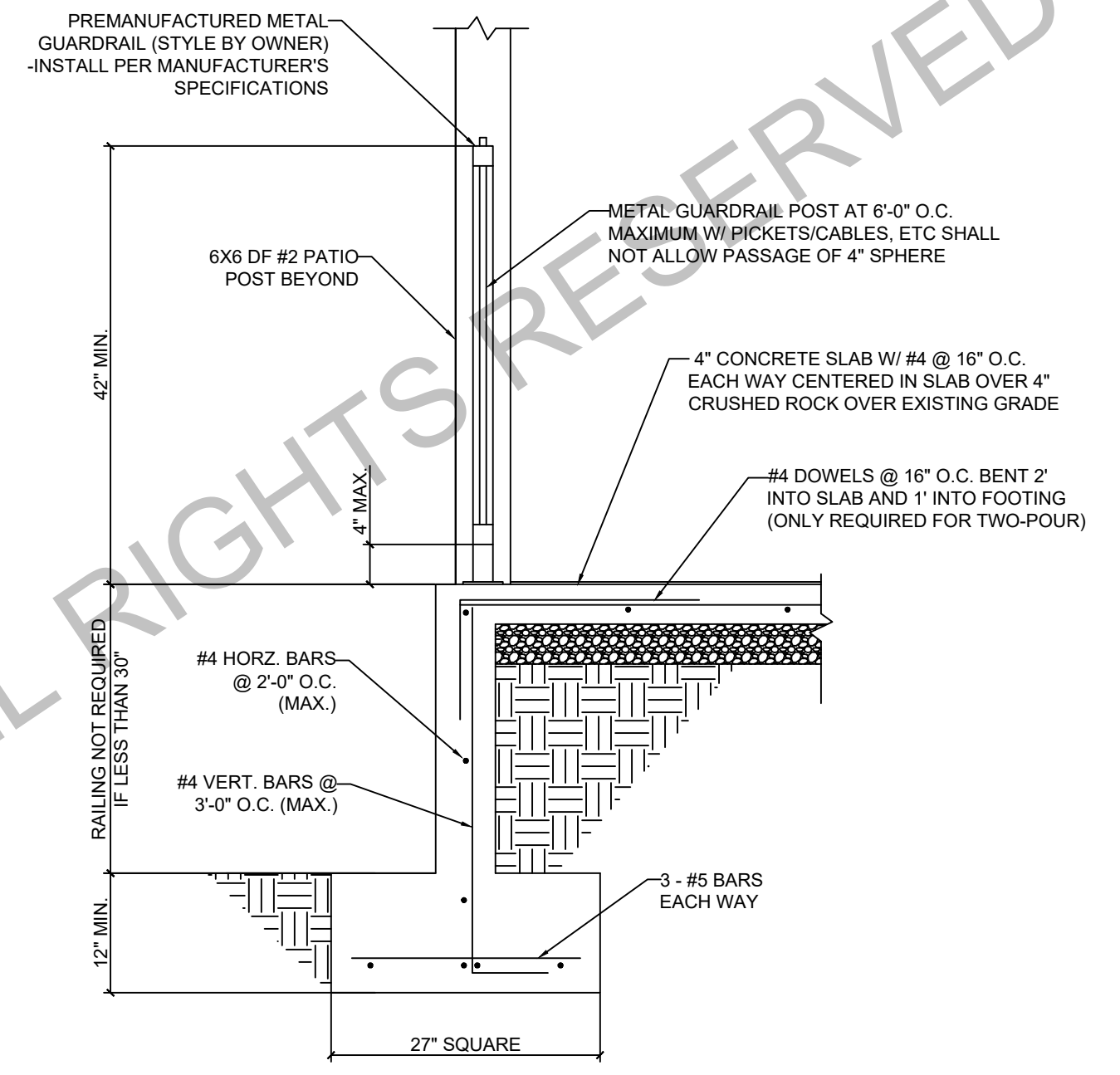
**DETAIL 1/S10**  
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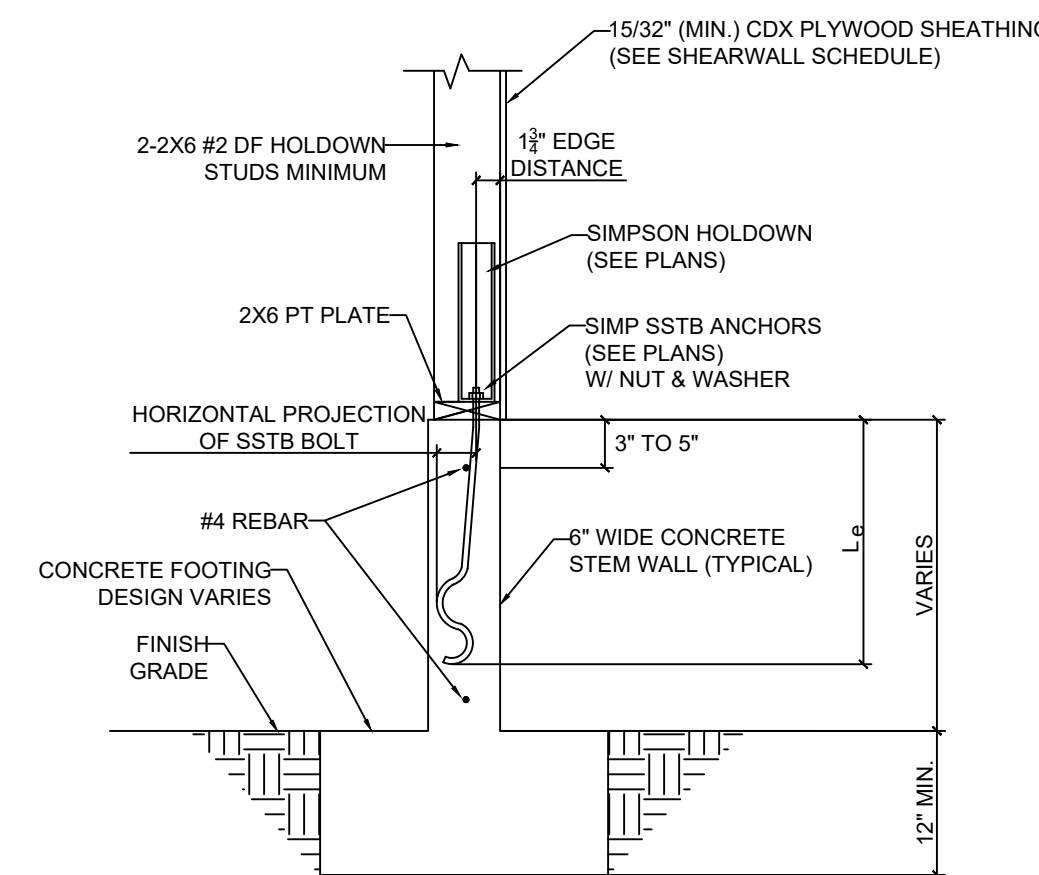
**DETAIL 2/S10**  
SCALE: 3/4" = 1'-0"



**DETAIL 3/S10**  
SCALE: 3/4" = 1'-0"

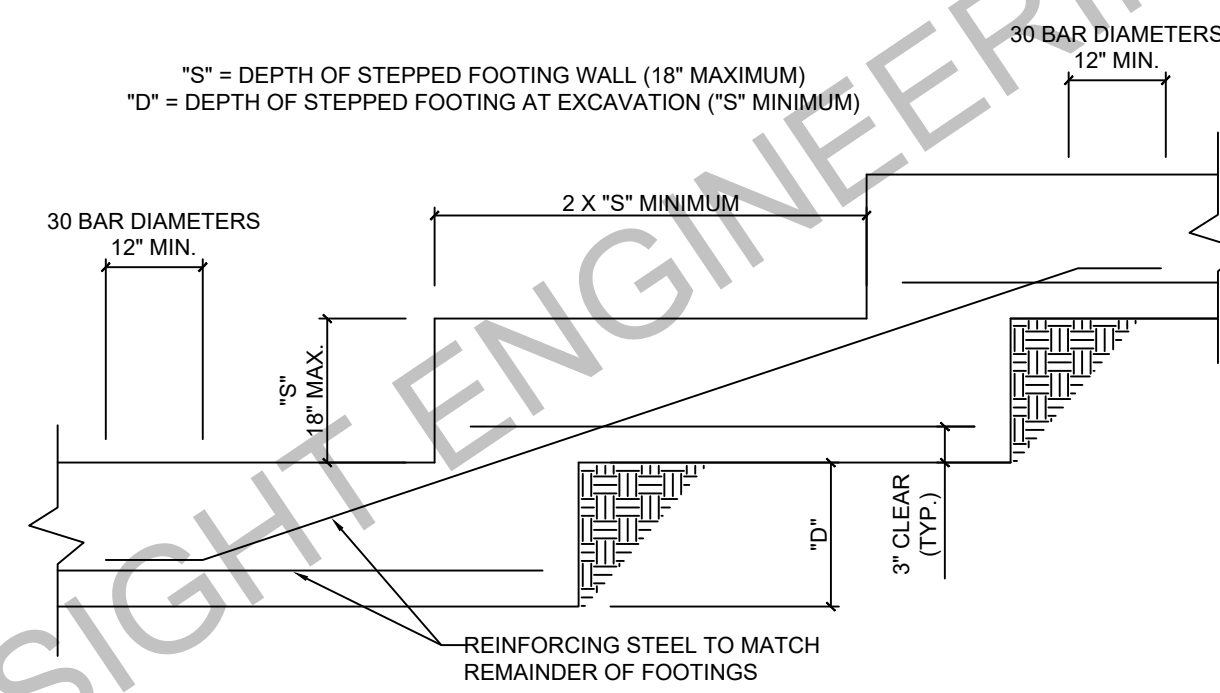


**DETAIL 4/S10**  
SCALE: 3/4" = 1'-0"

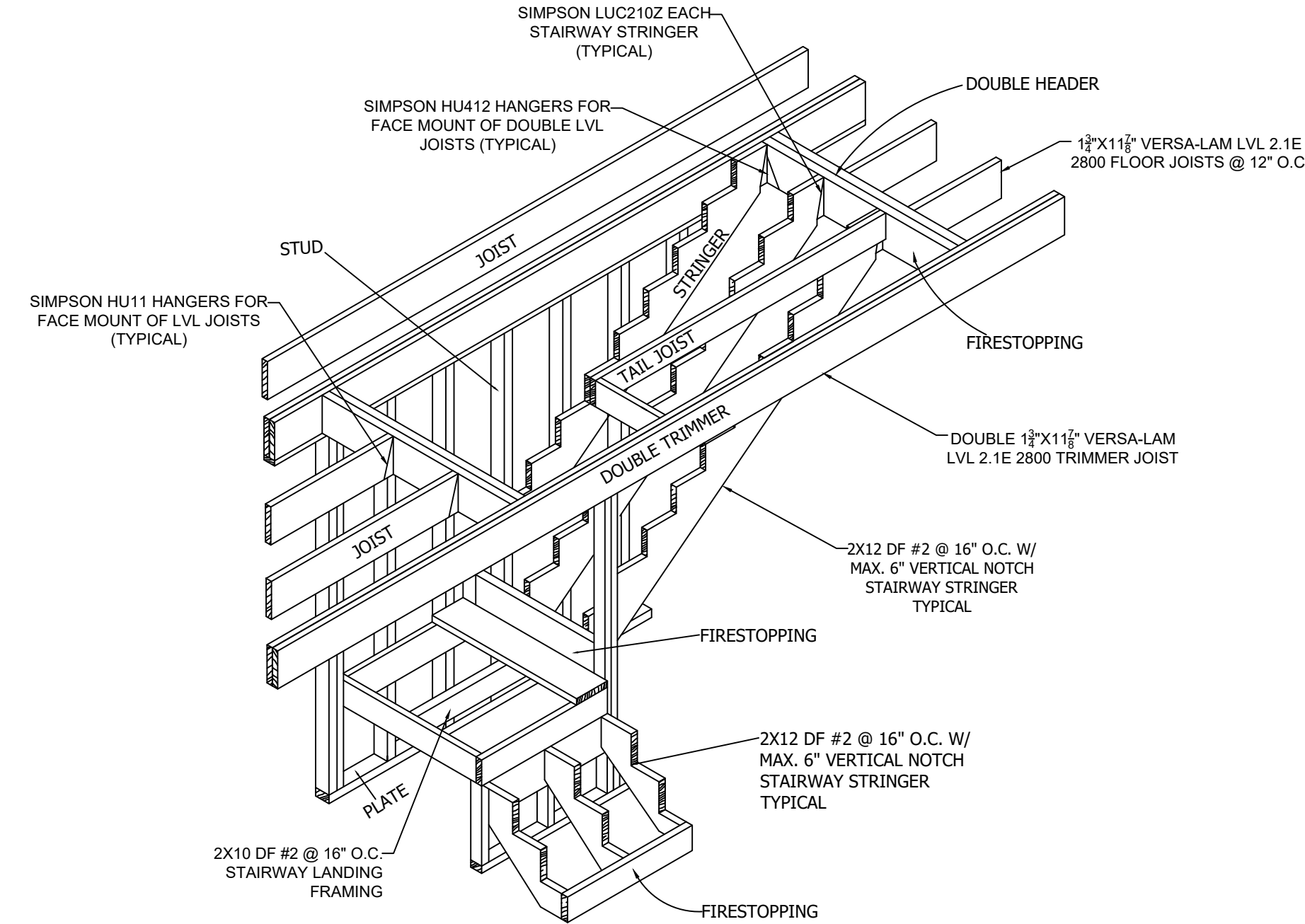


TYPICAL HOLD-DOWN AND ANCHOR INSTALLATION IN CONCRETE FOUNDATION  
NOTE: SEE SIMPSON STRONG-TIE WOOD CONSTRUCTION CONNECTORS 2021-2023 CATALOGUE FOR ALTERNATIVE INSTALLATION REQUIREMENTS

**DETAIL 5/S10**  
SCALE: 3/4" = 1'-0"



**TYPICAL STEPPED FOOTING DETAIL**  
SCALE: 3/4" = 1'-0"



**TYPICAL STAIRWAY AND LANDING FRAMING**  
SCALE: 3/8" = 1'-0"

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MURPHYS, CA 95247  
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XXXX-XXX JOHN DOE NEW DECK REPLACEMENT  
123 EASY STREET  
GENERICVILLE, CALIFORNIA 12345  
APN 012-034-056

SHEET  
S10

CA CE# 91654  
JOB XXXX-XXX  
(209) 840-2788

**GENERAL NOTES**

**DESIGN CRITERIA**

- Codes and Standards, 2019 CRC & 2019 CBC and any applicable local codes.
- Ground Base Snow Load = 30 psf
- Deck Live Load = 60 psf & 8 psf Dead Load
- Wind 110 mph - Exposure B
- Seismic Design Category D

**GENERAL CONDITIONS**

- The contractor shall notify the Engineer of Record of any discrepancies on the drawings required clarification or revision before commencing work.
- The contractor shall verify all dimensions on these plans before commencing work and the Engineer shall be notified of any discrepancies.
- Drawings shall not be scaled. All dimensions related to existing conditions shall be verified by the contractor.
- The contractor shall provide all measures necessary to protect the structure, workman, and all other persons during construction.
- In the event certain features of the construction are not fully shown on the drawings or called for in the notes or specifications, then their construction shall be of the similar character as for similar conditions that are shown or called for and shall be reviewed by the engineer and owner.

**FOUNDATION**

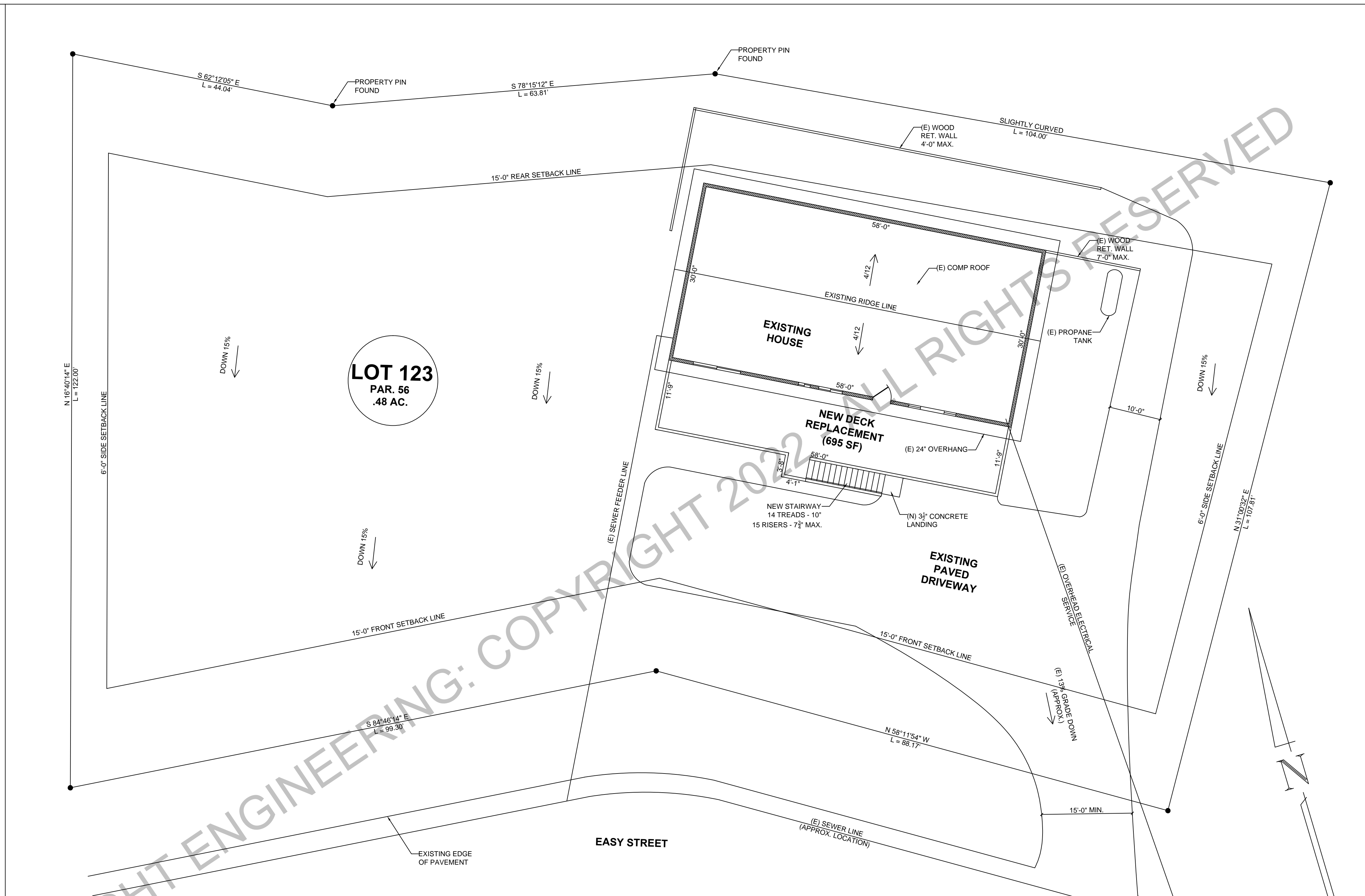
- All foundations are based on 2019 CRC, Table R401.4.1 & 2019 CBC, Table 1806.2, Class 5 Soil
  - A) Allowable Bearing = 1500 PSF
  - B) Lateral Bearing = 100 PSF
  - C) Frictional Sliding Resistance = 130 PSF x Contact Area or max. 1/2 x Dead Load
- All foundations shall bear on firm, undisturbed native soil or on engineered fills at or exceeding the depth shown on the drawings.
- All footing excavations shall be neat. Over excavations in depth and width shall be filled with concrete. All loose soils shall be removed from excavations prior to placement of concrete.
- All footings shall be level or stepped unless noted otherwise.
- The contractor shall be responsible for determining the exact locations for all anchor bolts, holddown anchors and straps, and embeds, prior to placement of concrete and/or installation of structural framing members.

**CONCRETE & REINFORCEMENT**

- Concrete shall meet the following minimum compression strength at 28 days:
  - Slab of grade 2500 psi
  - Foundations 2500 psi
- Minimum reinforcing steel cover requirements:
  - Cast against and exposed to earth 3"
  - Formed and exposed to earth or weather 2"
  - Not exposed to weather:
    - Slab, walls, & joist 3/4"
    - Beams & columns 1 1/2"
- Reinforcing steel shall conform to ASTM A-615, grade 40 for #4 and smaller bars and grade 60 for #5 and larger bars. Steel shall be kept clean and free of rust scales.
- Reinforcing bars shall be in as long as lengths as practicable. All reinforcing steel shall be "cold bent". All reinforcing bars shall extend as far as possible and end in a standard hook unless detailed otherwise. At corners and intersections bars shall return a minimum of 18". All reinforcing bars shall be lapped a minimum of 40 bar diameters or 20".
- Reinforcing, anchor bolts, and inserts shall be rigidly held in place prior to placing concrete.

**ROUGH CARPENTRY**

- All joist, studs, plates, blocking, beams, posts, and ledgers shall be S4S Douglas Fir #2 unless otherwise noted. Each piece of sawn framing lumber shall be identified by the grade mark of a 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 PS20 or equivalent.
- Wood in contact with concrete shall be pressure treated Douglas Fir or Hem Fir. Wood required by 2019 CRC, section R317.1 to be preservative treated shall conform to the requirements of the AWP standard U1 for species, product, preservative and end use. Preservatives shall be listed in Section 4 of AWP standard U1. Each piece of preservative treated wood shall bear the quality mark of an inspection agency that maintains continuing supervision-treated wood. The quality mark shall be on a stamp of label affixed to the preservative-treated wood, and shall include the following information:
  - \*Identification of the treating plant
  - \*Type of preservation
  - \*Minimum preservation retention (pcf)
  - \*End use for which the product was treated
  - \*Standard to which the product was treated
  - \*Identity of the approved inspection agency
  - \*The designation "dry", if applicable
- Nails shall be common wire except that nails used in exterior applications shall be galvanized box. Pre-drill holes where wood tends to split.
- Joist hangers, metal connectors, and other miscellaneous timber connectors shall be per Simpson Company, San Leandro, California or equal. Nail at all pre-drilled holes, per manufacture instructions, unless noted otherwise.
- Machine bolts and anchor bolts shall conform to ASTM A-307. Provide plates or malleable iron washers under head and nut where bearing is against wood. Bolt holes in wood shall be 1/16" larger than bolt sizes, unless otherwise noted. Nuts shall be tightened when placed and retightened before closing in.
- All nailing not specifically called out shall be per Table R602.3(1) Fastening Schedule of the 2019 CRC.
- Contractor shall install sufficient structural sheathing or bracing to provide adequate stability to the structure during construction.
- Top of foundation and individual piers foundations to be a minimum of 8" above adjacent finished grade.



CONTRACTOR:  
 ABC CONSTRUCTION  
 P.O. BOX 123  
 GENERICVILLE, CALIFORNIA 12345  
 (555) 123-4567

SCOPE OF WORK:  
 NEW DECK REPLACEMENT = 695 SF

- SITE NOTES:
- THIS SITE PLAN IS FOR REFERENCE ONLY AND IS NOT INTENDED AS AN ACCURATE SURVEY OF THIS PARCEL.
  - OWNER OR CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF PROPER SETBACKS.
  - PROPERTY CORNER PINS OF PROPERTY LINES MUST BE VERIFIED PRIOR TO START OF EXCAVATION.
  - OWNER OR CONTRACTOR SHALL VERIFY EXACT LOCATION OF ALL OVERHEAD AND UNDERGROUND UTILITIES PRIOR TO START OF CONSTRUCTION.

**SITE PLAN**  
 SCALE: 1" = 20'-0"



FORESIGHT ENGINEERING CA CE #91654  
 1437 SANDALWOOD DRIVE JOB XXXX-XXX  
 MURPHYS, CALIFORNIA 95247 (209) 840-2788

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 123 EASY STREET  
 GENERICVILLE, CALIFORNIA 12345  
 APN 012-034-056

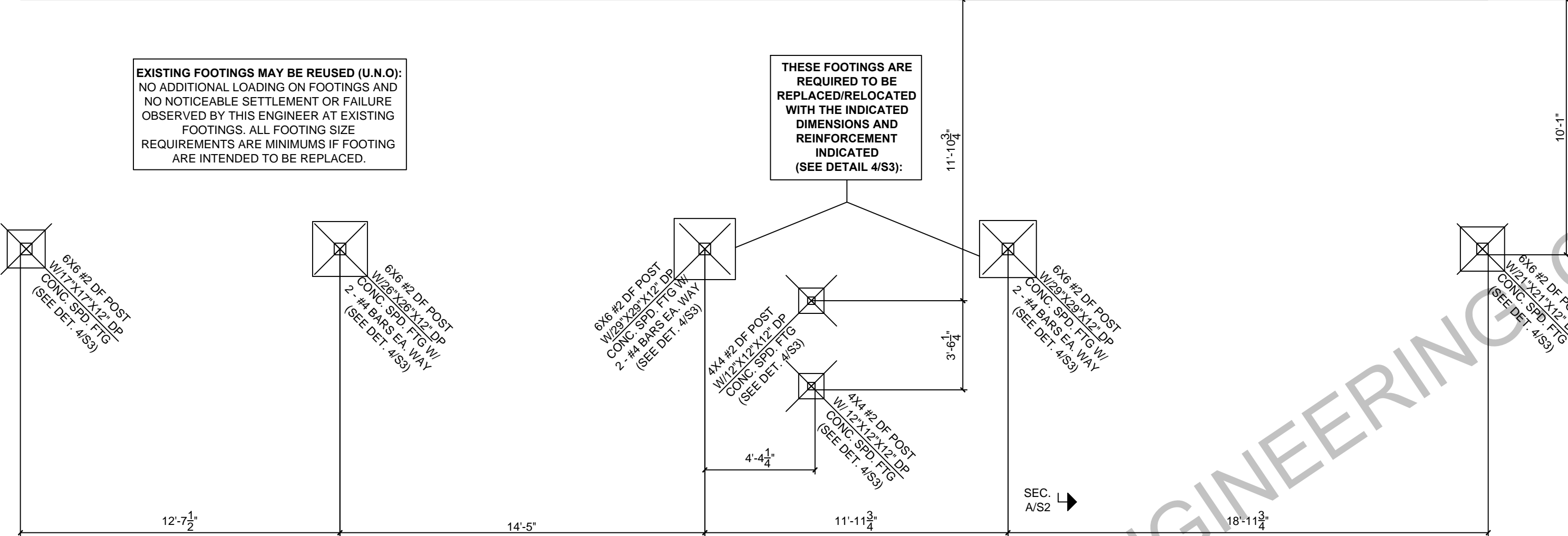
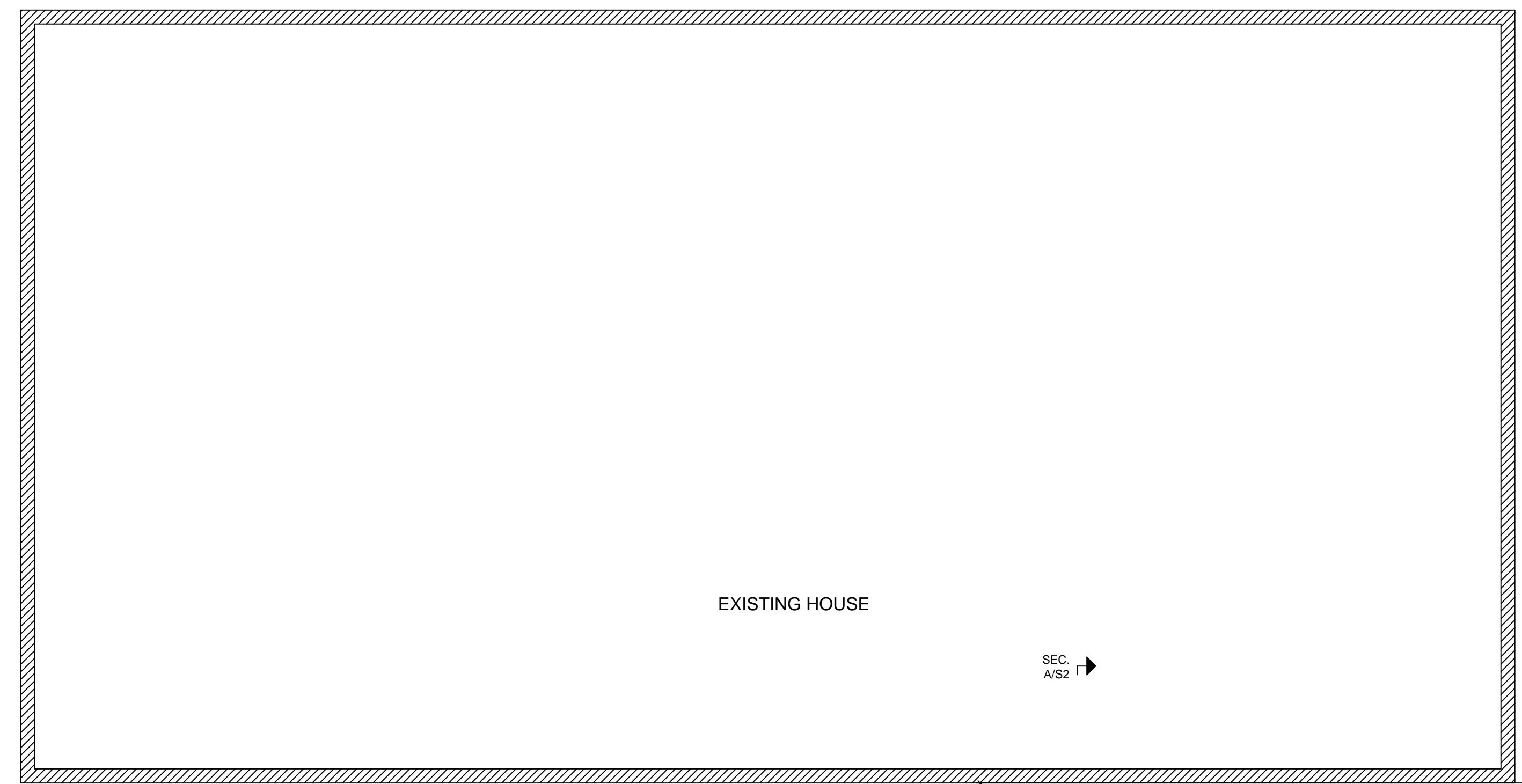




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 APN 012-034-056

SHEET  
 S3



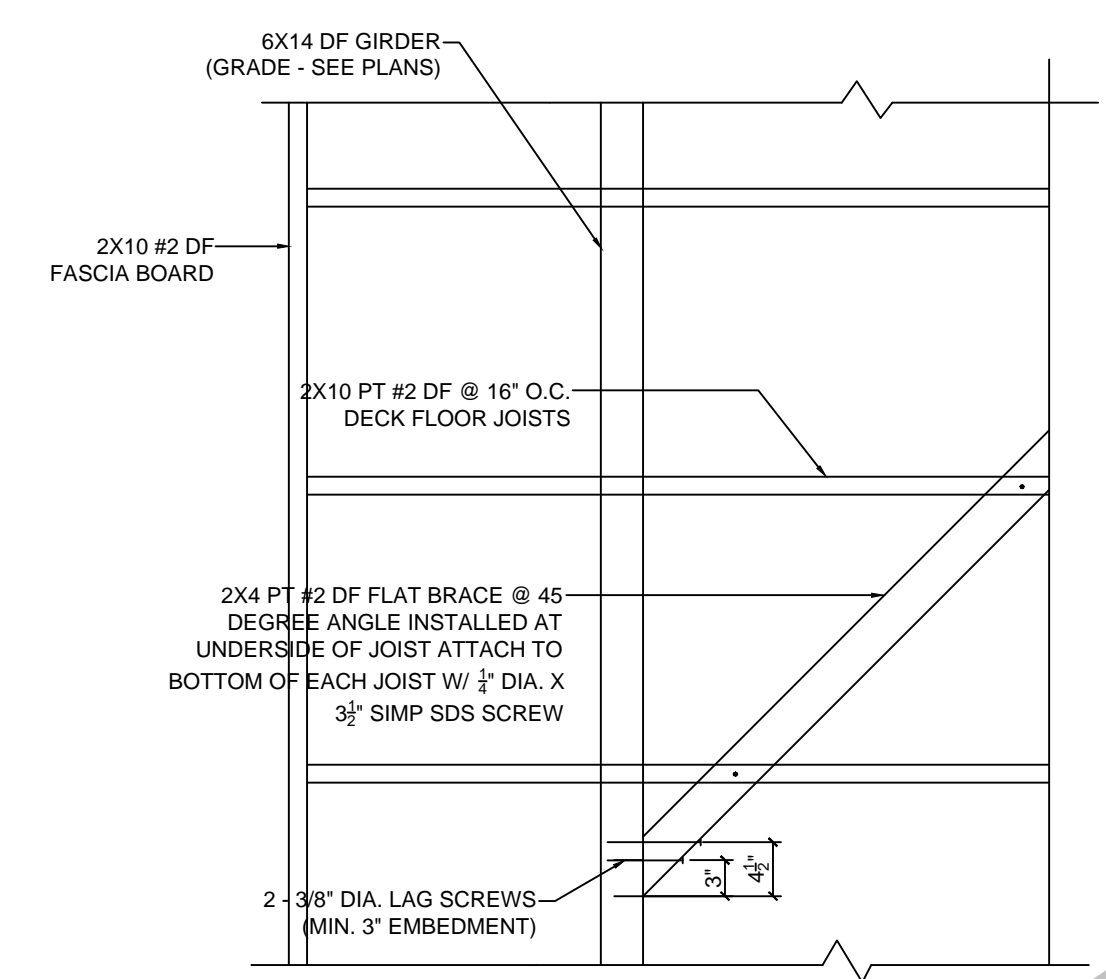
NEW DECK REPLACEMENT FOUNDATION PLAN  
 SCALE: 1/4" = 1'-0"

**SMOKE ALARMS**  
 WHERE A PERMIT IS REQUIRED FOR ALTERATIONS, REPAIRS OR ADDITIONS, EXISTING DWELLING SHALL BE PROVIDED WITH SMOKE ALARMS. IN EXISTING DWELLING SMOKE ALARMS ARE PERMITTED TO BE SOLELY BATTERY OPERATED IN EXISTING AREAS OF BUILDINGS UNDERGOING ALTERATIONS OR REPAIRS THAT DO NOT RESULT IN THE REMOVAL OF INTERIOR WALLS OR CEILING FINISHES EXPOSING THE STRUCTURE, UNLESS THERE IS ATTIC, CRAWL SPACE OR BASEMENT AVAILABLE WHICH COULD PROVIDE ACCESS FOR BUILDING WIRING WITHOUT THE REMOVAL OF INTERIOR FINISHES. NEW SMOKE ALARMS SHALL BE HARD WIRED. SMOKE ALARMS SHALL BE INSTALLED IN THE FOLLOWING LOCATIONS:

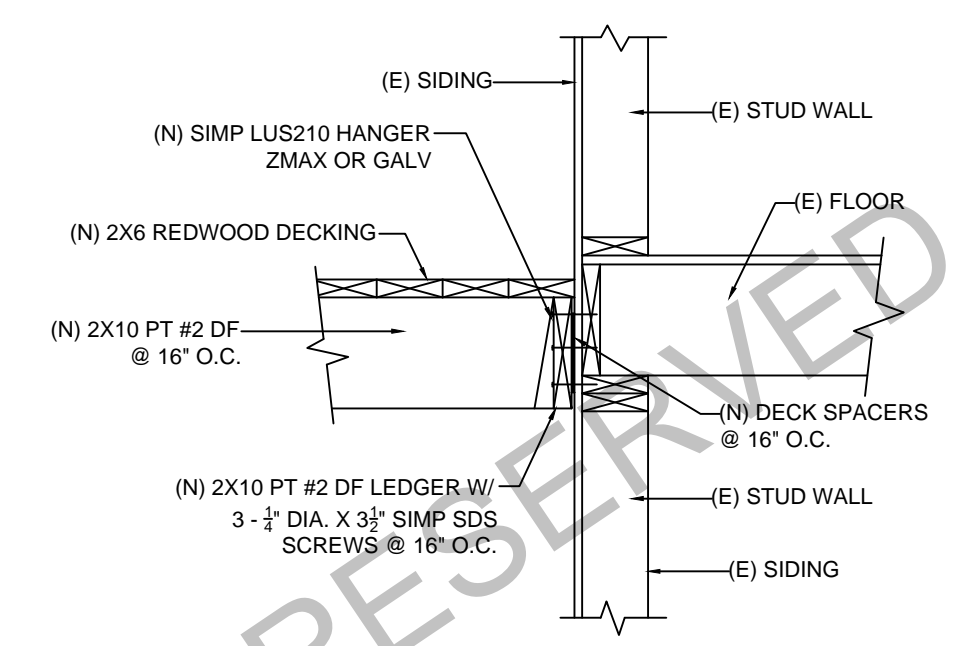
- IN EACH SLEEPING ROOM.
- OUTSIDE EACH SEPARATE SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDROOMS.
- ON EACH ADDITIONAL STORY OF THE DWELLING, INCLUDING BASEMENTS AND HABITABLE ATTICS. IN DWELLINGS WITH SPLIT LEVELS AND WITHOUT INTERVENING DOOR BETWEEN ADJACENT LEVELS, A SMOKE ALARM INSTALLED ON THE UPPER LEVEL SHALL SUFFICE FOR THE ADJACENT LOWER LEVEL PROVIDED THAT THE LOWER LEVEL IS LESS THAN ONE FULL STORY BELOW THE UPPER LEVEL.

**CARBON MONOXIDE ALARMS**  
 WHERE A PERMIT IS REQUIRED FOR ALTERATIONS, REPAIRS OR ADDITIONS, EXISTING DWELLING OR SLEEPING UNITS THAT HAVE ATTACHED GARAGES OR FUEL-BURNING APPLIANCES SHALL BE PROVIDED WITH A CARBON MONOXIDE ALARM. IN EXISTING DWELLING UNITS A CARBON MONOXIDE ALARM IS PERMITTED TO BE SOLELY BATTERY OPERATED. CARBON MONOXIDE ALARMS SHALL BE INSTALLED IN THE FOLLOWING LOCATIONS:

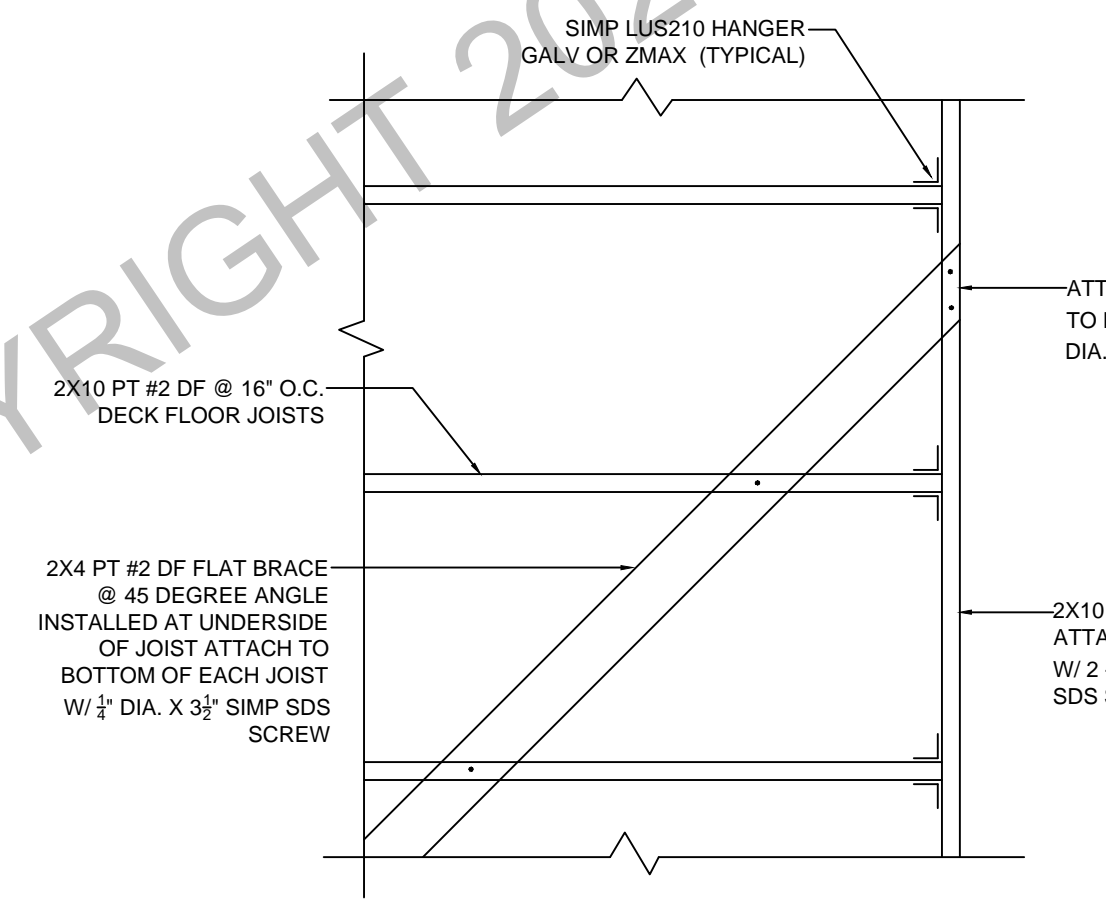
- OUTSIDE OF EACH SEPARATE DWELLING UNIT SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDROOMS.
- ON EVERY LEVEL OF A DWELLING UNIT INCLUDING BASEMENTS.



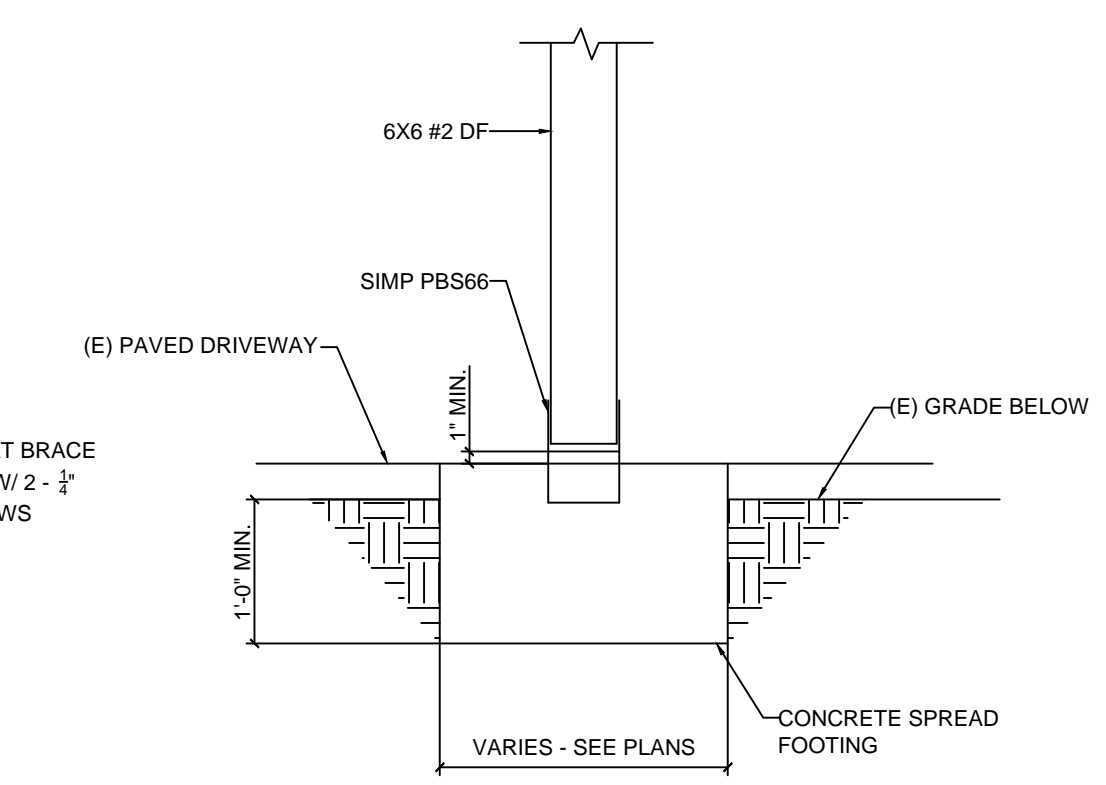
DETAIL 1/S3  
 SCALE: 3/4" = 1'-0"



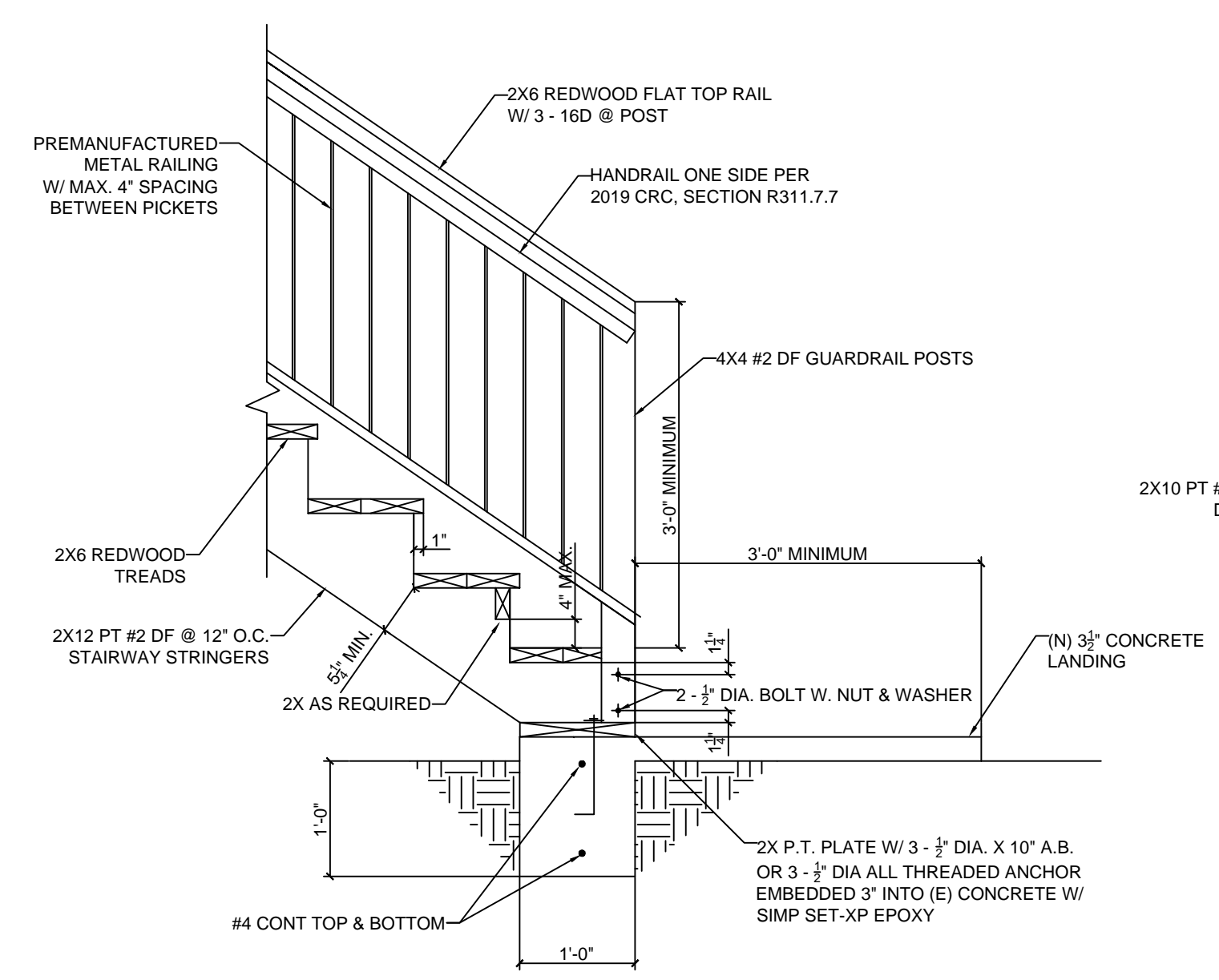
DETAIL 2/S3  
 SCALE: 3/4" = 1'-0"



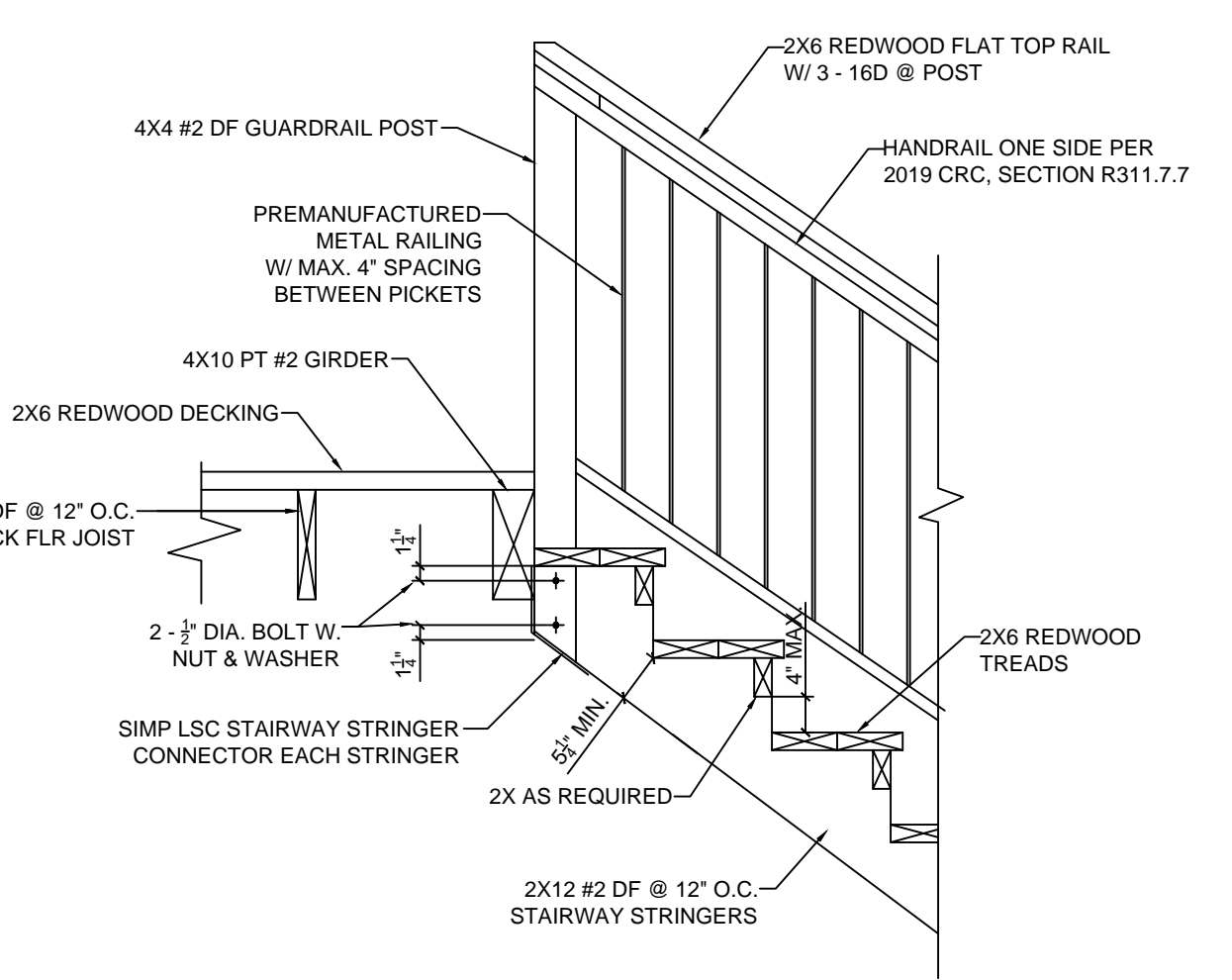
DETAIL 3/S3  
 SCALE: 3/4" = 1'-0"



DETAIL 4/S3  
 SCALE: 3/4" = 1'-0"



DETAIL 5/S3  
 SCALE: 3/4" = 1'-0"



DETAIL 6/S3  
 SCALE: 3/4" = 1'-0"

**GENERAL NOTES**

**DESIGN CRITERIA**

- Codes and Standards, 2019 CRC & 2019 CBC and any applicable local codes.
- Ground Base Snow Load = 116 psf
- House Roof Snow Load = 49 psf & Dead Load = 15 psf
- Patio Roof Snow Load = 70 psf & Dead Load = 15 psf
- Floor Live Load = 40 psf & Dead Load = 9 psf
- Covered Deck Live Load = 60 psf & Dead Load = 7 psf
- Deck Floor Snow Load = 158 psf & Dead Load 7 psf
- Wind 94 mph - Exposure B
- Seismic Design Category D

**GENERAL CONDITIONS**

- The contractor shall notify the Engineer of Record of any discrepancies on the drawings required clarification or revision before commencing work.
- The contractor shall verify all dimensions on these plans before commencing work and the Engineer shall be notified of any discrepancies.
- Drawings shall not be scaled. All dimensions related to existing conditions shall be verified by the contractor.
- The contractor shall provide all measures necessary to protect the structure, workman, and all other persons during construction.
- In the event certain features of the construction are not fully shown on the drawings or called for in the notes or specifications, then their construction shall be of the similar character as for similar conditions that are shown or called for and shall be reviewed by the engineer and owner.

**FOUNDATION**

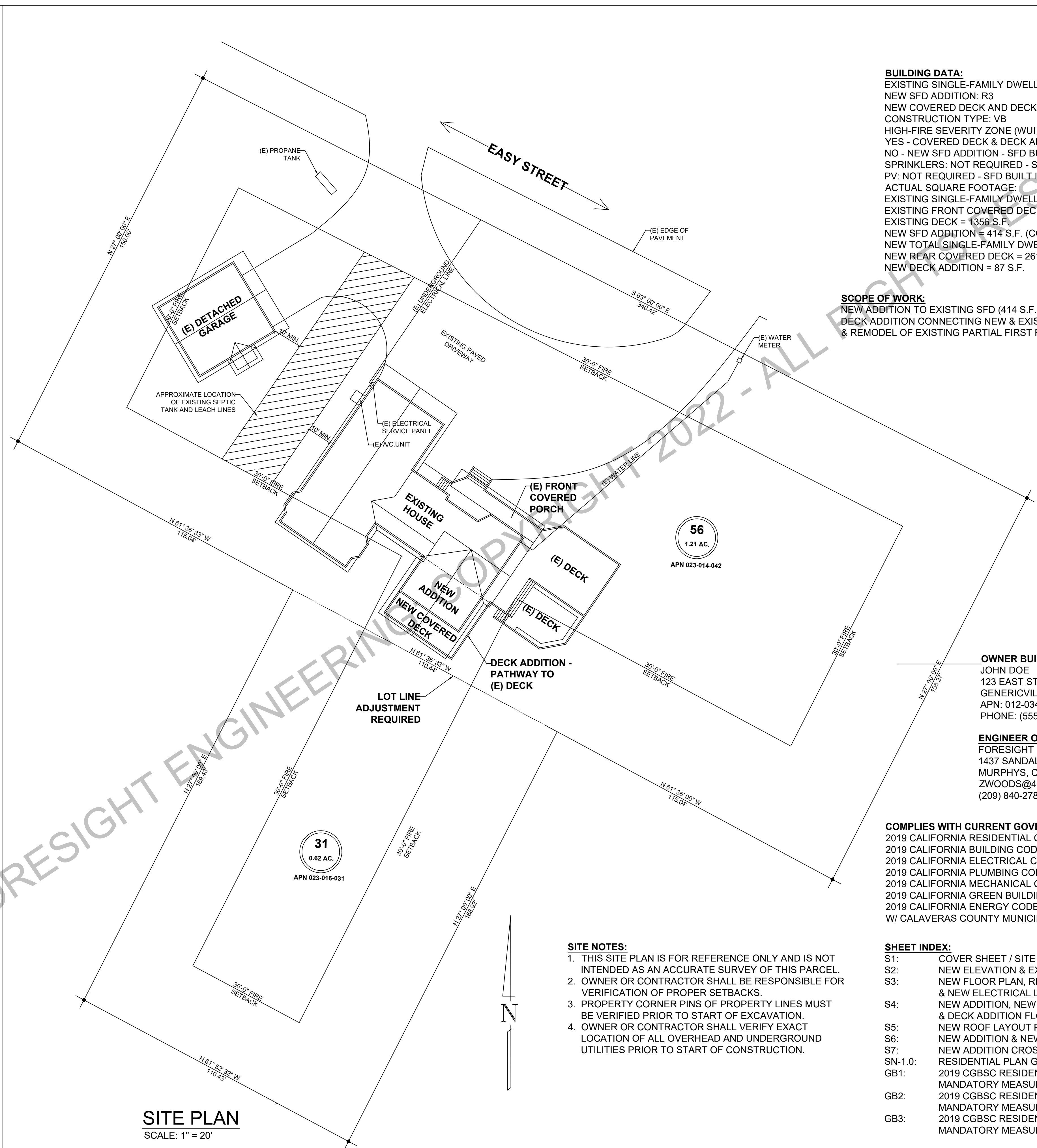
- All foundations are based on 2019 CRC, Table R401.4.1 & 2019 CBC, Table 1806.2, Class 5 Soil
  - A) Allowable Bearing = 1500 PSF
  - B) Lateral Bearing = 100 PSF
  - C) Frictional Sliding Resistance = 130 PSF x Contact Area or max. 1/2 x Dead Load
- All foundations shall bear on firm, undisturbed native soil or on engineered fills at or exceeding the depth shown on the drawings.
- All footing excavations shall be neat. Over excavations in depth and width shall be filled with concrete. All loose soils shall be removed from excavations prior to placement of concrete.
- All footings shall be level or stepped unless noted otherwise.
- The contractor shall be responsible for determining the exact locations for all anchor bolts, holdown anchors and straps, and embeds, prior to placement of concrete and/or installation of structural framing members.

**CONCRETE & REINFORCEMENT**

- Concrete shall meet the following minimum compression strength at 28 days:
  - Slab of grade = 2500 psi
  - Foundations = 2500 psi
- Minimum reinforcing steel cover requirements:
  - Cast against and exposed to earth = 3"
  - Formed and exposed to earth or weather = 2"
  - Not exposed to weather:
    - Slab, walls, & joist = 3/4"
    - Beams & columns = 1 1/2"
- Reinforcing steel shall conform to ASTM A-615, grade 40 for #4 and smaller bars and grade 60 for #5 and larger bars. Steel shall be kept clean and free of rust scales.
- Reinforcing bars shall be in as long as lengths as practicable. All reinforcing steel shall be "cold bent". All reinforcing bars shall extend as far as possible and end in a standard hook unless detailed otherwise. At corners and intersections bars shall return a minimum of 18". All reinforcing bars shall be lapped a minimum of 40 bar diameters or 20".
- Reinforcing, anchor bolts, and inserts shall be rigidly held in place prior to placing concrete.

**ROUGH CARPENTRY**

- All joist, studs, plates, blocking, beams, posts, and ledgers shall be S4S Douglas Fir #2 unless otherwise noted. Each piece of sawn framing lumber shall be identified by the grade mark of a 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 PS20 or equivalent.
- Wood structural panels, when used structurally (including those used for siding, roof and wall sheathing, subflooring diaphragms), shall conform to the requirements for their type in Doc PS1 or PS2. Each panel or members shall be identified for grade and glue type by the trademarks of an approved testing and grading agency. Structural plywood shall be CD grade with exterior glue. CCX plywood shall be used at all eave areas of roof, maximum unframed holes in sheathing shall be 3" in diameter.
- Wood in contact with concrete shall be pressure treated Douglas Fir or Hem Fir. Wood required by 2019 CRC, section R317.1 or Hem Fir. Wood required by 2019 CRC, section R317.1 to be preservative treated shall conform to the requirements of the AWPA Standard U1 for species, product, preservative and end use. Preservatives shall be listed in Section 4 of AWPA U1. Each piece of preservative treated wood shall bear the quality mark of an inspection agency that maintains continuing supervision, testing and inspection over the quality of the preservation - treated wood, and shall include the following information:
  - \*Identification of treated manufacturer
  - \*Type of preservation used
  - \*Minimum preservation retention (pcf)
  - \*AWPA standard to which the product is treated
  - \*Identity of the accredited inspection agency
- Nails shall be common wire except that nails used in exterior applications shall be galvanized box. Pre-drill holes where wood tends to split.
- Joist hangers, metal connectors, and other miscellaneous timber connectors shall be per Simpson Company, San Leandro, California or equal. Nail at all pre-drilled holes, per manufacture instructions, unless noted otherwise.
- Machine bolts and anchor bolts shall conform to ASTM A-307. Provide plates or malleable iron washers under head and nut where bearing is against wood. Bolt holes in wood shall be 1/16" larger than bolt sizes, unless otherwise noted. Nuts shall be tightened when placed and retightened before closing in.
- All nailing not specifically called out shall be per Table R602.3(1) Fastening Schedule of the 2019 CRC.
- All double plates shall be lapped a minimum of 4'-0" at splices with 8-16d each side.
- Where plumbing, heating, or other ducts are placed in a partition requiring the cutting of double top plates, a Simpson LSTA24 strap shall be fastened to each side of the top plate.
- Contractor shall install sufficient structural sheathing or bracing to provide adequate stability to the structure during construction.
- Anchor bolts to be 3" diameter x 10" long embedded 7" into concrete with nut and 3"x3"x.229" plate washer, within 12" and minimum 3 1/2" of ends of plates and corners, and 6'-0" o.c. maximum spacing unless otherwise noted on shearwall schedule, plans, or details.
- Top of foundation and individual piers foundations to be a minimum of 8" above adjacent finished grade.
- Cutting and notching of wood studs:
  - a) In exterior walls and bearing partitions, any wood stud is permitted to be cut or notched to a depth not exceeding 25 percent of its width.
  - b) Cutting or notching of studs to a depth not greater than 60 percent of the width of the stud is permitted in non bearing partitions supporting no loads other than the weight of the partition.
- Bored holes in wood studs:
  - a) A hole not greater in diameter than 40 percent of the stud width is permitted to be bored in any wood stud.
  - b) Bored holes not greater than 60 percent of the width of the stud are permitted in non bearing partitions or any wall where each bored stud is doubled.
  - c) In no case shall the edge of the bored hole be nearer than 5/8" inch to the edge of stud.
  - d) Bored holes shall not be located at the same section of stud as a cut or notch.



**SITE PLAN**  
SCALE: 1" = 20'

**BUILDING DATA:**  
 EXISTING SINGLE-FAMILY DWELLING OCCUPANCY: R3  
 NEW SFD ADDITION: R3  
 NEW COVERED DECK AND DECK ADDITION: U (ACCESSORY TO R-3)  
 CONSTRUCTION TYPE: VB  
 HIGH-FIRE SEVERITY ZONE (WUI REQ'D): YES - COVERED DECK & DECK ADDITION ONLY  
 NO - NEW SFD ADDITION - SFD BUILT IN 1979  
 SPRINKLERS: NOT REQUIRED - SFD BUILT IN 1979  
 PV: NOT REQUIRED - SFD BUILT IN 1979  
 ACTUAL SQUARE FOOTAGE:  
 EXISTING SINGLE-FAMILY DWELLING = 5080 S.F. (COND.)  
 EXISTING FRONT COVERED DECK = 297 S.F.  
 EXISTING DECK = 1356 S.F.  
 NEW SFD ADDITION = 414 S.F. (COND.)  
 NEW TOTAL SINGLE-FAMILY DWELLING = 5494 S.F. (COND.)  
 NEW REAR COVERED DECK = 261 S.F.  
 NEW DECK ADDITION = 87 S.F.

**SCOPE OF WORK:**  
 NEW ADDITION TO EXISTING SFD (414 S.F.), NEW COVERED DECK (261 S.F.), DECK ADDITION CONNECTING NEW & EXISTING DECK (87 S.F.), & REMODEL OF EXISTING PARTIAL FIRST FLOOR OF 2-STORY SFD (1194 S.F.)

**OWNER BUILDER:**  
 JOHN DOE  
 123 EAST STREET  
 GENERICVILLE, CA 12345  
 APN: 012-034-056  
 PHONE: (555) 123-4567

**ENGINEER OF RECORD:**  
 FORESIGHT ENGINEERING  
 1437 SANDALWOOD CT  
 MURPHYS, CA 95247  
 ZWOODS@4SIGHTENGINEERING.COM  
 (209) 840-2788

**COMPLIES WITH CURRENT GOVERNING CODES:**  
 2019 CALIFORNIA RESIDENTIAL CODE  
 2019 CALIFORNIA BUILDING CODE  
 2019 CALIFORNIA ELECTRICAL CODE  
 2019 CALIFORNIA PLUMBING CODE  
 2019 CALIFORNIA MECHANICAL CODE  
 2019 CALIFORNIA GREEN BUILDING STANDARDS CODE  
 2019 CALIFORNIA ENERGY CODE  
 W/ CALAVERAS COUNTY MUNICIPAL CODE AMENDMENTS

**SHEET INDEX:**

S1:	COVER SHEET / SITE PLAN
S2:	NEW ELEVATION & EXISTING 1ST & 2ND FLOOR PLANS
S3:	NEW FLOOR PLAN, REMODEL PLAN, & NEW ELECTRICAL LAYOUT
S4:	PROPERTY CORNER PINS OF PROPERTY LINES MUST BE VERIFIED PRIOR TO START OF EXCAVATION.
S5:	NEW ADDITION, NEW COVERED PORCH & DECK ADDITION FLOOR FRAMING PLAN
S6:	NEW ROOF LAYOUT PLAN
S7:	NEW ADDITION & NEW COVERED PORCH ROOF FRAMING PLAN
S7:	NEW ADDITION CROSS-SECTION & STRUCTURAL DETAILS
SN-1.0:	RESIDENTIAL PLAN GENERAL NOTES
GB1:	2019 CGBSC RESIDENTIAL MANDATORY MEASURES (1 OF 3)
GB2:	2019 CGBSC RESIDENTIAL MANDATORY MEASURES (2 OF 3)
GB3:	2019 CGBSC RESIDENTIAL MANDATORY MEASURES (3 OF 3)

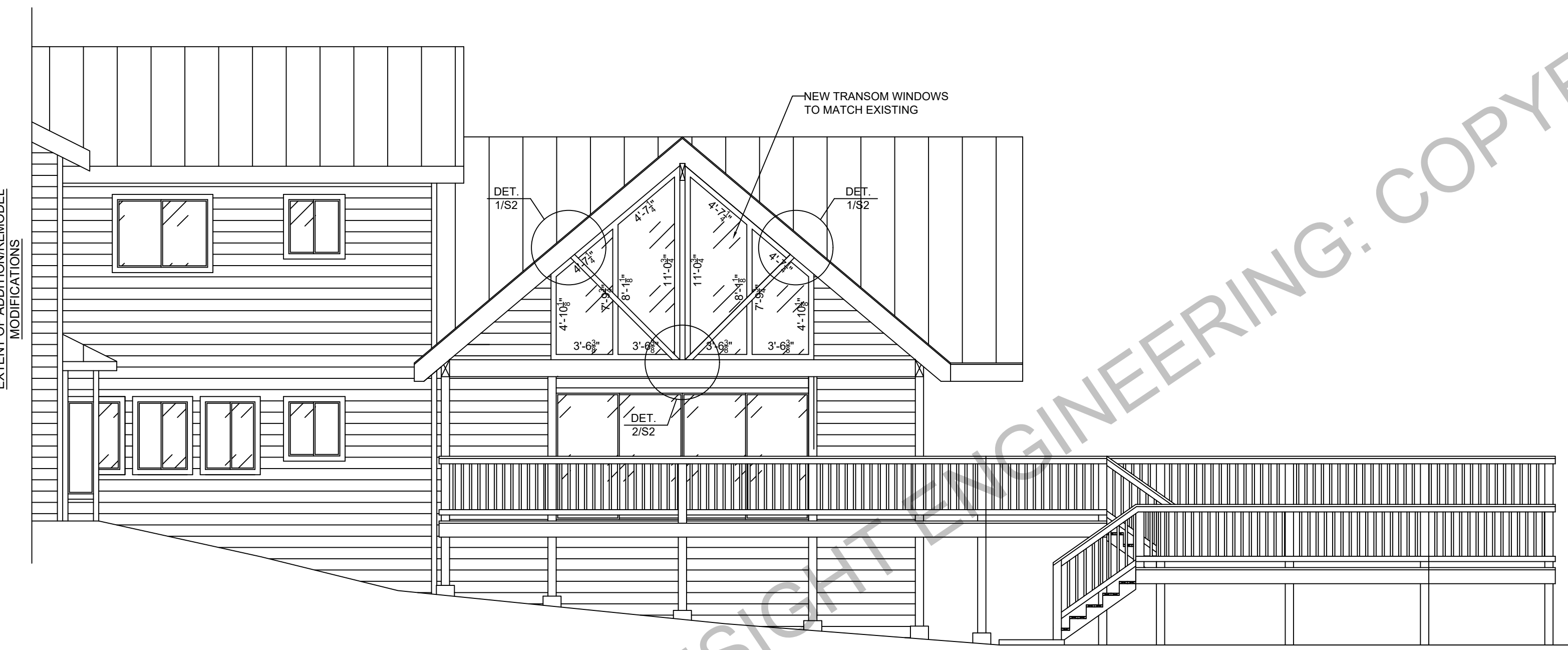


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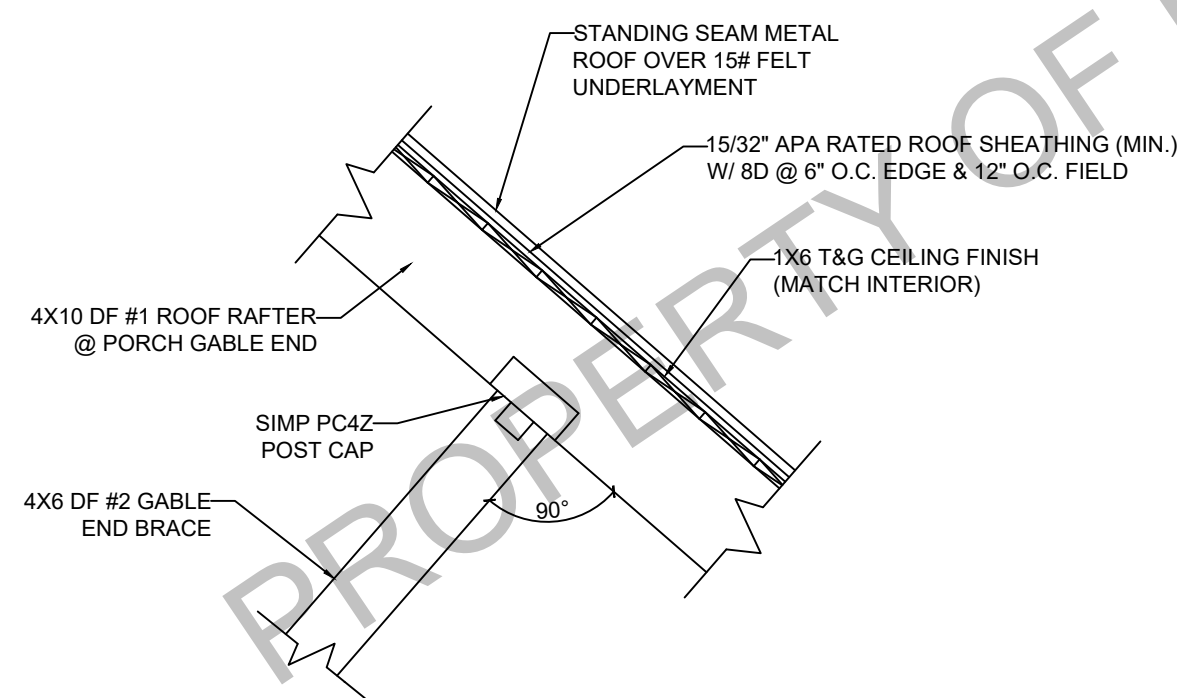
XXXX-XXX JOHN DOE NEW DECK REPLACEMENT  
 123 EASY STREET  
 GENERICVILLE, CALIFORNIA 12345  
 APN 012-034-056



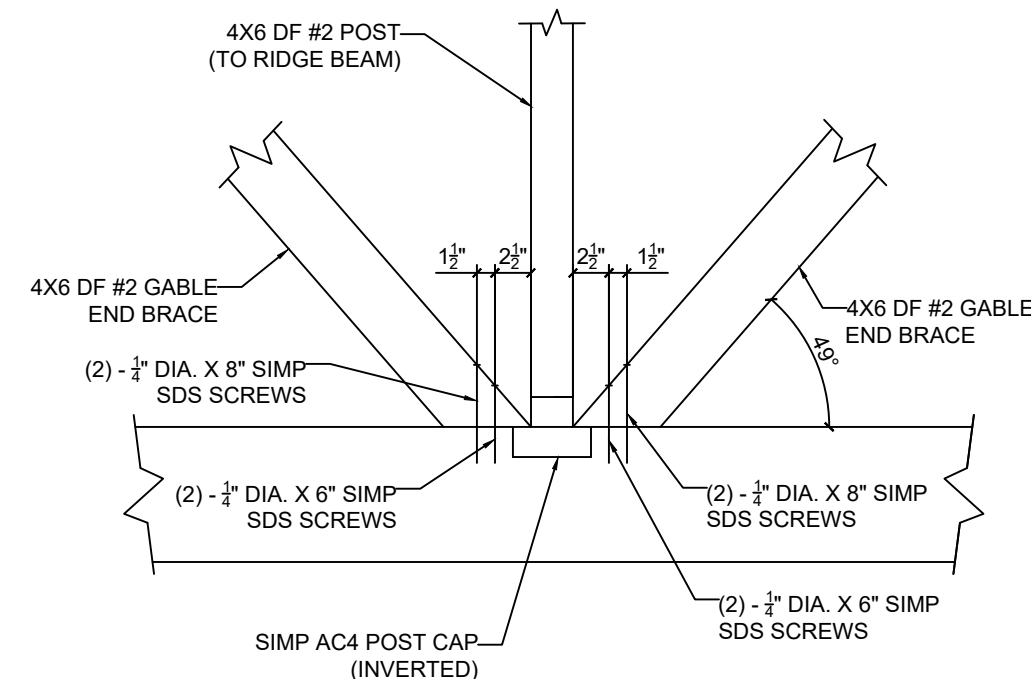
**REAR ELEVATION**  
SCALE: 3/16" = 1'-0"



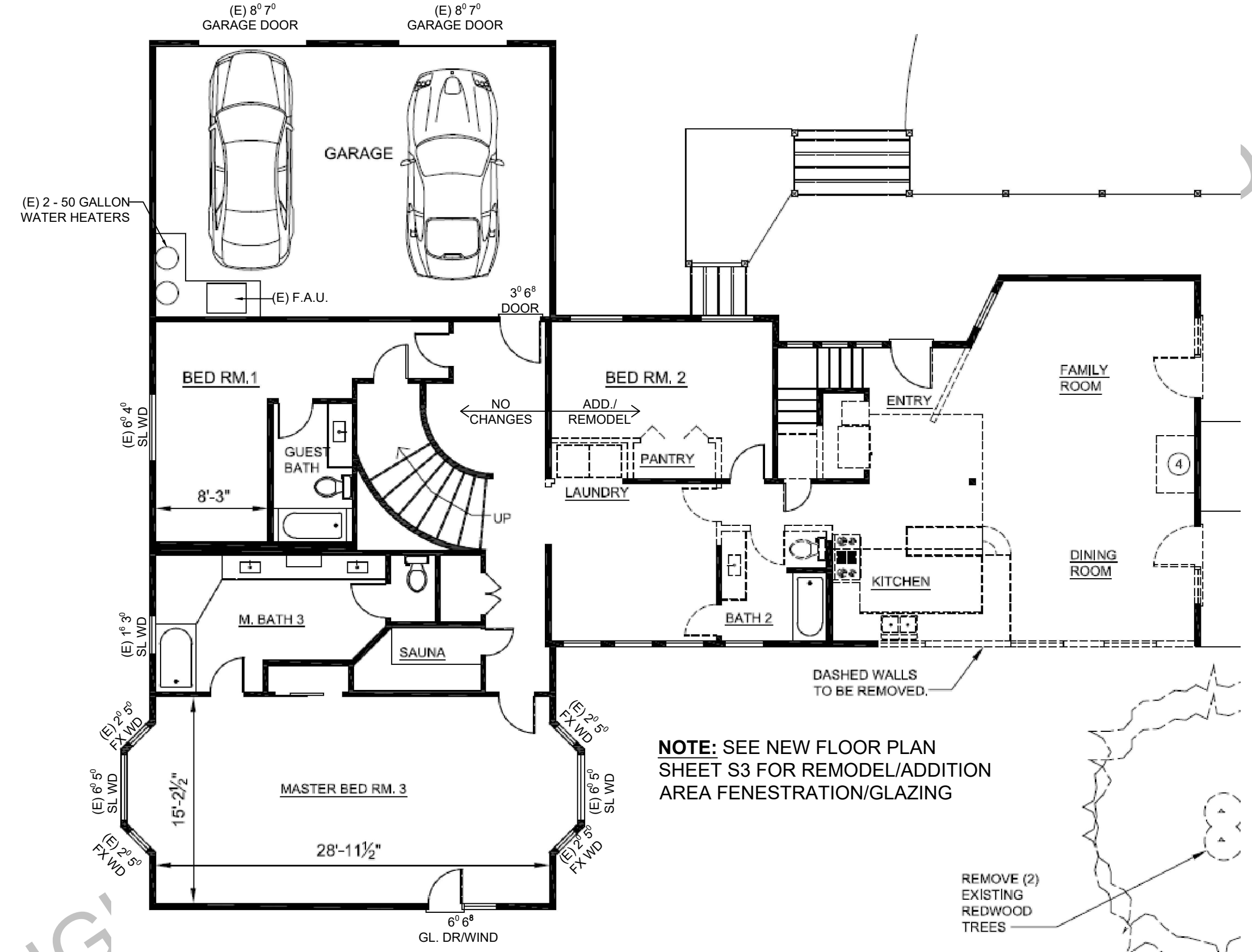
**SIDE ELEVATION**  
SCALE: 3/16" = 1'-0"



**DETAIL 1/S2**  
SCALE: 3/4" = 1'-0"



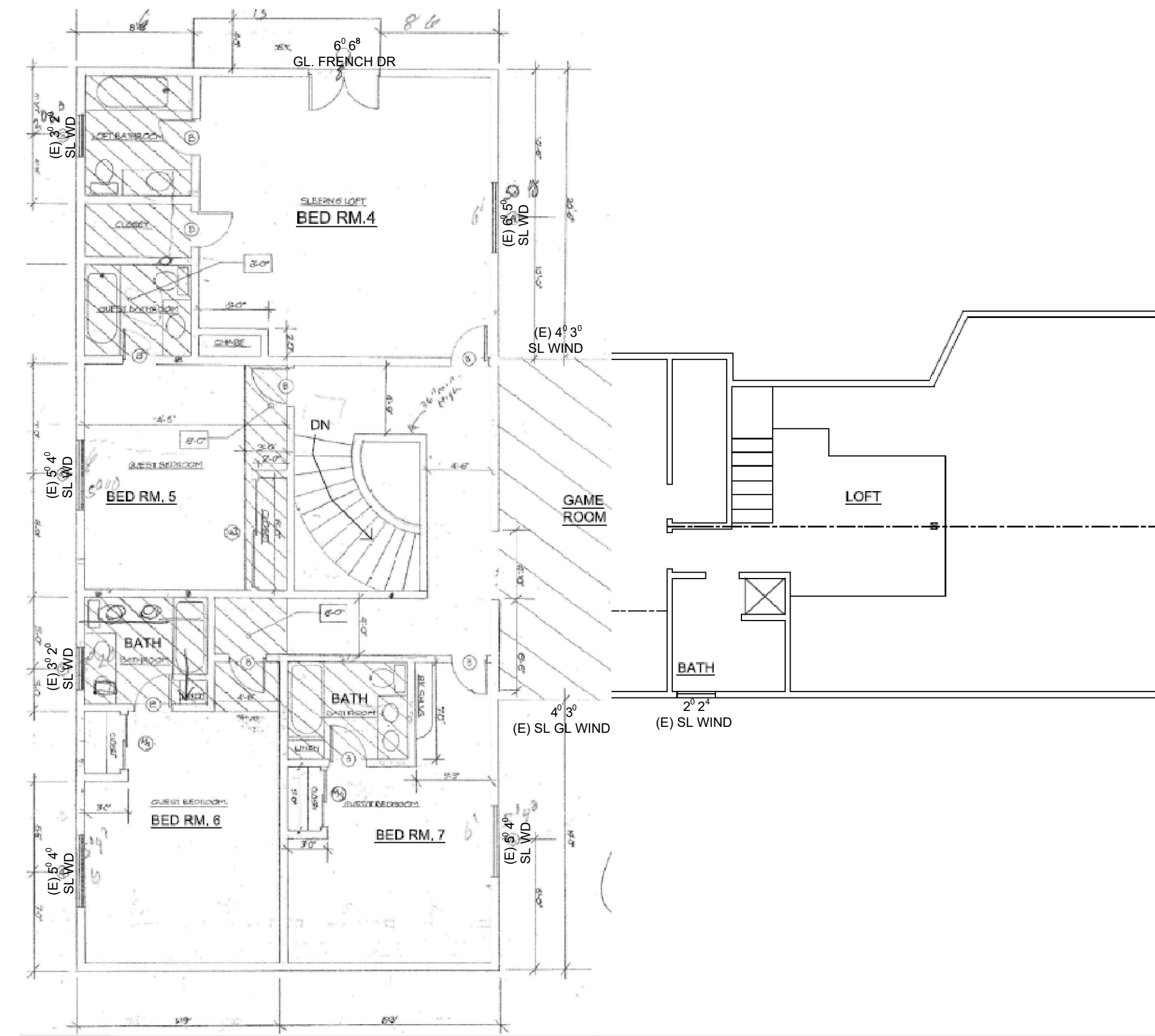
**DETAIL 2/S2**  
SCALE: 3/4" = 1'-0"



**EXISTING 1ST FLOOR PLAN**  
SCALE: 1/8" = 1'-0"

NOTE: SEE NEW FLOOR PLAN SHEET S3 FOR REMODEL/ADDITION AREA FENESTRATION/GLAZING

**EXISTING SINGLE-FAMILY DWELLING INSULATION:**  
WALLS: R-19 BATT INSULATION  
FLOORS: R-19 BATT INSULATION  
ROOF: R-30 (3 LAYERS OF 2" RIGID INSULATION)



**EXISTING 2ND FLOOR PLAN**  
SCALE: 1/8" = 1'-0"



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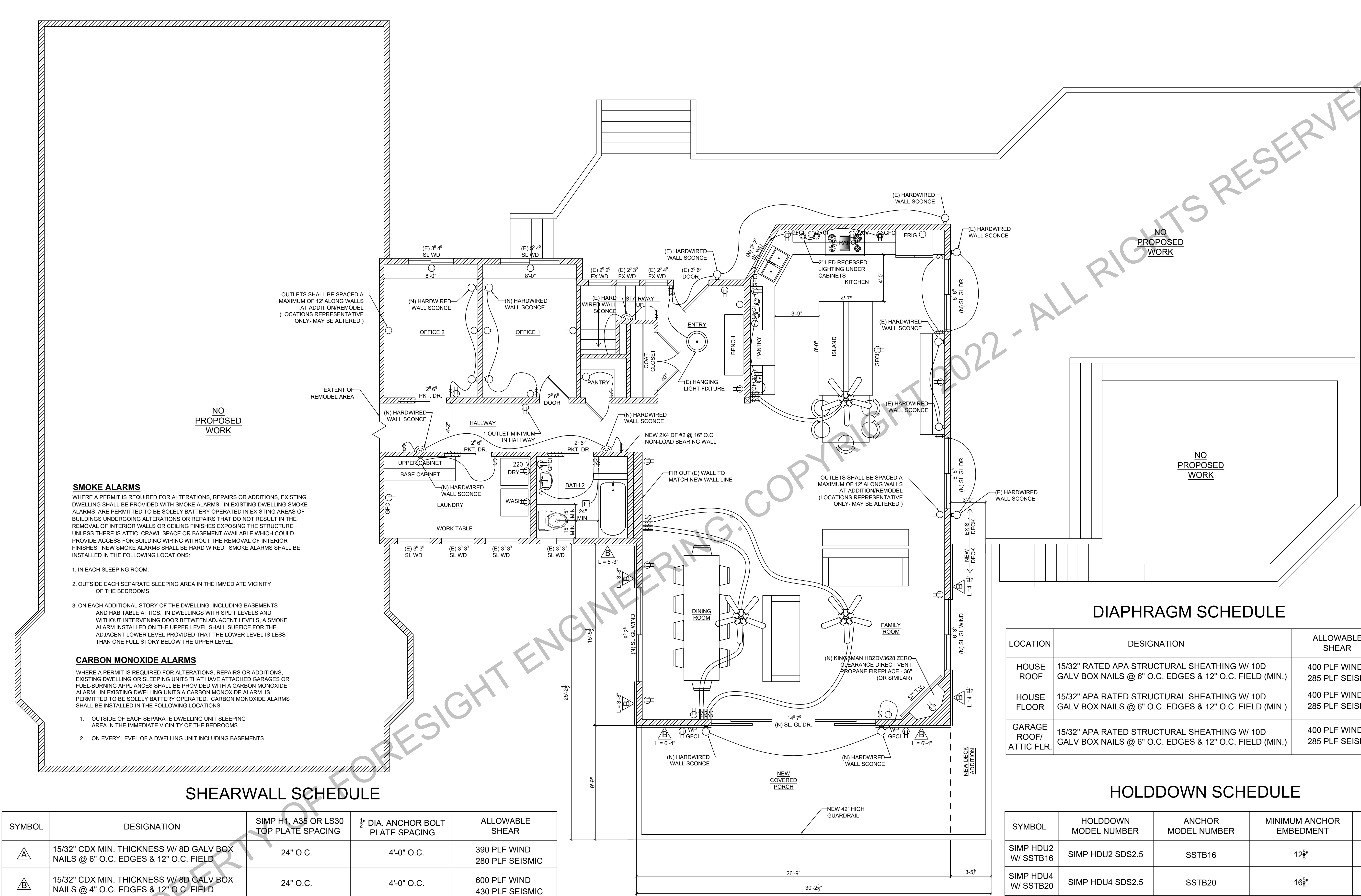
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 S3



**NEW 1ST FLOOR PLAN & ELECTRICAL LAYOUT**  
 SCALE: 1/4" = 1'-0"

**SMOKE ALARMS**  
 WHERE A PERMIT IS REQUIRED FOR ALTERATIONS, REPAIRS OR ADDITIONS, EXISTING DWELLING SHALL BE PROVIDED WITH SMOKE ALARMS. IN EXISTING DWELLING SMOKE ALARMS ARE PERMITTED TO BE SOLELY BATTERY OPERATED IN EXISTING AREAS OF BUILDINGS UNDERGOING ALTERATIONS OR REPAIRS THAT DO NOT RESULT IN THE REMOVAL OF INTERIOR WALLS OR CEILING FINISHES EXPOSING THE STRUCTURE, UNLESS THERE IS ATTIC, CRAWL SPACE OR BASEMENT AVAILABLE WHICH COULD PROVIDE ACCESS FOR BUILDING WIRING WITHOUT THE REMOVAL OF INTERIOR FINISHES. NEW SMOKE ALARMS SHALL BE HARD WIRED. SMOKE ALARMS SHALL BE INSTALLED IN THE FOLLOWING LOCATIONS:

1. IN EACH SLEEPING ROOM.
2. OUTSIDE EACH SEPARATE SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDROOMS.
3. ON EACH ADDITIONAL STORY OF THE DWELLING, INCLUDING BASEMENTS AND HABITABLE ATTICS. IN DWELLINGS WITH SPLIT LEVELS AND WITHOUT INTERVENING DOOR BETWEEN ADJACENT LEVELS, A SMOKE ALARM INSTALLED ON THE UPPER LEVEL SHALL SUFFICE FOR THE ADJACENT LOWER LEVEL PROVIDED THAT THE LOWER LEVEL IS LESS THAN ONE FULL STORY BELOW THE UPPER LEVEL.

**CARBON MONOXIDE ALARMS**  
 WHERE A PERMIT IS REQUIRED FOR ALTERATIONS, REPAIRS OR ADDITIONS, EXISTING DWELLING OR SLEEPING UNITS THAT HAVE ATTACHED GARAGES OR FUEL-BURNING APPLIANCES SHALL BE PROVIDED WITH A CARBON MONOXIDE ALARM. IN EXISTING DWELLING UNITS A CARBON MONOXIDE ALARM IS PERMITTED TO BE SOLELY BATTERY OPERATED. CARBON MONOXIDE ALARMS SHALL BE INSTALLED IN THE FOLLOWING LOCATIONS:

1. OUTSIDE OF EACH SEPARATE DWELLING UNIT SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDROOMS.
2. ON EVERY LEVEL OF A DWELLING UNIT INCLUDING BASEMENTS.

**SHEARWALL SCHEDULE**

SYMBOL	DESIGNATION	SIMP H1, A35 OR LS30 TOP PLATE SPACING	1/2" DIA. ANCHOR BOLT PLATE SPACING	ALLOWABLE SHEAR
A	15/32" CDX MIN. THICKNESS W/ 8D GALV BOX NAILS @ 6" O.C. EDGES & 12" O.C. FIELD	24" O.C.	4'-0" O.C.	390 PLF WIND 280 PLF SEISMIC
B	15/32" CDX MIN. THICKNESS W/ 8D GALV BOX NAILS @ 4" O.C. EDGES & 12" O.C. FIELD	24" O.C.	4'-0" O.C.	600 PLF WIND 430 PLF SEISMIC
C	USE SIMPSON WSW24X10 STRONG-WALL *SEE SHEETS WSWH1 & WSWH2 FOR SIMPSON ANCHOR AND FRAMING DETAILS	24" O.C.	N/A	1925 PLF WIND 1835 PLF SEISMIC

1. WHERE ALLOWABLE SHEAR VALUES EXCEED 700 PLF, FOUNDATION SILL PLATES AND ALL FRAMING MEMBERS RECEIVING EDGE NAILING FROM ABUTTING PANELS SHALL NOT BE LESS THAN 3" MEMBER AND FOUNDATION SILL PLATES SHALL NOT BE LESS THAN 3". IN LIEU OF USING 3" FOUNDATION SILL PLATES THE ANCHOR BOLT SPACING MAY BE DECREASED BY HALF AS SHOWN IN THE ABOVE TABLE. PLYWOOD JOIST AND SILL PLATE NAILING SHALL BE STAGGERED IN ALL CASES.
2. ALL PANEL EDGES SHALL BE BACKED WITH 2-INCH NOMINAL OR WIDER.
3. ALL ANCHOR BOLTS SHALL HAVE 3/8X229 PLATE WASHER & STANDARD CUT WASHER WITH NUT
4. ALL NAILING EXPOSED TO WEATHER SHALL BE GALVANIZED TYPE
5. SIMPSON TITAN HD BOLTS 3/4" DIAMETER X10" MAY BE USED IN LIEU OF CAST IN PLACE ANCHOR BOLTS

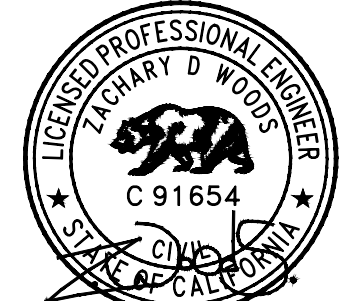
**DIAPHRAGM SCHEDULE**

LOCATION	DESIGNATION	ALLOWABLE SHEAR
HOUSE ROOF	15/32" RATED APA STRUCTURAL SHEATHING W/ 10D GALV BOX NAILS @ 6" O.C. EDGES & 12" O.C. FIELD (MIN.)	400 PLF WIND 285 PLF SEISMIC
HOUSE FLOOR	15/32" APA RATED STRUCTURAL SHEATHING W/ 10D GALV BOX NAILS @ 6" O.C. EDGES & 12" O.C. FIELD (MIN.)	400 PLF WIND 285 PLF SEISMIC
GARAGE ROOF/ ATTIC FLR.	15/32" APA RATED STRUCTURAL SHEATHING W/ 10D GALV BOX NAILS @ 6" O.C. EDGES & 12" O.C. FIELD (MIN.)	400 PLF WIND 285 PLF SEISMIC

**HOLDDOWN SCHEDULE**

SYMBOL	HOLDDOWN MODEL NUMBER	ANCHOR MODEL NUMBER	MINIMUM ANCHOR EMBEDMENT	ALLOWABLE TENSION
SIMP HDU2 W/ SSTB16	SIMP HDU2 SDS2.5	SSTB16	12 3/8"	3075 LB
SIMP HDU4 W/ SSTB20	SIMP HDU4 SDS2.5	SSTB20	16 3/8"	4565 LB
SIMP HDU8 W/ SSTB28	SIMP HDU5 SDS2.5	SSTB28	24 3/8"	6765 LB

\*SEE DETAILS 5/S10 FOR INSTALLATION CONFIGURATION

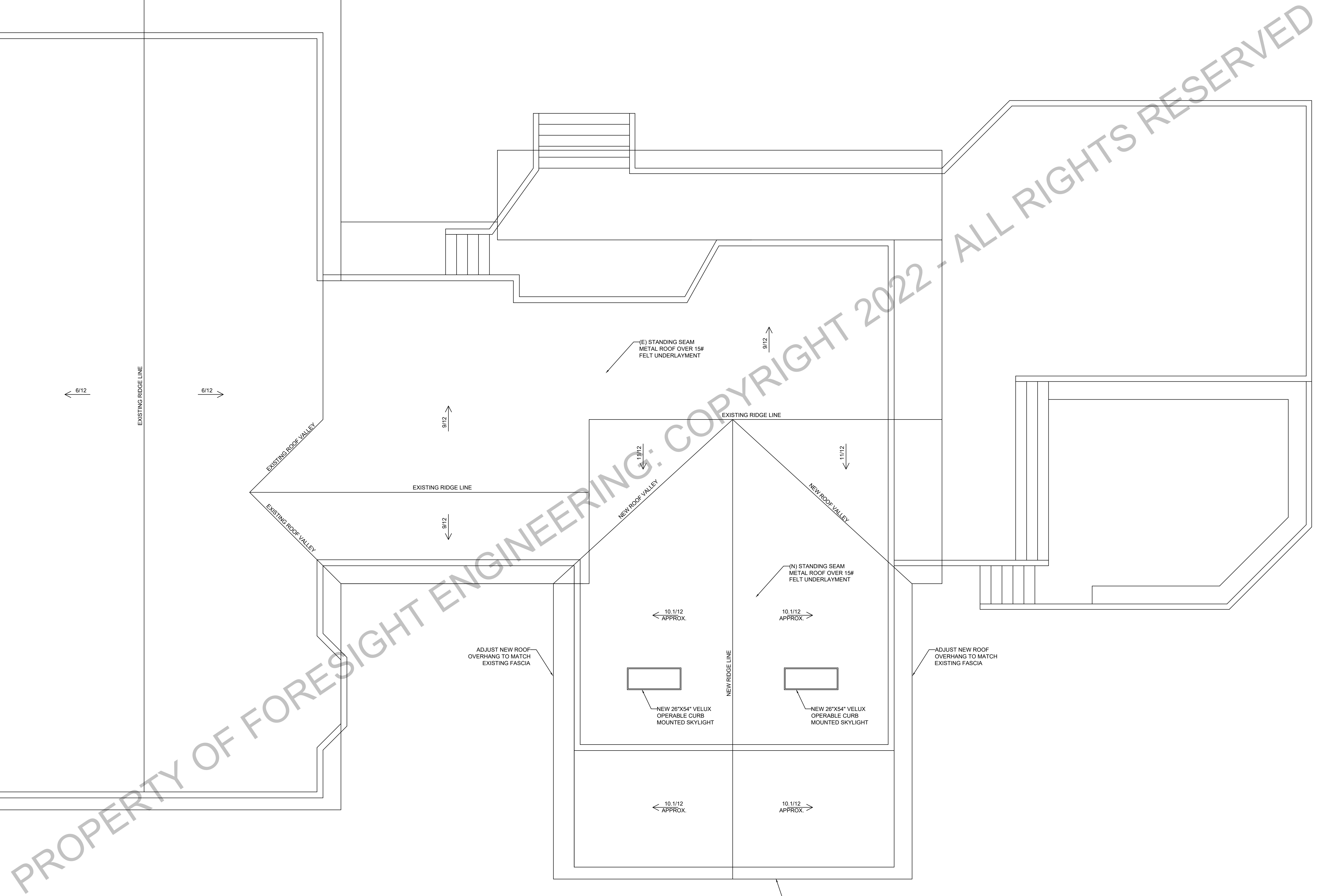




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 84



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NEW ROOF LAYOUT PLAN





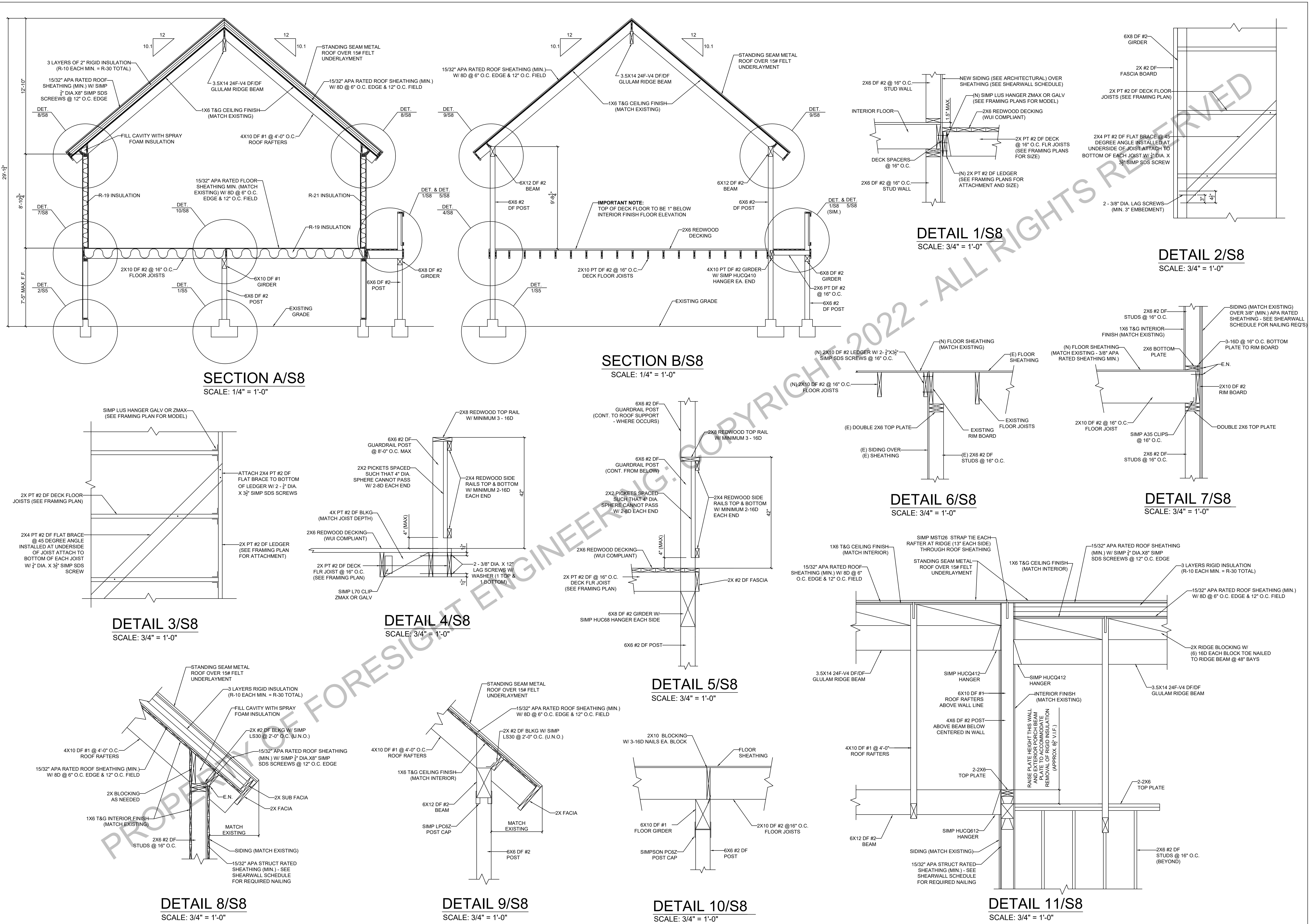




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**GENERAL NOTES**

**DESIGN CRITERIA**

- Codes and Standards, 2019 CRC & 2019 CBC and any applicable local codes.
- Ground Base Snow Load = 95 psf
- Roof Snow Load = 48 psf & Dead Load = 18 psf
- Floor Live Load = 40 psf & Dead Load = 9 psf
- Deck Floor Snow Load = 95 psf & Dead Load 10 psf
- Wind 94 mph - Exposure B
- Seismic Design Category D

**GENERAL CONDITIONS**

- The contractor shall notify the Engineer of Record of any discrepancies on the drawings required clarification or revision before commencing work.
- The contractor shall verify all dimensions on these plans before commencing work and the Engineer shall be notified of any discrepancies.
- Drawings shall not be scaled. All dimensions related to existing conditions shall be verified by the contractor.
- The contractor shall provide all measures necessary to protect the structure, workman, and all other persons during construction.
- In the event certain features of the construction are not fully shown on the drawings or called for in the notes or specifications, then their construction shall be of the similar character as for similar conditions that are shown or called for and shall be reviewed by the engineer and owner.

**FOUNDATION**

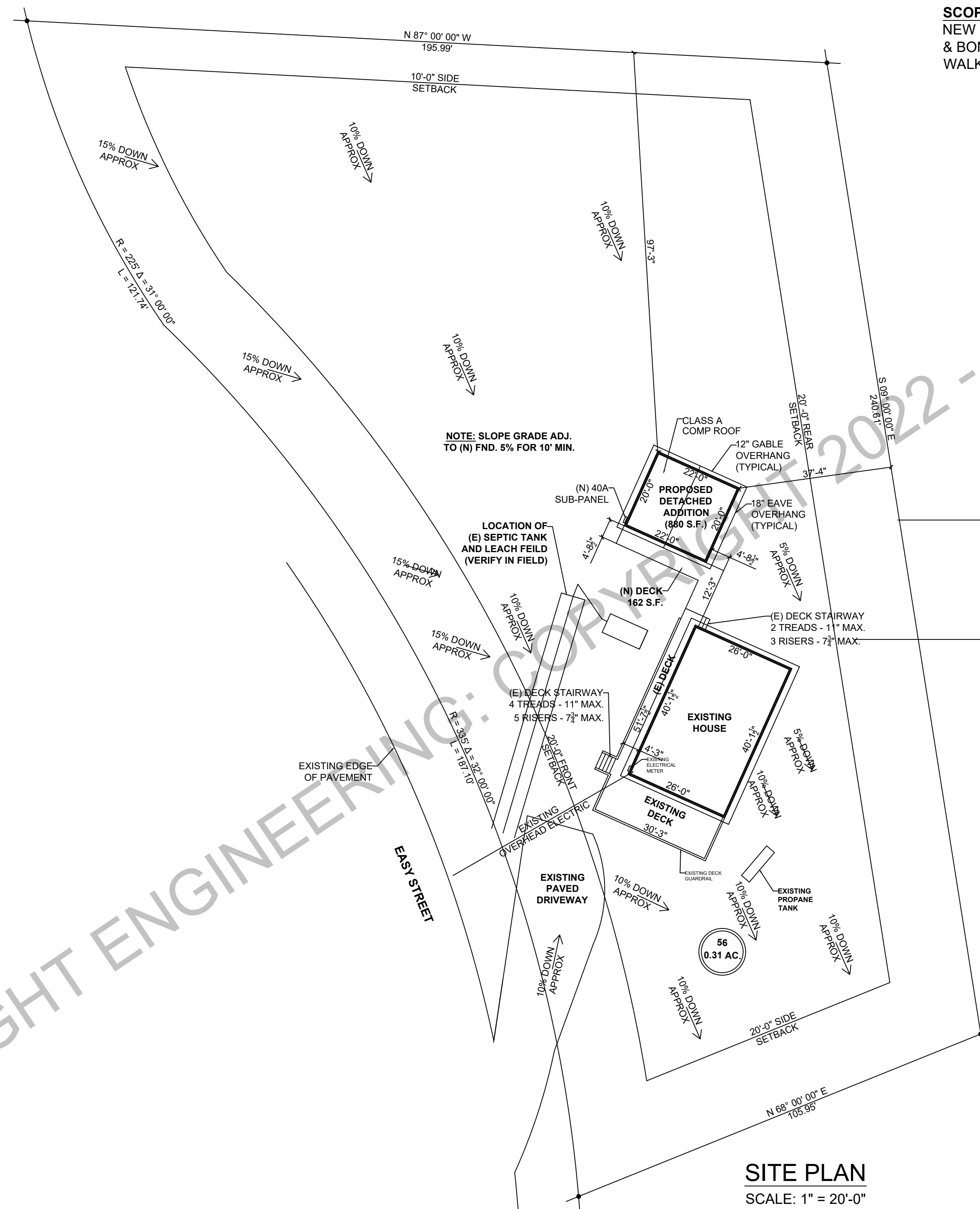
- All foundations are based on 2019 CRC, Table R401.4.1 & 2019 CBC, Table 1806.2, Class 5 Soil
  - A) Allowable Bearing = 1500 PSF
  - B) Lateral Bearing = 100 PSF
  - C) Frictional Sliding Resistance = 130 PSF x Contact Area or max. 1/2 x Dead Load
- All foundations shall bear on firm, undisturbed native soil or on engineered fills at or exceeding the depth shown on the drawings.
- All footing excavations shall be neat. Over excavations in depth and width shall be filled with concrete. All loose soils shall be removed from excavations prior to placement of concrete.
- All footings shall be level or stepped unless noted otherwise.
- The contractor shall be responsible for determining the exact locations for all anchor bolts, holdown anchors and straps, and embeds, prior to placement of concrete and/or installation of structural framing members.

**CONCRETE & REINFORCEMENT**

- Concrete shall meet the following minimum compression strength at 28 days:
  - Slab of grade 2500 psi
  - Foundations 2500 psi
- Minimum reinforcing steel cover requirements:
  - Cast against and exposed to earth 3"
  - Formed and exposed to earth or weather 2"
  - Not exposed to weather:
    - Slab, walls, & joist 3/4"
    - Beams & columns 1 1/2"
- Reinforcing steel shall conform to ASTM A-615, grade 40 for #4 and smaller bars and grade 60 for #5 and larger bars. Steel shall be kept clean and free of rust scales.
- Reinforcing bars shall be in as long as lengths as practicable. All reinforcing steel shall be "cold bent". All reinforcing bars shall extend as far as possible and end in a standard hook unless detailed otherwise. At corners and intersections bars shall return a minimum of 18". All reinforcing bars shall be lapped a minimum of 40 bar diameters or 20".
- Reinforcing, anchor bolts, and inserts shall be rigidly held in place prior to placing concrete.

**ROUGH CARPENTRY**

- All joist, studs, plates, blocking, beams, posts, and ledgers shall be S4S Douglas Fir #2 unless otherwise noted. Each piece of sawn framing lumber shall be identified by the grade mark of a lumber that has been approved by an accreditation body that complies with DOC PS20 or equivalent.
- Wood structural panels, when used structurally (including those used for siding, roof and wall sheathing, subflooring diaphragms), shall conform to the requirements for their type in Doc PS1 or PS2. Each panel or members shall be identified for grade and glue type by the trademarks of an approved testing and grading agency. Structural plywood shall be CD grade with exterior glue. CCX plywood shall be used at all eave areas of roof, maximum unframed holes in sheathing shall be 3" in diameter.
- Wood in contact with concrete shall be pressure treated Douglas Fir or Hem Fir. Wood required by 2019 CRC, section R317.1 or Hem Fir. Wood required by 2019 CRC, section R317.1 to be preservative treated shall conform to the requirements of the AWPA Standard U1 for species, product, preservative and end use. Preservatives shall be listed in Section 4 of AWPA U1. Each piece of preservative treated wood shall bear the quality mark of an inspection agency that maintains continuing supervision, testing and inspection over the quality of the preservation - treated wood, and shall include the following information:
  - \*Identification of treated manufacturer
  - \*Type of preservation used
  - \*Minimum preservation retention (pcf)
  - \*AWPA standard to which the product is treated
  - \*Identity of the accredited inspection agency
- Nails shall be common wire except that nails used in exterior applications shall be galvanized box. Pre-drill holes where wood tends to split.
- Joist hangers, metal connectors, and other miscellaneous timber connectors shall be per Simpson Company, San Leandro, California or equal. Nail at all pre-drilled holes, per manufacture instructions, unless noted otherwise.
- Machine bolts and anchor bolts shall conform to ASTM A-307. Provide plates or malleable iron washers under head and nut where bearing is against wood. Bolt holes in wood shall be 1/16" larger than bolt sizes, unless otherwise noted. Nuts shall be tightened when placed and retightened before closing in.
- All nailing not specifically called out shall be per Table R602.3(1) Fastening Schedule of the 2019 CRC.
- All double plates shall be lapped a minimum of 4'-0" at splices with 8-16d each side.
- Where plumbing, heating, or other ducts are placed in a partition requiring the cutting of double top plates, a Simpson LSTA24 strap shall be fastened to each side of the top plate.
- Contractor shall install sufficient structural sheathing or bracing to provide adequate stability to the structure during construction.
- Anchor bolts to be 1/2" diameter x 10" long embedded 7" into concrete with nut and 3"x3"x.229" plate washer, within 12" and minimum 3 1/2" of ends of plates and corners, and 6'-0" o.c. maximum spacing unless otherwise noted on shearwall schedule, plans, or details.
- Top of foundation and individual piers foundations to be a minimum of 8" above adjacent finished grade.
- Cutting and notching of wood studs:
  - a) In exterior walls and bearing partitions, any wood stud is permitted to be cut or notched to a depth not exceeding 25 percent of its width.
  - b) Cutting or notching of studs to a depth not greater than 60 percent of the width of the stud is permitted in non bearing partitions supporting no loads other than the weight of the partition.
- Bored holes in wood studs:
  - a) A hole not greater in diameter than 40 percent of the stud width is permitted to be bored in any wood stud.
  - b) Bored holes not greater than 60 percent of the width of the stud are permitted in non bearing partitions or any wall where each bored stud is doubled.
  - c) In no case shall the edge of the bored hole be nearer than 5/8" inch to the edge of the stud.
  - d) Bored holes shall not be located at the same section of stud as a cut or notch.



**SITE PLAN**  
SCALE: 1" = 20'-0"

**SITE NOTES:**

- THIS SITE PLAN IS FOR REFERENCE ONLY AND IS NOT INTENDED AS AN ACCURATE SURVEY OF THIS PARCEL.
- OWNER OR CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF PROPER SETBACKS.
- PROPERTY CORNER PINS OF PROPERTY LINES MUST BE VERIFIED PRIOR TO START OF EXCAVATION.
- OWNER OR CONTRACTOR SHALL VERIFY EXACT LOCATION OF ALL OVERHEAD AND UNDERGROUND UTILITIES PRIOR TO START OF CONSTRUCTION.

**SCOPE OF WORK:**

NEW DETACHED TWO-STORY ADDITION FOR RECREATION ROOM & BONUS ROOM/LIGHT STORAGE ABOVE (880 S.F.) & NEW ENTRY WALKWAY DECK. (162 S.F.)

**SHEET INDEX:**

- A1: COVER SHEET / SITE PLAN
- A2: ELEVATIONS & GABLE END FRAMING SCHEMATIC
- S1: CROSS-SECTION, FLOOR, FOUNDATION & FRAMING PLANS
- S2: STRUCTURAL DETAILS
- SN-1.0: RESIDENTIAL PLAN GENERAL NOTES
- GB-1.1: 2019 CGBSC RESIDENTIAL MANDATORY MEASURES (1 OF 2)
- GB-1.2: 2019 CGBSC RESIDENTIAL MANDATORY MEASURES (2 OF 2)

**SQUARE FOOTAGE BREAKDOWN:**

1ST FLOOR = 440 SQFT (REC ROOM/BATH)  
2ND FLOOR = 440 SQFT (BONUS ROOM/LIGHT STORAGE)  
NEW DECK = 162 SQFT (NEW ENTRY DECK)

**NEW TOTAL SFD AREA (CONDITIONED)**

EXISTING SFD (CONDITIONED) = 1612 SQFT  
NEW ADDITION (CONDITIONED) = 880 SQFT  
NEW TOTAL SFD SQUARE FOOTAGE = 2492 SQFT

**OWNER BUILDER:**

JOHN DOE  
123 EASY STREET  
GENERICVILLE, CA 12345  
APN: 012-034-056  
PHONE: (555) 123-4567

**ENGINEER OF RECORD:**

FORESIGHT ENGINEERING  
1437 SANDALWOOD CT  
MURPHYS, CA 95247  
ZWOODS@4SIGHTENGINEERING.COM  
(209) 840-2788

**COMPLIES WITH CURRENT GOVERNING CODES:**

- 2019 CALIFORNIA RESIDENTIAL CODE
- 2019 CALIFORNIA BUILDING CODE
- 2019 CALIFORNIA ELECTRICAL CODE
- 2019 CALIFORNIA PLUMBING CODE
- 2019 CALIFORNIA MECHANICAL CODE
- 2019 CALIFORNIA GREEN BUILDING STANDARDS CODE
- 2019 CALIFORNIA ENERGY CODE
- W/ CALAVERAS COUNTY MUNICIPAL CODE AMENDMENTS



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JOB XXXX-XXX  
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1437 SANDALWOOD DR  
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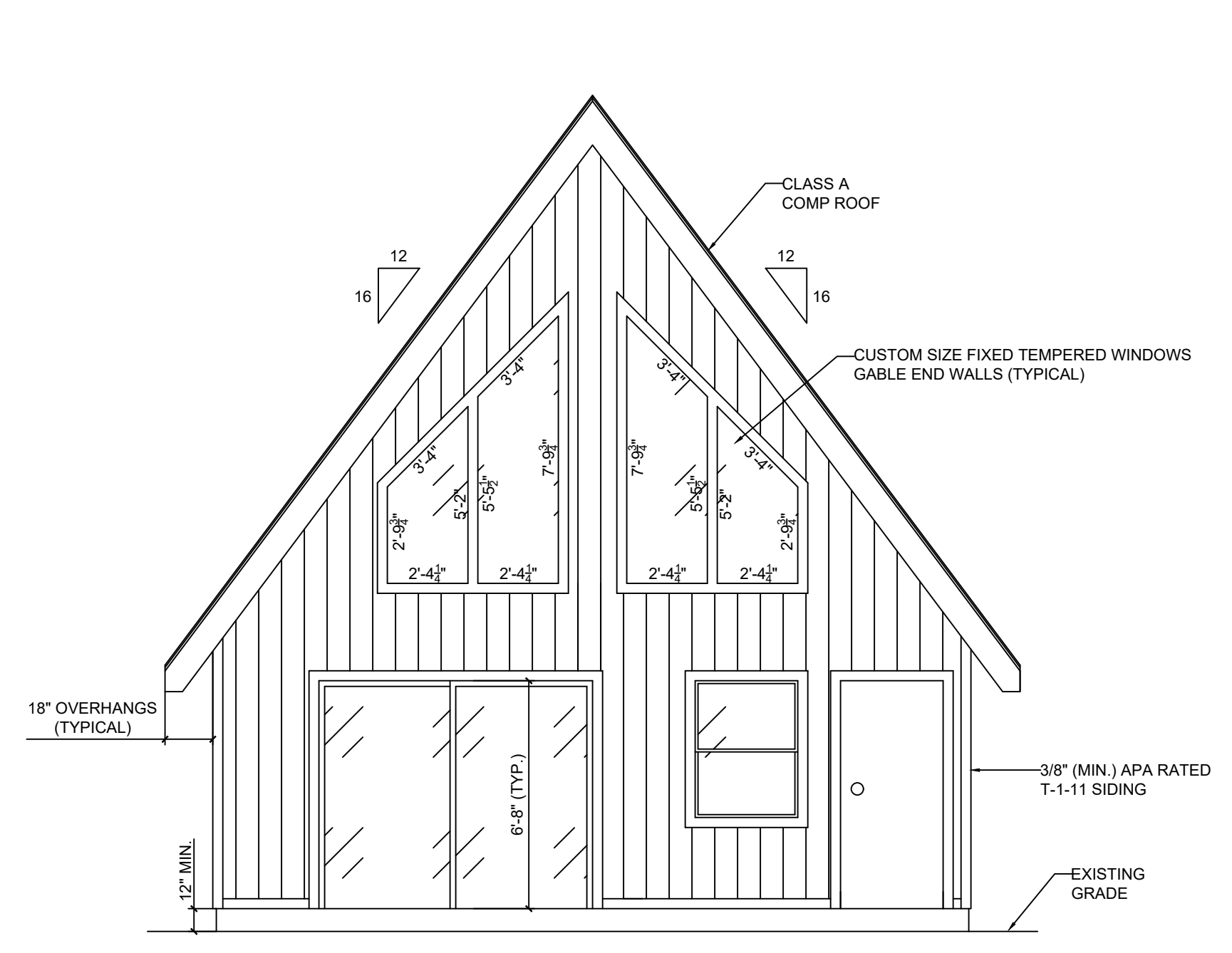


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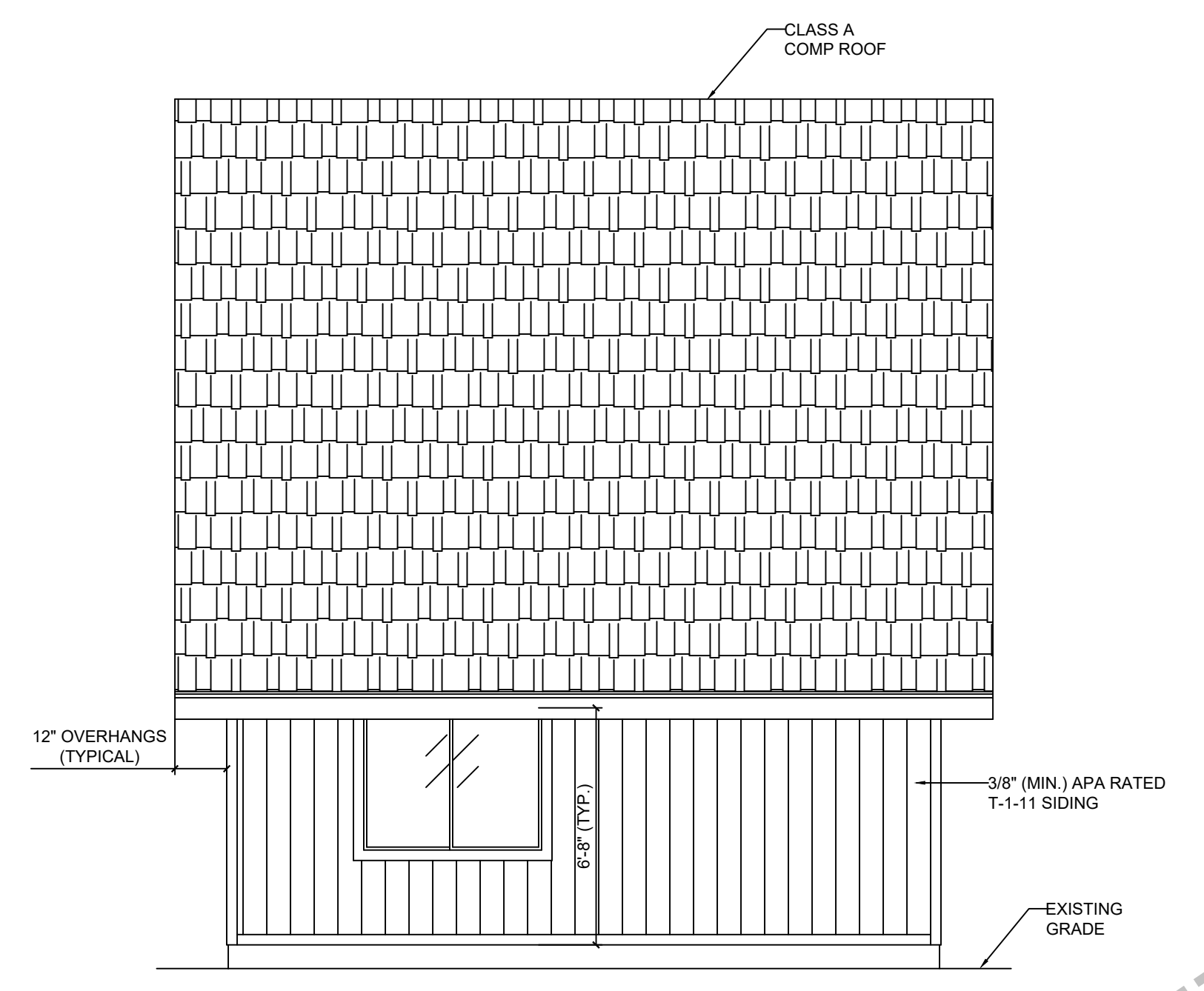
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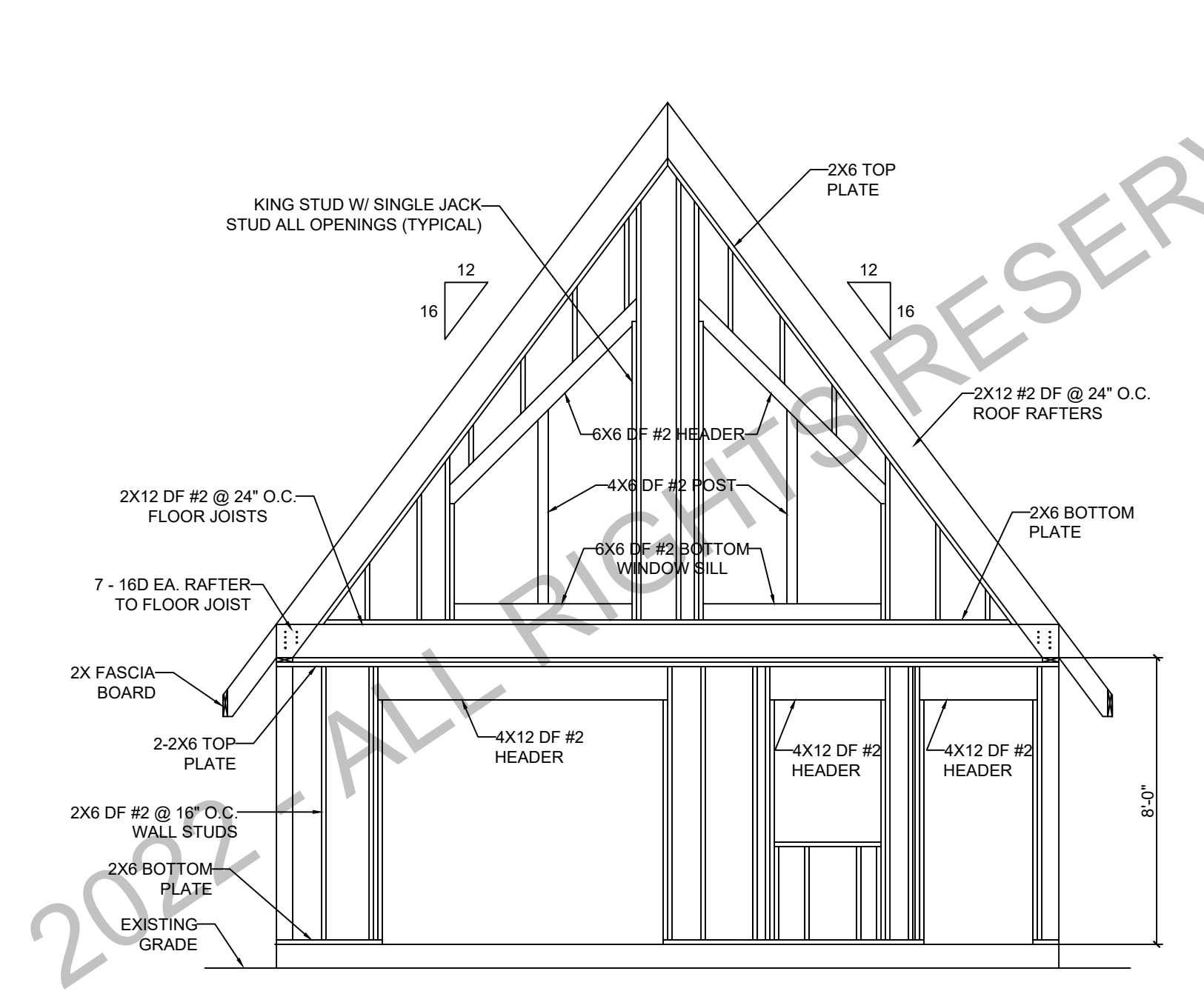
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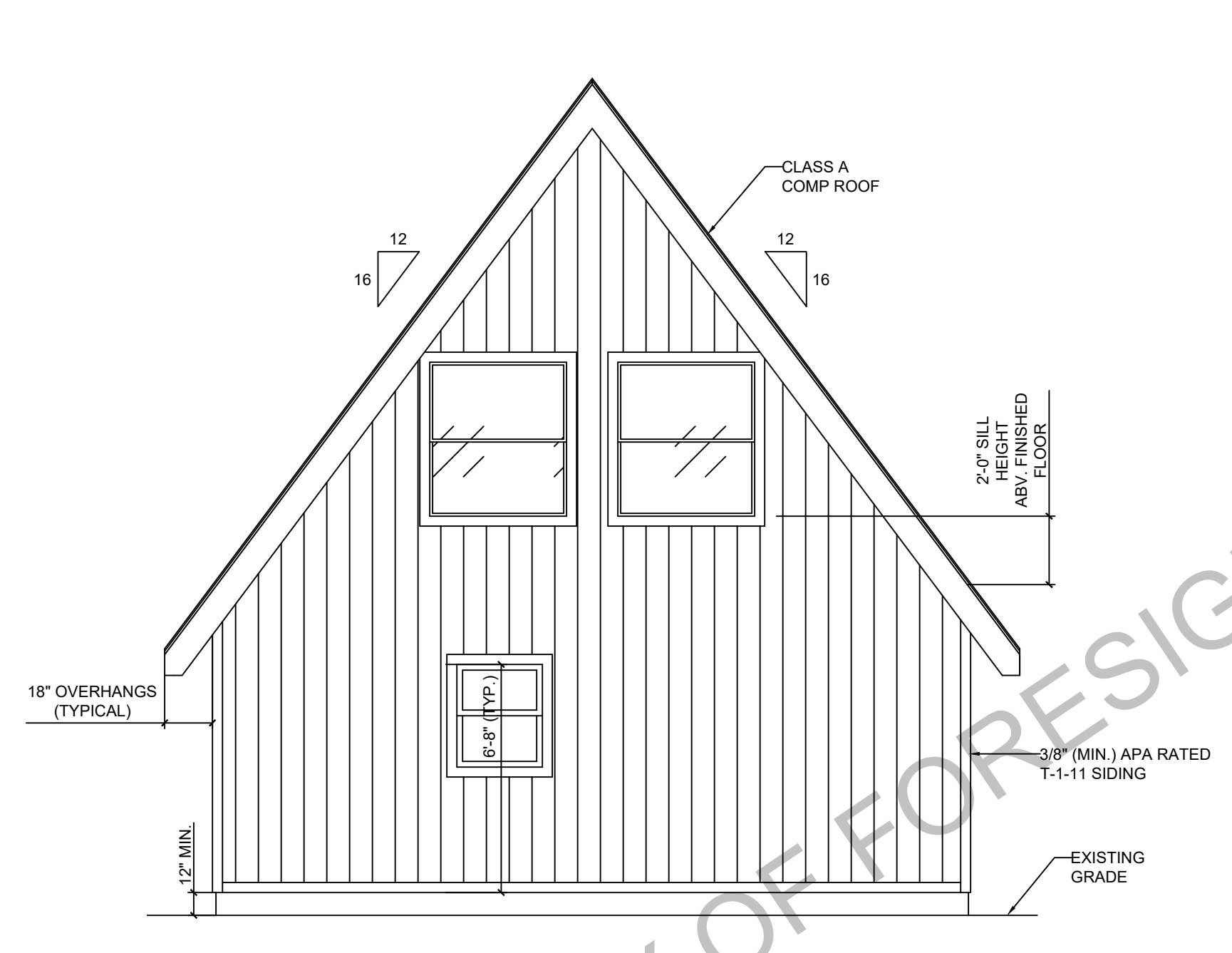
**DETACHED ADDITION FRONT ELEVATION**  
 SCALE: 1/4" = 1'-0"



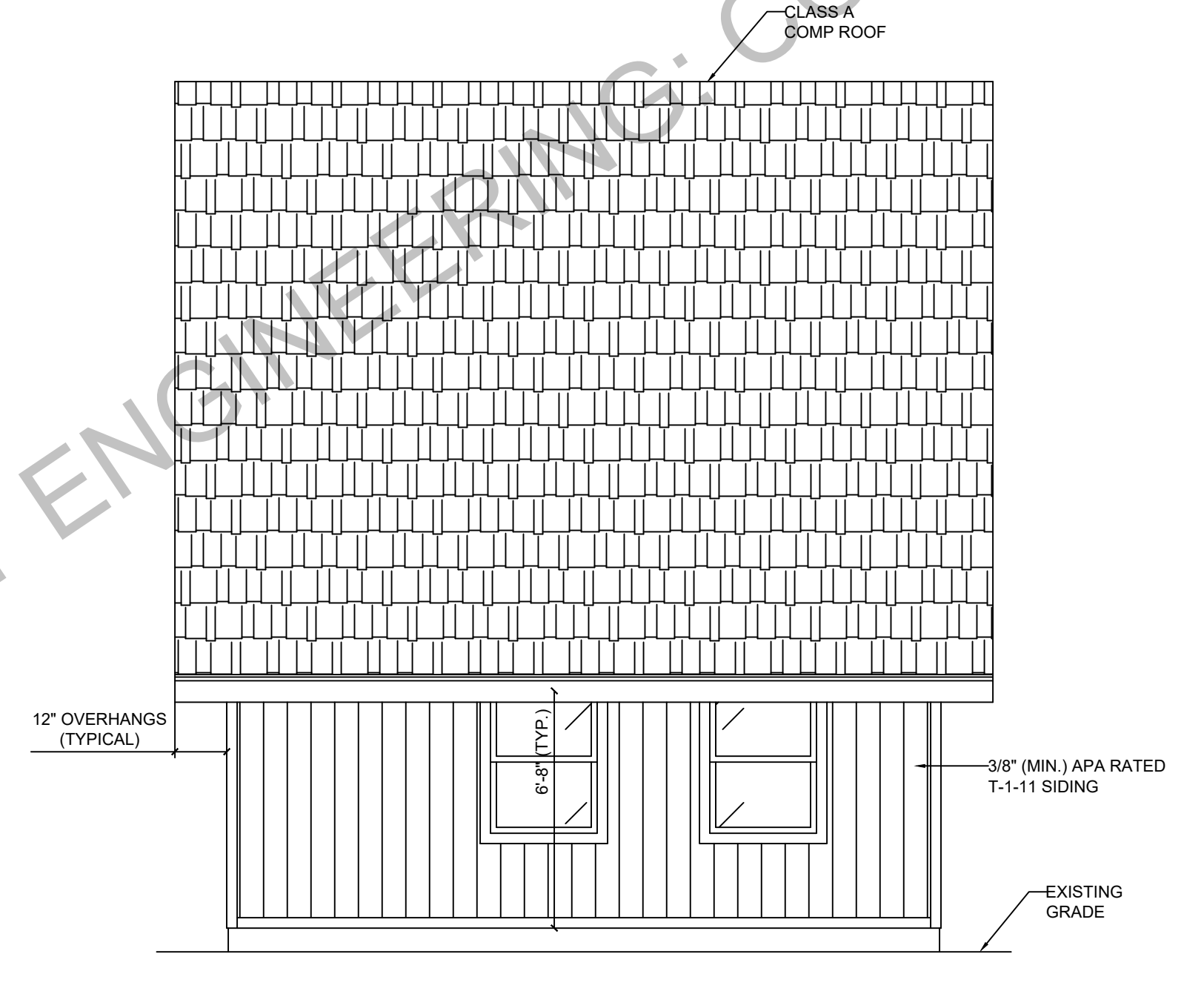
**DETACHED ADDITION RIGHT ELEVATION**  
 SCALE: 1/4" = 1'-0"



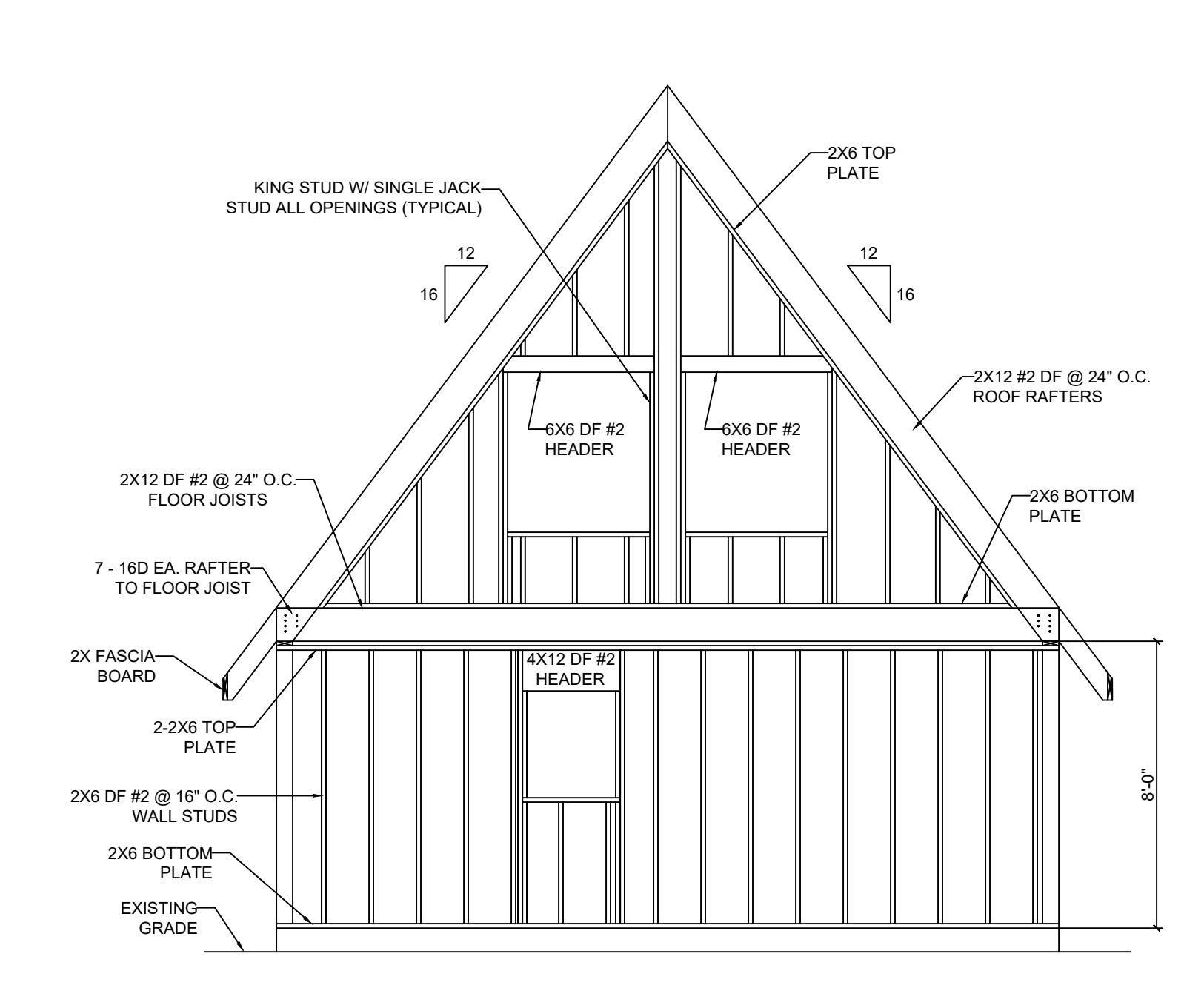
**FRONT GABLE END FRAMING SCHEMATIC**  
 SCALE: 1/4" = 1'-0"



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



**DETACHED ADDITION LEFT ELEVATION**  
 SCALE: 1/4" = 1'-0"



**BACK GABLE END FRAMING SCHEMATIC**  
 SCALE: 1/4" = 1'-0"

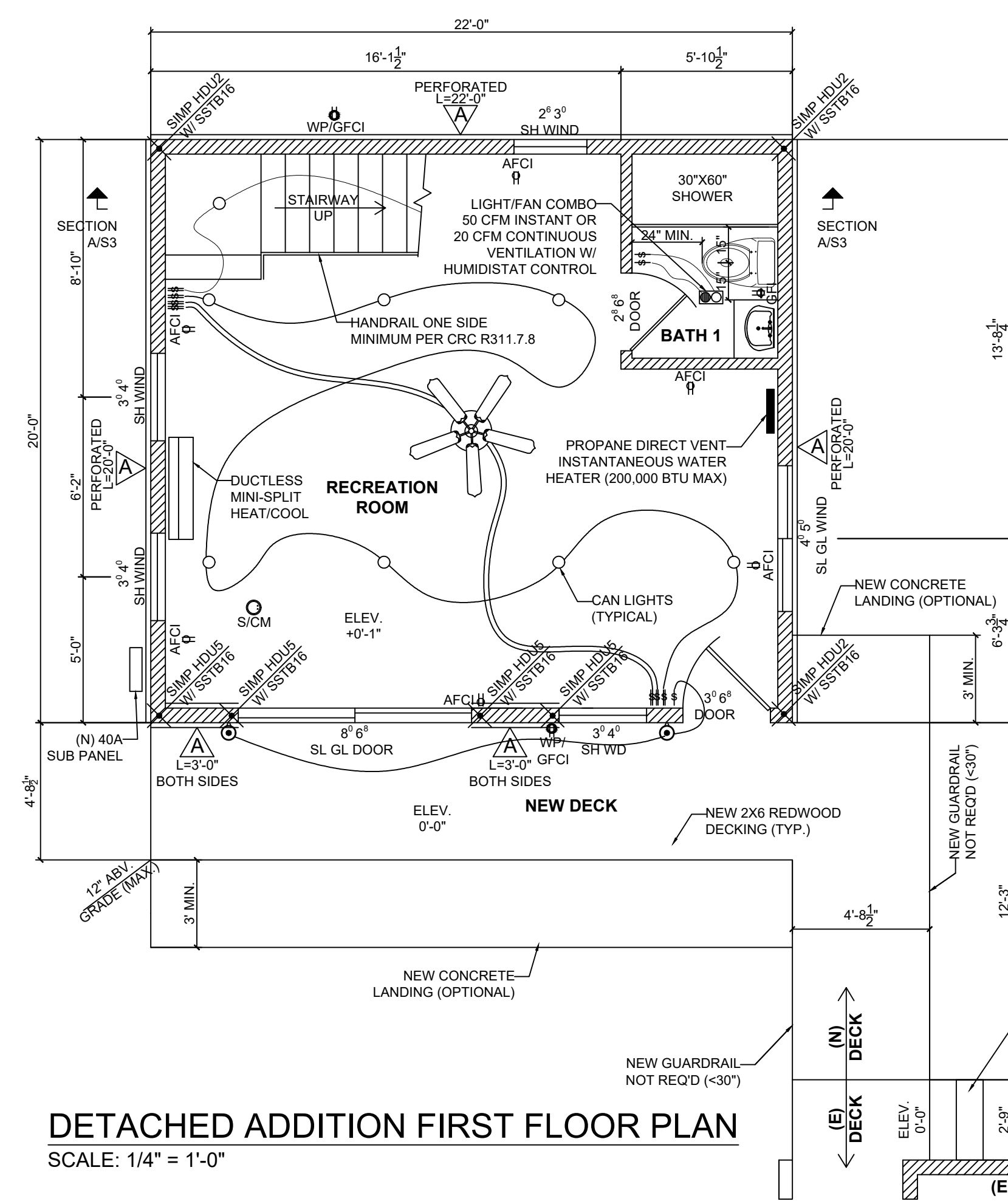
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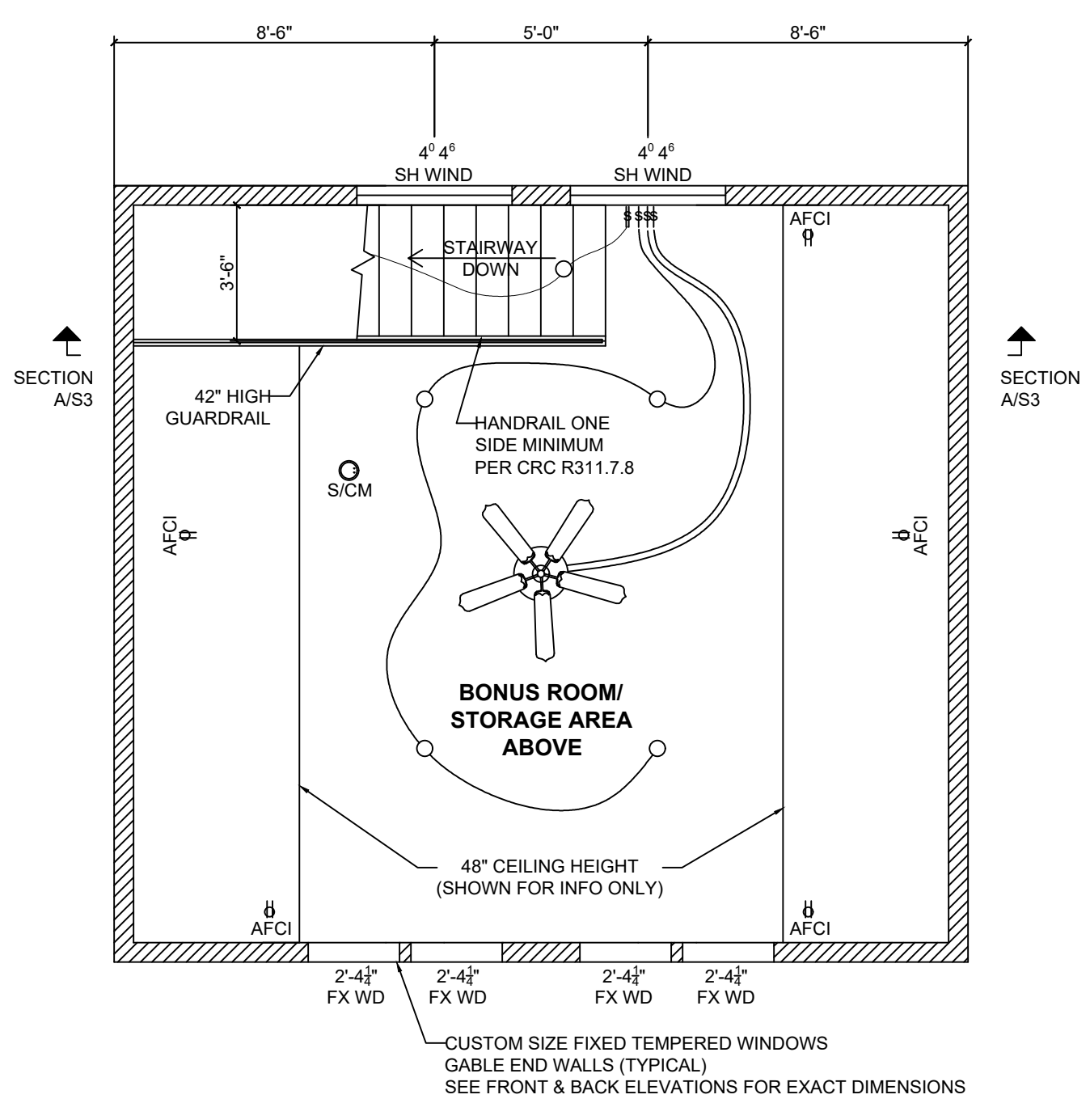
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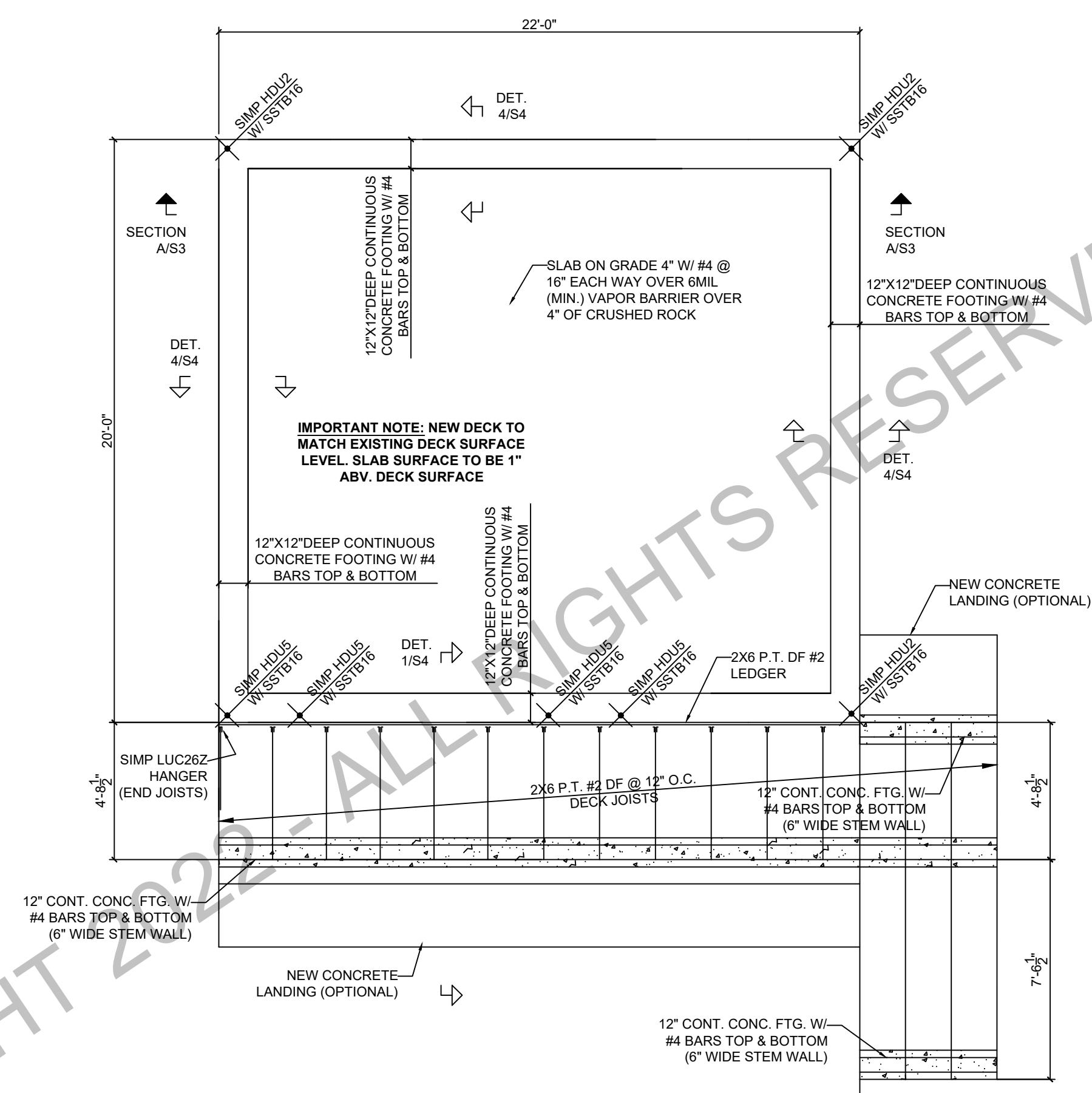
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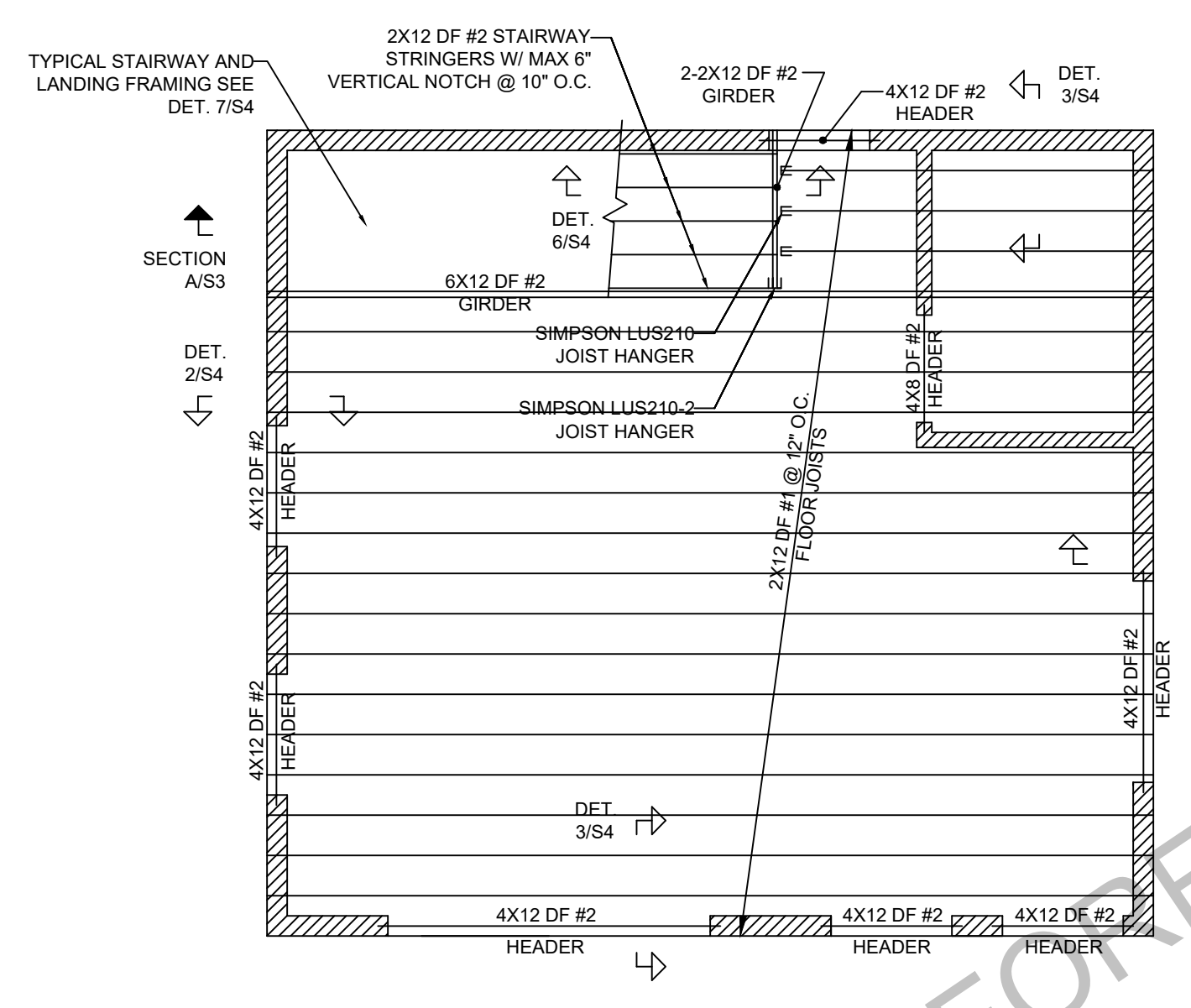
**DETACHED ADDITION FIRST FLOOR PLAN**  
 SCALE: 1/4" = 1'-0"



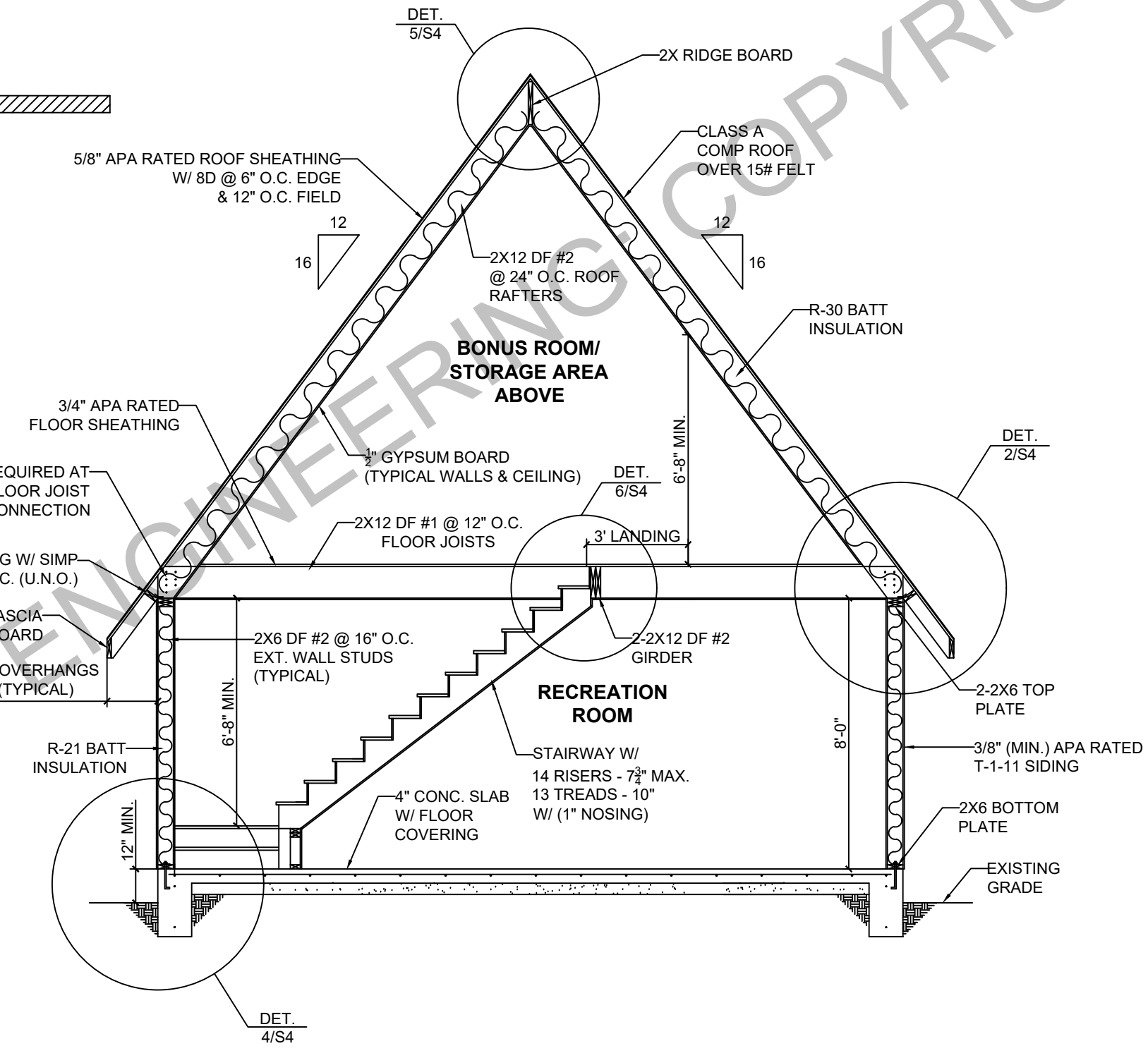
**DETACHED ADDITION STORAGE ABOVE PLAN**  
 SCALE: 1/4" = 1'-0"



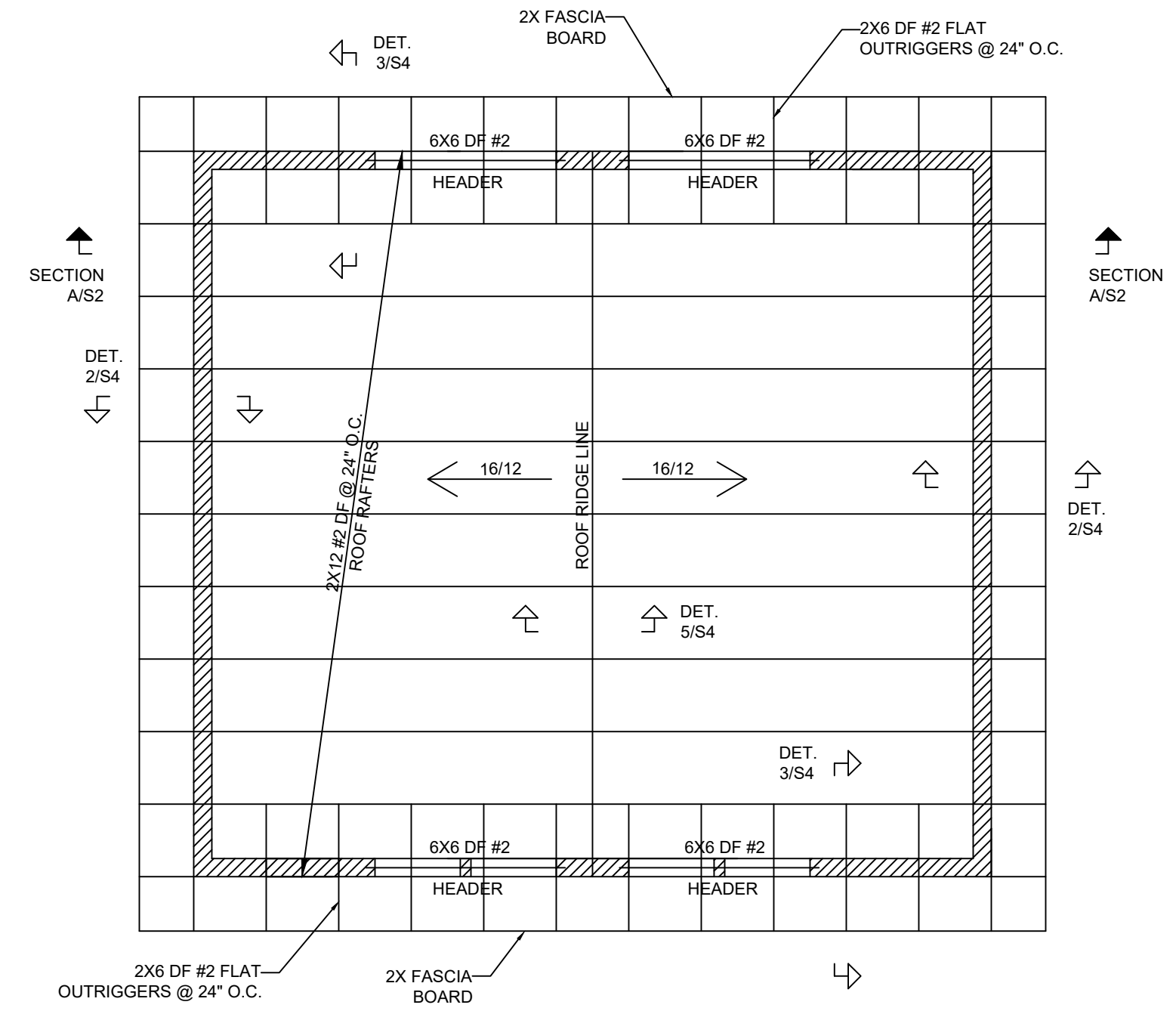
**DETACHED ADDITION FOUNDATION PLAN**  
 SCALE: 1/4" = 1'-0"



**DETACHED ADDITION 2ND FLOOR FRAMING PLAN**  
 SCALE: 1/4" = 1'-0"



**SECTION A/S3: DETACHED ADDITION CROSS SECTION**  
 SCALE: 1/4" = 1'-0"



**DETACHED ADDITION ROOF FRAMING PLAN**  
 SCALE: 1/4" = 1'-0"

**SHEARWALL SCHEDULE**

DESIGNATION	SIMP H1, A35 OR LS30 TOP PLATE SPACING	3/4" DIA. ANCHOR BOLT PLATE SPACING	ALLOWABLE SHEAR
3/8" APA RATED STRUCTURAL SHEATHING W/ 8D GALV BOX NAILS @ 6" O.C. EDGES & 12" O.C. FIELD	24" O.C.	4'-0" O.C.	390 PLF WIND 280 PLF SEISMIC

- WHERE ALLOWABLE SHEAR VALUES EXCEED 700 PLF, FOUNDATION SILL PLATES AND ALL FRAMING MEMBERS RECEIVING EDGE NAILING FROM ABUTTING PANELS SHALL NOT BE LESS THAN 3" MEMBER AND FOUNDATION SILL PLATES SHALL NOT BE LESS THAN 3" IN LIEU OF USING 3" FOUNDATION SILL PLATES THE ANCHOR BOLT SPACING MAY BE DECREASED BY HALF AS SHOWN IN THE ABOVE TABLE. PLYWOOD JOIST AND SILL PLATE NAILING SHALL BE STAGGERED IN ALL CASES.
- ALL PANEL EDGES SHALL BE BACKED WITH 2-INCH NOMINAL OR WIDER
- ALL ANCHOR BOLTS SHALL HAVE 5"X7"X25" PLATE WASHER & STANDARD CUT WASHER WITH NUT
- ALL NAILING EXPOSED TO WEATHER SHALL BE GALVANIZED TYPE
- SIMPSON TITAN HD BOLTS 3/4" DIAMETER X10" MAY BE USED IN LIEU OF CAST IN PLACE ANCHOR BOLTS

**DIAPHRAGM SCHEDULE**

LOCATION	DESIGNATION	ALLOWABLE SHEAR
HOUSE ROOF & FLOOR	15/32" RATED APA STRUCTURAL SHEATHING W/ 8D GALV BOX NAILS @ 6" O.C. EDGES & 12" O.C. FIELD (MIN.)	335 PLF WIND 240 PLF SEISMIC

**HOLDDOWN SCHEDULE**

SYMBOL	HOLDDOWN MODEL NUMBER	ANCHOR TYPE/ MODEL NUMBER	MINIMUM ANCHOR EMBEDMENT	MINIMUM WOOD MEMBER SIZE	ALLOWABLE TENSION
SIMP HDU2 W/ SSTB16	SIMP HDU2 SDS2.5	SSTB16	12 <sup>5/8"</sup>	2-2X4	3075 LB
SIMP HDU5 W/ SSTB24	SIMP HDU5 SDS2.5	SSTB24	20 <sup>5/8"</sup>	2-2X4	5645 LB

\*SEE DETAILS 8/S4 FOR INSTALLATION CONFIGURATION

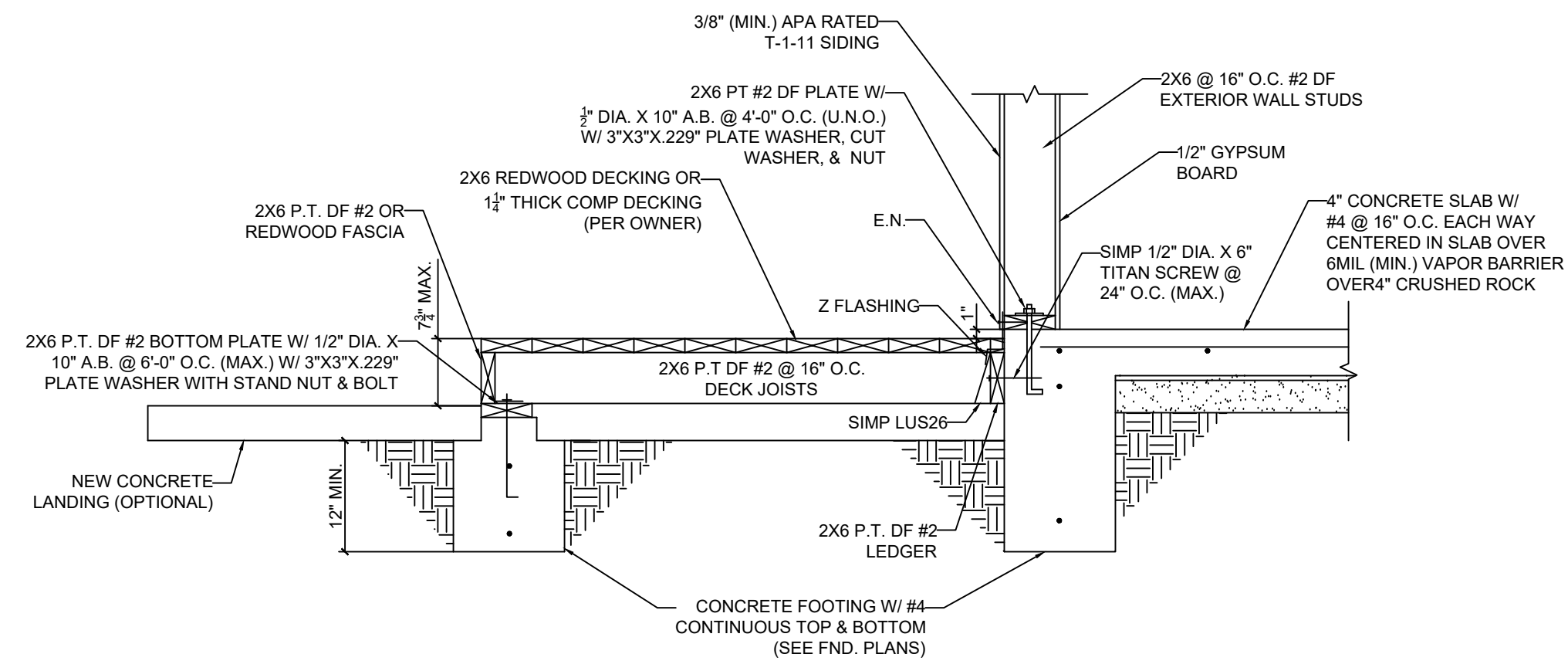




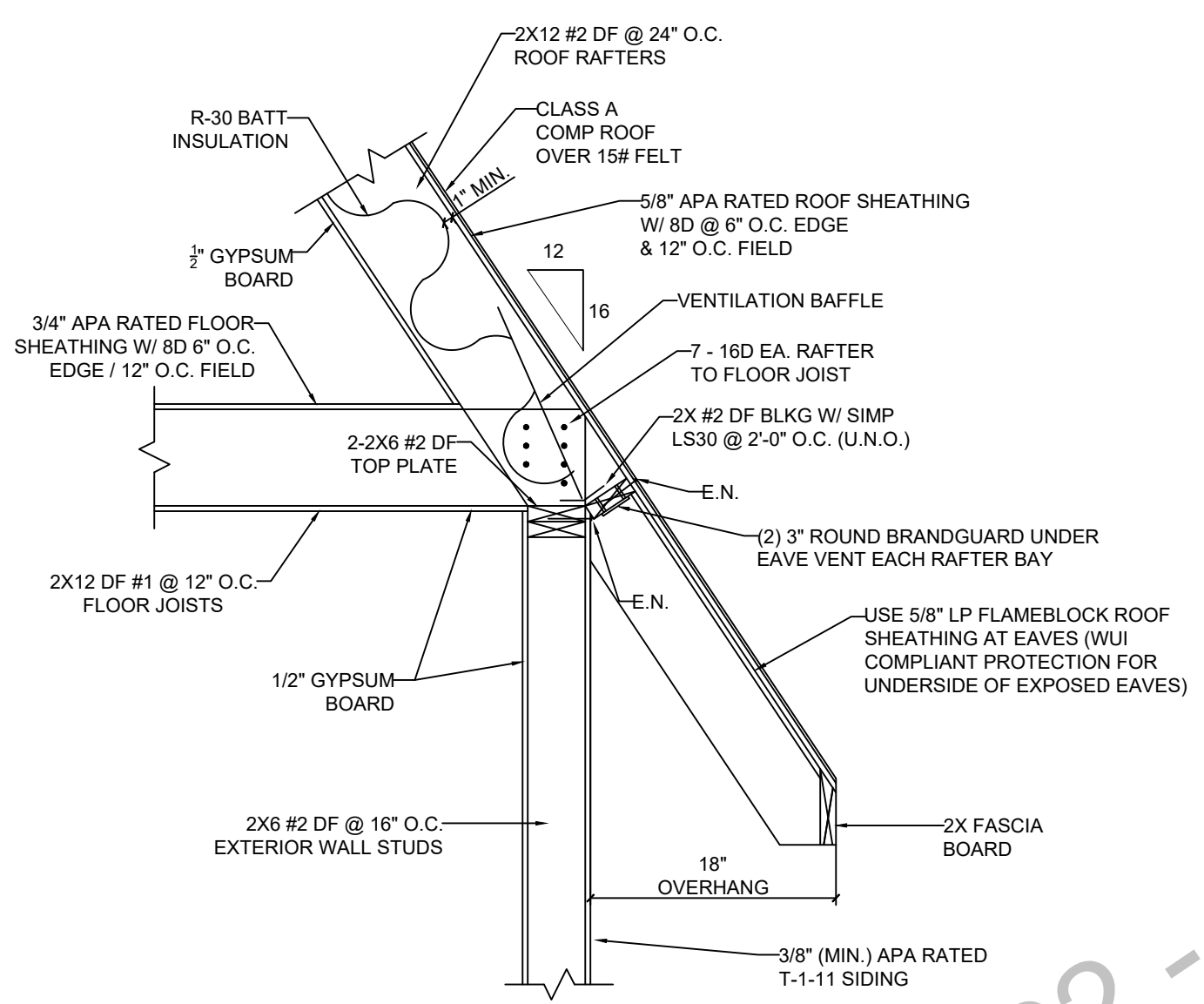
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 MURPHYS, CA 95247  
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 GENERICVILLE, CALIFORNIA 12345  
 APN 012-034-056

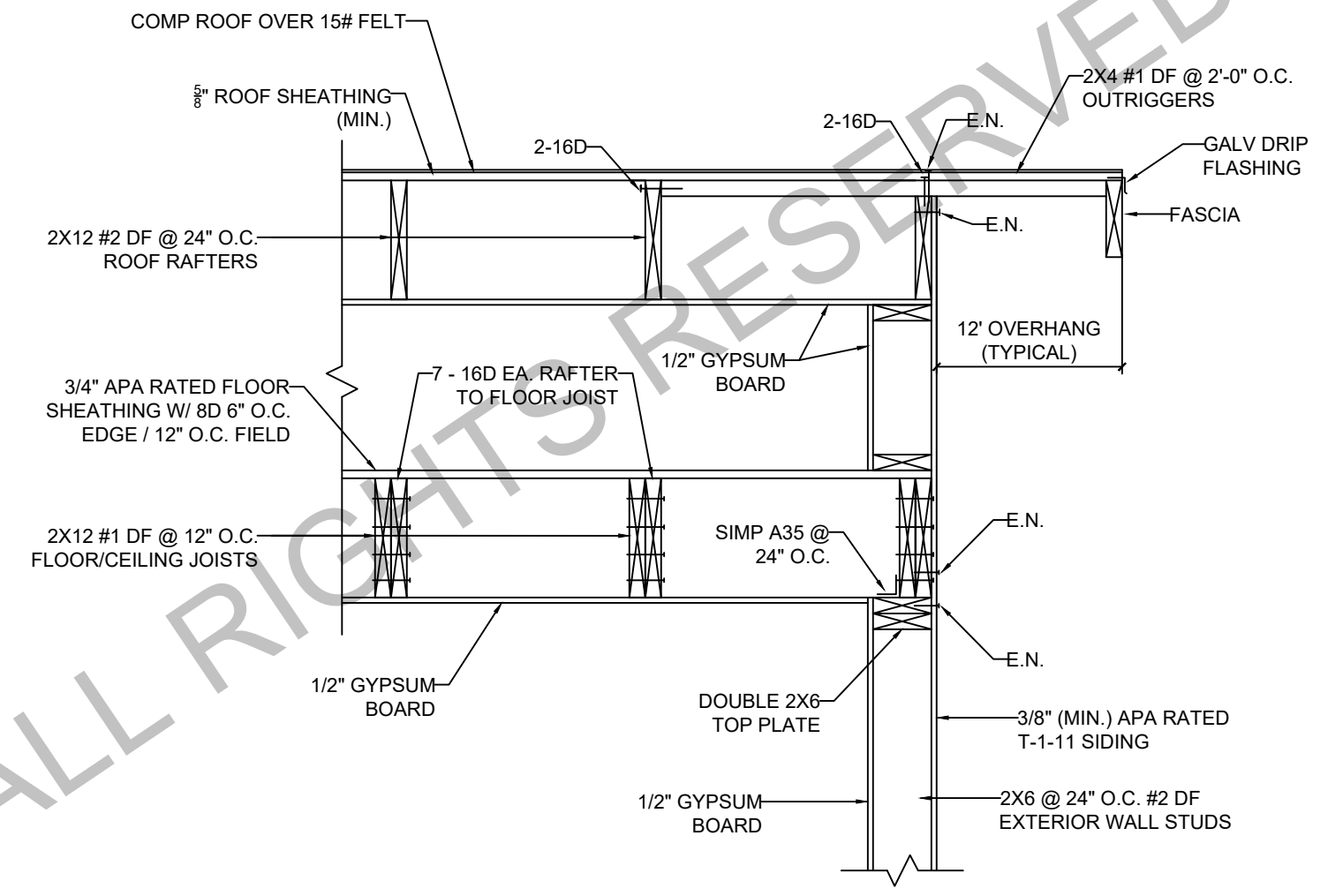
SHEET  
 S4



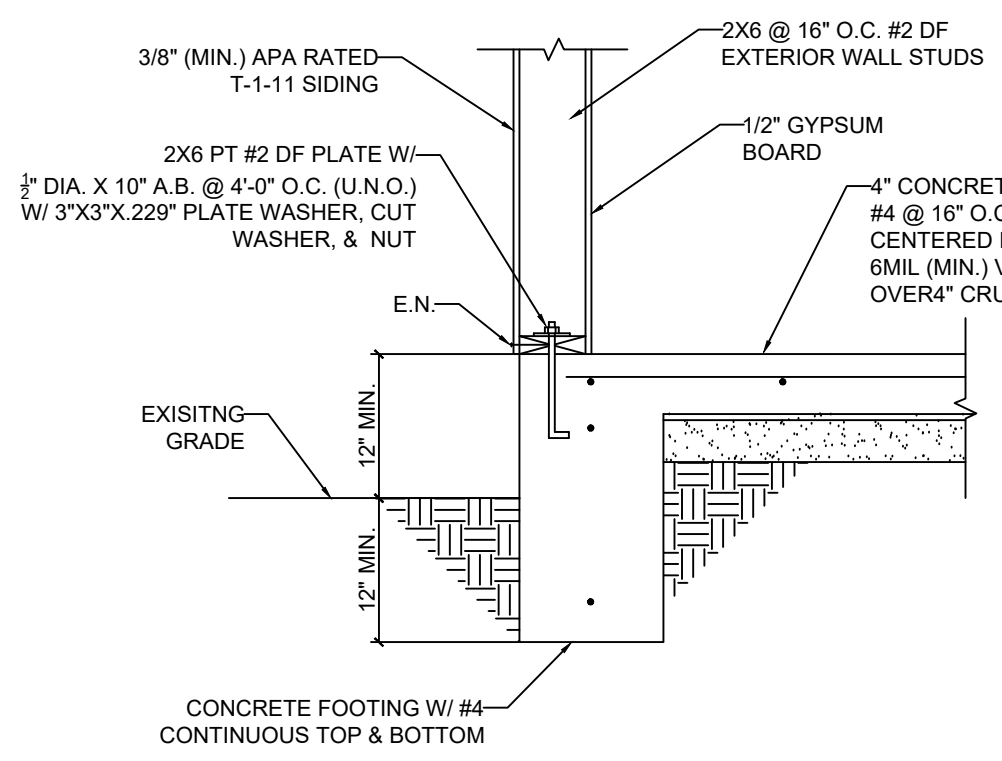
**DETAIL 1/S4**  
 SCALE: 3/4" = 1'-0"



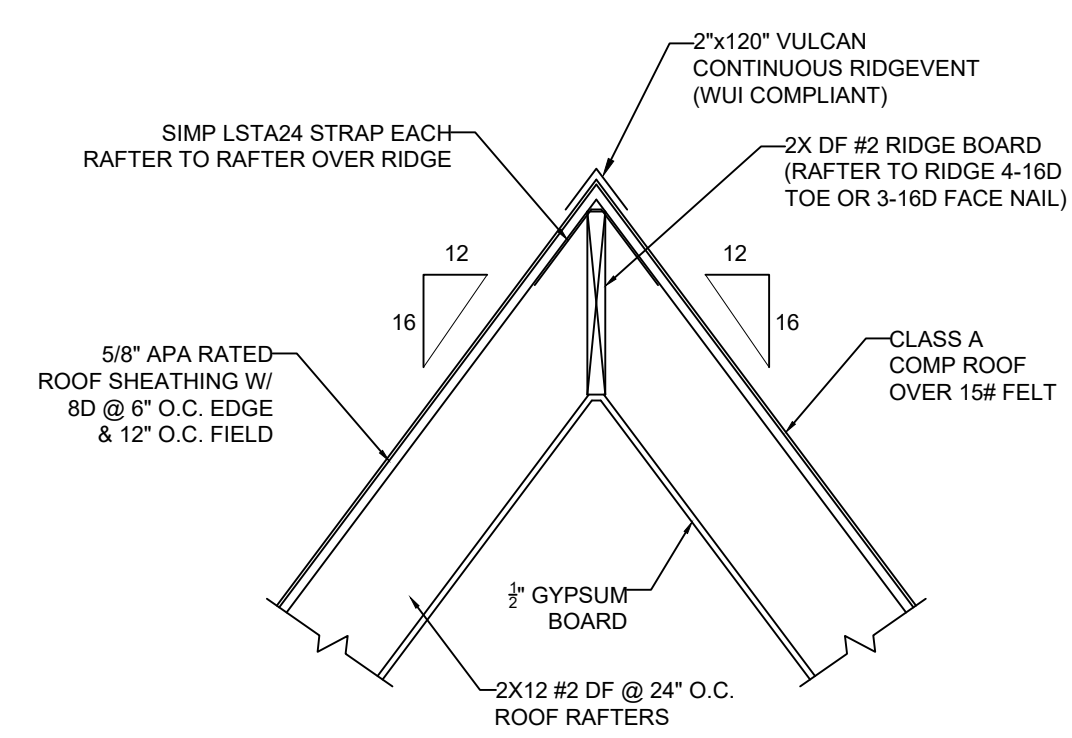
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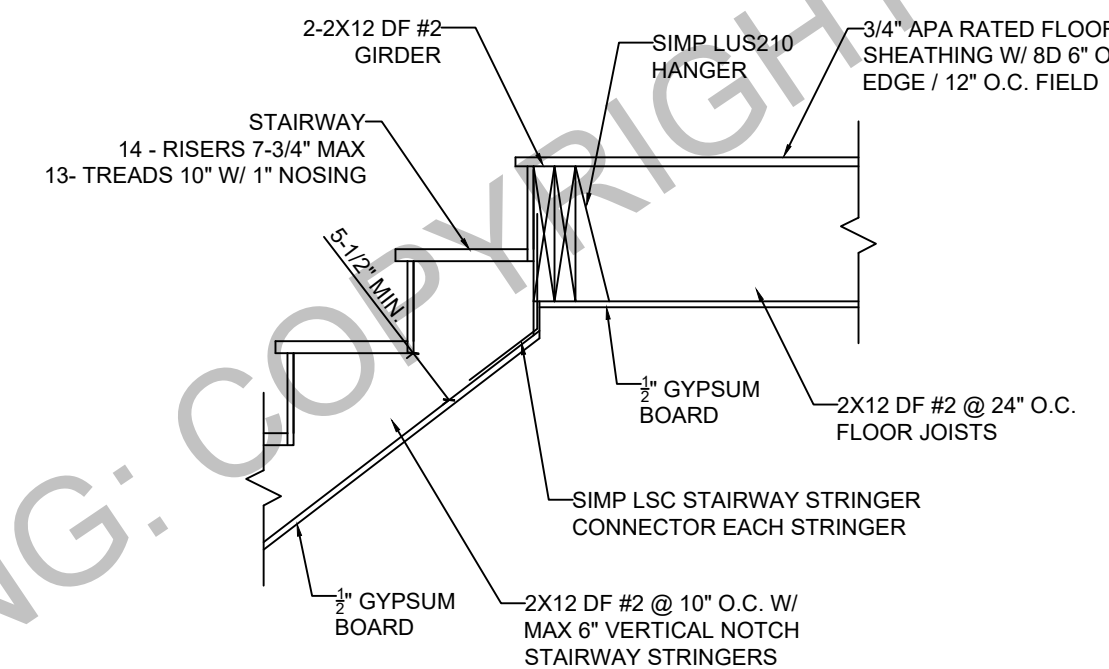
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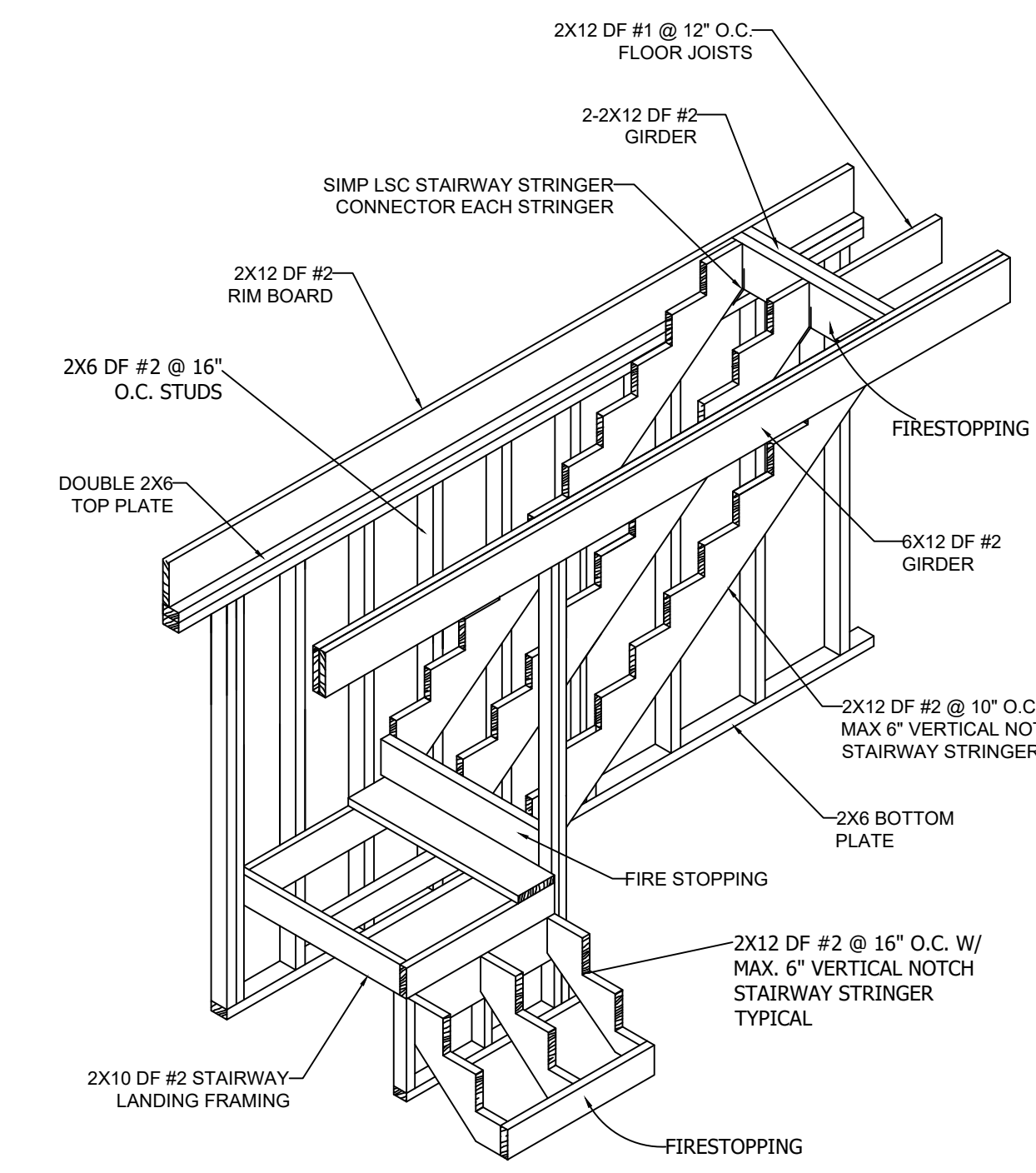
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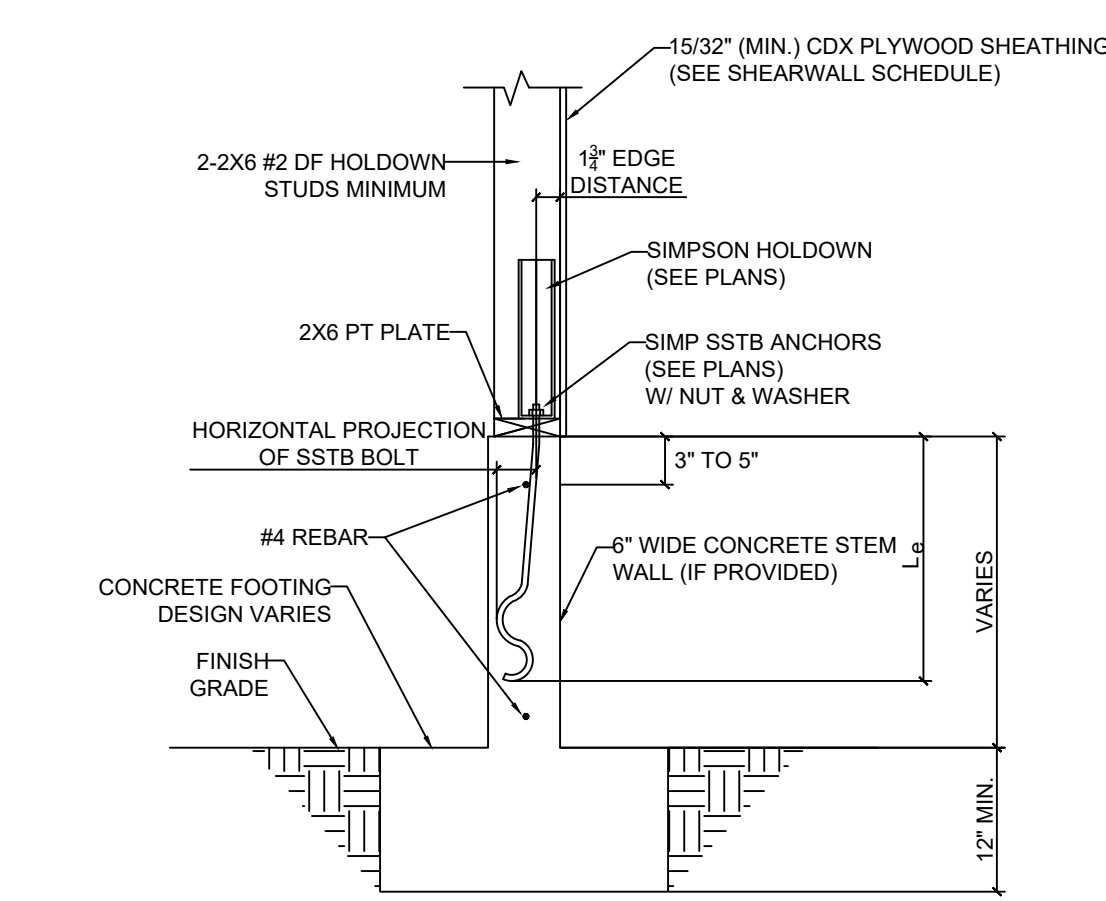
**DETAIL 5/S4**  
 SCALE: 3/4" = 1'-0"



**DETAIL 6/S4**  
 SCALE: 3/4" = 1'-0"



**DETAIL 7/S4**  
 SCALE: 3/8" = 1'-0"



**DETAIL 8/S4**  
 SCALE: 3/4" = 1'-0"

**DECK FRAMING NOTES:**

1. NAILS OR SCREWS APPROVED FOR EXTERIOR USE SHALL BE USED.
2. ALL SIMPSON HARDWARE SHALL BE GALVANIZED OR ZMAX.
3. TOPS OF DECK BEAM AND END JOINTS AND GUSSETS SHOULD BE FLASHED WITH BITUTHENE OR EQUIVALENT.
4. AFTER EXISTING DECK FRAMING IS REMOVED, CONTRACTOR SHALL VERIFY AND DETERMINE THE CONDITION OF THE EXISTING HOUSE SIDING, RIM JOIST AND FRAMING. ANY DRY ROT OR DAMAGED WOOD SHALL BE REMOVED AND REPLACED PRIOR TO REPLACEMENT OF DECK.

**SMOKE ALARMS**  
 WHERE A PERMIT IS REQUIRED FOR ALTERATIONS, REPAIRS OR ADDITIONS, EXISTING DWELLING SHALL BE PROVIDED WITH SMOKE ALARMS. IN EXISTING DWELLING SMOKE ALARMS ARE PERMITTED TO BE SOLELY BATTERY OPERATED IN EXISTING AREAS OF BUILDINGS UNDERGOING ALTERATIONS OR REPAIRS THAT DO NOT RESULT IN THE REMOVAL OF INTERIOR WALLS OR CEILING FINISHES EXPOSING THE STRUCTURE, UNLESS THERE IS ATTIC, CRAWL SPACE OR BASEMENT AVAILABLE WHICH COULD PROVIDE ACCESS FOR BUILDING WIRING WITHOUT THE REMOVAL OF INTERIOR FINISHES. NEW SMOKE ALARMS SHALL BE HARD WIRED. SMOKE ALARMS SHALL BE INSTALLED IN THE FOLLOWING LOCATIONS:

1. IN EACH SLEEPING ROOM.
2. OUTSIDE EACH SEPARATE SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDROOMS.
3. ON EACH ADDITIONAL STORY OF THE DWELLING, INCLUDING BASEMENTS AND HABITABLE ATTICS. IN DWELLINGS WITH SPLIT LEVELS AND WITHOUT INTERVENING DOOR BETWEEN ADJACENT LEVELS, A SMOKE ALARM INSTALLED ON THE UPPER LEVEL SHALL SUFFICE FOR THE ADJACENT LOWER LEVEL PROVIDED THAT THE LOWER LEVEL IS LESS THAN ONE FULL STORY BELOW THE UPPER LEVEL.

**CARBON MONOXIDE ALARMS**  
 WHERE A PERMIT IS REQUIRED FOR ALTERATIONS, REPAIRS OR ADDITIONS, EXISTING DWELLING OR SLEEPING UNITS THAT HAVE ATTACHED GARAGES OR FUEL-BURNING APPLIANCES SHALL BE PROVIDED WITH A CARBON MONOXIDE ALARM. IN EXISTING DWELLING UNITS A CARBON MONOXIDE ALARM IS PERMITTED TO BE SOLELY BATTERY OPERATED. CARBON MONOXIDE ALARMS SHALL BE INSTALLED IN THE FOLLOWING LOCATIONS:

1. OUTSIDE OF EACH SEPARATE DWELLING UNIT SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDROOMS.
2. ON EVERY LEVEL OF A DWELLING UNIT INCLUDING BASEMENTS.

**REQUIRED VENTILATION FOR ENCLOSED RAFTER SPACES:**  
 (144IN/SF)(2X11')/150 = 22 SQ.IN. NFVA

USE 2\"X120\" VULCAN CONTINUOUS RIDGE VENT = 19.2 SQ.IN. NFVA & (2) 3\" ROUND BRANDGUARD UNDER EAVE VENT EACH RAFTER BAY = 4 SQ.IN. NFVA

TOTAL = 19.2 + 4 = 23.2 SQ.IN. NFVA > 22 SQ.IN NFVA REQUIRED

