

MINIMUM DESIGN LOADS: PER 2018 NC RESIDENTIAL BUILDING CODE / 2015 IRC WITH NC AMENDMENTS

SUNROOM CATEGORY II (PER 2015 IRC R301.2.1.1.1 & AAMA / NPEA / NSA 2100)

NOTE: COMPONENTS HAVE BEEN CHECKED AGAINST DESIGN LOADS SHOWN & FOUND TO BE ACCEPTABLE STRUCTURALLY

DEAD LOADS:

- 1. WALLS: 6 PSF
- 2. FLOOR: 12 PSF

SNOW LOADS: GROUND SNOW LOAD 20 PSF

ULTIMATE DESIGN WIND SPEED: 117 MPH, 3 SEC. GUSTS

LIVE LOADS: FLOOR: 40 PSF

DEFLECTION LIMITS:

- 1. WALLS: L/175
- 2. FLOOR: L/240 (TOTAL LOAD), L/360 (LIVE LOAD)

ALLOWABLE SOIL PRESSURE CONSIDERED (PRESUMPTIVE) = 2000 PSF

THIS THERMALLY ISOLATED SUNROOM IS UNCONDITIONED AND NOT HABITABLE

NOTE: THIS STRUCTURE HAS BEEN EVALUATED FOR VERTICAL AND LATERAL LOADS REQUIRED BY THE 2018 NORTH CAROLINA RESIDENTIAL BUILDING CODE.

SQUARE FOOTAGE OF SUNROOM = 192

NOTES:

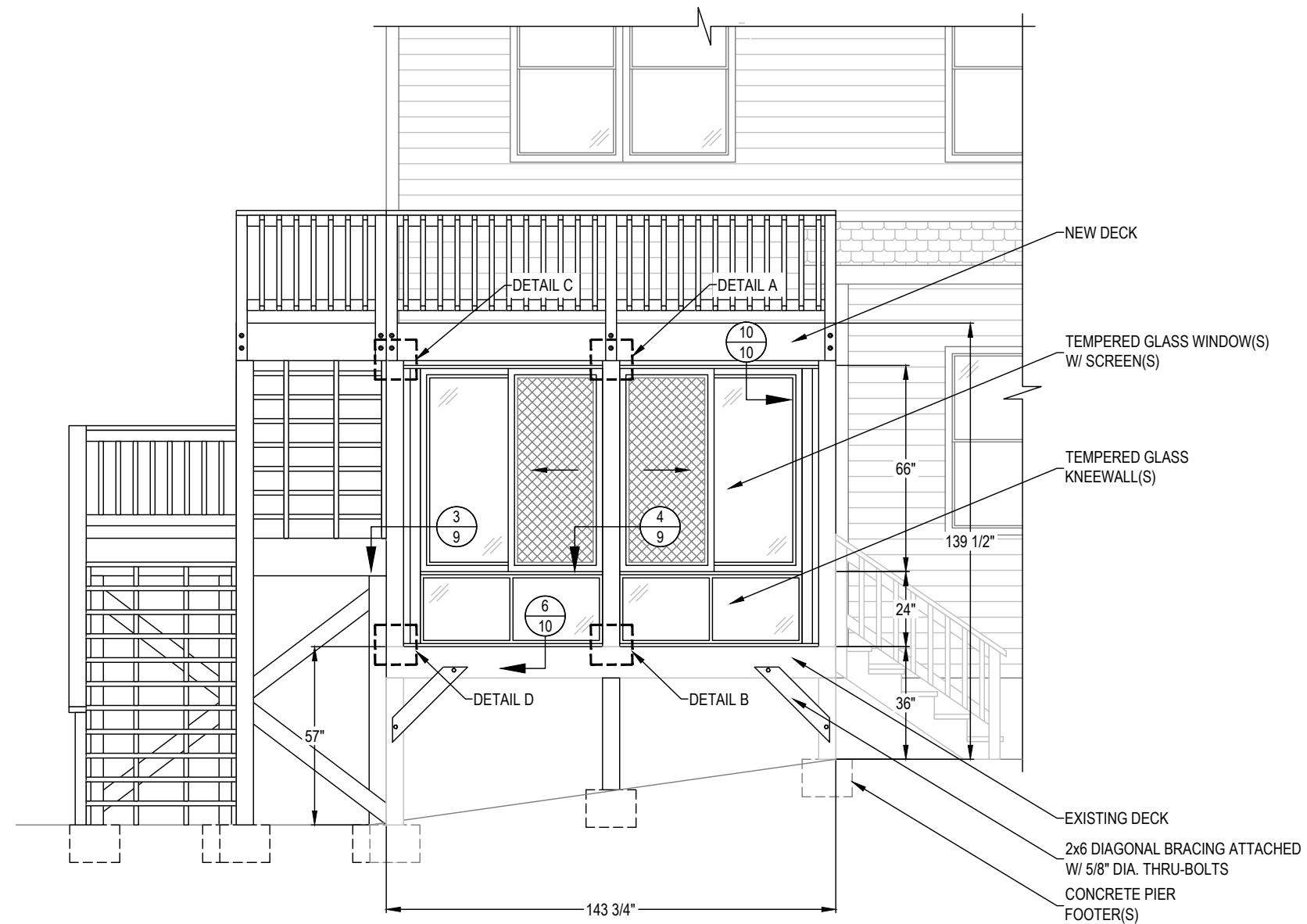
- 1. ALLVIEW (AVI) SUNROOM; WHITE IN COLOR
- 2. CONSTRUCT SUNROOM ON EXISTING DECK AND UNDER NEW DECK
- 3. ELECTRICAL BY GDI
- 4. CONCRETE
  - A) CONCRETE WORK SHALL CONFORM TO ALL REQUIREMENTS OF ACI 301 SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS.
  - B) ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS. EXTERIOR FLOORS AND EXPOSED CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4500 PSI AND 5% TO 7% AIR ENTRAINMENT.
- 5. WOOD
  - A) MATERIALS - FRAMING LUMBER
    - i) WOOD POSTS: NO. 2 GRADE (OR BETTER) SOUTHERN PINE OR DOUGLAS FIR
    - ii) 2x8, 2x10, 2x12 NO. 2 GRADE (OR BETTER) SOUTHERN PINE OR DOUGLAS FIR
  - B) WOOD MEMBERS SHALL BE PRESSURE-TREATED FOR THE FOLLOWING CONDITIONS:
    - i) IN DIRECT CONTACT WITH THE GROUND
    - ii) SILLS OR PLATES ON CONCRETE WITHIN 8" OF FINISHED GRADE
    - iii) JOISTS AND SUBFLOORS WITHIN 18" OF FINISH GRADE AND BEAMS WITHIN 12" OF FINISH GRADE
    - iv) EXPOSED EXTERIOR DECKS
  - C) FASTENERS
    - ALL FASTENERS AND HARDWARE USED TO CONNECT TO PRESSURE TREATED WOOD MEMBERS SHALL EITHER BE 304 OR 316 STAINLESS STEEL, OR HOT DIPPED GALVANIZED PER ASTM-A653 COATING DESIGNATION G-185 AND ASTM-A153
- 6. STRUCTURAL ALUMINUM
  - A) ALL EXTRUSIONS SHALL BE COMMERCIAL GRADE ALUMINUM SUPPLIED BY GREAT DAY IMPROVEMENTS, LLC.
  - B) ROOF PANELS SHALL BE 3" OR 6" THICK SUPER FOAM ROOF PANELS FACED WITH A 0.024" ALUMINUM SKIN TOP AND BOTTOM.
- 7. THIS SUNROOM IS CONSIDERED AS NON-CONDITIONED SPACE, EXEMPT FROM ENERGY REQUIREMENTS (PER 2015 IRC SECTION N1102.1, NOTE 2)

GREAT DAY IMPROVEMENTS  
PATIO ENCLOSURES, RALEIGH  
ISAACS RESIDENCE

SHEET #	DESCRIPTION
1	COVER
2	ELEVATION "B" WALL
3	ELEVATION "A" & "C" WALL
4	DECK PLAN
5	DECK PLAN
6	ELECTRICAL PLAN
7	FLOOR PLAN
8	ROOF PLAN
9	SYSTEM DETAILS
10	SYSTEM DETAILS
11	SYSTEM DETAILS



DATE 1/20/25	-	GERALD ISAACS 34 DARLEY COURT LILLINGTON, NC 27546 JOB #21286		DESIGN / BUILD CONTRACTOR <b>Great Day</b> Improvements	GREAT DAY IMPROVEMENTS RALEIGH 951 AVIATION PKWY, SUITE 1000 MORRISVILLE, NC 27560 984-212-8850		ERIC OETJEN, P.E., M. ENG. NC. PROFESSIONAL ENGINEER (NC. LIC. #049195) 5 GREENE STREET FORT THOMAS, KY. 41075 PH. # 859-393-9049
DRAWN DH	-						
SCALE NTS	-						
SHEET 1 OF 11	-						



ELEVATION - "B" WALL



DATE	1/20/25	-
DRAWN	DH	-
SCALE	1/4" = 1'-0"	-
SHEET	2 OF 11	-

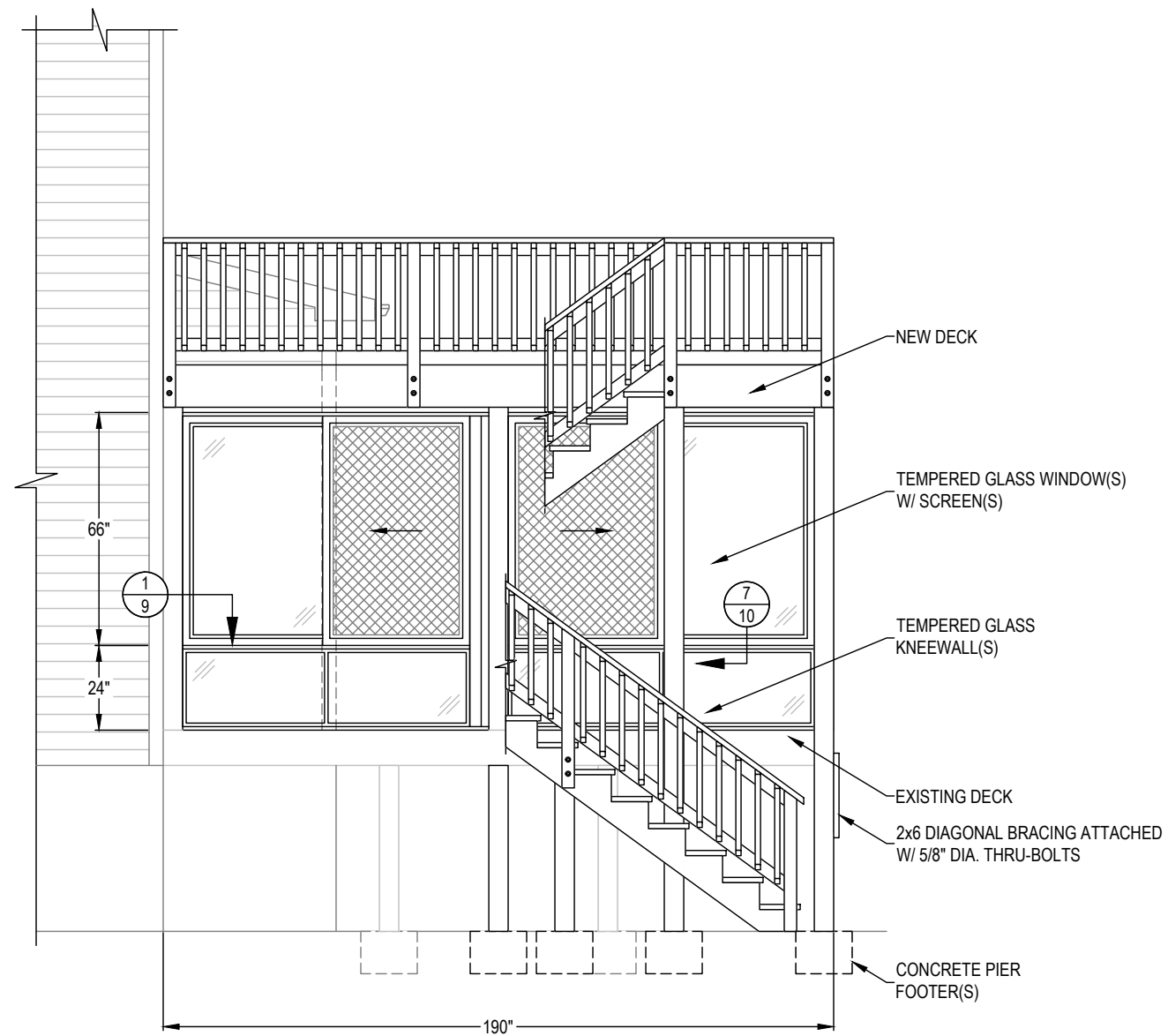
GERALD ISAACS  
34 DARLEY COURT  
LILLINGTON, NC 27546  
JOB #21286

DESIGN / BUILD CONTRACTOR  
 **Great Day**  
Improvements

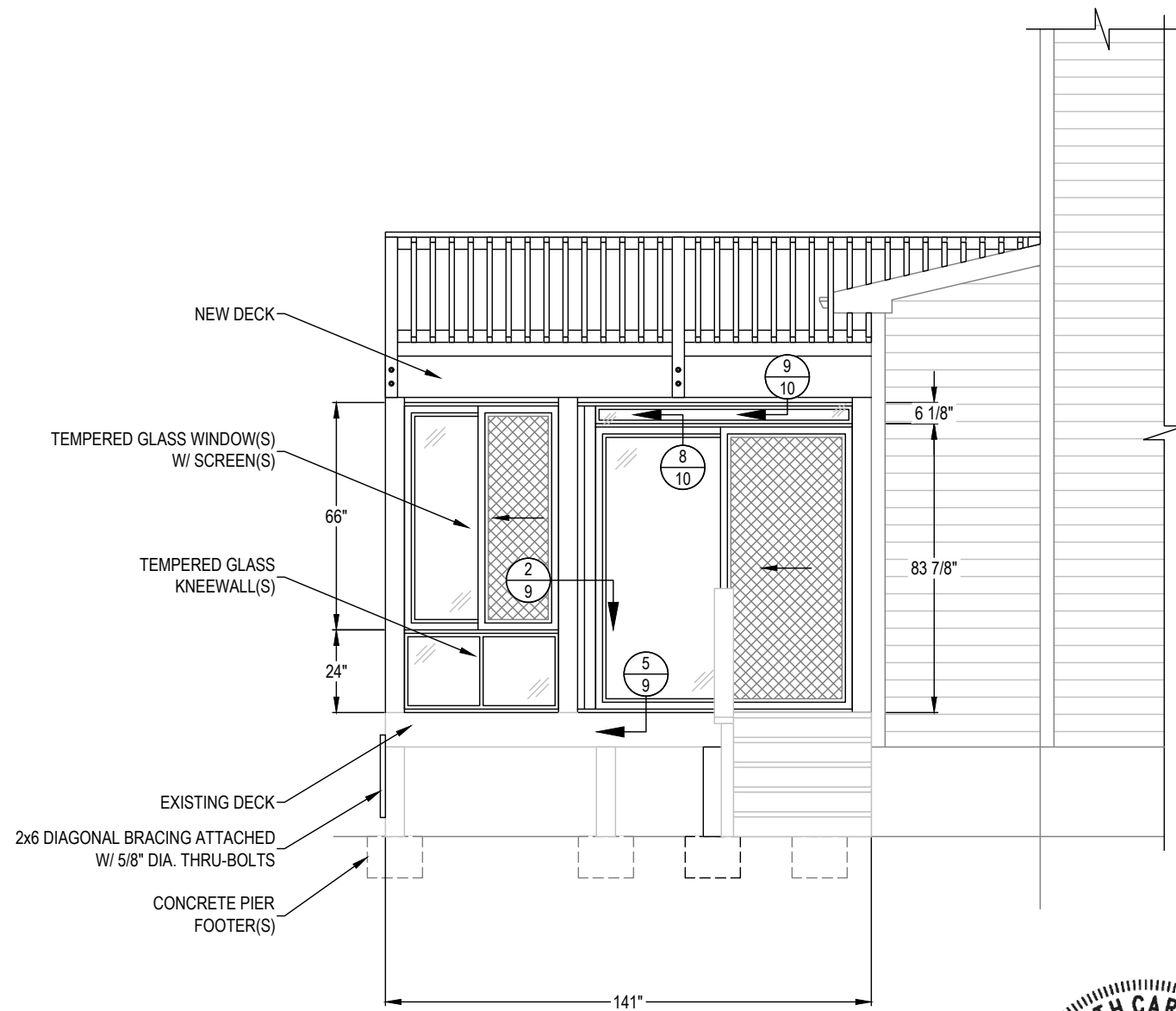
**GREAT DAY IMPROVEMENTS**  
RALEIGH  
951 AVIATION PKWY, SUITE 1000  
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984-212-8850

  
**AO Engineers**

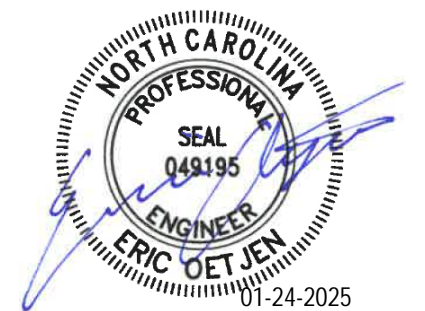
ERIC OETJEN, P.E., M. ENG.  
NC. PROFESSIONAL ENGINEER  
(NC. LIC. #049195)  
5 GREENE STREET  
FORT THOMAS, KY. 41075  
PH. # 859-393-9049



ELEVATION - "A" WALL



ELEVATION - "C" WALL



DATE	1/20/25	-
DRAWN	DH	-
SCALE	1/4" = 1'-0"	-
SHEET	3 OF 11	-

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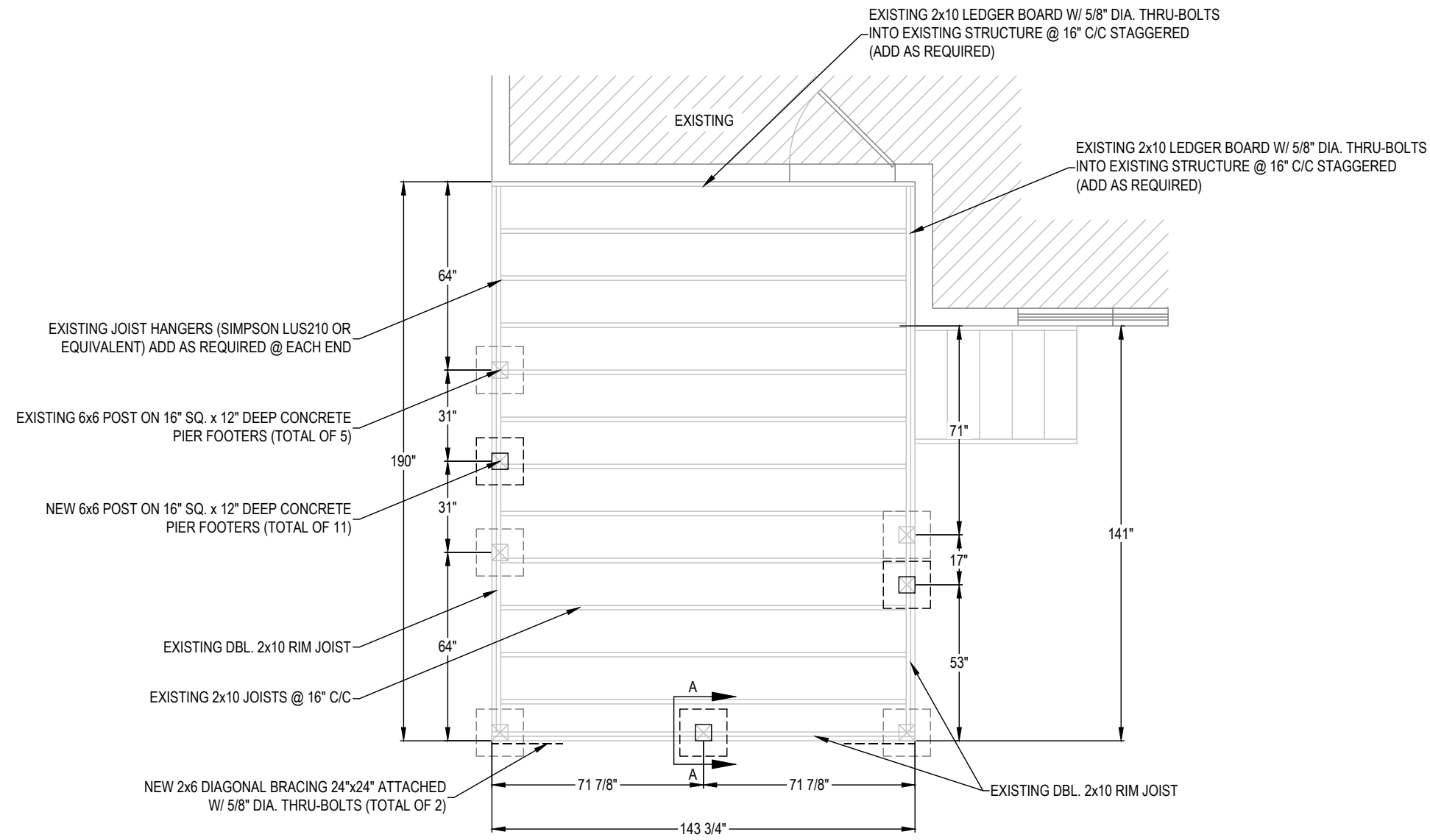
DESIGN / BUILD CONTRACTOR

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Improvements

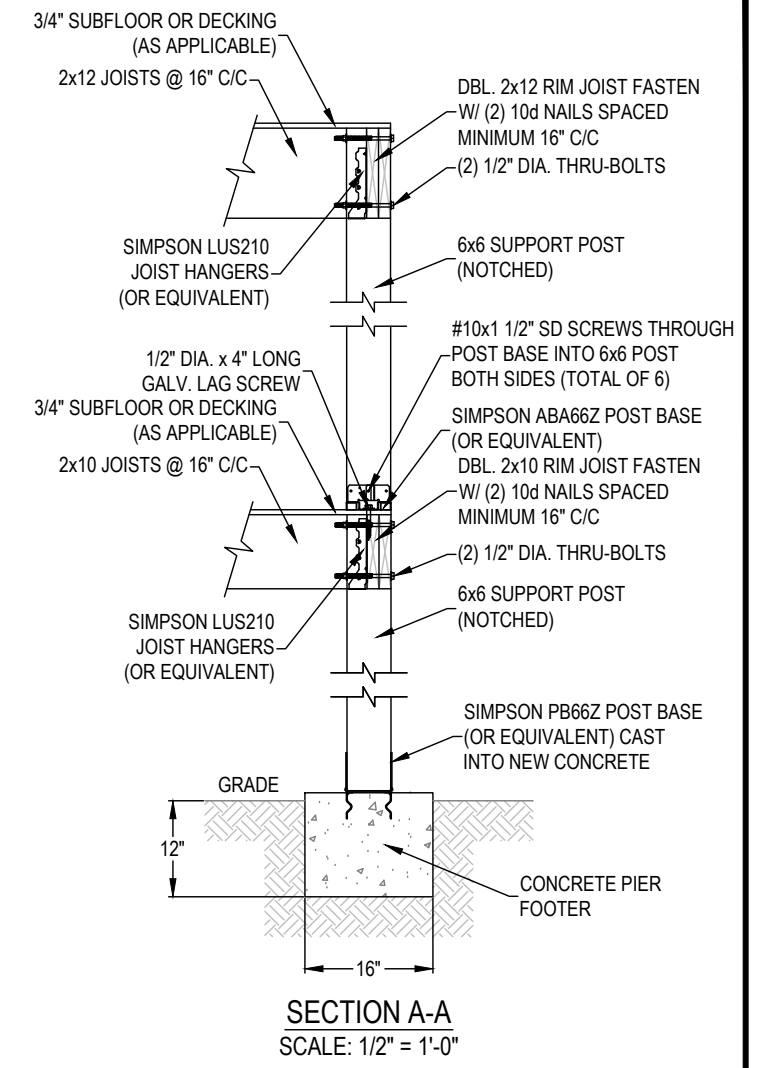
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**ROOM DECK PLAN**  
SCALE: 1/4" = 1'-0"



DATE	1/20/25	-
DRAWN	DH	-
SCALE	AS NOTED	-
SHEET	4 OF 11	-

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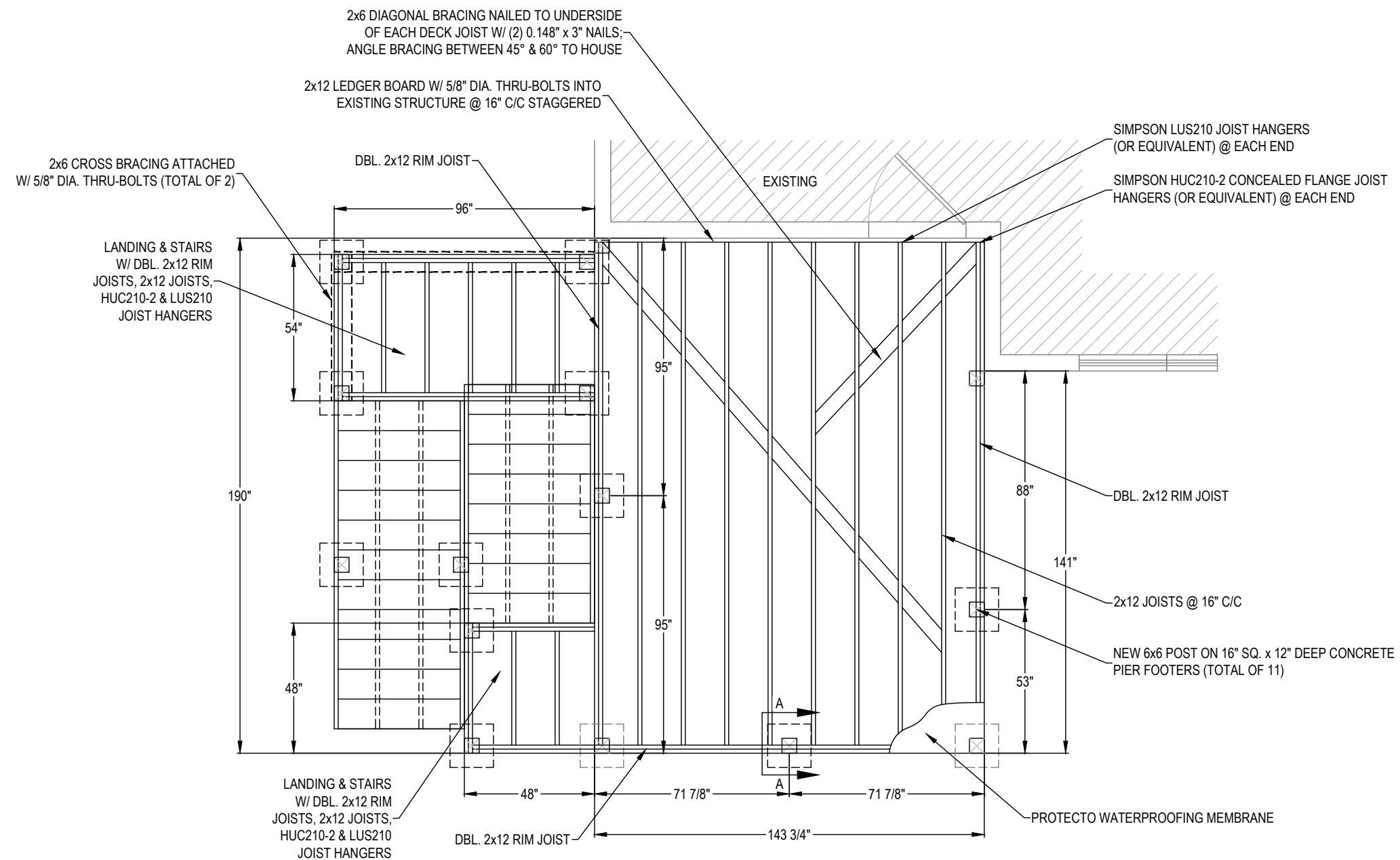
DESIGN / BUILD CONTRACTOR

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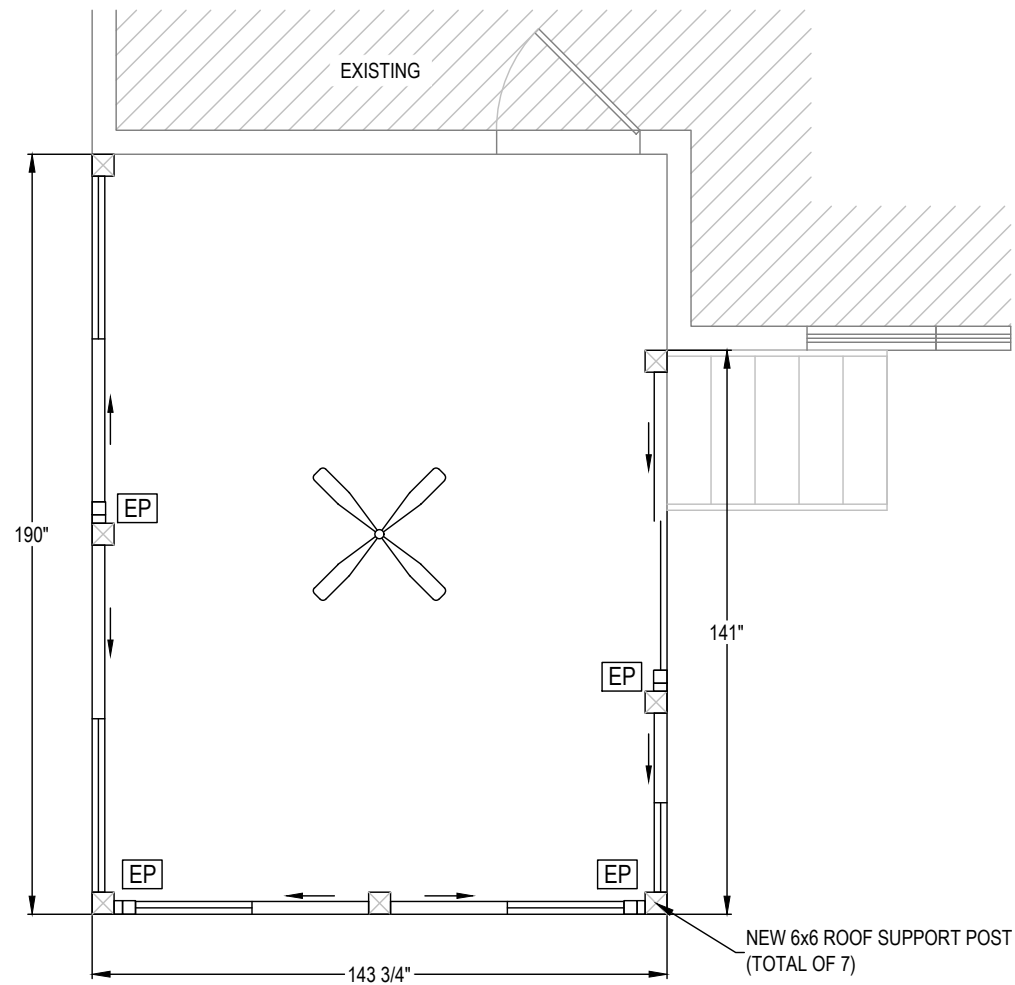
UPPER DECK PLAN

NOTE: DECK TO BE BUILT PER 2018 NC RESIDENTIAL CODE



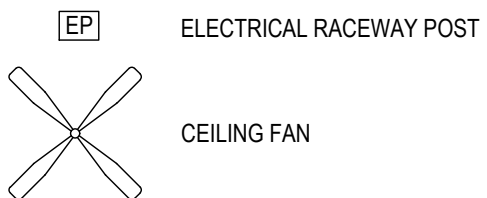
DATE 1/20/25	-	<b>GERALD ISAACS</b> 34 DARLEY COURT LILLINGTON, NC 27546 JOB #21286	<b>DESIGN / BUILD CONTRACTOR</b>  <b>Great Day</b> Improvements	<b>GREAT DAY IMPROVEMENTS</b> RALEIGH 951 AVIATION PKWY, SUITE 1000 MORRISVILLE, NC 27560 984-212-8850	 <b>AO Engineers</b>	ERIC OETJEN, P.E., M. ENG. NC. PROFESSIONAL ENGINEER (NC. LIC. #049195) 5 GREENE STREET FORT THOMAS, KY. 41075 PH. # 859-393-9049
DRAWN DH	-					
SCALE 1/4" = 1'-0"	-					
SHEET 5 OF 11	-					





ELECTRICAL PLAN

GDI ELECTRICAL SYMBOL LEGEND



ENGINEER'S STAMP APPLIES TO  
SUNROOM STRUCTURE ONLY;  
ELECTRICAL BY OTHERS

DATE	1/20/25	-
DRAWN	DH	-
SCALE	1/4" = 1'-0"	-
SHEET	6 OF 11	-

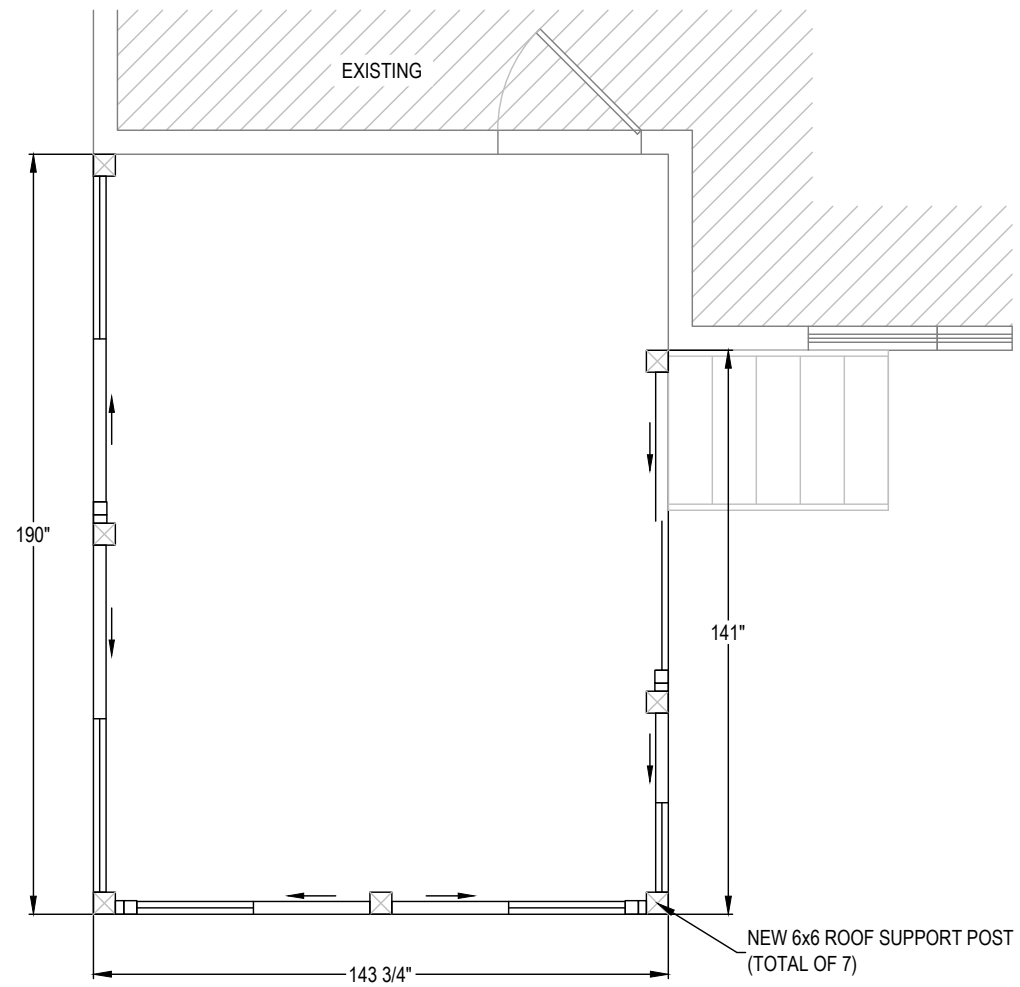
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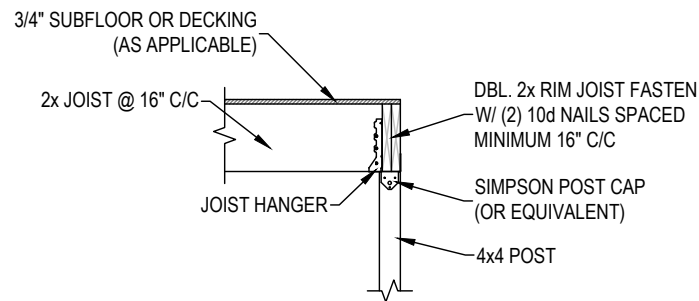
FLOOR PLAN



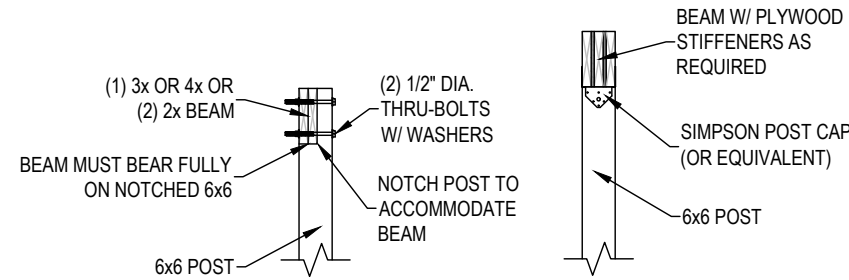
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DRAWN	DH	-					
SCALE	1/4" = 1'-0"	-					
SHEET	7 OF 11	-					

THESE DETAILS WERE TAKEN FROM THE PRESCRIPTIVE RESIDENTIAL WOOD DECK GUIDE BY THE AMERICAN WOOD COUNCIL

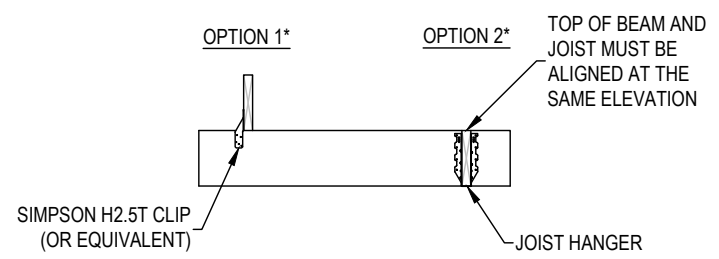
ALL SCREWS, BOLTS AND NAILS FOR USE WITH PRESSURE TREATED WOOD SHALL BE HOT DIPPED ZINC COATED GALVANIZED STEEL OR STAINLESS STEEL



RIM JOIST DETAIL

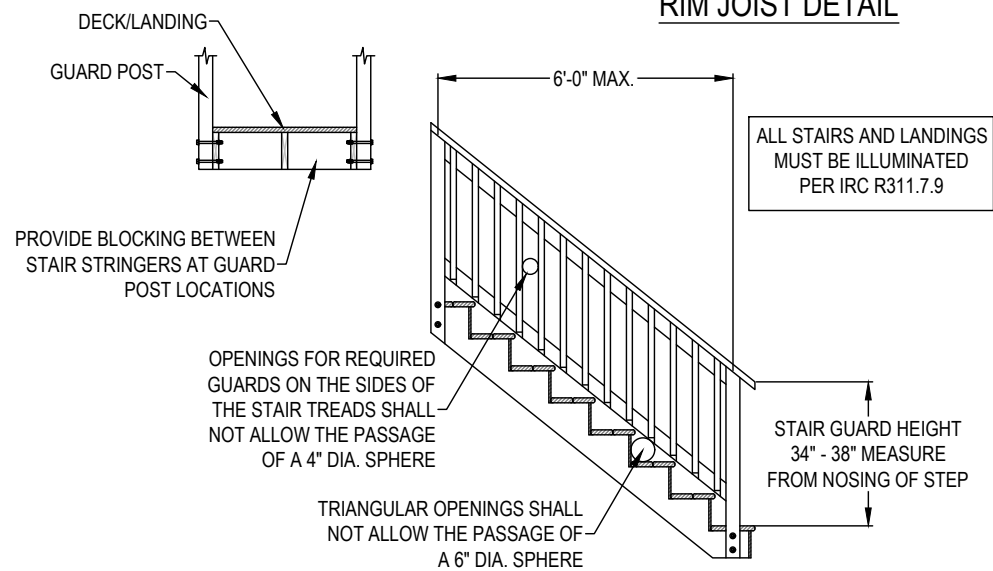


POST TO BEAM DETAIL

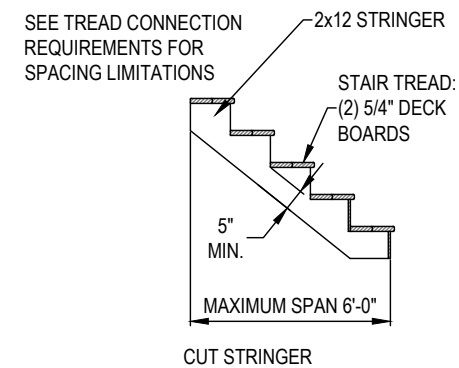


JOIST TO BEAM CONNECTION DETAIL

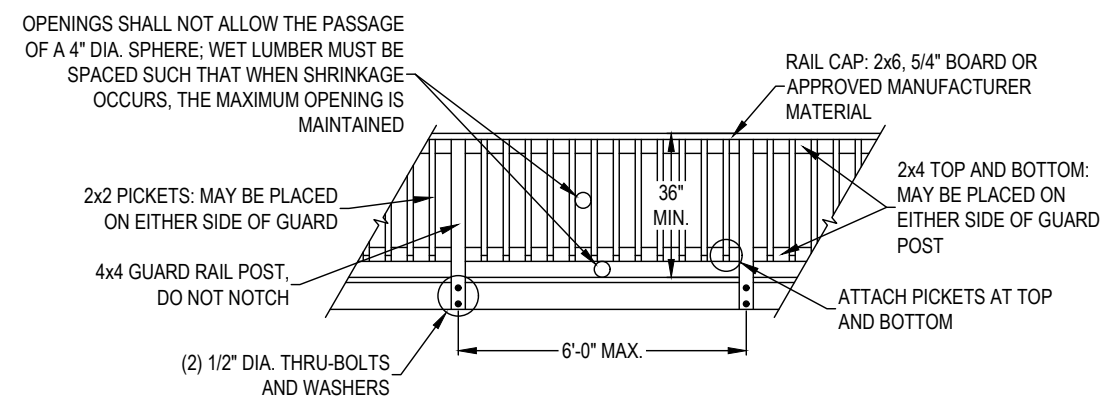
\* SEE MANUFACTURER RECOMMENDATIONS FOR ADDITIONAL REQUIREMENTS



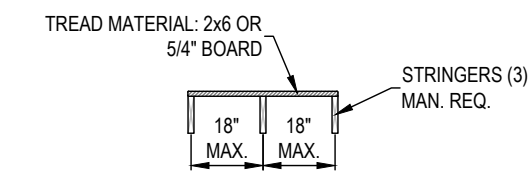
STAIR GUARD REQUIREMENTS



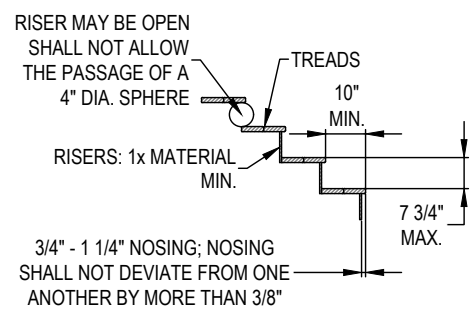
STAIR STRINGER REQUIREMENTS  
ALL STRINGERS SHALL BE A MINIMUM OF 2x12



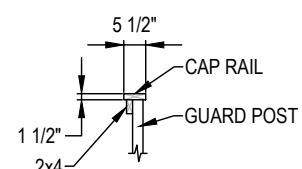
GUARD DETAIL



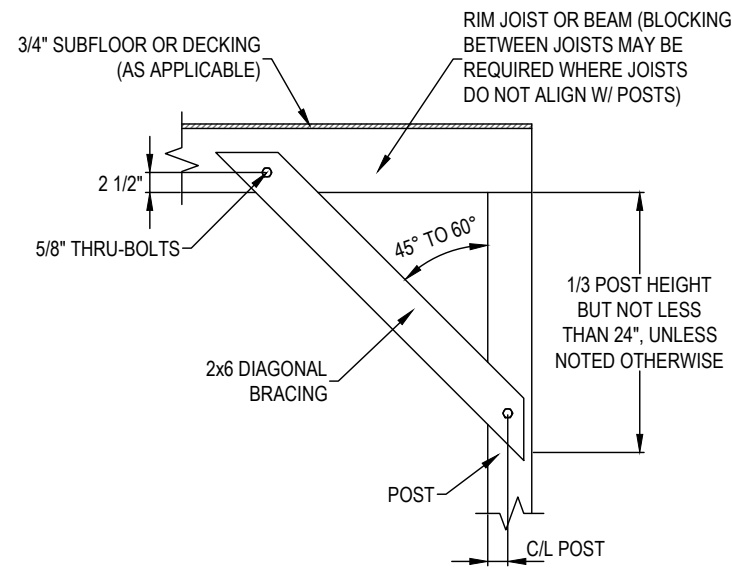
TREAD CONNECTION REQUIREMENTS



TREAD AND RISER DETAIL

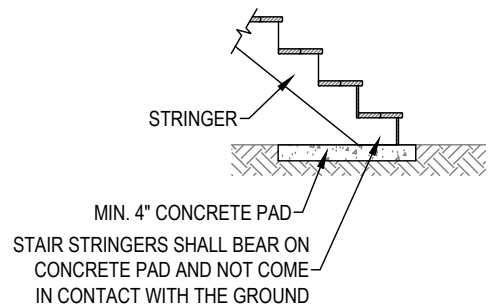


CAP RAIL DETAIL

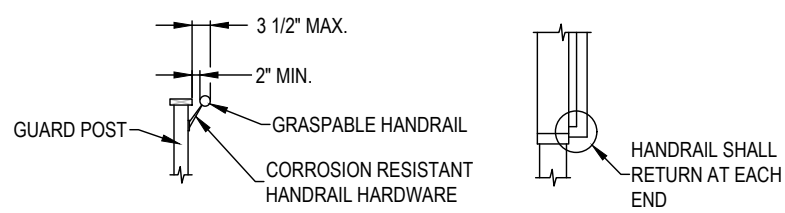


DIAGONAL BRACE DETAIL

SCALE: 1/2" = 1'-0"



STAIR STRINGER BEARING AT GRADE DETAIL



HANDRAIL DETAIL



DATE	1/20/25
DRAWN	DH
SCALE	1/4" = 1'-0"
SHEET	8 OF 11

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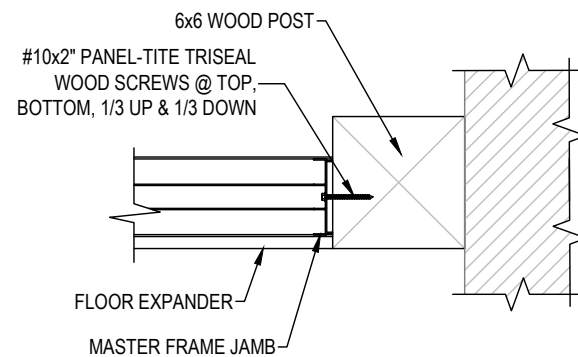
DESIGN / BUILD CONTRACTOR  
 **Great Day**  
Improvements

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951 AVIATION PKWY, SUITE 1000  
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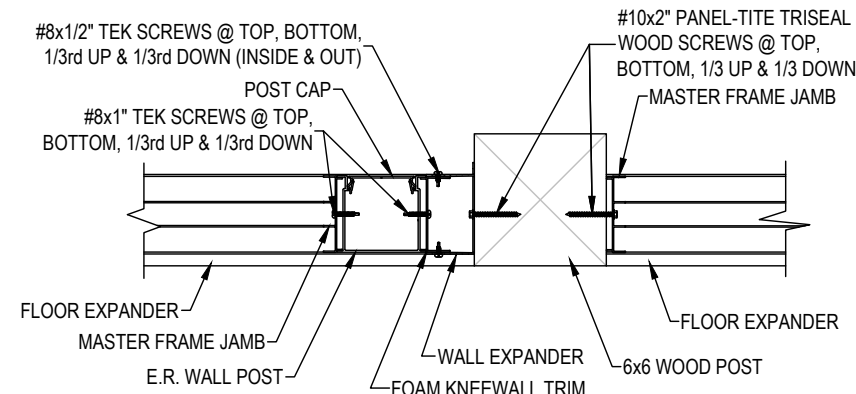
  
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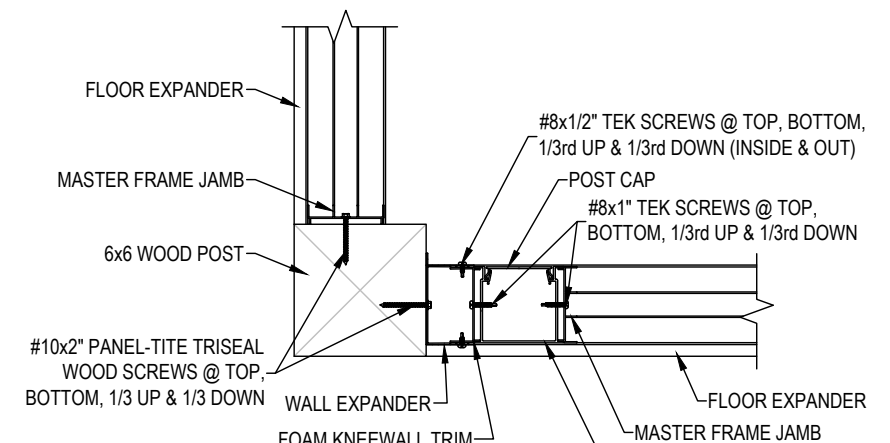




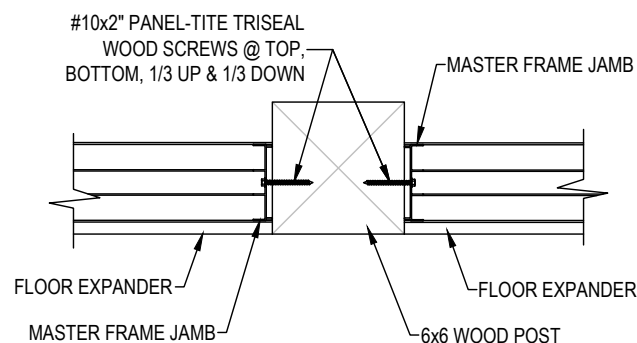
1 PLAN VIEW OF 6x6 WOOD POST  
9 CONNECTION @ EXISTING WALL



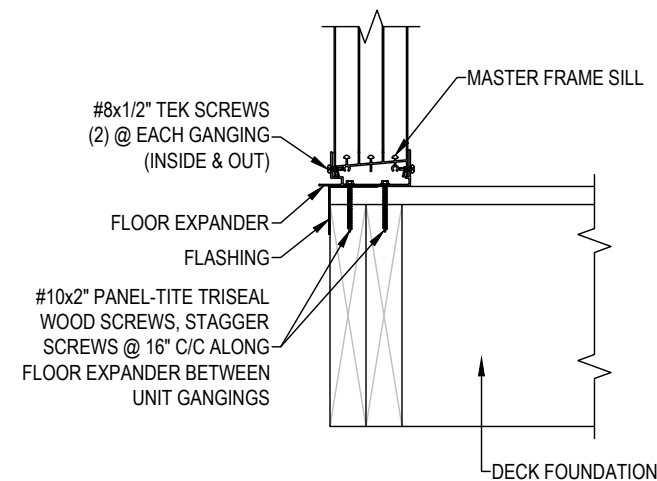
2 PLAN VIEW OF MASTER FRAME JAMBS  
9 CONNECTION @ 6x6 WOOD POST



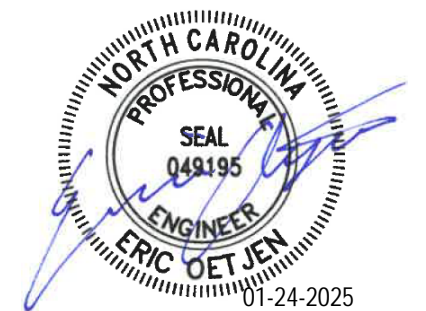
3 PLAN VIEW OF MASTER FRAME JAMBS  
9 CONNECTION @ 6x6 WOOD POST



4 PLAN VIEW OF MASTER FRAME JAMBS  
9 CONNECTION @ 6x6 WOOD POST



5 SECTION THROUGH MASTER FRAME SILL  
9 CONNECTION @ DECK FOUNDATION



DATE	1/20/25	-
DRAWN	DH	-
SCALE	1 1/2" = 1'-0"	-
SHEET	9 OF 11	-

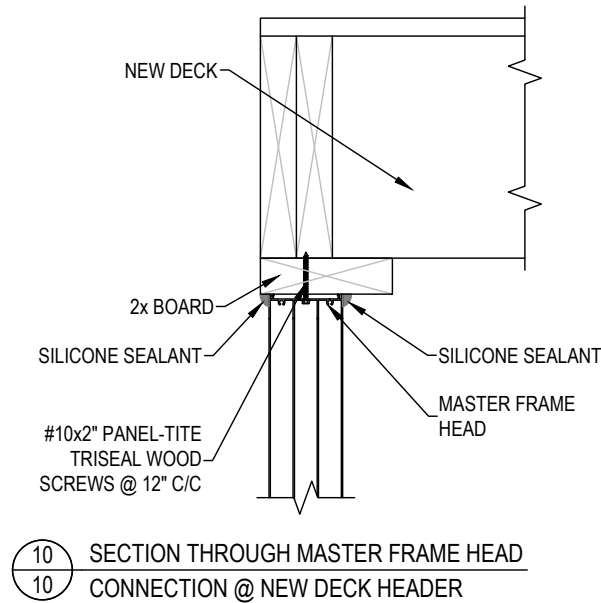
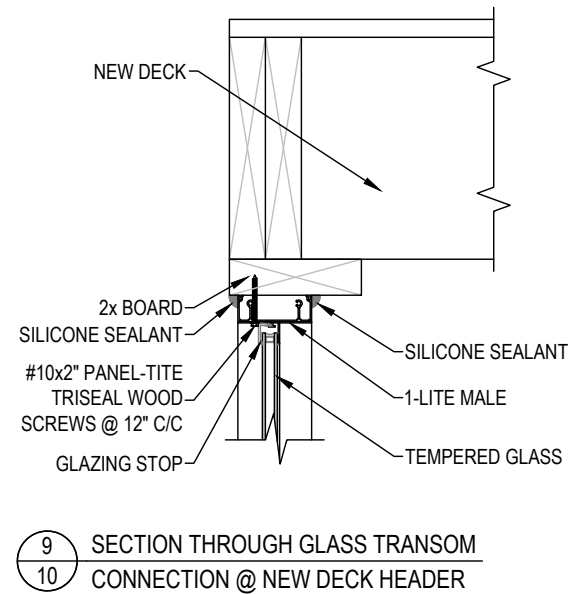
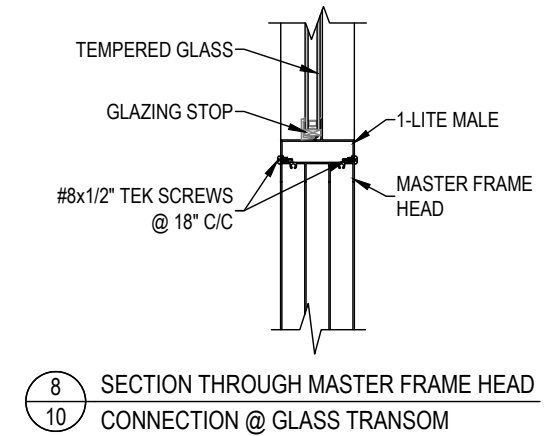
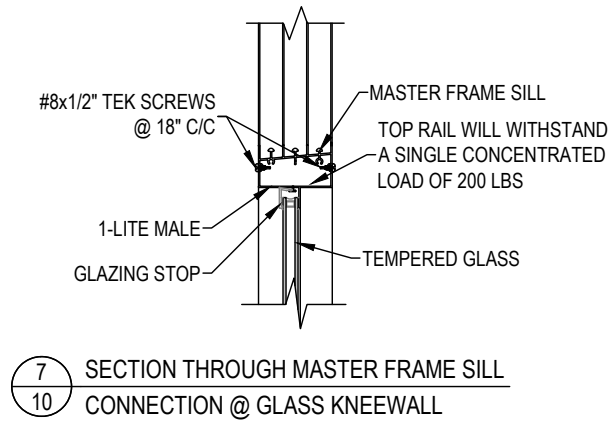
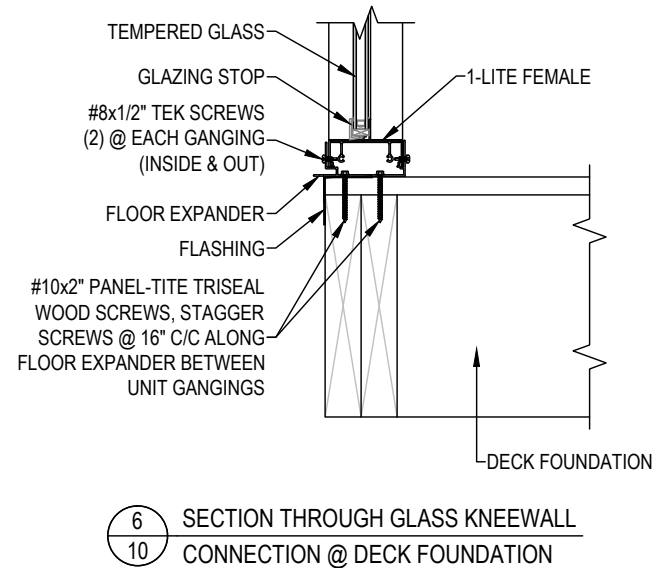
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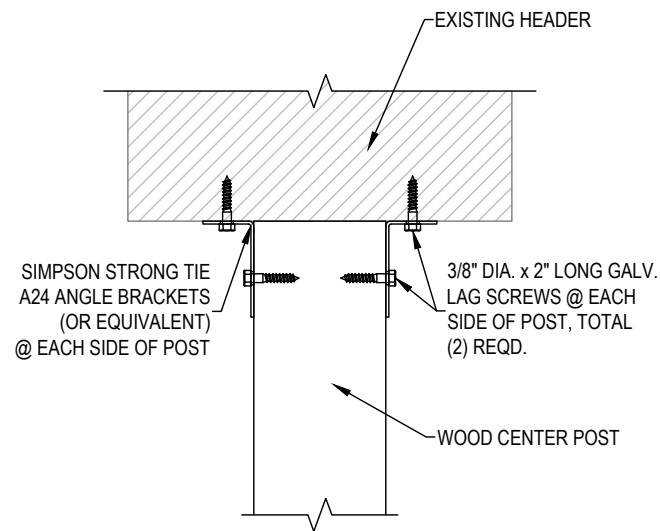
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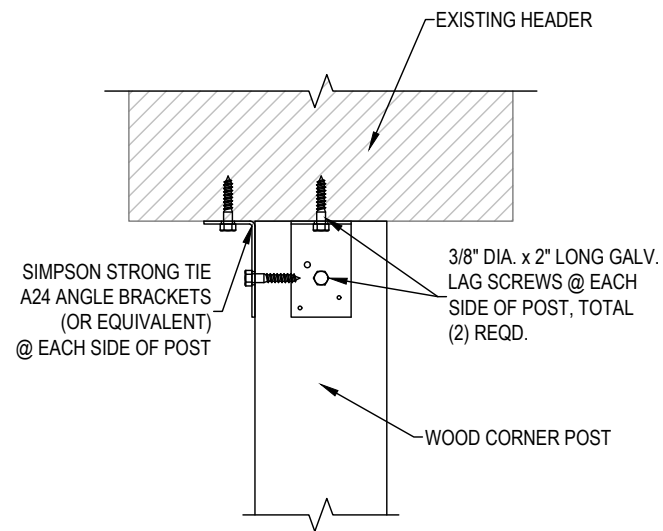
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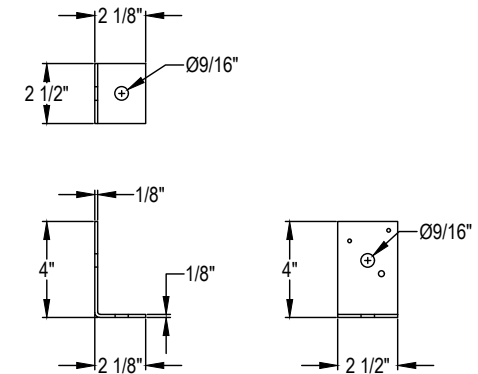
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DRAWN	DH	-					
SCALE	1 1/2" = 1'-0"	-					
SHEET	10 OF 11	-					



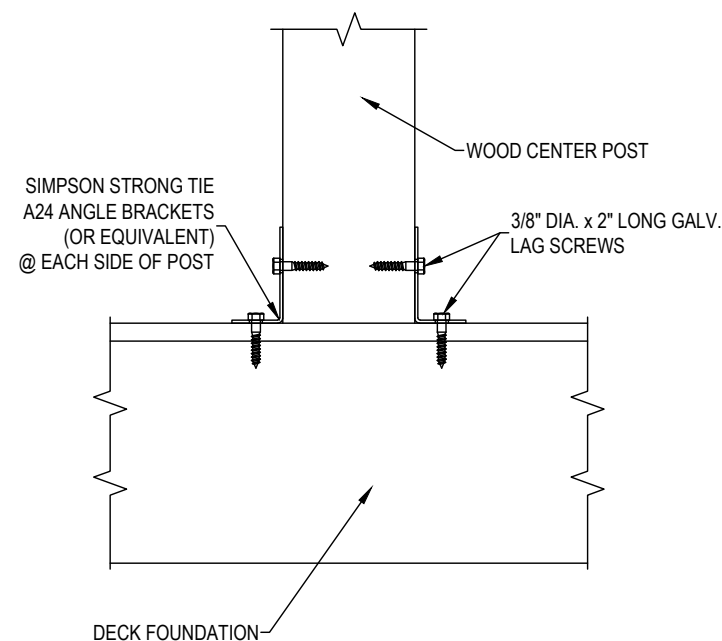
FRONT VIEW THROUGH WOOD CENTER POST  
CONNECTION @ HEADER (ALL CENTER POSTS)  
DETAIL A



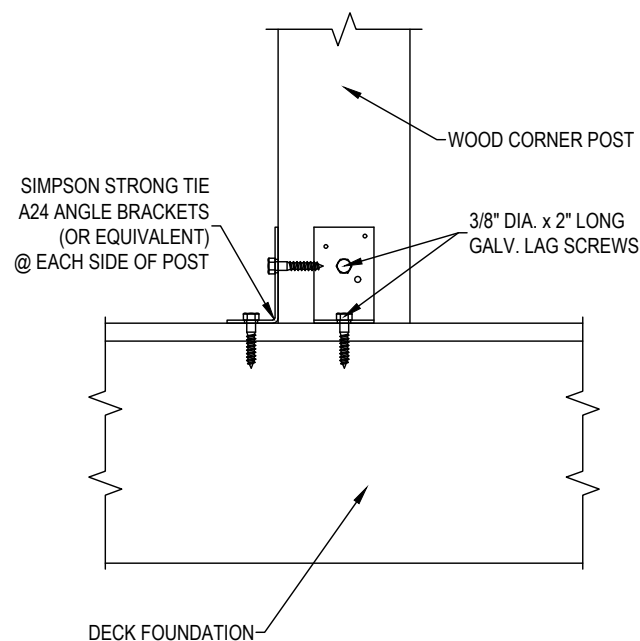
FRONT VIEW THROUGH WOOD CORNER POST  
CONNECTION @ HEADER (ALL CORNER POSTS)  
DETAIL C



SIMPSON STRONG TIE A24 ANGLE BRACKET  
(OR EQUIVALENT)



FRONT VIEW THROUGH WOOD CENTER POST  
CONNECTION @ DECK (ALL CENTER POSTS)  
DETAIL B



FRONT VIEW THROUGH WOOD CORNER POST  
CONNECTION @ DECK (ALL CORNER POSTS)  
DETAIL D



01-24-2025

DATE	1/20/25	-
DRAWN	DH	-
SCALE	1 1/2" = 1'-0"	-
SHEET	11 OF 11	-

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