

THIS STRUCTURAL PLAN HAS BEEN DESIGNED TO MEET THE INTENT OF THE NC RESIDENTIAL CODE, 2018 EDITION

2018 NC RESIDENTIAL CODE

DESIGN LOADS

| | |
|-------------------------|-------------|
| WIND SPEED | 115 mph |
| WIND EXPOSURE | "B" |
| SEISMIC DESIGN CATEGORY | "B" |
| ROOF w/ VAULTED CEILING | 20 / 15 psf |
| FLOOR | 40 / 10 psf |
| STAIRS | 40 / 10 psf |

ALL STRUCTURAL MEMBER SIZES SHOWN ARE MINIMUMS. SIZES MAY BE INCREASED BY THE BUILDER IF PREFERRED AND ANY SIZE INCREASES ARE STRUCTURALLY ALLOWABLE FOR THIS PLAN.

FOUNDATION STRUCTURAL NOTES

- 1)

ASSUMED SOIL BEARING CAPACITY IS 2,000 psf. IF UNSUITABLE SOILS ARE ENCOUNTERED, PLEASE CONTACT ON-SITE RESIDENTIAL ENGINEERING FOR RE-EVALUATION.
- 2)

CONCRETE SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 3,000 psi (INTERIOR SLABS MAY HAVE A COMPRESSIVE STRENGTH OF 2,500 psi). CONCRETE EXPOSED TO WEATHER SHALL BE AIR-ENTRAINED BETWEEN 5% AND 7%.
- 3)

THE BOTTOM OF FOOTINGS SHALL EXTEND 12" BELOW THE GROUND SURFACE.

ROOF FRAMING STRUCTURAL NOTES

- 1)

ROOF FRAMING SHALL BE SPF #2 OR SYP #2 ***UNLESS OTHERWISE NOTED***
- 2)

STRUCTURAL ROOF MEMBERS SHALL NOT BE DRILLED OR NOTCHED IN EXCESS OF THE LIMITATIONS SPECIFIED IN R802.7.
- 3)

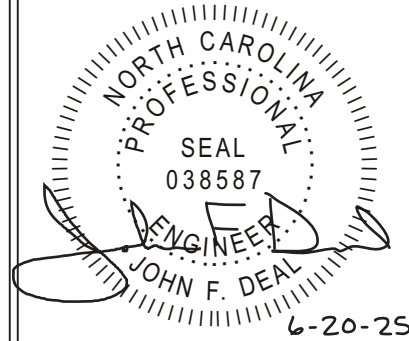
WOOD STRUCTURAL PANELS USED FOR ROOF SHEATHING SHALL MEET THE REQUIREMENTS OF TABLE R503.2.1.1(1)



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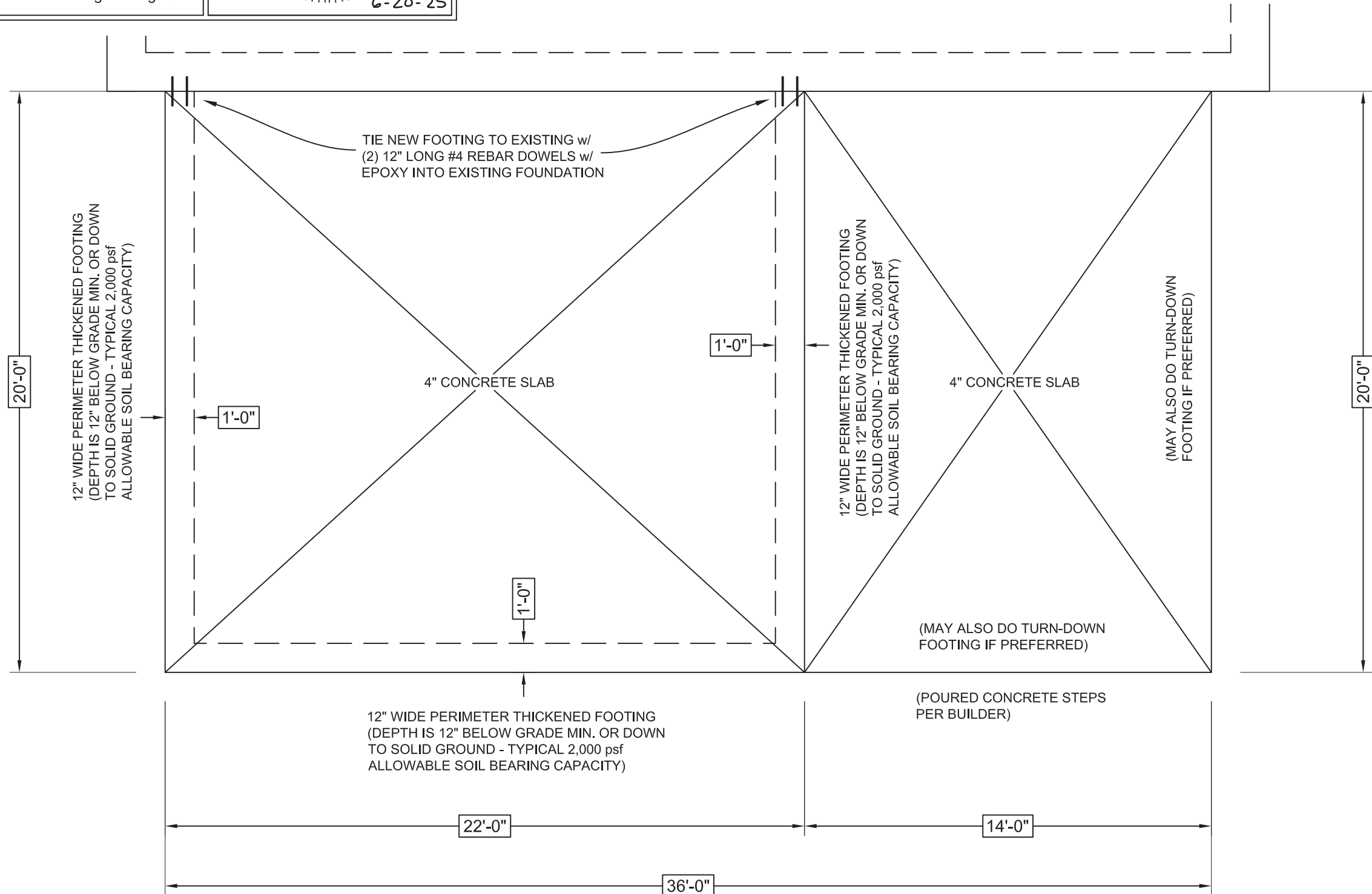
PO Box 31091, Raleigh, NC 27622
John@On-SiteResidentialEngineering.com



The purpose of this structural engineering project is to design a new Covered Porch and Patio at the residence. The Engineer's seal applies only to structural items specifically shown on this plan.

| | |
|----------|-------------------------------------|
| PROJECT | 25-153 |
| LOCATION | 523 Windy Farm Drive, Fuquay-Varina |
| CLIENT | Mosko Roofing and Construction |
| CONTACT | tyler@moskolawnandhomenc.com |
| DATE | June 20, 2025 |

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FOUNDATION STRUCTURAL PLAN

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

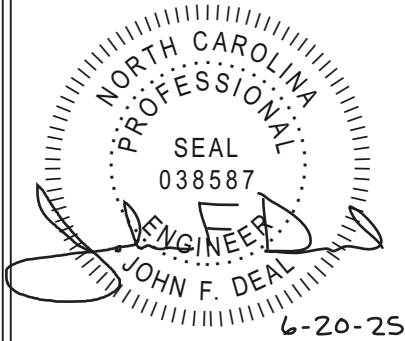


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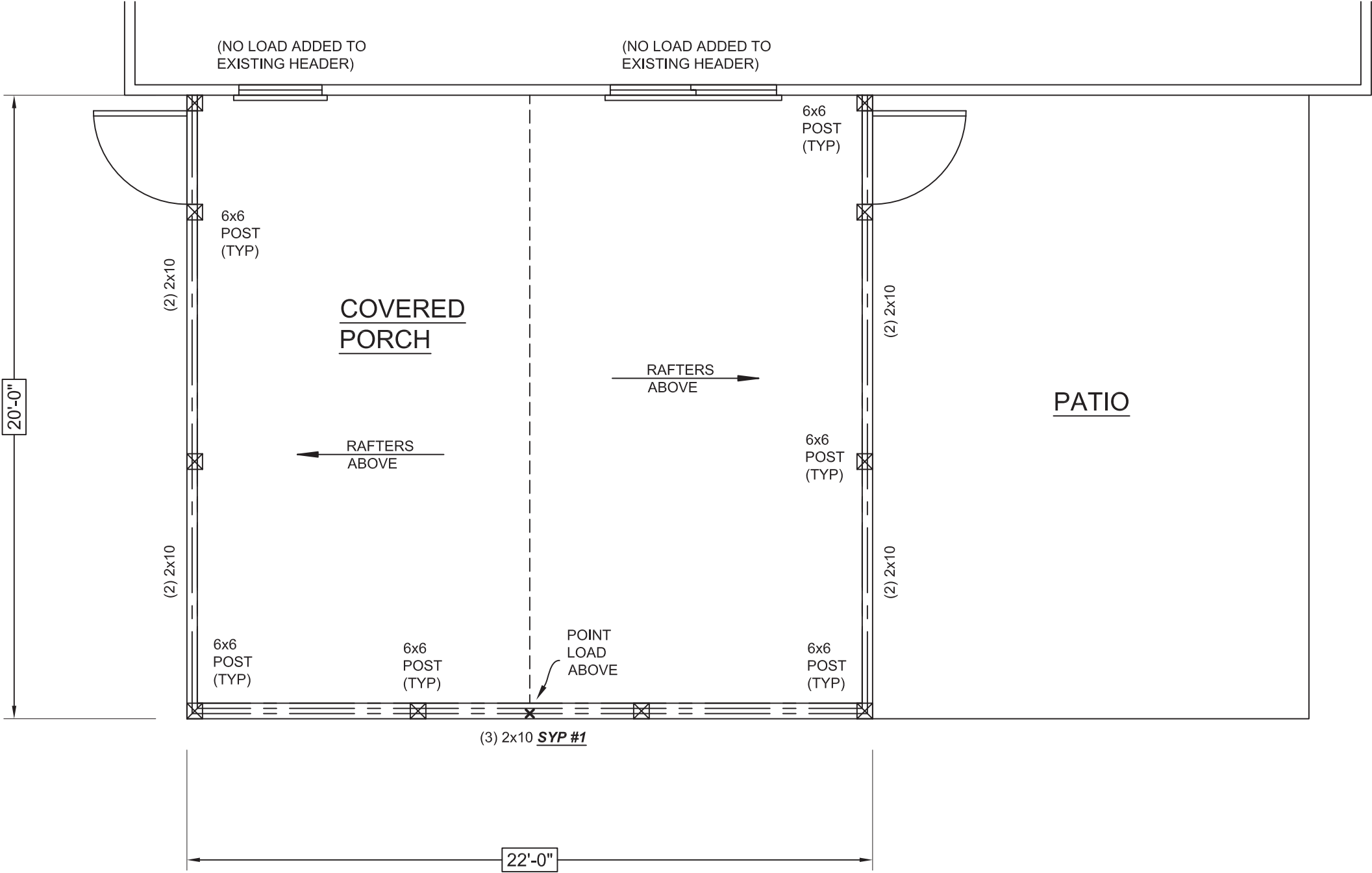
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ATTACH ROOF BEAM TO POST AND POST TO BASE WITH GENERAL MECHANICAL CONNECTION WITH 600 lb. ALLOWABLE TENSION CAPACITY FOR UPLIFT RESISTANCE:

POST CAP / BASE / ANGLE / STRAP, OR (4) 6" LONG TIMBERLOK SCREWS INSTALLED IN A TOE-NAILED POSITION INTO THE BOTTOM OF THE ROOF BEAM AND SIMPSON ABW66Z POST BASE FOR EXAMPLE



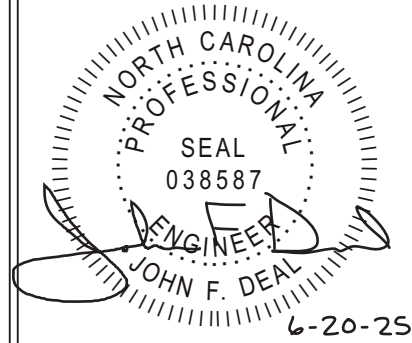
FIRST FLOOR STRUCTURAL PLAN

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



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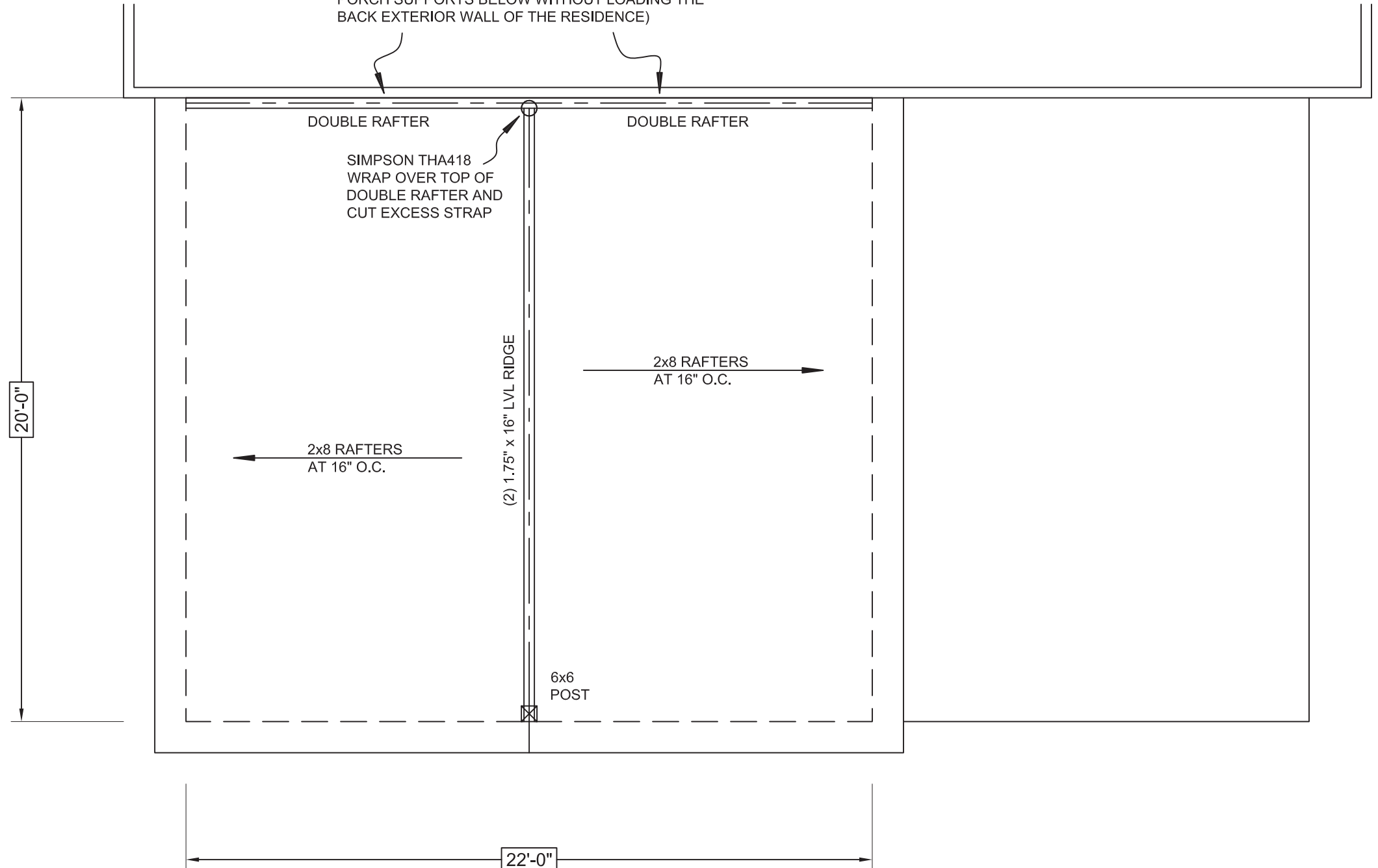
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ATTACH FIRST SET OF DOUBLE RAFTERS TO SECOND FLOOR LEVEL WALL STUDS w/ (2) ROWS OF 6" LONG TIMBERLOK SCREWS AT 16" O.C.
(CONFINED DOUBLE RAFTERS TRANSFER STRUCTURAL RIDGE LOAD TO BASE OF DOUBLE RAFTERS AND PORCH SUPPORTS BELOW WITHOUT LOADING THE BACK EXTERIOR WALL OF THE RESIDENCE)

ATTACH TOP OF EACH RAFTER TO RIDGE WITH EITHER (3) 6" LONG FRAMEFAST SCREWS, OR (1) SIMPSON L70 FRAMING ANGLE (RESISTS UPLIFT - NO COLLAR TIES REQUIRED)

(OR NAIL TOP OF EACH RAFTER TO RIDGE AND INSTALL COLLAR TIES PER CODE)

ATTACH BOTTOM OF EACH RAFTER TO ROOF BEAM WITH (1) SIMPSON H2.5 HURRICANE CONNECTOR



ROOF STRUCTURAL PLAN

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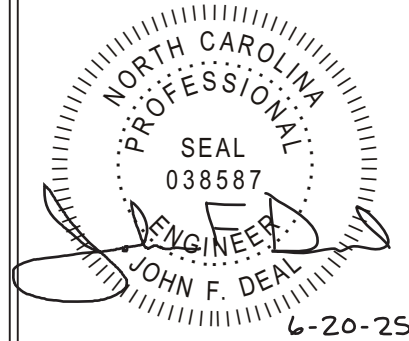


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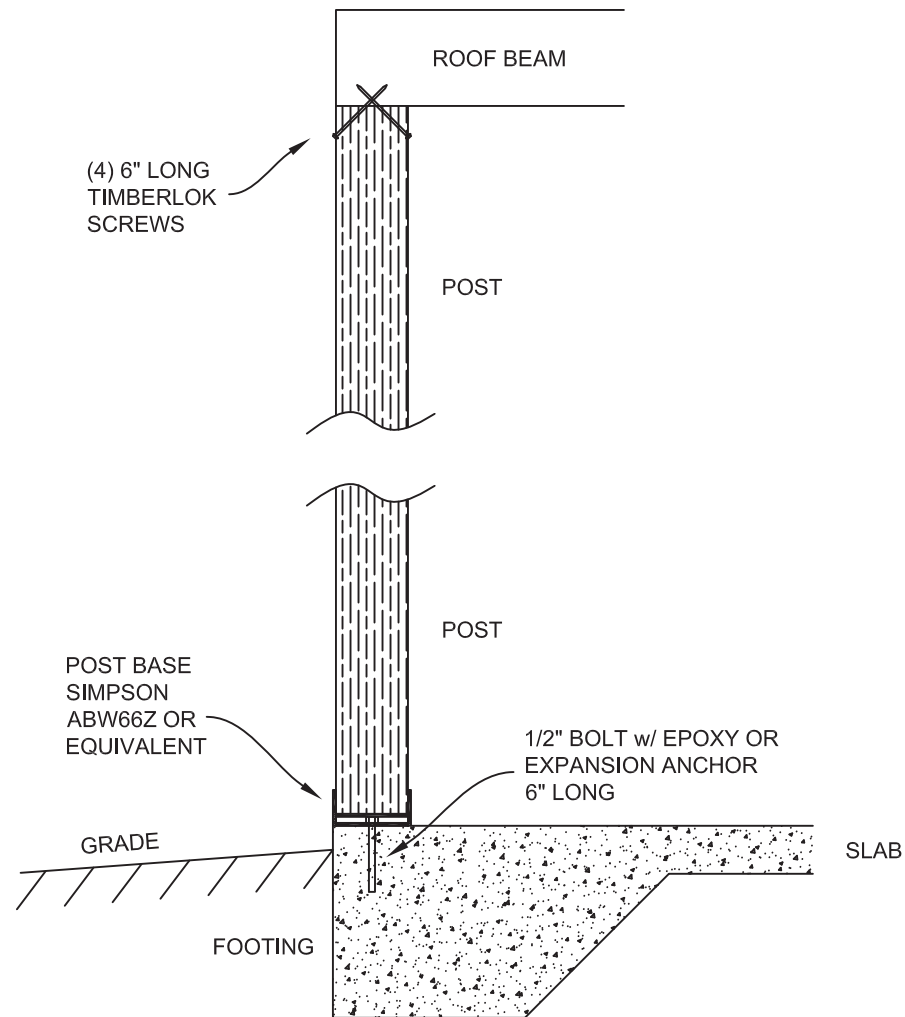
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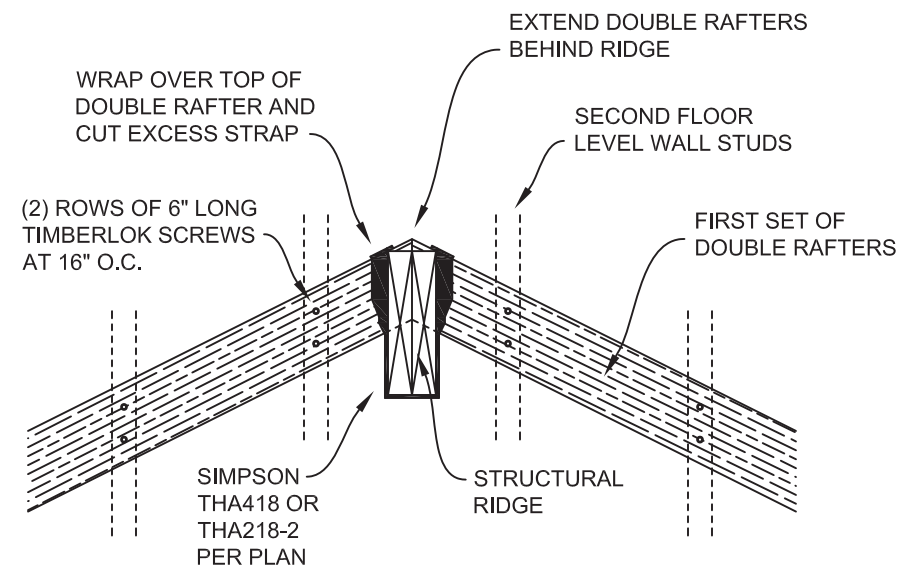
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FIRST FLOOR LEVEL PORCH POST
ATTACHMENT: TIMBERLOK AND ABW66Z



FIRST SET OF DOUBLE RAFTER ATTACHMENT
AND STRUCTURAL RIDGE SUPPORT

