

Gregory J. Tierney, P.E.
501 W. Williams Street, No. 312, Apex, North Carolina 27502, (919) 302-2330

April 9, 2021

Kenneth Gritton
2003 Waterton Lane
Apex, NC 27502

Re: 95 Ironwood Drive
Fuquay Varina, NC

Dear Mr. Gritton:

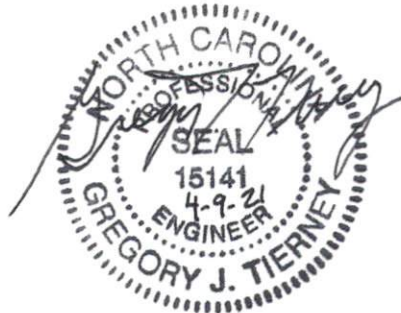
At your request, I designed the ridge beam for the new rear porch roof. **Left and right are referenced by standing in front of, and facing, the house from the street.**

My findings are as follow:

1. All LVL beams are to have a minimum $F_b = 2,800$ psi, $E = 2,000,000$ psi, $F_c = 750$ psi, $F_{c11} = 2,510$ psi and $F_v = 285$ psi. Fasten multiple-ply LVL beams to each other per the LVL manufacturer's recommendations with a minimum of (6) rows of 16d nails at 12" on center for the 16" LVL beam.
2. With an approximately 14' wide by 24' deep gable roof at the rear of the house with a vaulted ceiling, a (2) 1 3/4" x 16" front to back spanning LVL ridge beam (maximum span = 24') is structurally adequate for supporting the 2018 North Carolina State Residential Building Code loads.

If you have any questions, or if I can be of additional assistance, please contact me.

Sincerely,

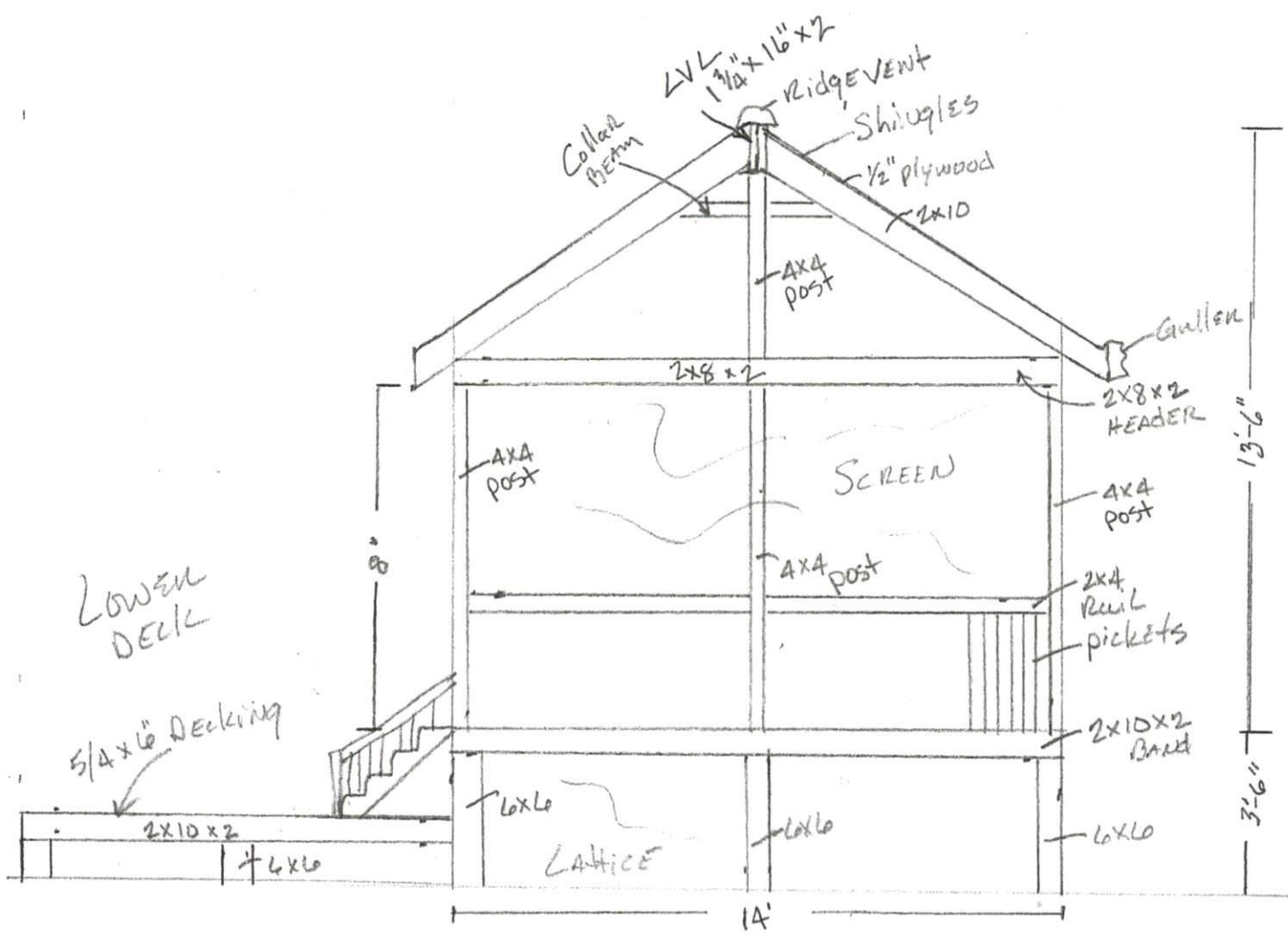


Gregory J. Tierney, P.E.

GJT/sb

CC: 1159

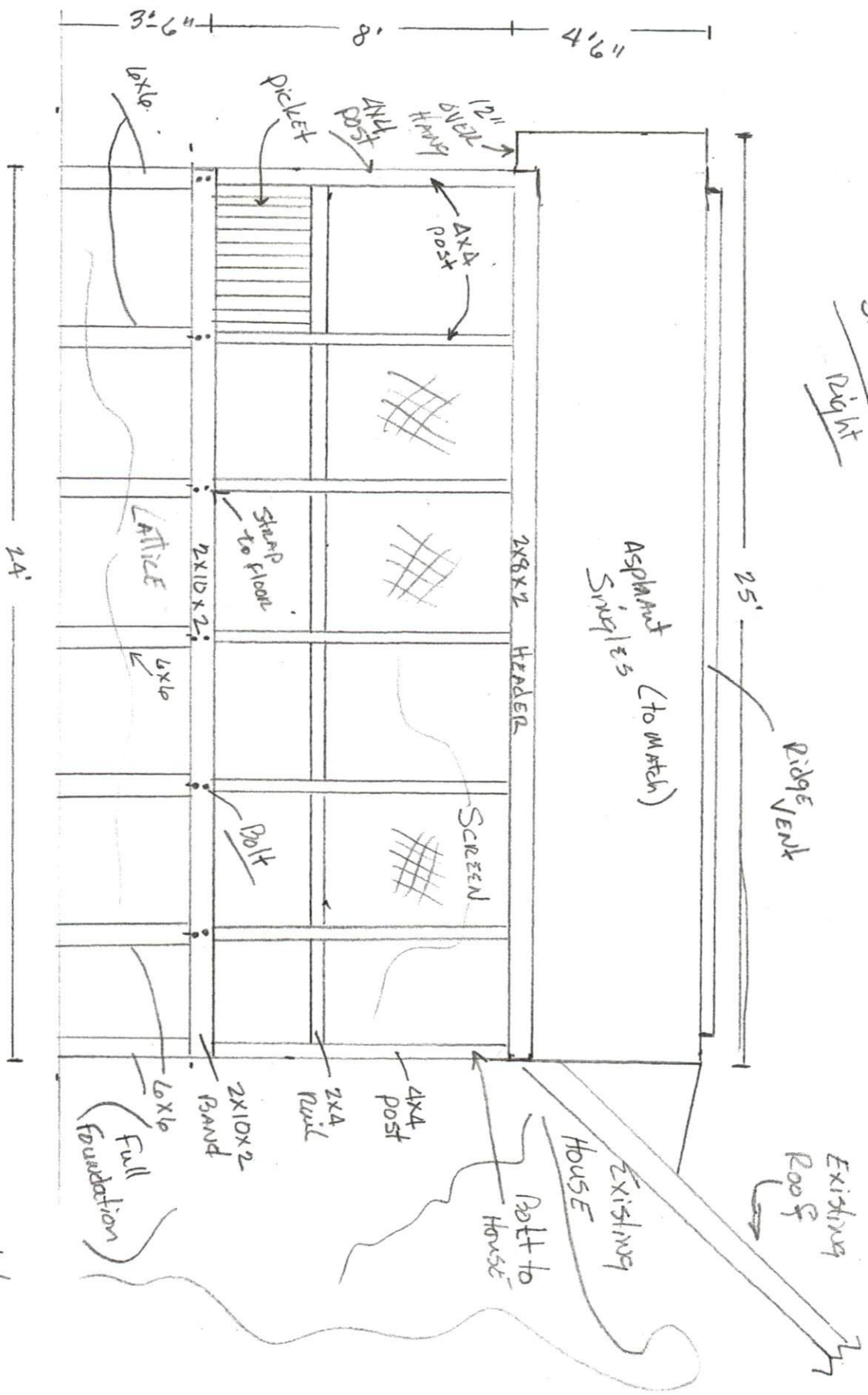
FRONT VIEW 1/4"=1'



Anthony and Liz Amsheyus
 95 IRONWOOD DR.
 FUGWAY VARNER NC 27526

DRAWING 4/1/2021
 Kenneth Gritton
 919-669-1759

SIDE VIEW
RIGHT
1/4" = 1'



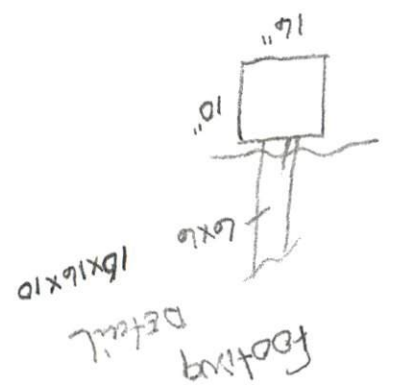
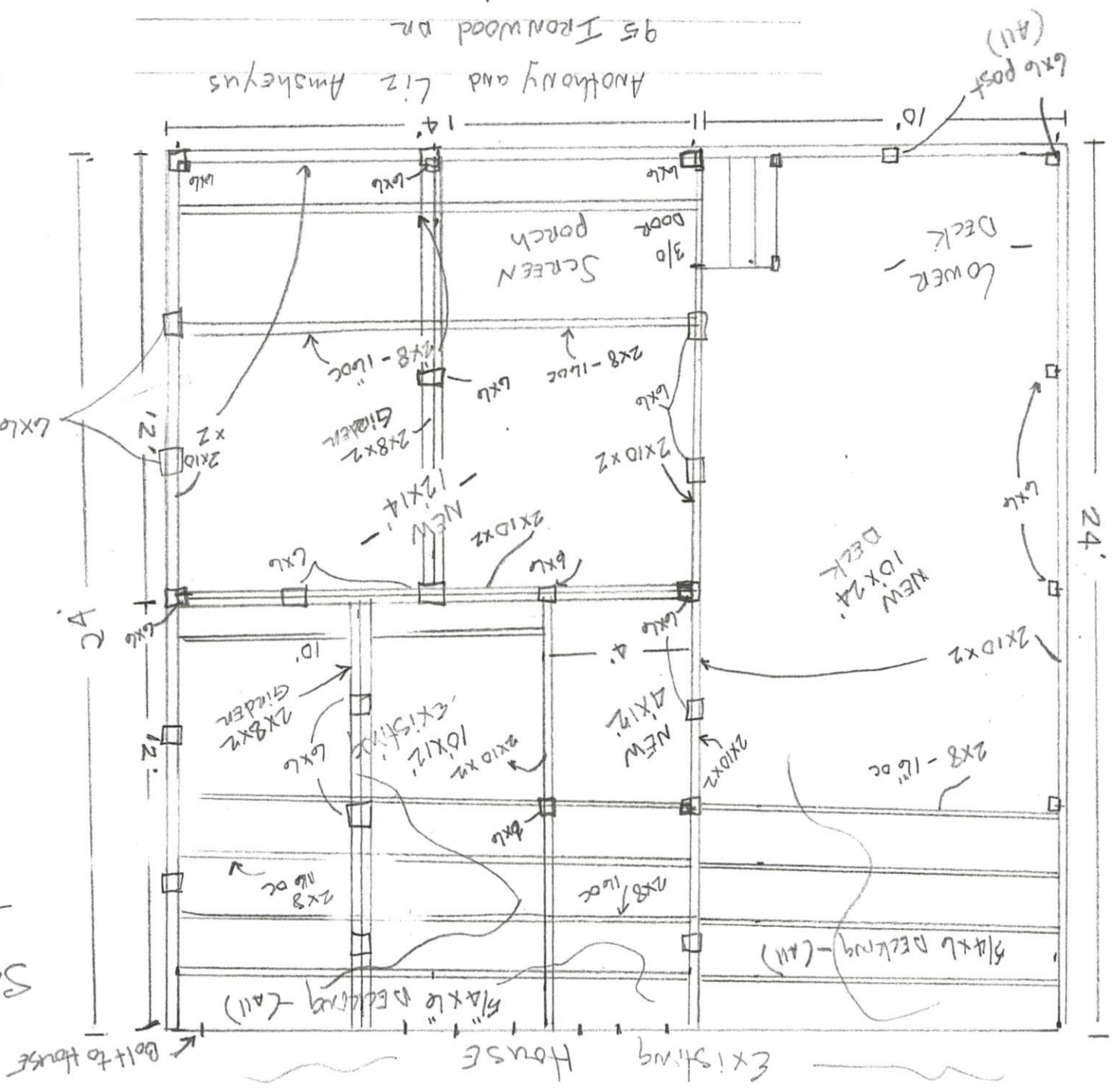
ANTHONY and LIZ Amsheyus
 95 Ironwood DR
 Fuquay Varina NC 27526

DRAWING 4/1/2021
 KENNETH GRITTON
 919-669-1759

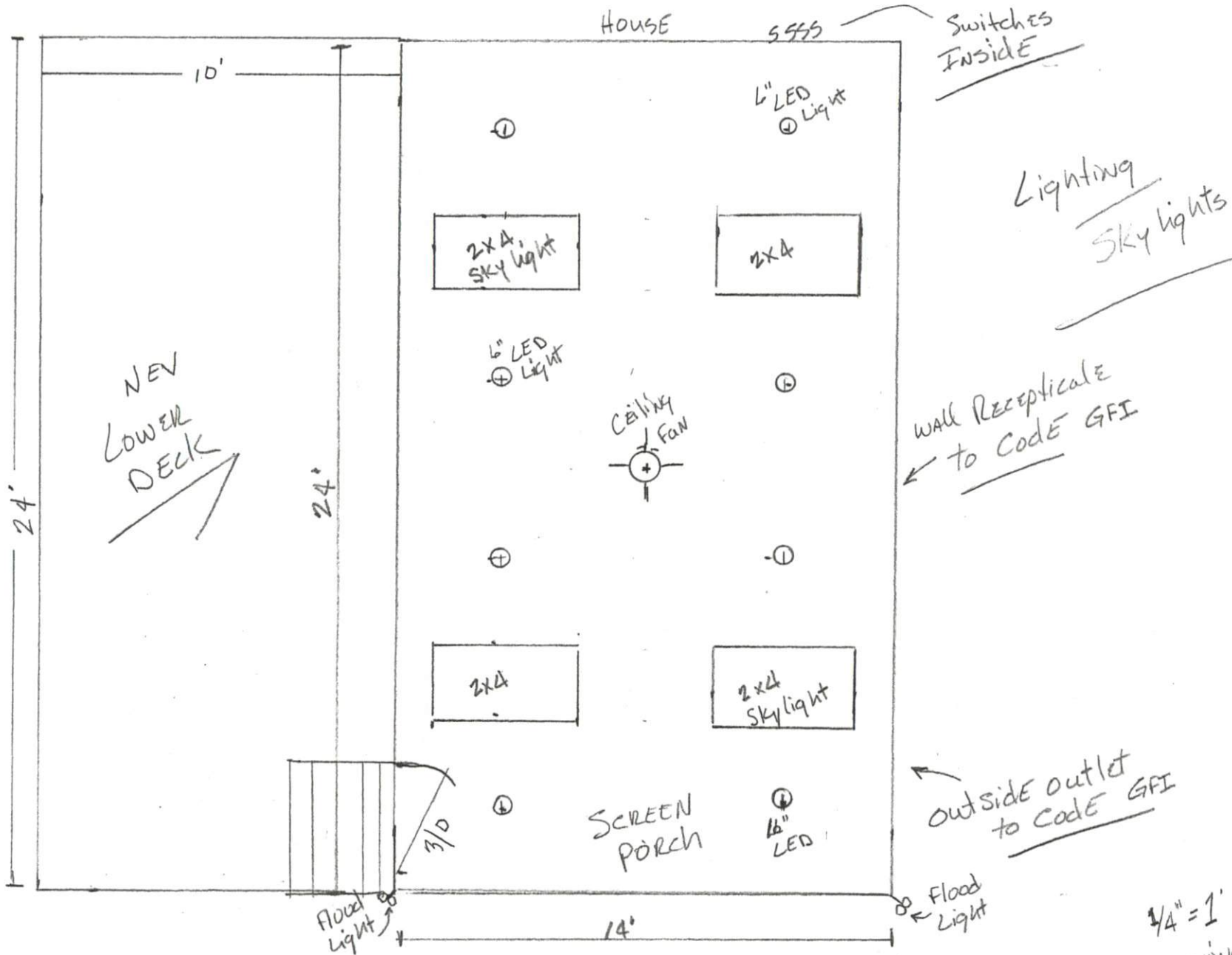
DRAWING 4/1/2021
 KENNETH GRIMM
 919-669-1759

95 Ironwood Dr
 Anthony and Liz Amshynus
 Fugate Village NC 27526

Framing Plan
 1/4" = 1'



SCREEN PORCH
 14x24



Switches
INSIDE

Lighting
SKY LIGHTS

WALL RECEPTACLE
to CODE GFI

outside outlet
to CODE GFI

3/4" = 1'
DRAWING 4/1/2021
KENNETH GRITTON
919-669-1759

Anthony and Liz Amsheyus
95 IRONWOOD DR
Fuquay VARINA NC 27526