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. ROOF: 6 PSF
- 2. WALLS: 6 PSF
- 3. FLOOR: 12 PSF

SNOW LOADS: GROUND SNOW LOAD 20 PSF

ULTIMATE DESIGN WIND SPEED: 118 MPH, 3 SEC. GUSTS

## LIVE LOADS:

- 1. ROOF: 20 PSF
- 2. FLOOR: 40 PSF

### **DEFLECTION LIMITS:**

- 1. ROOF: L/120 (PER 2015 IRC TABLE R301.7 NOTE C)
- 2. WALLS: L/175
- 3. 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 = 187

#### NOTES:

- 1. ALLVIEW (AAS) SUNROOM; WHITE IN COLOR
- 2. CONSTRUCT SUNROOM ON EXISTING CONCRETE
- 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 **ZUBIATE RESIDENCE**

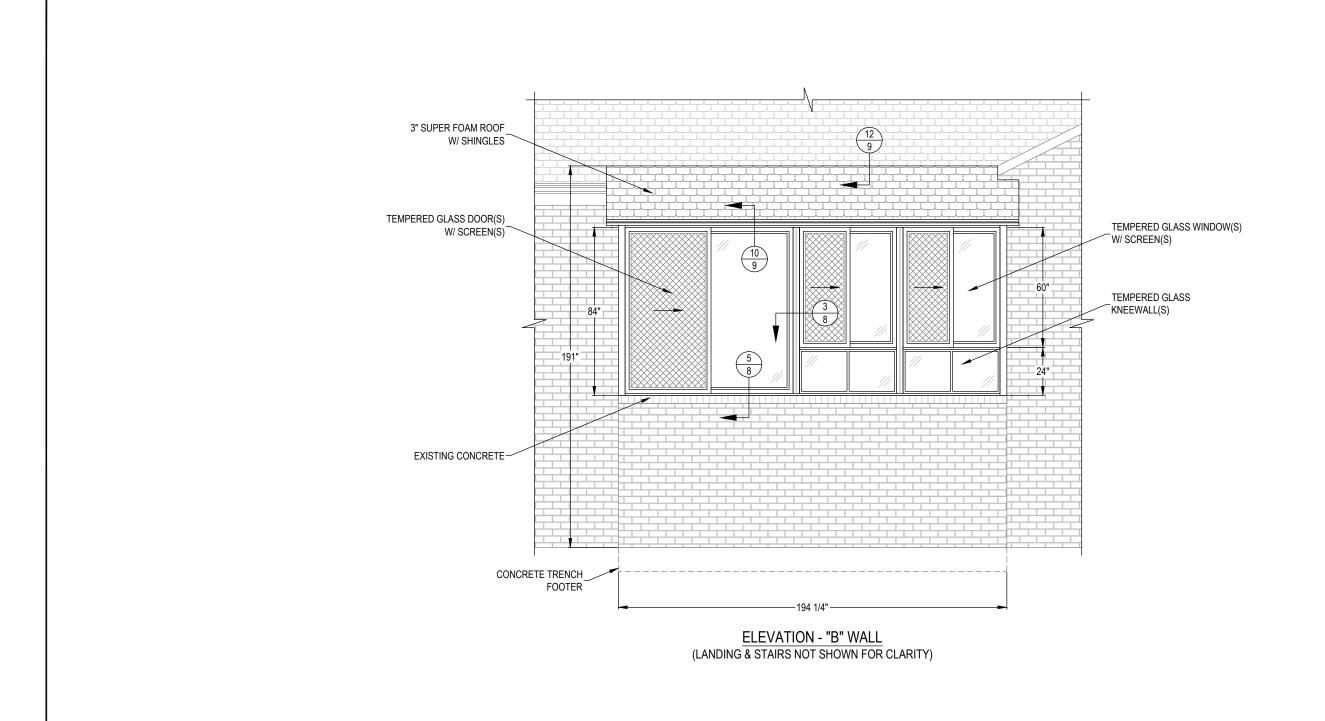
SHEET#	DESCRIPTION
1	COVER
2	ELEVATION "B" WALL
3	ELEVATION "A" & "C" WALL
4	CONCRETE PLAN
5	ELECTRICAL PLAN
6	FLOOR PLAN
7	ROOF PLAN
8	SYSTEM DETAILS
9	SYSTEM DETAILS

9/19/24 RAFAEL ZUBIATE DRAWN MTS 212 LAKELAND PORT SANFORD, NC 27332 JOB #21238 1 OF 9

RALEIGH 951 AVIATION PKWY, SUITE 1000 MORRISVILLE, NC 27560 984-212-8850



ERIC OETJEN, P.E., M. ENG. FORT THOMAS, KY. 41075

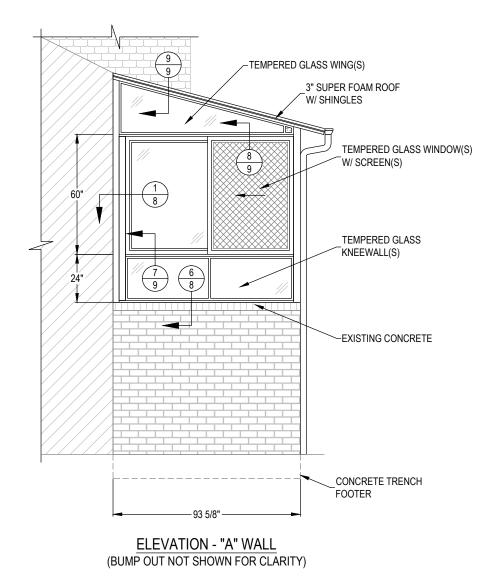


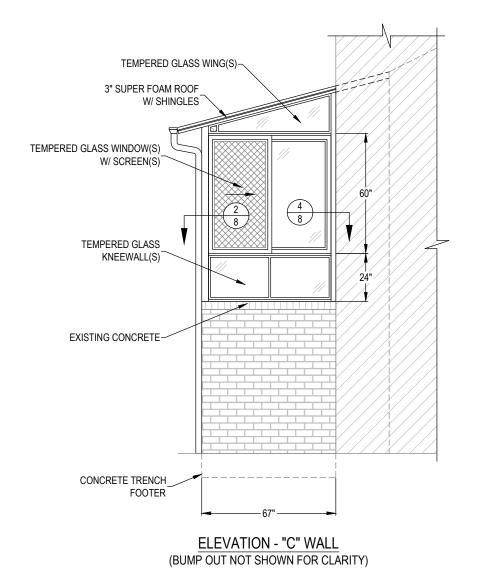
DRAWN MTS SCALE 1/4" = 1'-0" SHEET 2.05.0

RAFAEL ZUBIATE 212 LAKELAND PORT SANFORD, NC 27332 JOB #21238

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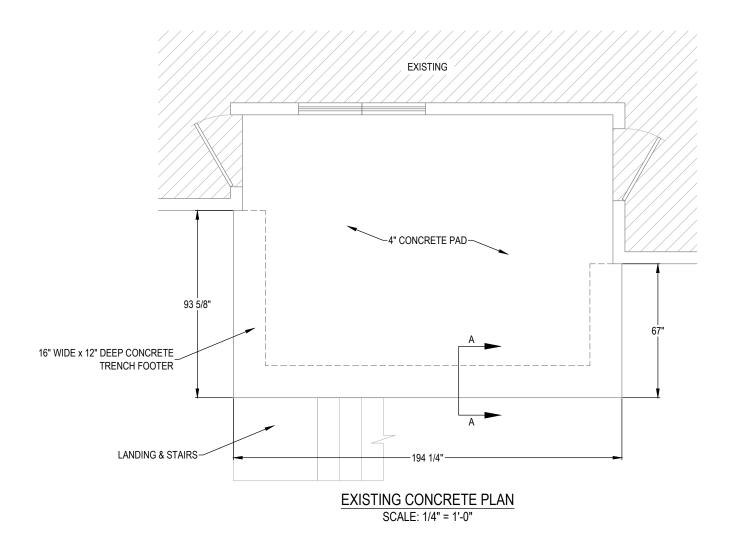


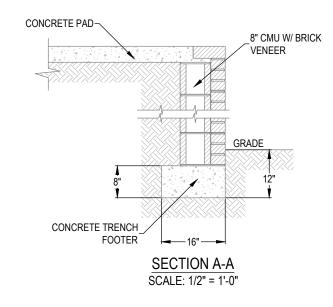


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DRAWN MTS	-
SCALE 1/4" = 1'-0"	-
SHEET 3 OF 9	-

RALEIGH 951 AVIATION PKWY, SUITE 1000 MORRISVILLE, NC 27560 984-212-8850







9/19/24 AS NOTED 4 OF 9

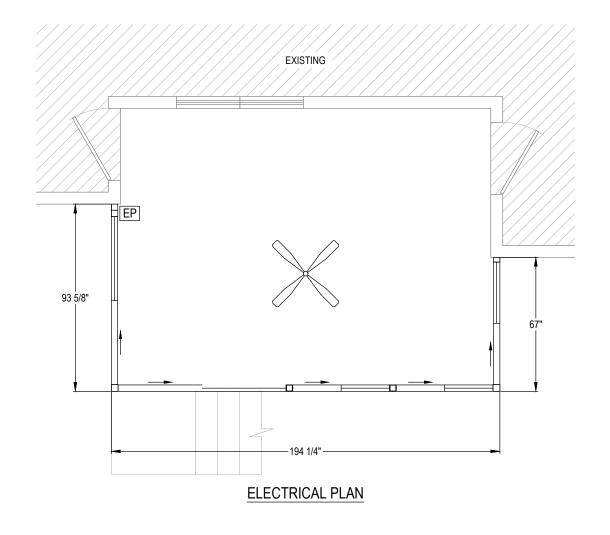
RAFAEL ZUBIATE 212 LAKELAND PORT SANFORD, NC 27332 JOB #21238

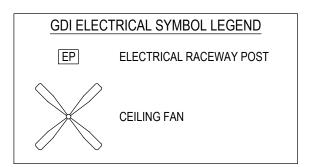
RALEIGH 951 AVIATION PKWY, SUITE 1000 MORRISVILLE, NC 27560 984-212-8850



NC. PROFESSIONAL ENGINEER (NC. LIC. #049195) 5 GREENE STREET FORT THOMAS, KY. 41075 PH. # 859-393-9049

ERIC OETJEN, P.E., M. ENG.





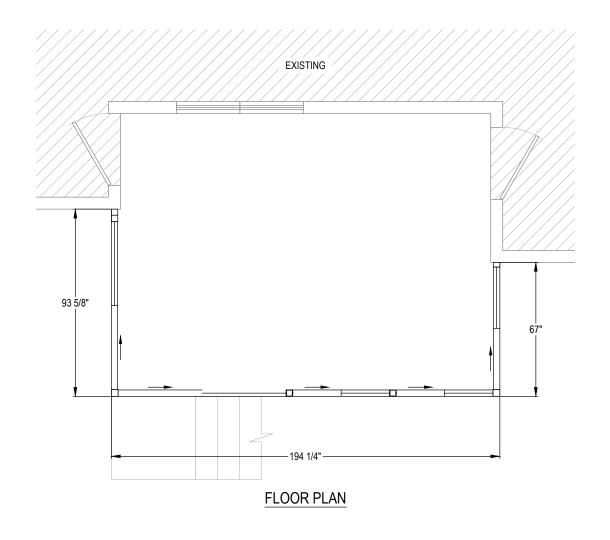
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SHEET 5 OF 9	-

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

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

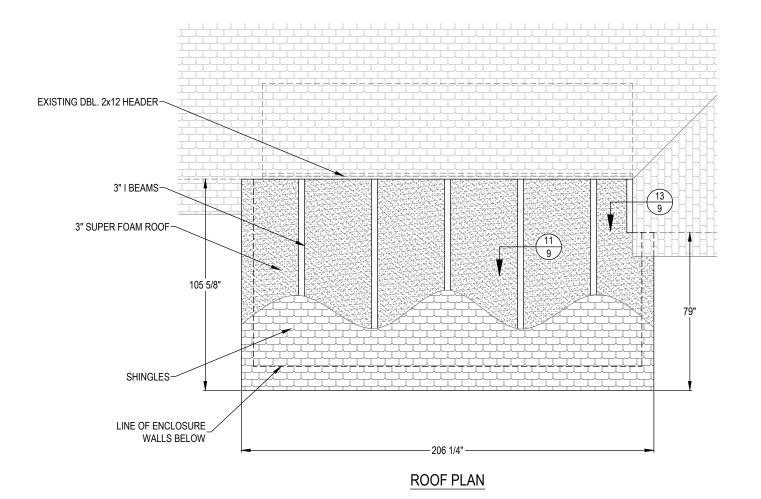


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DRAWN MTS	-
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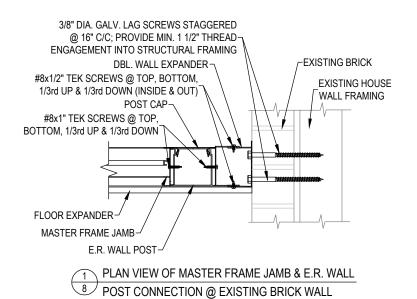
ERIC OETJEN, P.E., M. ENG. NC. PROFESSIONAL ENGINEER (NC. LIC. #049195) 5 GREENE STREET FORT THOMAS, KY. 41075 PH. # 859-393-9049 HIS DRAWING IS PROPERTY OF GREAT

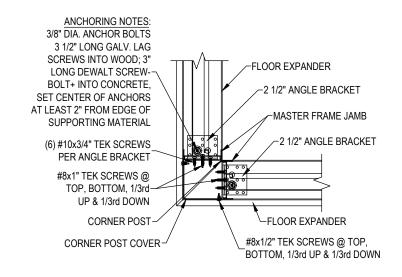


DATE 9/19/24	-
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SCALE 1/4" = 1'-0"	-
SHEET	_

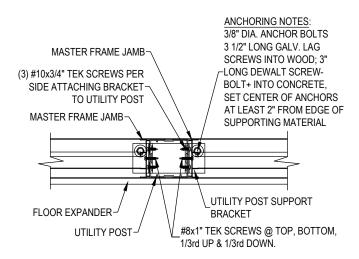
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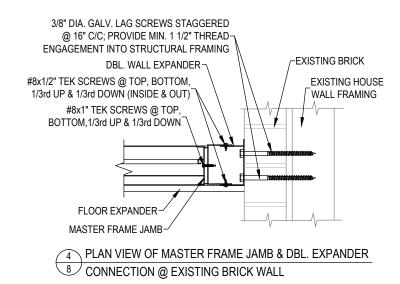


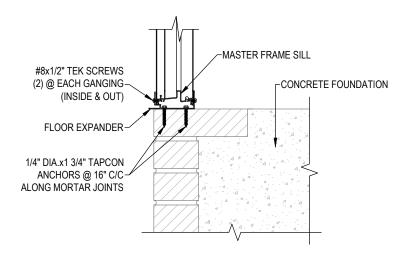




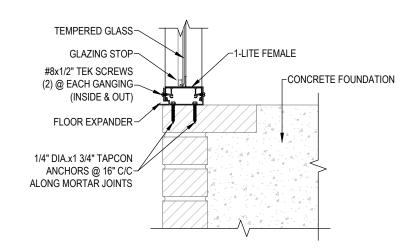


PLAN VIEW OF MASTER FRAME JAMBS
8 CONNECTION @ UTILITY POST





5 SECTION THROUGH MASTER FRAME SILL CONNECTION @ CONCRETE FOUNDATION



SECTION THROUGH GLASS KNEEWALL

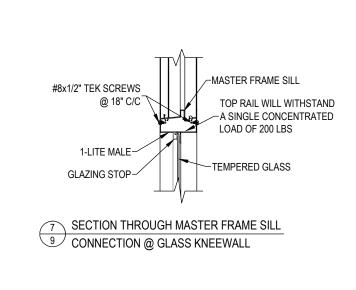
8 CONNECTION @ CONCRETE FOUNDATION

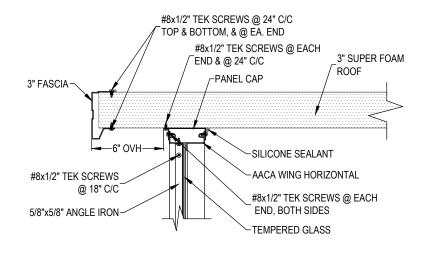
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DRAWN MTS	-
SCALE 1 1/2" = 1'-0"	-
SHEET 8 OF 9	_

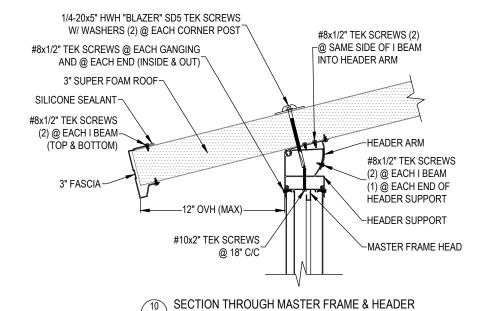
RAFAEL ZUBIATE 212 LAKELAND PORT SANFORD, NC 27332 JOB #21238

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TEMPERED GLASS AACA WING HORIZONTAL "H" SUPPORT -MASTER FRAME HEAD

SECTION THROUGH 3" SUPER FOAM ROOF PANEL CONNECTION @ GLASS WING

CONNECTION @ 3" SUPER FOAM ROOF

8 SECTION THROUGH "H" & MASTER FRAME 9 HEAD CONNECTION @ GLASS WING

5/8" x 5/8" ANGLE

@ 18"C/C

#8 x 1/2" TEK SCREWS

#8x1/2" TEK SCREWS @

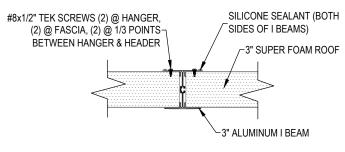
END (INSIDE & OUT)

#8x2" TEK SCREWS

@ 18" C/C ALONG~

"H" SUPPORT

EACH GANGING & @ EACH



EXISTING SHINGLES EXISTING SHEATHING-ICE & WATER SHIELD (MIN. 24" ONTO HOUSE ROOF) FLASHING-3/8" DIA. GALV. LAG SCREWS @ 16" C/C W/ 2" MIN. THREAD ENGAGEMENT-INTO EXISTING RAFTERS SILICONE SEALANT-HANGER TAB-SILICONE SEALANT-#8x1/2" TEK SCREWS, (2) INTO I BEAM CONNECTING PANELS-BOTH SIDES, TOP & BOTTOM -EXISTING RAFTERS 3" SUPER FOAM ROOF 3" PANEL HANGER-NEW 1 3/4" x 9 1/2" MICROLLAM NEW 1 3/4" x 9 1/2" MICROLLAM LVL HEADER LVL FASCIA BOARD FASTENED TO EXISTING ROOF HEADER W/ #10x4 1/2" TIMBERLOK STRUCTURAL SCREWS (OR EQUIVALENT) @ 16" C/C TOP & BOTTOM EXISTING DBL. HEADER-

-FLASHING #8x1/2" TEK SCREWS (2) @ HANGER, -(2) @ FASCIA, (2) @ 1/3 POINTS 1/4" DIA.x2" GALV. LAG SCREWS BETWEEN HANGER & HEADER @ 12" C/C (STAGGERED TOP & BOTTOM) -SILICONE SEALANT -3" SUPER FOAM ROOF ~3" ALUMINUM I BEAM -2x4 LUMBER (RIPPED TO 3") 3/8" DIA. GALV. LAG SCREWS @ 16" C/C IN 1/2" DEEP COUNTERSINK W/ 2" MIN. THREAD ENGAGEMENT INTO EXISTING STRUCTURAL FRAMING 3" ROOF PANEL & I BEAM

CONNECTION @ EXISTING WALL

SECTION THROUGH 3" SUPER FOAM ROOF & PANEL HANGER ASSEMBLY CONNECTION @ OVERHANG CUT OFF

SECTION THROUGH 3" ROOF CONNECTION @ I BEAM

9/19/24 1 1/2" = 1'-0"

9 OF 9

RAFAEL ZUBIATE 212 LAKELAND PORT SANFORD, NC 27332 JOB #21238

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PH. #859-393-9049