PLEASE NOTE:
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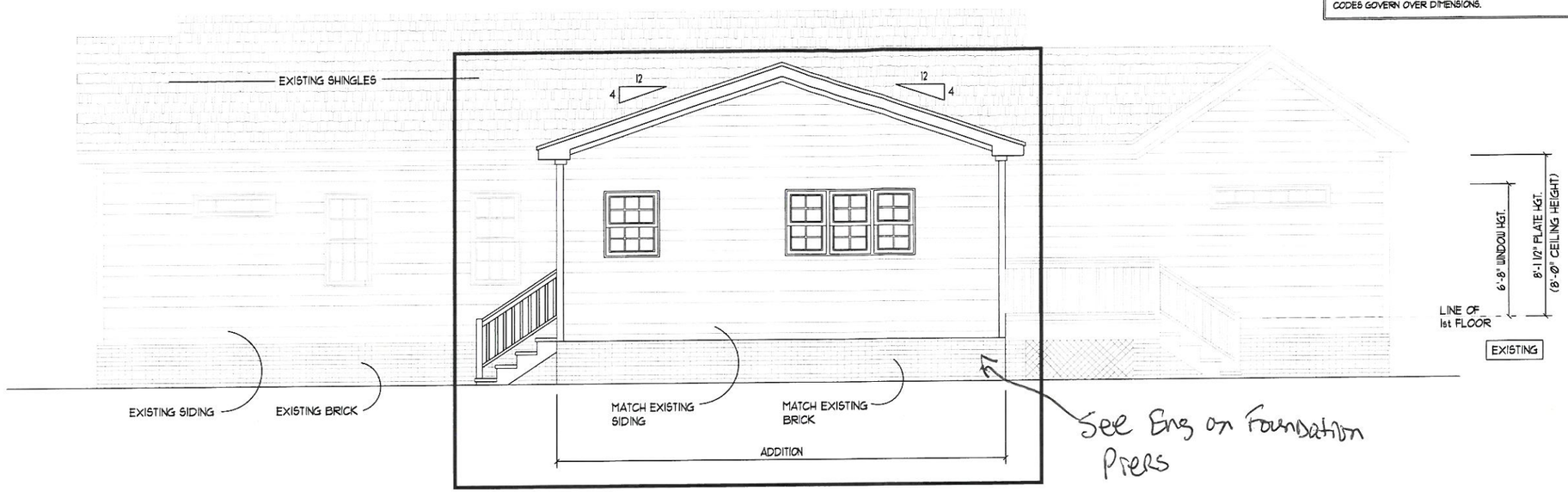
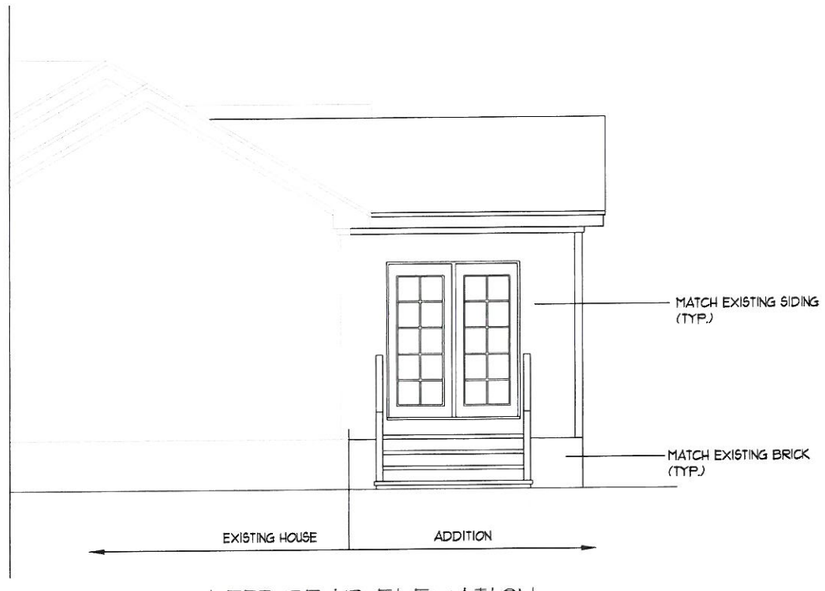
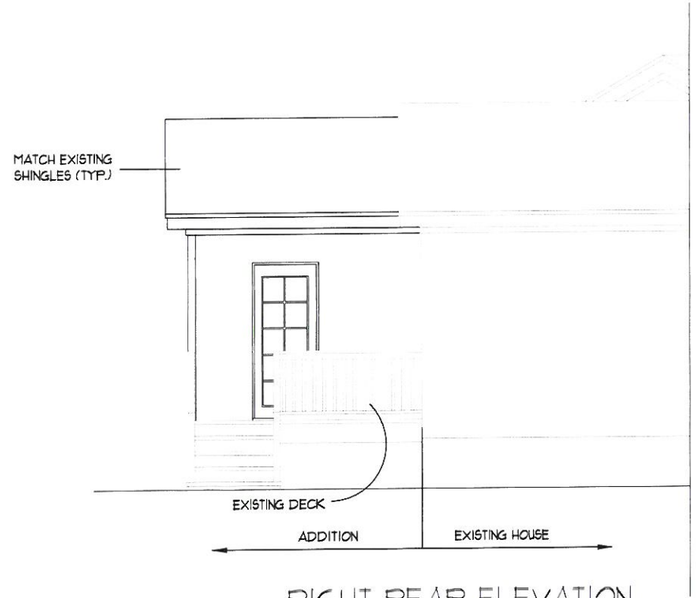


REAR ELEVATION
SCALE: ----------1/4" = 1'-Ø"



LEFT REAR ELEVATION
SCALE: ----------1/4" = 1'-Ø"



RIGHT REAR ELEVATION
SCALE: ----------1/4" = 1'-Ø"

KP Residential Designs
KATHY PICKENS
919-749-2805
kathypickensdesigns.com

DAVID & KELLY MURPHY

FUQUAY VARINA, NC
919-414-4527

ADDRESS:
41 WOODLAND RIDGE DR.
FUQUAY VARINA, NC

PLAN NO:	ADDITION
DATE:	10/21/2020

REVISIONS	DATE

ELEVATIONS

A-1

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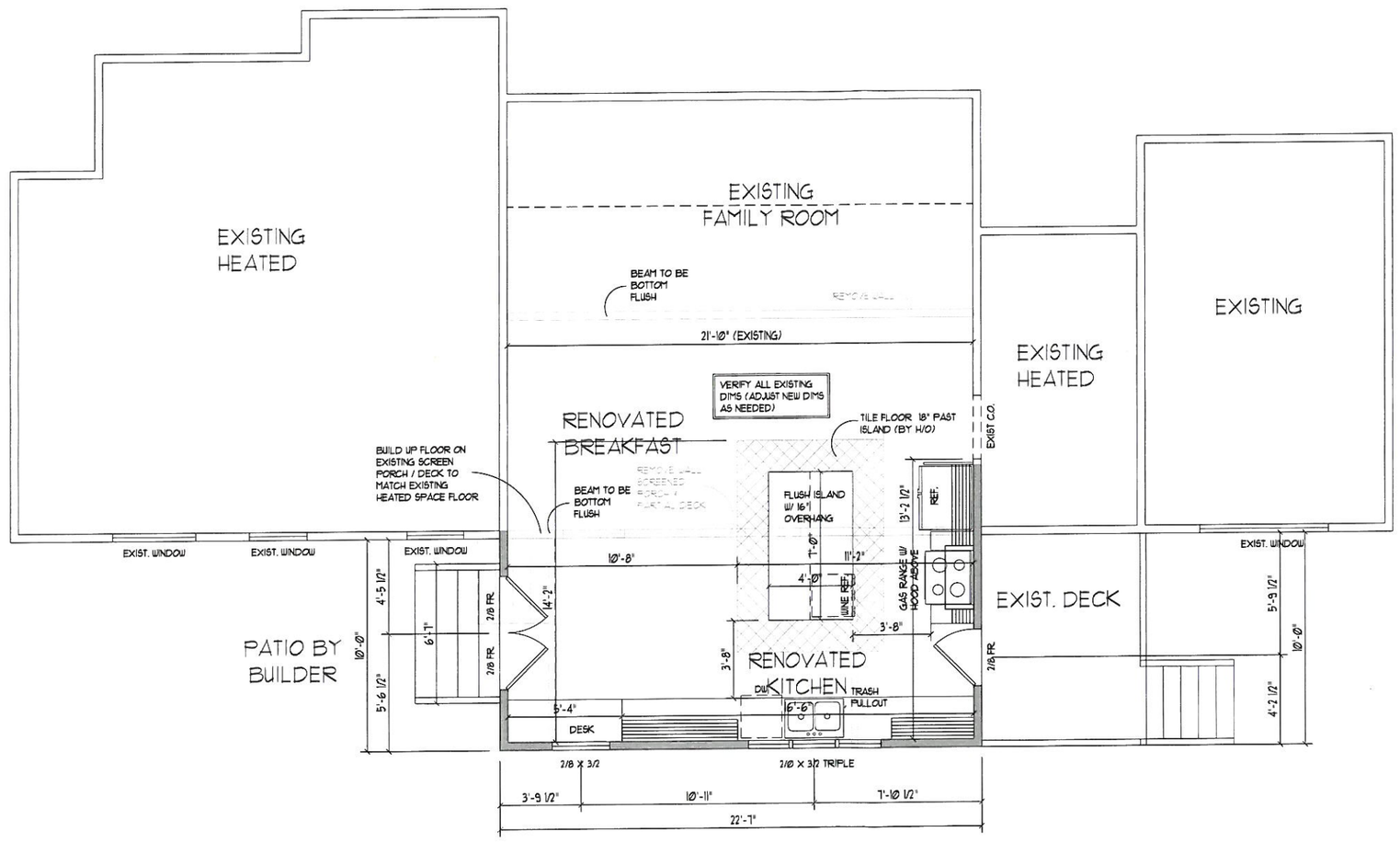

FIRST FLOOR PLAN
SCALE: ----------1/4" = 1'-0"

FIRST FLOOR SQUARE FOOTAGES	
ADDITIONAL HEATED	226

FIRST FLOOR NOTES

1) MATCH EXISTING PLATE, CEILING AND WINDOW HEIGHTS, U.N.O.
2) 8'-0" CLG. HGT. (8'-1 1/2" PLT. HGT.), U.N.O. (SEE NOTE #)
3) ALL NEW WALLS FIGURED AT 4 1/2" WIDTHS.
4) SET WINDOWS AT 6'-8" A.F.F., U.N.O. (SEE NOTE #)
5) MATCH EXISTING MATERIALS, U.N.O.
6) CONTRACTOR TO VERIFY ALL EXISTING DIMENSIONS & HEIGHTS.
7) DIMENSIONS ARE TO FRAMING, U.N.O.
8) CONSULT WINDOW MANUFACTURER'S SPECS. FOR EGRESS REQUIREMENTS, PRESSURE RATINGS, & ROUGH OPNG'S.
9) ELECTRICAL LAYOUT BY BUILDER.

KP Residential Designs
KATHY PICKENS
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kathypickensdesigns.com

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1st FLOOR PLAN

A-2

Design Loads: (Exceeds minimum requirements set forth by code)

	Live Load (PSF)	Dead Load (PSF)	Deflection
All Floors	40	10	L/360
Attic Platforms	25	10	L/360
Ceiling	10	10	L/360
Decks/Balconies	60	10	L/240
Roof	20	15	L/240
Wind Load	115 MPH(UON)	115 MPH(UON)	L/240

General Plan Reading Notes:

1) If any handwritten notes are provided plans must be printed in color or read digitally.
2) Handwritten notes in Red and Blue ink shall take priority over all printed texts.
3) Noted dimensions shall take priority over scaled drawings.
4) These general notes shall apply unless otherwise noted in handwriting.

Foundation Notes:

1) Assumed soil load bearing capacity = 2000 PSF
2) Minimum 28 day f'c of concrete = 3000 PSI
3) Foundations to be built in accordance with NCRC 2018, CH 4
4) "Tie-In"s shall be (2) 16" long #4 epoxy bonded dowels half embedded mid-depth into existing footings. If no footing exists, omit Tie-in
5) Install anchor bolts per R403.1.6.
6) All slabs shall be 4" thick, 3000 psi concrete slab on 4" of #57 sub-base w/ a 6 mil vapor barrier (if used in an interior or garage application) w/ 10/10 6x6 welded wire fabric UON.
7) All slabs shall be on compacted fill or full depth self consolidated structural fill (#57) (at porches, garages and stem wall slabs UON.
8) All suspended slabs on metal pans shall utilize 16GA type B UON.
9) Max unreinforced, unbalanced condition of any CMU wall shall be 36". Any foundation wall subjected to 24" of unbalanced fill or more shall be fully grouted. Top course of all foundation walls shall be fully grouted.
10) Max CMU pier height to be 4x its least horizontal dimension. All piers shall be fully grouted.
11) All piers shall be in the middle 1/3rd of the footing. Min 2" footing projection at each side. Max projection shall be the depth of the footing.

Footing Schedule:

A = 16"x16"x8" E = 36"x36"x12"
B = 20"x20"x8" F = 40"x40"x12" w/ (3) #4 EW @ bottoms
C = 24"x24"x10" G = 45"x48"x12" w/ (4) #4 EW @ bottoms.
D = 30"x30"x12" *All rebar in footings to have 3" cover.

Header Schedule:

A = (2)2x6 w/ (1) 2x4 Jack @ EE
B = (2)2x8 w/ (2) 2x4 Jack @ EE
C = (2)2x10 w/ (2) 2x4 Jack @ EE
D = (2)2x12 w/ (3) 2x4 Jack @ EE
E = (2)5 1/4" LVL w/ (3) 2x4 Js @ EE
* Use 2x6 studs in 2x6 walls.
* In 2x6 walls use 3 ply headers

King Stud Schedule:

0'-3' wide = (1)2x4 @ EE
3'-6' wide = (2)2x4 @ EE
6'-9' wide = (3)2x4 @ EE
* If wall is 2x6, king studs shall be 2x6.

Stud Schedule for Walls 10' or Taller (supporting 1 + roof)

Height (Max)	Interior (Load Bearing)	Exterior (Load Bearing or Non Bearing)	Non-Bearing (INT)
10'	2x4@ 16" O.C.	2x4@ 16" O.C.	2X4@ 24" O.C.
11'	2x4@ 12" O.C. 2x6 @ 16" O.C.	2x4@ 12" O.C. W/ B&S 2x6 @ 16" O.C.	2X4 @ 24" O.C
12'	2x4@ 12" O.C. 2x6 @ 16" O.C.	2x4@ 12" O.C. W/ B&S 2x6 @ 12" O.C.	2X4 @ 16" O.C.
13'	(2)2X4 @ 16" O.C. 2X6 @ 16" O.C.	(2)2x4@ 12" O.C. W/ B&S 2x6 @ 12" O.C. W/ B&S	2X4 @ 16" O.C.W/ B
14'	2x4@ 12" O.C. W/ B 2x6 @ 12" O.C.	(2)2x4@ 12" O.C. W/ B&S 2x6 @ 12" O.C. W/ B&S	2X6 @ 16" O.C.
15'	(2)2x4@ 12" O.C. W/ B 2x6 @ 12" O.C. W/ B	(2)2x6@ 16" O.C. W/ B&S	2X6@ 16" O.C. W/ B (2)2X4 @ 16" OC W/ B
16'	(2)2x4@ 12" O.C. W/ B 2x6 @ 12" O.C. W/ B	(2)2x6@ 12" O.C. W/ B&S 2x8 @ 16" O.C. W/ B	2X6@ 12" O.C. (2)2X4@ 16" O.C. W/B
17'	(2)2x6@ 16" O.C. W/ B 2x8 @ 16" O.C.	2X6 @ 12" O.C.	2X8 @ 16" O.C.

- Table based on 115 MPH wind zone, Exposure B, L/240 deflection
- B= Blocking: 2x Horizontal blocking at 6' o.c. vert. with (2) 10d nails @ EE
- S= Strapping: CS22 strapping to the interior face of the center 2/3rd height of every other stud. Half populate with 10d x 1.5" nails.
- If wall supports 2 stories and a roof, add 2' to the actual wall height and apply the table.
- If wall supports only roof, subtract 2' to the wall actual wall height and apply the table

Framing Notes:

1) All dimensional lumber to be Spruce Pine Fir No.2 or better.
2) Engineered Beams single ply = 1.75" wide w/ Fb of: LVL= 2600 psi, LSL = 2325 psi. PSL (columns) shall be 3.5" wide w/ F'b = 1344 psi
3) All floor framing per NCRC 2018 CH 8. All Wall framing per NCRC 2018 CH6.
4) All I-joists and floor truss framing per supplier's specifications and layout.
5) All structural steel shall be ASTM A-36; Fy= 36 KSI.
6) All weld material shall be 70 KSI material.
7) All welds to be installed by a certified AWS welder.
8) Install double joist under all walls parallel with joists.
9) Typically, load bearing walls (LBW) are shown hatched in red. Nearby girders and beams should be assumed to be directly supporting these LBWs, UON.
10) All LVL beams of 3 ply or more shall be fastened with ½" dia bolts at 16" o.c. staggered w/ 2" min edge distance from top/bottom edge UON. 2 ply LVLs shall be fastened with (4) #9 3" long wood screws UON.
11) Circled numbers indicate number of 2x4/2x6 studs in a stud column. Strap all stud columns of 4 or more with (3) horizontal CS22 straps.
12) All beam bearings shall be no less than 3". All other bearing to be 2" min.
13) All hangers shall be standard, appropriately sized face mounted UON. Consult Simpson catalog or local supplier. High capacity hangers will be load rated on plans.
14) Install all hardware per manufacturer's guidelines.

Lateral Bracing:

1) Unless otherwise noted, lateral bracing is found sufficient and compliant with minimum requirements set forth in NCRC 2018 Table R602.10.2 provided all exterior walls are sheathed at the exterior per CS-WSP, R602.10.3 which includes 2x4 (min) studs at 16" o.c. sheathed with 7/16" OSB w/ (1)8d nail at 6" o.c. edge and (1)8d nail at 12" o.c. field. Typically, required length of CS-WSP at each designated shear walls are shown on plans.
2) All noted Portal Frame (P-F) shall be compliant with R602.10.1
3) All locations noted with "HD" shall be 900 lbs min capacity. Options include 36" long CS16 straps fully populated with 10d nails, centered at interface, Simpson MSTC66B3Z or Simpson LSTA21. Install CS16 strap from top plate to 16" below top of stud.
4) Minimum corner return in each direction shall be 24" of wood structural panel unless otherwise noted.
5) Walls noted as GB2 shall be framed in accordance with R602.10.2

Wood Deck Notes:

1) All lumber to be pressure treated Spruce Pine Fir No.2 or better.
2) Band attachments to be installed per NCRC 2018, Appendix M (AM 104.1(1))
3) Install lateral bracing AM109.1
4) Install handrails per AM111.1
5) Max Post Heights per AM 108.1
6) Stair Stringers per AM 107.1

Screened in and Covered Porch Notes:

1) All wood deck notes apply.
2) Posts to be attached to footings, slab or CMU piers using ABU44 or ABU66 post base (or applicable size).
3) Uplift for posts to headers may be either (2) Simpson LCE4, (2)Simpson GA2 clips with 8" long #9 screws or (4) ¼" diameter, 5" long LedgerLocks driven at a 45" degree angle to each side of posts or notched 50% width w/ (2) LedgerLocks.
4) Uplift for posts to floor framing may be either (2)Simpson GA2 clips with 3" long #9 screws or (4) ¼" diameter, 5" long LedgerLocks driven at a 45" degree angle to each side.

Roof Framing Notes:

1) All roof framing shall be in accordance with NCRC 2018 CH 8.
2) All dimensional lumber to be Spruce Pine Fur No.2 or better.
3) All flat valleys for over-framed roofs shall be attached using (3) 3" long #9 screws at each main rafter.
4) Sheath with 7/16" OSB w/ 8d nails at 6" o.c. edge and 12" o.c. field.
5) All collar ties to be installed no higher than 1/3rd height eave to ridge up from eave nailed with (5) 10d nails at each end, UON
6) Roof trusses per others; installation per supplier guidelines.

General Construction Notes:

1) All temporary shoring, means and methods are the responsibility of the contractor.
2) All dimensions to be verified by the contractor in the field.
3) Takla Engineering assumes no responsibility for safety of project delivery.
4) Any questions pertaining to structural components should be immediately brought to the attention of Takla Engineering.
5) Limitations: Services provided are in accordance with the standard of practice for structural engineering and within the limits imposed by scope, schedule and budget. The determinations contained in this report are based on conditions observed at the time of the evaluation. No guarantees or warranties, expressed or implied, under this Agreement or otherwise, shall be construed in connection with services provided. Sequencing, shoring, means and methods of construction are considered beyond the scope of this design. Takla Engineering shall not be responsible for any safety aspect of Work.

Abbreviations:

CONC	Concrete
CONT.	Continuous
C.J	Ceiling Joists
CMU	Conc Masonry Unit
CS-WSP	Sheathing per R602.10.3
DIA	Diameter
DBL	Double
DJ / DR	Double Joist / Rafter
EQ	Equal
EE	Each End
FJ	Floor Joist
FND	Foundation
FT	Floor Truss
FTG	Footing
GB	Gypsum Board (shear wall)
GRT	Girder Roof Truss
HGR	Hanger
HD	Holddowns
LBW	Load Bearing Wall
MANUF	Manufacturer
NTS	Not To Scale
O.C.	On Center
O.F.	Over-framed (roof)
PF	Portal Frame
PL	Point Load
P.T.	Pressure Treated
R.T.	Roof Truss
SC	Stud Column
SIM	Similar
STGR	Staggered
SUP	Supplier
TYP.	Typical
UON	Unless Otherwise Noted

NORTH CAROLINA PROFESSIONAL SEAL 050695 11-22-2020 ENGINEER ANDREW ATEF TAKLA

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Andy A. Takla, PE
AndyTakla@TaklaEngr.com
NC PE License # 050695

A.A. Takla Engineering, PLLC
NC Firm License # P-1446
718 Arnette Ave
Durham NC 27701
919-423-0470

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Company: Scott Corcoran
Care of: Scott Corcoran
Subject: Structural Notes
Job No.: 0508-20

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PROJ# 0508-20
DATE: 11/22/20
REVISIONS: 1

SHEET TITLE: STRUCTURAL NOTES