

(64)

Sellers Remodel and Carport

277 SW Belmont Drive, Lake City

Columbia County, Florida

Wind Load Analysis Requirements

(In Compliance with the 2020 Florida Building Code)

Prepared By: Marty J. Humphries, P.E. # 51976
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Description of Project:

This project consists of remodeling the existing garage into a bedroom area and adding a Carport with breezeway. The garage remodel area is 23'7"x 30' in size and the Carport is 24' x 26'.

Walls: 2x4 SPF stud wall with studs 16" O.C. with 7/16" OSB sheathing, felt paper and brick veneer to match existing.

Carport Roof Structure: Pre-engineered roof trusses at 2' on center and 1/2" or 15/32" OSB sheathing

Roof Type: Hip roof (analyzed for 2' eaves, carport and breezeway)

Foundation: Monolithic (See Attached Details)

Windload Data and Exposure:

Basic Wind Speed = 120 mph

Importance Factor = 1.0

Exposure category = B

Height and Exposure Adjustment Coefficient = 1.0

Residential Occupancy = Group R3

Mean roof height = 13'

Roof Cross Slope = 5:12

Eave Overhang= (Analyzed for 2' eaves and carport/breezeway areas)

Wall Height = 8' for existing home, (carport column ht. 10')

Component and Cladding Pressures = Roof (Zone 1=10.0,-24.8, Zone 2=10.0,-32.7, Zone 3=10.0,-44.5), Wall (Zone 4=15.5,-16.9, Zone 5=15.5,-20.8) (units are psf)



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3-15-21

Nailing Pattern Requirements:

- Wall sheathing: Shall be 7/16" Oriented Strand Board(OSB) nailed with 8d common nails 4" on center around edges. Full-depth blocking shall be installed at horizontal joints in sheathing.
- Roof sheathing: Shall be 1/2" or 5/8" OSB sheathing nailed with 8d ring-shank nails 6" on center including overhang areas.

Strapping and Anchor Requirements:

- truss to exterior carport header and breezeway beam locations: Install Simpson model H10A hurricane anchor each truss to bearing location for common and tier trusses, H2.5A for jack trusses under 10' in length, H10A-2 and H3 clip for double trusses and Simpson HCP and H3 clip for hip trusses.
- wall strap tie requirements: 2x4 wall at existing garage door opening install one Simpson model SP4 at bottom 4' on center and one LSTA12 strap connecting wall to existing garage header at 4' on center. Install 1 - 1/4" x 3" Tapcon or Titen 16" on center connecting bottom plate to slab and 2 - #10 x 4 1/2" deck screws connecting top plate to garage header.

Carport/Breezeway Ceilings :

Install 1x4 lathes 16" on center and nail with 2-8d nails at each truss and install solid metal soffit material, solid vinyl soffit material or hardi panel.

Foundation Requirements:

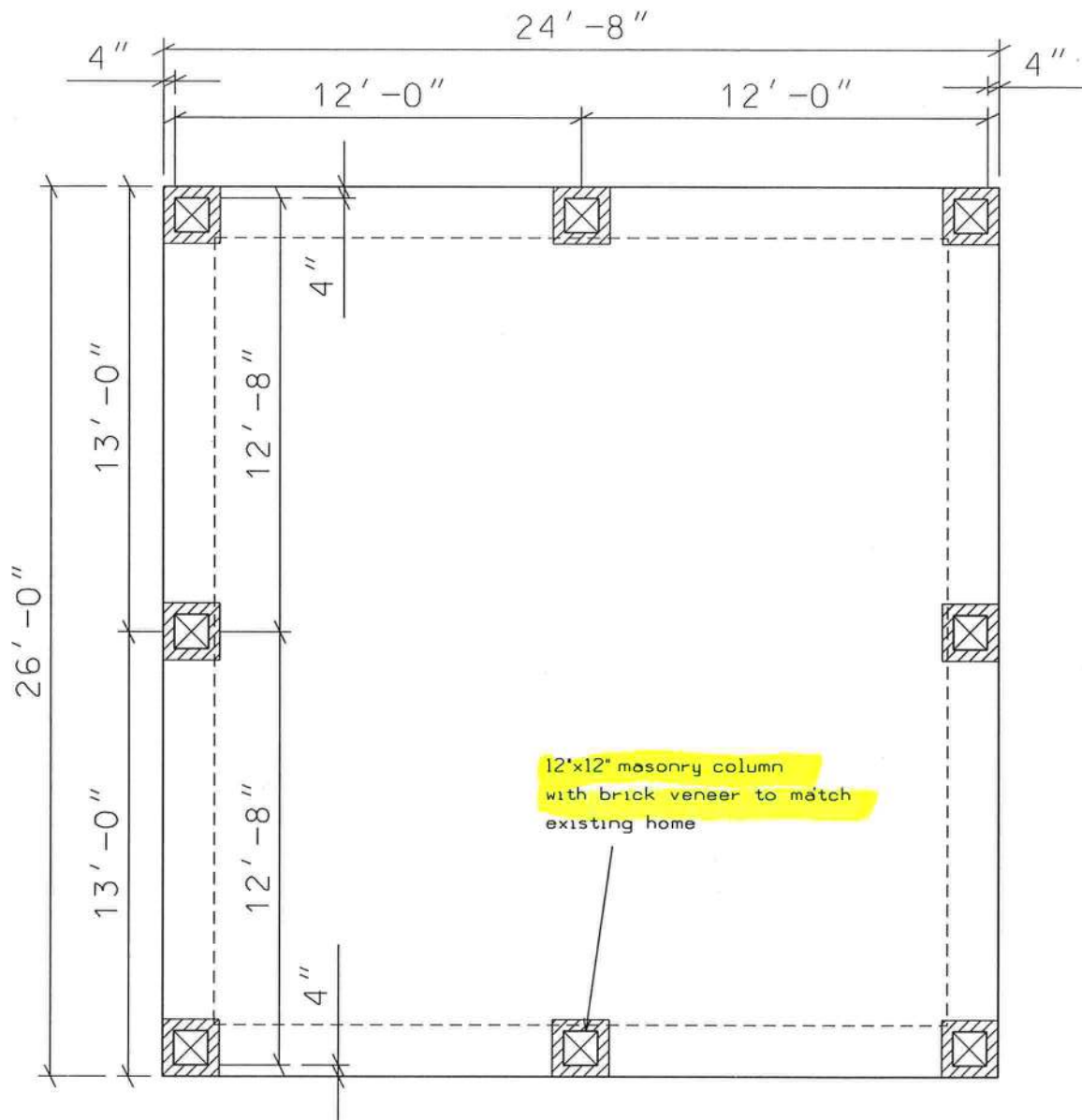
Carport Monolithic Footer: Minimum size of footer shall be 16" wide by 18" deep with 3-#5 rebar continuous and 2-#5 vertical rebar at 12"x12" masonry columns. Fill masonry columns with concrete. 5/8" by 10" anchor bolts with 2" plate washers shall be installed 3' on center, each side of doors, and 9" from corners. (3000 psi concrete min.)

Header Requirements:

- Carport: Header shall be 3 - #2 SYP 2x12's nailed with 4-12d nails 10" on-center. Connect header to columns with Simpson HD3B holdown.
- Breezeway: Header shall be 2 - #2 SYP 2x10's nailed with 4-12d nails 10" on-center. Connect to home and carport with Simpson HUC210-2.

Note: Equivalent capacity anchors may be substituted, installed in accordance with the manufacturers requirements.

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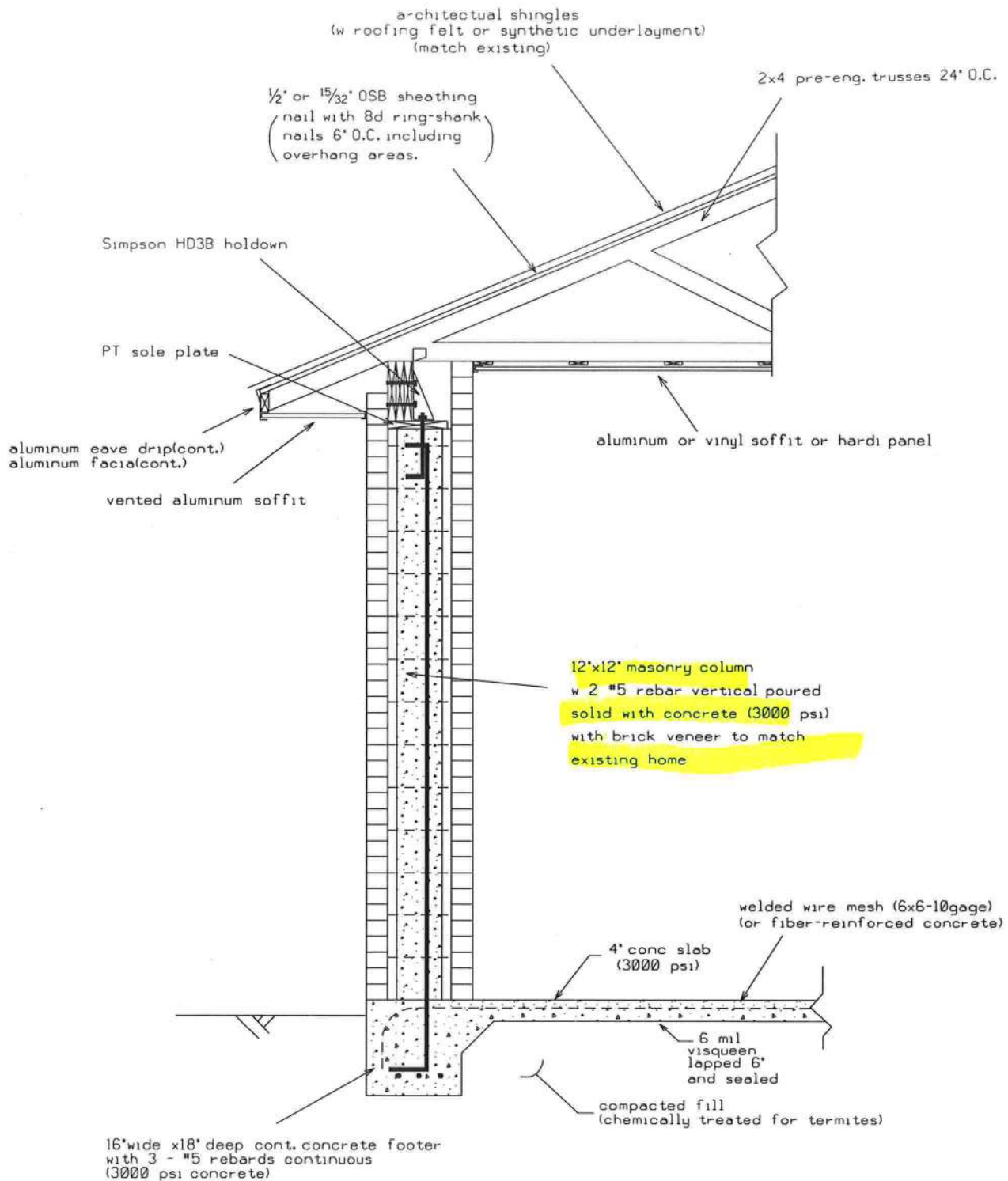
CARPORT FOUNDATION PLAN (N.T.S.)

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Sellers Carport
Columbia County, FL

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Sheet
3
of
4



MASONRY COLUMN/FOOTER DETAIL (N.T.S.)

Note: see sheets 1, 2 & 3 for additional requirements

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Sellers Corport
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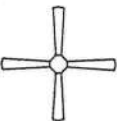
SITE PLAN WITH FLOOR PLAN

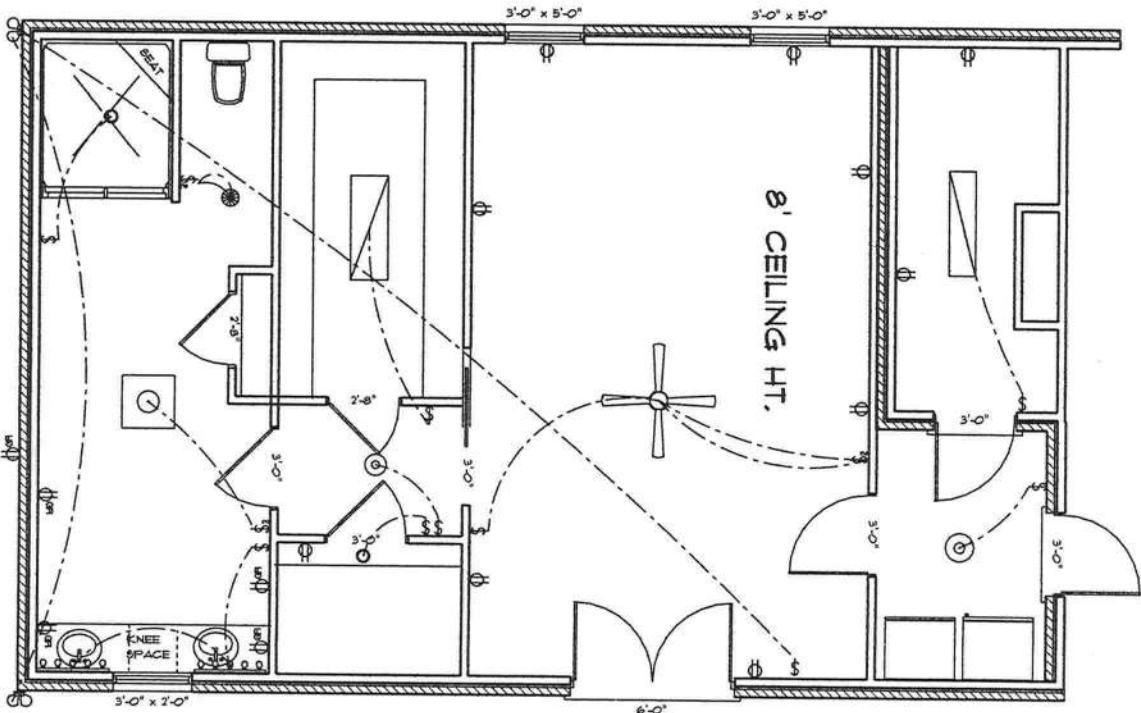


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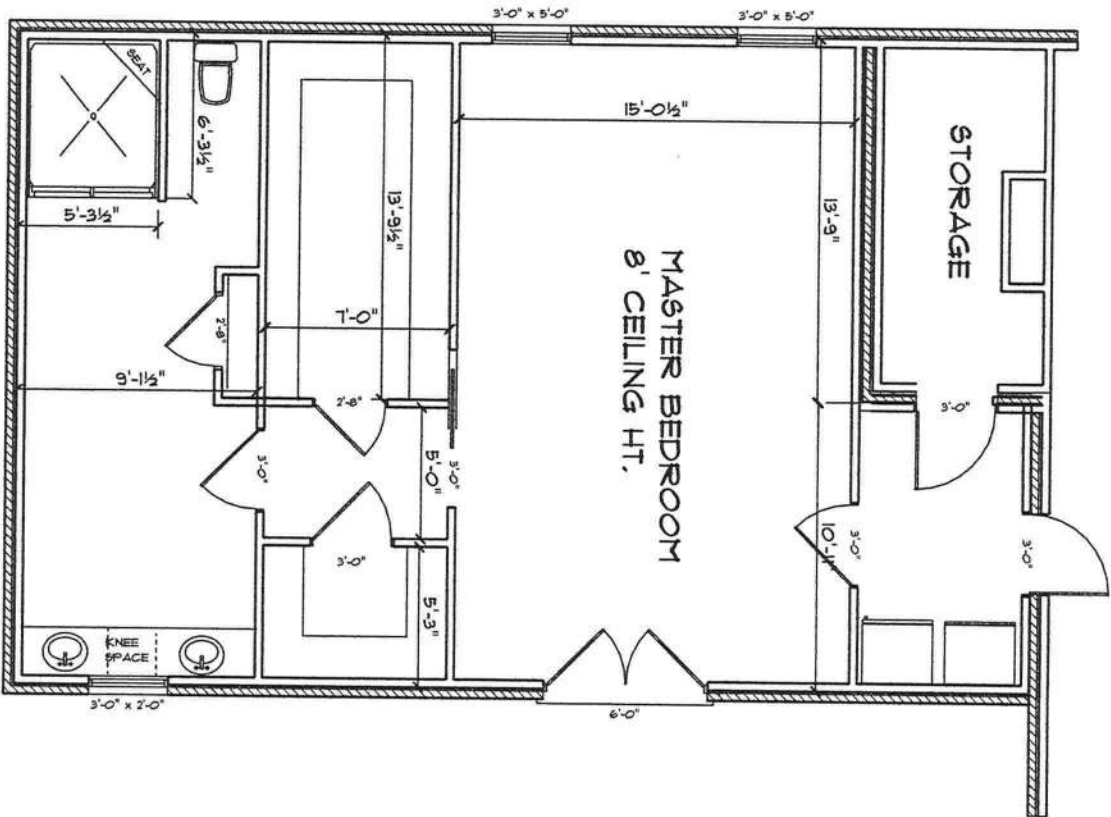
AN ADDITION FOR
MR. & MRS. SELLERS
277 SW BELMONT DR.
LAKE CITY, FLORIDA 32024

MIKE TODD CONSTRUCTION
CGC 006209
749 SE BROWN ST.
LAKE CITY, FL 32025

ELECTRICAL LEGEND		
ELECTRICAL	COUNT	SYMBOL
CEILING FAN LIGHT		
CEILING LAMP FL		
CEILING LAMP SM		
CEILING LAMP LG		
EXT. LIGHT WALL		
EXT. LIGHT CEILING		
CHANDELIER		
PENDANT LIGHT		
EXT. FLOOD LIGHT		
RECESSED CAN LIGHT		
VANITY BAR LIGHT		
OUTLET		
220 V OUTLET		
GFI OUTLET		
WIP OUTLET		
SWITCH		
3 WAY SWITCH		
DOUBLE SWITCH		



ELECTRICAL

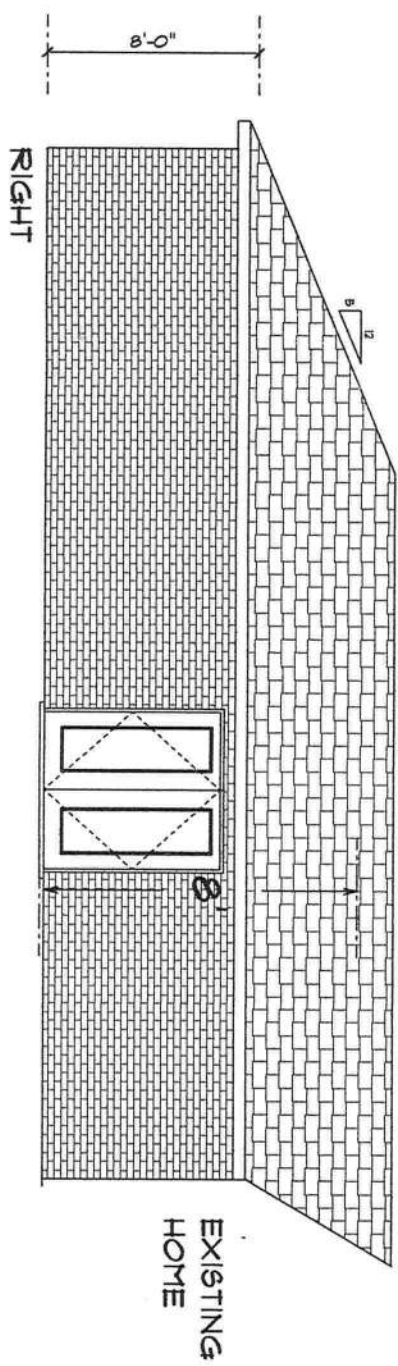
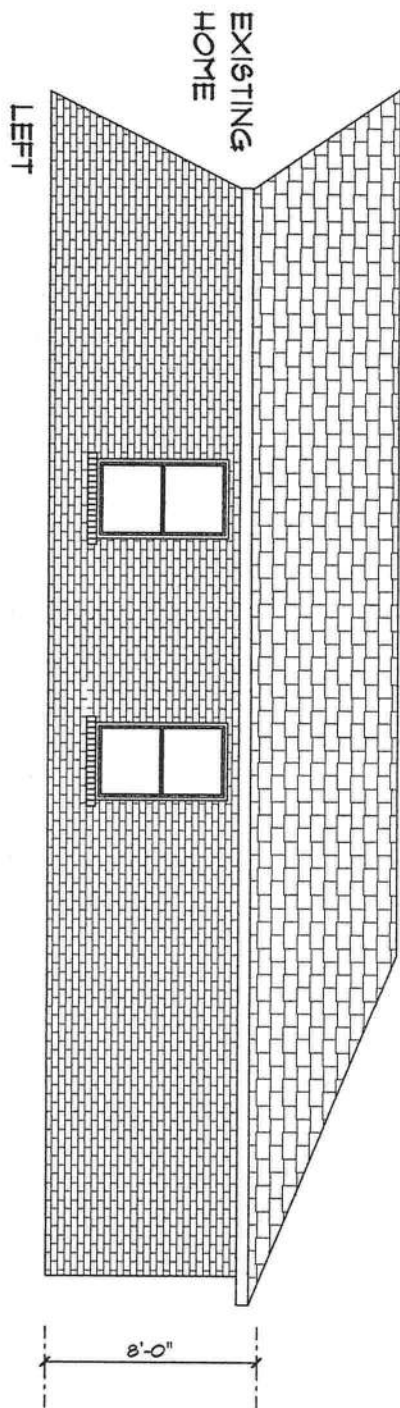
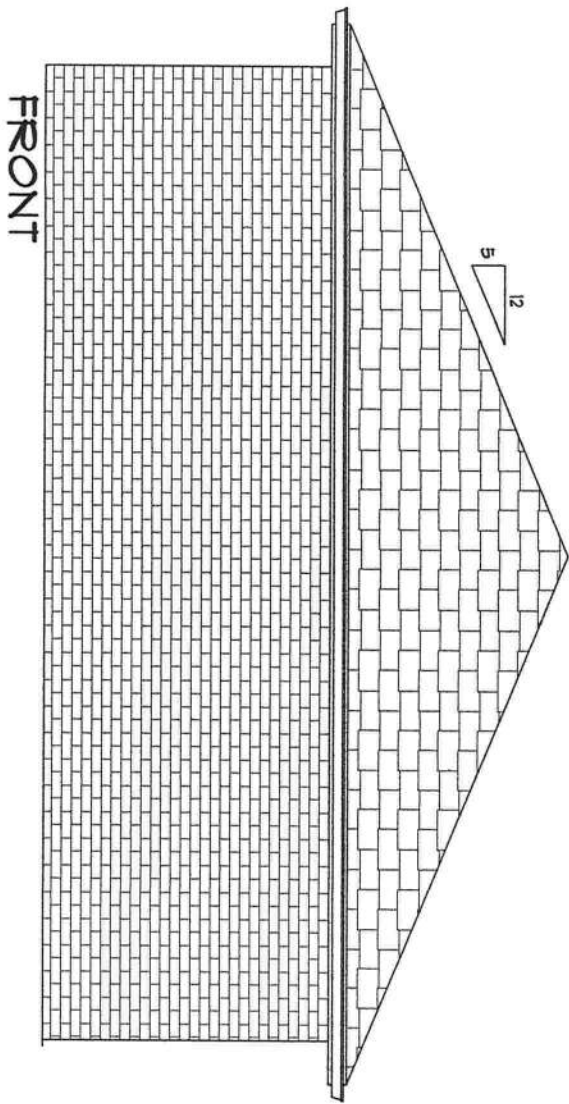


FLOOR PLAN

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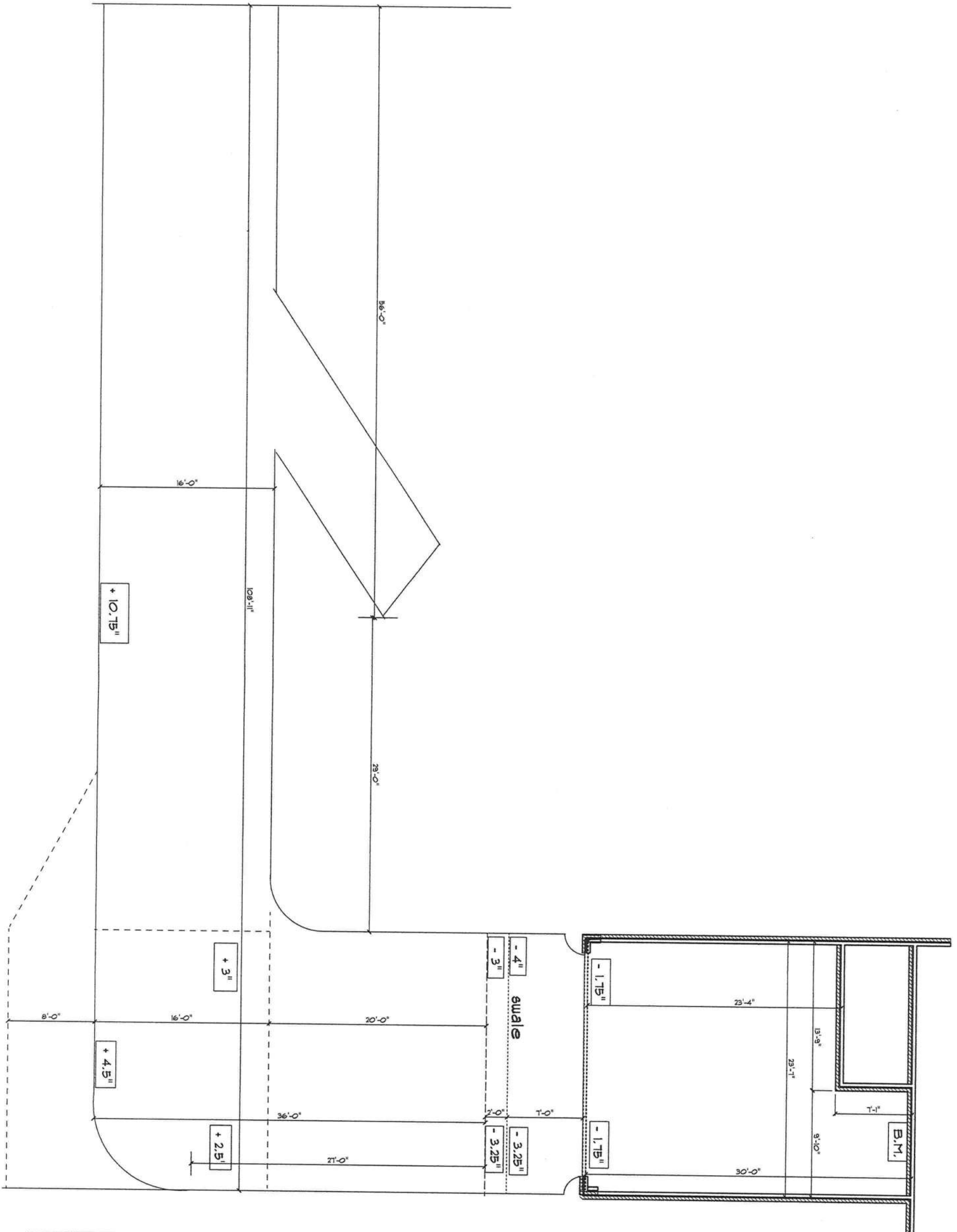


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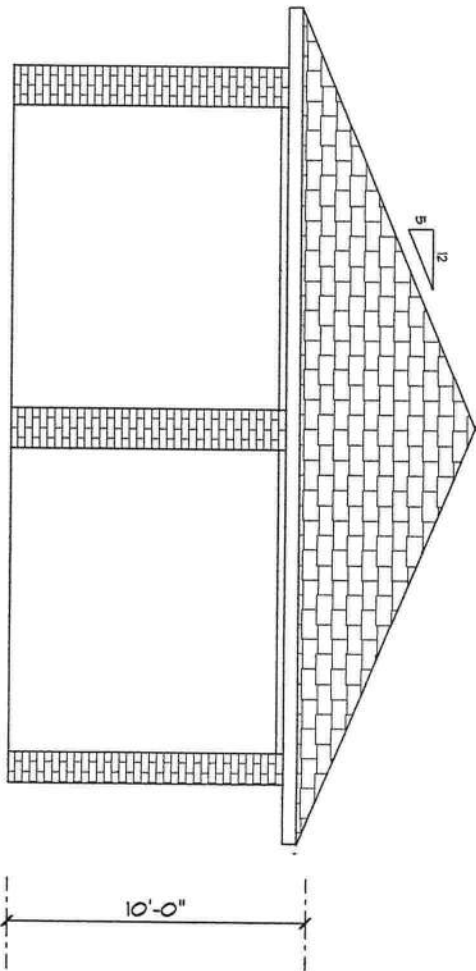
SW BENZ WAY



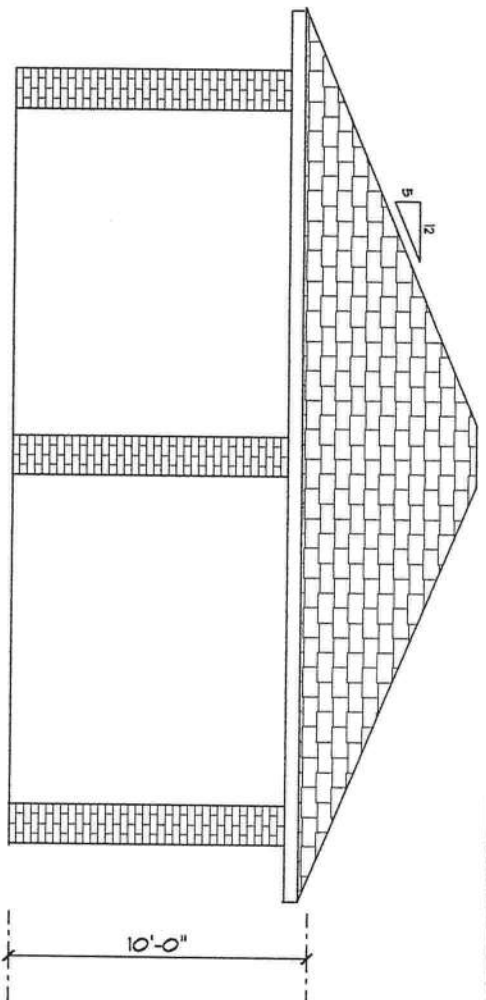
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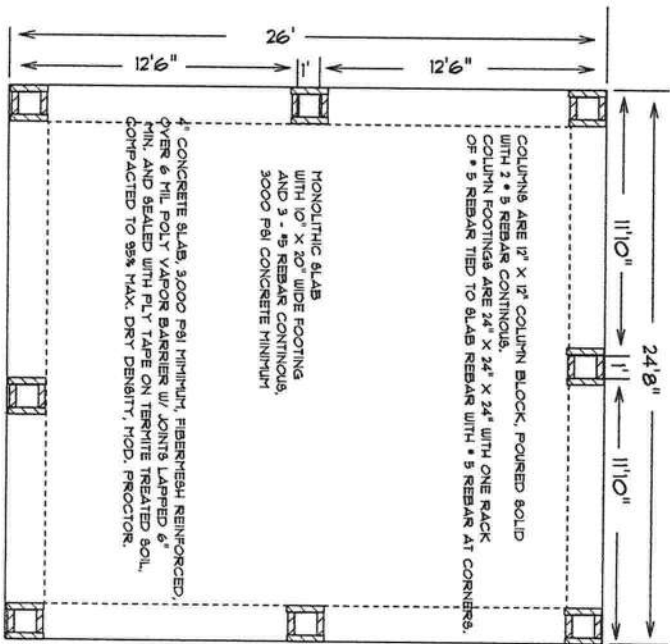
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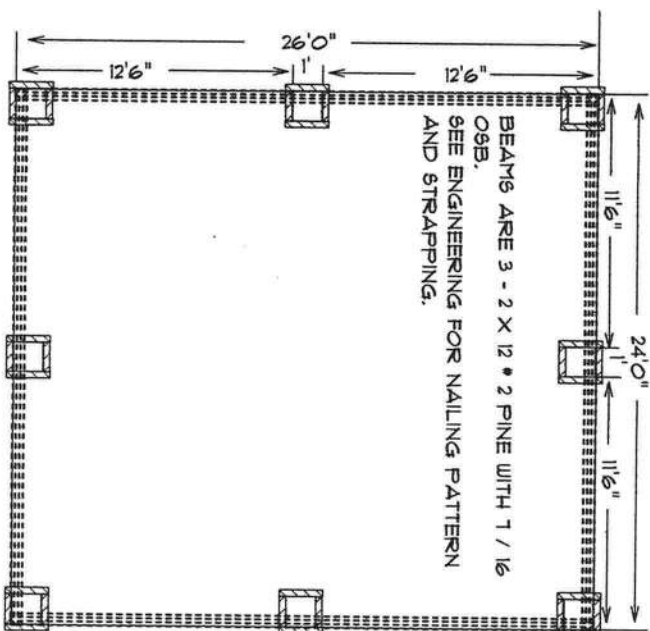
FRONT & REAR



LEFT & RIGHT



FOUNDATION



FLOOR PLAN

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