

ADDRESS : 1353 MIKE WILLIAMS LN SUBDIV: NANCY GODWIN ESTATE
CONTRACTOR : RICARDO PADRON ARICIAGA PHONE : (919) 222-0486
OWNER : LOPEZ ROBERTO ALVAREZ PHONE :
PARCEL : 01-0545- - -0067- - -
APPL NUMBER: 17-50042745 CP MANUFACTURED HOME RA20R/RA20M CRITERIA
DIRECTIONS : T/S: 11/13/2017 03:25 PM LLUCAS ----
1353 MIKE WILLIAMS LN
210 TOWARDS SPRING LAKE - LEFT ON MIKE
WILLIAMS - TAKE A RIGHT AT THE FIRST Y
- TAKE A RIGHT AT THE SECOND Y - HOUSE
WILL BE THE SECOND ON THE LEFT

STRUCTURE: 000 000 76X30 4BDR DWMH 2BTH

FLOOD ZONE : FLOOD ZONE X
BATHS : 2 # BEDROOMS : 4.00
MOBILE HOME YEAR : 2005.00 PROPOSED USE : SFD
SEPTIC - EXISTING? : EXIST WATER SUPPLY : EXIST WELL

PERMIT: CPDW 00 CP MOBILE HOME DOUBLEWIDE

TYP/SQ	REQUESTED COMPLETED	INSP RESULT	DESCRIPTION RESULTS/COMMENTS
A814 01	1/22/18 1/22/18	SB AP	ADDRESS CONFIRMATION TIME: 17:00 VRU #: 003077625 1351 MIKE WILLIAMS RD BUNNLEVEL 28323 T/S: 01/22/2018 08:53 AM SBENNETT -----
T501 01	1/22/18 1/22/18	JH DA	R*MOBILE HOME FOUND./ M. WALL TIME: 17:00 VRU #: 003077617 T/S: 01/19/2018 11:25 AM BPETRICH ----- 1) Need engineer letter for over height mobile home. 2) Mill poly under house lapped 12" & pinned in place. 3) Repair all tares under house in belly board. 4) Missing cross over duct. 5) Need to cover all cross over connections. 6) Bond frame. 7) DWV test on drain lines. 8) Support drain lines every 4'. 9) Need 3' landing on back steps at final.
T501 02	2/19/18 2-19-18	TI Op JV	R*MOBILE HOME FOUND./ M. WALL TIME: 17:00 VRU #: 003090644 T/S: 02/16/2018 10:35 AM BPETRICH ----- 3, 6, & 7

COMMENTS AND NOTES

5-1/5-3

MASSENGILL ASSOCIATES, P.A.

CONSULTING ENGINEERING
DESIGN AND PROJECT MANAGEMENT

116 E. MAIN ST. P.O. BOX 695 BENSON, N.C. 27504 - 0695
PHONE: 919-894-2071 FAX: 919-894-7288

DATE: 1-30-18

PROJECT: ROBERTO ALVAREZ

SUBJECT: STRUCTURAL REVIEW OF MOBILE HOME
WIND ANCHORAGE REQUIREMENTS

DEAR: MIR ALVAREZ

I HAVE COMPLETED STRUCTURAL CALCULATIONS TO DETERMINE THE AMOUNT AND TYPE OF WIND ANCHORS WHICH ARE REQUIRED TO MEET THE NORTH CAROLINA BUILDING CODE WIND LOADING CONDITIONS.

THE RESULTS OF MY FINDINGS ARE SHOWN ON SHEET ONE OF THE ATTACHED SKETCHES. CALCULATIONS WERE MADE USING THE VARIOUS TABLES AND REQUIREMENTS OF NCBC TO DETERMINE THE WIND FORCES AND ANCHORAGE REQUIREMENTS AS SHOWN ON SHEET NUMBER TWO.

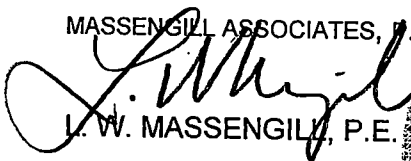
THE CALCULATIONS ARE BASED UPON THE ANCHOR SAFE WORKING WITHDRAWAL CAPACITY OF 3341 POUNDS VERTICAL AND 3341 POUNDS HORIZONTAL AT THE SOIL LEVEL. THE INSTALLED ANCHOR CAPACITY IS THE RESPONSIBILITY OF THE INSTALLER. THE METAL STRAPPING MUST MEET THE MINIMUM REQUIREMENTS OF FEDERAL SPECIFICATION QQ-S-781H FOR TYPE I, CLASS B, GRADE 1 STRAPPING. THE STRAPPING SHALL BE 1.25" BY 0.035 HOT DIP GALVANIZED STEEL. THE FOUNDATION, ANCHORAGE POINTS, AND ANCHORAGE LOCATIONS MUST BE IN ACCORDANCE WITH THE MANUFACTURERS INSTALLATION SPECIFICATIONS. PIER FOUNDATIONS MUST BE PROTECTED FROM EROSION BY YARD WATER REMOVING BEARING SOILS.

SUMMARY: BASED ON MY SITE VISIT AND THE ATTACHED CALCULATIONS THE TYPE AND LOCATION OF THE ANCHORS ARE ADEQUATE TO SUPPORT THE WIND LOADING REQUIREMENTS AS REQUIRED BY THE NCBC.

IF YOU HAVE ANY QUESTION, PLEASE LET US KNOW.

SINCERELY,

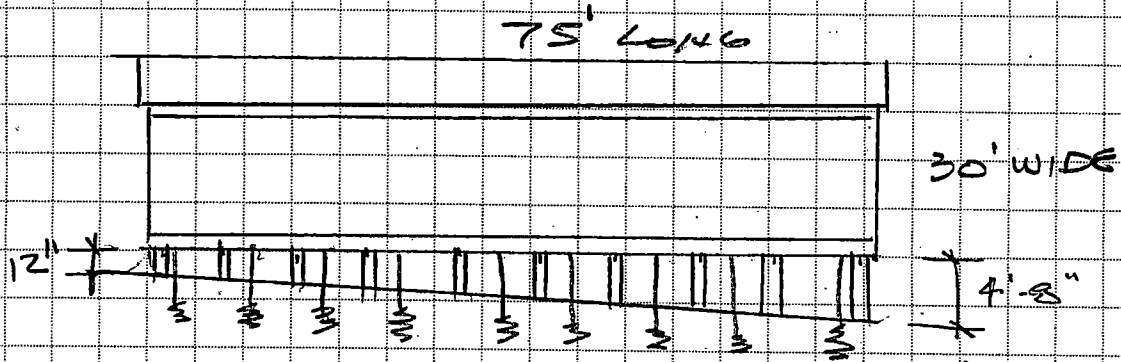
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L. W. MASSENGILL, P.E.



1-30-18



RATED CAPACITY OF TENSION STRAP:

	VERTICAL	4725# CAPACITY	
AT SLOPE 1:1	3341# V		3341 H
AT SLOPE 1:2	2124# V		4248 H
AT SLOPE 1:3	1494# V		4482 H
AT SLOPE 1:4	1145# V		4583 H
AT SLOPE 1:5	926# V		4633 H
AT SLOPE 1:5	4226# V		2113 H

TOTAL HORIZONTAL FORCE = 7980#

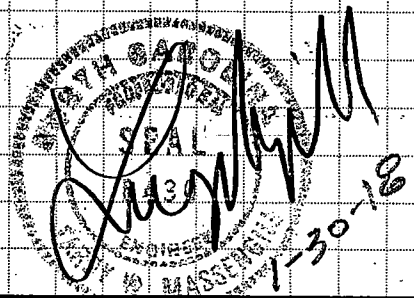
NUMBER OF STRAPS REQ'D = $\frac{7980 \times 1.5}{3341} = 4$

NUMBER OF ACTIVE STRAPS = 9 > 4 OK

NET UPLIFT FORCE = 2

NUMBER OF STRAPS REQ'D = $\frac{27,000 \times 1.5}{3341} = 12$

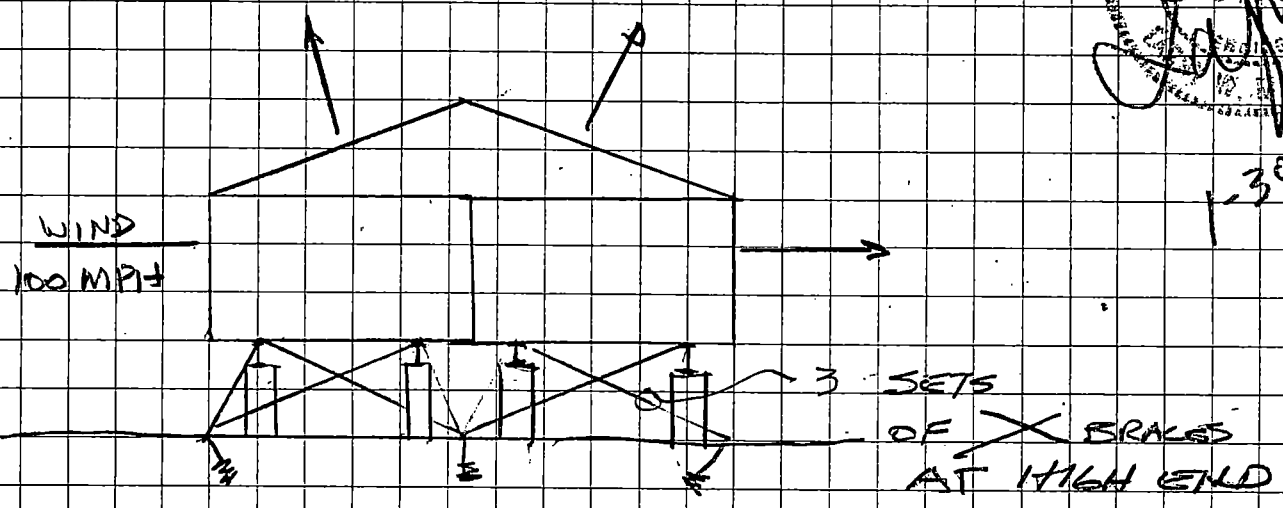
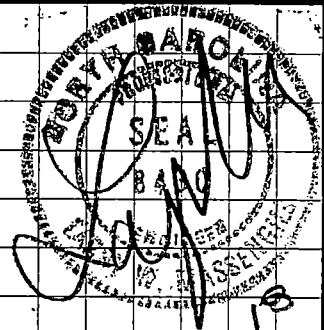
NUMBER OF ACTIVE STRAPS = 19 > 12 OK



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JOB ROBERTO ALVAREZ RES.
 SHEET NO. 5-3 OF 5-3
 CALCULATED BY CHM DATE 1-30-18
 CHECKED BY _____ DATE _____
 SCALE _____

WIND ANCHORAGE REVIEW FOR:
ALVAREZ RES.



DESIGN CONDITIONS: LOCATION HARNETT CO
DESIGN WIND VELOCITY 100
STRUCTURE HEIGHT 12 EXPOSURE B
IMPORTANCE FACTOR 1.0 ROOF SLOPE 3/12
ASCE 7-05 DESIGN WIND PRESSURE 12 37.38

HORIZONTAL PRESSURE "C" = 13.3
 VERTICAL PRESSURE "G" = 13.3 / 9.5 AN 11.4

HORIZONTAL WIND LOAD = $C \times L \times H =$
 $13.3 \frac{\#}{\text{SF}} \times 75 \times 30 = 7980 \#$

VERTICAL UPLIFT LOAD = $G \times L \times W =$
 $11.4 \times 75 \times 30 = 25650$

DEAD LOAD OF UNIT = $12 \text{ PSF} \times (L) (W) = 27,000 \#$
 NET UPLIFT LOAD = $11.4 \times 75 \times 30 = 25,650$