

DATE 11/15/2005

Columbia County Building Permit

PERMIT 000023849

This Permit Expires One Year From the Date of Issue

APPLICANT JD HARRINGTON

PHONE 386 462-5323

ADDRESS 12523

US HIGHWAY 441

ALACHUA

FL

32615

OWNER OTTO & AMARA WINGFIELD

PHONE

FT. WHITE

FL

32038

ADDRESS 465

SW RUM ISLAND TERR

HOMES BY HOUSE CRAFT

PHONE 386 462-5323

LOCATION OF PROPERTY

47S, TL ON 27, TR ON 138, TL ON RUM ISLAND TERR, 3/4 MILE

ON LEFT

TYPE DEVELOPMENT

SFD, UTILITY

ESTIMATED COST OF CONSTRUCTION

68450.00

HEATED FLOOR AREA

1369.00

TOTAL AREA

2199.00

HEIGHT

.00

STORIES

1

FOUNDATION CONC

WALLS FRAMED

ROOF PITCH

6/12

FLOOR SLAB

MAX. HEIGHT

18

Minimum Set Back Requirements:

STREET-FRONT

30.00

REAR

25.00

SIDE

25.00

NO. EX.D.U.

0

FLOOD ZONE

X

DEVELOPMENT PERMIT NO.

PARCEL ID

25-7S-16-04321-068

SUBDIVISION

RUM ISLAND RANCHES UNREC

LOT 26

BLOCK

PHASE

UNIT

TOTAL ACRES

10.00

Culvert Permit No.

Culvert Waiver

Contractor's License Number

CCC038861

Applicant/Owner/Contractor

Y

EXISTING

05-0992-N

BK

LU & Zoning checked by

Approved for Issuance

New Resident

COMMENTS: ONE FOOT ABOVE THE ROAD

FOR BUILDING & ZONING DEPARTMENT ONLY

Temporary Power

Foundation

Monolithic

(Footer/Slab)

Under slab rough-in plumbing

Slab

Sheathing/Nailing

date/app. by

Framing

date/app. by

Heat & Air Duct

Peri. beam (Lintel)

date/app. by

Permanent power

date/app. by

C.O. Final

Culvert

date/app. by

M/H tie downs, blocking, electricity and plumbing

date/app. by

Pool

date/app. by

Reconnection

date/app. by

Pump pole

date/app. by

Utility Pole

date/app. by

Re-roof

date/app. by

M/H Pole

date/app. by

Travel Trailer

date/app. by

CLERKS OFFICE

INSPECTORS OFFICE

FLOOD DEVELOPMENT FEE \$

FLOOD ZONE FEE \$ 25.00

CULVERT FEE \$

TOTAL FEE 442.00

MISC. FEES \$

.00

ZONING CERT. FEE \$

50.00

FIRE FEE \$

.00

WASTE FEE \$

BUILDING PERMIT FEE \$

345.00

CERTIFICATION FEE \$

11.00

SURCHARGE FEE \$

11.00

NOTICE: IN ADDITION TO THE REQUIREMENTS OF THIS PERMIT, THERE MAY BE ADDITIONAL RESTRICTIONS APPLICABLE TO THIS PROPERTY THAT MAY BE FOUND IN THE PUBLIC RECORDS OF THIS COUNTY, AND THERE MAY BE ADDITIONAL PERMITS REQUIRED FROM OTHER GOVERNMENTAL ENTITIES SUCH AS WATER MANAGEMENT DISTRICTS, STATE AGENCIES, OR FEDERAL AGENCIES. "WARNING TO OWNER: YOUR FAILURE TO RECORD A NOTICE OF COMMENCEMENT MAY RESULT IN YOUR PAYING TWICE FOR IMPROVEMENTS TO YOUR PROPERTY. IF YOU INTEND TO OBTAIN FINANCING, CONSULT WITH YOUR LENDER OR AN ATTORNEY BEFORE RECORDING YOUR NOTICE OF COMMENCEMENT."

This Permit Must Be Prominently Posted on Premises During Construction

PLEASE NOTIFY THE COLUMBIA COUNTY BUILDING DEPARTMENT AT LEAST 24 HOURS IN ADVANCE OF EACH INSPECTION. IN ORDER THAT IT MAY BE MADE WITHOUT DELAY OR INCONVENIENCE, PHONE 758-1008. THIS PERMIT IS NOT VALID UNLESS THE WORK AUTHORIZED BY IT IS COMMENCED WITHIN 6 MONTHS AFTER ISSUANCE.

The Issuance of this Permit Does Not Waive Compliance by Permittee with Deed Restrictions.

9. Expiration of Date of Notice of Commencement (The Expiration date is (1) year from the date of recording unless a different date is specified). Other expiration date: **November 8, 2006**

8. In addition to himself, owner(s) designates: To receive a copy of lienor's notice as provided in Section 713.13(1)(B), Florida Statutes

7. Persons within the State of Florida designated by owner upon whom notices or other documents may be served as provided by Section 713.13(1)(A)7: Florida Statutes: None

6. Lender Information: **Bismark Mortgage Company**
10500 NE 8th Street, Suite 700, Bellevue, WA 98004

5. Surety:

4. Contractor: **John D. Harrington, t/a Homes By House Craft, LLC**
12523 NW US Hwy 441, Alachua, FL 32615

a. Interest in property: **Fee Simple**

3. Owner Information: **Mara Wingfield and Otto Wingfield**

2. General Description of Improvements: **Single Family Residence**

Parcel I.D.: **R04321-068**

S 1/2 OF N 1/2 OF NW 1/4 OF SW 1/4 OF SECTION 25, TOWNSHIP 7 SOUTH, RANGE 16 EAST, LESS ROAD RIGHT OF WAY AND UTILITY EASEMENTS, COLUMBIA COUNTY, FLORIDA; ALSO KNOWN AS TRACT NO. 26, SECTION 1, RUM ISLAND RANCHES.

1. Description of Property: **465 SW Rum Island Terrace Fort White, Florida 32038**

The undersigned hereby gives notice that improvements will be made to certain real property, and in accordance with Chapter 713, Florida Statutes, the following information is provided in this Notice of Commencement.

County of **Alachua**

State of **Florida**

NOTICE OF COMMENCEMENT

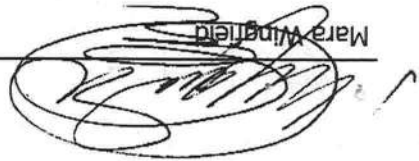
Inst:2005028586 Date:11/16/2005 Time:15:59
DC,P.Dewitt Cason,Columbia County B:1065 P:822

Prepared by and Return to:
Deborah Bissell, an employee of
First American Title Insurance Company
23335 NW County Road 236, Suite 10
High Springs, Florida 32643
(386)454-2727

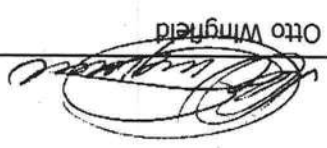
Turnout # 000023849

Inst:2005028586 Date:11/16/2005 Time:15:59
DC, P. Dewitt Cason, Columbia County B:1065 P:823

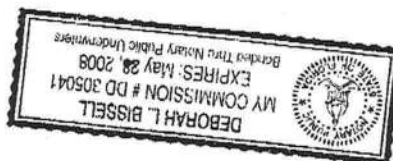
Mara Wingfield



Otto Wingfield



Inst:2005028586 Date:11/16/2005 Time:15:59
DC,P.Dewitt Cason,Columbia County B:1065 P:824



NOTARY PUBLIC
My Commission Expires: _____
Notary Print Name _____
My Commission Expires: _____

THE FOREGOING INSTRUMENT WAS ACKNOWLEDGED before me on **November 08, 2005**, by **Mara and Otto Wingfield, husband and wife** who is personally known to me or who has produced a valid driver's license as identification.

County of **Alachua**

State of **Florida**

Columbia County Building Permit Application

Revised 9-23-

For Office Use Only Application # 0509-71 Date Received 8/10/05 By JW Permit # 23849

Application Approved by - Zoning Official OK Date 10.10.05 Plans Examiner OK Date 10-5-05

Flood Zone X Development Permit N/A Zoning A-3 Land Use Plan Map Category A-3 Comments Original 2-24-05, A-3

Applicants Name John Harrington Address 12523 US Hwy 441 heading FL 32615 Phone 386-462-5323

Owners Name Otto & Angela Wingfield Address 465 SW Rum Island Terr Fort White FL 32038 Phone _____

Contractors Name Homes by House Craft Address 12523 US Hwy 441 heading FL Phone _____

Fee Simple Owner Name & Address Curth

Bonding Co. Name & Address _____

Architect/Engineer Name & Address Mark Disosway Box 868 Lake City

Mortgage Lenders Name & Address Curth

Circle the correct power company - FL Power & Light - Clay Elec. - Suwannee Valley Elec. - Progressive Energy

Property ID Number 25-75-16-04321-068 Subdivision Name SW Rum Island Estimated Cost of Construction 139,000

Driving Directions SR 47 South to Ft White TL on SR 27 TL on CR 138 TL on Rum Island Terr Site 3/4 mile on left

Type of Construction Masonry - STD Number of Existing Dwellings on Property _____

Total Acreage 10 Lot Size _____ Do you need a - Culvert Permit or Culvert Waiver or Have an Existing Driv _____

Actual Distance of Structure from Property Lines - Front 50+ Side 50+ Side 50+ Rear 50+

Total Building Height 18' Porches 340 Number of Stories 1 Heated Floor Area 1369 Roof Pitch 6/12

Application is hereby made to obtain a permit to do work and installations as indicated. I certify that no work or all laws regulating construction in this jurisdiction.

OWNERS AFFIDAVIT: I hereby certify that all the foregoing information is accurate and all work will be done in compliance with all applicable laws and regulating construction and zoning.

WARNING TO OWNER: YOUR FAILURE TO RECORD A NOTICE OF COMMENCEMENT MAY RESULT IN YOU PAYING TWICE FOR IMPROVEMENTS TO YOUR PROPERTY. IF YOU INTEND TO OBTAIN FINANCING, CONSULT WITH YOUR LENDER OR ATTORNEY BEFORE RECORDING YOUR NOTICE OF COMMENCEMENT.

Owner Builder or Agent (including Contractor) John Harrington

STATE OF FLORIDA COUNTY OF COLUMBIA

Sworn to (or affirmed) and subscribed before me this 24th day of September 2005

Personally known ☒ or Produced Identification ☐

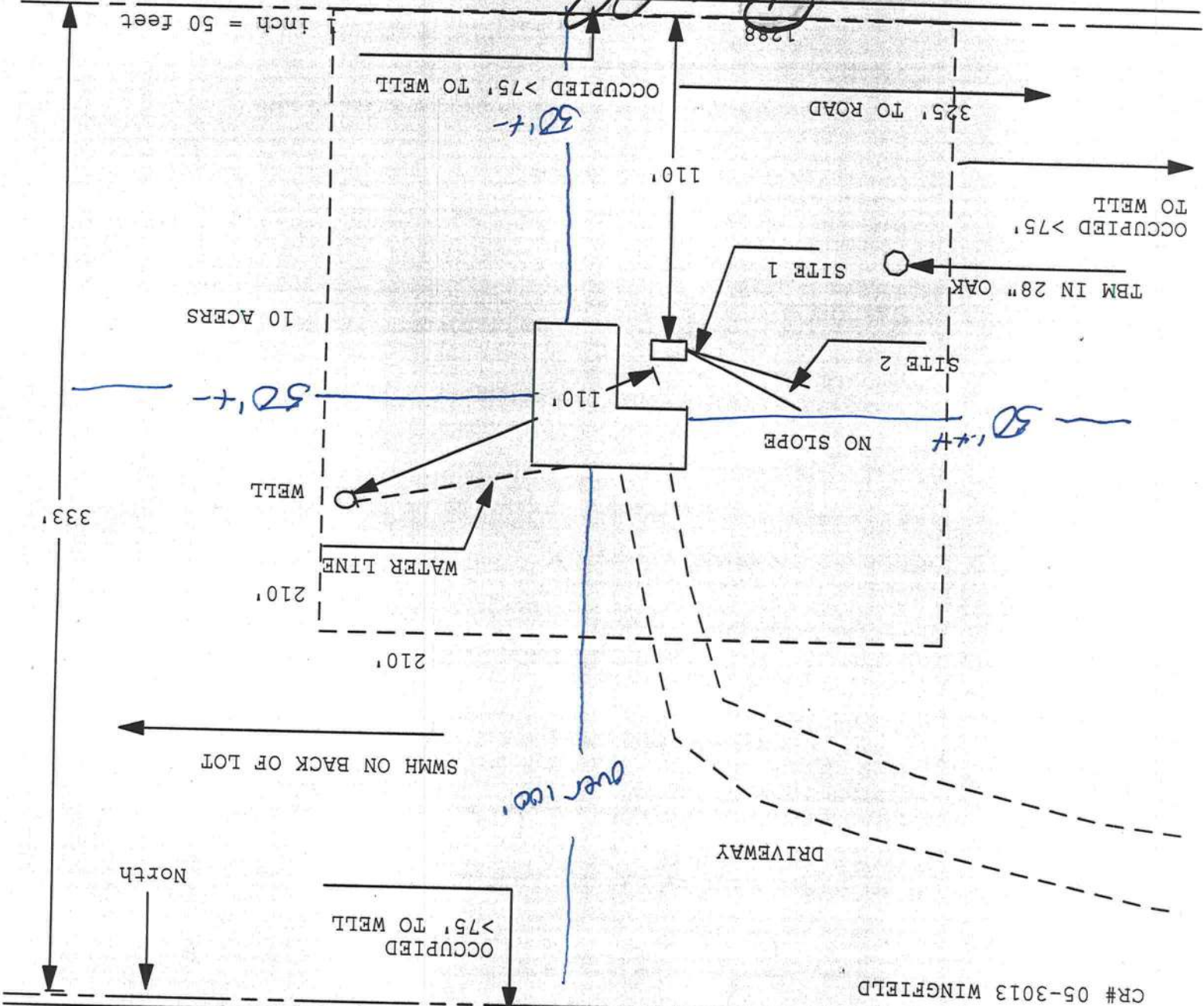
Notary Signature George R. Praloy Notary Seal #DD165440 Notary Commission Expires November 14, 2008

Contractor Signature John Harrington Contractor License Number 038861 Competency Card Number _____

Application for Onsite Sewage Disposal System
Construction Permit. Part II Site Plan
Permit Application Number:

ALL CHANGES MUST BE APPROVED BY THE COUNTY HEALTH UNIT

CR# 05-3013 WINGFIELD



CR# 05-3013 WINGFIELD

ALL CHANGES MUST BE APPROVED BY THE COUNTY HEALTH UNIT

Application for Onsite Sewage Disposal System
Construction Permit. Part II Site Plan
Permit Application Number:

Notes:

By

CPHU

Date 8/12/05

Date

Not Approved

Site Plan Submitted By

[Signature]

**NOTE: The home's estimated energy performance score is only available through the FLA/RES computer program. This is not a Building Energy Rating. If your score is 80 or greater (or 86 for a US EPA/DOE EnergyStar™ designation), your home may qualify for energy efficiency mortgage (EEM) incentives if you obtain a Florida Energy Gauge Rating. Contact the Energy Gauge Hotline at 321/638-1492 or see the Energy Gauge web site at www.fsec.ucf.edu for information and a list of certified Raters. For information about Florida's Energy Efficiency Code For Building Construction contact the Department of Community Affairs at 850/487-1824.*

Code Compliance Checklist
Residential Whole Building Performance Method A - Details

ADDRESS: Rum Island Terr, Fort White, FL

PERMIT #:

6A-21 INFILTRATION REDUCTION COMPLIANCE CHECKLIST

COMPONENTS	SECTION	REQUIREMENTS FOR EACH PRACTICE	CHECK
Exterior Windows & Doors	606.1.ABC.1.1	Maximum: .3 cfm/sq. ft. window area, .5 cfm/sq. ft. door area.	✓
Exterior & Adjacent Walls	606.1.ABC.1.2.1	Caulk, gasket, weatherstrip or seal between: windows/doors & frames, surrounding wall; penetrations; between wall panels & top/bottom plates; between walls and floor.	✓
Floors	606.1.ABC.1.2.2	Penetrations/openings > 1/8" sealed unless backed by truss or joint members.	✓
Ceilings	606.1.ABC.1.2.3	to the perimeter, penetrations and seams.	✓
		Between walls & ceilings; penetrations of ceiling plane of top floor, around shafts, chases, soffits, chimneys, cabinets sealed to continuous air barrier, gaps in gyp board & top plate; attic access. EXCEPTION: Frame ceilings where a continuous infiltration barrier is installed that is sealed at the perimeter, at penetrations and seams.	✓
Recessed Lighting Fixtures	606.1.ABC.1.2.4	Type IC rated with no penetrations, sealed; or Type IC or non-IC rated, installed inside a sealed box with 1/2" clearance & 3" from insulation; or Type IC rated with < 2.0 cfm from conditioned space, tested.	✓
Multi-story Houses	606.1.ABC.1.2.5	Air barrier on perimeter of floor cavity between floors.	NA
Additional Infiltration reqts	606.1.ABC.1.3	Exhaust fans vented to outdoors, dampers; combustion space heaters comply with NFPA, have combustion air.	✓

6A-22 OTHER PRESCRIPTIVE MEASURES (must be met or exceeded by all residences.)

COMPONENTS	SECTION	REQUIREMENTS	CHECK
Water Heaters	612.1	Comply with efficiency requirements in Table 6-12. Switch or clearly marked circuit breaker (electric) or cutoff (gas) must be provided. External or built-in heat trap required.	✓
Swimming Pools & Spas	612.1	Spas & heated pools must have covers (except solar heated). Non-commercial pools must have a pump timer. Gas spa & pool heaters must have a minimum thermal efficiency of 78%.	✓
Shower heads	612.1	Water flow must be restricted to no more than 2.5 gallons per minute at 80 PSIG.	✓
Air Distribution Systems	610.1	All ducts, fittings, mechanical equipment and plenum chambers shall be mechanically attached, sealed, insulated, and installed in accordance with the criteria of Section 610. Ducts in unconditioned attics: R-6 min. insulation.	✓
HVAC Controls	607.1	Separate readily accessible manual or automatic thermostat for each system.	✓
Insulation	604.1, 602.1	Ceilings-Min. R-19. Common walls-Frame R-11 or CBS R-3 both sides. Common ceiling & floors R-11.	✓

WATER HEATING & CODE COMPLIANCE STATUS

Residential Whole Building Performance Method A - Details

ADDRESS: Rum Island Terr, Fort White, FL, PERMIT #:

BASE						AS-BUILT					
WATER HEATING											
Number of Bedrooms			X Multiplier = Total			Tank EF			Number of Bedrooms		

WINTER CALCULATIONS

Residential Whole Building Performance Method A - Details

ADDRESS: Rum Island Terr, Fort White, FL,

PERMIT #:

BASE	Winter Base Points: 11040.1	Total Winter X System = Heating Points	11040.1	0.6274	6926.5
AS-BUILT	Winter As-Built Points: 15461.3	Total X Cap X Duct X System X Credit = Heating Points	15461.3	1.00	1.250
		Component Ratio Multiplier Multiplier Multiplier Multiplier	1.000	0.426	1.000
		(DM x DSM x AHU)	1.000	0.426	8235.8
			1.000	0.426	8235.8

SUMMER CALCULATIONS

Residential Whole Building Performance Method A - Details

ADDRESS: Rum Island Terr, Fort White, FL, PERMIT #:

BASE		AS-BUILT						
Summer Base Points: 17754.3		Summer As-Built Points: 14710.8						
Total Summer X System = Cooling Points		Total X Cap X Duct X System X Credit = Cooling Points						
Multiplier		Multiplier						
Points		(DM x DSM x AHU)						
0.4266		1.000 (1.090 x 1.147 x 1.00)						
17754.3		1.250						
7574.0		0.284						
14710.8		0.950						
14710.8		4969.4						

BASE								AS-BUILT															
GLASS TYPES .18 X Conditioned X BSPM = Points Floor Area								Type/SC Overhang Omt Len Hgt Area X SPM X SOF = Points															
.18	1369.0	20.04	4938.3					E	2.0	2.9	4.0	42.06	0.62	104.5	Doube, Clear	E	2.0	2.9	4.0	42.06	0.62	104.5	Doube, Clear
				E	2.0	3.3	7.0	42.06	0.66	195.6	Doube, Clear	E	2.0	3.3	7.0	42.06	0.66	195.6	Doube, Clear				
				E	2.0	5.7	34.0	42.06	0.83	1190.5	Doube, Clear	E	2.0	5.7	34.0	42.06	0.83	1190.5	Doube, Clear				
				E	2.0	5.7	34.0	42.06	0.83	546.2	Doube, Clear	E	2.0	5.7	34.0	42.06	0.83	546.2	Doube, Clear				
				E	2.0	5.7	34.0	42.06	0.83	803.3	Doube, Clear	E	2.0	5.7	34.0	42.06	0.83	803.3	Doube, Clear				
				E	2.0	5.7	34.0	42.06	0.89	581.6	Doube, Clear	E	2.0	5.7	34.0	42.06	0.89	581.6	Doube, Clear				
								As-Built Total: 121.0															
WALL TYPES Area X BSPM = Points								Type R-Value Area X SPM = Points															
Adjacent	138.0	0.70	96.6	Concrete, Int Insul, Exterior	6.0	891.0	0.85	757.4	Frame, Wood, Adjacent	11.0	138.0	0.70	96.6										
Exterior	891.0	1.70	1514.7																				
Base Total: 1611.3								As-Built Total: 1029.0															
DOOR TYPES Area X BSPM = Points								Type Area X SPM = Points															
Adjacent	22.0	2.40	52.8	Exterior Insulated	44.0	4.10	180.4																
Exterior	44.0	6.10	268.4																				
Base Total: 321.2								As-Built Total: 66.0															
CEILING TYPES Area X BSPM = Points								Type R-Value Area X SPM X SCM = Points															
Under Attic	1369.0	1.73	2368.4	Under Attic	30.0	1369.0	1.73 X 1.00	2368.4															
				Under Attic	30.0	178.0	1.73 X 1.00	307.9															
Base Total: 2368.4								As-Built Total: 1547.0															
FLOOR TYPES Area X BSPM = Points								Type R-Value Area X SPM = Points															
Slab	0.0(p)	0.0	0.0																				
Raised	1369.0	-3.99	-5462.3																				
Base Total: -5462.3								As-Built Total: 1369.0															
INFILTRATION Area X BSPM = Points								Area X SPM = Points															

Project Name:	Wingfield Residence
Address:	Rum Island Terr
City, State:	Fort White, FL
Owner:	Otto & Amara Wingfield
Climate Zone:	North

Builder:	Homes by House Craft
Permitting Office:	
Permit Number:	
Jurisdiction Number:	

I hereby certify that the plans and specifications covered by this calculation are in compliance with the Florida Energy Code.

PREPARED BY: John D Harrington

DATE: 9-12-05

I hereby certify that this building, as designed, is in compliance with the Florida Energy Code.

OWNER/AGENT:  9-12-05

DATE:

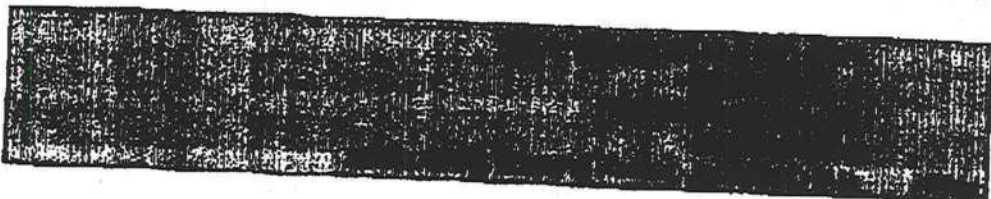
Review of the plans and specifications covered by this calculation indicates compliance with the Florida Energy Code. Before construction is completed this building will be inspected for compliance with Section 553.908 Florida Statutes.

BUILDING OFFICIAL:

DATE:

The seal of the State of Florida is circular. It features a central illustration of a sun rising over a body of water, with a palm tree on the left and a ship on the right. The words "IN GOD WE TRUST" are inscribed in a circle around the top, and "GREAT SEAL OF THE STATE OF FLORIDA" is inscribed around the bottom. The seal is surrounded by a decorative border.

PASS



Reference to: Build permit application Number: 0509-71 John Harrington

Owner Otto Wingfield Lot 26 of Ruu Island

On the date of September 27, 2005 application 0509-71 and plans for construction of a single family dwelling were reviewed and the following information or alteration to the plans will be required to continue processing this application. If you should have any question please contact the above address, or contact phone number (386) 758-1163 or fax any information to (386) 754-7088.

Please include application number 0509-71 when making reference to this application.

1. Please provide a letter from the potable well water contractor giving the following information: size of pump motor, size of pressure tank and cycle stop valve if used.
2. Provide a written document to show ownership of Lot 26 of Ruu Island.
3. Please submit a recorded notice of commencement with this department prior to requesting any inspections on this dwelling.

4. Show on the elevation plans the distance from the nearest roof line of the chimney.
5. Show on the elevation plans the total height of the structure from the established grade to the highest ridge of the roof.
6. Locate on the foundation plans and show the design to be used to support the wood burning fireplace.

7. Please verify that the windows in the sleeping room shall have at least one operable emergency escape and rescue opening. That complies with the following FBC requirements.

R310.1.1 Minimum opening area: All emergency escape and rescue openings shall have a

minimum net clear opening of 5.7 square feet (0.530 m²). Exception: Grade floor openings shall have a minimum net clear opening of 5 square feet (0.465 m²).

R310.1.2 Minimum opening height: The minimum net clear opening height shall be 24 inches (610 mm).

R310.1.3 Minimum opening width: The minimum net clear opening width shall be 20 inches (508 mm).

R310.1.4 Operational constraints: Emergency escape and rescue openings shall be operational from the inside of the room without the use of keys or tools.

R310.2 Window wells.

The minimum horizontal area of the window well shall be 9 square feet (0.84 m²), with a minimum horizontal projection and width of 36 inches (914 mm). The area of the window well shall allow the emergency escape and rescue opening to be fully opened.

8. Please show on the floor plan smoke alarms. Smoke alarms shall be installed in the following locations: In each sleeping room and outside each separate sleeping area in the immediate vicinity of the bedrooms. When more than one smoke alarm is required to be installed within an individual dwelling unit the alarm devices shall be interconnected in such a manner that the activation of one alarm will activate all of the alarms in the individual unit. The alarm shall be clearly audible in all bedrooms over background noise levels with all intervening doors closed.

Thank you,

Joe Halitwanger
Plan Examiner
Columbia County Building Department

331-33
10233
144
1008

1. Please provide a letter from the potable well water contractor giving the following information: size of pump motor, size of pressure tank and cycle stop valve if used.
2. Provide a written document to show ownership of Lot 26 of Run Island.
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Reference to: Build permit application Number: **0509-71 John Harrington**
Owner Otto Wingfield Lot 26 of Rum Island
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Please include application number 0509-71 when making reference to this application.

From: The Columbia County Building Department
Plans Review
135 NE Hernando Av.
P. O Box 1529
Lake City Florida, 32056-1529

minimum net clear opening of 5.7 square feet (0.530 m²). Exception: Grade floor openings shall have a minimum net clear opening of 5 square feet (0.465 m²).

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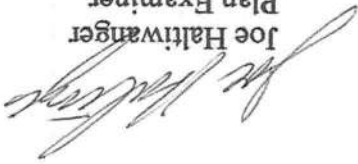
R310.2 Window wells.

The minimum horizontal area of the window well shall be 9 square feet (0.84 m²), with a minimum horizontal projection and width of 36 inches (914 mm). The area of the window well shall allow the emergency escape and rescue opening to be fully opened.

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Thank you,


Joe Haltiwanger
Plan Examiner

Columbia County Building Department

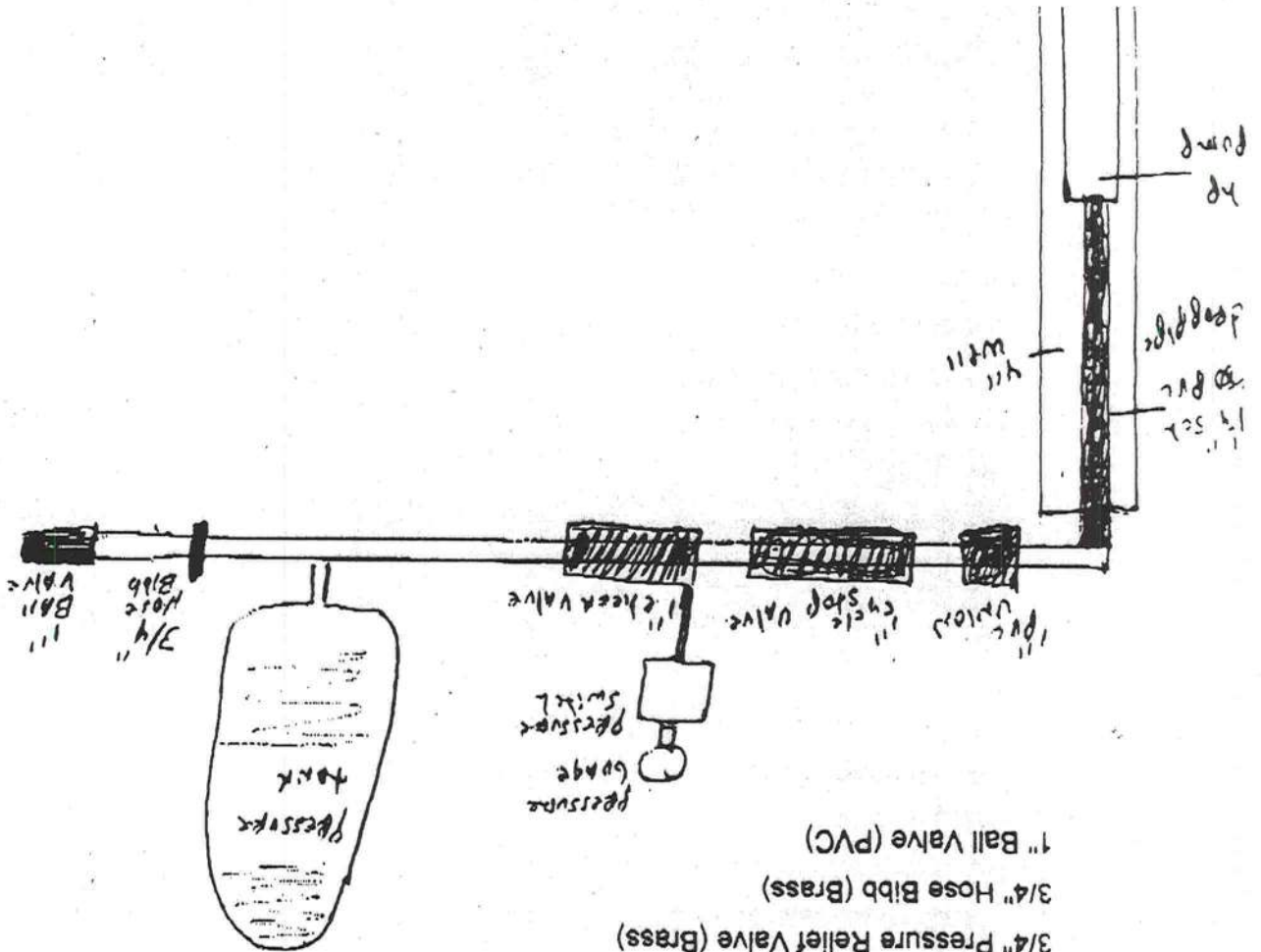
NORTH FLORIDA WATER SYSTEMS, INC.
11814 N.W. 202nd STREET
ALACHUA, FL 32615
(904) 462-7867 (PUMP)

Standard System:

- 4" Well
- 1 HP Submersible Pump
- 60 Gallon Captive Air Tank with Cycle Stop Valve
- OR
- 260 Gallon Tank with No Cycle Stop Valve

- 1 1/4" Schedule #80 PVC Drop Pipe
- All Wiring to Electrical Code

- 1" Union (PVC)
- 1" Check Valve (Brass)
- 3/4" Pressure Relief Valve (Brass)
- 3/4" Hose Bibb (Brass)
- 1" Ball Valve (PVC)



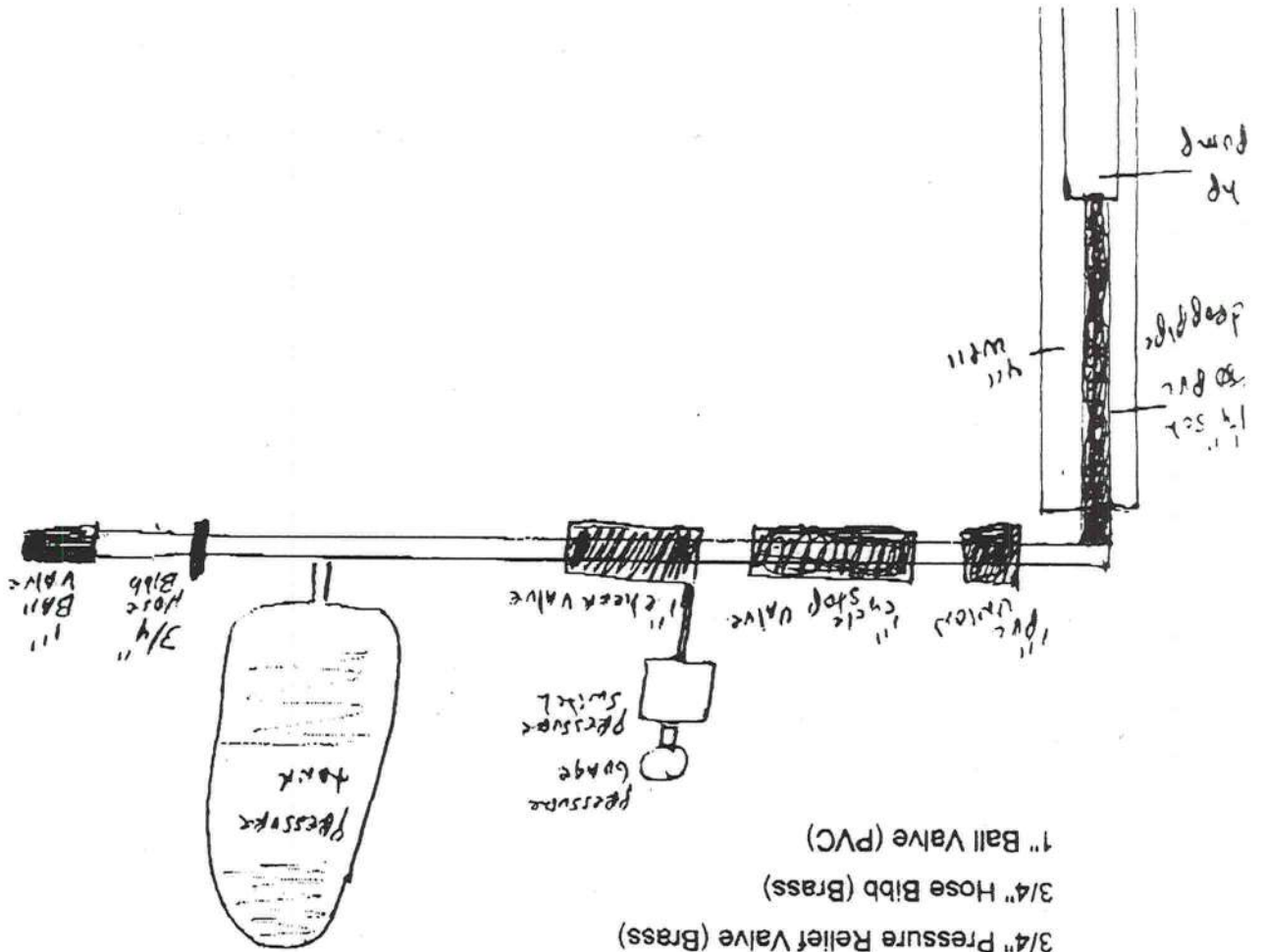
NORTH FLORIDA WATER SYSTEMS, INC.
11814 N.W. 202ND STREET
ALACHUA, FL 32615
(904) 462-7867 (PUMP)

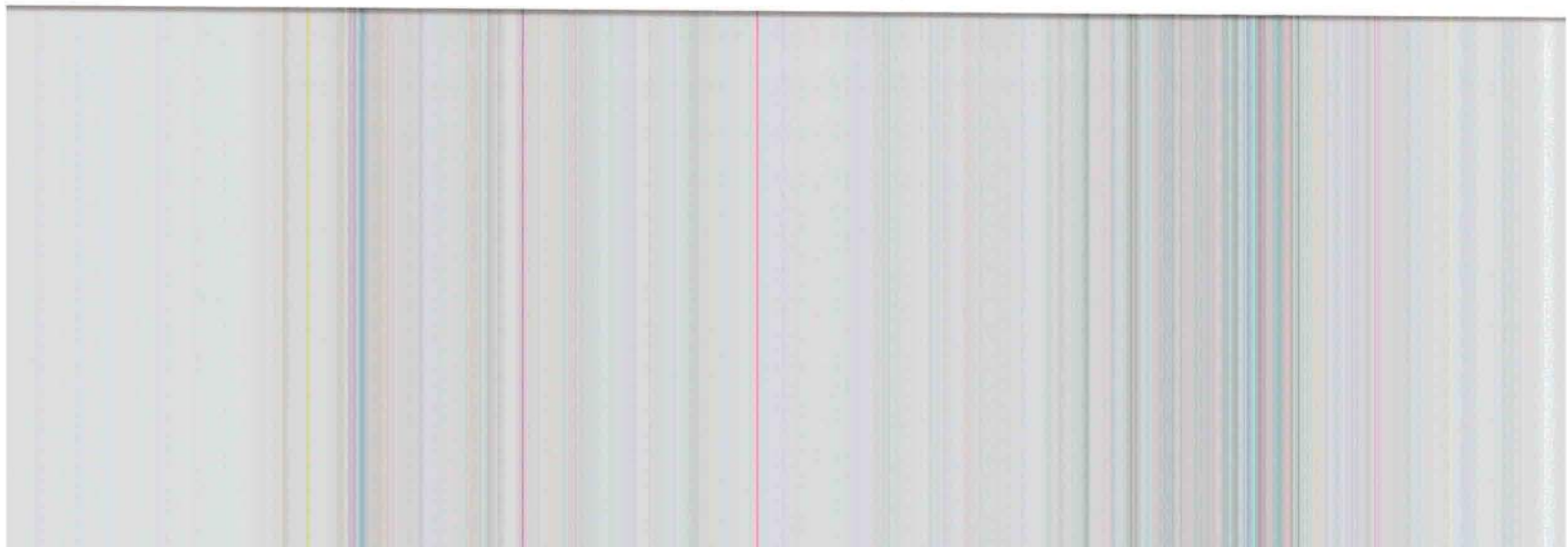
Standard System:

- 4" Well
- 1 HP Submersible Pump
- 60 Gallon Captive Air Tank with Cycle Stop Valve
- OR
- 260 Gallon Tank with No Cycle Stop Valve

- 1 1/4" Schedule #80 PVC Drop Pipe
- All Wiring to Electrical Code

- 1" Union (PVC)
- 1" Check Valve (Brass)
- 3/4" Pressure Relief Valve (Brass)
- 3/4" Hose Bibb (Brass)
- 1" Ball Valve (PVC)

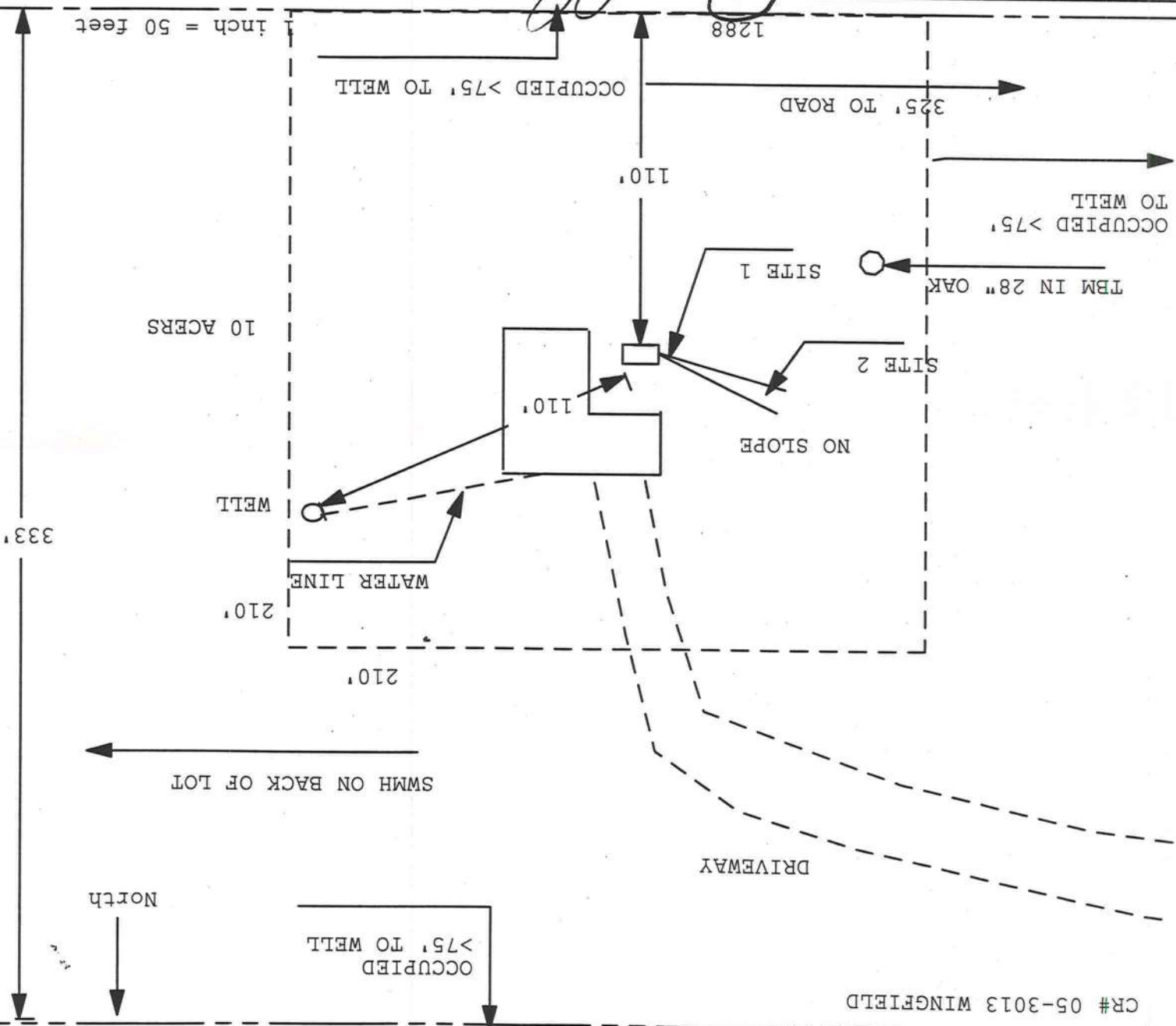




This image shows a single sheet of white paper with horizontal blue ruling lines. There are two vertical red margin lines, one on each side, creating three columns. The paper appears to be from a notebook or a standard sheet of stationery. The lighting is even, and the colors are clear.

ALL CHANGES MUST BE APPROVED BY THE COUNTY HEALTH UNIT

CR# 05-3013 WINGFIELD



1 inch = 50 feet

SWMH ON BACK OF LOT

North

OCCUPIED
>75% TO WELL

DRIVEWAY

10 ACERS

WELL

WATER LINE

210.

NO SLOPE

SITE 2

SITE 1

TBM IN 28" OAK

OCCUPIED > 75' TO WELL

325' TO ROAD

OCCUPIED >75' TO WELL

110.

OTT.

1288

Notes:

Site Plan Submitted By _____
Plan Approved _____ No. _____

Not Approved

Date _____

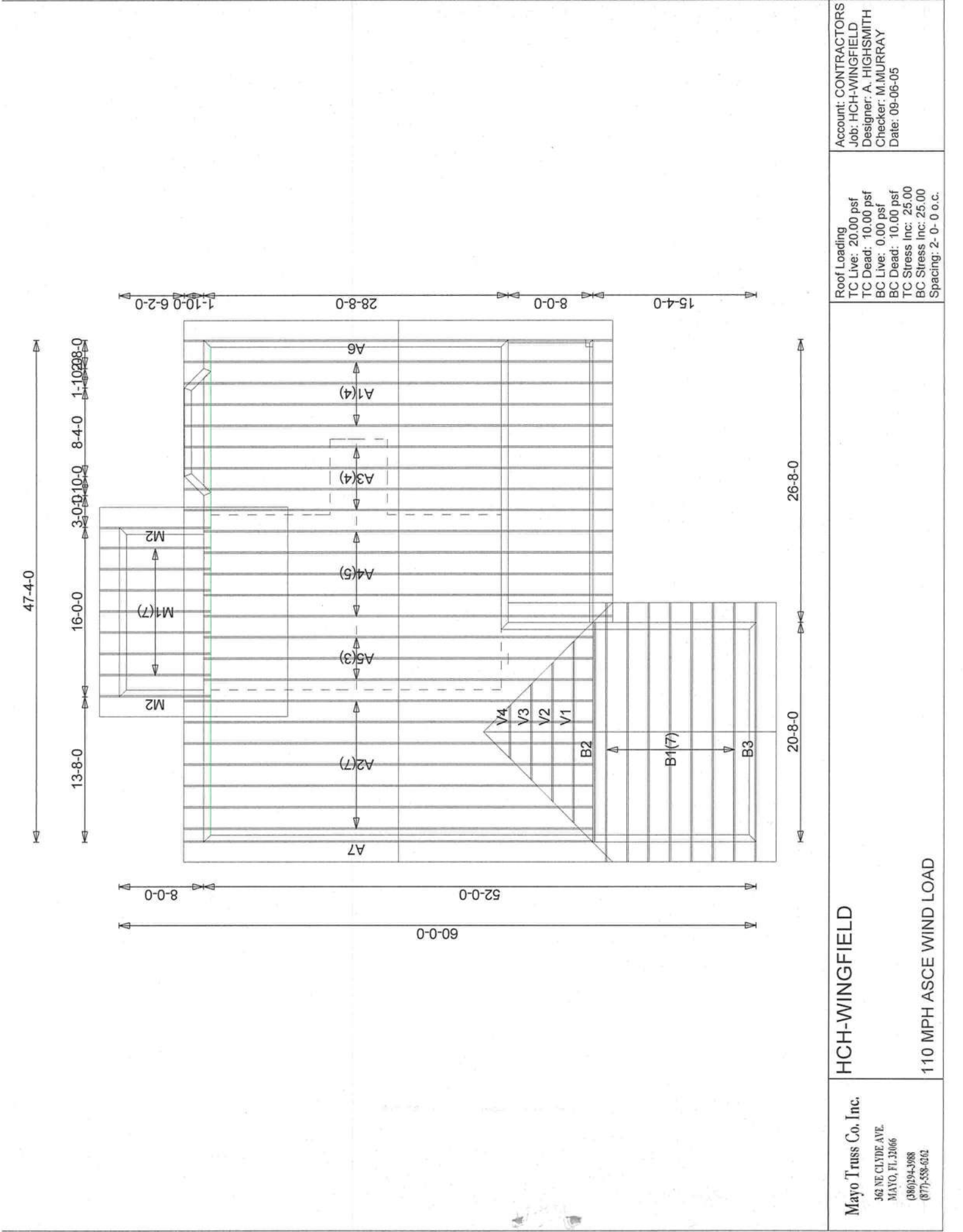
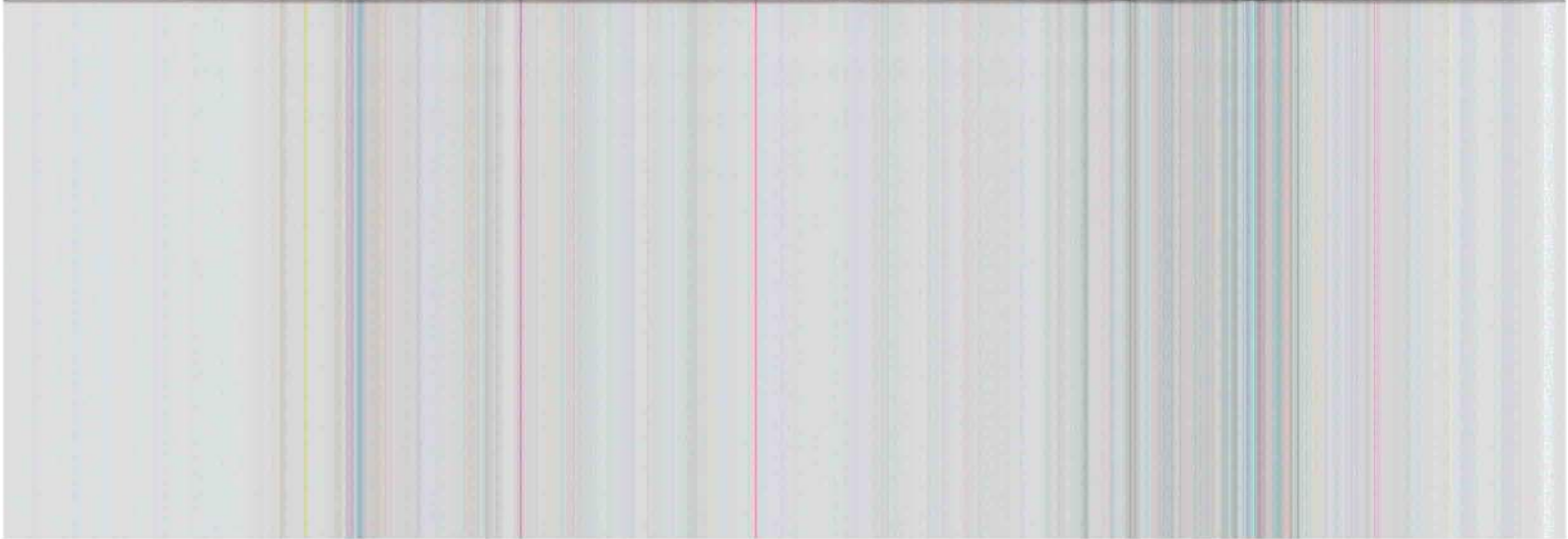
10-3-05

—СРНУ

BY-

Mr. O. M.

Columbia



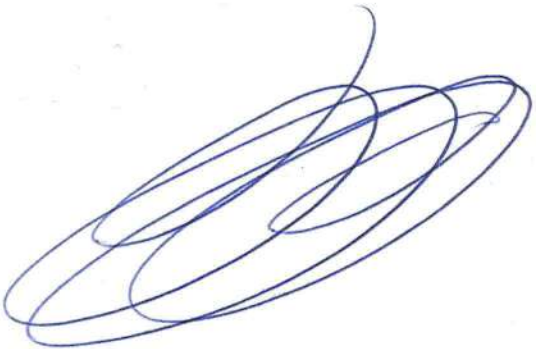
Account: CONTRACTORS
Job: HCH-WINGFIELD
Designer: A. HIGHSMITH
Checker: M. MURRAY
Date: 09-06-05

Roof Loading
TC Live: 20.00 psf
TC Dead: 10.00 psf
BC Live: 0.00 psf
BC Dead: 10.00 psf
TC Stress Inc: 25.00
BC Stress Inc: 25.00
Spacing: 2'-0" o.c.

HCH-WINGFIELD

Mayo Truss Co. Inc.
362 NE CLYDE AVE.
MAYO, FL 32066
(386) 294-3988
(877) 558-6162

110 MPH ASCE WIND LOAD



Truss Design Engineer: Thomas A. Albani
License #: 39380
Address: P.O. Box 280055, Tampa, FL 33682

Date Sealed: 9/2/2005

Date Mark
13 11/17/04 V1
9 11/17/04 B2
5 11/17/04 A5
1 11/17/04 A1

Date Mark
14 11/17/04 V2
10 11/17/04 B3
6 11/17/04 A6
2 11/17/04 A2

Date Mark
15 11/17/04 V3
11 11/17/04 M1
7 11/17/04 A7
3 11/17/04 A3

Date Mark
16 11/17/04 V4
12 11/17/04 M2
8 11/17/04 B1
4 11/17/04 A4

A Professional Engineer's seal affixed to this Index Sheet indicates the acceptance of Professional Engineering responsibilities for individual truss components fabricated in accordance with the listed and attached Truss Specification Sheets. Determination as to the suitability of these individual truss components is the responsibility of the Building Designer, as defined in ANSI/TPI 1-1995, Section 2.2. Permanent files of the original Truss Specification Sheet are maintained by Robbins Engineering, Inc. Questions regarding this Index Sheet and/or the attached Specification Sheets may be directed to the truss fabricator listed above or Robbins Engineering, Inc. (Software - Online Plus)

Notes: Refer to individual truss design drawings for special loading conditions.

ROBBINS ENGINEERING, INC. P.O. Box 280055 Tampa, FL 33682-0055 Phone: (813) 972-1135	Job Number T05090098 Date 9/2/2005 FBC - 2001 Chapter 16 and 23 Specification Quantity 16
Engineering Index Sheet Index Page 1 of 1	

Truss Fabricator: Mayo Truss Company, Inc
Job Reference: HCH-WINGFIELD - WINGFIELD

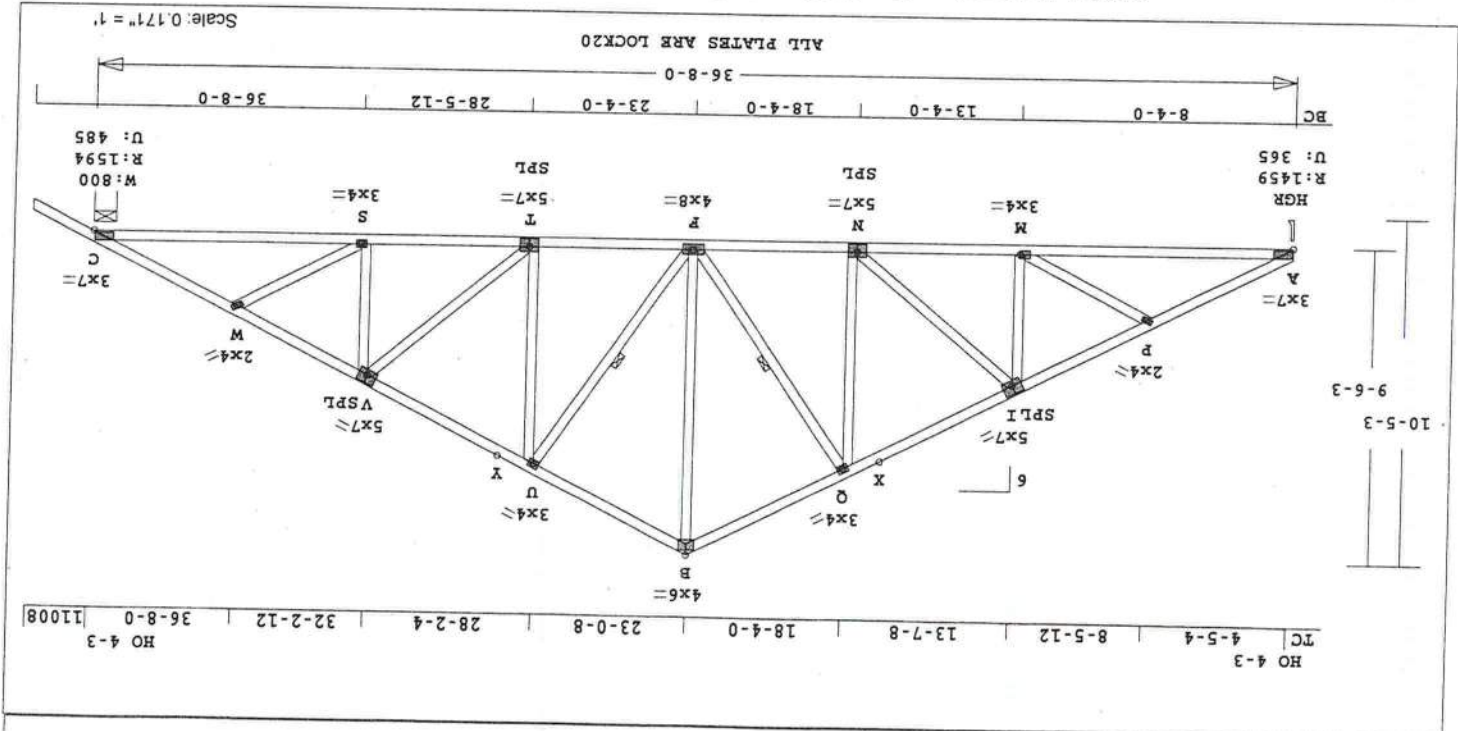
Permit Number:	Lot Number:	Miscellaneous:
The information in this box is for administrative purposes only and is not part of the engineering review.		

Index Page 1 of 1

Standard Loading:
T.C. Live 20 psf
T.C. Dead 10 psf
B.C. Live 0 psf
B.C. Dead 10 psf
Total 40 psf

ANSI/ASCE 7-98
Wind Speed - 110 mph
Mean Roof Ht. - 15 ft.
Exposure Category - B
Occupancy Factor - 1.00
Enclosed
MWFRS

Job	Mark	Quan	Type	Span	Pl-HI	Left OH	Right OH	Engineering
HCH-WINGFIELD	A2	7	TR	360800	6	0	1-10-8	T05090098



Robbins Engineering, Inc./Online Plus™
 Online Plus -- Version 18.0.006
 RUN DATE: 9-1-05
 SIZE LUMBER 1.15FB
 TOP 0.54 2X 4 SP-#2 1720
 BTM 0.77 2X 4 SP-#2 1720
 WBS 0.41 2X 4 SP-#2 1720
 REPEATITIVE MEMBER INCREASES:
 FB 15.0% FT 0.0% FC 0.0%

P-M =	214 C	M-I =	238 T
I-N =	515 C	N-Q =	417 T
Q-F =	658 C	F-B =	1158 T
F-U =	641 C	T-U =	401 T
T-V =	476 C	S-V =	180 T
S-W =	158 T		

DL+LL DEFL = 0.28" IN B-U
 LT DEFL = 0.13" > BRG-SPAN/240
 SPAN/DEFL (DL+LL) = 999

PLATING CONFORMS TO TPI.
 REPORT: NER 691
 ROBINS ENGINEERING, INC.

BASED ON SP LUMBER
 USING GROSS AREA TEST.
 PLATES - 20 GAUGE LOCK
 GRIPPING 632-312 PSI PER PAIR
 INCLUDES 25.0% INCREASE
 TENSION 1339-465 PLI PER PAIR
 SHEAR 784-506 PLI PER PAIR

JT TYPE	PLATE	SIZE	X	Y
A 2001	3.00 X	7.00	6.2	2.9
B 3001	4.00 X	6.00	3.0	2.2
C 2001	3.00 X	7.00	6.2	2.9
F 1070	4.00 X	8.00	CTR	CTR
I 1151	5.00 X	7.00	CTR	CTR
M 1030	3.00 X	4.00	CTR	CTR
N 1131	5.00 X	7.00	CTR	CTR
P 1001	2.00 X	4.00	CTR	CTR
Q 1050	3.00 X	4.00	CTR	CTR
S 1050	3.00 X	4.00	CTR	CTR
T 1151	5.00 X	7.00	CTR	CTR
U 1050	3.00 X	4.00	CTR	CTR
V 1151	5.00 X	7.00	CTR	CTR
W 1001	2.00 X	4.00	CTR	CTR

LATERAL BRACING:
 TOP CHORD - CONTINUOUS
 BTM CHORD - CONTINUOUS
 ONE BRACE - Q-F F-U
 TRUSS SPACING - 24.0 IN.

STANDARD LOADING
 LUMBER STRESS INCREASE: 25.0%
 PLATE STRESS INCREASE: 25.0%
 LIVE DEAD (PSF)
 TOP CHD 20.0
 BTM CHD 10.0
 TOTAL 20.0

SUPPORT CRITERIA
 JT REACT WIDTH
 LBS IN-SX 1594 8-0
 C 1594 8-0

MEMBER CSI P (LBS) M@1ST M@2ND
 TOP CHORDS
 A-P 0.26 2695 C 1117 -343

BTM CHORDS
 A-M 0.63 2403 T 1234 -713

N-F 0.41 1820 T 326 -516
 M-N 0.52 2218 T 713 -326

REVIEWED BY:
 Robbins Engineering, Inc.
 PO Box 280055
 Tampa, FL 33682



Truss Design Engineer: Thomas A. Albani
 License #: 39380
 Address: P.O. Box 280055, Tampa, FL 33682

- NOTES:
1. TRUSSES MANUFACTURED BY -
 2. EMPIRICAL ANALOG IS USED.
 3. WIND LOADS - ANSI/ASCE 7-98
 4. ANCHOR TRUSS FOR A TOTAL
 TC DEAD LOAD = 5.0 PSF
 BC DEAD LOAD = 5.0 PSF
 HORIZONTAL LOAD OF 224 LBS.
 5. FASTEN TRUSS TO BRG A
 WHILE PERMITTING NO UPWARD
 MOVEMENT OF WALL OR BRG.
 6. FASTEN TRUSS TO BRG C
 WHILE PERMITTING NO UPWARD
 MOVEMENT OF WALL OR BRG.
- FOR EXTERIOR ZONE LOCATION
 MAIN WIND-FORCE RES SYSTEM
 FOR WIND SPEED - 110 MPH
 MEAN ROOF HEIGHT - 15'
 EXPOSURE CATEGORY - B
 OCCUPANCY FACTOR - 1.00
 ENCLOSED BUILDING.
 TC DEAD LOAD = 5.0 PSF
 BC DEAD LOAD = 5.0 PSF

Job	Mark	Quan	Type	Span	Pl-H1	Left OH	Right OH	Engineering	T05090098
HCH-WINGFIELD	A6	1	SP	360800	6	0	0		
U# J#HCH-WINGFIELD WINGFIELD									

00 1001 2.00 X 4.00 CTR CTR
 PP 1001 2.00 X 4.00 CTR CTR
 QQ 1001 2.00 X 4.00 CTR CTR
 RR 1001 2.00 X 4.00 CTR CTR
 SS 1001 2.00 X 4.00 CTR CTR
 TT 1001 2.00 X 4.00 CTR CTR
 UU 1001 2.00 X 4.00 CTR CTR
 VV 1001 2.00 X 4.00 CTR CTR

1 SELECTED VIA PLATE MONITOR
 REVIEWED BY:

Robbins Engineering, Inc.

PO Box 280055

Tampa, FL 33682

REFER TO ROBBINS ENG. GENERAL

NOTES AND SYMBOLS SHEET FOR

ADDITIONAL SPECIFICATIONS.

NOTES:

1. TRUSSES MANUFACTURED BY -

Mayo Truss Co. Inc.

2. EMPIRICAL ANALOG IS USED.

3. WIND LOADS - ANSII/ASCE 7-98

TRUSS IS DESIGNED AS A

MAIN WIND-FORCE RES SYSTEM

FOR EXTERIOR ZONE LOCATION

WIND SPEED - 110 MPH

MEAN ROOF HEIGHT - 15'

EXPOSURE CATEGORY - B

OCCUPANCY FACTOR - 1.00

ENCLOSED BUILDING.

IC DEAD LOAD = 5.0 PSF

BC DEAD LOAD = 5.0 PSF

ANCHOR TRUSS FOR A TOTAL

HORIZONTAL LOAD OF 176 LBS.

5. FASTEN TRUSS TO BRG E

FOR 162 LBS OF UPLIFT,

WHILE PERMITTING NO UPWARD

MOVEMENT OF WALL OR BRG.

6. FASTEN TRUSS TO BRG I

FOR 75 LBS OF UPLIFT,

WHILE PERMITTING NO UPWARD

MOVEMENT OF WALL OR BRG.

7. FASTEN TRUSS TO BRG K

FOR 61 LBS OF UPLIFT,

WHILE PERMITTING NO UPWARD

MOVEMENT OF WALL OR BRG.

8. FASTEN TRUSS TO BRG M

FOR 64 LBS OF UPLIFT,

WHILE PERMITTING NO UPWARD

MOVEMENT OF WALL OR BRG.

9. FASTEN TRUSS TO BRG O

FOR 63 LBS OF UPLIFT,

WHILE PERMITTING NO UPWARD

MOVEMENT OF WALL OR BRG.

10. FASTEN TRUSS TO BRG Q

FOR 63 LBS OF UPLIFT,

WHILE PERMITTING NO UPWARD

MOVEMENT OF WALL OR BRG.

11. FASTEN TRUSS TO BRG S

FOR 63 LBS OF UPLIFT,

WHILE PERMITTING NO UPWARD

MOVEMENT OF WALL OR BRG.

12. FASTEN TRUSS TO BRG U

FOR 63 LBS OF UPLIFT,

WHILE PERMITTING NO UPWARD

MOVEMENT OF WALL OR BRG.

13. FASTEN TRUSS TO BRG W

FOR 70 LBS OF UPLIFT,

WHILE PERMITTING NO UPWARD

MOVEMENT OF WALL OR BRG.

14. FASTEN TRUSS TO BRG DD

FOR 73 LBS OF UPLIFT,

WHILE PERMITTING NO UPWARD

MOVEMENT OF WALL OR BRG.

15. FASTEN TRUSS TO BRG FF

FOR 63 LBS OF UPLIFT,

WHILE PERMITTING NO UPWARD

MOVEMENT OF WALL OR BRG.

16. FASTEN TRUSS TO BRG HH

FOR 63 LBS OF UPLIFT,

WHILE PERMITTING NO UPWARD

MOVEMENT OF WALL OR BRG.

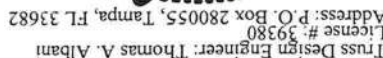
17. FASTEN TRUSS TO BRG JJ

FOR 63 LBS OF UPLIFT,

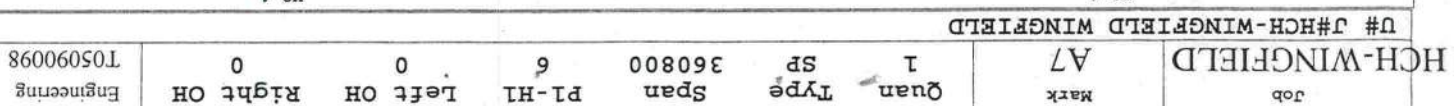
WHILE PERMITTING NO UPWARD

MOVEMENT OF WALL OR BRG.

18. FASTEN TRUSS TO BRG LL
 FOR 63 LBS OF UPLIFT,
 WHILE PERMITTING NO UPWARD
 MOVEMENT OF WALL OR BRG.
 19. FASTEN TRUSS TO BRG NN
 FOR 64 LBS OF UPLIFT,
 WHILE PERMITTING NO UPWARD
 MOVEMENT OF WALL OR BRG.
 20. FASTEN TRUSS TO BRG PP
 FOR 61 LBS OF UPLIFT,
 WHILE PERMITTING NO UPWARD
 MOVEMENT OF WALL OR BRG.
 21. FASTEN TRUSS TO BRG RR
 FOR 75 LBS OF UPLIFT,
 WHILE PERMITTING NO UPWARD
 MOVEMENT OF WALL OR BRG.
 22. FASTEN TRUSS TO BRG VV
 FOR 167 LBS OF UPLIFT,
 WHILE PERMITTING NO UPWARD
 MOVEMENT OF WALL OR BRG.



1	K-X	0.02	162	T	1	4	-1
2	K-M	0.02	162	T	1	1	0
3	M-O	0.02	162	T	1	0	0
4	O-Q	0.02	162	T	1	0	0
5	Q-S	0.02	162	T	1	0	0
6	S-U	0.02	162	T	1	0	0
7	U-W	0.02	162	T	1	0	0
8	W-Y	0.02	162	T	1	0	0
9	Y-Z	0.02	162	T	1	0	0
10	Z-BB	0.02	162	T	1	0	0
11	BB-DD	0.02	162	T	1	0	0
12	DD-FF	0.02	162	T	1	0	0
13	FF-HH	0.02	162	T	1	0	0
14	HH-JJ	0.02	162	T	1	0	0
15	JJ-LT	0.02	162	T	1	0	0
16	LT-NM	0.02	162	T	1	0	0
17	NM-PP	0.02	162	T	1	0	0
18	PP-RR	0.02	162	T	1	0	0
19	RR-TT	0.03	162	T	1	2	-9
20	TT-VV	0.04	162	T	1	36	-36
21	VV-C	0.07	162	T	1	137	-360
22	E-D	204	C	G-P	=	23	C
23	M-L	91	C	K-J	=	79	C
24	I-H	91	C	O-N	=	80	C
25	Q-P	80	C	S-R	=	80	C
26	U-T	80	C	M-V	=	81	C
27	X-Y	83	C	Z-W	=	170	C
28	BB-AA	83	C	DD-CC	=	80	C
29	FF-EE	83	C	HH-GG	=	80	C
30	JJ-II	80	C	LL-KK	=	80	C
31	NN-MM	81	C	PP-SQ	=	79	C
32	RR-QQ	91	C	TT-SS	=	23	C
33	VV-UU	204	C				
34	DL+LT DEF = 0.01" IN A-D						
35	LL DEF < BRG-SPAN/240						
36	SPAN/DEF (DL+LT) = 999						
37	PLATING CONFORMS TO TPI.						
38	REPORT: NER 691						
39	ROBSON ENGINEERING, INC.						
40	BASED ON SP LUMBER						
41	USING GROSS AREA TEST.						
42	PLATES - 20 GAUGE LOCK						
43	GRIPPING 62.2 PSI PER PAIR						
44	INCLUDES 25.1% INCREASE						
45	TENSION 1339 - 465 PLI PER PAIR						
46	SHEAR 784 - 506 PLI PER PAIR						
47	UT TYPE	PLATE	SIZE	X	Y		
48	1A 2003	6.00	X 8.00	8.5	5.3		
49	3001	4.00	X 6.00	7.0	3.2		
50	C 2003	3.00	X 7.00	3.0	3.2		
51	2001	2.00	X 4.00	CTR	CTR		
52	E 1001	2.00	X 4.00	CTR	CTR		
53	F 1001	2.00	X 4.00	CTR	CTR		

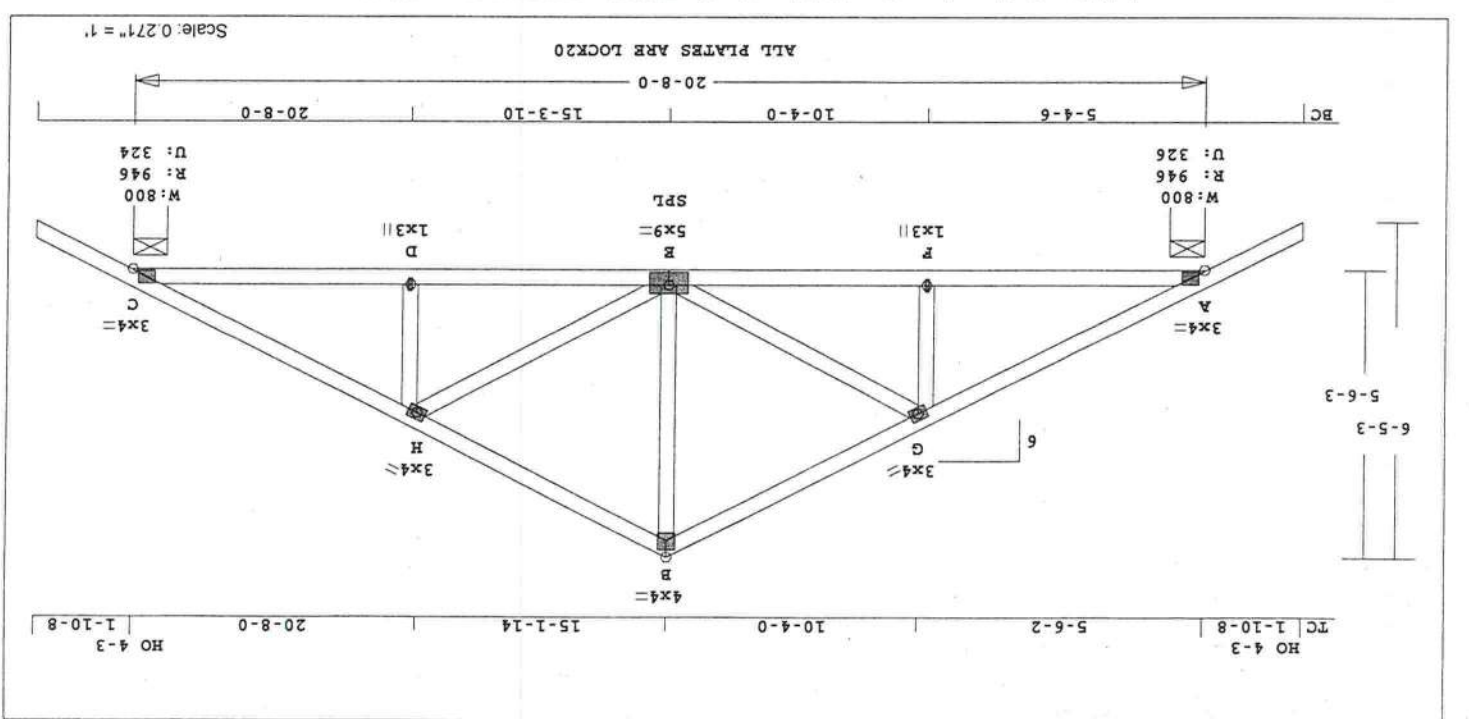
[illegible]

00 1001 2.00 X 4.00 CTR CTR
VU 1001 2.00 X 4.00 CTR CTR
TT 1001 2.00 X 4.00 CTR CTR
SS 1001 2.00 X 4.00 CTR CTR
RR 1001 2.00 X 4.00 CTR CTR
QQ 1001 2.00 X 4.00 CTR CTR
PP 1001 2.00 X 4.00 CTR CTR
OO 1001 2.00 X 4.00 CTR CTR
18. FASTEN TRUSS TO BRG LL
FOR 63 LBS OF UPLIFT,
WHILE PERMITTING NO UPWARD
MOVEMENT OF WALL OR BRG.
19. FASTEN TRUSS TO BRG NN
FOR 64 LBS OF UPLIFT,
WHILE PERMITTING NO UPWARD
MOVEMENT OF WALL OR BRG.
20. FASTEN TRUSS TO BRG PP
FOR 61 LBS OF UPLIFT,
WHILE PERMITTING NO UPWARD
MOVEMENT OF WALL OR BRG.
21. FASTEN TRUSS TO BRG RR
FOR 75 LBS OF UPLIFT,
WHILE PERMITTING NO UPWARD
MOVEMENT OF WALL OR BRG.
22. FASTEN TRUSS TO BRG VV
FOR 167 LBS OF UPLIFT,
WHILE PERMITTING NO UPWARD
MOVEMENT OF WALL OR BRG.
1. TRUSSES MANUFACTURED BY -
Mayo Truss Co., Inc.
2. EMPIRICAL ANALOG IS USED.
3. WIND LOADS - ANSI/ASCE 7-98
TRUSS IS DESIGNED AS A
MAIN WIND-FORCE RES SYSTEM
FOR EXTERIOR ZONE LOCATION
WIND SPEED - 110 MPH
MEAN ROOF HEIGHT - 15'
EXPOSURE CATEGORY - B
OCCUPANCY FACTOR - 1.00
ENCLOSED BUILDING.
TC DEAD LOAD = 5.0 PSF
BC DEAD LOAD = 5.0 PSF
4. ANCHOR TRUSS FOR A TOTAL
HORIZONTAL LOAD OF 176 LBS.
5. FASTEN TRUSS TO BRG E
FOR 162 LBS OF UPLIFT,
WHILE PERMITTING NO UPWARD
MOVEMENT OF WALL OR BRG.
6. FASTEN TRUSS TO BRG I
FOR 75 LBS OF UPLIFT,
WHILE PERMITTING NO UPWARD
MOVEMENT OF WALL OR BRG.
7. FASTEN TRUSS TO BRG K
FOR 61 LBS OF UPLIFT,
WHILE PERMITTING NO UPWARD
MOVEMENT OF WALL OR BRG.
8. FASTEN TRUSS TO BRG M
FOR 64 LBS OF UPLIFT,
WHILE PERMITTING NO UPWARD
MOVEMENT OF WALL OR BRG.
9. FASTEN TRUSS TO BRG O
FOR 63 LBS OF UPLIFT,
WHILE PERMITTING NO UPWARD
MOVEMENT OF WALL OR BRG.
10. FASTEN TRUSS TO BRG Q
FOR 63 LBS OF UPLIFT,
WHILE PERMITTING NO UPWARD
MOVEMENT OF WALL OR BRG.
11. FASTEN TRUSS TO BRG S
FOR 63 LBS OF UPLIFT,
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MOVEMENT OF WALL OR BRG.
12. FASTEN TRUSS TO BRG U
FOR 63 LBS OF UPLIFT,
WHILE PERMITTING NO UPWARD
MOVEMENT OF WALL OR BRG.
13. FASTEN TRUSS TO BRG W
FOR 70 LBS OF UPLIFT,
WHILE PERMITTING NO UPWARD
MOVEMENT OF WALL OR BRG.
14. FASTEN TRUSS TO BRG DD
FOR 73 LBS OF UPLIFT,
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MOVEMENT OF WALL OR BRG.
15. FASTEN TRUSS TO BRG FF
FOR 63 LBS OF UPLIFT,
WHILE PERMITTING NO UPWARD
MOVEMENT OF WALL OR BRG.
16. FASTEN TRUSS TO BRG HH
FOR 63 LBS OF UPLIFT,
WHILE PERMITTING NO UPWARD
MOVEMENT OF WALL OR BRG.
17. FASTEN TRUSS TO BRG JJ
FOR 63 LBS OF UPLIFT,
WHILE PERMITTING NO UPWARD
MOVEMENT OF WALL OR BRG.

1. SELECTED VIA PLATE MONITOR
REVIEWED BY:
Robbins Engineering, Inc.
PO Box 280055
Tampa, FL 33682
REFER TO ROBBINS ENG. GENERAL
NOTES AND SYMBOLS SHEET FOR
ADDITIONAL SPECIFICATIONS.
NOTES:

U# J#HCH-WINGFIELD WINGFIELD

Job	Mark	Quan	Type	Span	Pl-HI	Left OH	Right OH	Engineering	T050900098
	A7	1	SP	360800	6	0	0		



Robbins Engineering, Inc./Online Plus™

APPROX. TRUSS WEIGHT: 129.8 LBS

1. TRUSSES MANUFACTURED BY -

Mayo Truss Co. Inc.

2. EMPIRICAL ANALOG IS USED.

3. WIND LOADS - ANSI/ASCE 7-98

TRUSS IS DESIGNED AS A

MAIN WIND-FORCE RES SYSTEM

FOR EXTERIOR ZONE LOCATION

WIND SPEED - 110 MPH

MEAN ROOF HEIGHT - 15'

EXPOSURE CATEGORY - B

OCCUPANCY FACTOR - 1.00

ENCLOSED BUILDING.

TC DEAD LOAD = 5.0 PSF

BC DEAD LOAD = 5.0 PSF

4. ANCHOR TRUSS FOR A TOTAL

HORIZONTAL LOAD OF 119 LBS.

5. FASTEN TRUSS TO BRG A

FOR 326 LBS OF UPLIFT,

WHILE PERMITTING NO UPWARD

MOVEMENT OF WALL OR BRG.

6. FASTEN TRUSS TO BRG C

FOR 324 LBS OF UPLIFT,

WHILE PERMITTING NO UPWARD

MOVEMENT OF WALL OR BRG.

REPORT: NER 691

ROBBINS ENGINEERING, INC.

BASED ON SP LUMBER

USING GROSS AREA TEST.

PLATES - 20 GAUGE LOCK

GRIPPING 632-312 PSI PER PAIR

INCLUDES 25.0% INCREASE

TENSION 1339-465 PLI PER PAIR

784-506 PLI PER PAIR

SHEAR

JT TYPE

PLATE SIZE

XT

Y

A 2001

3.00 X 4.00

5.2

3.1

B 3001

4.00 X 4.00

2.0

2.2

C 2001

3.00 X 4.00

5.2

3.1

D 1001

1.00 X 3.00

CTR

CTR

E 1170

5.00 X 9.00

CTR

CTR

F 1001

1.00 X 3.00

CTR

CTR

G 1050

3.00 X 4.00

CTR

CTR

H 1050

3.00 X 4.00

CTR

CTR

REVIEWED BY:

Robbins Engineering, Inc.

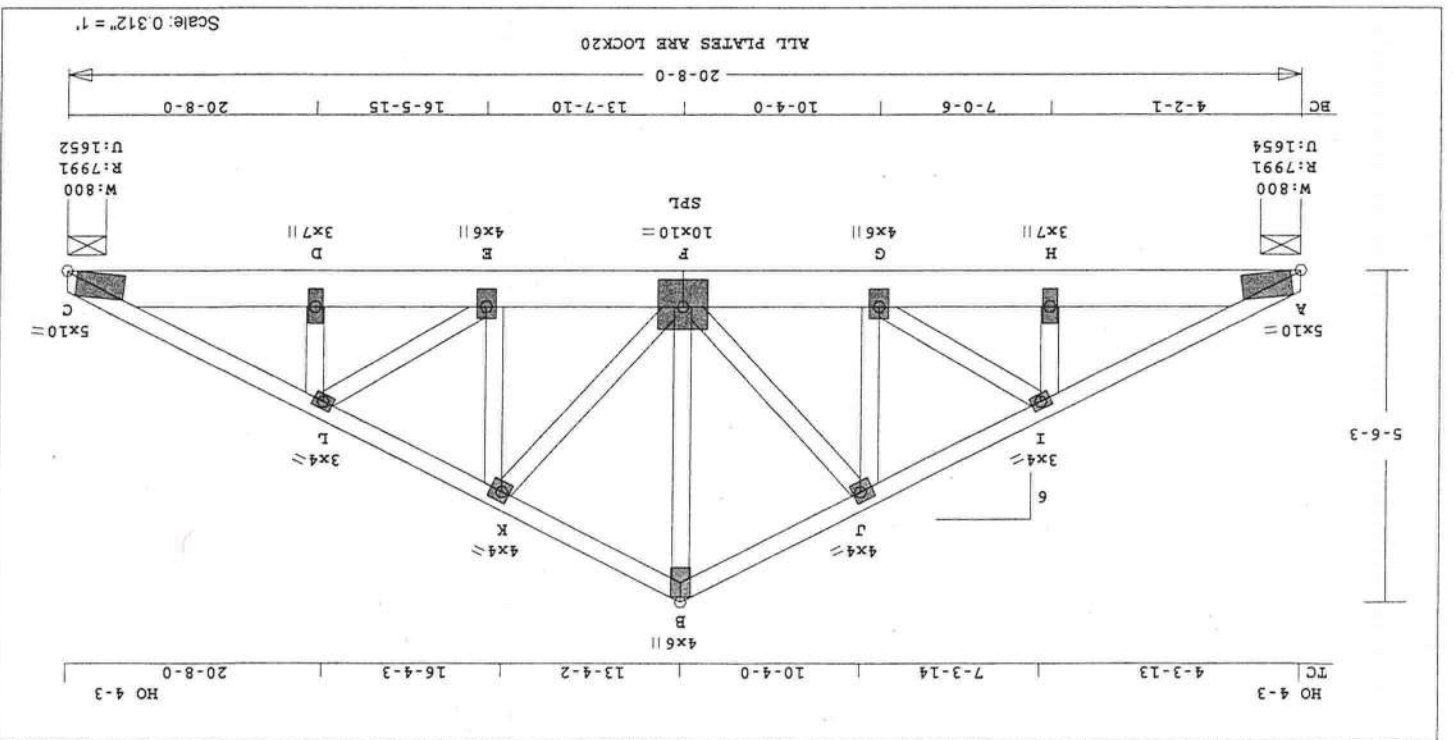
PO Box 280055

Tampa, FL 33682

REFER TO ROBBINS ENG. GENERAL

NOTES AND SYMBOLS SHEET FOR

ADDITIONAL SPECIFICATIONS.



Online Plus -- Version 18.0.006

RUN DATE: 9-1-05

* 2-PLY TRUSS *

CSI	SIZE LUMBER	FB
TOP 0.65	2X 4 SP-#2	1500
BTM 0.86	2X 8 SP-#1	1500
WBS 0.69	2X 4 SP-#2	1500

LATERAL BRACING:
TOP CHORD - CONTINUOUS
BTM CHORD - CONTINUOUS
TRUSS SPACING - 24.0 IN.

UNIFORM LOADING
LUMBER STRESS INCREASE: 25.0%
PLATE STRESS INCREASE: 25.0%
UNI. LDG. LIVE DEAD (PSF)

GIRDER LOADING
LUMBER STRESS INCREASE: 25.0%
PLATE STRESS INCREASE: 25.0%
GRD. LDG. LIVE DEAD (PLF)

SUPPORT CRITERIA
TOTAL 386.7 386.7 773.3
BTM CHD 346.7 366.7
TOP CHD 20.0 20.0

MEMBER FORCES - EACH PLY
MEMBER CSI P(LBS) M01ST M02ND

HEEL 01N - 4SX 01N - 4SX
RIGHT

TOP CHORDS
A-I 0.65 6595 C -765
J-I 0.46 5596 C -222
K-I 0.41 4357 C -305

BOTTOM CHORDS
L-C 0.65 6595 C -222
K-L 0.46 5596 C -305
J-K 0.41 4357 C -305

H-I = 933 T I-G = 1077 C
WBS
D-C 0.86 5905 T -3887 2449
E-D 0.81 5905 T 194 3887

DL+LL DEFL = 0.30" IN F-E
LL DEFL = 0.15" < BRG-SPAN/240
SPAN/DEFL (DL+LL) = 833

PLATES ARE FOR EACH PLY
PLATING CONFORMS TO TPI.
REPORT: NER 691

ROBBINS ENGINEERING, INC.
BASED ON SP LUMBER
USING GROSS AREA TEST.

PLATES - 20 GAUGE LOCK
GRIPPING 632-312 PSI PER PAIR
INCLUDES 25.0% INCREASE

TENSION 1339-465 PLI PER PAIR
SHEAR 784-506 PLI PER PAIR
JT TYPE PLATE SIZE X Y

A 2015 5.00 X10.00 12.6 6.0
B 3001R 4.00 X 6.00 2.9 6.0
C 2015 5.00 X10.00 12.6 6.0

D 1001 3.00 X 7.00 3.6 2.0
E 1050R 4.00 X 6.00 3.6 2.0
F 1170 10.00 X10.00 5.5 5.5

G 1030R 4.00 X 6.00 3.6 2.0
H 1001 3.00 X 7.00 3.6 2.0
I 1050 3.00 X 4.00 1.5 1.5

J 1050 4.00 X 4.00 1.5 1.5
K 1050 4.00 X 4.00 1.5 1.5
L 1050 3.00 X 4.00 1.5 1.5

R = PLATE IS ROTATED BY 90 DEG
REVISED BY:
Robbins Engineering, Inc.

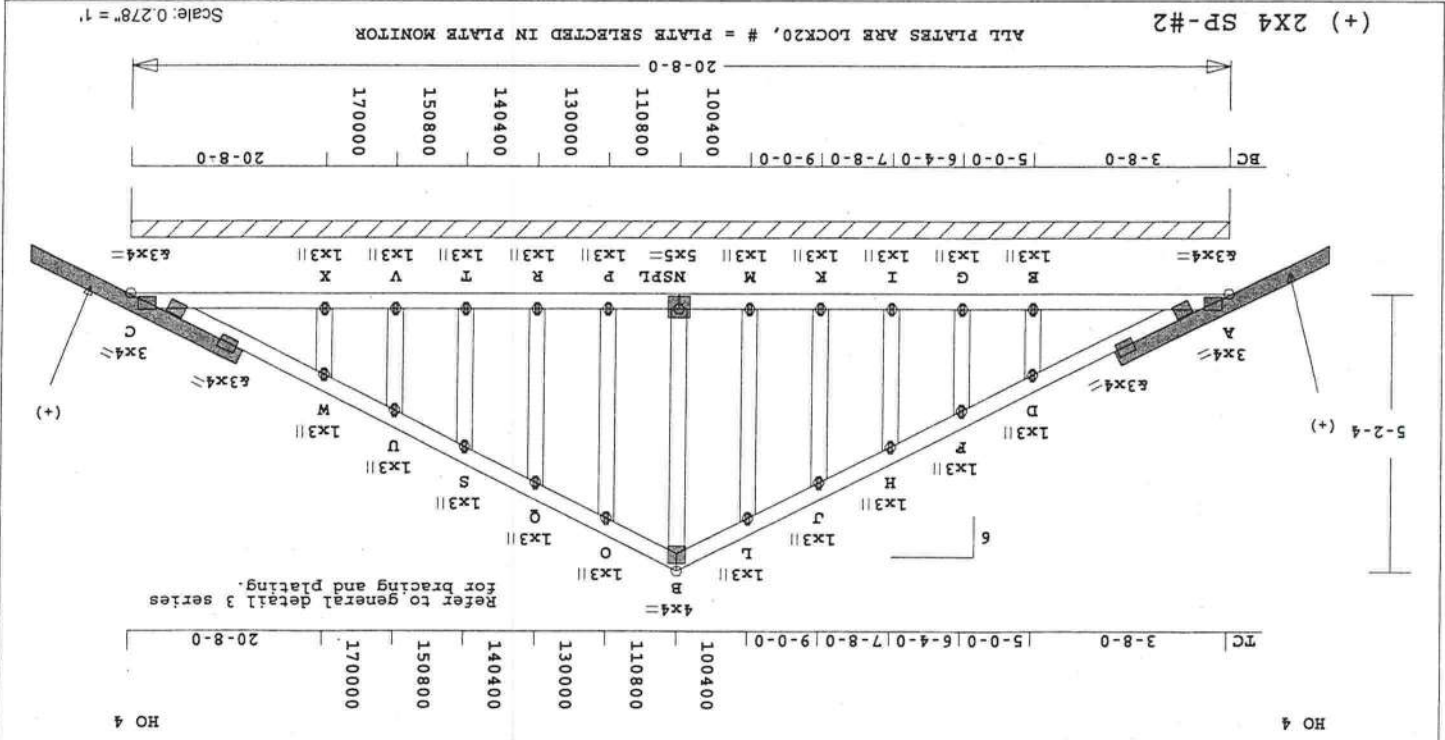
PO Box 280055
Tampa, FL 33682
REFER TO ROBBINS ENG. GENERAL
NOTES AND SYMBOL SHEET FOR
ADDITIONAL SPECIFICATIONS.

NOTES:
1. TRUSSES MANUFACTURED BY -
Mayo Truss Co. Inc.
2. EMPIRICAL ANALOG IS USED.

Truss Design Engineer: Thomas A. Albani
License #: 39380
Address: P.O. Box 280055, Tampa, FL 33682

- WIND LOADS - ANSI/ASCE 7-98
TRUSS IS DESIGNED AS A
MAIN WIND-FORCE RES SYSTEM
FOR EXTERIOR ZONE LOCATION
WIND SPEED - 110 MPH
MEAN ROOF HEIGHT - 15'
EXPOSURE CATEGORY - B
OCCUPANCY FACTOR - 1.00
ENCLOSED BUILDING.
TC DEAD LOAD = 5.0 PSF
BC DEAD LOAD = 5.0 PSF
4. PREVENT TRUSS ROTATION AT
ALL BEARING LOCATIONS.
5. ANCHOR TRUSS FOR A TOTAL
HORIZONTAL LOAD OF 100 LBS.
6. FASTEN TRUSS TO BRG A
FOR 1654 LBS OF UPLIFT,
WHILE PERMITTING NO UPWARD
MOVEMENT OF WALL OR BRG.
7. FASTEN TRUSS TO BRG C
FOR 1652 LBS OF UPLIFT,
WHILE PERMITTING NO UPWARD
MOVEMENT OF WALL OR BRG.
8. GIRDER CONDITION:
COMMON GIRDER TYPE.
TIE-IN TRUSSES ON BTM CHD
WITH SPAN OF 36.667 ft.
9. USE PROPERLY RATED HANGERS
FOR LOADS FRAMING INTO
GIRDER TRUSS.





Robbins Engineering, Inc./Online Plus™

APPROX. TRUSS WEIGHT: 155.8 LBS

2. EMPIRICAL ANALOG IS USED.

3. WIND LOADS - ANSI/ASCE 7-98

TRUSS IS DESIGNED AS A

MAIN WIND-FORCE RES SYSTEM

FOR EXTERIOR ZONE LOCATION

WIND SPEED - 110 MPH

MEAN ROOF HEIGHT - 15'

EXPOSURE CATEGORY - B

OCCUPANCY FACTOR - 1.00

ENCLOSED BUILDING.

TO DEAD LOAD = 5.0 PSF

BC DEAD LOAD = 5.0 PSF

4. FASTEN TRUSS TO BRG E

FOR 170 LBS OF UPLIFT,

MOVEMENT OF WALL OR BRG.

WHILE PERMITTING NO UPWARD

5. FASTEN TRUSS TO BRG I

FOR 74 LBS OF UPLIFT,

WHILE PERMITTING NO UPWARD

MOVEMENT OF WALL OR BRG.

6. FASTEN TRUSS TO BRG K

FOR 64 LBS OF UPLIFT,

WHILE PERMITTING NO UPWARD

MOVEMENT OF WALL OR BRG.

7. FASTEN TRUSS TO BRG M

FOR 59 LBS OF UPLIFT,

WHILE PERMITTING NO UPWARD

MOVEMENT OF WALL OR BRG.

8. FASTEN TRUSS TO BRG P

FOR 56 LBS OF UPLIFT,

WHILE PERMITTING NO UPWARD

MOVEMENT OF WALL OR BRG.

CS1	SIZE LUMBER	1.15PB
TOP CHORD	2X 4 SP-#2	1720
BTM CHD	2X 4 SP-#2	1720
WBS	2X 4 SP-#2	1720
REPERITIVE MEMBER INCREASES:	FT 0.0% FC 0.0%	
FB 15.0%		
LATERAL BRACING:		
TOP CHORD - CONTINUOUS		
BTM CHORD - CONTINUOUS		
TRUSS SPACING - 24.0 IN.		
STANDARD LOADING		
LUMBER STRESS INCREASE: 25.0%		
LOADING LIVE DEAD (PSF)		
TOP CHD	20.0	10.0
BTM CHD	0.0	10.0
TOTAL	20.0	40.0
SUPPRT CRITERIA		
CONTINUOUS BETWEEN UNITS A & C		
RIGHT		
LEFT		
GIRD	01N - 4SX	01N - 4SX
MEMBER	CS1 P (LBS) MOIST M2AND	
A-D	0.11	546
D-F	0.11	546
F-H	0.02	46
H-J	0.02	46
J-L	0.02	46
L-B	0.03	79
B-O	0.03	34
O-Q	0.03	90
Q-S	0.02	98
S-U	0.02	46
U-W	0.11	256
W-C	0.11	359
BOTTOM CHORDS		
A-E	0.07	63
E-G	0.03	168
G-I	0.01	88
I-K	0.01	88
K-M	0.01	88
M-N	0.01	88
N-P	0.01	88
P-R	0.01	88
R-T	0.01	88
T-V	0.02	88
V-X	0.03	88
X-C	0.07	88
E-D = 204 C G-P = 23 C		



9. FASTEN TRUSS TO BRG R
FOR 65 LBS OF UPLIFT,
WHILE PERMITTING NO UPWARD
MOVEMENT OF WALL OR BRG.
10. FASTEN TRUSS TO BRG L
FOR 74 LBS OF UPLIFT,
WHILE PERMITTING NO UPWARD
MOVEMENT OF WALL OR BRG.
11. FASTEN TRUSS TO BRG X
FOR 173 LBS OF UPLIFT,
WHILE PERMITTING NO UPWARD
MOVEMENT OF WALL OR BRG.

HCH-WINGFIELD		Job	U# J#HCH-WINGFIELD WINGFIELD
Mark	B3	Quan	1
Type	SP	Span	200800
PI-H1	5	Left OH	0
Right OH	0	Engineering	T05090098



Truss Design Engineer: Thomas A. Albani
License #: 39380
Address: P.O. Box 280055, Tampa, FL 33682

NOTES:

1. TRUSSES MANUFACTURED BY - Mayo Truss Co. Inc.
2. EMPIRICAL ANALOG IS USED.

REFER TO ROBINS ENG. GENERAL
NOTES AND SYMBOLS SHEET FOR
ADDITIONAL SPECIFICATIONS.

REVIEWED BY:
Robbins Engineering, Inc.
PO Box 280055
Tampa, FL 33682

JT	TYPE	PLATE	SIZE	X	Y
A	2001	3.00	X	4.00	8.5
B	4200	2.00	X	4.00	
C	4010	3.00	X	4.00	
D	1001	1.00	X	3.00	
E	1050	3.00	X	4.00	

LL DEF_L = 0.04" < BRG-SPAN/240
SPAN/DEF_L (DL+LL) = 999

PLATING CONFORMS TO TPI.
REPORT: NER 691
ROBBINS ENGINEERING, INC.
BASED ON SP LUMBER
USING GROSS AREA TEST.
PLATES - 20 GAUGE LOCK
GRIPPING 632-312 PSI PER PAIR
INCLUDES 25.0% INCREASE
TENSION 1339-465 PLT PER PAIR
SHEAR 784-506 PLT PER PAIR

$$DL+LT \text{ DEF.} = 0.03 \text{ " IN A-E}$$

D-E = 167 C E-C = 672 C 3. WIND LOADS - ANSI/ASCE 7-98
Robbins Engineering, Inc./Online Plus" APPROX. TRUSS WEIGHT: 49.3 LBS

MEMBR	CSI	P (LBS)	%1ST	%2ND
TOP CHORDS				
A-E	0.17	655 C	66	-1039
E-B	0.16	51 C	-424	2
BOTTOM CHORDS				
A-D	0.19	641 T	-317	-273
D-C	0.16	641 T	273	-2
WEBS				
C-B	0.03	100 C	0	0

HEEL - 4SX
LEFT
RIGHT

JT REACT WIDTH	LBS IN-SX	A	474	8 - 0	C	338	8 - 0
JT REACT WIDTH	LBS IN-SX						

STANDARD LOADING	
LUMBER STRESS INCREASE: 25.0%	
PLATE STRESS INCREASE: 25.0%	
LOADING	LIVE DEAD (PSF)
TOP CHD	20.0 10.0
BTM CHD	0.0 10.0
TOTAL	20.0 20.0
SUPPORT CRITERIA	
	40.0

LATERAL BRACING:
TOP CHORD - CONTINUOUS
BTM CHORD - CONTINUOUS
TRUSS SPACING - 24.0 IN.

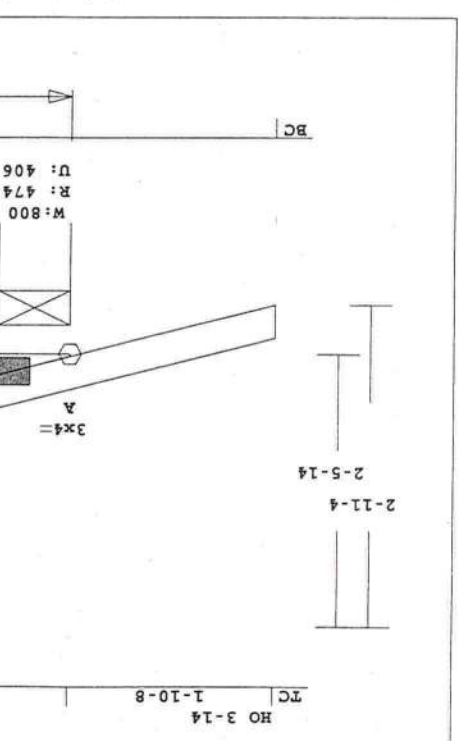
CS1	SIZE LUMBER	1.15FB
TOP 0.17	2X 4 SP-#2	1720
BTM 0.19	2X 4 SP-#2	1720
WBS 0.20	2X 4 SP-#2	1720

REPETITIVE MEMBER INCREASES:

FB 15.0%	FT 0.0%	FC 0.0%
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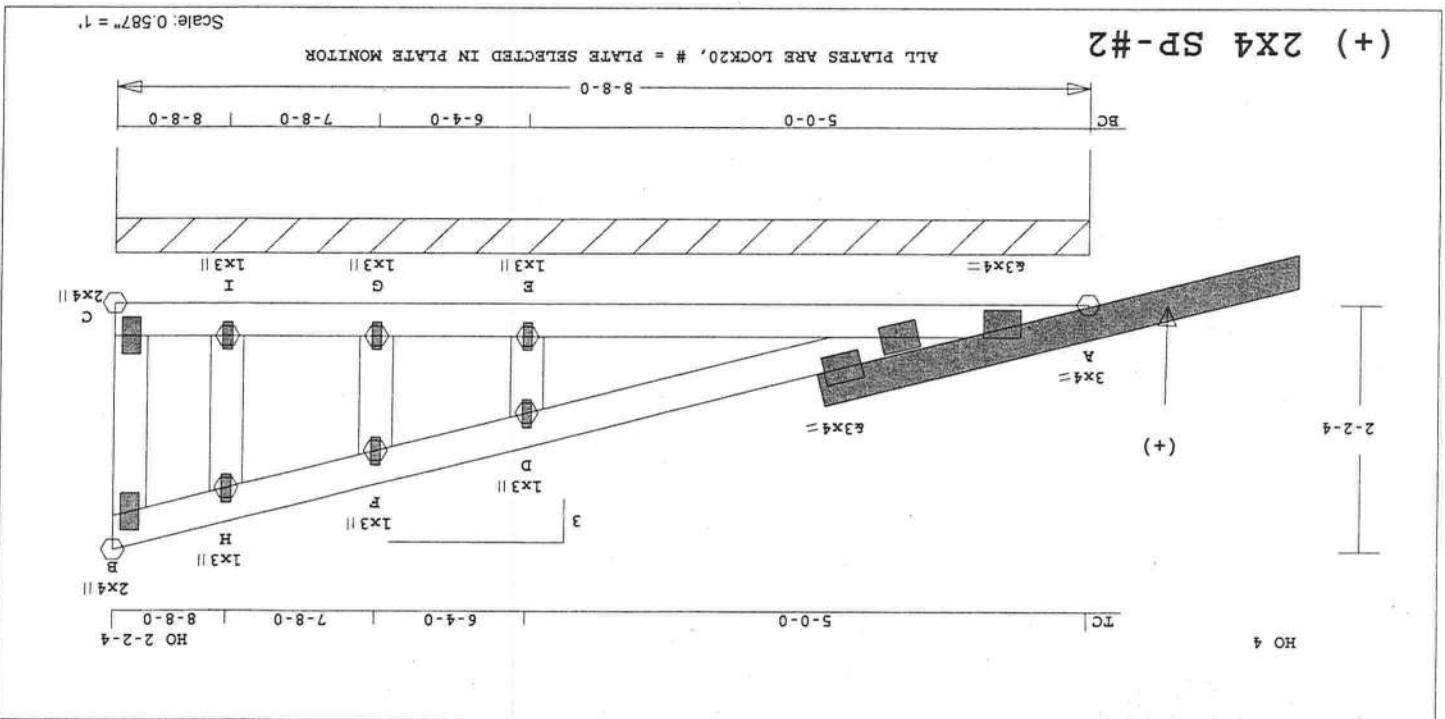
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RUN DATE: 9 - 1-05

Robbins Engi...



U.S. DEPARTMENT OF JUSTICE

CH-WINGFIELD	MI
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Robbins Engineering, Inc./Online Plus™ APPROX. TRUSS WEIGHT: 48.4 LBS

Online Plus -- Version 18.0.006 PLATING CONFORMS TO TPI. REPORT: NER 691

ROBBINS ENGINEERING, INC. BASED ON SP LUMBER USING GROSS AREA TEST.

PLATES - 20 GAUGE LOCK GRIPPING 632-312 PSI PER PAIR INCLUDES 25.0% INCREASE

TENSION 1339-465 PLI PER PAIR SHEAR 784-506 PLI PER PAIR

JT TYPE PLATE SIZE X Y A 2003 3.00 X 4.00 9.0 3.2 B 4200 2.00 X 4.00 CTR CTR C 4000 2.00 X 4.00 D 1001 1.00 X 3.00 E 1001 1.00 X 3.00 F 1001 1.00 X 3.00 G 1001 1.00 X 3.00 H 1001 1.00 X 3.00 I 1001 1.00 X 3.00

REVIEWED BY: Robbns Engineering, Inc. Tampa, FL 33682

REFER TO ROBBINS ENG. GENERAL NOTES AND SYMBOLS SHEET FOR ADDITIONAL SPECIFICATIONS.

NOTES: 1. TRUSSES MANUFACTURED BY - Mayo Truss Co. Inc. 2. EMPIRICAL ANALOG IS USED. 3. WIND LOADS - ANSI/ASCE 7-98

TRUSS IS DESIGNED AS A MAIN WIND-FORCE RES SYSTEM FOR EXTERIOR ZONE LOCATION WIND SPEED - 110 MPH MEAN ROOF HEIGHT - 15' EXPOSURE CATEGORY - B OCCUPANCY FACTOR - 1.00 ENCLOSED BUILDING.

TC DEAD LOAD = 5.0 PSF BC DEAD LOAD = 5.0 PSF

DL+LT DEFL = 0.04" IN A-D LT DEFL > BRG-SPAN/240

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Date Sealed: 9/2/2005

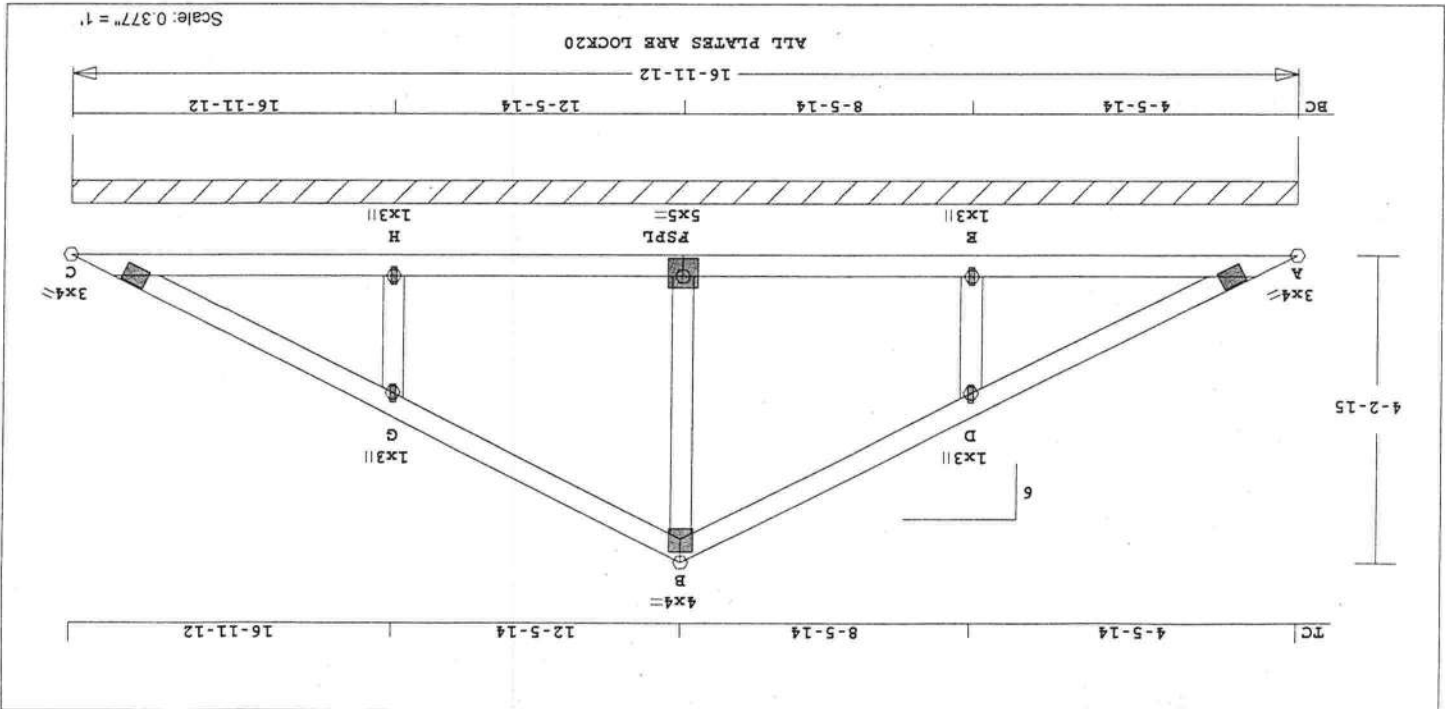
Professional Engineer

State of Florida

Thomas A. Albani

Address: P.O. Box 280055, Tampa, FL 33682

License #: 39380



Robbins Engineering, Inc./Online Plus™ APPROX. TRUSS WEIGHT: 78.7 LBS

H-G = 286 C

E-D = 286 C F-B = 186 C

3. WIND LOADS - ANSI/ASCE 7-98

TRUSS IS DESIGNED AS A

MAIN WIND-FORCE RES SYSTEM

FOR EXTERIOR ZONE LOCATION

WIND SPEED - 110 MPH

MEAN ROOF HEIGHT - 15'

EXPOSURE CATEGORY - B

OCCUPANCY FACTOR - 1.00

ENCLOSED BUILDING.

TC DEAD LOAD = 5.0 PSF

BC DEAD LOAD = 5.0 PSF

4. FASTEN TRUSS TO BRG C

FOR 52 LBS OF UPLIFT,

WHILE PERMITTING NO UPWARD

MOVEMENT OF WALL OR BRG.

5. FASTEN TRUSS TO BRG E

FOR 236 LBS OF UPLIFT,

WHILE PERMITTING NO UPWARD

MOVEMENT OF WALL OR BRG.

6. FASTEN TRUSS TO BRG H

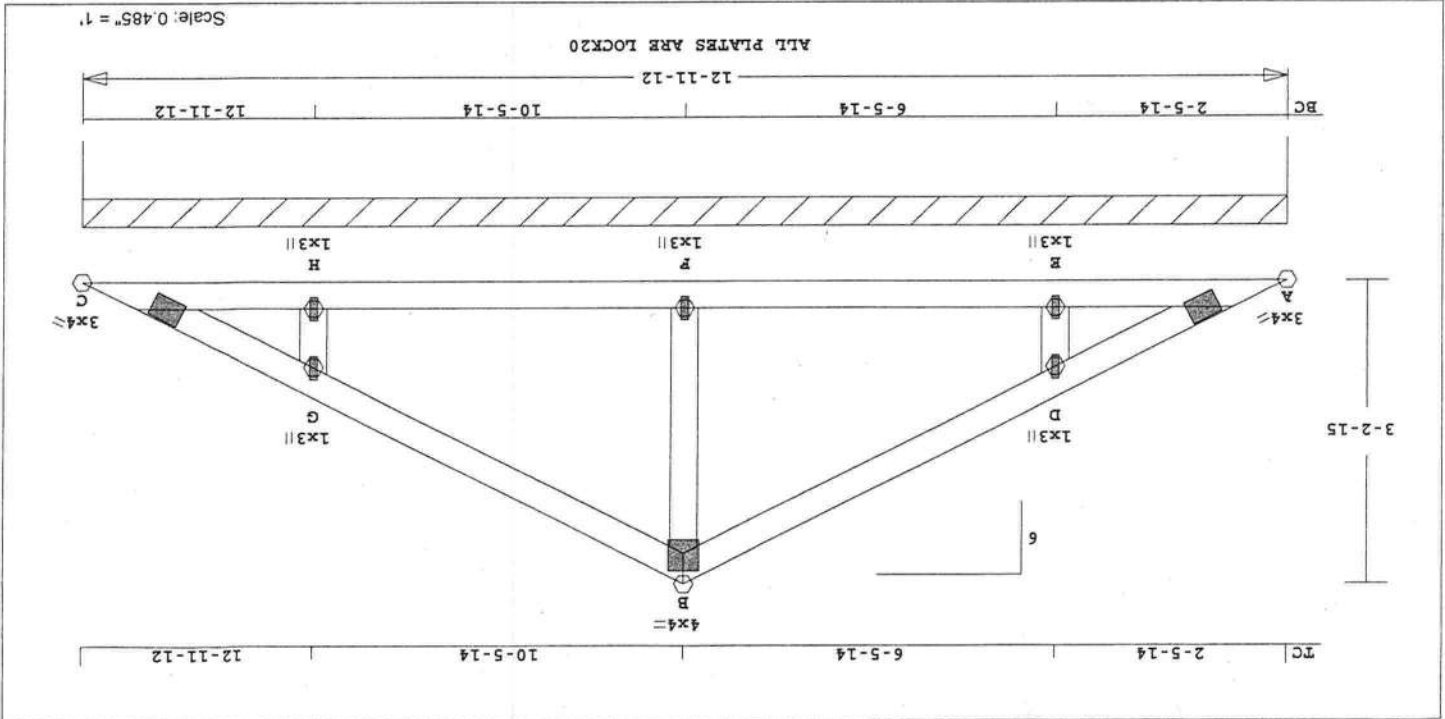
FOR 238 LBS OF UPLIFT,

WHILE PERMITTING NO UPWARD

MOVEMENT OF WALL OR BRG.

CS1	SIZE LUMBER	1.15FB	SPAN/DEFL (DL+LT) = 999	LT DEFL < BRG-SPAN/240	DL+LT DEFL = 0.02" IN A-D
REPORT: NER 691	PLATING CONFORMS TO TPI.	ROBBINS ENGINEERING, INC.	BASED ON SP LUMBER	USING GROSS AREA TEST.	
BTM 0.10	2X 4 SP-#2	1720	GRIPPING 632-312 PSI PER PAIR	INCLUDES 25.0% INCREASE	TENSION 1339-465 PLI PER PAIR
WBS 0.06	2X 4 SP-#2	1720	PLATES - 20 GAUGE LOCK		SHEAR 784-506 PLI PER PAIR
REPEITIVE MEMBER INCREASES:					
FB 15.0%	FT 0.0%	FC 0.0%			
CS1	SIZE LUMBER	1.15FB			
TOP 0.20	2X 4 SP-#2	1720			
BTM 0.10	2X 4 SP-#2	1720			
WBS 0.06	2X 4 SP-#2	1720			
REPEITIVE MEMBER INCREASES:					
FB 15.0%	FT 0.0%	FC 0.0%			
LATERAL BRACING:					
TOP CHORD - CONTINUOUS					
BTM CHORD - CONTINUOUS					
TRUSS SPACING - 24.0 IN.					
STANDARD LOADING					
LUMBER STRESS INCREASE: 25.0%					
PLATE STRESS INCREASE: 25.0%					
LOADING LIVE DEAD (PSF)					
TOP CHD	20.0	10.0			
BTM CHD	0.0	10.0			
TOTAL	20.0	40.0			
SUPPORT CRITERIA					
CONTINUOUS BETWEEN JNTS A & C					
RIGHT					
LEFT					
GIRD	0IN - OSX	0IN - OSX			
MEMBR	CSI P(LBS) @1ST @2ND				
TOP CHORDS					
A-D	0.20	55 C	-469	1044	
D-B	0.20	106 T	-446	297	
B-G	0.20	90 T	-261	1042	
G-C	0.20	23 C	-1042	469	
BOTTOM CHORDS					
A-E	0.10	62 T	234	74	
E-F	0.03	62 T	-74	-52	
F-H	0.03	62 T	52	136	
H-C	0.10	62 T	-136	-469	
WEBS					

Job	Mark	Quan	Type	Span	Pl-H1	Left OH	Right OH	Engineering
HCH-WINGFIELD	V2	1	VL.SB	121112	6	0	0	T05090098
U# J#HCH-WINGFIELD WINGFIELD								



Robbins Engineering, Inc./Online Plus™ APPROX. TRUSS WEIGHT: 57.1 LBS

SPAN/DEFL (DL+LT) = 999

Online Plus -- Version 18.0.006 PLATING CONFORMS TO TPI.

REPORT: NER 691

ROBBINS ENGINEERING, INC.

BASED ON SP LUMBER

USING GROSS AREA TEST.

PLATES - 20 GAUGE LOCK

GRIPPING 632-312 PSI PER PAIR

INCLUDES 25.0% INCREASE

TENSION 1339- 465 PLI PER PAIR

SHEAR 784- 506 PLI PER PAIR

LATERAL BRACING:

TOP CHORD - CONTINUOUS

BTM CHORD - CONTINUOUS

TRUSS SPACING - 24.0 IN.

STANDARD LOADING

LUMBER STRESS INCREASE: 25.0%

PLATE STRESS INCREASE: 25.0%

LOADING LIVE DEAD (PSF)

TOP CHD 20.0 10.0

BTM CHD 0.0 10.0

TOTAL 20.0 20.0

SUPPORT CRITERIA

CONTINUOUS BETWEEN JNTS A & C

RIGHT

LEFT

GIRD 01N - OSX 01N - OSX

MEMBR CSI P(LBS) MOIST M@2ND

TOP CHORDS

A-D 0.13 727

D-B 0.13 368

B-G 0.13 725

G-C 0.13 23

BTM CHORDS

A-E 0.02 39 T

E-F 0.01 39 T

F-H 0.01 39 T

H-C 0.02 39 T

WEBS

D = 230 C F-B = 205 C

H-G = 230 C

DL+LT DEFL = 0.02" IN D-B

LT DEFL > BRG-SPAN/240

1. TRUSSES MANUFACTURED BY -
2. EMPIRICAL ANALOG IS USED.
3. WIND LOADS - ANSI/ASCE 7-98

TRUSS IS DESIGNED AS A

FOR EXTERIOR ZONE LOCATION

MEAN WIND-SPEED - 110 MPH

EXPOSURE CATEGORY - B

OCCUPANCY FACTOR - 1.00

ENCLOSED BUILDING.

TC DEAD LOAD = 5.0 PSF

BC DEAD LOAD = 5.0 PSF

REFER TO ROBBINS ENG. GENERAL
NOTES AND SYMBOLS SHEET FOR
ADDITIONAL SPECIFICATIONS.

NOTES:

1. TRUSSES MANUFACTURED BY -

2. EMPIRICAL ANALOG IS USED.

3. WIND LOADS - ANSI/ASCE 7-98

TRUSS IS DESIGNED AS A

FOR EXTERIOR ZONE LOCATION

MEAN WIND-SPEED - 110 MPH

EXPOSURE CATEGORY - B

OCCUPANCY FACTOR - 1.00

ENCLOSED BUILDING.

TC DEAD LOAD = 5.0 PSF

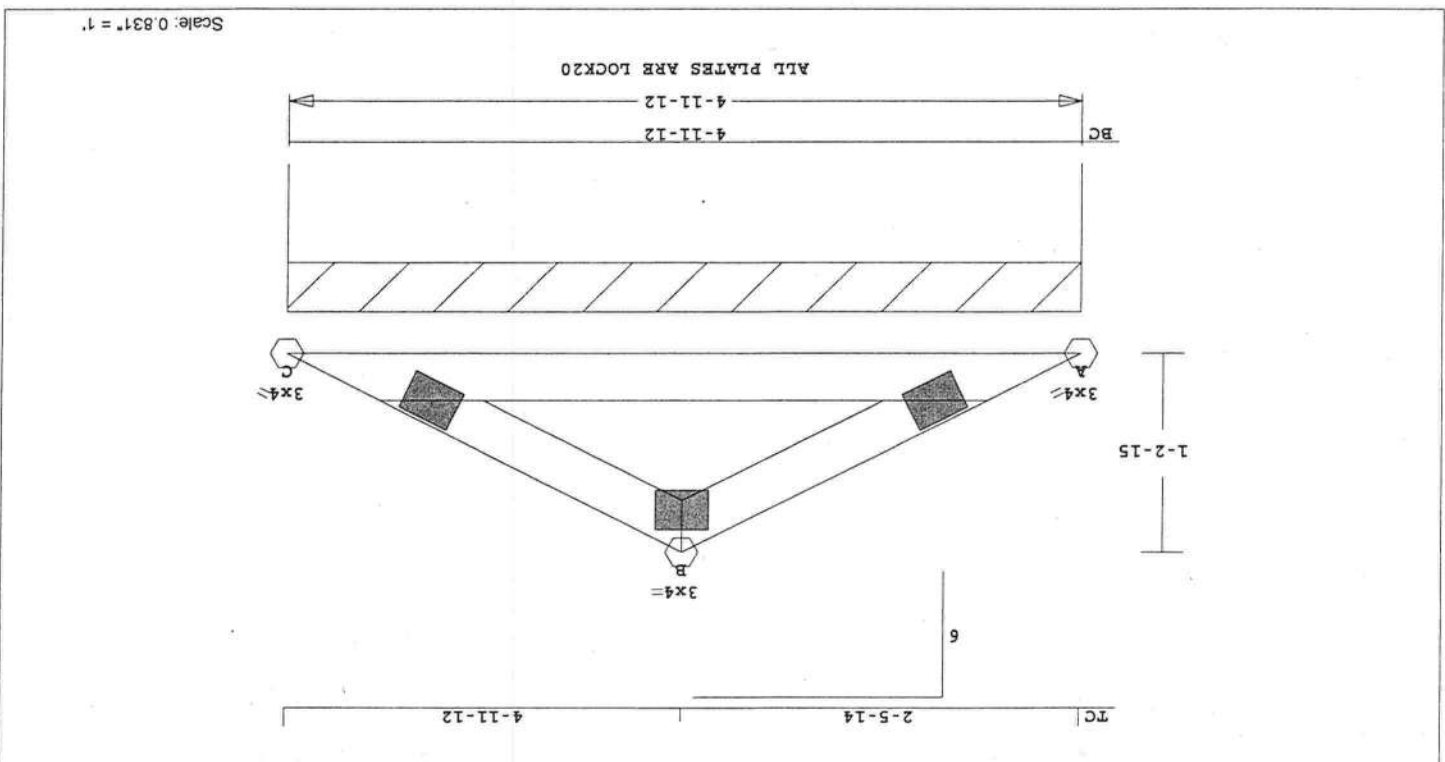
BC DEAD LOAD = 5.0 PSF

4. FASTEN TRUSS TO BRG E
FOR 177 LBS OF UPLIFT,
WHILE PERMITTING NO UPWARD
MOVEMENT OF WALL OR BRG.
5. FASTEN TRUSS TO BRG F
FOR 64 LBS OF UPLIFT,
WHILE PERMITTING NO UPWARD
MOVEMENT OF WALL OR BRG.
6. FASTEN TRUSS TO BRG H
FOR 180 LBS OF UPLIFT,
WHILE PERMITTING NO UPWARD
MOVEMENT OF WALL OR BRG.

Truss Design Engineer: Thomas A. Albani
License #: 39380
Address: P.O. Box 280055, Tampa, FL 33682



Date Sealed: 9/2/2005



Robbins Engineering, Inc./Online Plus" APPROX. TRUSS WEIGHT: 17.5 LBS

REPORT: NER 691

PLATING CONFORMS TO TPI.

ROBBINS ENGINEERING, INC.

BASED ON SP LUMBER

USING GROSS AREA TEST.

PLATES - 20 GAUGE LOCK

GRIPPING 632-312 PSI PER PAIR

INCLUDES 25.0% INCREASE

TENSION 1339-465 PLI PER PAIR

SHEAR 784-506 PLI PER PAIR

4. FASTEN TRUSS TO BRG A

FOR 74 LBS OF UPLIFT,

WHILE PERMITTING NO UPWARD

MOVEMENT OF WALL OR BRG.

5. FASTEN TRUSS TO BRG C

FOR 74 LBS OF UPLIFT,

WHILE PERMITTING NO UPWARD

MOVEMENT OF WALL OR BRG.

JT TYPE	PLATE SIZE	X	Y
A 2003	3.00 X 4.00	5.5	3.2
B 3000	3.00 X 4.00	2.0	2.2
C 2003	3.00 X 4.00	5.5	3.2

REVIEWED BY:

Robbins Engineering, Inc.

PO Box 280055

Tampa, FL 33682

REFER TO ROBBINS ENG. GENERAL

NOTES AND SYMBOLS SHEET FOR

ADDITIONAL SPECIFICATIONS.

NOTES:

1. TRUSSES MANUFACTURED BY -

Mayo Truss Co. Inc.

2. EMPIRICAL ANALOG IS USED.

3. WIND LOADS - ANSI/ASCE 7-98

TRUSS IS DESIGNED AS A

MAIN WIND-FORCE RES SYSTEM

FOR EXTERIOR ZONE LOCATION

WIND SPEED - 110 MPH

MEAN ROOF HEIGHT - 15'

EXPOSURE CATEGORY - B

OCCUPANCY FACTOR - 1.00

ENCLOSED BUILDING.

TC DEAD LOAD = 5.0 PSF

BC DEAD LOAD = 5.0 PSF

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Date Sealed: 9/2/2005

THOMAS ALBANI

CERTIFICATE

FLORIDA

PROFESSIONAL ENGINEER

No. 39380

Truss Design Engineer: Thomas A. Albani

License #: 39380

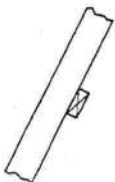
Address: P.O. Box 280055, Tampa, FL 33682



ROBBINS ENG. GENERAL NOTES & SYMBOLS

LATERAL BRACING

1x4 continuous lateral bracing attached with (2) 8d nails each member where indicated or 2x4 "T" or "L" brace stiffener if applicable nailed flat to edge of web with 12d nails spaced 8" o.c. "T" or "L" brace must be extended at least 90% of web length.



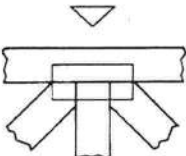
The first dimension is the width measured perpendicular to slots. The second dimension is the length measured parallel to slots.

PLATE SIZE

6.3 x 8.8

DIMENSIONS

All dimensions are shown in FT-IN-SX (i.e. 6' 8 1/2" or 6'-08-08). Dimensions less than one foot are shown in IN-SX only (i.e. 708).



BEARING

When truss is designed to bear on multiple supports, interior bearing locations should be marked on the truss. Interior support or temporary shoring must be in place before erecting this truss. If necessary, shim bearings to assure solid contact with truss.

PLATE LOCATION

Center plates on joints unless otherwise noted in plate list or on drawing. Dimensions are given in inches (i.e. 1 1/2" or 1.5") or IN-16ths (i.e. 108).

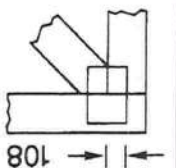
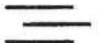


PLATE ORIENTATION

When shown, indicates direction of slots in connector plate.



ROBBINS LOCK connector plates (20 ga. galv. steel ASTM A653 SS Grade 40) shall be applied on both faces of truss at each joint. Center the plates, unless shown otherwise by circles (o) or dimensions. No loose knots or wanes in plate contact area. Splice only where shown. Overall spans assume 4" bearings at each end, unless indicated otherwise. Cutting and fabrication shall be performed on equipment which produces snug-fitting joints and plates. Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication and these designs are not applicable for use with fire retardant lumber. This design was prepared in accordance with "National Design Specifications for Stress - Grade Lumber and Its Fastenings" (AFPA), "Design Specifications for Light Metal Plate Connected Wood Trusses" (TPI), and HUD Design Criteria for

FURNISH A COPY OF THIS DESIGN TO ERECTION CONTRACTOR. IT IS THE RESPONSIBILITY OF BUILDING DESIGNER TO REVIEW THIS DRWG. & VERIFY THAT DATA INCLUDING DIM. & LOADS CONFORM TO ARCH. PLAN/SPECS & FAB. TRUSS LAYOUTS.



P.O. Box 280055
Tampa, FL 33682-0055
800-282-1299 • Fax: 813-971-6117

CORPORATE HEADQUARTERS

Wingfield
HVAC Load Calculations

for

HouseCraft Homes
12523 N.W. HWY 441
Alachua FL 32615



RHVAC
RESIDENTIAL
HVAC LOADS

Prepared By:

Chuck Fischer
North Central Florida Air Conditioning
P.O. Box 700
High Springs FL 32655-0700
386-454-4767
Friday, June 03, 2005



Project Report

General Project Information

Project Title: Wingfield
Designed By: Chuck Fischer
Project Date: August 1 2005
Client Name: HouseCraft Homes
Client Address: 12523 N.W HWY 441
Client City: Alachua FL 32615
Client Phone: 386-462-5323
Client Comment:
Company Name: North Central Florida Air Conditioning
Company Representative: Chuck Fischer
Company Address: P.O Box 700
Company City: High Springs FL 32655-0700
Company Phone: 386-454-4767
Company Fax: 386-454-4854
Company Comment:

Design Data

Reference City: Gainesville, Florida
Daily Temperature Range: Medium
Latitude: 29 Degrees
Elevation: 152 ft.
Altitude Factor: 0.995
Elevation Sensible Adj. Factor: 1.000
Elevation Total Adj. Factor: 1.000
Elevation Heating Adj. Factor: 1.000
Elevation Heating Adj. Factor: 1.000
Outdoor Dry Bulb 93
Outdoor Wet Bulb 77
Indoor Rel.Hum 50
Indoor Dry Bulb 75
Grains Difference 50

Check Figures

Total Building Supply CFM: 973
Square ft. of Room Area: 1,369
Volume (ft³) of Cond. Space: 13,401
CFM Per Square ft.: 0.711
Square ft. Per Ton: 594
Air Turnover Rate (per hour): 4.4

Building Loads

Total Heating Required With Outside Air: 34,696 Btuh
Total Sensible Gain: 21,312 Btuh
Total Latent Gain: 3,978 Btuh
Total Cooling Required With Outside Air: 25,290 Btuh
Tons (Based On Sensible + Latent): 2.11
Tons (Based On 77% Sensible Capacity): 2.31

Notes

Calculations are based on 8th edition of ACCA Manual J.
All computed results are estimates as building use and weather may vary.
Be sure to select a unit that meets both sensible and latent loads.



Miscellaneous Report

System 1 Main Floor				
Input Data	Outdoor	Outdoor	Indoor	Indoor
Winter:	31	0	50	72
Summer:	93	77	50	75
Duct Sizing Inputs				
Calculate:	Yes	Yes	Yes	Yes
Use Schedule:	No	No	No	No
Roughness Factor:	0.00300	0.01000	0.01000	0.01000
Pressure Drop:	0.1000 in.wg./100 ft.	0.1000 in.wg./100 ft.	0.1000 in.wg./100 ft.	0.1000 in.wg./100 ft.
Minimum Velocity:	650 ft./min	450 ft./min	450 ft./min	450 ft./min
Maximum Velocity:	900 ft./min	750 ft./min	750 ft./min	750 ft./min
Minimum Height:	0 in.	0 in.	0 in.	0 in.
Maximum Height:	0 in.	0 in.	0 in.	0 in.

Main Trunk				
Runouts				
Calculate:	Yes	Yes	Yes	Yes
Use Schedule:	No	No	No	No
Roughness Factor:	0.00300	0.01000	0.01000	0.01000
Pressure Drop:	0.1000 in.wg./100 ft.	0.1000 in.wg./100 ft.	0.1000 in.wg./100 ft.	0.1000 in.wg./100 ft.
Minimum Velocity:	650 ft./min	450 ft./min	450 ft./min	450 ft./min
Maximum Velocity:	900 ft./min	750 ft./min	750 ft./min	750 ft./min
Minimum Height:	0 in.	0 in.	0 in.	0 in.
Maximum Height:	0 in.	0 in.	0 in.	0 in.

Volume of Conditioned Space:				
Infiltration:	Winter	Summer		
0.900 AC/hr	0.400 AC/hr			
X 13401 Cu.ft.	X 13401 Cu.ft.			
12,061 Cu.ft./hr	5,360 Cu.ft./hr			
X 0.0167	X 0.0167			
201 CFM	89 CFM			
Total Building Infiltration:				
Total Building Ventilation:				

—System 1—
 Infiltration & Ventilation Sensible Gain Multiplier: 19.69 = (1.10 X 0.995 X 18.00 Summer Temp. Difference)
 Infiltration & Ventilation Latent Gain Multiplier: 33.85 = (0.68 X 0.995 X 50.06 Grains Difference)
 Infiltration & Ventilation Sensible Loss Multiplier: 44.85 = (1.10 X 0.995 X 41.00 Winter Temp. Difference)



Load Preview Report

Scope	Area	Sens	Lat	Net	Sens	Win	Sum	Sys	Duct
Size	Gain	Gain	Gain	Loss	CFM	CFM	CFM	CFM	Size
Building: 2.11 Net Tons, 2.31 Recommended Tons, 594 ft. ² /Ton, 34.70 MBH Heating	1,369	21,312	3,978	25,290	34,696	452	973	973	14x14
Building	1,369	21,312	3,978	25,290	34,696	452	973	973	
System 1: 2.11 Net Tons, 2.31 Recommended Tons, 594 ft. ² /Ton, 34.70 MBH Heating	1,369	21,312	3,978	25,290	34,696	452	973	973	14x14
System 1	1,369	21,312	3,978	25,290	34,696	452	973	973	
Zone 1	1,369	21,292	3,944	25,236	34,651	452	973	973	
1-Bedroom 3	182	3,188	722	3,910	5,804	76	146	146	1-7
2-Bath 2	45	806	105	911	1,123	15	37	37	1-4
3-Dining Room	223	3,368	508	3,876	6,215	81	154	154	1-7
4-Kitchen	202	4,568	718	5,286	4,992	65	209	209	1-9
5-Great Room	289	3,017	453	3,470	4,921	64	138	138	1-7
6-Master Bath	92	1,574	368	1,942	3,967	52	72	72	1-5
7-Master Bedroom	232	3,461	757	4,218	4,274	56	158	158	1-8
8-Master W.I.c	44	870	241	1,111	2,324	30	40	40	1-4
9-Hall	36	91	0	91	144	2	4	4	1-2
10-Hall 2	24	347	72	419	887	12	16	16	1-2



Total Building Summary Loads

Component	Area	Sen	Lat	Sen	Total
1D-cb-o: Glazing-Double pane, operable window, clear, metal frame with break, ground reflectance = 0.32, outdoor insect screen with 50% coverage, light color blinds at 45° with 25% coverage, external shade screen coefficient of 0.45 and 50% coverage	51	1,359	0	889	889
1D-cb-o: Glazing-Double pane, operable window, clear, metal frame with break, ground reflectance = 0.23, outdoor insect screen with 50% coverage, light color blinds at 45° with 25% coverage, external shade screen coefficient of 0.45 and 50% coverage	65.6	1,749	0	1,360	1,360
7A-4: Glazing-Glass or plastic block, smooth or wide ribs or flutes, no screen, enamel coating, ground reflectance = 0.23	7.8	193	0	129	129
11P: Door-Polyurethane Core	61.2	729	0	516	516
13A-50cs: Wall-Block, board insulation only, R-5 board insulation, open core, siding finish	1006.2	5,158	0	2,302	2,302
12B-2sw: Wall-Framed, R-11 insulation in 2 x 4 stud cavity, R-2 board insulation, siding finish, wood studs	161.4	570	0	340	340
16C-19: Roof/Ceiling-Under attic or knee wall, Vented Attic, No Radiant Barrier, White or Light Color Shingles, Any Wood Shake, Light Metal, Tar and Gravel or Membrane, R-19 insulation	1368.5	2,750	0	2,884	2,884
22A-pm: Floor-Slab on grade, No edge insulation, no insulation below floor, any floor cover, passive, heavy dry or light wet soil	152	7,353	0	0	0
Subtotals for structure:		19,861	0	8,420	8,420
People:	4	920	0	1,200	2,120
Equipment:			0	1,200	1,200
Lighting:	1515	5,774	0	5,166	5,166
Ductwork:				3,547	3,547
Infiltration: Winter CFM: 201, Summer CFM: 89		9,016	3,024	1,759	4,783
Ventilation: Winter CFM: 1, Summer CFM: 1		45	34	20	54
Total Building Load Totals:		34,696	3,978	21,312	25,290

Check Figures				
Total Building Supply CFM:	973	CFM Per Square ft.:	0.711	
Square ft. of Room Area:	1,369	Square ft. Per Ton:	594	
Volume (ft³) of Cond. Space:	13,401	Air Turnover Rate (per hour):	4.4	
Building Loads				
Total Heating Required With Outside Air:	34,696 Btuh		34,696 MBH	
Total Sensible Gain:	21,312 Btuh	84 %		
Total Latent Gain:	3,978 Btuh	16 %		
Total Cooling Required With Outside Air:	25,290 Btuh		2.11 Tons (Based On Sensible + Latent)	
			2.31 Tons (Based On 77% Sensible Capacity)	

Notes

Calculations are based on 8th edition of ACCA Manual J.
All computed results are estimates as building use and weather may vary.
Be sure to select a unit that meets both sensible and latent loads.



System 1 Main Floor Summary Loads

Component	Area	Sen	Lat	Sen	Total
Description	Quan	Loss	Gain	Gain	Gain

1D-cb-o: Glazing-Double pane, operable window, clear, metal frame with break, ground reflectance = 0.32, outdoor insect screen with 50% coverage, light color blinds at 45° with 25% coverage, external shade screen coefficient of 0.45 and 50% coverage	65.6	1,749	0	1,360	1,360
1D-cb-o: Glazing-Double pane, operable window, clear, metal frame with break, ground reflectance = 0.23, outdoor insect screen with 50% coverage, light color blinds at 45° with 25% coverage, external shade screen coefficient of 0.45 and 50% coverage	7.8	193	0	129	129
11P: Door-Polyurethane Core reflectance = 0.23 or flutes, no screen, enamel coating, ground	61.2	729	0	516	516
13A-5ocs: Wall-Block, board insulation only, R-5 board insulation, open core, siding finish	1006.2	5,158	0	2,302	2,302
12B-2sw: Wall-Framed, R-11 insulation in 2 x 4 stud cavity, R-2 board insulation, siding finish, wood studs	161.4	570	0	340	340
16C-19: Roof/Ceiling-Under attic or knee wall, Vented Attic, No Radiant Barrier, White or Light Color Shingles, Any Wood Shake, Light Metal, Tar and Gravel or Membrane, R-19 insulation	1368.5	2,750	0	2,884	2,884
22A-pm: Floor-Slab on grade, No edge insulation, no insulation below floor, any floor cover, passive, heavy dry or light wet soil	152	7,353	0	0	0

Subtotals for structure:	19,861	0	8,420	8,420	8,420
People:	4	920	1,200	1,200	2,120
Equipment:		0	1,200	1,200	1,200
Lighting:	1515		5,166	5,166	5,166
Ductwork:		5,774	0	3,547	3,547
Infiltration: Winter CFM: 201, Summer CFM: 89		9,016	3,024	1,759	4,783
Ventilation: Winter CFM: 1, Summer CFM: 1		45	34	20	54
System 1 Main Floor Load Totals:		34,696	3,978	21,312	25,290

Check Figures	Supply CFM:	973	CFM Per Square ft.:	0.711
	Square ft. of Room Area:	1,369	Square ft. Per Ton:	594
	Volume (ft³) of Cond. Space:	13,401	Air Turnover Rate (per hour):	4.4

System Loads	Total Heating Required With Outside Air:	34,696 Btuh	34,696 MBH	84 %	2.11 Tons (Based On Sensible + Latent)	2.31 Tons (Based On 77% Sensible Capacity)
	Total Sensible Gain:	21,312 Btuh		16 %		
	Total Latent Gain:	3,978 Btuh				
	Total Cooling Required With Outside Air:	25,290 Btuh				

Notes
Calculations are based on 8th edition of ACCA Manual J.
All computed results are estimates as building use and weather may vary.
Be sure to select a unit that meets both sensible and latent loads.



System 1, Zone 1 Summary Loads (Average Load Procedure for Rooms)

Component	Area	Sen	Lat	Sen	Total
Description	Quan	Loss	Gain	Gain	Gain

1D-cb-o: Glazing-Double pane, operable window, clear, metal frame with break, ground reflectance = 0.32, outdoor insect screen with 50% coverage, light color blinds at 45° with 25% coverage, external shade screen coefficient of 0.45 and 50% coverage	65.6	1,749	0	1,360	1,360
1D-cb-o: Glazing-Double pane, operable window, clear, metal frame with break, ground reflectance = 0.23, outdoor insect screen with 50% coverage, light color blinds at 45° with 25% coverage, external shade screen coefficient of 0.45 and 50% coverage	7.8	193	0	129	129
11P: Door-Polyurethane Core	61.2	729	0	516	516
13A-50cs: Wall-Block, board insulation only, R-5 board insulation, open core, siding finish	1006.2	5,158	0	2,302	2,302
12B-2sw: Wall-Framed, R-11 insulation in 2 x 4 stud cavity, R-2 board insulation, siding finish, wood studs	161.4	570	0	340	340
16C-19: Roof/Ceiling-Under attic or knee wall, Vented Attic, No Radiant Barrier, White or Light Color Shingles, Any Wood Shake, Light Metal, Tar and Gravel or Membrane, R-19 insulation	1368.5	2,750	0	2,884	2,884
22A-pm: Floor-Slab on grade, No edge insulation, no insulation below floor, any floor cover, passive, heavy dry or light wet soil	152	7,353	0	0	0

Subtotals for structure:	4	19,861	0	8,420	8,420
People:				2,120	2,120
Equipment:			920	1,200	1,200
Lighting:	1515	5,774	0	5,166	5,166
Ductwork:				3,547	3,547
Infiltration: Winter CFM: 201, Summer CFM: 89		9,016	3,024	1,759	4,783
System 1, Zone 1 Load Totals:		34,651	3,944	21,292	25,236

Check Figures					
Supply CFM:	973	CFM Per Square ft.:	0.711	Square ft. Per Ton:	595
Volume (ft³) of Room Area:	1,369	Air Turnover Rate (per hour):	4.4		

Zone Loads					
Total Heating Required:	34,651 Btu/h	34.651 MBH			
Total Sensible Gain:	21,292 Btu/h	84 %			
Total Latent Gain:	3,944 Btu/h	16 %			
Total Cooling Required:	25,236 Btu/h	2.10 Tons (Based On Sensible + Latent)			
		2.30 Tons (Based On 77% Sensible Capacity)			

Notes
Calculations are based on 8th edition of ACCA Manual J.
All computed results are estimates as building use and weather may vary.
Be sure to select a unit that meets both sensible and latent loads.



System 1 Room Load Summary

Room	Area	Sens	Lat	Clg	Run	Duct	Run	Duct	Vel	Sens	Lat	Clg	Air
No Name	SF	Btuh	Btuh	Btuh	CFM	Size	CFM	Size	CFM	Btuh	Btuh	Btuh	Sys

1 Bedroom 3	182	5,804	76	1-7	545	3,188	722	146	146	37	105	722	146
2 Bath 2	45	1,123	15	1-4	422	806	105	37	37	154	508	154	154
3 Dining Room	223	6,215	81	1-7	576	3,368	508	154	154	209	718	209	209
4 Kitchen	202	4,992	65	1-9	473	4,568	718	138	138	72	368	72	72
5 Great Room	289	4,921	64	1-7	516	3,017	453	138	138	158	757	158	158
6 Master Bath	92	3,967	52	1-5	528	1,574	368	72	72	40	241	40	40
7 Master Bedroom	232	4,274	56	1-8	453	3,461	757	158	158	4	0	4	4
8 Master W.I.c	44	2,324	30	1-4	456	870	241	40	40	16	72	16	16
9 Hall	36	144	2	1-2	191	91	0	4	4	973	3,978	973	973
10 Hall 2	24	887	12	1-2	727	347	72	16	16				
Ventilation	45		452		20		34						
System 1 total	1,369	34,696			21,312		3,978						
System 1 Main Trunk Size:	14x14 in.	793 ft./min											
Velocity:													
Loss per 100 ft.:													

Cooling System Summary												
Cooling Tons	Sensible/Latent Split	Sensible Btuh	Latent Btuh	Total Btuh	Net Required:	Recommended:	Actual:	Equipment Data				

Heating System	Air Source Heat Pump	VHC30C2A ARUF032-00A-1 HKR-05	Amana	7.5 HSPF	Efficiency:	Brand:	Model:	Type:	Capacity:	Sensible Capacity:	Latent Capacity:
Cooling System	Air Source Heat Pump	VHC30C2A ARUF032-00A-1	Amana	12SEER	Efficiency:	Brand:	Model:	Type:	Capacity:	Sensible Capacity:	Latent Capacity:

29,000	n/a	n/a	28,000	21,700 Btuh	7,300 Btuh
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PRODUCT APPROVAL SPECIFICATION SHEET

As required by Florida Statute 553.842 and Florida Administrative Code 9B-72, please provide the information and approval numbers on the building components listed below if they will be utilized on the construction project for which you are applying for a building permit. We recommend you contact your local product supplier should you not know the product approval number for any of the applicable listed products. Statewide approved products are listed online @ www.floridabuilding.org

Category/Subcategory	Manufacturer	Product Description	Approval Number(s)	X
1. EXTERIOR DOORS	Masonite	Entry Door	FL 19.1	
A. SWINGING				
B. SLIDING				
C. SECTIONAL/ROLL UP	Overhead Door	Garage door	FL 674	
D. OTHER				
2. WINDOWS				
A. SINGLE/DOUBLE HUNG	Simonton	Litehouse 437	FL 204.38	
B. HORIZONTAL SLIDER				
C. CASEMENT				
D. FIXED	Simonton	Litehouse 437	FL 178.40	
E. MULLION	Simonton	Litehouse 437	FL 2339.2	
F. SKYLIGHTS				
G. OTHER / GLASS BLOCK	Hy-Lite	Glass Block window	FL 1956.3	
3. PANEL WALL				
A. SIDING				
B. SOFFITS	Kaycan	Aluminum soffits	FL 1146.5	
C. STOREFRONTS				
D. GLASS BLOCK				
F. OTHER				
4. ROOFING PRODUCTS				
A. ASPHALT SHINGLES	Tamko	Heritage 38-R	FL 1956.3	
B. NON-STRUCT METAL				
C. ROOFING TILES				
D. SINGLE PLY ROOF				
E. OTHER				
5. STRUCT COMPONENTS				
A. WOOD CONNECTORS				
B. WOOD ANCHORS	Simpson	Truss anchors	1901.17 1901.45	
C. TRUSS PLATES			1901.25 1901.21	
D. INSULATION FORMS				
E. LINTELS	Cement Precast	Concrete lintels	FI 3048	
F. TRUSSES	Robins Eng.		SL 2934	
6. NEW EXTERIOR				
ENVELOPE PRODUCTS				
A.				

The products listed below did not demonstrate product approval at plan review. I understand that at the time of inspection of these products, the following information must be available to the inspector on the jobsite: 1) copy of the product approval, 2) performance characteristics which the product was tested and certified to comply with, 3) copy of the applicable manufacturers installation requirements. Further, I understand these products may have to be removed if approval cannot be demonstrated during inspection.

465 SW 12th Island Rd Fort White

APPLICANT SIGNATURE

DATE

Permit #
User ID



Truss Layout

Truss Number Number of Straps Number of Straps Number of Straps Number of Straps

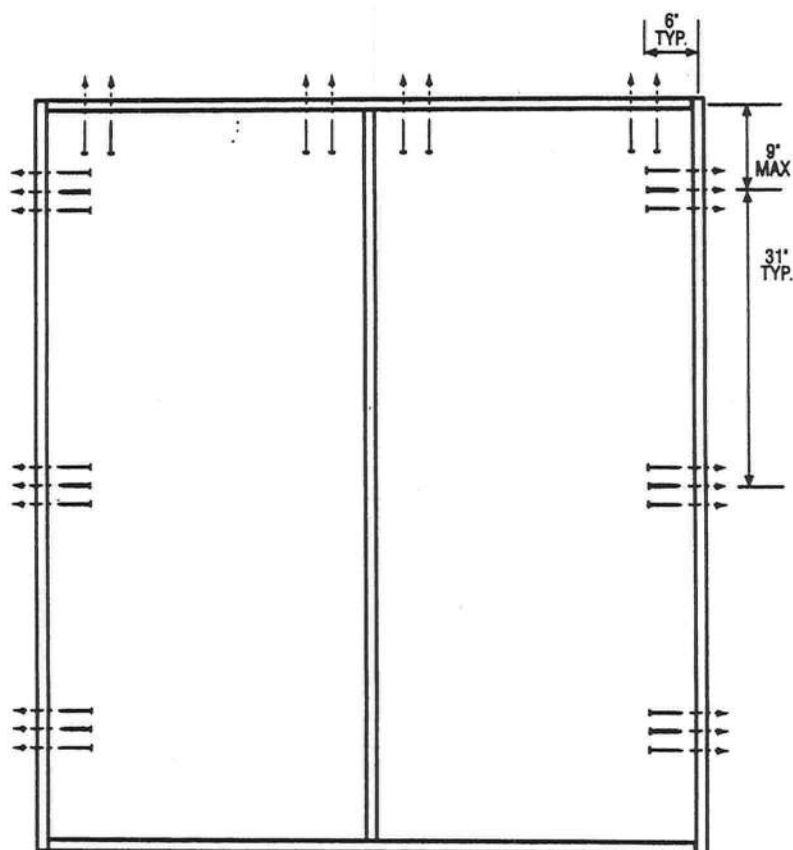
A1	2	Meta-22		
A2	1	Meta-22	1 hanger	
A3, A4	2	"		
A5	1	"		
A6, A7	1	Meta-22	1 hanger	
B1	2	Meta-22		
B3	2	Meta-22		

- 1) Buckets provided by truss manufacturer
- 2) All straps are Simpson

ATTACHMENT INFORMATION

WINDOWS, DOORS, AND MULL BARS INFORMATION

DOUBLE DOOR



Minimum Fastener Count

- 6 per vertical framing member for 7'0" heights and smaller
- 8 per vertical framing member for heights greater than 7'0"
- 8 per horizontal framing member

Hinge and strike plates require two 2-1/2" long screws per location.

Rough Opening (RO)

- Width of door unit plus 1/2"
- Height of door unit plus 1/4"



Test Data Review Certificate #3026447A; #3026447B; #3026447C and COP/Test Report Validation Matrix #3026447A-001, 002, 003, 004; #3026447B-001, 002, 003, 004; #3026447C-001, 002, 003, 004 provides additional information - available from the ITS/WH website (www.etssemco.com), the Masonite website (www.masonite.com) or the Masonite technical center.

Latching Hardware:

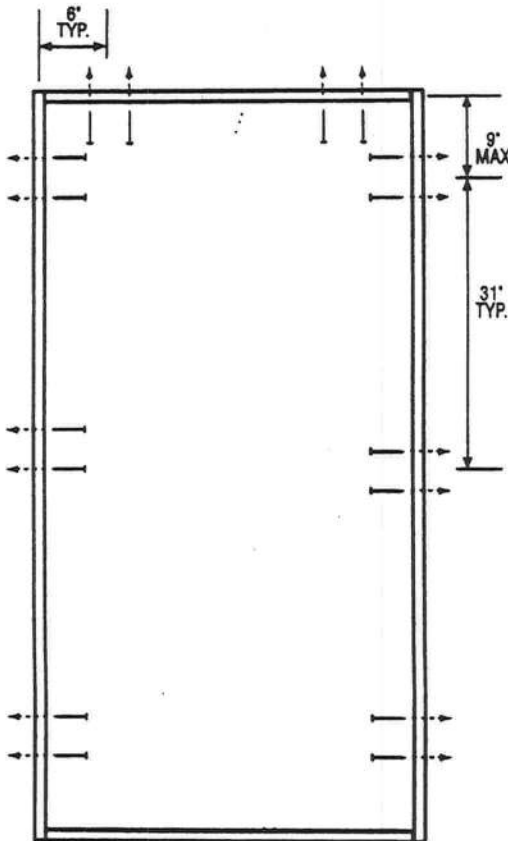
- Compliance requires that GRADE 3 or better (ANSI/BHMA A156.2) cylindrical and deadlock hardware be installed.
- **UNITS COVERED BY COP DOCUMENT 8247*, 8267*, 3242*, 3247, 3262* or 3267**
Compliance requires that 8" GRADE 1 (ANSI/BHMA A156.16) surface bolts be installed on latch side of active door panel - (1) at top and (1) at bottom.

*Based on required Design Pressure - see COP sheet for details.

Notes:

1. Anchor calculations have been carried out with the fastener rating from the different fasteners being considered for use. Jamb and head fasteners analyzed for this unit include #8 wood screws and 10d common nails. Threshold fasteners analyzed for this unit include Liquid Nails Builders Choice 490 (or equal structural adhesive).
2. The wood screw and common nail single shear design values come from ANSI/AF & PA NDS for southern pine lumber with a side member thickness of 1-1/4" and achievement of minimum embedment of 1-1/4".
3. Wood bucks by others, must be anchored properly to transfer loads to the structure.

SINGLE DOOR



Minimum Fastener Count

- 6 per vertical framing member for 7'0" height and smaller
- 8 per vertical framing member for heights greater than 7'0"
- 4 per horizontal framing member

Hinge and strike plates require two 2-1/2" long screws per location.

Rough Opening (RO)

- Width of door unit plus 1/2"
- Height of door unit plus 1/4"



Test Data Review Certificate #3026447A; #3026447B; #3026447C and COP/Test Report Validation Matrix #3026447A-001, 002, 003, 004; #3026447B-001, 002, 003, 004; #3026447C-001, 002, 003, 004 provides additional information - available from the ITS/WH website (www.itssemko.com), the Masonite website (www.masonite.com) or the Masonite technical center.

Latching Hardware:

- Compliance requires that GRADE 3 or better (ANSI/BHMA A156.2) cylindrical and deadlock hardware be installed.
- **UNITS COVERED BY COP DOCUMENT 8246*, 8266*, 3241*, 3246, 3261* or 3266**
Compliance requires that 8" GRADE 1 (ANSI/BHMA A156.16) surface bolts be installed on latch side of active door panel - (1) at top and (1) at bottom.

*Based on required Design Pressure - see COP sheet for details.

Notes:

1. Anchor calculations have been carried out with the fastener rating from the different fasteners being considered for use. Jamb and head fasteners analyzed for this unit include 10d common nails. Threshold fasteners analyzed for this unit include Liquid Nails Builders Choice 490 (or equal structural adhesive).
2. The common nail single shear design values come from ANS/AF & PA NDS for southern pine lumber with a side member thickness of 1-1/4" and achievement of minimum embedment of 1-1/4".
3. Wood bucks by others, must be anchored properly to transfer loads to the structure.

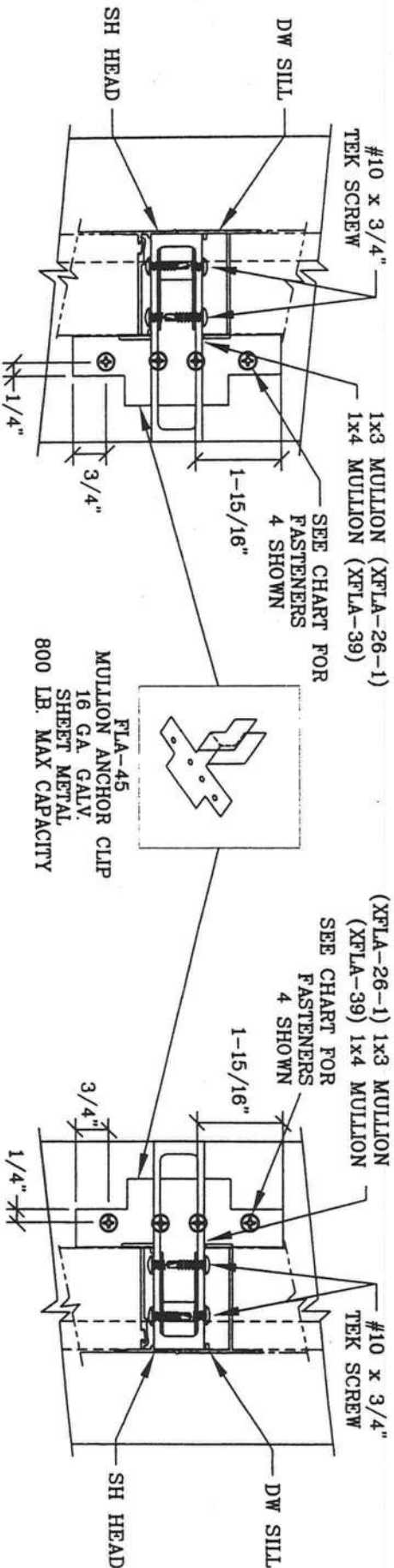
NOTES:

- 1) ALL ALUMINUM EXTRUSIONS ARE ALLOY 6063 T6, OR 6063 T5.
- 2) WHEN THERE IS ONE TAPCON (1/4" X 1-1/2") ON EACH ANGLE LEG, THE TAPCON SHALL BE PLACED ON MULLION CLIP CENTERLINE.
- 3) CONCRETE COMPRESSIVE STRENGTH = 3,000 PSI AT 28 DAYS.

6.4.12
G.A.P.
CHARLES A. ROBERTS
FL. REG. ENG. # 24811
DATE: 3/21/02
ENGINEER

HORIZONTAL MULLION SCHEDULE

SINGLE WINDOW WIDTH INCH	WINDOW HEIGHT INCH	TYPE OF MULLION	TYPE OF CLIP	NUMBER AND TYPE OF FASTENERS
19-1/8"	26" 38-1/4" 50-5/8"	1.0 x 3.0 1.0 x 3.0 1.0 x 3.0	FLA-45	(4) 3/16" x 1-1/2" TAPCONS (4) 3/16" x 1-1/2" TAPCONS (4) 3/16" x 1-1/2" TAPCONS
26-1/2"	26" 38-1/4" 50-5/8"	1.0 x 3.0 1.0 x 3.0 1.0 x 3.0	OK	(4) 3/16" x 1-1/2" TAPCONS (4) 3/16" x 1-1/2" TAPCONS (4) 3/16" x 1-1/2" TAPCONS
37"	26" 38-1/4" 50-5/8"	1.0 x 3.0 1.0 x 3.0 1.0 x 3.0	OK	(4) 3/16" x 1-1/2" TAPCONS (4) 3/16" x 1-1/2" TAPCONS (4) 3/16" x 1-1/2" TAPCONS
53-1/8"	26" 38-1/4" 50-5/8"	1.0 x 3.0 1.0 x 3.0 1.0 x 3.0	OK	(4) 3/16" x 1-1/2" TAPCONS (4) 3/16" x 1-1/2" TAPCONS (4) 3/16" x 1-1/2" TAPCONS
76-3/4"	26" 38-1/4" 50-5/8"	1.0 x 3.0 1.0 x 3.0 1.0 x 3.0	OK	(4) 3/16" x 1-1/2" TAPCONS (4) 3/16" x 1-1/2" TAPCONS (4) 3/16" x 1-1/2" TAPCONS

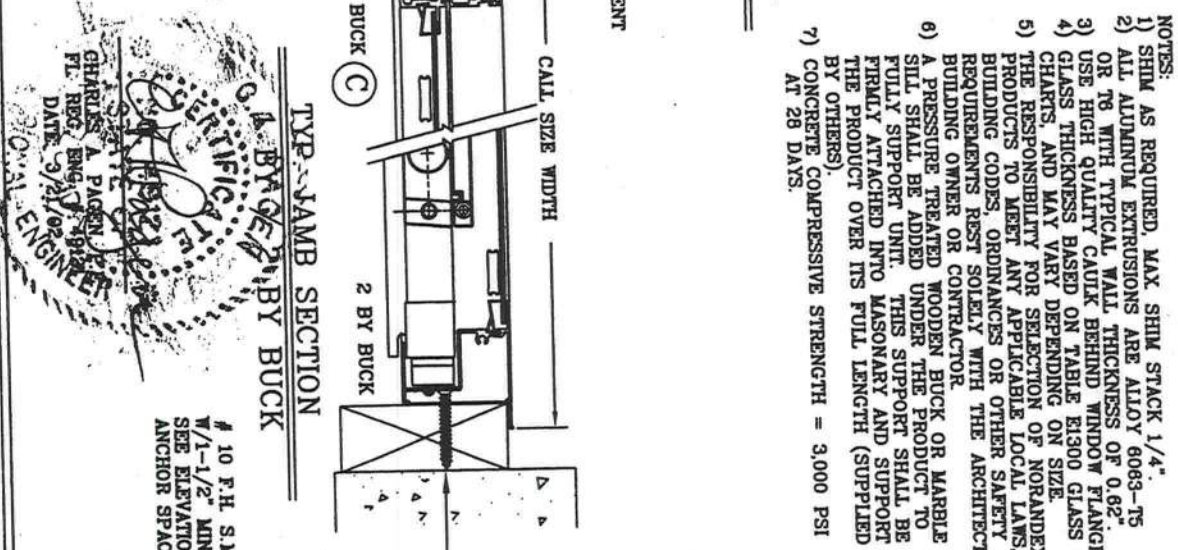
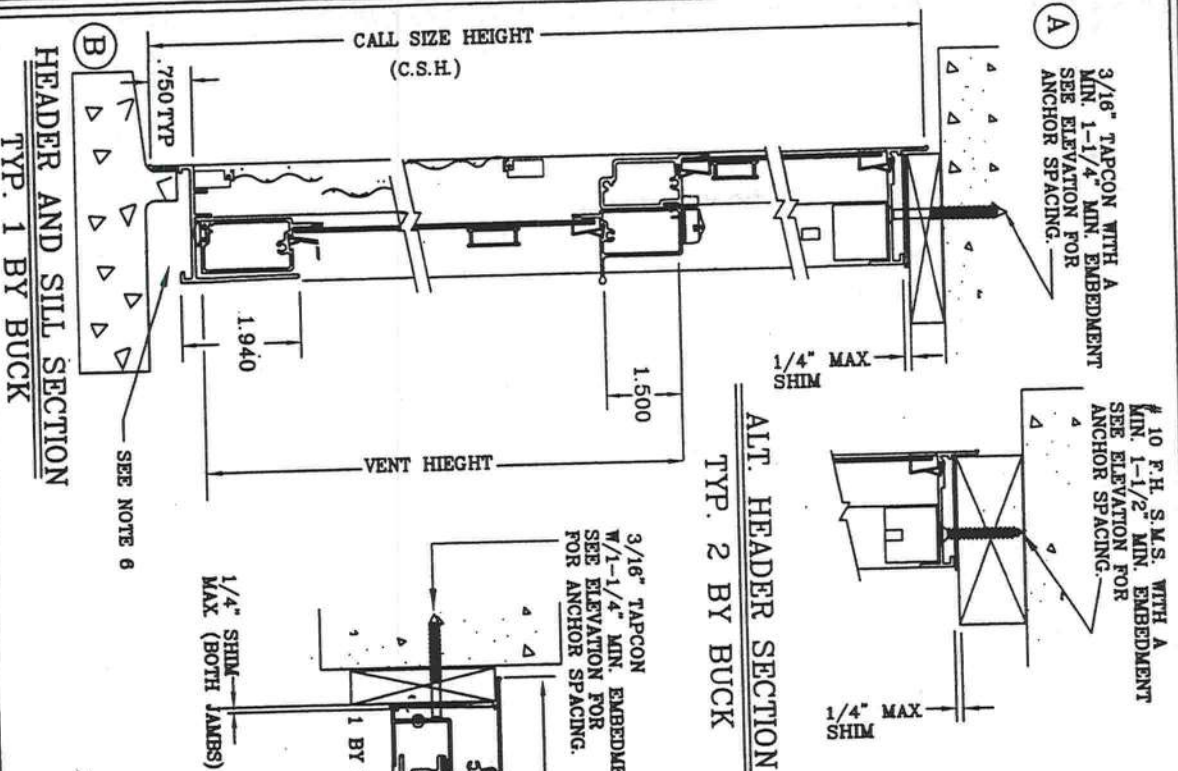


HORIZONTAL MULLION
FLA-45 ANCHOR CLIP
INSTALLATION DETAIL AND
FASTENER SCHEDULE

SERIES: MULLION
ALUMINUM SINGLE HUNG

NORANDEX
4505 30th STREET WEST
BRADENTON, FL 34207
PHONE: (941) 755-1591

3/11/02	NO. DATE	REVISIONS DESCRIPTION
SCALE: N.T.S.		
DWG. BY: RAE		
CHK. BY: RLK		
DWG. NO.: FBC-030		



WINDOW DIMENSIONS		FASTENER SCHEDULE			
WIDTH (INCHES)	HEIGHT (INCHES)	NO. ANCHORS HEAD		NO. ANCHORS JAMB	
		35	45	35	45
		(PSF)	(PSF)	(PSF)	(PSF)
19-1/8"	26"	2	2	2	2
26-1/2"	26"	2	2	2	2
37"	26"	2	2	2	2
53-1/8"	26"	3	3	3	3
19-1/8"	38-1/4"	2	2	2	2
26-1/2"	38-1/4"	2	2	2	2
37"	38-1/4"	2	2	2	2
53-1/8"	38-1/4"	3	3	3	3
19-1/8"	50-5/8"	2	2	2	2
26-1/2"	50-5/8"	2	2	2	2
37"	50-5/8"	2	2	2	2
53-1/8"	50-5/8"	3	3	3	3
19-1/8"	63"	2	2	2	2
26-1/2"	63"	2	2	2	2
37"	63"	2	2	2	2
53-1/8"	63"	3	3	3	3
19-1/8"	76-3/4"	2	2	2	2
26-1/2"	76-3/4"	2	2	2	2
37"	76-3/4"	2	2	2	2
53-1/8"	76-3/4"	3	3	3	3

DATE: 12/22/01
SCALE: N.T.S.
DWG. BY: J.R.M.
CHK. BY: RLK

SERIES: 437
ALUMINUM SINGLE HUNG

NORANDEX
4505 30th STREET WEST
BRADENTON, FL 34207
PHONE: (841) 755-1581

**437 SINGLE HUNG
INSTALLATION DETAIL
AND
FASTENER SCHEDULE**

DWG. NO.: FBC-009

NO.	DATE	REVISIONS DESCRIPTION

CERTIFIED TESTING LABORATORIES

Architectural Division • 7252 Narcoossee Rd. • Orlando, FL 32822

(407) 384-7744 • Fax (407) 384-7751

Web Site: www.ctlarch.com

E-mail: ctlarch.com

Report Number:

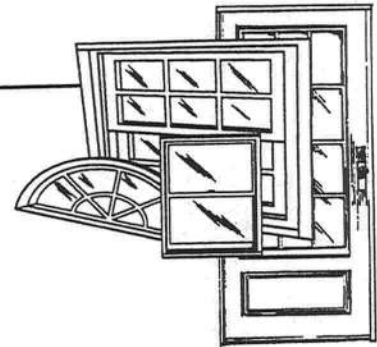
CTLA-809W-1

Test Date:

December 19, 2001

Report Date:

January 28, 2002



STRUCTURAL PERFORMANCE TEST REPORT

Client: NORANDEX
4504 - 30th STREET WEST
BRADENTON, FLORIDA 34207

Product Type and Series: SERIES 437 SINGLE HUNG ALUMINUM WINDOW
H-LC 35 (53" x 77")

Test Specification: AAMA 101/I.S.2-97 "Voluntary Specification for Aluminum, Vinyl (PVC) and Wood Windows and Glass Doors".

Test Specimen

Frame: The flange frame was 52.5" x 76.75" overall and of coped corner construction. The header jamb corners used one (1) # 6 x 1" P.H. S.M.S. fastener. The sill jamb corner employed two (2) # 6 x 1" P.H. S.M.S. fasteners. The fixed meeting rail employed two (2) # 6 x 1" P.H. S.M.S. fasteners into each jamb. The sill riser was riveted to each jamb on the interior surface.

Ventilators: The active sash measured 50.5" x 39.0". A fixed light glazed at the top with a clear opening of 48.5" x 35". The active sash corners were fastened with one (1) # 6 x 1" P.H., S.M.S. fastener.

Weatherstripping: A single strip of center fin pile weatherstrip .220" high was used in the fixed rail, and left and right stiles, a .312 o.d. bulb vinyl was used in the sash bottom rail.

Hardware & Location: A block and tackle balance system was employed. One take out clip on the interior of each jamb track 5" from frame header. A rigid vinyl sash stop was located at the top of each interior jamb track. An injection molded plastic sash guide was used at the top of each sash stile. Two (2) metallic cam locks were fastened to the sash meeting rail 14" from each end, locking into metallic keepers fastened to the fixed rail.

Glazing: 3/16" Annealed glass, interior glazed using a silicone bedding compound and rigid vinyl snap in glazing bead.

Sealant: A narrow joint seam sealer was used on jamb sill corners. A foam rubber gasket was employed at all four main frame corners.

[Signature]
1/31/02

Weepholes: Sash and screen retaining leg notched .500" x lg. ht. each sill corner.

Muntins: None

Reinforcement: None

Additional Description: Unit tested had a sill height of 1.940" drawing # XFLA 3K

Screen: Insect screen with plastic corner keys, vinyl pull tabs, fiberglass mesh, and vinyl spline.
Two (2) retainer springs.

Installation: Test specimen was fastened to the header with three (3) # 6 x .875" P.P.H. screws, 4.5" from each corner and at center span. Each jamb was fastened with six (6) #6 x 2" P.P.H., SMS. located measuring from head to sill 8", 23", 42", 52.25", 70" and 88".

Surface Finish: Bronze

Performance Test Results

<u>Paragraph No.</u>	<u>Title of Test</u>	<u>Test Method</u>	<u>Measured</u>	<u>Allowed</u>
2.1.2	Air Infiltration @ 1.57 psf	ASTM E283-91	.05 cfm/ft ²	.3 cfm/ft ²
The tested specimen exceeds the performance requirements in AAMA/NWWDA 101/I.S.2-97. Results recorded in two (2) decimals at the clients request				
2.1.3/4.3	Water Resistance 5.0 gpf/ft ² WTP=6.75 psf	ASTM E547-86 Four (4) five minute cycles ASTM E331-96 Fifteen (15) minute cycle	No Entry No Entry	No Entry No Entry
Tested with and without insect screen				
2.1.4.2/4.4.2*	Uniform Load Structural Permanent Deformation @ 67.5 psf Exterior @ 67.5 psf Interior	ASTM E330-90 Ten (10) second Loading	.073" .051"	.202" .202"
2.1.8*	Forced Entry Resistance Test A Test B Test C Test D,E & F Test G	AAMA 1302.5-76	0" 0" 0" 0" 0"	1/2" 1/2" 1/2" 1/2" 1/2"
2.2.2.5.1	Operating force	ANSI/AMMA 101-93	10 LBS	35 LBS
2.2.3.5.2*	Deglazing Top Rail (70 lbs) Bottom Rail (70 lbs) Left Stile (50 lbs) Right Stile (50 lbs)	ASTM E987-88	2.8% 2.6% 1.4% 1.2%	(.014)<100% (.013)<100% (.007)<100% (.006)<100%

[Handwritten Signature]
1/31/02

Test Completion Date: December 20, 2001

Remarks: Detail drawings were available for laboratory records and comparison to the test specimen at the time of this report. A copy of this report along with representative sections of the test specimen will be retained by CTL for a period of four (4) years. The results obtained apply only to the specimen tested.

This test report does not constitute certification of this product, but only that the above test results were obtained using the designated test methods and they indicate compliance with the performance requirements (paragraphs as listed) of the above referenced specifications.

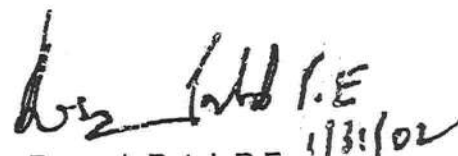
Certified Testing Laboratories assumes that all information provided by the client is accurate and that the physical and chemical properties of the components are as stated by the manufacturer.

Certified Testing Laboratories, Inc.



James Blakely
Vice President

cc: NORANDEX (2)
A.L.I. (2)
Ramesh Patel, P.E. (1)
File (1)



Ramesh Patel, P.E.
Florida Reg. #20224



Professional Engineer
Ramesh Patel, P.E.
49127
4-8-02

EXTERIOR FINISHES INFORMATION

ACROCRETE

ARCHITECTURAL FINISHES

In order to use the Acrocrete ES System in the southern part of Florida it became necessary to obtain a Miami-Dade County Product Listing. This can only be obtained after the product passes very strict testing for wind loads and impact resistance. Since often our systems are designed to perform in high wind load areas the information and testing data will be relevant.

The criteria for Miami-Dade County Approval is all based on a wall system staying in tact during severe weather conditions. Not only, are wall samples subjected to wind loads ranging from 176 MPH to 242 MPH, but both large and small missiles are shot at the wall to evaluate their ability to prevent flying objects from penetrating the wall. Four systems were tested as follows:

- 1) Acrocrete ES adhesively attached to CMU construction. This system passed the 150 PSF windload (242MPH) and also passed the large missile test (2X4 stud shot out of a cannon).
Compliance # 00-1114.04
- 2) Acrocrete ES adhesively attached to gypsum sheathing on steel studs. This system passed the 80 PSF windload (176 MPH) and also passed the large missile test. Please note, that this wall sample incorporated high impact mesh in its design.
Compliance # 00-114-05
- 3) Acrocrete ES adhesively attached to gypsum board on steel studs. This system passed the 85 PSF windload (182 MPH) and also, passed the small missile impact test. This was the standard ES system using only standard mesh.
Compliance # 00-1114.03
- 4) Acrocrete ES adhesively attached to plywood over wood studs. This system passed the 110 PSF (207 MPH) windload, as well as, the large missile test.
Compliance # 00-1114.06

Enclosed is the documentation for each of these four systems. These tests were conducted at the "Hurricane Test Laboratory, Inc., in Riviera Beach, Florida and are certified by W. W. Schaeffer Engineering and Consulting, P.A. There are four separate sets of documentation, one for each system. The first page outlines the method of wall construction, the wind load passed and the impact results. The following pages describe the construction details.

In a competitive situation please pay close attention to the method of wall construction. Other companies also have these approvals, but in many instances you have a competitive advantage. As an example our Acrocrete ES wall over gypsum board was constructed using 3-5/8" studs of 18 gauge thickness. One competitor has the same test but needs to use 6" studs. Make sure you compare the design of the wall.

ACROCRETE

ARCHITECTURAL FINISHES

ACROMESH

STANDARD - STARTER - JOINT TAPE

WRAP YARN	ECG 37 1/0
COUNT, NOMINAL, PER INCH	12
FILLING YARN	ECK 18 1/0
COUNT, NOMINAL, PER INCH	6
TENSILE, LB./IN. MIN.	150
WRAP FILL	150
THICKNESS, INCHES	0.0135 + 10%
WEIGHT, OZ./YD	4.5 + 10%
IGNITION LOSS	10-14%
FINISH	ALKALI RESISTANT
WEAVE	LENO
SELVAGE	SLIT EDGE
PUT-UP	50 YARD ROLLS
	4 ROLLS/CARTON

ALL STATEMENTS HEREIN ARE EXPRESSIONS OF OPINION WHICH WE BELIEVE TO BE ACCURATE AND RELIABLE BUT ARE PRESENTED WITHOUT GUARANTEE OR RESPONSIBILITY ON OUR PART. STATEMENTS CONCERNING POSSIBLE USE OF OUR PRODUCTS ARE NOT INTENDED AS RECOMMENDATIONS FOR THEIR USE IN THE INFRINGEMENT OF ANY PATENT. NO PATENT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, IS MADE OR INTENDED.

ACROCRETE

ARCHITECTURAL FINISHES

ACROBASE 90

DESCRIPTION

ACROBASE 90 is an acrylic based product which is field mixed with Portland cement to produce an adhesive and base coat combination. ACROBASE 90 is formulated to achieve optimum adhesion, hardness and crack resistant characteristics, when properly mixed with most type I or II Portland cements.

USES

ACROBASE 90 is used to adhere EPS board to an approved substrate and to embed ACROMESH reinforcing mesh as part of the base coat of the ACROWALL systems. ACROBASE 90 can be used as a skim coat to produce a smooth level surface on masonry or concrete.

ACROBASE 90 IS A MULTI-USE PRODUCT

1. For use as an adhesive to affix insulation board to an approved substrate.
2. As a base coat or bed coat for glass fiber ACROMESH.
3. As a base coat over block or poured-in-place concrete.
4. For use as the base coat in all of ACROCRETE's approved systems.

Properties

Working Time — After mixing, the working time of ACROBASE 90 is approximately one hour depending on ambient conditions.

Excessive heat on substrate can cause product failure, wall surface temperatures must be maintained between 40 and 100°F during application.

Drying Time — When used to bond insulation board to approved substrate, a period of 24 hours must elapse to allow the ACROBASE 90 to form a positive bond. The insulation board should not be worked on while the ACROBASE is curing. Drying of the ACROBASE 90 base coat is dependent on the air temperature and relative humidity. Under average drying conditions (70°Fm 55% R.H.), ACROBASE 90 should be ready to receive the finish in 24 hours. Protect work from rain for at least 24 hours.

Temporary Preparation — Protection shall be provided at all times until base coat, finish, and permanent flashings, sealants, etc. are completed to protect the wall from weather and other damage.

Substrate Preparation — ACROCRETE recommended substrates: Typically, these include exterior grade gypsum sheathing on either steel or wood studs, Celotex Quick-R® sheathing, Georgia-Pacific Dens-Glass Gold® sheathing, clean unpainted concrete block, and stucco. All substrates must be flat within 1/4" within any four foot radius.

Surface preparation — Surfaces must be above 40°F and rising and must remain so for at least 24 hours. Surfaces must be clean, dry, structurally sound

and free of efflorescence, grease, oil, form release agents and curing compounds.

Mixing — Proper mixing of this product is essential to

the quality and durability that is expected of this product.

The most important part of the mix is the ratio to which ACROBASE 90 and cement are mixed together.

ACROBASE 90 adhesive is distributed in 5 gallon pails that weigh approximately 60 lbs.

Proper mix ratio is 60 lbs. ACROBASE 90 to 94 lbs. Portland cement (1 pail to 1 bag).

PRIOR TO MIXING ACROBASE WITH CEMENT, YOU MUST PRE-BLEND THE CONTENTS OF THE PAIL TO INSURE THAT SEPARATION HAS NOT OCCURRED DURING SHIPPING.

The easiest method of mixing the product, if not using a portable mixer, is to divide 1 pail ACROBASE 90 in thirds by pouring equal parts into 2 empty pails and leaving the remainder in the original pail.

Next, equally divide 1 bag of Portland cement in thirds. Use a 1/2 or 3/4 inch drill and Jiffier paddle. Slowly add 1 portion of the cement while mixing with the drill and Jiffier mixing paddle.

You will need to add a small amount of clean potable water to this mix while blending to eliminate all lumps and ensure proper mix.

Easy to Handle:

Dens-Glass Gold Sheathing is easy to handle and cut as ordinary gypsum sheathing - and its superior flexural strength in the 4' direction makes it far more resistant to damage in handling.

Embedded Glass Mats:

Glass mats actually penetrate right into the panel itself, creating an integrated unit that withstands delamination, deterioration, warping, and job-site damage far more effectively than paper-faced gypsum sheathing.

Warranty:

G-P Gypsum backs Dens-Glass Gold Sheathing with the best limited warranty in the industry:

Dens-Glass Gold Sheathing is warranted for six months exposure from purchase date against delamination deterioration from weather exposure with a five-year limited warranty against manufacturing defects and a 10-year limited warranty when used as a substrate for architecturally specified Exterior Insulated Finish Systems (EIFS). Our confidence in Dens-Glass Gold Sheathing's superiority over any other gypsum sheathing is so

strong we put it in writing. Read our warranties on page 14 of this publication for full details.

Standards and Code Compliance

Dens-Glass Gold Sheathing conforms to ASTM C 1177. Application standards where applicable are in accordance with Gypsum Association Publication GA-253 for gypsum sheathing.

- ICBO ES 4305
- SBCCI P8T and ESI #9540A
- BOCA ES #95-28
- N.Y. City MEA 244-88-M
- CCMC-12064-R
- Wisconsin DPHL-960015-S
- Los Angeles RR-25008

DENS-GLASS GOLD APPLICATIONS

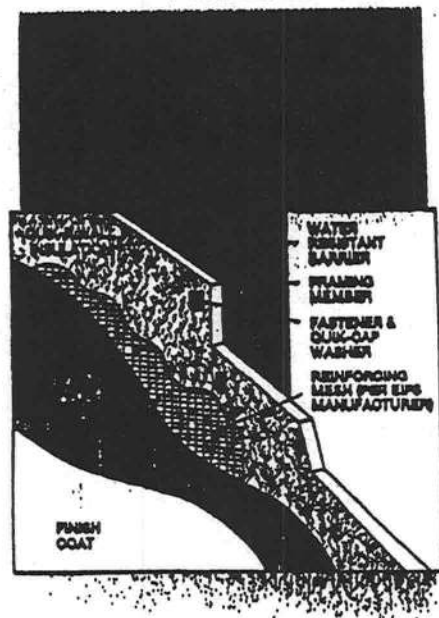
1. Exterior finish systems with insulation (EIFS)

Dens-Glass Gold Sheathing panels are treated with an exclusive "gold" primer coating. This coating, proprietary to G-P Gypsum and developed especially for Dens-Glass Gold Sheathing, has several important advantages for EIFS applications:

- Eliminates the need for a sealer/primer with adhesively applied EIFS

- Strengthens the bond between panel and surfacing product
 - Makes the panel more resistant to surface water. The result: labor cost and call-backs go down - while customer satisfaction on each project goes up.
2. Brick veneer with cavity wall
- Moisture-resistant
 - Fire-resistant - 1- and 2-hour fire assemblies
 - Six-month weather exposure
 - Building felt not required, unless specified by design authority or code
 - Provides water and air barrier with joint protection
3. Single-ply backing for traditional cladding
- Wood, vinyl or composition siding
 - Wood shakes or shingles
 - Stone or brick cavity walls
 - Conventional stucco system
 - Plywood siding panels
4. Exterior ceilings and soffits





Qulk-R should be installed with a maximum 1 perm vapor retarder or as required by local building codes.

Qulk-R can be used with conventional Portland cement stucco provided the stucco is reinforced with metal lath.

Within 14 days after the application of Qulk-R Wall Insulation, a EIFS base coat shall be trowel applied over the insulation board surface. If application will begin after 14 days, protect the Qulk-R from the weather. If the 14 day limit will be exceeded, the EIFS manufacturer and their applicator must determine the proper protection for the Qulk-R. Before applying the base coat, all roofing materials should be evenly distributed on the roof. Gypsum board or other interior finish materials should be distributed on the interior to prevent settling cracks. Thickness of base coat application shall be as specified by the EIFS manufacturer or minimum 1/8" maximum 1/4". Prior to full base coat application, glass fiber reinforcement mesh as specified by the coating manufacturer must be embedded into freshly applied base coat over all insulation board joints, all corners and edges including bottom edge, door and window openings. Spot each Qulk-Cap washer with base coat.

Wood Or Steel Studs Application

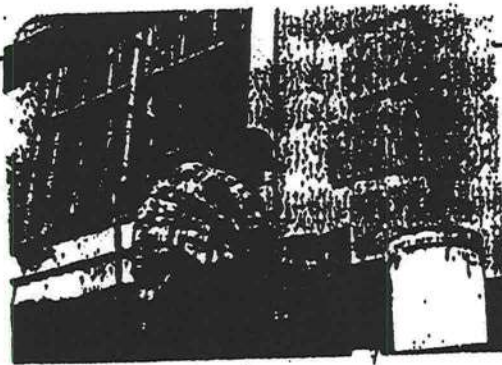
■ Qulk-R™ 1" Thickness Or Greater

16" Span - Install boards vertically or horizontally with long edge running parallel to and over a maximum 16" o.c. framing or supports, with each board spanning a minimum of 3 supports or framing members. All butt joints shall terminate over a framing support member.

24" Span - In spans 24" o.c. for either vertical or horizontal applications the Qulk-R board must be backed by a minimum 1/2" gypsum, plywood, oriented strand board or Celotex Wood Fiberboard. All butt joints shall terminate over a framing support member.

■ Qulk-R Less Than 1" Thickness

16" & 24" Span - In spans 16" and 24" o.c. for either vertical or horizontal applications, the Qulk-R board must be backed by 1/2" gypsum, plywood, oriented strand board or Celotex Wood Fiberboard. All butt joints shall terminate over a framing or support member.



performance test

Quik-R Wall Insulation has passed the requirements of UL 1715 (UBC 26-3) for walls only applications for exposed applications in attic and crawl spaces.

EIFS incorporating Quik-R Wall Insulation have:

- Passed the radiant panel test method for ignitibility characteristics of exterior wall systems.
- Met the requirements for a nonload-bearing 1-hour fire resistance rating (ASTM E 119, UBC 7-1, UL 263) for both interior and exterior fire exposure.
- Been tested for wind load structural performance (ASTM E 330) for both positive and negative wind loads.

typical physical properties

compressive strength	ASTM D 1621	25 psi min
dimensional stability	ASTM D 2126 70°C/90% RH	1% change max
product density	ASTM D 1622	nominal 2 pcf
water vapor permeability	ASTM E 96	3.0 max (perm - in)
water absorption 24 hrs	ASTM C 209	1% by volume

Application

General Information

Storage: Quik-R™ Wall Insulation should be stored dry and protected from weather.

Quik-R Wall Insulation is not a structural load bearing product; code approved corner bracing must be used.

All board joints (vertical or horizontal) must be over framing, blocking, or solid backing.

Quik-R shall be installed 6" or more from soil and/or grade. Regular extermination of insects and pests is recommended to prevent damage to the insulation.

Prior to attachment of Quik-R a water resistant barrier, such as 15 lb. felt, kraft waterproof building paper, or equivalent, must be applied to the total wall surface.

Quik-R must be mechanically fastened by placing corrosion-resistant fasteners through a Celotex Quik-Cap Washer. This washer is specifically designed for use with Celotex Quik-R Wall Insulation. Quik-Cap Washers are available in hot dipped galvanized steel or plastic.

Before application of EIFS coating begins, suitable caulking materials shall be used to seal irregular trim cuts/board joints and irregular wall penetrations to provide a level and closed surface. All Quik-R edges and joints between Quik-R and other materials shall be protected from water penetration. Caulking specifications shall be as required by the EIFS manufacturer.

Type and design, location and installation specifications for expansions and/or contraction joints shall be in accordance with the requirements and recommendations of the EIFS manufacturer to deal with mechanical movement anticipated in the structural/framing system or thermal expansion/contraction responses.

Large wall areas can be aesthetically enhanced by installing "architectural breaks" such as a strip of Quik-R applied horizontally over the wall surface.

In the event of rain after Quik-R Wall Insulation has been installed, allow exterior insulation board surfaces to thoroughly air dry before applying exterior finish coatings.

RECOMMENDATIONS
FOR FRAMING,
FASTENING AND
JOINT TREATMENT

Negative Uniform Lateral Loads

Thickness, inches	Board Orientation	Stud Spacing, in./o.c.	Maximum Load (psf)
1/2"	Vertical	16	65
1/2"	Horizontal	16	70
5/8"	Vertical	24	69
5/8"	Horizontal	24	85
3/4"	Vertical	16	96

(WIND LOAD) ASTM E 330* (Bugle head screws, 8" o.c.) *TPI Report #89-047.

Fastener Chart

Fastener	Fastener length		Description	Application
	1/4" Thick	3/4" Thick		
	1"	1 1/4"	Bugle head fine thread, rust-resistant, drill point drywall screw (Type S-12)	Decor-Glass Gold to heavy steel gauge (12-22 gauge)
	1"	1 1/4"	Bugle head fine thread, sharp point, rust-resistant drywall screw (Type S)	Decor-Glass Gold to light gauge metal framing or furring
	1 1/4"	1 1/4"	Bugle head rust-resistant coarse thread sharp point screw (Type W)	Decor-Glass Gold to wood framing
	1 1/4"	1 1/4"	Washer head, rust-resistant screws, Type S-12 drill or hi-lo	Decor-Glass Gold heavy or light gauge metal, wood, respectively
	1 1/4"	1 1/4"	Hot dip 11 gauge, galvanized, 1/4" head nail or equivalent	Decor-Glass Gold to wood framing

Air Infiltration and Static Water Penetration Test Results

Joint Method	ASTM E 383-84, CFM Air Infiltration @ 6.24 PSF ¹		ASTM E 331-84, Water Penetration @ 6.24 PSF ¹ @ 12 PSF ²		
		Allowable			Allowable ³
#1	0	6.0	None	None	1/8" oc.
#2	.30	6.0	None	None	1/8" oc.

1. 6.24 PSF is equivalent to approx. 49 mph wind.

2. 12 PSF is equivalent to approx. 69 mph wind. This pressure differential is typically used for high-performance glass enclosures for high-rise buildings. Normally only 6.24 PSF pressure is required for a water barrier. These are constant wind ratings.

3. Test method allows for one leak at no greater than 1/8" oc. of water in 15 minutes.





Technical Support (800) SE SPECS - (800) 737-7327

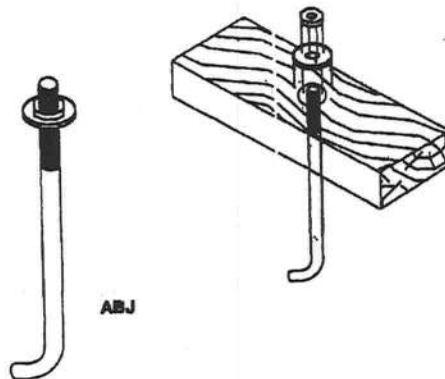
ANCHOR BOLT WITH NUT & 1" WASHER

Design Features:

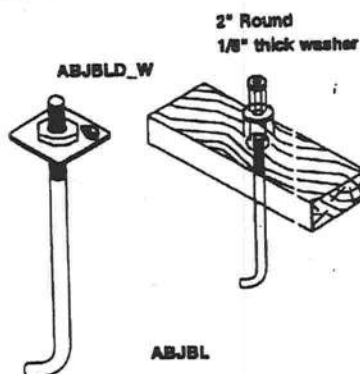
- Bolt only with code minimum embedment with 3000 PSI concrete will resist 4,800 lbs., see washer capacity below.

Materials: Black and galvanized steel

Footnote: Other sizes available on request. All references to bolts or MB's are structural quality through bolts equal to or better than ASTM Standard A307.



SIZE	PRODUCT CODE	DESCRIPTION	PER CTN
1/2 X8	ABJBL8C	Black	50
1/2 X8	ABJBL8G	Black	50
1/2 X10	ABJBL10C	Black	50
1/2 X12	ABJBL12C	Black	50
1/2 X14	ABJBL14C	Black	50
1/2 X16	ABJBL16C	Black	50
1/2 X18	ABJBL18C	Black	50
1/2 X8	ABJGA8	Galv.	50
1/2 X8	ABJGA10	Galv.	50
5/8 X10	ABJBL10D	Black	50
5/8 X12	ABJBL12D	Black	50



ANCHOR BOLT (WITH NUT & 2"X2"X1/8" WASHER)

Design Features:

- 6" minimum embedment with 3000 PSI concrete will resist 1,635 lbs.

Materials: Black steel

Footnote: *Supplied with a 2" round washer 1/8" thick.

Wind uplift loads are based on the shear capacity of No. 2 Southern Pine. Compression perpendicular to grain 565 (psi).

SIZE	PRODUCT CODE	DESCRIPTION	PER CTN
1/2x8	ABJBL8W	Black	50
1/2x10	ABJBL10W	Black	50
1/2x12	ABJBL12W	Black	50
5/8x12	ABJBL12DW	Black	50

ANCHOR BOLT WASHER/PLATE

Design Features:

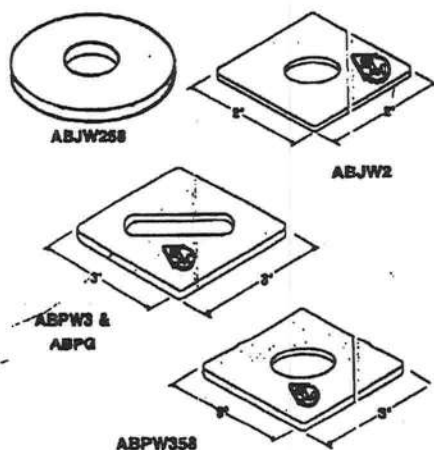
- The washer/plate adds increased resistance to wind uplift for bottom all plate anchor bolt.

Materials: 10 Gauge Galvanized & 1/8 & 1/4 Black steel

Footnote: *Also available in 50# ctn: approximately 345 pcs.

Wind uplift loads are based on the shear capacity of No. 2 Southern Pine. Compression perpendicular to grain 565 (psi).

+Round hole in washer.



SIZE (ANCHOR)	GAUGE	PRODUCT CODE	ANCHOR BOLT (DIAMETER)	ALLOWABLE LOADS		PER CTN
				WIND / EARTHQUAKE UPLIFT 150%	UPLIFT 100%	
2x2	1/8	ABJW2	1/2"	1635	1635	50
2x2	1/8	ABJW258	5/8"	1470	1470	50
2x3	10	ABPG12	1/2"	3675	3675	40
2x3	10	ABPG58	5/8"	3675	3675	40
2x4	1/4	ABPW3	1/2"	4800	4800	40
2x4	1/4	ABPW358	5/8"	4800	4800	40

GARAGE DOORS INFORMATION

TECHNICAL DATA SHEET

#1550

GARAGE DOOR WIND LOAD GUIDE
BASED ON THE 2001 FLORIDA BUILDING CODE (ASCE 7-98) EXPOSURE B

Mean Roof Height	Door Size	90 MPH	100 MPH	110 MPH	120 MPH	130 MPH	140 MPH	150 MPH
Less than 30 Feet	Single 8' x 7'	-12.8	-15.8	-19.1	-22.8	-26.7	-31.0	-35.6
	Double 16' x 7'	-12.9	-16.2	-19.3	-23.8	-28.6	-33.7	-39.1
		-13.7	-16.9	-20.4	-24.3	-28.5	-33.1	-38.0

Design pressures above are in Pounds per Square Foot (PSF)

Testing, if required by local authority, may be performed to ASTM E-330, or preferably DASMA 108.
 Impact and cyclic wind pressure testing on glazed doors may be performed to ASTM E-1886, or preferably DASMA 115.

Test conditions:

1. Garage doors shall be tested to both negative and positive pressures. Doors shall be installed simulating normal conditions (i.e., top roller in track radius, other rollers in tracks, all hinges in place, reinforcing hardware in place)
2. Total test duration for each test direction shall be as follows:
 - A. Total of 3600/V seconds, at design pressure; where V is fastest-mile design wind speed.
 - B. Pressure equal to 1.5 times the design pressure shall be included for 10 seconds during each test.

The door successfully passes the test if it remains safely operable through the full travel up and down, and recovers at least 75% of its maximum deflection. Standard engineering principles may be used to interpolate or extrapolate test results to door sizes not specifically tested. Doors shall include a manufacturer's label certifying compliance to specific load.

This guide is provided for reference purposes only. In all cases the local building authority is the sole and final determiner of the structural and safety requirements, and suitability of the garage door.

Notes

- Design Wind Speeds above are three second peak-gust values
- Negative pressures assume door has 2 feet of width in building's end zone.
- Garage doors evaluated as attached to enclosed buildings with a Use Factor of 1.0
- Doors larger than 100 square feet should use the 16 x 7 loads. Doors less than 100 square feet may be interpolated.
- Garage doors evaluated as Components and Cladding
- Installation details vary. Consult manufacturer's instructions.

For more information, contact DASMA, 1300 Sumner Avenue, Cleveland OH 44115-2851
 Phone (216) 241-7333 E-mail: dasma@dasma.com Fax (216) 241-0105 URL: www.dasma.com

Note: Technical Data Sheets are information tools only and should not be used as substitutes for instructions from individual manufacturers. Always consult with individual manufacturers for specific recommendations for their products and check the applicable local regulations.

This Technical Data Sheet was prepared by the members of DASMA's Commercial & Residential Garage Door Division Technical Committee. DASMA is a trade association comprising manufacturers of rolling doors, fire doors, grilles, counter shutters, sheet doors, and related products; upward-acting residential and commercial garage doors; operating devices for garage doors and gates, sensing devices, and electronic remote controls for garage doors and gate operators; as well as companies that manufacture or supply either raw materials or significant components used in the manufacture and installation of the Active Members' products.

NOTES

1. ALL THE LOAD FROM THE DOOR IS TRANSFERRED TO THE TRACK AND THEN FROM THE TRACK TO THE VERTICAL JAMBS (TOP) JAMBS WITH STANDARD WINDLOAD SYSTEM, WITH VERTICAL WINDLOAD POST. PART OF THE FORCE IS TRANSFERRED TO THE HORIZONTAL GARAGE DOOR HELDER.
2. EACH VERTICAL JAMB SETS A MAXIMUM DESIGN LOAD OF +2889 LB & -2889 LB AND A MAXIMUM TEST LOAD OF +4480 LB & -4480 LB. THE HORIZONTAL GARAGE DOOR HELDER SETS A MAX TEST LOAD OF 1200# FOR SINGLE POST, AND MAX COMBINED LOAD OF 2870# FOR MULTIPLE POSTS.
3. ALL JAMB FASTENERS MAY BE (BUT NOT REQUIRED) COUNTERSUNK TO PROVIDE A FLUSH MOUNTING SURFACE.

WOOD FRAME BUILDINGS

1. STUD WALLS OF DOOR OPENING SHALL BE FRAMED SOLID BY NOT LESS THAN 2 FULL LENGTH STUDS AND 2 HEADERS/STUDS VERSUS S7 STUD GAGE OR BETTER WOOD.
2. STUD WALLS TO BE CONTINUOUS FROM FOOTING TO THE BEAMS AND IN ACCORDANCE WITH SIBC SECTION 2903.1. INSTALLATION IN ACCORDANCE WITH DWG 4097/3 IS AN ACCEPTABLE ALTERNATE.

BLOCK WALL OR CONCRETE

2X6 WFL WOOD JAMB SHALL BE ANCHORED TO GROUT REINFORCED BLOCK WALL OR CONCRETE COLUMN. BLOCK WALL CELLS SHALL BE FILLED WITH CONCRETE AND REINFORCED WITH #5 BAR EXTENDING INTO THE FOOTING AND INTO THE BEAMS (STRENGTH IS ASSUMED TO BE 2500 PSI). ALL BARS SHALL BE 30D THE FOOTING AND INTO THE BEAMS TO FOOTING PER BLOCK WALL OR CONCRETE COLUMN. BLOCK WALLS AND CONCRETE COLUMNS FROM THE BEAMS TO FOOTING PER BLOCK WALL OR CONCRETE COLUMN. BLOCK WALLS AND CONCRETE COLUMNS TO BE DESIGNED BY BUILDING PROFESSIONAL OF RECORD AND IN ACCORDANCE WITH SIBC SECTION 2704.2.

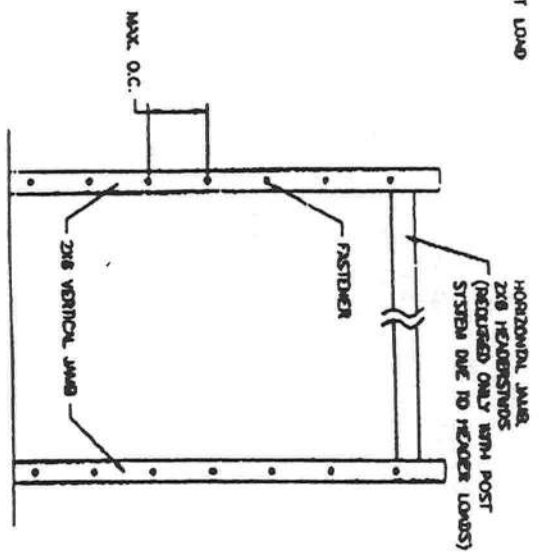
2X6 JAMB TO SUPPORTING STRUCTURE ATTACHMENT

(NOT TO BE USED FOR ATTACHMENT OF TRACK BRACKETS TO 2X6 VERTICAL JAMBS OR SUPPORTING STRUCTURE)

BUILDING TYPE	FASTENER TYPE	MIN. NO. OF FASTENERS PER VERTICAL JAMB	MIN. HGT. OF FASTENERS ON CENTER	MIN. DISTANCE BETWEEN FASTENERS	STEEL WISCONSIN REQUIREMENTS
WOOD FRAME (S7F)	5/16" x 3" LAG SCREW (ASPH. L307, GRADE A), 1-3/8" MIN. EMBED.	7	8	16"	YES
C-90 BLOCK (2500 PSI GROUT)	1/4" x 4" TYP. TAPERED CONCRETE ANCHOR 1-3/4" MIN. EMBED.	7	8	16"	YES
C-90 BLOCK (2500 PSI GROUT)	3/8" x 4" RIVAL LOK/BOLT ANCHOR BOLT, 1-3/8" MIN. EMBED.	6	7	15"	NO
CONCRETE COLUMN (2500 PSI)	3/8" x 4" RIVAL LOK/BOLT ANCHOR BOLT, 1-3/8" MIN. EMBED.	6	7	15"	NO

2X6 JAMB/ANCHOR BOLTS CAN BE INSTALLED DIRECTLY THROUGH TRACK BRACKETS/ANGLE IN LUD OF 5/16" x 1-3/8" LAG SCREWS. RIVAL LOK/BOLT SHALL BE TORQUED AS SPECIFIED BY THE RIVAL DRILLING AND ANCHORING SYSTEMS DESIGN MANUAL.

APPROVED



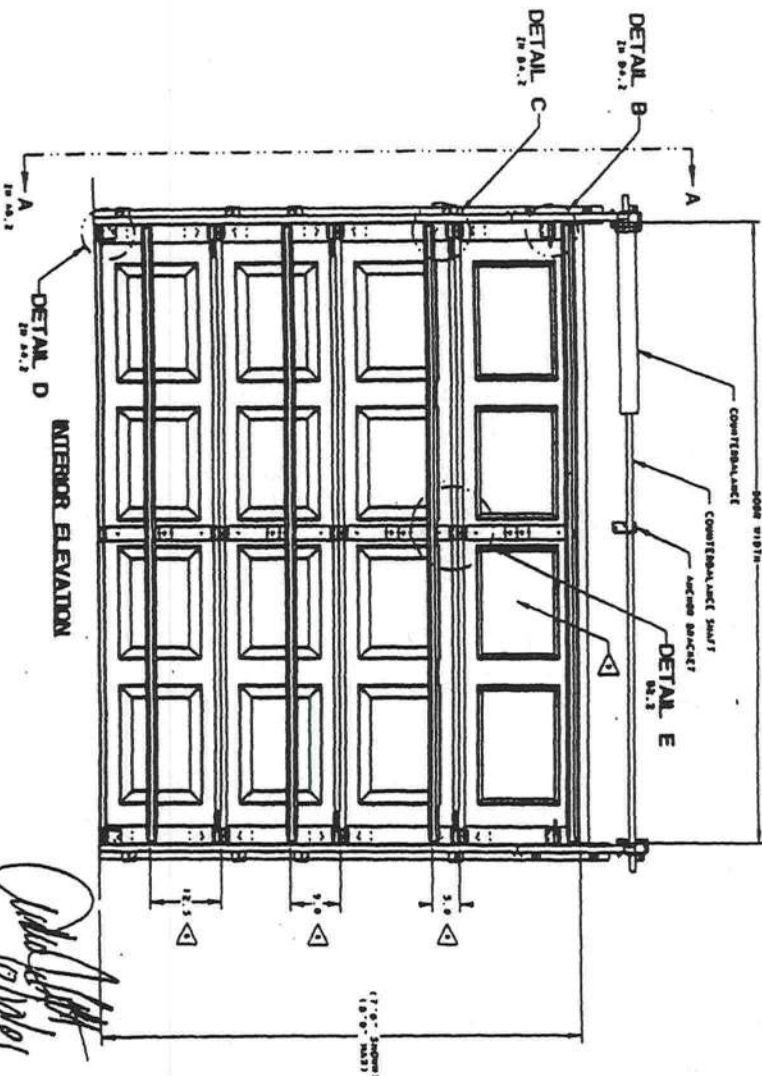
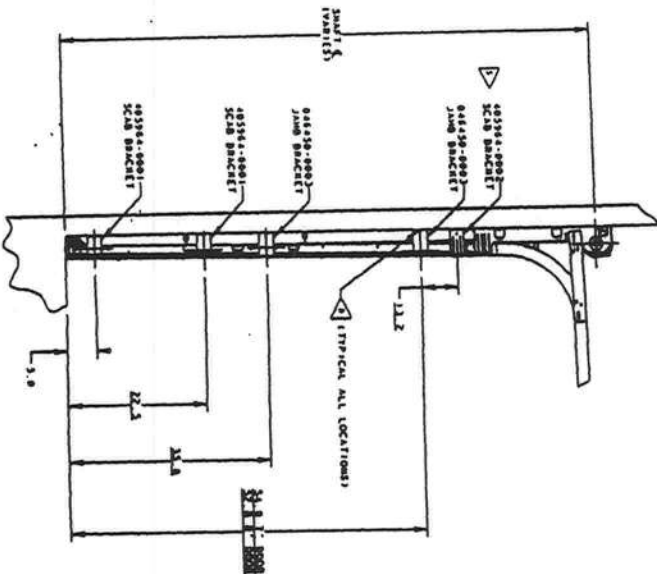
DATE	REVISION	BY	APPROVED
8/10/98	DR		
8/10/98	DR		
8/10/98	DR		

THE DESIGN ENGINEER, SPECIAL INSPECTOR OR THE LOCAL BUILDING DEPARTMENT SHALL BE NOTIFIED IN WRITING OF ANY VIOLATION OF THE BUILDING CODE. THE DESIGN ENGINEER SHALL BE RESPONSIBLE FOR THE DESIGN OF THE STRUCTURE. THE LOCAL BUILDING DEPARTMENT SHALL BE RESPONSIBLE FOR THE ENFORCEMENT OF THE BUILDING CODE. THE DESIGN ENGINEER SHALL BE RESPONSIBLE FOR THE DESIGN OF THE STRUCTURE. THE LOCAL BUILDING DEPARTMENT SHALL BE RESPONSIBLE FOR THE ENFORCEMENT OF THE BUILDING CODE.

DESIGNER	DATE	REVISION	BY	APPROVED
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8/10/98	8/10/98	8/10/98	8/10/98	8/10/98
8/10/98	8/10/98	8/10/98	8/10/98	8/10/98

[illegible]

OND/SENIOR BOOD	FOUR/VAL/ENCL	CNAB1
OND BOOD	SENIORS no.	SENIOR BOOD
SENIORS 100	SENIORS 602500	PAN STET
SENIORS 100	SENIORS 602500	INCL/ENCL
SENIORS 201	SENIORS 604500	
SENIORS 200	SENIORS 602500	

[illegible]

SID TRACK DETAIL
FOR 9" WIDE DOOR

	CEMENT STICK	END STICK	RIP SAW BOULET	STROU/S/SECT	BOULET	CHEIN CA	JUNE 1986
POORE WIDTH				m-1	S/E		1077-1081
9	1	STICK	PCS	m-2	E-17-18	918*	79

[illegible]

10/10/01

ROOFING INFORMATION

TAMKO

ROOFING PRODUCTS

Application Instructions for

- Glass-Seal
- Glass-Seal AR

- Elite Glass-Seal®
- Elite Glass-Seal® AR

THREE-TAB ASPHALT SHINGLES

THESE ARE THE MANUFACTURER'S APPLICATION INSTRUCTIONS FOR THE ROOFING CONDITIONS DESCRIBED. TAMKO ROOFING PRODUCTS, INC. ASSUMES NO RESPONSIBILITY FOR LEAKS OR OTHER ROOFING DEFECTS RESULTING FROM FAILURE TO FOLLOW THE MANUFACTURER'S INSTRUCTIONS. THIS PRODUCT IS COVERED BY A LIMITED WARRANTY, THE TERMS OF WHICH ARE PRINTED ON THE WRAPPER. IN COLD WEATHER (BELOW 40°F), CARE MUST BE TAKEN TO AVOID DAMAGE TO THE EDGES AND CORNERS OF THE SHINGLES.

IMPORTANT: It is not necessary to remove the plastic strip from the back of the shingles.

1. ROOF DECK

These shingles are for application to roof decks capable of receiving and retaining fasteners, and to inclines of not less than 2 in. per foot. For roofs having pitches 2 in. per foot to less than 4 in. per foot, refer to special instructions titled "Low Slope Application". Shingles must be applied properly. TAMKO assumes no responsibility for leaks or defects resulting from improper application, or failure to properly prepare the surface to be roofed over.

NEW ROOF DECK CONSTRUCTION: Roof deck must be smooth, dry and free from warped surfaces. It is recommended that metal drip edges be installed at eaves and rakes.

PLYWOOD: All plywood shall be exterior grade as defined by the American Plywood Association. Plywood shall be a minimum of 3/8 in. thickness and applied in accordance with the recommendations of the American Plywood Association.

SHEATHING BOARDS: Boards shall be well-seasoned tongue-and-groove boards and not over 6 in. nominal width. Boards shall be a 1 in. nominal minimum thickness. Boards shall be properly spaced and nailed.

2. VENTILATION

Inadequate ventilation of attic spaces can cause accumulation of moisture in winter months and a build up of heat in the summer. These conditions can lead to:

1. Vapor Condensation
2. Buckling of shingles due to deck movement.
3. Rotting of wood members.
4. Premature failure of roof.

To insure adequate ventilation and circulation of air, place louvers of sufficient size high in the gable ends and/or install continuous ridge and soffit vents.

FHA minimum property standards require one square foot of net free ventilation area to each 160 square feet of space to be vented, or one square foot per 300 square feet if a vapor barrier is installed on the warm side of the ceiling or if at least one half of the ventilation is provided near the ridge. If the ventilation openings are screened, the total area should be doubled.

IT IS PARTICULARLY IMPORTANT TO PROVIDE ADEQUATE VENTILATION.

3. FASTENING

NAILS: TAMKO recommends the use of nails as the preferred method of application.

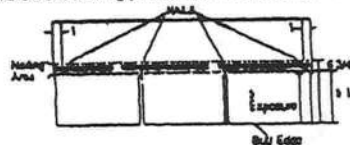
WIND CAUTION: Extreme wind velocities can damage these shingles after application when proper sealing of the shingles does not occur. This can especially be a problem if the shingles are applied in cooler months or in areas on the roof that do not receive direct sunlight. These

conditions may impede the sealing of the adhesive strips on the shingles. The inability to seal down may be compounded by prolonged cold weather conditions and/or blowing dust. In these situations, hand sealing of the shingles is recommended. Shingles must also be fastened according to the fastening instructions described below.

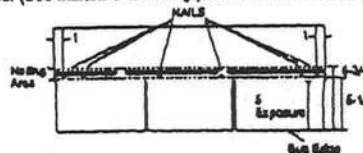
Correct placement of the fasteners is critical to the performance of the shingle. If the fasteners are not placed as shown in the diagram and described below, TAMKO will not be responsible for any shingles blown off or displaced. TAMKO will not be responsible for damage to shingles caused by winds or gusts exceeding gale force. Gale force shall be the standard as defined by the U.S. Weather Bureau.

FASTENING PATTERNS: Fasteners must be placed above or below the factory applied sealant in an area between 5-1/2" and 8-3/4" from the butt edge of the shingle. Fasteners should be located horizontally according to the diagram below. Do not nail into the sealant. TAMKO recommends nailing below the sealant whenever possible for greater wind resistance.

- 1) Standard Fastening Pattern. (For use on decks with slopes 2 in. per foot to 21 in. per foot.) One fastener 1 in. back from each end and one 12 in. back from each end of the shingle for a total of 4 fasteners. (See standard fastening pattern illustrated below.)



- 2) Mansard or High Wind Fastening Pattern. (For use on decks with slopes greater than 21 in. per foot.) One fastener 1 in. back from each end and one fastener 10-1/2 in. back from each end and one fastener 13-1/2 in. back from each end for a total of 6 fasteners per shingle. (See Mansard fastening pattern illustrated below.)



NAILS: TAMKO recommends the use of nails as the preferred method of application. Standard type roofing nails should be used. Nail shanks should be made of minimum 12-gauge wire, and a minimum head diameter of 3/8 in. Nails should be long enough to penetrate 3/4 in.

(Continued)

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TAMKO

ROOFING PRODUCTS

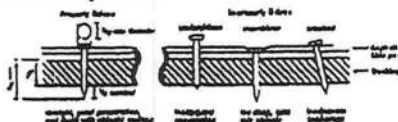
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• Glass-Seal
• Glass-Seal AR

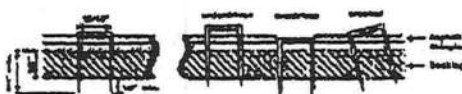
• Elite Glass-Seal®
• Elite Glass-Seal® AR

THREE-TAB ASPHALT SHINGLES

into the roof deck. Where the deck is less than 3/4 in. thick, the nails should be long enough to penetrate completely through plywood decking and extend at least 1/8 in. through the roof deck. Drive nail head flush with the shingle surface.



STAPLES: If staples are used in the fastening process, follow the above instructions for placement. All staples must be driven with pneumatic staplers. The staple must meet the following minimum dimensional requirements. Staples must be made from a minimum 16 gauge galvanized wire. Crown width must be at least 15/16 in. (staple crown width is measured outside the legs). Leg length should be a minimum of 1-1/4 in. for new construction and 1-1/2 in. for reroofing thus allowing a minimum deck penetration of 3/4 in. The crown of the staple must be parallel to the length of the shingle. The staple crown should be driven flush with the shingle surface. Staples that are crooked, underdriven or overdriven are considered improperly applied.



CAUTION: DO NOT FASTEN INTO THE FACTORY APPLIED ADHESIVE.

4. UNDERLAYMENT

UNDERLAYMENT: An underlayment consisting of asphalt saturated felt must be applied over the entire deck before the installation of TAMKO shingles. Failure to add underlayment can cause premature failure of the shingles which is not covered by TAMKO's limited warranty. Apply the felt when the deck is dry. On roof decks 4 in. per foot and greater apply the felt parallel to the eaves lapping each course of the felt over the lower course at least 2 in. Where end joints, lap the felt 4 in. If left exposed, the underlayment felt may be adversely affected by moisture and weathering. Laying of the underlayment and the shingle application must be done together.

Products which are acceptable for use as underlayment are:

- TAMKO No. 15 Asphalt Saturated Organic Felt
- A non-perforated asphalt saturated organic felt which meets ASTM: D226, Type I
- Any TAMKO non-perforated asphalt saturated organic felt

In areas where ice builds up along the eaves or a back-up of water from frozen or clogged gutters is a potential problem, TAMKO's Moisture Guard Plus® waterproofing underlayment (or any specialty eaves flashing product) may be applied to eaves, ridges, valleys, around chimneys, skylights or dormers to help prevent water damage. Contact TAMKO's Technical Services Department for more information.

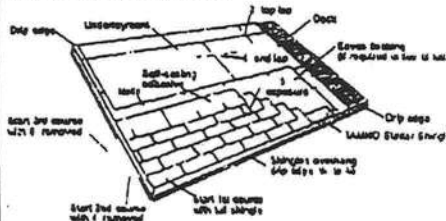
TAMKO does not recommend the use of any substitute products as shingle underlayment.

5. APPLICATION INSTRUCTIONS

STARTER COURSE: A starter course may consist of TAMKO Starter Strip, self-sealing type shingles or a 9 inch wide strip of mineral surface roll roofing. If self-sealing shingles are used, remove the exposed tab portion and install with the factory applied adhesive adjacent to the eaves. Attach the starter course with approved fasteners along a line parallel to and 3 in. to 4 in. above the eaves edge. The starter course should overhang both the eaves and rake edges 1/4 in. to 3/8 in. If a roll roofing is used, seal down the shingles in the first course by applying adhesive cement in four spots equally spaced to the surface of the starter strip and press the shingle down on the spots of cement. Plastic cement should be used sparingly, as excessive amounts may cause blistering.

SHINGLE APPLICATION: There are three different offset methods for applying strip shingles: the 4-inch method, the 5-inch method and the 6-inch method. By removing different lengths from the first shingle, cutouts in one course of shingles do not line up directly with those of the course below. It is recommended that the shingles be laid according to one of these methods consistent with procedures outlined in ARMA's Residential Asphalt Roofing Manual. This panel will feature the 4-inch method. For information regarding the other methods, please refer to the ARMA Residential Asphalt Roofing Manual.

CAUTION: Never use an alignment system where shingle joints are closer than 4 in. to one another.



6. LOW SLOPE APPLICATION

On pitches 2 in. per foot to 4 in. per foot cover the deck with two layers of asphalt saturated felt. Begin by applying the felt in a 19 in. wide strip along the eaves and overhanging the drip edge by 1/4 to 3/4 in. Place a full 36 in. wide sheet over the 19 in. wide starter piece, completely overlapping it. All succeeding courses will be positioned to overlap the preceding course by 19 in. If winter temperatures average 25°F or less, thoroughly cement the felts to each other with plastic cement from eaves and ridges to a point of at least 24 in. inside the interior wall line of the building. As an alternative, TAMKO's Moisture Guard Plus® self-adhering waterproofing underlayment may be used in lieu of the cemented felts.

7. MANSARD ROOF OR STEEP SLOPE ROOF

If the slope exceeds 21 in. per foot (60°), each shingle must be sealed

(Continued)

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(CONTINUED from Pg. 2)

• Glass-Seal
• Glass-Seal AR

• Elite Glass-Seal®
• Elite Glass-Seal® AR

THREE-TAB ASPHALT SHINGLES

with quick setting asphalt adhesive cement immediately upon installation. Spots of cement must be equivalent in size to a \$25 piece and applied to shingles with a 5 in. exposure, use 6 fasteners per shingle. See Section 3 for the Mansard Fastening Pattern.

8. RE-ROOFING

Before re-roofing, be certain to inspect the roof decks. All plywood shall meet the requirements listed in Section 1.

Nail down or remove buried or broken shingles from the existing roof. Replace all missing shingles with new ones to provide a smooth base. Shingles that are buckled usually indicate warped decking or protruding nails. Hammer down all protruding nails or remove them and refasten in a new location. Remove all drip edge metal and replace with new.

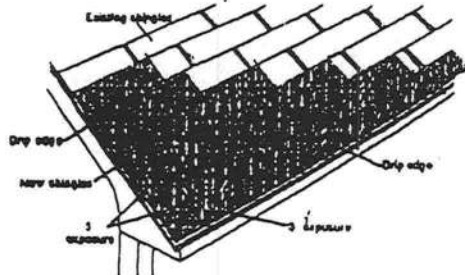
If re-roofing over an existing roof where new flashing is required to protect against ice dams (freeze/thaw cycle of water and/or the backup of water in frozen or clogged gutters), remove the old roofing to a point at least 24 in. beyond the interior wall line and apply TAMKO's Moisture Guard Plus® waterproofing underlayment. Contact TAMKO's Technical Services Department for more information.

The nesting procedure described below is the preferred method for re-roofing over square tab strip shingles with a 5 in. exposure.

Starter Course: Begin by using TAMKO Shingle Starter or by cutting shingles into 5 x 36 inch strips. This is done by removing the 5 in. tabs from the bottom and approximately 2 in. from the top of the shingles so that the remaining portion is the same width as the exposure of the old shingles. Apply the starter piece so that the self-sealing adhesive lies along the eaves and is even with the existing roof. The starter strip should be wide enough to overhang the eaves and carry water into the gutter. Remove 3 in. from the length of the first starter shingle to ensure that the joints from the old roof do not align with the new.

First Course: Cut off approximately 2 in. from the bottom edge of the shingles so that the shingles fit beneath the existing third course and align with the edge of the starter strip. Start the first course with a full 36 in. long shingle and fasten according to the instructions printed in Section 3.

Second and Succeeding Courses: According to the offset application method you choose to use, remove the appropriate length from the



rake end of the first shingle in each succeeding course. Place the top edge of the new shingle against the butt edge of the old shingles in the courses above. The full width shingle used on the second course will reduce the exposure of the first course to 3 in. The remaining courses will automatically have a 5 in. exposure.

9. VALLEY APPLICATION

Over the shingle underlayment, center a 36 in. wide sheet of TAMKO Nail-Fast® or a minimum 50 lb. roll roofing in the valley. Nail the felt only where necessary to hold it in place and then only nail the outside edges.

IMPORTANT: PRIOR TO INSTALLATION WARM SHINGLES TO PREVENT DAMAGE WHICH CAN OCCUR WHILE BENDING SHINGLES TO FORM VALLEY.

- Apply the first course of shingles along the eaves of one of the intersecting roof planes and across the valley.

Note: For proper flow of water over the trimmed shingle, always start applying the shingles on the roof plane that has the lower slope or less height.

- Extend the end shingle at least 12 in. onto the adjoining roof. Apply succeeding courses in the same manner, extending them across the valley and onto the adjoining roof.
- Do not trim if the shingle length exceeds 12 in. Lengths should vary.
- Press the shingles tightly into the valley.
- Use normal shingle fastening methods.

Note: No fastener should be within 6 in. of the valley centerline, and two fasteners should be placed at the end of each shingle crossing the valley.

- To the adjoining roof plane, apply one row of shingles extending it over previously applied shingles and trim a minimum of 2 in. back from the centerline of the valley.

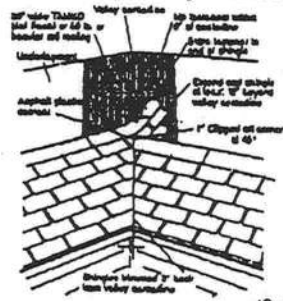
Note: For a neater installation, snap a chalkline over the shingles for guidance.

- Clip the upper corner of each shingle at a 45-degree angle and embed the end of the shingle in a 3 in. wide strip of asphalt plastic cement. This will prevent water from penetrating between the courses by directing it into the valley.

CAUTION:
Adhesive must be applied in smooth, flat, even layers.

Excessive use of adhesive will cause blistering to this product.

TAMKO assumes no responsibility for blistering.



(Continued)

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(CONTINUED from Pg. 3)

• Glass-Seal
• Glass-Seal AR

• Elite Glass-Seal®
• Elite Glass-Seal® AR

THREE-TAB ASPHALT SHINGLES

FOR ALTERNATE VALLEY APPLICATION METHODS, PLEASE CONTACT TAMKO'S TECHNICAL SERVICES DEPARTMENT.

HIP AND RIDGE FASTENING DETAIL

Apply the shingles with a 5 in. exposure beginning at the bottom of the hip or from the end of the ridge opposite the direction of the prevailing winds. Secure each shingle with one fastener 5-1/2 in. back from the exposed end and 1 in. up from the edge. Do not nail directly into the sealant.

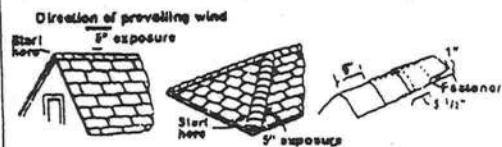
TAMKO recommends the use of TAMKO Hip & Ridge shingle products. Where matching colors are available, it is acceptable to use TAMKO's Glass-Seal or Elite Glass-Seal shingles cut down to 12 in. pieces.

NOTE: AR type shingle products should be used as Hip & Ridge on Glass-Seal AR and Elite Glass-Seal AR shingles.

Fasteners should be 1/4 in. longer than the one used for shingles.

IMPORTANT: PRIOR TO INSTALLATION, CARE NEEDS TO BE TAKEN TO PREVENT DAMAGE WHICH CAN OCCUR WHILE BENDING SHINGLES IN COOL WEATHER.

THESE ARE THE MANUFACTURER'S APPLICATION INSTRUCTIONS FOR THE ROOFING CONDITIONS DESCRIBED. TAMKO ROOFING PRODUCTS, INC. ASSUMES NO RESPONSIBILITY FOR LEAKS OR OTHER ROOFING DEFECTS RESULTING FROM FAILURE TO FOLLOW THE MANUFACTURER'S INSTRUCTIONS.



THIS PRODUCT IS COVERED BY A LIMITED WARRANTY. THE TERMS OF WHICH ARE PRINTED ON THE WRAPPER.

IMPORTANT - READ CAREFULLY BEFORE OPENING BUNDLE

In this paragraph "You" and "Your" refer to the installer of the shingles and the owner of the building on which these shingles will be installed. This is a legally binding agreement between You and TAMKO Roofing Products, Inc. ("TAMKO"). By opening this bundle You agree: (a) to install the shingles strictly in accordance with the instructions printed on this wrapper; or (b) that shingles which are not installed strictly in accordance with the instructions printed on this wrapper are sold "AS IS" and are not covered by the limited warranty that is also printed on this wrapper, or any other warranty, including, but not limited to (except where prohibited by law) implied warranties of MERCHANTABILITY and FITNESS FOR USE.

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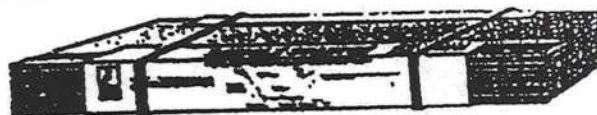
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07/01

TAMKO® SHINGLE STARTER

PRODUCT DATA



Manufactured in Joplin, MO., Phillipsburg, KS.,
Frederick, MD., & Tuscaloosa, AL.

TAMKO® SHINGLE STARTER Universal Starter Course Shingles are factory cut starter strips made of tough organic mat saturated with asphalt and coated on both sides with coating grade asphalt and surfaced with ceramic granules for protection from ultraviolet degradation.

USES

For application to the eaves and rakes, prior to shingle application. Allows for proper alignment of the courses of shingles.

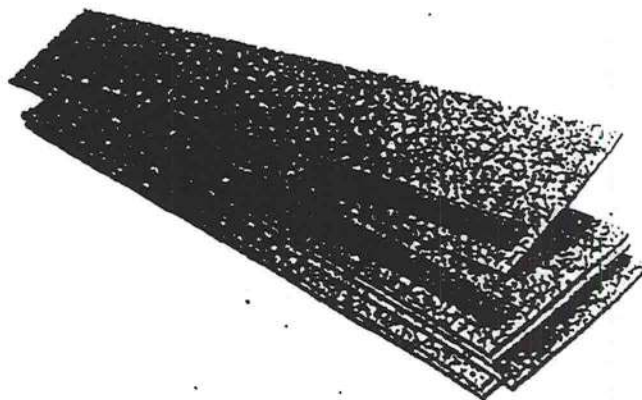
ADVANTAGES

- Pre-cut, thereby reduces the labor and eliminates the difficulty of field cutting other materials
- Cuts Waste
- Straighter first course runs
- Faster installation time
- Sealant strip to seal first course of shingles. Eliminates the need for plastic cement.

PRODUCT DATA*

Shingle Size:	7" X 36"
Shingles per bundle:	34
Coverage per bundle (lineal feet)	102

*All values stated as nominal



CAUTION: The National Institute for Occupational Safety and Health (NIOSH) has concluded that fumes of heated asphalt are a potential occupational carcinogen. Do not heat or burn this product.

TAMKO
ROOFING PRODUCTS

TAMKO® is a registered trademark of
TAMKO Roofing Products, Inc.

Visit our Web Site at www.tamko.com

Central District	220 West 4th St., Joplin, MO	64801	800-641-
Northeast District	4500 Tamko Dr., Frederick, MD	21701	800-368-
Southeast District	2300 35th St., Tuscaloosa, AL	35401	800-228-
Southwest District	7910 S. Central Exp., Dallas, TX	75216	800-443-
Western District	6300 East 43rd Ave., Denver, CO	80216	800-530-

INTERIOR WALL INSULATION INFORMATION



R-Matte® Plus-3

Sheathing Insulation

07212/RMRP

MANUFACTURER

Rmax, Inc.
13524 Welch Road, Dallas, Texas 75244-5291
Phone - 972-357-4500 800-827-0890 (Central)
800-845-4455 (Eastern) 800-762-8482 (Western)
Email: rmax@rmaxinc.com
Web Site: <http://www.rmaxinc.com>

PRODUCT DESCRIPTION

R-Matte® Plus-3 is a rigid foam plastic thermal insulation board composed of polyisocyanurate foam bonded to a durable white-matte non-glare aluminum facer and a reflective reinforced aluminum facer.

R-Matte® Plus-3 utilizes a new and environmentally friendly blowing agent. This sheathing insulation is suitable for use in wall applications in new residential, commercial, agricultural and industrial buildings and in thermal retrofit construction within existing buildings.

R-Matte® Plus-3 is available in standard four (4) foot wide panels. Standard panel lengths are eight (8) and nine (9) feet. Custom length panels are available for special orders. See "Thermal Properties" for standard thicknesses and thermal resistance values of R-Matte® Plus-3.

R-Matte® Plus-3 is shipped in bundles that are approximately 48 inches high and wrapped in plastic for easy handling.

NOTE: All Rmax products must be tarped, placed on skids, and kept dry before and throughout construction.

Technical Data

TYPICAL PHYSICAL PROPERTIES:

Property	Test Method	Results
Density, Overall, Nominal	ASTM D1622	2.0 pcf
Compressive Strength	ASTM D1621	30 psi (Avg.)
Flame Spread, Core	ASTM E84	35 or less
Smoke Developed	ASTM E84	45 - 110
Water Vapor Transmission	ASTM E96	< 1 perm
Water Absorption	ASTM C208	< 1% Vol.
Dimensional Stability	ASTM D2128 7 days, 150°F, 85% rh	< 2% Linear Change
Service Temperatures		-40°F to +250°F

Note: Physical Properties shown are based on data obtained under controlled conditions and are subject to normal manufacturing tolerances. Flame spread numbers are shown for comparison purposes only and are not intended to represent the performance of R-Matte® Plus-3 and related components under actual fire conditions.

APPLICABLE STANDARDS

R-Matte® Plus-3 is manufactured to meet the physical property requirements of Product Specification ASTM C1289, Type I.

R-Matte® Plus-3 is accepted as a nonstructural insulative sheathing board by the following major model building codes: National Building Code (BOCA), Section 2803; Standard Building Code (SBCI), Section 2803; Uniform Building Code (UBC), Section 2602.

APPLICATION / INSTALLATION

Applications - This product is designed to be covered with siding materials of wood, wood-based products, hardboard, aluminum, vinyl, brick or stucco veneers. The white-matte finished (non-glare) side of this sheathing panel is installed facing to the outside of the wall structure when the exterior siding will be either wood, wood-based products, hardboard, aluminum or vinyl sidings. The reflective aluminum side of the sheathing panel is installed to the outside of the wall when the exterior finish will be either brick or stucco.

Stud Wall Construction - R-Matte® Plus-3 is applied to the exterior face of wood or metal studs to cover all studs, sills, plates and header constructions in order to provide insulation over details not normally covered by insulation products. R-Matte® Plus-3 may be secured to the studs with bugle-head screws, galvanized roofing nails, or common nails driven through cap washers. The interior of the stud wall system should be protected with a suitable vapor retarder.

R-Matte® Plus-3 may be applied to the interior face of studs, metal or wood, to cover the interior face of these framing members. R-Matte® Plus-3 may be secured with bugle-head screws, galvanized roofing nails, or construction adhesives. The interior of the stud wall system should be protected with a suitable vapor retarder and thermal barrier.

Cavity Wall Construction - R-Matte® Plus-3 is secured to the dry face of the masonry block wall with a high grade adhesive. R-Matte® Plus-3 can be cut by simple methods to fit between masonry joint reinforcements placed to tie the brick veneer to the concrete block back-up. R-Matte® Plus-3 is an excellent cavity insulation product fitting between the masonry block and finished brick veneer of any residential or commercial product.

R-Matte® Plus-3 Sheathing Insulation

07212/RMRP-2

Masonry Wall Construction - R-Matte® Plus-3 is applied to either the exterior face or interior face of concrete or concrete masonry walls to provide an insulation layer over the entire surface. R-Matte® Plus-3 may be secured to the inside face of a concrete or concrete masonry wall, either over or under the furring members, and covered with a minimum 1/2 inch gypsum wallboard interior finish. Adhesives may be used to hold the R-Matte® Plus-3 in place against the wall temporarily. However, permanent attachment of the R-Matte® Plus-3, furring, or gypsum wallboard with adhesives is not acceptable. The gypsum wallboard must be secured with suitable screws or nails.

Re-Siding Construction - R-Matte® Plus-3 is applied over existing sound and solid siding. It is then covered with a suitable new siding of aluminum, vinyl, wood or wood fiber based products. The R-Matte® Plus-3 is secured with galvanized nails of sufficient length to penetrate the old siding and sheathings below by at least one inch into the existing wall studs.

Exterior Stucco Construction - R-Matte® Plus-3 may be used as the insulative sheathing under hard coat stucco finishes. First, cover the R-Matte® Plus-3 with a suitable separation layer such as an organic or inorganic felt. Then, attach conventional metal wire lath and expansion joints with appropriate fasteners as dictated by the local building code. R-Matte® Plus-3 may be secured to the studs with bugle-head screws, galvanized roofing nails, or common-nails driven through cap washers. The interior of the stud wall system should be protected with a suitable vapor retarder. Rmax does not recommend the direct attachment of stucco, portland cement or polymer-modified types, directly to the face of the insulation product. Consult stucco manufacturers for details.

WARRANTY

See "Sales Policy" for warranty conditions. Rmax does not assume any responsibility or liability for the performance of any products other than those manufactured by Rmax.

AVAILABILITY

Rmax® Plus-3 is available through an extensive distribution network. Contact Rmax Sales for product availability, pricing information, and the nearest distribution center.

WARNING

DO NOT leave R-Matte® Plus-3 exposed. Polyisocyanurate foam is an organic material which will burn when exposed to an ignition source of sufficient heat and intensity, and may contribute to flames spreading. Installations utilizing Rmax R-Matte® Plus-3 must be fully protected on the interior side of walls and roofs by a minimum of 1/2 inch gypsum board or equivalent. Masonry or concrete that is a minimum of one-inch thick or plywood that is a minimum of 1/2 inch thick or wood that is a minimum of one-inch nominal thickness is recognized as a suitable thermal barrier. Consult the Local Building Official for specific governing codes and requirements.

LIMITATIONS

R-Matte® Plus-3 is not recommended, nor warranted, for use as a commercial roofing insulation for use directly under membrane systems. See Rmax, Inc. for suitable commercial roofing insulation products.

R-Matte® Plus-3 is not a structural panel. Stud walls insulated with R-Matte® Plus-3 must be properly braced to lateral loads according to the requirements of the local building codes.

THERMAL PROPERTIES/PRODUCT DATA				"R" means resistance to heat flow. The higher the R-value, the greater the insulating power	
Nominal Thickness	Thermal ¹ R-Value	Bundle Data (48" x 96")		Truckload Data (48" x 96")	
		Pieces	Sq. Ft.	Pieces	Sq. Ft.
0.5"	3.2	96	3,072	2,304	73,728
0.625"	4.0	78	2,432	1,824	58,368
0.75"	5.0	60	1,920	1,440	46,080
1.0"	6.4	48	1,536	1,152	36,864

¹Thermal values are determined by using ASTM C518 test method at 75°F mean temperature on material conditioned according to PIMA Technical Bulletin No. 101.

LINTEL INFORMATION

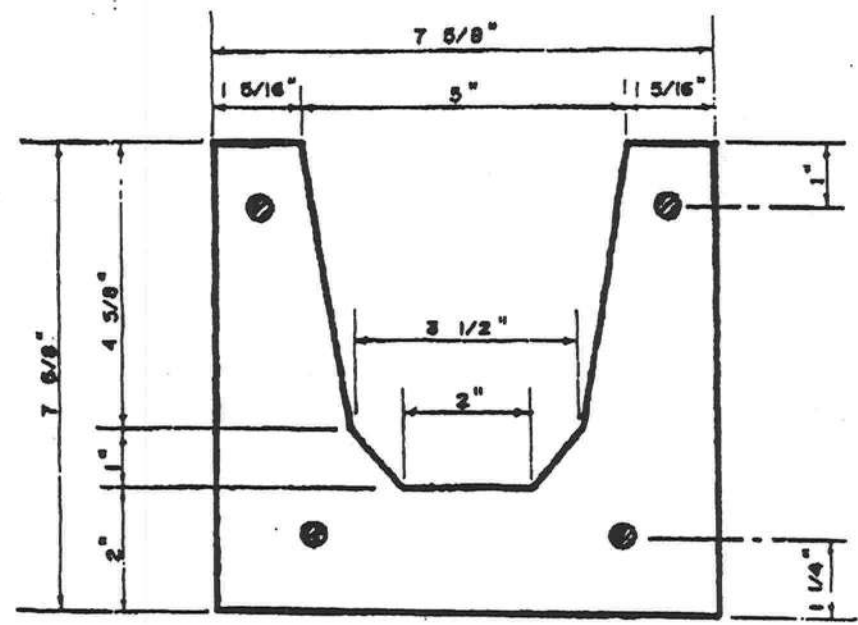
DOORWAY HEADER ROOF TRUSS SPAN TABLE

DOOR SIZE	TYPE	EMPTY	FILLED	FILLED + BEAM
2'-00"	A	66'-00" +	66'-00" +	66'-00" +
2'-04"	A	63'-09"	66'-00" +	66'-00" +
2'-06"	A	57'-10"	66'-00" +	66'-00" +
2'-08"	A	52'-08"	66'-00" +	66'-00" +
3'-00"	A	44'-03"	66'-00" +	66'-00" +
4'-00"	A	28'-04"	66'-00" +	66'-00" +
5'-00"	B	33'-00"	61'-00"	66'-00" +
6'-00"	C	24'-02"	51'-03"	66'-00" +

SPAN CARRIED is the total length of truss (including overhangs), half of which can be supported by the designated header.
Includes live load of 20 psf.

FILLED = Header filled with 3000 psi concrete with 1 - #5 rebar

FILLED + BEAM = Acting as composite beam with an 8" perimeter beam
1 - #5 rebar in lintel, 1 - #5 rebar in perimeter beam



Lintel Concrete Strength = 4000 psi
 Fill Concrete Strength = 3000 psi
 Steel Strength = Grade 60 (#6), Grade 40 (#2 - #5)

TYPE	TOP BARS	BOTTOM BARS
A	NONE	2 - #3
B	2 - #2	2 - #4
C	2 - #3	2 - #4
D	2 - #3	2 - #5
E	2 - #4	2 - #6

**RESIDENTIAL MINIMUM PLAN REQUIREMENTS AND CHECKLIST FOR
FLORIDA BUILDING CODE 2001
ONE (1) AND TWO (2) FAMILY DWELLINGS
ALL REQUIREMENTS ARE SUBJECT TO CHANGE
EFFECTIVE MARCH 1, 2002**

Applicant	Plans Examiner
☐	☒ All drawings must be clear, concise and drawn to scale ("Optional " details that are not used shall be marked void or crossed off). Square footage of different areas shall be shown on plans.
☐	☒ Designers name and signature on document (FBC 104.2.1). If licensed architect or engineer, official seal shall be affixed.
☐	☒ <u>Site Plan including:</u> a) Dimensions of lot <i>see EH SITE PLAN</i> b) Dimensions of building set backs c) Location of all other buildings on lot, well and septic tank if applicable, and all utility easements. d) Provide a full legal description of property.
☐	☒ <i>see note B →</i> <u>Wind-load Engineering Summary, calculations and any details required</u> a) Plans or specifications must state compliance with FBC Section 1606 b) The following information must be shown as per section 1606.1.7 FBC a. Basic wind speed (MPH) b. Wind importance factor (I) and building category c. Wind exposure – if more than one wind exposure is used, the wind exposure and applicable wind direction shall be indicated d. The applicable internal pressure coefficient e. Components and Cladding. The design wind pressure in terms of psf (kN/m^2), to be used for the design of exterior component and cladding materials not specifically designed by the registered design professional
☐	☒ <u>Elevations including:</u> a) All sides b) Roof pitch c) Overhang dimensions and detail with attic ventilation d) Location, size and height above roof of chimneys e) Location and size of skylights f) Building height g) Number of stories
☐	☒ <i>see note 4 →</i>
☐	☒ <i>see note 5</i>

Floor Plan including:

- ☐ ☒ a) Rooms labeled and dimensioned
- ☐ ☒ b) Shear walls
- ☐ ☒ c) Windows and doors (including garage doors) showing size, mfg., approval listing and attachment specs. (FBC 1707) and safety glazing where needed (egress windows in bedrooms to be shown)
- ☐ ☒ d) Fireplaces (gas appliance) (vented or non-vented) or wood burning with hearth
- ☐ ☒ e) Stairs with dimensions (width, tread and riser) and details of guardrails and handrails
- ☐ ☒ f) Must show and identify accessibility requirements (accessible bathroom)

Foundation Plan including:

- ☐ ☒ a) Location of all load-bearing wall with required footings indicated as standard Or monolithic and dimensions and reinforcing
- ☐ ☒ b) All posts and/or column footing including size and reinforcing
- ☐ ☒ c) Any special support required by soil analysis such as piling
- ☐ ☒ d) Location of any vertical steel

Roof System:

- ☐ ☒ a) Truss package including:
 - 1. Truss layout and truss details signed and sealed by FI. Pro. Eng.
 - 2. Roof assembly (FBC 104.2.1 Roofing system, materials, manufacturer, fastening requirements and product evaluation with wind resistance rating)
- ☐ ☒ b) Conventional Framing Layout including:
 - 1. Rafter size, species and spacing
 - 2. Attachment to wall and uplift
 - 3. Ridge beam sized and valley framing and support details
 - 4. Roof assembly (FBC 104.2.1 Roofing systems, materials, manufacturer, fastening requirements and product evaluation with wind resistance rating)

Wall Sections including:

- ☐ ☒ a) Masonry wall
 - 1. All materials making up wall
 - 2. Block size and mortar type with size and spacing of reinforcement
 - 3. Lintel, tie-beam sizes and reinforcement
 - 4. Gable ends with rake beams showing reinforcement or gable truss and wall bracing details
 - 5. All required connectors with uplift rating and required number and size of fasteners for continuous tie from roof to foundation
 - 6. Roof assembly shown here or on roof system detail (FBC 104.2.1 Roofing system, materials, manufacturer, fastening requirements and product evaluation with resistance rating)
 - 7. Fire resistant construction (if required)
 - 8. Fireproofing requirements
 - 9. Shoe type of termite treatment (termicide or alternative method)
 - 10. Slab on grade
 - a. Vapor retardant (6mil. Polyethylene with joints lapped 6 inches and sealed)
 - b. Must show control joints, synthetic fiber reinforcement or Welded fire fabric reinforcement and supports
 - 11. Indicate where pressure treated wood will be placed
 - 12. Provide insulation R value for the following:
 - a. Attic space
 - b. Exterior wall cavity
 - c. Crawl space (if applicable)

b) Wood frame wall

1. All materials making up wall
2. Size and species of studs
3. Sheathing size, type and nailing schedule
4. Headers sized
5. Gable end showing balloon framing detail or gable truss and wall hinge bracing detail
6. All required fasteners for continuous tie from roof to foundation (truss anchors, straps, anchor bolts and washers)
7. Roof assembly shown here or on roof system detail (FBC104.2.1 Roofing system, materials, manufacturer, fastening requirements and product evaluation with wind resistance rating)
8. Fire resistant construction (if applicable)
9. Fireproofing requirements
10. Show type of termite treatment (termicide or alternative method)
11. Slab on grade
 - a. Vapor retardant (6Mil. Polyethylene with joints lapped 6 inches and sealed
 - b. Must show control joints, synthetic fiber reinforcement or welded wire fabric reinforcement and supports
12. Indicate where pressure treated wood will be placed
13. Provide insulation R value for the following:
 - a. Attic space
 - b. Exterior wall cavity
 - c. Crawl space (if applicable)

c) Metal frame wall and roof (designed, signed and sealed by Florida Prof. Engineer or Architect)

Floor Framing System:

- a) Floor truss package including layout and details, signed and sealed by Florida Registered Professional Engineer
- b) Floor joist size and spacing
- c) Girder size and spacing
- d) Attachment of joist to girder
- e) Wind load requirements where applicable

Plumbing Fixture layout

Electrical layout including:

- a) Switches, outlets/receptacles, lighting and all required GFCI outlets identified
- b) Ceiling fans
- c) Smoke detectors
- d) Service panel and sub-panel size and location(s)
- e) Meter location with type of service entrance (overhead or underground)
- f) Appliances and HVAC equipment
- g) Arc Fault Circuits (AFCI) in bedrooms

HVAC information

- a) Manual J sizing equipment or equivalent computation
- b) Exhaust fans in bathroom

Energy Calculations (dimensions shall match plans)

Gas System Type (LP or Natural) Location and BTU demand of equipment

Disclosure Statement for Owner Builders

*****Notice Of Commencement Required Before Any Inspections Will Be Done**

Private Potable Water

- a) Size of pump motor
- b) Size of pressure tank
- c) Cycle stop valve if used

THE FOLLOWING ITEMS MUST BE SUBMITTED WITH BUILDING PLANS

1. **Building Permit Application:** A current Building Permit Application form is to be completed and submitted for all residential projects.
2. **Parcel Number:** The parcel number (Tax ID number) from the Property Appraiser (386) 758-1084 is required. A copy of property deed is also requested.
3. **Environmental Health Permit or Sewer Tap Approval:** A copy of the Environmental Health permit, existing septic approval or sewer tap approval is required before a building permit can be issued.
(386) 758-1058 (Toilet facilities shall be provided for construction workers)
4. **City Approval:** If the project is to be located within the city limits of the Town of Fort White, prior approval is required. The Town of Fort White approval letter is required to be submitted by the owner or contractor to this office when applying for a Building Permit. (386) 497-2321
5. **Flood Information:** All projects within the Floodway of the Suwannee or Santa Fe Rivers shall require permitting through the Suwannee River Water Management District, before submitting application to this office. Any project located within a flood zone where the base flood elevation (100 year flood) has been established shall meet the requirements of Section 8.8 of the Columbia County Land Development Regulations. Any project located within a flood zone where the base flood elevation has not been established (Zone A) shall meet the requirements of Section 8.7 of the Columbia County Land Development Regulations. **CERTIFIED FINISHED FLOOR ELEVATIONS WILL BE REQUIRED ON ANY PROJECT WHERE THE BASE FLOOD ELEVATION (100 YEAR FLOOD) HAS BEEN ESTABLISHED.**
A development permit will also be required. Development permit cost is \$50.00
6. **Driveway Connection:** If the property does not have an existing access to a public road, then an application for a culvert permit (\$25.00) must be made. If the applicant feels that a culvert is not needed, they may apply for a culvert waiver (\$50.00). All culvert waivers are sent to the Columbia County Public Works Department for approval or denial.
7. **911 Address:** If the project is located in an area where the 911 address has been issued, then the proper paperwork from the 911 Addressing Department must be submitted. (386) 752-8787

ALL REQUIRED INFORMATION IS TO BE SUBMITTED FOR REVIEW. YOU WILL BE NOTIFIED WHEN YOUR APPLICATION AND PLANS ARE APPROVED AND READY TO PERMIT. PLEASE DO NOT EXPECT OR REQUEST THAT PERMIT APPLICATIONS BE REVIEWED OR APPROVED WHILE YOU ARE HERE – TIME WILL NOT ALLOW THIS –PLEASE DO NOT ASK

NOTICE:

ADDRESSES BY APPOINTMENT ONLY!

TO OBTAIN A 9-1-1 ADDRESS THE REQUESTER MUST CONTACT THE COLUMBIA COUNTY 9-1-1 ADDRESSING DEPARTMENT AT (386) 752-8787 FOR AN APPOINTMENT TIME AND DATE:

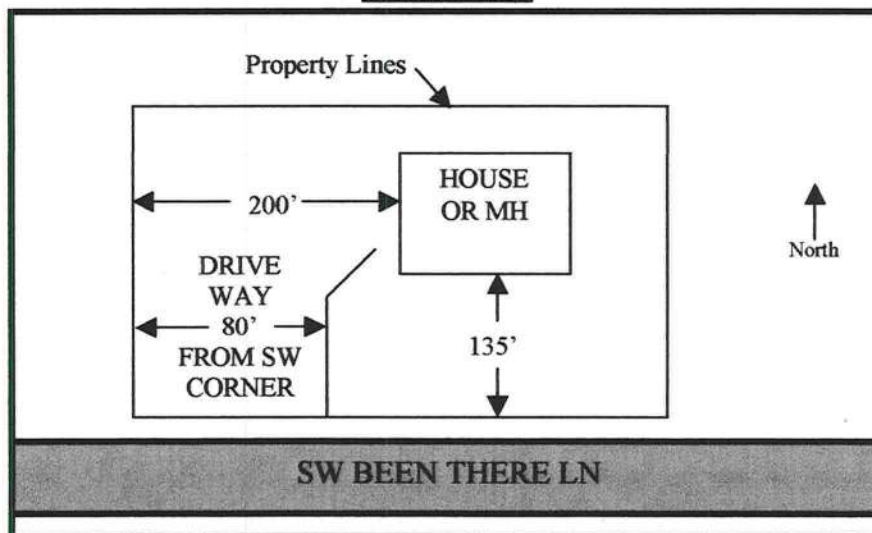
YOU CAN NOT OBTAIN A NEW ADDRESS OVER THE TELEPHONE. MUST MAKE AN APPOINTMENT!

THE ADDRESSING DEPARTMENT IS LOCATED AT 263 NW LAKE CITY AVENUE (OFF OF WEST U.S. HIGHWAY 90 WEST OF INTERSTATE 75 AT THE COLUMBIA COUNTY EMERGENCY OPERATIONS CENTER).

THE REQUESTER WILL NEED THE FOLLOWING:

1. THE PARCEL OR TAX ID NUMBER (SAMPLE: "25-4S-17-12345-123" OR "R12345-123) FOR THE PROPERTY.
2. A PLAT, PLAN, SITE PLAN, OR DRAWING SHOWING THE PROPERTY LINES OF THE PARCEL.
 - a. LOCATION OF PLANNED RESIDENT OR BUSINESS STRUCTURE ON THE PROPERTY WITH DISTANCES FROM TWO OF THE PROPERTY LINES TO THE STRUCTURE (SEE SAMPLE BELOW).
 - b. LOCATION OF THE ACCESS POINT (DRIVEWAY, ETC.) ON THE ROADWAY FROM WHICH LOCATION IS TO BE ADDRESSED WITH A DISTANCE FROM A PARALLEL PROPERTY LINE AND OR PROPERTY CORNER (SEE SAMPLE BELOW).
 - c. TRAVEL OF THE DRIVEWAY FROM THE ACCESS POINT TO THE STRUCTURE (SEE SAMPLE BELOW).

SAMPLE:



NOTE: 5 TO 7 WORKING DAYS MAY BE REQUIRED IF ADDRESSING DEPARTMENT NEEDS TO CONDUCT AN ON SITE SURVEY.

COLUMBIA COUNTY OFFICE OF OCCUPANCY

COLUMBIA COUNTY, FLORIDA

Department of Building and Zoning Inspection

This Certificate of Occupancy is issued to the below named permit holder for the building and premises at the below named location, and certifies that the work has been completed in accordance with the Columbia County Building Code.

Parcel Number 25-7S-16-04321-068

Building permit No. 000023849

Use Classification SFD, UTILITY

Fire: 24.78

Permit Holder HOMES BY HOUSE CRAFT

Waste: 36.75

Owner of Building OTTO & AMARA WINGFIELD

Total: 61.53

Location: 465 SW RUM ISLAND TERRACE

Date: 07/14/2006

Building Inspector

Paul J.



POST IN A CONSPICUOUS PLACE
(Business Places Only)



23849

Main Office
480 S. Edgewood Ave.
Jacksonville, FL 32205



Phone: 904.355.5300 Fax: 904.353.1488

SOIL PRETREATMENT JOB WORK ORDER

JOB NAME

LOT

BLOCK

SUBDIVISION

JOB ADDRESS / CITY, STATE

BUILDER NAME

BUILDER ADDRESS / CITY, STATE

TERMITICIDE USED:

CIRCLE ONE:

COMMERCIAL

☒ RESIDENTIAL

TYPE OF SLAB:

☒ DIRT FILL

MONOLITHIC

SQUARE FOOTAGE:

LINEAR FOOTAGE:

CONCENTRATION:

VOLUME:

TOTAL GALLONS OF SOLUTIONS APPLIED:

APPLICATION TYPE:

TYPE OF TREATMENT:

JOB SITE PHONE#

DIRECTIONS

Total Amount Due for Above Work Order

\$

Turner Pest Control, Inc.

Representative

Date

Time

I hereby acknowledge the
Order of the above described work:

Owner / Agent

Date

FORM#MO6307

UNIVERSAL

ENGINEERING SCIENCES

Consultants In: Geotechnical Engineering •
Environmental Sciences • Construction Materials Testing

REPORT ON IN-PLACE DENSITY TESTS

4475 S.W. 35th Place • Gainesville, Florida 32608 • (352) 372-3392

#23849

CLIENT: Richardson Site Prep

No Permit Posted

PROJECT: 46.5 Rum Island Rd

Wingfield Resd.
columbia co

AREA TESTED: Fillmore Blvd. pad

COURSE: FEK

DEPTH OF TEST: 0-1'

TYPE OF TEST: ASTM D-2922

DATE TESTED: 11-30-05

NOTE: The below tests ~~DO/DO NOT~~ meet the minimum 95 % compaction requirements of maximum density.

REMARKS:

[illegible]