DATE 02/18/2008

Columbia County Building Permit

This Permit Must Be Prominently Posted on Premises During Construction

PERMIT
000026768

APPLICANT JOHN D. HARRINGTON PHONE 386.462.5323

ADDRESS 1250 US HWY 441 ALACHUA FL 32615

OWNER RENEE BUTLER PHONE 561.964.4239

ADDRESS 902 SW MONTANA STREET FT. WHITE FL 32038

CONTRACTOR JOHN D. HARRINGTON PHONE 386.462.5323

LOCATION OF PROPERTY 47-S TO US 27,TR TO 3 RIVERS S.D,TL GO TO MONTANA,TL PAST DINGO WAY & WASHINGTON AVE, PROPERTY ON R.

TYPE DEVELOPMENT SFD/UTILITY ESTIMATED COST OF CONSTRUCTION 105200.00

HEATED FLOOR AREA 1636.00 TOTAL AREA 2104.00 HEIGHT 17.60 STORIES 1

FOUNDATION CONC WALLS FRAMED ROOF PITCH 6'12 FLOOR CONC

LAND USE & ZONING ESA-2 MAX. HEIGHT 35

Minimum Set Back Requirments: STREET-FRONT 30.00 REAR 25.00 SIDE 25.00

NO. EX.D.U. 0 FLOOD ZONE AE DEVELOPMENT PERMIT NO. 08-006

PARCEL ID 26-6S-15-00772-000 SUBDIVISION 3 RIVERS ESTATES

LOT 30 BLOCK PHASE UNIT 10 TOTAL ACRES 1.00

000001559		CRC058087		
Culvert Permit No.	Culvert Waiver	Contractor's License Number	Applicant/Owner/Contractor	
18"X32'MITERED	08-0154	BLK	JTH	N
Driveway Connection	Septic Tank Number	LU & Zoning checked by	Approved for Issuance	New Resident

COMMENTS: MFE @ 35.00' . FINISH FLOOR ELEVATION CERT. NEEDED PRIOR TO POWER. 1 FOOT RISE LETTER ON FILE.

Check # or Cash 1112

FOR BUILDING & ZONING DEPARTMENT ONLY

(footer/Slab)

Temporary Power _____ date/app. by

Foundation _____ date/app. by

Monolithic _____ date/app. by

Under slab rough-in plumbing _____ date/app. by

Slab _____ date/app. by

Sheathing/Nailing _____ date/app. by

Framing _____ date/app. by

Rough-in plumbing above slab and below wood floor _____ date/app. by

Electrical rough-in _____ date/app. by

Heat & Air Duct _____ date/app. by

Peri. beam (Lintel) _____ date/app. by

Permanent power _____ date/app. by

C.O. Final _____ date/app. by

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

M/H Pole _____ date/app. by

Travel Trailer _____ date/app. by

Re-roof _____ date/app. by

BUILDING PERMIT FEE $ 530.00 CERTIFICATION FEE $ 10.52 SURCHARGE FEE $ 10.52

MISC. FEES $ 0.00 ZONING CERT. FEE $ 50.00 FIRE FEE $ 0.00 WASTE FEE $

FLOOD DEVELOPMENT FEE $ 50.00 FLOOD ZONE FEE $ 25.00 CULVERT FEE $ 25.00 **TOTAL FEE** 701.04

INSPECTORS OFFICE _____ CLERKS OFFICE MSG

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."

EVERY PERMIT ISSUED SHALL BECOME INVALID UNLESS THE WORK AUTHORIZED BY SUCH PERMIT IS COMMENCED WITHIN 180 DAYS AFTER ITS ISSUANCE, OR IF THE WORK AUTHORIZED BY SUCH PERMIT IS SUSPENDED OR ABANDONED FOR A PERIOD OF 180 DAYS AFTER THE TIME THE WORK IS COMMENCED. A VALID PERMIT RECIEVES AN APPROVED INSPECTION EVERY 180 DAYS. WORK SHALL BE CONSIDERED TO BE IN ACTIVE PROGESS WHEN THE PERMIT HAS RECIEVED AN APPROVED INSPECTION WITHIN 180 DAYS.

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

Ck 1112

Columbia County Building Permit Application

For Office Use Only Application # 0801-84 Date Received 1/16 By JW Permit # 1559 - 26768

Zoning Official BLK Date 08.02.08 Flood Zone AE FEMA Map # 0225+0255 Zoning ESA-2

Land Use ESA Elevation 34' MFE 35' River Santa Fe Plans Examiner OK TH Date 2-11-08

Comments OP Required

NOC EH Deed or PA Site Plan State Road Info Parent Parcel #

Dev Permit # In Floodway Letter of Authorization from Contractor

Unincorporated area Incorporated area Town of Fort White Town of Fort White Compliance letter

Septic Permit No. 06-0473-N Fax 386-462-1509

Name Authorized Person Signing Permit John D. Harrington Phone 386-462-5323

Address 12501 US HWY 441 Alachua, FL 32615

Owners Name Renee Butler Phone 561-964-4239

911 Address 902 SW Montana St Fort White 3203

Contractors Name House Craft Homes Phone 386-462-5323

Address 12501 US HWY 441 Alachua FL 32615

Fee Simple Owner Name & Address Renee Butler 3815 Kewanne Rd Lantana FL 33462

Bonding Co. Name & Address —

Architect/Engineer Name & Address Mark Disosway

Mortgage Lenders Name & Address WASHINGTON MUTUAL, OMAHA, NEBRASKA

Circle the correct power company – FL Power & Light – (Clay Elec.) – Suwannee Valley Elec. – Progress Energy

Property ID Number 00-00-00-00772-000 Estimated Cost of Construction 129,000

Subdivision Name Three River Estates Lot 30 Block Unit 10 Phase

Driving Directions 47 South to Fort White, Rt on 27 Go to Three River's Estates Entrance (Just before River) Rt into 3 River Estates Go to Montana Rt Go past Dingo Way Number of Existing Dwellings on Property 0

Property is on Rite side of road next to 856 Montana Ave past Washington Ave

Construction of Single Family Dwelling Total Acreage 1 Lot Size 100x43

Do you need a - Culvert Permit or Culvert Waiver or Have an Existing Drive Total Building Height 17'6

Actual Distance of Structure from Property Lines - Front 200 Side 24.25 Side 24.25 Rear 150+

revised site Plan

Number of Stories 1 Heated Floor Area 1636 Total Floor Area 2123 Roof Pitch 6/12

2104 Per Plans

Application is hereby made to obtain a permit to do work and installations as indicated. I certify that no work or installation has commenced prior to the issuance of a permit and that all work be performed to meet the standards of all laws regulating construction in this jurisdiction.

left message - 2/11/08

Page 1 of 2 (Both Pages must be submitted together.) Revised 11-30-07

FROM :COLUMBIA CO BUILDING + ZONING FAX NO. :386-758-2160 Jan. 10 2008 02:08PM P2

Columbia County Building Permit Application

WARNING TO OWNER: YOUR FAILURE TO RECORD A NOTICE OF COMMENCMENT MAY RESULT IN YOU PAYING TWICE FOR IMPROVEMENTS TO YOUR PROPERTY. A NOTICE OF COMMENCEMENT MUST BE RECORDED AND POSTED ON THE JOB SITE BEFORE THE FIRST INSPECTION. IF YOU INTEND TO OBTAIN FINANCING, CONSULT WITH YOUR LENDER OR ATTORNEY BEFORE RECORDING YOUR NOTICE OF COMMENCEMENT.

FLORIDA'S CONSTRUCTION LIEN LAW: Protect Yourself and Your Investment
According to Florida Law, those who work on your property or provide materials, and are not paid-in-full, have a right to enforce their claim for payment against your property. This claim is known as a construction lien. If your contractor fails to pay subcontractors or material suppliers or neglects to make other legally required payments, the people who are owed money may look to your property for payment, even if you have paid your contractor in full. This means if a lien is filed against your property, it could be sold against your will to pay for labor, materials or other services which your contractor may have failed to pay.

NOTICE OF RESPONSIBILITY TO BUILDING PERMITEE:
YOU ARE HEREBY NOTIFIED as the recipient of a building permit from Columbia County, Florida, you will be held responsible to the County for any damage to sidewalks and/or road curbs and gutters, concrete features and structures, together with damage to drainage facilities, removal of sod, major changes to lot grades that result in ponding of water, or other damage to roadway and other public infrastructure facilities caused by you or your contractor, subcontractors, agents or representatives in the construction and/or improvement of the building and lot for which this permit is issued. No certificate of occupancy will be issued until all corrective work to these public infrastructures and facilities has been corrected.

OWNERS CERTIFICATION: 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. I further understand the above written responsibilities in Columbia County for obtaining this Building Permit.

Renee Butler
Owners Signature

CONTRACTORS AFFIDAVIT: By my signature I understand and agree that I have informed and provided this written statement to the owner of all the above written responsibilities in Columbia County for obtaining this Building Permit.

Contractor's Signature (Permitee)

Contractor's License Number CRC 058087
Columbia County
Competency Card Number_____

Affirmed under penalty of perjury to by the Contractor and subscribed before me this 14th **day of** January **20**08

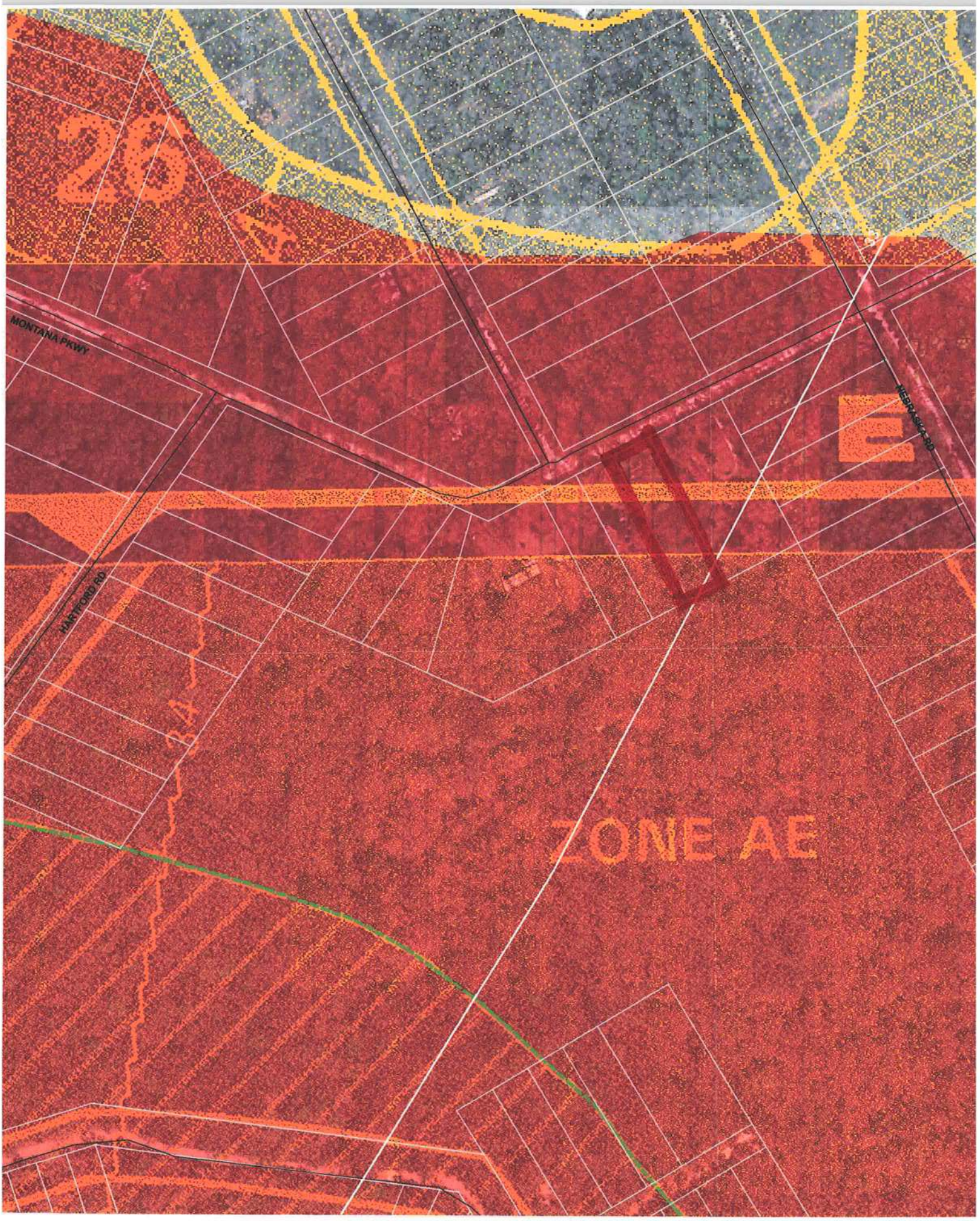
Personally known____ **or Produced Identification** FLDL # H652-404-73-303-0

Deborah Morrison
State of Florida Notary Signature (For the Contractor)

SEAL:

DEBORAH MORRISON
Notary Public - State of Florida
My Commission Expires Sep 17, 2011
Commission # DD 715174
Bonded Through National Notary Assn.

Revised 11-30-0



0801-84

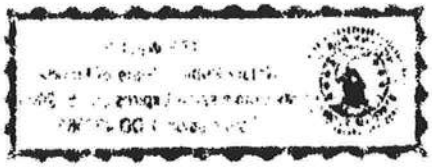
Quitclaim Deed

Inst:2005018103 Date:07/29/2005 Time:12:45
Doc Stamp-Deed : 0.70
MK DC,P.DeWitt Cason,Columbia County B:1053 P:973

THIS QUITCLAIM DEED, executed this 1ST day of JULY, 20 05,
by first party, Grantor, Aimee Renee Bess
whose post office address is 3815 Kewanee Road Lantana, FL. 33462
to second party, Grantee, Renee Bess Butler
whose post office address is 3815 Kewanee Road Lantana, FL. 33462

WITNESSETH, That the said first party, for good consideration and for the sum of Zero
Dollars ($ -0-)
paid by the said second party, the receipt whereof is hereby acknowledged, does hereby remise, release and quitclaim unto the said second party forever, all the right, title, interest and claim which the said first party has in and to the following described parcel of land, and improvements and appurtenances thereto in the County of Columbia,
State of Florida to wit:

Parcel ID. 00-00-00-00772-000
Lot 30 Unit 10 Three Rivers Estates.
ORB 520-542, 780-1389, 788-179,
826-846



IN WITNESS WHEREOF, The said first party has signed and sealed these presents the day and year first above written.
Signed, sealed and delivered in presence of:

Signature of Witness: Amber Owens

Print name of Witness: Amber Owens

Signature of Witness: Sobia Saqib

Print name of Witness: SOBIA SAQIB

Signature of First Party: Aimee Bess

Print name of First Party: AIMEE BESS

Signature of Second Party: Renee Bess Butler

Print name of Second Party: Renee Bess Butler

Signature of Preparer Aimee Bess

Print Name of Preparer AIMEE BESS

Address of Preparer 3815 KEWANEE RD.
LANTANA, FL, 33462-2213

State of Florida
County of Palm Beach }

On 15th day of July, 2005 before me, Gary Welch,
appeared Aimee Bess
personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.
WITNESS my hand and official seal.

Signature of Notary

Affiant ____ Known ✓ Produced ID
Type of ID Florida Drive License
(Seal)

Inst:2005018103 Date:07/29/2005 Time:12:45
Doc Stamp-Deed : 0.70
DC,P.DeWitt Cason,Columbia County B:1053 P:974

GARY WELCH
Notary Public - State of Florida
My Commission Expires Jun 5, 2009
Commission # DD 437383

Columbia County, Florida
Planning & Zoning Department

Review of Building Permit for compliance with County's Comprehensive Plan and Land Development Regulations

To: John Harrington **Fax:** 386.~~4[illegible]~~ 462.1509 02.07.08

From : Brian L. Kepner, County Planner **Fax:** 386.758.2160

Number of pages : 1

Date : 30 January 2008

RE: Building Permit Application 0801-84, Renee Butler

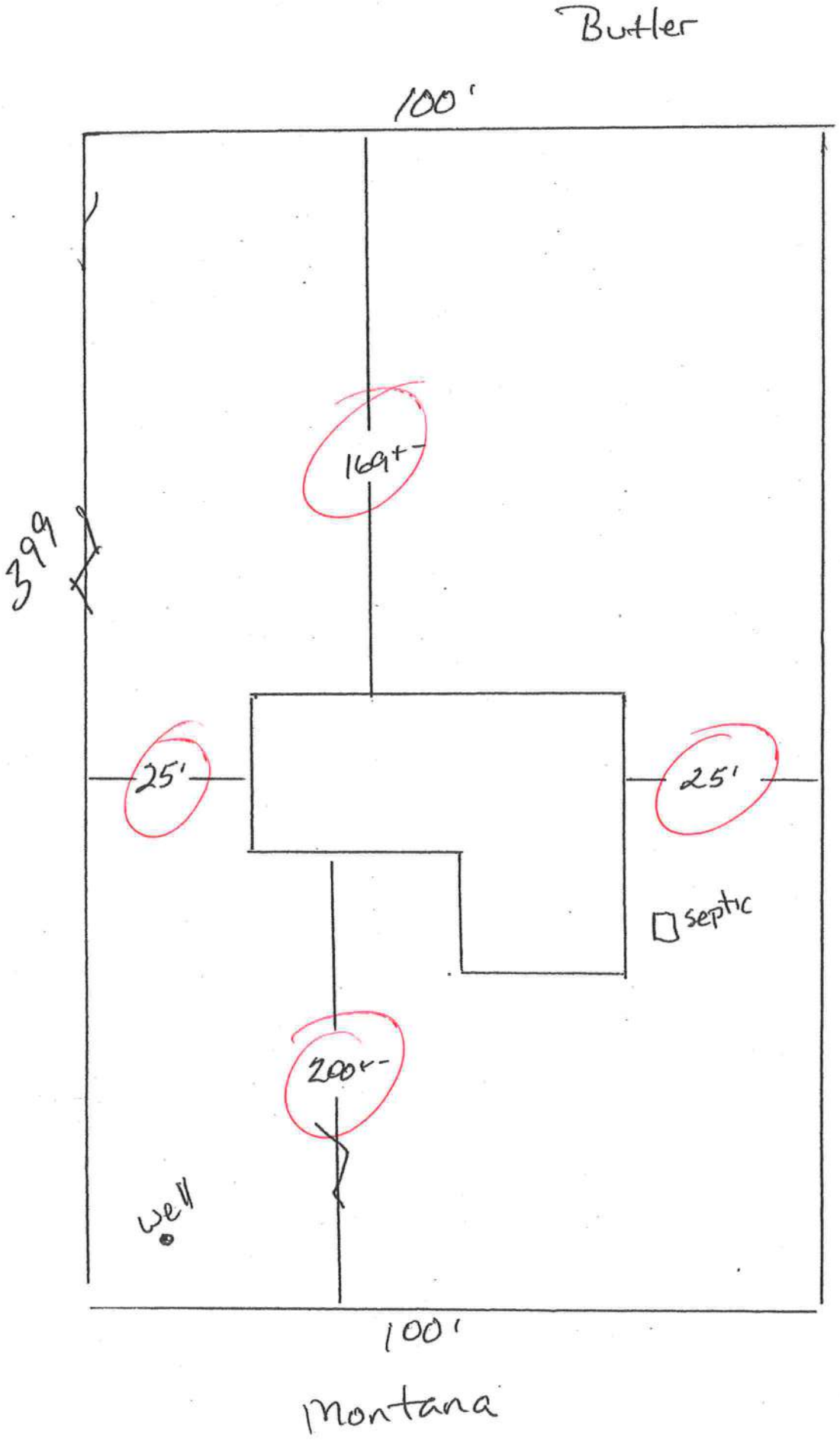
Dear John:

Upon review of the above referenced building permit application, this parcel is located within the 100 year flood zone. A signed and sealed one (1) foot rise letter from an engineer stating that once the structure is placed on the property will not cause the flood waters to rise greater than one (1) foot. The side setback requirements for ESA-2 zoning district is twenty-five (25) feet. An Elevation Certificate will be required prior to permanent power being released. The application and site plan show twenty-four (24) feet. A variance would be required in order to approve this application. Variances require a public hearing before the Board of Adjustment and there is a $750.00 fee. Applications can be picked up here at the Building and Zoning Department or I could FAX you one if you like.

If you have any questions concerning this matter, please do not hesitate to contact me at 386.758.1007.

Sincerely,

Brian L. Kepner
Land Development Regulation Administrator,
County Planner


Butler
100'
169+-
399
25'
25'
septic
200+-
well
100'
Montana

STATE OF FLORIDA

DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION

CONSTRUCTION INDUSTRY LICENSING BOARD (850) 487-1395
1940 NORTH MONROE STREET
TALLAHASSEE FL 32399-0783

HARRINGTON, JOHN DANIEL JR
HOUSE CRAFTS HOMES LLC
24113 NW OLD BELLAMY RD
HIGH SPRINGS FL 32643

STATE OF FLORIDA AC# 3491773
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION

CRC058087 10/18/07 00000000

CERTIFIED RESIDENTIAL CONTRACTO
HARRINGTON, JOHN DANIEL JR
HOUSE CRAFTS HOMES LLC

IS CERTIFIED under the provisions of Ch 489
Expiration date: AUG 31, 2008 L0710 80064

DETACH HERE

AC# 3491773

STATE OF FLORIDA

DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION
CONSTRUCTION INDUSTRY LICENSING BOARD SEQ# L0710180064

DATE	BATCH NUMBER	LICENSE NBR
10/18/2007	000000000	CRC058087

The RESIDENTIAL CONTRACTOR
Named below IS CERTIFIED
Under the provisions of Chapter 489 FS.
Expiration date: AUG 31, 2008

HARRINGTON, JOHN DANIEL JR
HOUSE CRAFTS HOMES LLC
12501 HWY 441
ALACHUA FL 32615

CHARLIE CRIST
GOVERNOR

HOLLY BENSON
SECRETARY

DISPLAY AS REQUIRED BY LAW

District No. 1 - Ronald Williams
District No. 2 - Dewey Weaver
District No. 3 - Jody DuPree
District No. 4 - Stephen E. Bailey
District No. 5 - Scarlet P. Frisina

BOARD OF COUNTY COMMISSIONERS • COLUMBIA COUNTY

26768

MEMO OF REVIEW FOR CORRECTNESS AND COMPLETION

In accordance with participation in the NFIP/CRS program, all elevation certificates are required to be reviewed for correctness and completion prior to acceptance by the community. This completed form shall be attached to all elevation certificates maintained on file and provided with requested copies of elevation certificates.

____ The attached elevation certificate requires corrections by the surveyor of section(s) _____ prior to acceptance by the community.
X The attached elevation certificated is complete and correct.
____ Minor corrections have been made in the below marked sections by the authorized Community Official.

SECTION A - PROPERTY INFORMATION

A1. Building Owner's Name Renee Butler	For Insurance Company Use:
A2. Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No.	Policy Number
City State ZIP Code	Company NAIC Number

A3. Property Description (Lot and Block Numbers, Tax Parcel Number, Legal Description, etc.) -00772-000

A4. Building Use (e.g., Residential, Non-Residential, Addition, Accessory, etc.) _____
A5. Latitude/Longitude: Lat. _____ Long. _____ Horizontal Datum: ☐ NAD 1927 ☐ NAD 1983
A6. Attach at least 2 photographs of the building if the Certificate is being used to obtain flood insurance.
A7. Building Diagram Number_____
A8. For a building with a crawl space or enclosure(s), provide:
a) Square footage of crawl space or enclosure(s) _____ sq ft
b) No. of permanent flood openings in the crawl space or enclosure(s) walls within 1.0 foot above adjacent grade _____
c) Total net area of flood openings in A8.b _____ sq in

A9. For a building with an attached garage, provide:
a) Square footage of attached garage _____ sq ft
b) No. of permanent flood openings in the attached garage walls within 1.0 foot above adjacent grade _____
c) Total net area of flood openings in A9.b _____ sq in

SECTION B - FLOOD INSURANCE RATE MAP (FIRM) INFORMATION

B1. NFIP Community Name & Community Number	B2. County Name	B3. State

B4. Map/Panel Number	B5. Suffix	B6. FIRM Index Date	B7. FIRM Panel Effective/Revised Date	B8. Flood Zone(s)	B9. Base Flood Elevation(s) (Zone AO, use base flood depth)

B10. Indicate the source of the Base Flood Elevation (BFE) data or base flood depth entered in Item B9.
☐ FIS Profile ☐ FIRM ☐ Community Determined ☐ Other (Describe) _____
B11. Indicate elevation datum used for BFE in Item B9: ☐ NGVD 1929 ☐ NAVD 1988 ☐ Other (Describe) _____
B12. Is the building located in a Coastal Barrier Resources System (CBRS) area or Otherwise Protected Area (OPA)? ☐ Yes ☐ No
Designation Date_____ ☐ CBRS ☐ OPA

COMMENTS: _____

Date of Review: 7-29-08 BOARD MEETS FIRST THURSDAY AT 7:00 P.M. AND THIRD THURSDAY AT 9:00 A.M. **Community Official:** _____

All elevation certificates shall be maintained by the community and copies with the attached memo made available upon request.

U.S. DEPARTMENT OF HOMELAND SECURITY
Federal Emergency Management Agency
National Flood Insurance Program

ELEVATION CERTIFICATE 26768

OMB No. 1660-0008
Expires February 28, 2009

Important: Read the instructions on pages 1-8.

SECTION A - PROPERTY INFORMATION

For Insurance Company Use:
Policy Number
Company NAIC Number

A1. Building Owner's Name RENEE BUTLER

A2. Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No.
902 SW MONTANA STREET
City FT. WHITE State FL ZIP Code 32038

A3. Property Description (Lot and Block Numbers, Tax Parcel Number, Legal Description, etc.)
LOT 10, UNIT 10, THREE RIVERS ESTATES, COLUMBIA CO., FL. PID 00-00-00-00772-000

A4. Building Use (e.g., Residential, Non-Residential, Addition, Accessory, etc.) RESIDENTIAL

A5. Latitude/Longitude: Lat. 29 55.918 Long. 82 46.412 Horizontal Datum: ☐ NAD 1927 ☐ NAD 1983

A6. Attach at least 2 photographs of the building if the Certificate is being used to obtain flood insurance.

A7. Building Diagram Number 1

A8. For a building with a crawl space or enclosure(s), provide
a) Square footage of crawl space or enclosure(s) NA sq ft
b) No. of permanent flood openings in the crawl space or enclosure(s) walls within 1.0 foot above adjacent grade NA
c) Total net area of flood openings in A8.b NA sq in

A9. For a building with an attached garage, provide:
a) Square footage of attached garage NA sq ft
b) No. of permanent flood openings in the attached garage walls within 1.0 foot above adjacent grade NA
c) Total net area of flood openings in A9.b NA sq in

SECTION B - FLOOD INSURANCE RATE MAP (FIRM) INFORMATION

B1. NFIP Community Name & Community Number	B2. County Name	B3. State
COLUMBIA UNICORPRATED 120070	COLUMBIA	FL

B4. Map/Panel Number	B5. Suffix	B6. FIRM Index Date	B7. FIRM Panel Effective/Revised Date	B8. Flood Zone(s)	B9 Base Flood Elevation(s) (Zone AO, use base flood depth)
120070 225	B	6 JAN. 1988	6 JAN. 1988	AE	34.0

B10. Indicate the source of the Base Flood Elevation (BFE) data or base flood depth entered in Item B9.
☐ FIS Profile ☒ FIRM ☐ Community Determined ☐ Other (Describe) _____

B11. Indicate elevation datum used for BFE in Item B9: ☒ NGVD 1929 ☐ NAVD 1988 ☐ Other (Describe) _____

B12. Is the building located in a Coastal Barrier Resources System (CBRS) area or Otherwise Protected Area (OPA)? ☐Yes ☒No
Designation Date _____ ☐ CBRS ☐ OPA

SECTION C - BUILDING ELEVATION INFORMATION (SURVEY REQUIRED)

C1. Building elevations are based on: ☐ Construction Drawings* ☐ Building Under Construction* ☒ Finished Construction
*A new Elevation Certificate will be required when construction of the building is complete.

C2. Elevations – Zones A1-A30, AE, AH, A (with BFE), VE, V1-V30, V (with BFE), AR, AR/A, AR/AE, AR/A1-A30, AR/AH, AR/AO. Complete Items C2.a-g below according to the building diagram specified in Item A7.
Benchmark Utilized SAF22 Vertical Datum NGVD29
Conversion/Comments NA

			Check the measurement used.
a)	Top of bottom floor (including basement, crawl space, or enclosure floor)	35.18	☒ feet ☐ meters (Puerto Rico only)
b)	Top of the next higher floor	NA.	☒ feet ☐ meters (Puerto Rico only)
c)	Bottom of the lowest horizontal structural member (V Zones only)	NA.	☒ feet ☐ meters (Puerto Rico only)
d)	Attached garage (top of slab)	33.60.	☒ feet ☐ meters (Puerto Rico only)
e)	Lowest elevation of machinery or equipment servicing the building (Describe type of equipment in Comments)	35.18.	☒ feet ☐ meters (Puerto Rico only)
f)	Lowest adjacent (finished) grade (LAG)	29.9	☒ feet ☐ meters (Puerto Rico only)
g)	Highest adjacent (finished) grade (HAG)	30.4	☒ feet ☐ meters (Puerto Rico only)

SECTION D - SURVEYOR, ENGINEER, OR ARCHITECT CERTIFICATION

This certification is to be signed and sealed by a land surveyor, engineer, or architect authorized by law to certify elevation information. *I certify that the information on this Certificate represents my best efforts to interpret the data available. I understand that any false statement may be punishable by fine or imprisonment under 18 U.S. Code, Section 1001.*

☒ Check here if comments are provided on back of form.

PLACE SEAL HERE

Certifier's Name WILLIAM N. KITCHEN License Number 5490

Title PROFESSIONAL SURVEYOR AND MAPPER Company Name WILLIAM N. KITCHEN, P.S.M.

Address 152 N. MARION AVENUE City LAKE CITY State FL ZIP Code 32055

Signature William N. Kitchen Date 6-17-2008 Telephone 386-755-7786

IMPORTANT: In these spaces, copy the corresponding information from Section A.	For Insurance Company Use:
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 902 SW MONTANA STREET	Policy Number
City FT. WHITE State FL. ZIP Code 32038	Company NAIC Number

SECTION D - SURVEYOR, ENGINEER, OR ARCHITECT CERTIFICATION (CONTINUED)

Copy both sides of this Elevation Certificate for (1) community official, (2) insurance agent/company, and (3) building owner.

Comments C2e = AC, HOT WATER HEATER = 35.18 ELECTRIC METER= 35.0

Signature William H. Fletcher Date 6-17-2008

☐ Check here if attachments

SECTION E - BUILDING ELEVATION INFORMATION (SURVEY NOT REQUIRED) FOR ZONE AO AND ZONE A (WITHOUT BFE)

For Zones AO and A (without BFE), complete Items E1-E5. If the Certificate is intended to support a LOMA or LOMR-F request, complete Sections A, B, and C. For Items E1-E4, use natural grade, if available. Check the measurement used. In Puerto Rico only, enter meters.

E1. Provide elevation information for the following and check the appropriate boxes to show whether the elevation is above or below the highest adjacent grade (HAG) and the lowest adjacent grade (LAG).
a) Top of bottom floor (including basement, crawl space, or enclosure) is _____._____ ☐ feet ☐ meters ☐ above or ☐ below the HAG.
b) Top of bottom floor (including basement, crawl space, or enclosure) is _____._____ ☐ feet ☐ meters ☐ above or ☐ below the LAG.

E2. For Building Diagrams 6-8 with permanent flood openings provided in Section A Items 8 and/or 9 (see page 8 of Instructions), the next higher floor (elevation C2.b in the diagrams) of the building is _____._____ ☐ feet ☐ meters ☐ above or ☐ below the HAG.

E3. Attached garage (top of slab) is _____._____ ☐ feet ☐ meters ☐ above or ☐ below the HAG.

E4. Top of platform of machinery and/or equipment servicing the building is _____._____ ☐ feet ☐ meters ☐ above or ☐ below the HAG.

E5. Zone AO only: If no flood depth number is available, is the top of the bottom floor elevated in accordance with the community's floodplain management ordinance? ☐ Yes ☐ No ☐ Unknown. The local official must certify this information in Section G.

SECTION F - PROPERTY OWNER (OR OWNER'S REPRESENTATIVE) CERTIFICATION

The property owner or owner's authorized representative who completes Sections A, B, and E for Zone A (without a FEMA-issued or community-issued BFE) or Zone AO must sign here. *The statements in Sections A, B, and E are correct to the best of my knowledge.*

Property Owner's or Owner's Authorized Representative's Name

Address City State ZIP Code

Signature Date Telephone

Comments

☐ Check here if attachment

SECTION G - COMMUNITY INFORMATION (OPTIONAL)

The local official who is authorized by law or ordinance to administer the community's floodplain management ordinance can complete Sections A, B, C (or E), and G of this Elevation Certificate. Complete the applicable item(s) and sign below. Check the measurement used in Items G8. and G9.

G1. ☐ The information in Section C was taken from other documentation that has been signed and sealed by a licensed surveyor, engineer, or architect who is authorized by law to certify elevation information. (Indicate the source and date of the elevation data in the Comments area below.)

G2. ☐ A community official completed Section E for a building located in Zone A (without a FEMA-issued or community-issued BFE) or Zone AO.

G3. ☐ The following information (Items G4.-G9.) is provided for community floodplain management purposes.

G4. Permit Number	G5. Date Permit Issued	G6. Date Certificate Of Compliance/Occupancy Issued

G7. This permit has been issued for: ☐ New Construction ☐ Substantial Improvement

G8. Elevation of as-built lowest floor (including basement) of the building: _____._____ ☐ feet ☐ meters (PR) Datum _____

G9. BFE or (in Zone AO) depth of flooding at the building site: _____._____ ☐ feet ☐ meters (PR) Datum _____

Local Official's Name Title

Community Name Telephone

Signature Date

Comments

BUILDING DIAGRAMS

The following eight diagrams illustrate various types of buildings. Compare the features of the building being certified with the features shown in the diagrams and select the diagram most applicable. Enter the diagram number in Item A7., the square footage of crawl space or enclosure(s) and the area of flood openings in square inches in Items A8.a-c, the square footage of attached garage and the area of flood openings in square inches in Items A9.a-c, and the elevations in Items C2.a-g.

In A zones, the floor elevation is taken at the top finished surface of the floor indicated; in V zones, the floor elevation is taken at the bottom of the lowest horizontal structural member (see drawing in instructions for Section C).

DIAGRAM 1

All slab-on-grade single- and multiple-floor buildings (other than split-level) and high-rise buildings, either detached or row type (e.g., townhouses); with or without attached garage.

Distinguishing Feature – The bottom floor is at or above ground level (grade) on at least one side. *

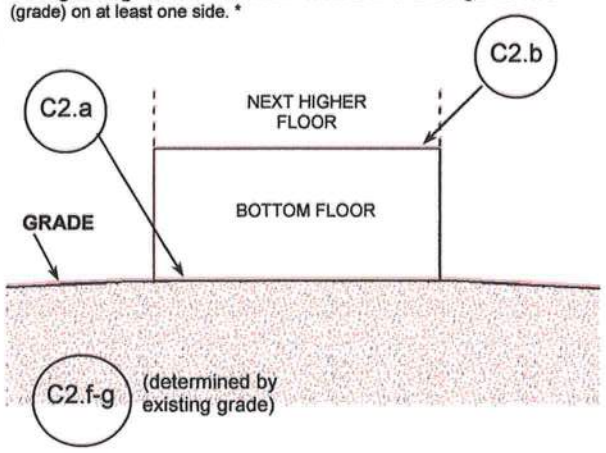


DIAGRAM 2

All single- and multiple-floor buildings with basement (other than split-level) and high-rise buildings with basement, either detached or row type (e.g., townhouses); with or without attached garage.

Distinguishing Feature – The bottom floor (basement or underground garage) is below ground level (grade) on all sides. Buildings constructed above crawl spaces that are below grade on all sides should also use this diagram.*

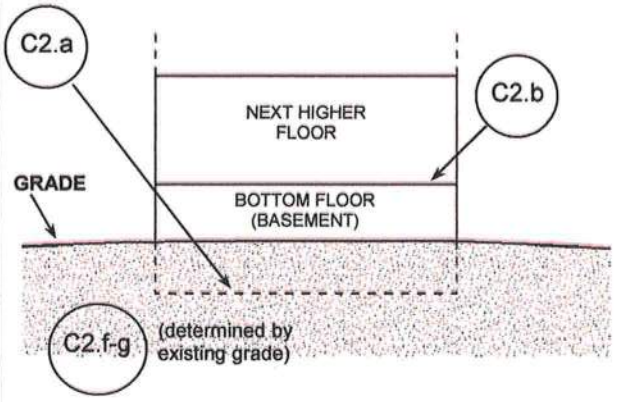


DIAGRAM 3

All split-level buildings that are slab-on-grade, either detached or row type (e.g., townhouses); with or without attached garage.

Distinguishing Feature – The bottom floor (excluding garage) is at or above ground level (grade) on at least one side .*

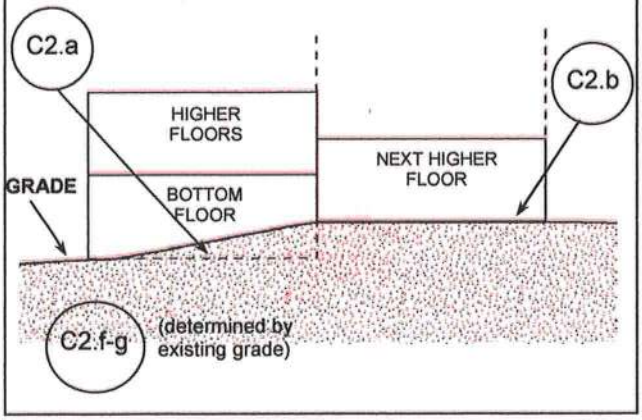
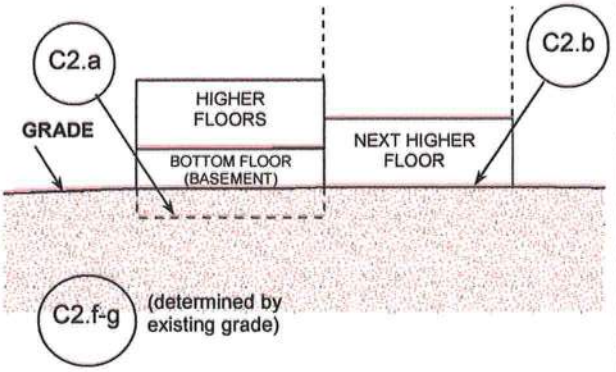


DIAGRAM 4

All split-level buildings (other than slab-on-grade), either detached or row type (e.g., townhouses); with or without attached garage.

Distinguishing Feature – The bottom floor (basement or underground garage) is below ground level (grade) on all sides. Buildings constructed above crawl spaces that are below grade on all sides should also use this diagram. *



* A floor that is below ground level (grade) on all sides is considered a basement even if the floor is used for living purposes, or as an office, garage, workshop, etc.

CERTIFICATE 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 26-6S-15-00772-000 **Building permit No.** 000026768

Use Classification SFD/UTILITY **Fire:** 19.26

Permit Holder JOHN D. HARRINGTON **Waste:** 50.25

Owner of Building RENEE BUTLER **Total:** 69.51

Location: 902 SW MONTANA STREET, FT. WHITE, FL

Date: 07/29/2008

Wayne A. Rose

Building Inspector

POST IN A CONSPICUOUS PLACE
(Business Places Only)

Freeman Design Group inc
Engineers • Planners

0801-84

161 N.W. Madison St. Suite 102
Lake City, Florida 32055
Tel: 386-758-4209
Fax: 386-758-4290

2/7/2008

Columbia County Building Department

To whom it may concern,

RE: Butler Residence, Parcel ID 00772-000

I have reviewed the conditions for the referenced property. The property is located in a flood zone (Zone AE). The finished floor elevation of (35.0') shall be set at least 1' above the 100 year flood elevation. The 100 year flood elevation is established at 34.0'. Please find a copy of the calculations verifying the flood rise to be less than 1'-0". If you have any questions, please call me at (386) 758-4209.

Sincerely,

William H. Freeman

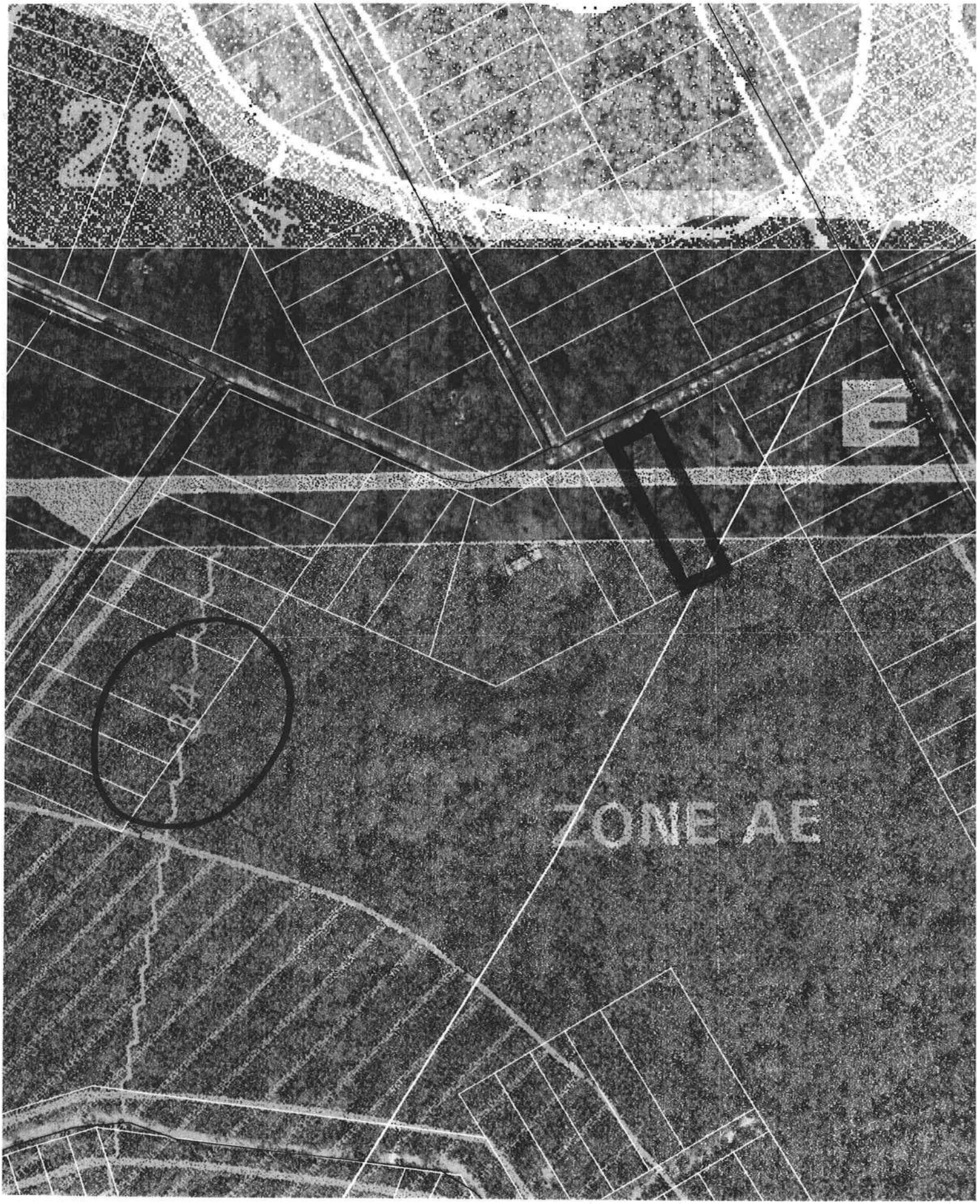
William Freeman, P.E. #56001
Certificate of Authorization # 00008701

Freeman Design Group, Inc.
161 NW Madison St., Ste. # 102
Lake City, FL 32055
(386) 758-4209

1-ft Rise Flood Certification Calculations			
Project: Butler Residence (ID#00772-000)			
Home and building pad			
Footing Area (sf):	2123	slab level	2123.00 sf slab
Base of Fill (sf)	5180	ground level	5180.00 sf base
Rise Ht(ft):	3	fill required	
Contributing Area:	0.92	acres ------->	40,001.15 sf
Avg. Fill Area:			3651.500 sf
Net Land Area (contributing minus new):			36,349.65 sf
Slab Volume Displacement:			10954.50 cf
Amount of Rise (Slab volume / land area) x 12:			3.616 in

Base Flood Elevation	34.0 ft
Min. Finished Floor Elevation	35.0 ft

2/7/08
PE#56001



RENEE BUTLER

0801-84

1st Floor to be at 35$

Columbia County Building Department
Culvert Permit

Culvert Permit No.
000001559

DATE 02/18/2008 PARCEL ID # 26-6S-15-00772-000

APPLICANT JOHN D. HARRINGTON PHONE 386.462.5323

ADDRESS 1250 US HWY 441 ALACHUA FL 32615

OWNER RENEE BUTLER PHONE 561.964.4239

ADDRESS 902 SW MONTANA STREET FT. WHITE FL 32038

CONTRACTOR JOHN D. HARRINGTON PHONE 386.462.5323

LOCATION OF PROPERTY 47-S TO US 27,TR TO 3 RIVERS S.D,TL GO TO MONTANA,TL PAST DINGO WAY & WASHINGTON AVE, PROPERTY ON R.

SUBDIVISION/LOT/BLOCK/PHASE/UNIT 3 RIVERS ESTATES 30 10

SIGNATURE

INSTALLATION REQUIREMENTS

[X] Culvert size will be 18 inches in diameter with a total lenght of 32 feet, leaving 24 feet of driving surface. Both ends will be mitered 4 foot with a 4 : 1 slope and poured with a 4 inch thick reinforced concrete slab.

INSTALLATION NOTE: Turnouts will be required as follows:
a) a majority of the current and existing driveway turnouts are paved, or;
b) the driveway to be served will be paved or formed with concrete.
Turnouts shall be concrete or paved a minimum of 12 feet wide or the width of the concrete or paved driveway, whichever is greater. The width shall conform to the current and existing paved or concreted turnouts.

[ ] Culvert installation shall conform to the approved site plan standards.

[ ] Department of Transportation Permit installation approved standards.

[ ] Other _____

ALL PROPER SAFETY REQUIREMENTS SHOULD BE FOLLOWED DURING THE INSTALATION OF THE CULVERT.

135 NE Hernando Ave., Suite B-21
Lake City, FL 32055
Phone: 386-758-1008 Fax: 386-758-2160

Amount Paid 25.00

COLUMBIA COUNTY GATEWAY TO FLORIDA

Columbia County Building Department
Flood Development Permit

Development Permit
F 023- 08-006

DATE 02/18/2008 BUILDING PERMIT NUMBER 000026768

APPLICANT JOHN D. HARRINGTON PHONE 386.462.5323

ADDRESS 1250 US HWY 441 ALACHUA FL 32615

OWNER RENEE BUTLER PHONE 561.964.4239

ADDRESS 902 SW MONTANA STREET FT. WHITE FL 32038

CONTRACTOR JOHN D. HARRINGTON PHONE 386.462.5323

ADDRESS 12501 US HWY 441 ALACHUA FL 32615

SUBDIVISION 3 RIVERS ESTATES Lot 30 Block ____ Unit 10 Phase ____

TYPE OF DEVELOPMENT SFD/UTILITY PARCEL ID NO. 26-6S-15-00772-000

FLOOD ZONE AE BY BLK 1-6-88 FIRM COMMUNITY #. 120070 - PANEL #. 0225 B ~~0255~~

FIRM 100 YEAR ELEVATION 34.0' PLAN INCLUDED YES or NO

REQUIRED LOWEST HABITABLE FLOOR ELEVATION 35.0'

IN THE REGULATORY FLOODWAY YES or NO RIVER Santa Fe

SURVEYOR / ENGINEER NAME William Freeman LICENSE NUMBER 56001

✓ ONE FOOT RISE CERTIFICATION INCLUDED

_____ ZERO RISE CERTIFICATION INCLUDED

_____ SRWMD PERMIT NUMBER _____
(INCLUDING THE ONE FOOT RISE CERTIFICATION)

DATE THE FINISHED FLOOR ELEVATION CERTIFICATE WAS PROVIDED _____

INSPECTED DATE _____ BY _____

COMMENTS _____

_____

135 NE Hernando Ave., Suite B-21
Lake City, Florida 32055
Phone: 386-758-1008
Fax: 386-758-2160

COLUMBIA COUNTY FLORIDA

Butler

COLUMBIA COUNTY 9-1-1 ADDRESSING

P. O. Box 1787, Lake City, FL 32056-1787
PHONE: (386) 758-1125 * FAX: (386) 758-1365 * Email: ron_croft@columbiacountyfla.com

Addressing Maintenance

To maintain the Countywide Addressing Policy you must make application for a 9-1-1 Address at the time you apply for a building permit. The established standards for assigning and posting numbers to all principal buildings, dwellings, businesses and industries are contained in Columbia County Ordinance 2001-9. The addressing system is to enable Emergency Service Agencies to locate you in an emergency, and to assist the United States Postal Service and the public in the timely and efficient provision of services to residents and businesses of Columbia County.

DATE REQUESTED: 1/16/2008 **DATE ISSUED:** 1/16/2008

ENHANCED 9-1-1 ADDRESS:

902 SW MONTANA ST

FORT WHITE FL 32038

PROPERTY APPRAISER PARCEL NUMBER:

00-00-00-00772-000

Remarks:

LOT 30 UNIT 10 THREE RIVERS ESTATES

Address Issued By: _____
Columbia County 9-1-1 Addressing / GIS Department

NOTICE: THIS ADDRESS WAS ISSUED BASED ON LOCATION INFORMATION RECEIVED FROM THE REQUESTER. SHOULD, AT A LATER DATE, THE LOCATION INFORMATION BE FOUND TO BE IN ERROR, THIS ADDRESS IS SUBJECT TO CHANGE.

Approved Address 1106

JAN 16 2008

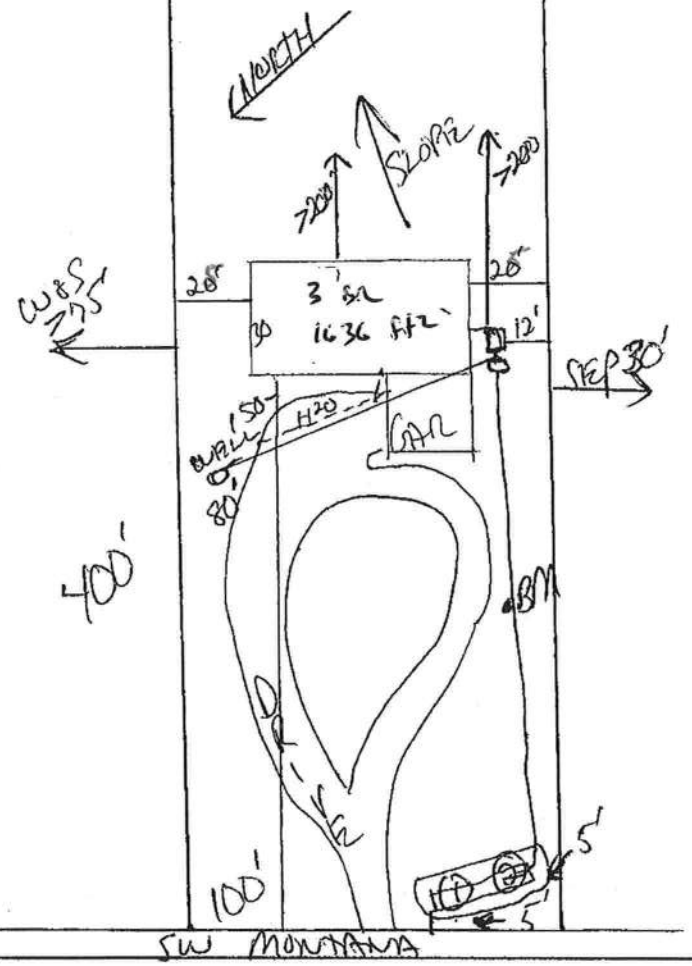
911Addressing/GIS Dept

STATE OF FLORIDA
DEPARTMENT OF HEALTH
APPLICATION FOR ONSITE SEWAGE DISPOSAL SYSTEM CONSTRUCTION PERMIT

Permit Application Number 08-0154

PART II - SITEPLAN

Scale: 1 inch = 50 feet.



Notes: _____

Site Plan submitted by: Rod APPROVED MASTER CONTRACTOR

Plan Approved ✓ Not Approved _____ Date 2/8/13

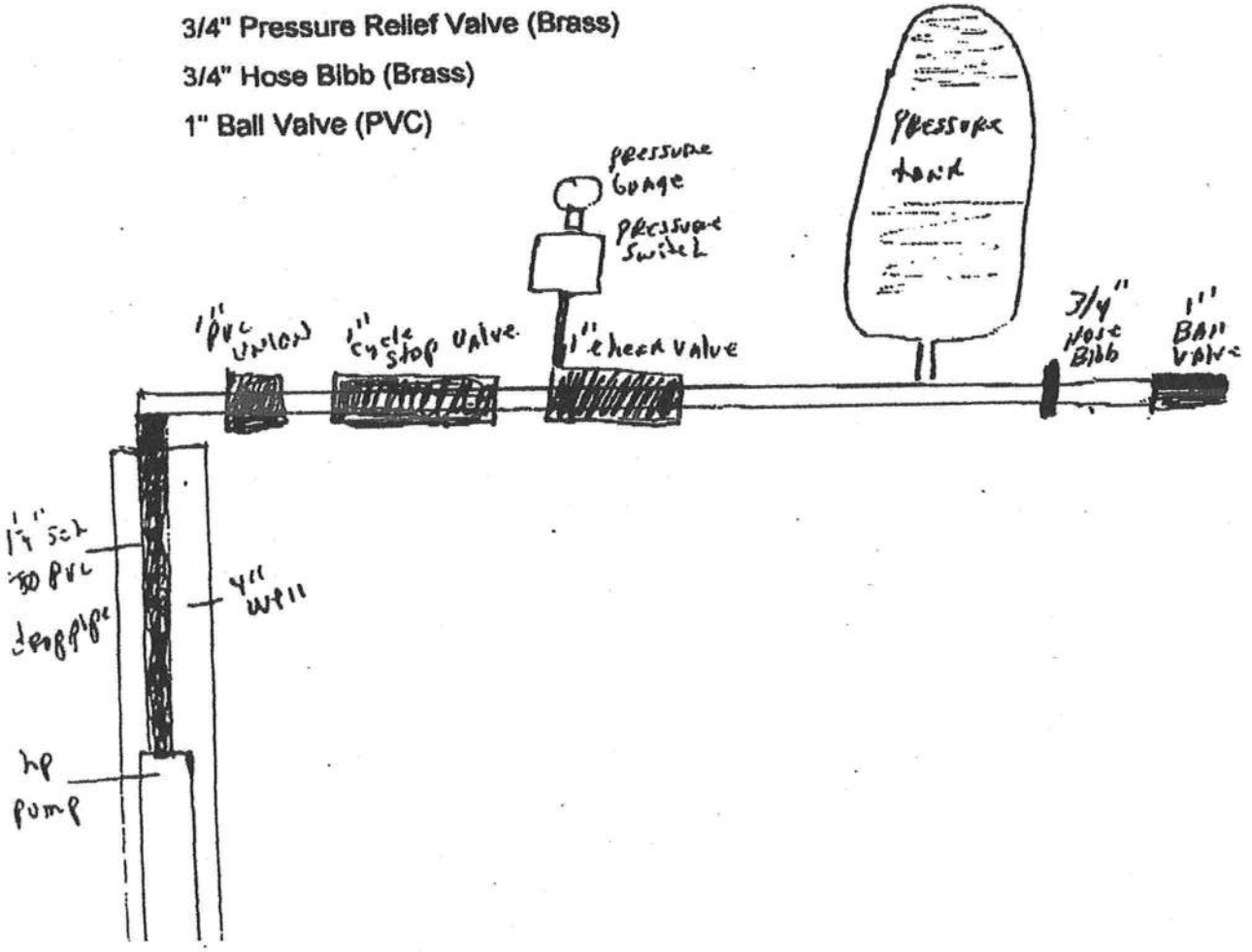
By _____ Columbia CHD County Health Departmer

ALL CHANGES MUST BE APPROVED BY THE COUNTY HEALTH DEPARTMENT

Well Doctor
Jeff Miamiszek
386-454-1835

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)



ENERGY PERFORMANCE LEVEL (EPL) DISPLAY CARD

ESTIMATED ENERGY PERFORMANCE SCORE* = 85.7 #221000 26768

The higher the score, the more efficient the home.

RENEE BUTLER, Lot: 30, Sub: Three River Est, Plat: 520-542 780-1389 788-179 826-846, Fort White, Fl,

1.	New construction or existing	New	
2.	Single family or multi-family	Single family	
3.	Number of units, if multi-family	1	
4.	Number of Bedrooms	3	
5.	Is this a worst case?	Yes	
6.	Conditioned floor area (ft²)	1636 ft²	
7.	Glass type[1] and area: (Label reqd. by 13-104.4.5 if not default)		
a.	U-factor: (or Single or Double DEFAULT)	7a. Description (Dble Default) Area 170.0 ft²	
b.	SHGC: (or Clear or Tint DEFAULT)	7b. (Clear) 170.0 ft²	
8.	Floor types		
a.	Stem Wall	R=0.0, 1636.0ft²	
b.	N/A		
c.	N/A		
9.	Wall types		
a.	Concrete, Int Insul, Exterior	R=6.0, 1029.0 ft²	
b.	Frame, Wood, Adjacent	R=11.0, 139.0 ft²	
c.	N/A		
d.	N/A		
e.	N/A		
10.	Ceiling types		
a.	Under Attic	R=30.0, 1636.0 ft²	
b.	Under Attic	R=30.0, 180.0 ft²	
c.	N/A		
11.	Ducts		
a.	Sup: Unc. Ret: Unc. AH: Garage	Sup. R=6.0, 120.0 ft	
b.	N/A		
12.	Cooling systems		
a.	Central Unit	Cap: 36.0 kBtu/hr SEER: 13.00	
b.	N/A		
c.	N/A		
13.	Heating systems		
a.	Electric Heat Pump	Cap: 36.0 kBtu/hr HSPF: 7.90	
b.	N/A		
c.	N/A		
14.	Hot water systems		
a.	Electric Resistance	Cap: 40.0 gallons EF: 0.92	
b.	N/A		
c.	Conservation credits (HR-Heat recovery, Solar DHP-Dedicated heat pump)		
15.	HVAC credits (CF-Ceiling fan, CV-Cross ventilation, HF-Whole house fan, PT-Programmable Thermostat, MZ-C-Multizone cooling, MZ-H-Multizone heating)	PT, CF,	

I certify that this home has complied with the Florida Energy Efficiency Code For Building Construction through the above energy saving features which will be installed (or exceeded) in this home before final inspection. Otherwise, a new EPL Display Card will be completed based on installed Code compliant features.

Builder Signature: John Albright Date: 1-16-08

Address of New Home: Three Rivers Estates City/FL Zip: Fort White FL

**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.*

1 Predominant glass type. For actual glass type and areas, see Summer & Winter Glass output on pages 2&4.

Code Compliance Checklist

Residential Whole Building Performance Method A - Details

ADDRESS: Lot: 30, Sub: Three River Est, Plat: 520-542 780-1389 788-179 826-846, 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; foundation & wall sole or sill plate; joints between exterior wall panels at corners; utility penetrations; between wall panels & top/bottom plates; between walls and floor. EXCEPTION: Frame walls where a continuous infiltration barrier is installed that extends from, and is sealed to, the foundation to the top plate.	✓
Floors	606.1.ABC.1.2.2	Penetrations/openings >1/8" sealed unless backed by truss or joint members. EXCEPTION: Frame floors where a continuous infiltration barrier is installed that is sealed to the perimeter, penetrations and seams.	✓
Ceilings	606.1.ABC.1.2.3	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 612.1.ABC.3.2. 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: Lot: 30, Sub: Three River Est, Plat: 520-542 780-1389 788-179 826-846, Fort White, Fl, PERMIT #:

BASE				AS-BUILT							
WATER HEATING											
Number of Bedrooms	X	Multiplier	= Total	Tank Volume	EF	Number of Bedrooms	X	Tank Ratio	X Multiplier	X Credit Multiplier	= Total
3		2635.00	7905.0	40.0	0.92	3		1.00	2635.00	1.00	7905.0
				As-Built Total:							**7905.0**

CODE COMPLIANCE STATUS

BASE				AS-BUILT			
Cooling Points	+ Heating Points	+ Hot Water Points	= Total Points	Cooling Points	+ Heating Points	+ Hot Water Points	= Total Points
6753	**8454**	**7905**	**23113**	**5263**	**9774**	**7905**	**22942**

PASS

WINTER CALCULATIONS

Residential Whole Building Performance Method A - Details

ADDRESS: Lot: 30, Sub: Three River Est, Plat: 520-542 780-1389 788-179 826-846, Fort White, Fl, PERMIT #:

BASE			AS-BUILT					
Winter Base Points:		**15260.1**	**Winter As-Built Points:**					**19072.7**
Total Winter Points	X System Multiplier	= Heating Points	Total Component (System - Points)	X Cap Ratio	X Duct Multiplier (DM x DSM x AHU)	X System Multiplier	X Credit Multiplier	= Heating Points
			(sys 1: Electric Heat Pump 36000 btuh ,EFF(7.9) Ducts:Unc(S),Unc(R),Gar(AH),R6.0					
			19072.7	1.000	(1.069 x 1.169 x 1.00)	0.432	0.950	9773.6
15260.1	**0.5540**	**8454.1**	**19072.7**	**1.00**	**1.250**	**0.432**	**0.950**	**9773.6**

WINTER CALCULATIONS

Residential Whole Building Performance Method A - Details

ADDRESS: Lot: 30, Sub: Three River Est, Plat: 520-542 780-1389 788-179 826-846, Fort White, Fl, PERMIT #:

BASE				AS-BUILT							
GLASS TYPES .18 X Conditioned Floor Area	X BWPM	= Points		Type/SC	Overhang Ornt	Len	Hgt	Area X	WPM X	WOF	= Points
.18	1636.0	20.17	5940.0	1.Double, Clear	W	2.0	5.7	51.0	20.73	1.05	1107.0
				2.Double, Clear	E	2.0	5.7	34.0	18.79	1.07	681.0
				3.Double, Clear	N	2.0	3.7	15.0	24.58	1.01	372.0
				4.Double, Clear	N	2.0	3.0	5.0	24.58	1.01	124.0
				5.Double, Clear	S	2.0	3.0	30.0	13.30	2.06	823.0
				6.Double, Clear	S	2.0	3.0	30.0	13.30	2.06	823.0
				7.Double, Clear	S	2.0	3.0	5.0	13.30	2.06	137.0
				As-Built Total:				**170.0**			**4067.0**

WALL TYPES	Area X	BWPM	= Points	Type	R-Value	Area X	WPM	= Points
Adjacent	139.0	3.60	500.4	1. Concrete, Int Insul, Exterior	6.0	1029.0	5.15	5299.3
Exterior	1029.0	3.70	3807.3	2. Frame, Wood, Adjacent	11.0	139.0	3.60	500.4
Base Total:	**1168.0**		**4307.7**	**As-Built Total:**		**1168.0**		**5799.7**

DOOR TYPES	Area X	BWPM	= Points	Type	Area X	WPM	= Points
Adjacent	21.0	11.50	241.5	1.Exterior Insulated	43.0	8.40	361.2
Exterior	66.0	12.30	811.8	2.Exterior Insulated	23.0	8.40	193.2
				3.Adjacent Insulated	21.0	8.00	168.0
Base Total:	**87.0**		**1053.3**	**As-Built Total:**	**87.0**		**722.4**

CEILING TYPES	Area X	BWPM	= Points	Type	R-Value	Area X	WPM X WCM	= Points
Under Attic	1636.0	2.05	3353.8	1. Under Attic	30.0	1636.0	2.05 X 1.00	3353.8
				2. Under Attic	30.0	180.0	2.05 X 1.00	369.0
Base Total:	**1636.0**		**3353.8**	**As-Built Total:**		**1816.0**		**3722.8**

FLOOR TYPES	Area X	BWPM	= Points	Type	R-Value	Area X	WPM	= Points
Slab	0.0(p)	0.0	0.0	1. Stem Wall	0.0	1636.0	3.50	5726.0
Raised	1636.0	0.96	1570.6					
Base Total:			**1570.6**	**As-Built Total:**		**1636.0**		**5726.0**

INFILTRATION	Area X	BWPM	= Points	Area X	WPM	= Points
	1636.0	-0.59	-965.2	1636.0	-0.59	-965.2

SUMMER CALCULATIONS

Residential Whole Building Performance Method A - Details

ADDRESS: Lot: 30, Sub: Three River Est, Plat: 520-542 780-1389 788-179 826-846, Fort White, Fl, PERMIT #:

BASE			AS-BUILT					
Summer Base Points: 20779.8			**Summer As-Built Points: 17941.2**					
Total Summer Points	X System Multiplier	= Cooling Points	Total Component (System - Points)	X Cap Ratio	X Duct Multiplier (DM x DSM x AHU)	X System Multiplier	X Credit Multiplier	= Cooling Points
			(sys 1: Central Unit 36000btuh ,SEER/EFF(13.0) Ducts:Unc(S),Unc(R),Gar(AH),R6.0(INS)					
			17941	1.00	(1.09 x 1.147 x 1.00)	0.260	0.902	5263.3
20779.8	**0.3250**	**6753.4**	**17941.2**	**1.00**	**1.250**	**0.260**	**0.902**	**5263.3**

SUMMER CALCULATIONS

Residential Whole Building Performance Method A - Details

ADDRESS: Lot: 30, Sub: Three River Est, Plat: 520-542 780-1389 788-179 826-846, Fort White, Fl, PERMIT #:

BASE				AS-BUILT							
GLASS TYPES .18 X Conditioned Floor Area	X BSPM	= Points		Type/SC	Overhang Ornt	Len	Hgt	Area X	SPM X	SOF	= Points
.18	1636.0	18.59	5474.0	1.Double, Clear	W	2.0	5.7	51.0	38.52	0.83	1638.0
				2.Double, Clear	E	2.0	5.7	34.0	42.06	0.83	1190.0
				3.Double, Clear	N	2.0	3.7	15.0	19.20	0.82	234.0
				4.Double, Clear	N	2.0	3.0	5.0	19.20	0.78	74.0
				5.Double, Clear	S	2.0	3.0	30.0	35.87	0.59	634.0
				6.Double, Clear	S	2.0	3.0	30.0	35.87	0.59	634.0
				7.Double, Clear	S	2.0	3.0	5.0	35.87	0.59	105.0
				As-Built Total:				**170.0**			**4509.0**
WALL TYPES	Area X	BSPM =	Points	Type			R-Value	Area X	SPM =		Points
Adjacent	139.0	0.70	97.3	1. Concrete, Int Insul, Exterior			6.0	1029.0	0.85		874.7
Exterior	1029.0	1.70	1749.3	2. Frame, Wood, Adjacent			11.0	139.0	0.70		97.3
Base Total:	**1168.0**		**1846.6**	**As-Built Total:**				**1168.0**			**972.0**
DOOR TYPES	Area X	BSPM =	Points	Type				Area X	SPM =		Points
Adjacent	21.0	2.40	50.4	1.Exterior Insulated				43.0	4.10		176.3
Exterior	66.0	6.10	402.6	2.Exterior Insulated				23.0	4.10		94.3
				3.Adjacent Insulated				21.0	1.60		33.6
Base Total:	**87.0**		**453.0**	**As-Built Total:**				**87.0**			**304.2**
CEILING TYPES	Area X	BSPM =	Points	Type			R-Value	Area X	SPM X SCM =		Points
Under Attic	1636.0	1.73	2830.3	1. Under Attic			30.0	1636.0	1.73 X 1.00		2830.3
				2. Under Attic			30.0	180.0	1.73 X 1.00		311.4
Base Total:	**1636.0**		**2830.3**	**As-Built Total:**				**1816.0**			**3141.7**
FLOOR TYPES	Area X	BSPM =	Points	Type			R-Value	Area X	SPM =		Points
Slab	0.0(p)	0.0	0.0	1. Stem Wall			0.0	1636.0	-4.70		-7689.2
Raised	1636.0	-3.99	-6527.6								
Base Total:			**-6527.6**	**As-Built Total:**				**1636.0**			**-7689.2**
INFILTRATION	Area X	BSPM =	Points					Area X	SPM =		Points
	1636.0	10.21	16703.6					1636.0	10.21		16703.6

FORM 600A-2004R EnergyGauge® 4.5.2

FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION

Florida Department of Community Affairs

Residential Whole Building Performance Method A

Project Name:	**BUTLER RESIDENCE**	Builder:	House Craft Homes
Address:	Lot: 30, Sub: Three River Est, Plat: 520-542 780-1389 788-179 828-all	Permitting Office:	
City, State:	Fort White, Fl	Permit Number:	
Owner:	RENEE BUTLER	Jurisdiction Number:	
Climate Zone:	North		

1. New construction or existing	New	12. Cooling systems	
2. Single family or multi-family	Single family	a. Central Unit	Cap: 36.0 kBtu/hr
3. Number of units, if multi-family	1		SEER: 13.00
4. Number of Bedrooms	3	b. N/A	
5. Is this a worst case?	Yes		
6. Conditioned floor area (ft²)	1636 ft²	c. N/A	
7. Glass type [1] and area: (Label reqd. by 13-104.4.5 if not default)			
a. U-factor:	Description Area	13. Heating systems	
(or Single or Double DEFAULT) 7a.	(Dble Default) 170.0 ft²	a. Electric Heat Pump	Cap: 36.0 kBtu/hr
b. SHGC:			HSPF: 7.90
(or Clear or Tint DEFAULT) 7b.	(Clear) 170.0 ft²	b. N/A	
8. Floor types			
a. Stem Wall	R=0.0, 1636.0ft²	c. N/A	
b. N/A			
c. N/A		14. Hot water systems	
9. Wall types		a. Electric Resistance	Cap: 40.0 gallons
a. Concrete, Int Insul, Exterior	R=6.0, 1029.0 ft²		EF: 0.92
b. Frame, Wood, Adjacent	R=11.0, 139.0 ft²	b. N/A	
c. N/A			
d. N/A		c. Conservation credits	
e. N/A		(HR-Heat recovery, Solar	
10. Ceiling types		DHP-Dedicated heat pump)	
a. Under Attic	R=30.0, 1636.0 ft²	15. HVAC credits	PT, CF,
b. Under Attic	R=30.0, 180.0 ft²	(CF-Ceiling fan, CV-Cross ventilation,	
c. N/A		HF-Whole house fan,	
11. Ducts		PT-Programmable Thermostat,	
a. Sup: Unc. Ret: Unc. AH: Garage	Sup. R=6.0, 120.0 ft	MZ-C-Multizone cooling,	
b. N/A		MZ-H-Multizone heating)	

Glass/Floor Area: 0.10 Total as-built points: 22942 Total base points: 23113 **PASS**

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

PREPARED BY: JD Thrift

DATE: 1-16-08

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

OWNER/AGENT: JD Thrift

DATE: 1-16-08

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.

GREAT SEAL OF THE STATE OF FLORIDA * IN GOD WE TRUST *

BUILDING OFFICIAL: _____

DATE: _____

1 Predominant glass type. For actual glass type and areas, see Summer & Winter Glass output on pages 2&4.

16887

This Instrument Prepared By:
Michael H. Harrell
Abstract & Title Services, Inc.
283 NW Cole Terrace
Lake City, Florida 32055

NOTICE OF COMMENCEMENT

TO WHOM IT MAY CONCERN:

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

1. Description of Property: Lot 30, Unit 10, of Three Rivers Estates, Inc., according to the plat thereof as recorded in Plat Book 6, Page 10, of the Public Records of Columbia County, Florida.

2. General Description of Improvement: Construction of Dwelling

3. Owner Information:

   a. Name and Address: Renee Bess Butler, 3815 Kewanee Road, Lantana, FL 33462

   b. Interest in property: Fee Simple

   c. Name and address of fee simple title holder (if other than Owner): NONE

4. Contractor (name and address): House Craft Homes, LLC, 12523 Highway 441, Alachua, FL 32615

5. Surety:

   a. Name and Address: N/A

   b. Amount of Bond: N/A

Inst:200812003203 Date:2/15/2008 Time:2:43 PM
DC,P.DeWitt Cason,Columbia County Page 1 of 1

6. LENDER: Washington Mutual Bank, FA, 3060 139th Ave Suite 200, Bellevue, WA 98005

7. Persons within the State of Florida designated by Owner upon whom notices of other documents may be served as provided in Section 713.13(1)(a)7., Florida Statutes: NONE

8. In addition to himself, Owner designates Reina Jones, of Washington Mutual Bank at 3060 139th Ave Suite 200, Bellevue, WA 98005, to receive a copy of the Lienor's Notice as provided in Section 713.13(1)(b) Florida Statutes.

8. Expiration date of Notice of Commencement (the expiration date is 1 year from the date of recording unless a different date is specified).

***Owner is used for singular or plural as context requires.**

Signed, sealed and delivered in the presence:

WITNESS: K. Porter

WITNESS L. Cuevas

Renee Bess Butler

Renee Bess Butler.

STATE OF FLORIDA
COUNTY OF Palm Beach

Before me, personally appeared Renee Bess Butler, to me known to be the person(s) described in and who executed the foregoing instrument, and they acknowledged to and before me that they executed said instrument for the purpose therein expressed.

Witness my hand and official seal this 13th day of February, 2008.

(SEAL)

MARLIN MCNAIR
Notary Public - State of Florida
My Commission Expires Dec 19, 2010
Commission # DD 632743

NOTARY PUBLIC

My Commission Expires: Dec. 19, 2010

Butler
HVAC Load Calculations

for

House Craft Homes
12501 N.W U.S HWY 441
Alachua Fl 32615

Elite Software

RHVAC RESIDENTIAL HVAC LOADS

Prepared By:

Chuck Fischer
North Central Florida Air Conditioning I
P. O. Box 700
High Springs Fl 32655-0700
(386) 454-4767
Wednesday, February 06, 2008

Project Report

General Project Information

Project Title:	Butler
Designed By:	Chuck Fischer
Project Date:	Monday, January 07, 2008
Client Name:	House Craft Homes
Client Address:	12501 N.W U.S HWY 441
Client City:	Alachua Fl 32615
Client Phone:	386-462-5323
Client Fax:	386-462-1509
Company Name:	North Central Florida Air Conditioning I
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:	heat load for addition

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	Outdoor Wet Bulb	Indoor Rel.Hum	Indoor Dry Bulb	Grains Difference
Winter:	31	0	50	72	38
Summer:	93	77	50	75	50

Check Figures

Total Building Supply CFM:	1,175	CFM Per Square ft.:	0.737
Square ft. of Room Area:	1,594	Square ft. Per Ton:	573
Volume (ft³) of Cond. Space:	15,649	Air Turnover Rate (per hour):	4.5

Building Loads

Total Heating Required With Outside Air:	39,869 Btuh	39.869	MBH
Total Sensible Gain:	25,701 Btuh	85	%
Total Latent Gain:	4,682 Btuh	15	%
Total Cooling Required With Outside Air:	30,383 Btuh	2.53	Tons (Based On Sensible + Latent)
		2.78	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.

Load Preview Report

Scope	Area	Sens Gain	Lat Gain	Net Gain	Sens Loss	Win CFM	Sum CFM	Sys CFM	Duct Size
Building: 2.53 Net Tons, 2.78 Recommended Tons, 573 ft.²/Ton, 39.87 MBH Heating									
Building	1,594	25,701	4,682	30,383	39,869	521	1,175	1,175	
System 1: 2.53 Net Tons, 2.78 Recommended Tons, 573 ft.²/Ton, 39.87 MBH Heating									
System 1	1,594	25,701	4,682	30,383	39,869	521	1,175	1,175	15x15
AED Excursion		93		93					
Zone 1	1,594	25,608	4,682	30,290	39,869	521	1,175	1,175	
1-Bedroom 3	196	3,178	767	3,945	6,101	80	146	146	1-7
2-Bath 2	60	1,343	105	1,448	1,248	16	62	62	1-5
3-Bedroom 2	230	3,323	784	4,107	6,311	82	152	152	1-7
4-Great Room	321	5,010	592	5,602	7,924	103	230	230	2-6
5-Dining Room	257	3,186	483	3,669	5,269	69	146	146	1-7
6-Kitchen	144	3,374	489	3,863	2,183	29	155	155	1-7
7-Master Bath	113	1,910	408	2,318	3,971	52	88	88	1-5
8-Master Bedroom	238	3,943	1,054	4,997	6,755	88	181	181	1-8
9-Master W.I.C	35	338	0	338	107	1	15	15	1-2

Total Building Summary Loads

Component Description	Area Quan	Sen Loss	Lat Gain	Sen Gain	Total Gain
1D-cb-o: Glazing-Double pane, operable window, clear, metal frame with break, ground reflectance = 0.23, outdoor insect screen with 50% coverage, external shade screen coefficient of 0.45 and 50% coverage	129.6	3,453	0	3,605	3,605
10B-m: Glazing-French door, double pane clear glass, metal frame no break, ground reflectance = 0.23	40.8	2,426	0	2,447	2,447
11P: Door-Polyurethane Core	39.4	469	0	332	332
13A-4ocs: Wall-Block, board insulation only, R-4 board insulation, open core, siding finish	1095.6	6,426	0	2,867	2,867
12B-3sw: Wall-Frame, R-11 insulation in 2 x 4 stud cavity, R-3 board insulation, siding finish, wood studs	169	547	0	300	300
16DR-30: Roof/Ceiling-Under attic or knee wall, Vented Attic with Radiant Barrier, White or Light Color Shingles, Any Wood Shake, Light Metal, Tar and Gravel Membrane, R-30 insulation	225	297	0	234	234
22A-ph: Floor-Slab on grade, No edge insulation, no insulation below floor, any floor cover, passive, heavy moist soil	163	9,076	0	0	0
Subtotals for structure:		22,694	0	9,785	9,785
People:	5		1,150	1,500	2,650
Equipment:			0	1,200	1,200
Lighting:	1995			6,803	6,803
Ductwork:		6,646	0	4,267	4,267
Infiltration: Winter CFM: 235, Summer CFM: 104		10,529	3,532	2,053	5,585
Ventilation: Winter CFM: 0, Summer CFM: 0		0	0	0	0
AED Excursion:		0	0	93	93
Total Building Load Totals:		39,869	4,682	25,701	30,383

Check Figures

Total Building Supply CFM:	1,175	CFM Per Square ft.:	0.737
Square ft. of Room Area:	1,594	Square ft. Per Ton:	573
Volume (ft³) of Cond. Space:	15,649	Air Turnover Rate (per hour):	4.5

Building Loads

Total Heating Required With Outside Air:	39,869 Btuh	39.869 MBH	
Total Sensible Gain:	25,701 Btuh	85 %	
Total Latent Gain:	4,682 Btuh	15 %	
Total Cooling Required With Outside Air:	30,383 Btuh	2.53 Tons (Based On Sensible + Latent)	
		2.78 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 Description	Area Quan	Sen Loss	Lat Gain	Sen Gain	Total Gain
1D-cb-o: Glazing-Double pane, operable window, clear, metal frame with break, ground reflectance = 0.23, outdoor insect screen with 50% coverage, external shade screen coefficient of 0.45 and 50% coverage	129.6	3,453	0	3,605	3,605
10B-m: Glazing-French door, double pane clear glass, metal frame no break, ground reflectance = 0.23	40.8	2,426	0	2,447	2,447
11P: Door-Polyurethane Core	39.4	469	0	332	332
13A-4ocs: Wall-Block, board insulation only, R-4 board insulation, open core, siding finish	1095.6	6,426	0	2,867	2,867
12B-3sw: Wall-Frame, R-11 insulation in 2 x 4 stud cavity, R-3 board insulation, siding finish, wood studs	169	547	0	300	300
16DR-30: Roof/Ceiling-Under attic or knee wall, Vented Attic with Radiant Barrier, White or Light Color Shingles, Any Wood Shake, Light Metal, Tar and Gravel Membrane, R-30 insulation	225	297	0	234	234
22A-ph: Floor-Slab on grade, No edge insulation, no insulation below floor, any floor cover, passive, heavy moist soil	163	9,076	0	0	0
Subtotals for structure:		22,694	0	9,785	9,785
People:	5		1,150	1,500	2,650
Equipment:			0	1,200	1,200
Lighting:	1995			6,803	6,803
Ductwork:		6,646	0	4,267	4,267
Infiltration: Winter CFM: 235, Summer CFM: 104		10,529	3,532	2,053	5,585
Ventilation: Winter CFM: 0, Summer CFM: 0		0	0	0	0
AED Excursion:		0	0	93	93
System 1 Main Floor Load Totals:		39,869	4,682	25,701	30,383

Check Figures

Supply CFM:	1,175	CFM Per Square ft.:	0.737
Square ft. of Room Area:	1,594	Square ft. Per Ton:	573
Volume (ft³) of Cond. Space:	15,649	Air Turnover Rate (per hour):	4.5

System Loads

Total Heating Required With Outside Air:	39,869 Btuh	39.869 MBH	
Total Sensible Gain:	25,701 Btuh	85 %	
Total Latent Gain:	4,682 Btuh	15 %	
Total Cooling Required With Outside Air:	30,383 Btuh	2.53 Tons (Based On Sensible + Latent)	
		2.78 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, Zone 1 Summary Loads (Average Load Procedure for Rooms)

Component Description	Area Quan	Sen Loss	Lat Gain	Sen Gain	Total Gain
1D-cb-o: Glazing-Double pane, operable window, clear, metal frame with break, ground reflectance = 0.23, outdoor insect screen with 50% coverage, external shade screen coefficient of 0.45 and 50% coverage	129.6	3,453	0	3,605	3,605
10B-m: Glazing-French door, double pane clear glass, metal frame no break, ground reflectance = 0.23	40.8	2,426	0	2,447	2,447
11P: Door-Polyurethane Core	39.4	469	0	332	332
13A-4ocs: Wall-Block, board insulation only, R-4 board insulation, open core, siding finish	1095.6	6,426	0	2,867	2,867
12B-3sw: Wall-Frame, R-11 insulation in 2 x 4 stud cavity, R-3 board insulation, siding finish, wood studs	169	547	0	300	300
16DR-30: Roof/Ceiling-Under attic or knee wall, Vented Attic with Radiant Barrier, White or Light Color Shingles, Any Wood Shake, Light Metal, Tar and Gravel Membrane, R-30 insulation	225	297	0	234	234
22A-ph: Floor-Slab on grade, No edge insulation, no insulation below floor, any floor cover, passive, heavy moist soil	163	9,076	0	0	0
Subtotals for structure:		22,694	0	9,785	9,785
People:	5		1,150	1,500	2,650
Equipment:			0	1,200	1,200
Lighting:	1995			6,803	6,803
Ductwork:		6,646	0	4,267	4,267
Infiltration: Winter CFM: 235, Summer CFM: 104		10,529	3,532	2,053	5,585
System 1, Zone 1 Load Totals:		39,869	4,682	25,608	30,290

Check Figures

Supply CFM:	1,175	CFM Per Square ft.:	0.737
Square ft. of Room Area:	1,594	Square ft. Per Ton:	575
Volume (ft³) of Cond. Space:	15,649	Air Turnover Rate (per hour):	4.5

Zone Loads

Total Heating Required:	39,869 Btuh	39.869 MBH	
Total Sensible Gain:	25,608 Btuh	85 %	
Total Latent Gain:	4,682 Btuh	15 %	
Total Cooling Required:	30,290 Btuh	2.52 Tons (Based On Sensible + Latent)	
		2.77 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

No	Room Name	Area SF	Htg Sens Btuh	Htg Nom CFM	Run Duct Size	Run Duct Vel	Clg Sens Btuh	Clg Lat Btuh	Clg Nom CFM	Air Sys CFM
---Zone 1---										
1	Bedroom 3	196	6,101	80	1-7	546	3,178	767	146	146
2	Bath 2	60	1,248	16	1-5	452	1,343	105	62	62
3	Bedroom 2	230	6,311	82	1-7	570	3,323	784	152	152
4	Great Room	321	7,924	103	2-6	585	5,010	592	230	230
5	Dining Room	257	5,269	69	1-7	547	3,186	483	146	146
6	Kitchen	144	2,183	29	1-7	579	3,374	489	155	155
7	Master Bath	113	3,971	52	1-5	643	1,910	408	88	88
8	Master Bedroom	238	6,755	88	1-8	518	3,943	1,054	181	181
9	Master W.I.C	35	107	1	1-2	710	338	0	15	15
	AED Excursion						93			
	System 1 total	1,594	39,869	521			25,701	4,682	1,175	1,175

System 1 Main Trunk Size: 15x15 in.
Velocity: 841 ft./min
Loss per 100 ft.: 0.086 in.wg

Cooling System Summary

	Cooling Tons	Sensible/Latent Split	Sensible Btuh	Latent Btuh	Total Btuh
Net Required:	2.53	85% / 15%	25,701	4,682	30,383
Recommended:	2.78	77% / 23%	25,701	7,677	33,378
Actual:	2.92	76% / 24%	26,500	8,500	35,000

Equipment Data

	Heating System	Cooling System
Type:	air source heat pump	Air Source Heat Pump
Model:	GSH130361+ARUF364216+HKR-10	GSH130361+ARUF364216
Brand:	Goodman	Goodman
Efficiency:	7.7 HSPF	13 seer
Sound:	0	
Capacity:	32000	35000
Sensible Capacity:	n/a	26,500 Btuh
Latent Capacity:	n/a	8,500 Btuh

ENERGY PERFORMANCE LEVEL (EPL) DISPLAY CARD

ESTIMATED ENERGY PERFORMANCE SCORE* = 85.7

The higher the score, the more efficient the home.

RENEE BUTLER, Lot: 30, Sub: Three River Est, Plat: 520-542 780-1389 788-179 826-846, Fort White, Fl,

1.	New construction or existing	New	
2.	Single family or multi-family	Single family	
3.	Number of units, if multi-family	1	
4.	Number of Bedrooms	3	
5.	Is this a worst case?	Yes	
6.	Conditioned floor area (ft²)	1594 ft²	
7.	Glass type[1] and area: (Label reqd. by 13-104.4.5 if not default)		
	a. U-factor: (or Single or Double DEFAULT)	7a. Description (Dble Default) Area 169.0 ft²	
	b. SHGC: (or Clear or Tint DEFAULT)	7b. (Clear) 169.0 ft²	
8.	Floor types		
	a. Stem Wall	R=0.0, 1594.0ft²	
	b. N/A		
	c. N/A		
9.	Wall types		
	a. Concrete, Int Insul, Exterior	R=6.0, 881.0 ft²	
	b. Frame, Wood, Adjacent	R=11.0, 139.0 ft²	
	c. N/A		
	d. N/A		
	e. N/A		
10.	Ceiling types		
	a. Under Attic	R=30.0, 1594.0 ft²	
	b. Under Attic	R=30.0, 180.0 ft²	
	c. N/A		
11.	Ducts		
	a. Sup: Unc. Ret: Unc. AH: Garage	Sup. R=6.0, 120.0 ft	
	b. N/A		
12.	Cooling systems		
	a. Central Unit	Cap: 36.0 kBtu/hr SEER: 13.00	
	b. N/A		
	c. N/A		
13.	Heating systems		
	a. Electric Heat Pump	Cap: 36.0 kBtu/hr HSPF: 7.90	
	b. N/A		
	c. N/A		
14.	Hot water systems		
	a. Electric Resistance	Cap: 40.0 gallons EF: 0.92	
	b. N/A		
	c. Conservation credits (HR-Heat recovery, Solar DHP-Dedicated heat pump)		
15.	HVAC credits (CF-Ceiling fan, CV-Cross ventilation, HF-Whole house fan, PT-Programmable Thermostat, MZ-C-Multizone cooling, MZ-H-Multizone heating)	PT, CF,	

I certify that this home has complied with the Florida Energy Efficiency Code For Building Construction through the above energy saving features which will be installed (or exceeded) in this home before final inspection. Otherwise, a new EPL Display Card will be completed based on installed Code compliant features.

Builder Signature: _____ Date: 2/5/08

Address of New Home: Three Rivers Estates City/FL Zip: Fort White

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.

1 Predominant glass type. For actual glass type and areas, see Summer & Winter Glass output on pages 2&4.

Code Compliance Checklist

Residential Whole Building Performance Method A - Details

ADDRESS: Lot: 30, Sub: Three River Est, Plat: 520-542 780-1389 788-179 826-846, 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; foundation & wall sole or sill plate; joints between exterior wall panels at corners; utility penetrations; between wall panels & top/bottom plates; between walls and floor. EXCEPTION: Frame walls where a continuous infiltration barrier is installed that extends from, and is sealed to, the foundation to the top plate.	✓
Floors	606.1.ABC.1.2.2	Penetrations/openings >1/8" sealed unless backed by truss or joint members. EXCEPTION: Frame floors where a continuous infiltration barrier is installed that is sealed to the perimeter, penetrations and seams.	✓
Ceilings	606.1.ABC.1.2.3	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 612.1.ABC.3.2. 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: Lot: 30, Sub: Three River Est, Plat: 520-542 780-1389 788-179 826-846, Fort White, Fl, PERMIT #:

BASE				AS-BUILT							
WATER HEATING											
Number of Bedrooms	X	Multiplier	= Total	Tank Volume	EF	Number of Bedrooms	X	Tank Ratio	X Multiplier	X Credit Multiplier	= Total
3		2635.00	7905.0	40.0	0.92	3		1.00	2635.00	1.00	7905.0
				As-Built Total:							**7905.0**

CODE COMPLIANCE STATUS

BASE					AS-BUILT				
Cooling Points	+ Heating Points	+ Hot Water Points	= Total Points		Cooling Points	+ Heating Points	+ Hot Water Points	= Total Points	
6518	**8010**	**7905**	**22432**		**5128**	**9265**	**7905**	**22298**	

PASS

WINTER CALCULATIONS

Residential Whole Building Performance Method A - Details

ADDRESS: Lot: 30, Sub: Three River Est, Plat: 520-542 780-1389 788-179 826-846, Fort White, Fl, PERMIT #:

BASE			AS-BUILT					
Winter Base Points:		**14457.9**	**Winter As-Built Points:**					**18080.2**
Total Winter Points	X System Multiplier	= Heating Points	Total Component (System - Points)	X Cap Ratio	X Duct Multiplier (DM x DSM x AHU)	X System Multiplier	X Credit Multiplier	= Heating Points
			(sys 1: Electric Heat Pump 36000 btuh ,EFF(7.9) Ducts:Unc(S),Unc(R),Gar(AH),R6.0					
			18080.2	1.000	(1.069 x 1.169 x 1.00)	0.432	0.950	9265.0
14457.9	**0.5540**	**8009.7**	**18080.2**	**1.00**	**1.250**	**0.432**	**0.950**	**9265.0**

WINTER CALCULATIONS

Residential Whole Building Performance Method A - Details

ADDRESS: Lot: 30, Sub: Three River Est, Plat: 520-542 780-1389 788-179 826-846, Fort White, Fl, PERMIT #:

BASE				AS-BUILT							
GLASS TYPES .18 X Conditioned Floor Area	X BWPM	= Points		Type/SC	Overhang Ornt	Len	Hgt	Area X	WPM X	WOF	= Points
.18	1594.0	20.17	5787.0	1.Double, Clear	W	2.0	5.7	50.0	20.73	1.05	1085.0
				2.Double, Clear	E	2.0	5.7	34.0	18.79	1.07	681.0
				3.Double, Clear	N	2.0	3.7	15.0	24.58	1.01	372.0
				4.Double, Clear	N	2.0	3.0	5.0	24.58	1.01	124.0
				5.Double, Clear	S	2.0	3.0	30.0	13.30	2.06	823.0
				6.Double, Clear	S	2.0	3.0	30.0	13.30	2.06	823.0
				7.Double, Clear	S	2.0	3.0	5.0	13.30	2.06	137.0
				As-Built Total:				**169.0**			**4045.0**

WALL TYPES	Area X	BWPM	= Points	Type	R-Value	Area X	WPM	= Points
Adjacent	139.0	3.60	500.4	1. Concrete, Int Insul, Exterior	6.0	881.0	5.15	4537.1
Exterior	881.0	3.70	3259.7	2. Frame, Wood, Adjacent	11.0	139.0	3.60	500.4
Base Total:	**1020.0**		**3760.1**	**As-Built Total:**		**1020.0**		**5037.5**

DOOR TYPES	Area X	BWPM	= Points	Type	Area X	WPM	= Points
Adjacent	21.0	11.50	241.5	1.Exterior Insulated	43.0	8.40	361.2
Exterior	66.0	12.30	811.8	2.Exterior Insulated	23.0	8.40	193.2
				3.Adjacent Insulated	21.0	8.00	168.0
Base Total:	**87.0**		**1053.3**	**As-Built Total:**	**87.0**		**722.4**

CEILING TYPES	Area X	BWPM	= Points	Type	R-Value	Area X	WPM X WCM	= Points
Under Attic	1594.0	2.05	3267.7	1. Under Attic	30.0	1594.0	2.05 X 1.00	3267.7
				2. Under Attic	30.0	180.0	2.05 X 1.00	369.0
Base Total:	**1594.0**		**3267.7**	**As-Built Total:**		**1774.0**		**3636.7**

FLOOR TYPES	Area X	BWPM	= Points	Type	R-Value	Area X	WPM	= Points
Slab	0.0(p)	0.0	0.0	1. Stem Wall	0.0	1594.0	3.50	5579.0
Raised	1594.0	0.96	1530.2					
Base Total:			**1530.2**	**As-Built Total:**		**1594.0**		**5579.0**

INFILTRATION	Area X	BWPM	= Points		Area X	WPM	= Points
	1594.0	-0.59	-940.5		1594.0	-0.59	-940.5

SUMMER CALCULATIONS

Residential Whole Building Performance Method A - Details

ADDRESS: Lot: 30, Sub: Three River Est, Plat: 520-542 780-1389 788-179 826-846, Fort White, Fl, PERMIT #:

BASE			AS-BUILT						
Summer Base Points: 20054.3			**Summer As-Built Points:**						**17479.3**
Total Summer Points	X System Multiplier	= Cooling Points	Total Component (System - Points)	X Cap Ratio	X Duct Multiplier (DM x DSM x AHU)	X System Multiplier	X Credit Multiplier	= Cooling Points	
			(sys 1: Central Unit 36000btuh ,SEER/EFF(13.0) Ducts:Unc(S),Unc(R),Gar(AH),R6.0(INS)						
			17479	1.00	(1.09 x 1.147 x 1.00)	0.260	0.902	5127.8	
20054.3	**0.3250**	**6517.6**	**17479.3**	**1.00**	**1.250**	**0.260**	**0.902**	**5127.8**	

SUMMER CALCULATIONS

Residential Whole Building Performance Method A - Details

ADDRESS: Lot: 30, Sub: Three River Est, Plat: 520-542 780-1389 788-179 826-846, Fort White, Fl, PERMIT #:

BASE				AS-BUILT								
GLASS TYPES .18 X Conditioned Floor Area	X BSPM	= Points		Type/SC	Overhang Ornt	Len	Hgt	Area X	SPM X	SOF	= Points	
.18	1594.0	18.59	5334.0	1.Double, Clear	W	2.0	5.7	50.0	38.52	0.83	1606.0	
				2.Double, Clear	E	2.0	5.7	34.0	42.06	0.83	1190.0	
				3.Double, Clear	N	2.0	3.7	15.0	19.20	0.82	234.0	
				4.Double, Clear	N	2.0	3.0	5.0	19.20	0.78	74.0	
				5.Double, Clear	S	2.0	3.0	30.0	35.87	0.59	634.0	
				6.Double, Clear	S	2.0	3.0	30.0	35.87	0.59	634.0	
				7.Double, Clear	S	2.0	3.0	5.0	35.87	0.59	105.0	
				As-Built Total:				**169.0**			**4477.0**	
WALL TYPES	Area X	BSPM =	Points	Type			R-Value	Area X	SPM =		Points	
Adjacent	139.0	0.70	97.3	1. Concrete, Int Insul, Exterior			6.0	881.0	0.85		748.9	
Exterior	881.0	1.70	1497.7	2. Frame, Wood, Adjacent			11.0	139.0	0.70		97.3	
Base Total:	**1020.0**		**1595.0**	**As-Built Total:**				**1020.0**			**846.2**	
DOOR TYPES	Area X	BSPM =	Points	Type				Area X	SPM =		Points	
Adjacent	21.0	2.40	50.4	1.Exterior Insulated				43.0	4.10		176.3	
Exterior	66.0	6.10	402.6	2.Exterior Insulated				23.0	4.10		94.3	
				3.Adjacent Insulated				21.0	1.60		33.6	
Base Total:	**87.0**		**453.0**	**As-Built Total:**				**87.0**			**304.2**	
CEILING TYPES	Area X	BSPM =	Points	Type			R-Value	Area X	SPM X SCM =		Points	
Under Attic	1594.0	1.73	2757.6	1. Under Attic			30.0	1594.0	1.73 X 1.00		2757.6	
				2. Under Attic			30.0	180.0	1.73 X 1.00		311.4	
Base Total:	**1594.0**		**2757.6**	**As-Built Total:**				**1774.0**			**3069.0**	
FLOOR TYPES	Area X	BSPM =	Points	Type			R-Value	Area X	SPM =		Points	
Slab	0.0(p)	0.0	0.0	1. Stem Wall			0.0	1594.0	-4.70		-7491.8	
Raised	1594.0	-3.99	-6360.1									
Base Total:			**-6360.1**	**As-Built Total:**				**1594.0**			**-7491.8**	
INFILTRATION	Area X	BSPM =	Points					Area X	SPM =		Points	
	1594.0	10.21	16274.7					1594.0	10.21		16274.7	

FORM 600A-2004R EnergyGauge® 4.5.2

FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION

Florida Department of Community Affairs

Residential Whole Building Performance Method A

Project Name:	**BUTLER RESIDENCE**	Builder:	House Craft Homes
Address:	Lot: 30, Sub: Three River Est, Plat: 520-542 780-1389 788-179 82	Permitting Office:	
City, State:	Fort White, Fl	Permit Number:	
Owner:	RENEE BUTLER	Jurisdiction Number:	
Climate Zone:	North		

1. New construction or existing	New	12. Cooling systems	
2. Single family or multi-family	Single family	a. Central Unit	Cap: 36.0 kBtu/hr
3. Number of units, if multi-family	1		SEER: 13.00
4. Number of Bedrooms	3	b. N/A	
5. Is this a worst case?	Yes		
6. Conditioned floor area (ft²)	1594 ft²	c. N/A	
7. Glass type[1] and area: (Label reqd. by 13-104.4.5 if not default)			
a. U-factor:	Description Area	13. Heating systems	
(or Single or Double DEFAULT) 7a.	(Dble Default) 169.0 ft²	a. Electric Heat Pump	Cap: 36.0 kBtu/hr
b. SHGC:			HSPF: 7.90
(or Clear or Tint DEFAULT) 7b.	(Clear) 169.0 ft²	b. N/A	
8. Floor types			
a. Stem Wall	R=0.0, 1594.0ft²	c. N/A	
b. N/A			
c. N/A		14. Hot water systems	
9. Wall types		a. Electric Resistance	Cap: 40.0 gallons
a. Concrete, Int Insul, Exterior	R=6.0, 881.0 ft²		EF: 0.92
b. Frame, Wood, Adjacent	R=11.0, 139.0 ft²	b. N/A	
c. N/A			
d. N/A		c. Conservation credits	
e. N/A		(HR-Heat recovery, Solar DHP-Dedicated heat pump)	
10. Ceiling types		15. HVAC credits	PT, CF,
a. Under Attic	R=30.0, 1594.0 ft²	(CF-Ceiling fan, CV-Cross ventilation, HF-Whole house fan, PT-Programmable Thermostat, MZ-C-Multizone cooling, MZ-H-Multizone heating)	
b. Under Attic	R=30.0, 180.0 ft²		
c. N/A			
11. Ducts			
a. Sup: Unc. Ret: Unc. AH: Garage	Sup. R=6.0, 120.0 ft		
b. N/A			

Glass/Floor Area: 0.11 Total as-built points: 22298 Total base points: 22432 **PASS**

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

PREPARED BY: John D Hunt

DATE: 2/5/08

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

OWNER/AGENT: John D Hunt

DATE: 2/5/08

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.

GREAT SEAL OF THE STATE OF FLORIDA IN GOD WE TRUST

BUILDING OFFICIAL: _____

DATE: _____

1 Predominant glass type. For actual glass type and areas, see Summer & Winter Glass output on pages 2&4.

Permit # _____
User ID _____

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				
A. SWINGING	Masonite	Entry Door	FL. 4940.4	
B. SLIDING	HR Danvid	502 SGD	Fl 6396.5	
C. SECTIONAL/ROLL UP	Overhead Door	Garage door	FL 674	
D. OTHER				
2. WINDOWS				
A. SINGLE/DOUBLE HUNG	Kinco	M50 SH Alum. Window	Fl. 123	
B. HORIZONTAL SLIDER				
C. CASEMENT				
D. FIXED	Kinco	M50 PC Window	Fl. 125	
E. MULLION	HR	340	FL 5872	
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. 7154	
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	Cenemt Precast	Concrete lintels	FL. 4569	
F. TRUSSES	Thomas E. Miller	engineer	PE 56877	
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.

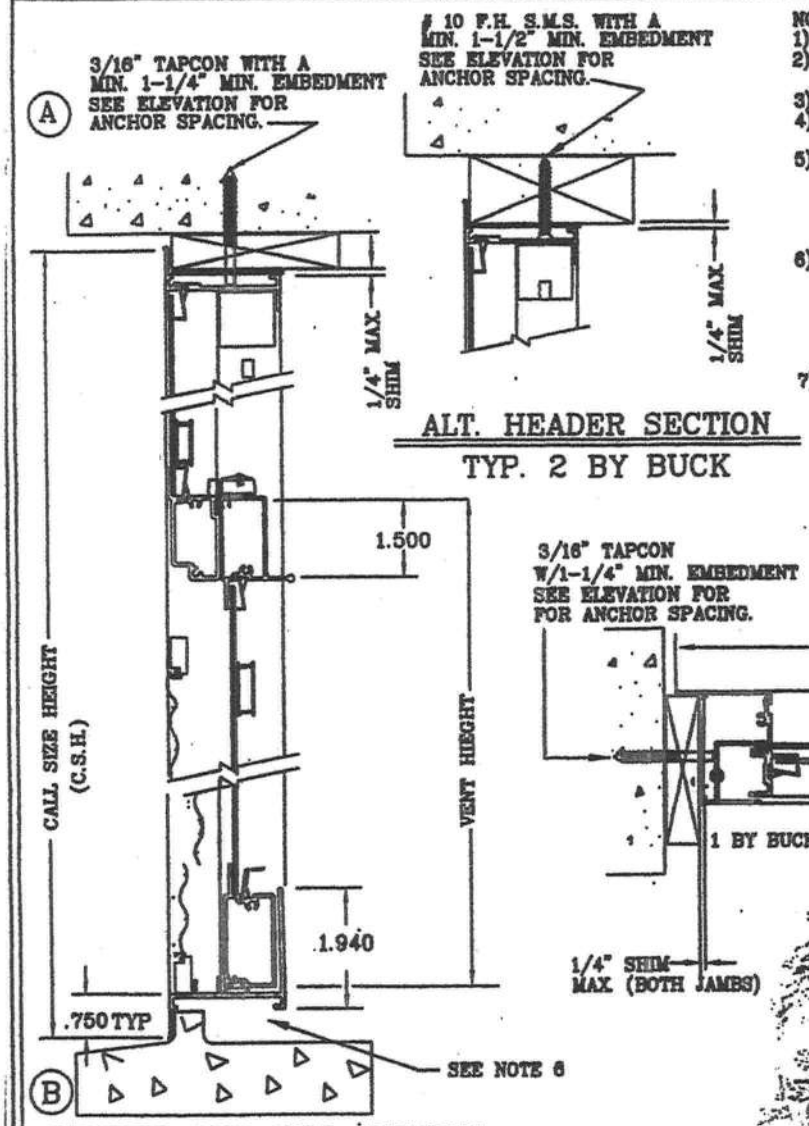
_____

_____

_____ _____

APPLICANT SIGNATURE DATE

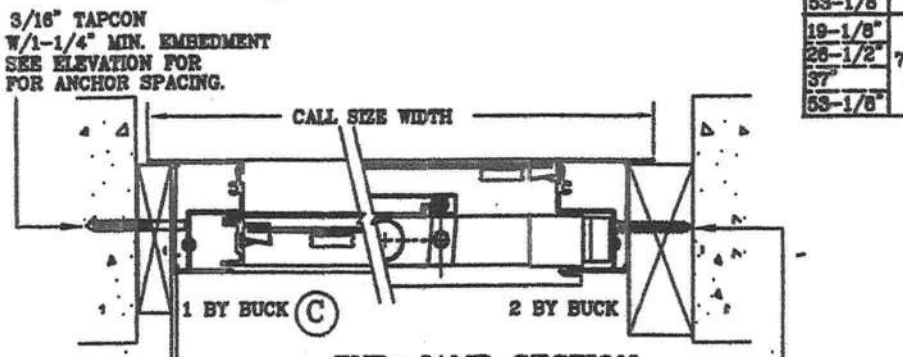
WINDOWS, DOORS, AND MULL BARS INFORMATION



HEADER AND SILL SECTION
TYP. 1 BY BUCK

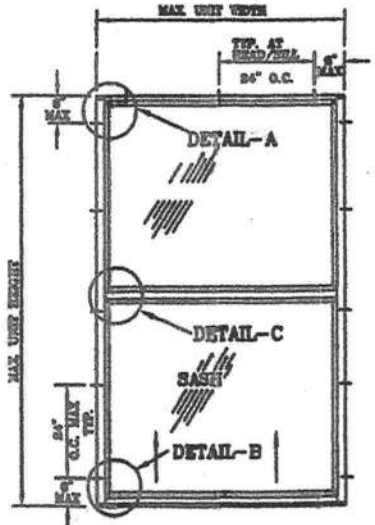
ALT. HEADER SECTION
TYP. 2 BY BUCK

NOTES:
1) SHIM AS REQUIRED, MAX. SHIM STACK 1/4".
2) ALL ALUMINUM EXTRUSIONS ARE ALLOY 6063-T5 OR T6 WITH TYPICAL WALL THICKNESS OF 0.62".
3) USE HIGH QUALITY CAULK BEHIND WINDOW FLANGE.
4) GLASS THICKNESS BASED ON TABLE E1300 GLASS CHARTS, AND MAY VARY DEPENDING ON SIZE.
5) THE RESPONSIBILITY FOR SELECTION OF NORANDEX PRODUCTS TO MEET ANY APPLICABLE LOCAL LAWS, BUILDING CODES, ORDINANCES OR OTHER SAFETY REQUIREMENTS REST SOLELY WITH THE ARCHITECT, BUILDING OWNER OR CONTRACTOR.
6) A PRESSURE TREATED WOODEN BUCK OR MARBLE SILL SHALL BE ADDED UNDER THE PRODUCT TO FULLY SUPPORT UNIT. THIS SUPPORT SHALL BE FIRMLY ATTACHED INTO MASONARY AND SUPPORT THE PRODUCT OVER ITS FULL LENGTH (SUPPLIED BY OTHERS).
7) CONCRETE COMPRESSIVE STRENGTH = 3,000 PSI AT 28 DAYS.



TYP. JAMB SECTION
1 BY BUCK 2 BY BUCK

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



CHARLES A. PAGEN JR.
FL. REG. ENG.
DATE 5/21/02
PROFESSIONAL ENGINEER

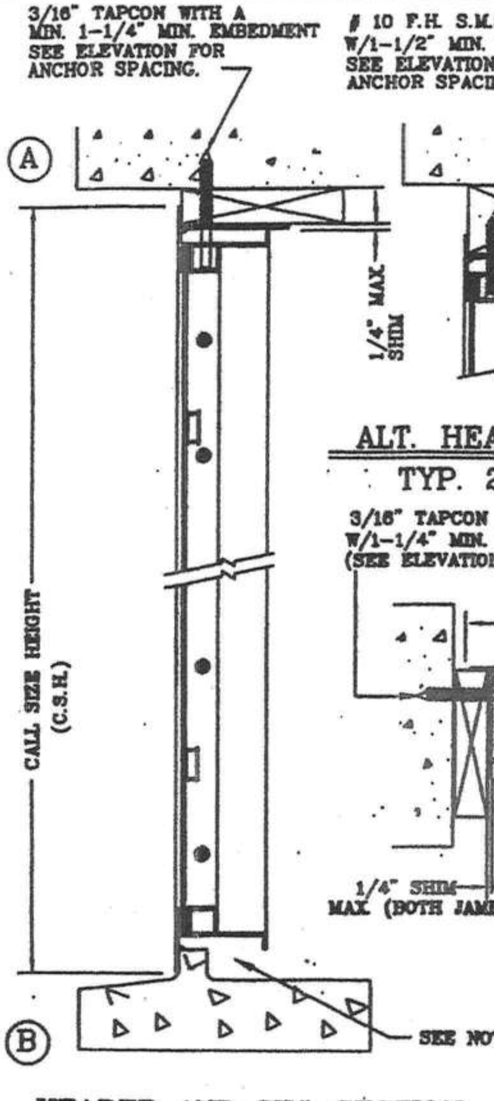
437 SINGLE HUNG
INSTALLATION DETAIL
AND
FASTENER SCHEDULE

SERIES: 437
ALUMINUM SINGLE HUNG

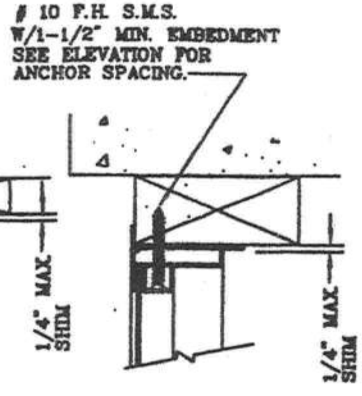
NORANDEX
4405 30th STREET WEST
BRADENTON, FL 34207
PHONE: (941) 758-1581

NO.	DATE	REVISIONS DESCRIPTION

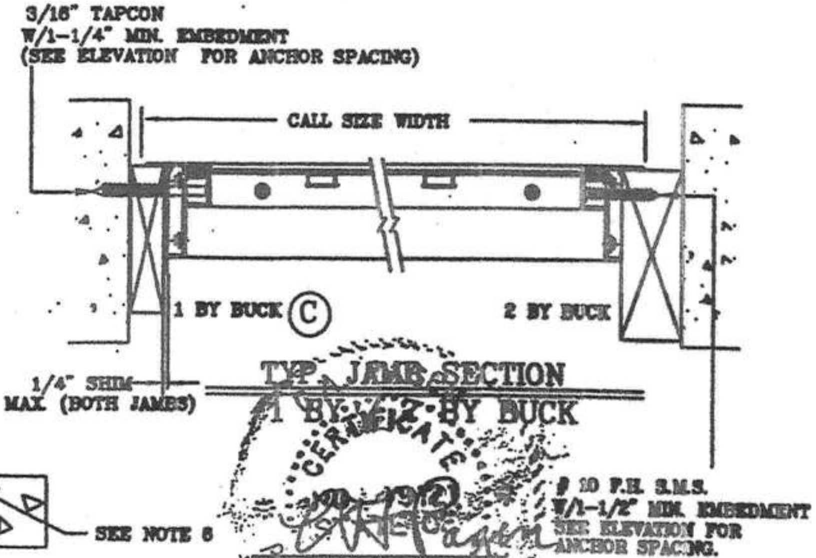
DWG. NO.: FSC-009
DATE: 12/28/01
SCALE: N.T.S.
DWN. BY: J.P.M.
CHK. BY: RLK



HEADER AND SILL SECTION
TYP. 1 BY BUCK



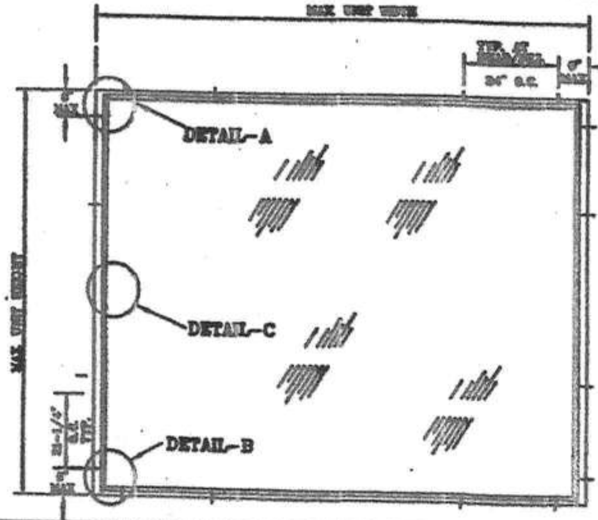
ALT. HEADER SECTION
TYP. 2 BY BUCK



TYP. JAMB SECTION
1 BY 1/2 BY BUCK

NOTES:
1) SHIM AS REQUIRED, MAX. SHIM STACK 1/4".
2) ALL ALUMINUM EXTRUSIONS ARE ALLOY 6063-T5 OR T6 WITH TYPICAL WALL THICKNESS OF 0.62".
3) USE HIGH QUALITY CAULK BEHIND WINDOW FLANGE.
4) GLASS THICKNESS BASED ON TABLE E1300 GLASS CHARTS, AND MAY VARY DEPENDING ON SIZE.
5) THE RESPONSIBILITY FOR SELECTION OF NORANDEX PRODUCTS TO MEET ANY APPLICABLE LOCAL LAWS, BUILDING CODES, ORDINANCES OR OTHER SAFETY REQUIREMENTS REST SOLELY WITH THE ARCHITECT, BUILDING OWNER OR CONTRACTOR.
6) A PRESSURE TREATED WOODEN BUCK OR MARBLE SILL SHALL BE ADDED UNDER THE PRODUCT TO FULLY SUPPORT UNIT. THIS SUPPORT SHALL BE FIRMLY ATTACHED INTO MASONARY AND SUPPORT THE PRODUCT OVER ITS FULL LENGTH (SUPPLIED BY OTHERS).
7) CONCRETE COMPRESSIVE STRENGTH = 3,000 PSI AT 28 DAYS.
8) NOTE * INDICATES THAT EQUAL FASTENERS AT HEAD AND SILL ARE REQUIRED.

WINDOW DIMENSIONS		FASTENER SCHEDULE			
		NO. ANCHORS HEAD/SILL SEE NOTE 8		NO. ANCHORS JAMB	
WIDTH (INCHES)	HEIGHT (INCHES)	35 (PSF)	45-60 (PSF)	35 (PSF)	45-60 (PSF)
19-1/8"	26"	2	2*	2	2
26-1/2"		2	2*	2	2
37"		2	3*	2	2
53-1/8"		3	3*	2	2
19-1/8"	38-1/4"	2	2*	2	3
26-1/2"		2	2*	2	3
37"		2	3*	2	3
53-1/8"		3	4*	2	3
19-1/8"	50-5/8"	2	2*	3	3
26-1/2"		2	2*	3	3
37"		2	3*	3	3
53-1/8"		3	4*	3	3
19-1/8"	63"	2	2*	3	4
26-1/2"		2	2*	3	4
37"		2	3*	3	4
53-1/8"		3	4*	3	4
19-1/8"	76-3/4"	2	2*	3	4
26-1/2"		2	2*	3	4
37"		2	3*	3	4
53-1/8"		3	4*	3	4



CERTIFICATE
CHARLES A. PARKER, P.E.
FL. REG. ENG. # 24391

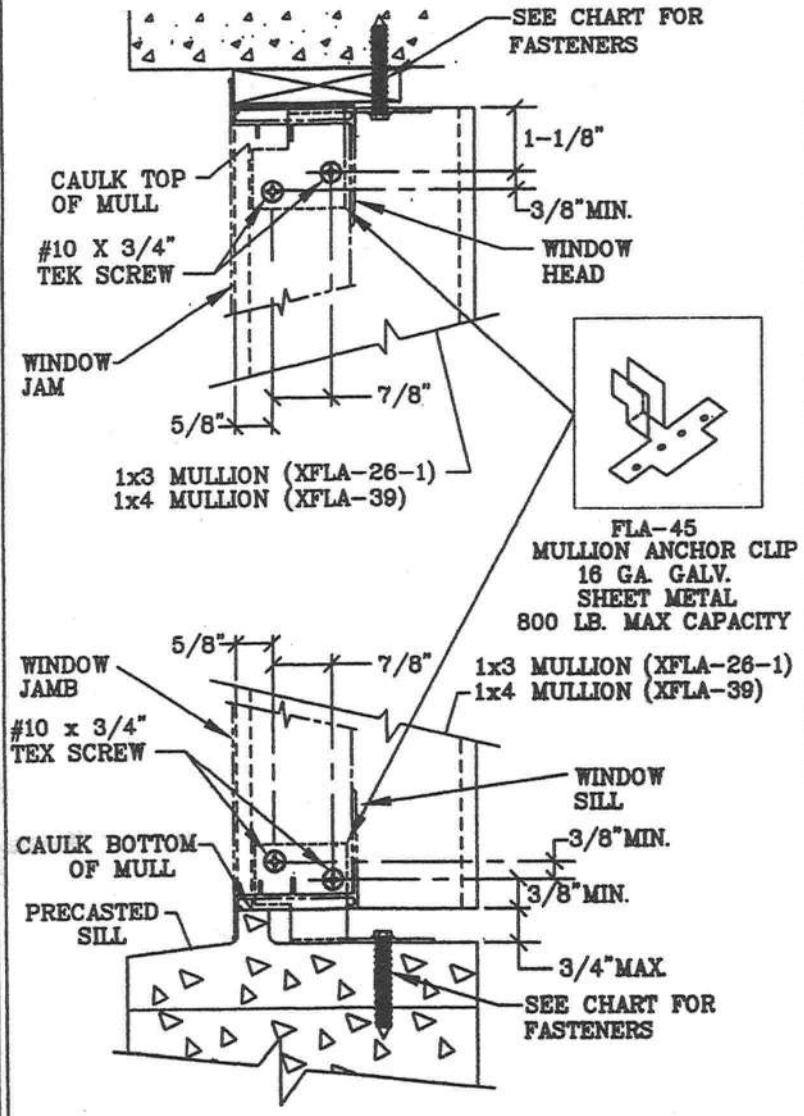
437 FIXED WINDOW INSTALLATION DETAIL AND FASTENER SCHEDULE

SERIES: 437
ALUMINUM FIXED WINDOW

NORANDEX
4606 30th STREET WEST
BRADENTON, FL 34207
PHONE: (941) 756-1681

NO.	DATE	REVISIONS DESCRIPTION

DATE: 12/22/01
SCALE: N.T.S.
DWG. BY: T.R.M.
CHK. BY: RLK
DWG. NO. 780-031



VERTICAL MULLION SCHEDULE

SINGLE UNIT WINDOW WIDTH INCH	SINGLE UNIT WINDOW HEIGHT INCH	TYPE OF MULLION DESIGN PRESSURE 35 PSF	TYPE OF CLIP FLA-45	NUMBER AND TYPE OF FASTENERS
19-1/8"	26"	1.0 x 3.0	OK	(4) 3/16ø" x 1-1/2" TAPCONS
	38-1/4"	1.0 x 3.0	OK	(4) 3/16ø" x 1-1/2" TAPCONS
	50-5/8"	1.0 x 3.0	OK	(4) 3/16ø" x 1-1/2" TAPCONS
	63"	1.0 x 3.0	OK	(4) 3/16ø" x 1-1/2" TAPCONS
	76-3/4"	1.0 x 3.0	OK	(4) 3/16ø" x 1-1/2" TAPCONS
26-1/2"	26"	1.0 x 3.0	OK	(4) 3/16ø" x 1-1/2" TAPCONS
	38-1/4"	1.0 x 3.0	OK	(4) 3/16ø" x 1-1/2" TAPCONS
	50-5/8"	1.0 x 3.0	OK	(4) 3/16ø" x 1-1/2" TAPCONS
	63"	1.0 x 3.0	OK	(4) 3/16ø" x 1-1/2" TAPCONS
	76-3/4"	1.0 x 3.0	OK	(4) 3/16ø" x 1-1/2" TAPCONS
37"	26"	1.0 x 3.0	OK	(4) 3/16ø" x 1-1/2" TAPCONS
	38-1/4"	1.0 x 3.0	OK	(4) 3/16ø" x 1-1/2" TAPCONS
	50-5/8"	1.0 x 3.0	OK	(4) 3/16ø" x 1-1/2" TAPCONS
	63"	1.0 x 3.0	OK	(4) 3/16ø" x 1-1/2" TAPCONS
	76-3/4"	1.0 x 4.0	OK	(4) 1/4ø" x 1-1/2" TAPCONS
53-1/8"	26"	1.0 x 3.0	OK	(4) 3/16ø" x 1-1/2" TAPCONS
	38-1/4"	1.0 x 3.0	OK	(4) 3/16ø" x 1-1/2" TAPCONS
	50-5/8"	1.0 x 3.0	OK	(2) 1/4ø" x 1-1/2" TAPCONS
	63"	1.0 x 3.0	OK	(2) 1/4ø" x 1-1/2" TAPCONS
	76-3/4"	1.0 x 4.0	OK	(2) 1/4ø" x 1-1/2" TAPCONS

CHARLES A. PAGEN, P.E.
FL. REG. ENG. # 49121
DATE: 3/21/02

NOTES:
1) ALL ALUMINUM EXTRUSIONS ARE ALLOY 6063 T6, OR 6063 T5.
2) WHEN THERE IS ONE TAPCON (1/4ø" 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.

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

SERIES: MULLION
ALUMINUM SINGLE HUNG

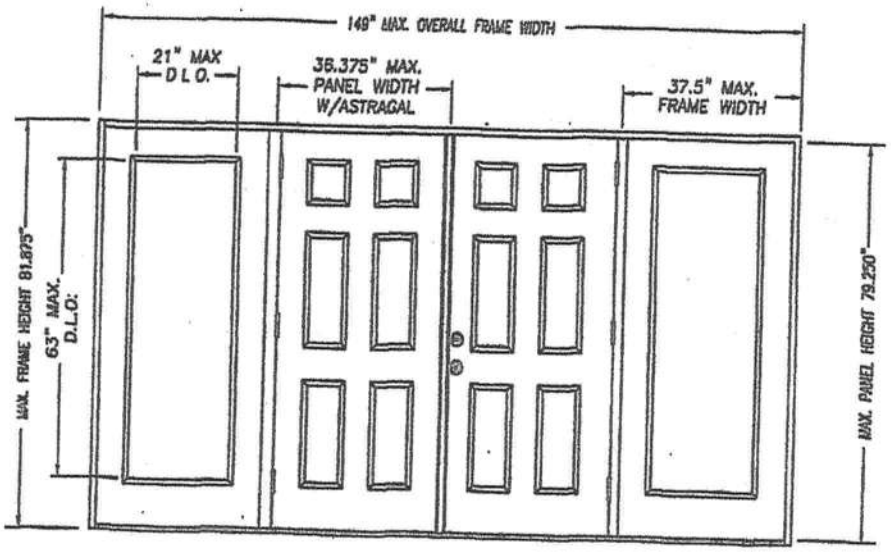
NORANDEX
4595 56th STREET WEST
BRADENTON, FL. 34207
PHONE: (941) 795-1691

NO.	DATE	REVISIONS DESCRIPTION

3/11/02
SCALE: N.T.S.
DWG. BY: RAF
CHK. BY: RLK
DWG. NO.: FRC-059

Masonite®

SIDE-HINGED METAL-EDGE STEEL DOOR UNIT
6'-8" DOUBLE DOOR WITH / WITHOUT SIDELITES



DOUBLE INSWING UNIT W/SIDELITES

GENERAL NOTES

1 EVALUATED FOR USE IN LOCATIONS ADHERING TO THE FLORIDA BUILDING CODE AND WHERE PRESSURE REQUIREMENTS AS DETERMINED BY ASCE 7, MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES, DOES NOT EXCEED THE DESIGN PRESSURES LISTED.

2 HURRICANE PROTECTIVE SYSTEM (SHUTTERS) IS NOT REQUIRED ON OPAQUE PANELS, BUT IS REQUIRED ON GLAZED SIDELITES

3. POLYURETHANE CORE FLAME SPREAD INDEX OF 50 AND SMOKE DEVELOPED INDEX OF 60 PER ASTM E84.

4 PLASTICS TESTING OF LITE FRAME MATERIAL:

TEST DESCRIPTION	DESIGNATION	RESULT
SELF IGNITION TEMP	ASTM D1929	680 °F > 650 °F
RATE OF BURNING	ASTM D635	1.10 IN/MIN
SMOKE DENSITY	ASTM D2843	69.6%
TENSILE STRENGTH*	ASTM D638	-7.48% DIFF

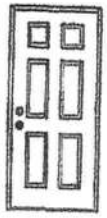
* COMPARATIVE TENSILE STRENGTH AFTER WEATHERING 4500 HOURS XENON ARC METHOD 1

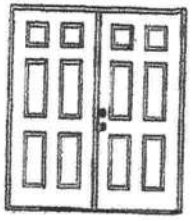
Addendum to NAMI

Certification No.: NT006115

Reviewed By:

Date Reviewed: 8/12/05


SINGLE DOOR UNIT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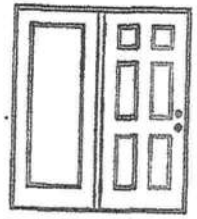
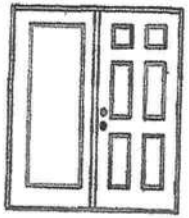
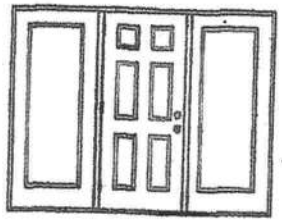

SINGLE DOOR UNIT WITH SIDELITE


SINGLE DOOR UNIT WITH SIDELITE


SINGLE DOOR UNIT W/SIDELITES

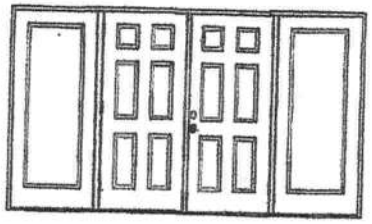

DOUBLE DOOR UNIT W/SIDELITES

TABLE OF CONTENTS	
SHEET #	DESCRIPTION
1	TYPICAL ELEVATIONS & GENERAL NOTES
2	ANCHORING LOCATIONS & DETAILS
3	ANCHORING LOCATIONS & DETAILS

CONFIG	MAX WIDTH	DESIGN PRESSURE RATING		WHERE WATER INFILTRATION PERFORMANCE IS REQUIRED TO BE 15% OF DESIGN PRESSURE	
		INSWING	OUTSWING	INSWING	OUTSWING
X	37.5"	+76.0 / -76.0	+76.0 / -76.0	+19.0 / -19.0	+55.0 / -55.0
XX	74"	+55.0 / -55.0	+55.0 / -55.0	+19.0 / -19.0	+55.0 / -55.0
OX or XO	75"	+55.0 / -55.0	+55.0 / -55.0	+19.0 / -19.0	+55.0 / -55.0
OXO	112.5"	+55.0 / -55.0	+55.0 / -55.0	+19.0 / -19.0	+55.0 / -55.0
OXXO	149"	+55.0 / -55.0	+55.0 / -55.0	+19.0 / -19.0	+55.0 / -55.0

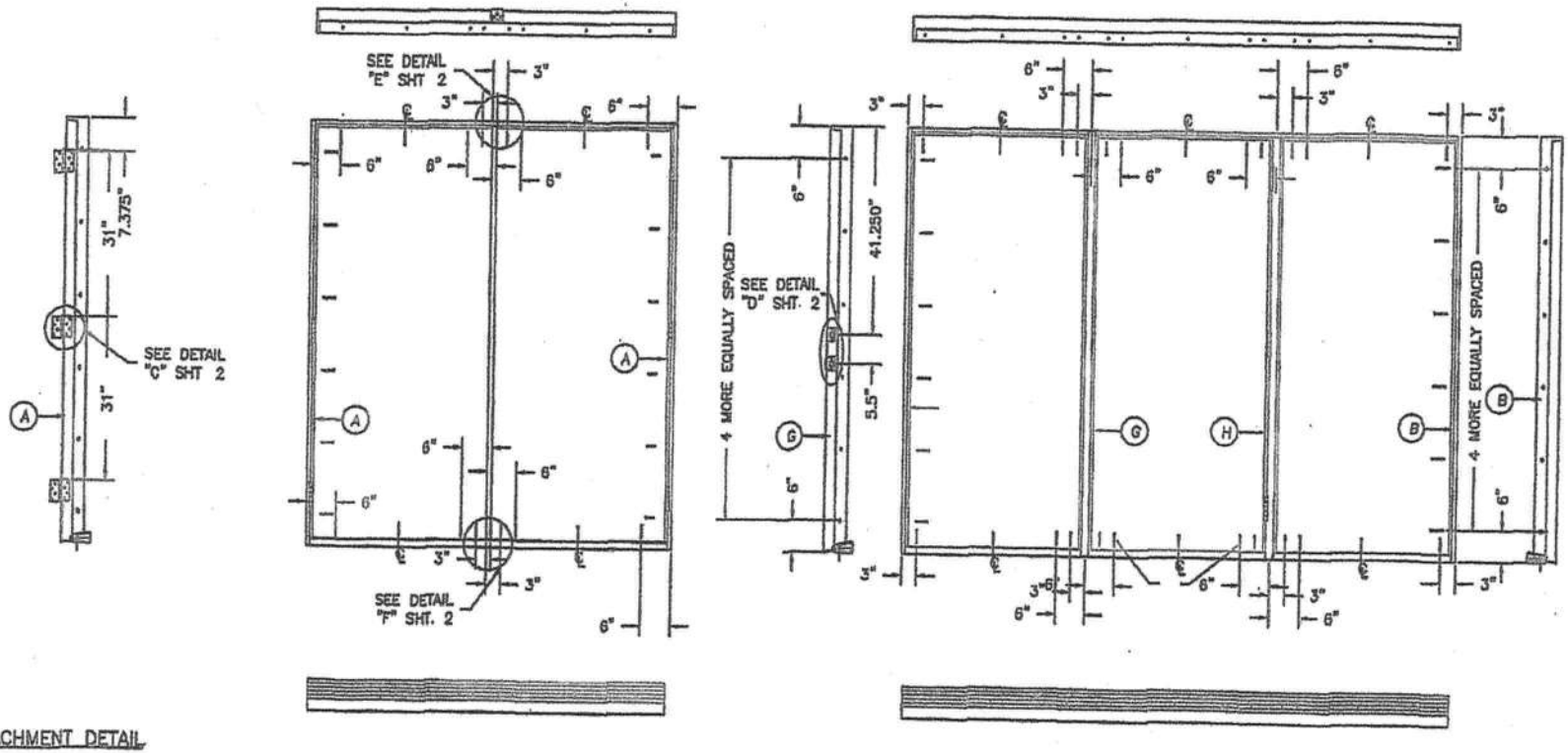
MASONITE INTERNATIONAL CORP.
7300 REAMES RD.
CHARLOTTE, NC 28216

PRODUCT: EXTERIOR DOOR PRODUCT DOUBLE 6'8" OPAQUE METAL-EDGE STEEL DOOR

PART OR ASSEMBLY: TYPICAL ELEVATIONS & GENERAL NOTES

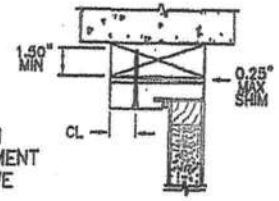
NO.	DATE	REVISIONS	BY

DATE: 7/25/05
SCALE: N.T.S.
DWG. BY: SWS
CHK. BY:
DRAWING NO.: DWG-MA-FL0132-05
SHEET 1 OF 3



ATTACHMENT DETAIL

1. ANCHOR ANALYSIS FOR LOADING CONDITIONS PREPARED, SIGNED AND SEALED BY HAROLD E. RUPP, PE (FLORIDA #15935) WITH THE LOWEST, (LEAST) FASTENER RATING FROM THE DIFFERENT FASTENERS BEING CONSIDERED FOR USE. JAMB, HEAD, AND THRESHOLD FASTENERS ANALYZED FOR THIS UNIT INCLUDE #10 WOOD SCREWS OR 3/16" TAPCONS. A PHYSICAL SHIM MUST BE PLACED IN SHIM SPACE AT EACH ANCHOR LOCATION.
2. THE WOOD SCREW SINGLE SHEAR DESIGN VALUES COME FROM ANSI/AF&PA NDA FOR SOUTHERN PINE LUMBER AND ACHEIVEMENT OF 1-1/2" MINIMUM EMBEDMENT. THE TAPCON MUST ACHIEVE MINIMUM EMBEDMENT OF 1-1/4".
3. WOOD BUCKS BY OTHERS MUST BE ANCHORED PROPERLY TO TRANSFER LOADS TO STRUCTURE.
4. MINIMUM DESIGN VALUE STRENGTH OF ANCHORS 171 LBS.



TYPICAL ANCHOR INSTALLATION

HARDWARE SCHEDULE

1.	KWIKSET OR SCHLEGE ANSI/BHMA GRADE 3 OR BETTER CYLINDRICAL AND DEADLOCK HARDWARE TO BE INSTALLED AT 5-1/2" CENTERLINE.
2.	4" X 4" FULL MORTISE BUTT HINGES

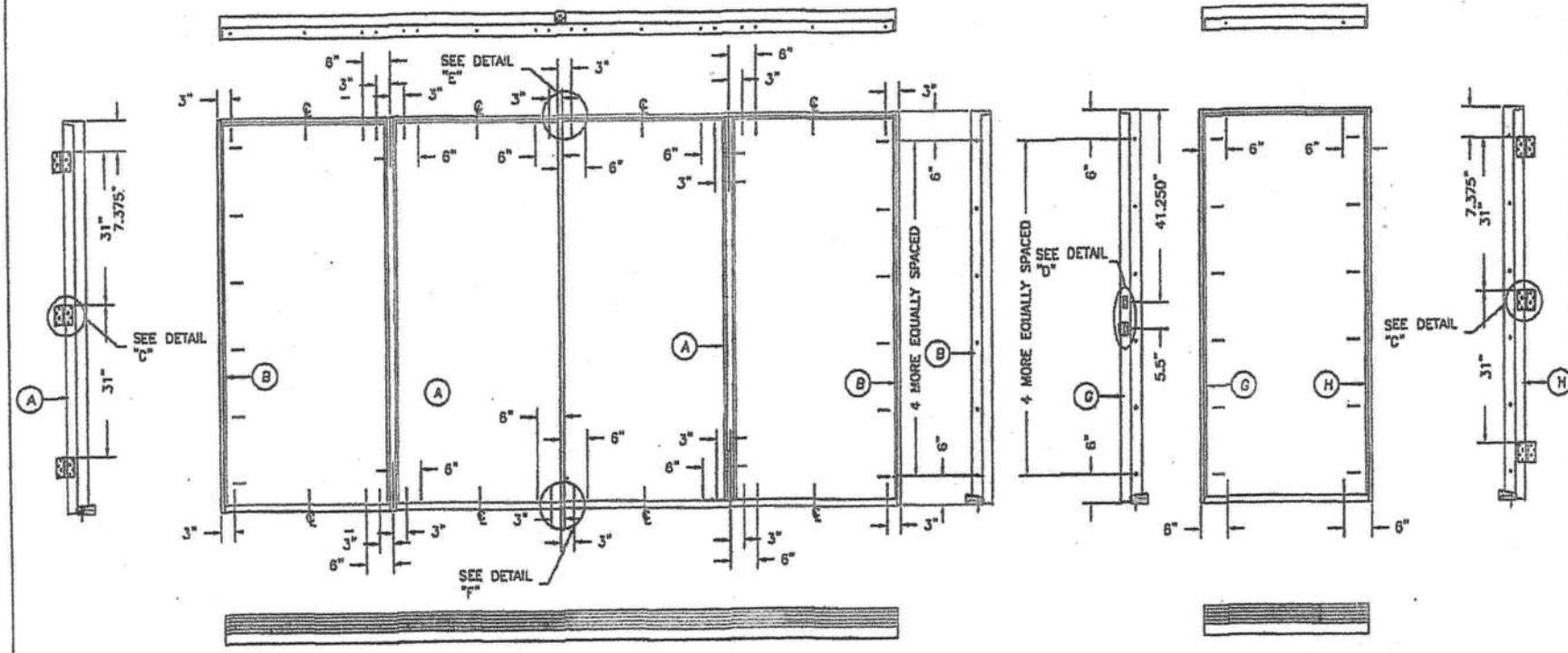
Addendum to NAMI
Certification No.: NT06115
Reviewed By:
Date Reviewed: 8/12/05

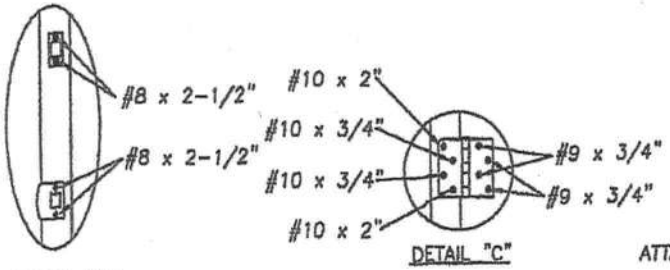
MASONITE INTERNATIONAL CORP.
7300 REAMES RD.
CHARLOTTE, NC 28216

PRODUCT: "EXTERIOR DOOR PRODUCT" 6'-0" MEDIA-EDGE STEEL OPAQUE DOUBLE DOOR UNIT
PART OR ASSEMBLY: ANCHORING LOCATIONS & DETAILS

NO.	DATE	BY	REVISIONS

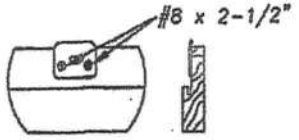
DATE: 7/25/05
SCALE: N.T.S.
DWG. BY: SWS
CHK. BY:
DRAWING NO.: DWG-MA-FL0132-05
SHEET 3 OF 3





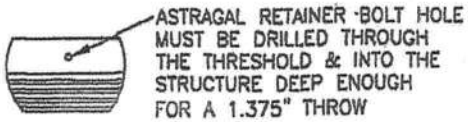
DETAIL "D"

DETAIL "C"

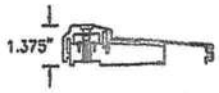


DETAIL "E" ASTRAGAL

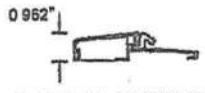
ATTACH ASTRAGAL RETAINER BOLT STRIKE PLATE TO FRAME AS SHOWN.



DETAIL "F" ASTRAGAL

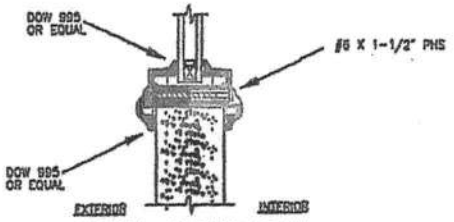


INSWING THRESHOLD



OUTSWING THRESHOLD

Addendum to NAMI
Certification No.: NT006115
Reviewed By:
Date Reviewed: 8/12/05



TYPICAL GLAZING DETAIL

MASONITE INTERNATIONAL CORP.
7300 REAMES RD.
CHARLOTTE, NC 28216

PRODUCT: "EXTERIOR DOOR PRODUCT" DOUBLE 6'-8" UNIQUE METAL-EDGE STEEL DOOR

PART OR ASSEMBLY: ANCHORING LOCATIONS & DETAILS

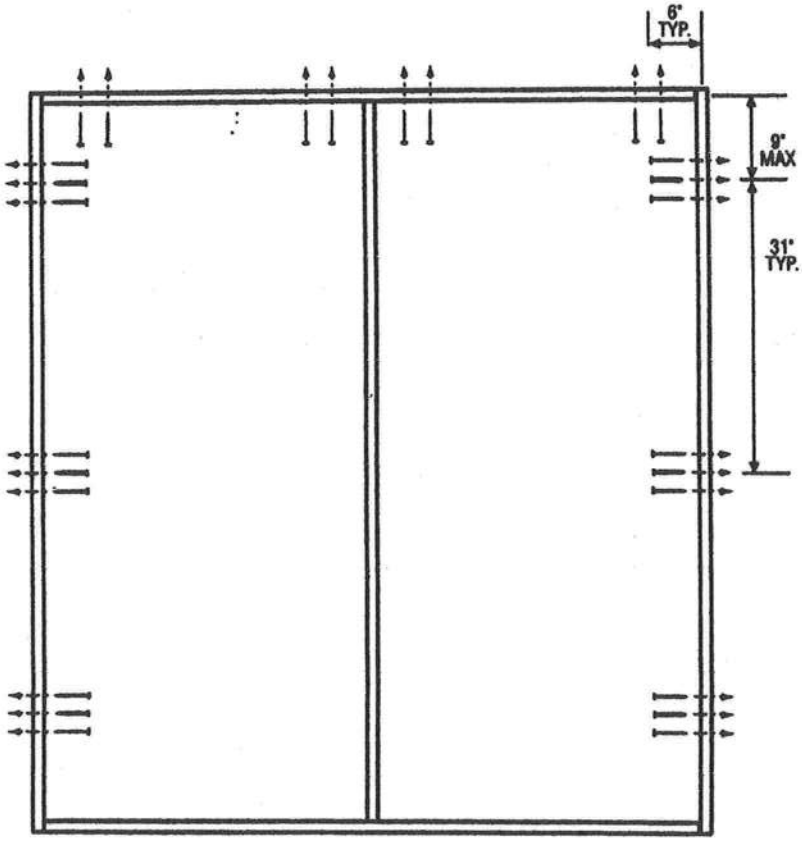
NO.	DATE	REVISIONS	BY

DATE: 7/25/05
SCALE: N.T.S.
DWG. BY: SWS
CHK. BY:
DRAWING NO.: DWG-MA-FLD132-05
SHEET 2 OF 3

XX
Unit

MID-WL-MA0002-02

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 #3028447A; #3028447B; #3028447C and COP/Test Report Validation Matrix #3028447A-001, 002, 003, 004; #3028447B-001, 002, 003, 004; #3028447C-001, 002, 003, 004 provides additional information - available from the ITS/WH website (www.etsemko.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 6247*, 6267*, 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.

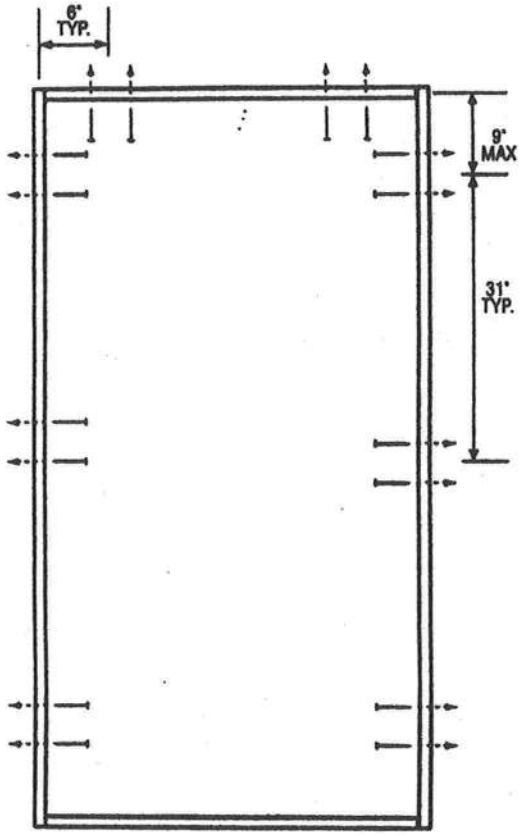
Notes:

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.

March 10, 2003

Masonite

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.etsemko.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 6248*, 6268*, 3241*, 3248, 3261* or 3268**
  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 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.

Masonite

NOTICE OF PRODUCT CERTIFICATION

CERTIFICATION NO: NI006592
DATE: 06/16/2006
CERTIFICATION PROGRAM: Structural
COMPANY: Atrium
CODE: A-447-1

The "Notice of Product Certification" is valid only when Administrator's Seal is applied to the upper left hand portion of this form and a certification label is applied to the product. This certification seal represents product conformity to the applicable specification and that all certification criteria has been satisfied.

The product described below is approved for listing in the Directory of Certified Products at www.NAMICertification.com . Please review, and advise NAMI immediately if data, as shown, requires corrections.

COMPANY NAME AND ADDRESS	PRODUCT DESCRIPTION
Atrium Windows & Doors-Florida 3600 Port Jacksonville Parkway Jacksonville, FL 32226	"Mark 40/50 Premium" Aluminum Single Hung Standard Flange Frame Window Configuration: OX Glazing: O-3/16"Annealed Glass/X-5/32" Annealed Glass STP PSF Frame: W-4'5" Sash: W-4'2" Pos+60.0 H-8'1" H-3'3" Neg-67.5

SPECIFICATION	PRODUCT RATING
AAMA/NWWDA 101/I.S.2-97/ AAMA 1302.5-76 Glass Complies to ASTM E1300-02	H-LC35 FER-Passed

Product Tested By: Certified Testing Laboratories
Report No: CTLA-1049W (Structural/FER)
Expiration Date: March 31, 2007

Administrator's Signature: _____

NATIONAL ACCREDITATION AND MANAGEMENT INSTITUTE, INC.
11870 Merchants Walk Suite 202
Newport News, VA 23606
TEL: (757) 594-8658
FAX: (757) 594-8659

GARAGE DOORS INFORMATION

COMMERCIAL & RESIDENTIAL GARAGE DOOR DIVISION

TECHNICAL DATA SHEET #155o

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 9'x 7'	-14.5	-17.9	-21.6	-25.8	-30.2	-35.1	-40.2
	Double 16'x 7'	-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:

- Basic 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 Summer Avenue, Cleveland OH 44115-2851
Phone (216) 241-7333 E-mail: dasma@dasma.com Fax (216) 241-0105 URL: www.dasma.com

REVISIONS			
LTR	DESCRIPTION	DATE	APPROVAL
-	RFP PER DN 10283	8/19/98	DF
A	REV PER DN 10232	9/4/98	DF
B	REV PER DN 10888	10/18/00	[illegible]

▷ NOTES

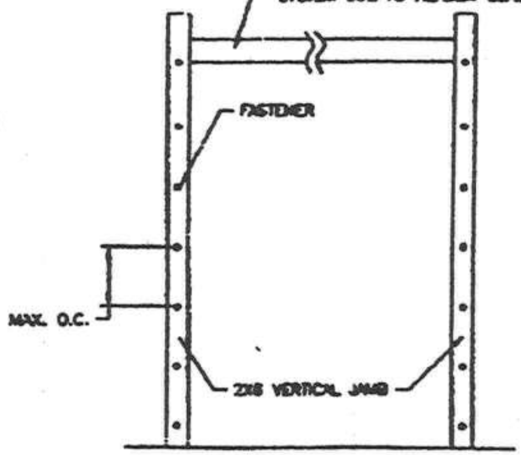
1. ALL THE LOAD FROM THE DOOR IS TRANSFERRED TO THE TRACK AND THEN FROM THE TRACK TO THE VERTICAL JAMBS (SPF STUD GRADE OR BETTER). NO LOAD FROM THE DOOR IS TRANSFERRED TO THE HORIZONTAL (TOP) JAMB WITH STANDARD WINDLOAD SYSTEM. WITH VERTICAL WINDLOAD POST, PART OF THE FORCE IS TRANSFERRED TO THE HORIZONTAL GARAGE DOOR HEADER.
2. EACH VERTICAL JAMB SEES A MAXIMUM DESIGN LOAD OF +2980 LB & -2980 LB AND A MAXIMUM TEST LOAD OF +4480 LB & -4480 LB. THE HORIZONTAL GARAGE DOOR HEADER SEES A MAX TEST LOAD OF 1200# FOR SINGLE POST, AND MAX COMBINED LOAD OF 2970# FOR MULTIPLE POSTS.
3. ALL JAMB FASTENERS MAY BE (BUT NOT REQUIRED) COUNTERSUNK TO PROVIDE A FLUSH MOUNTING SURFACE.

WOOD FRAME BUILDINGS

STUD WALLS OF DOOR OPENING SHALL BE FRAMED SOLID BY NOT LESS THAN 2 FULL LENGTH STUDS AND 2 HEADERSTUDS USING SPF STUD GRADE OR BETTER WOOD.
STUD WALLS TO BE CONTINUOUS FROM FOOTING TO TIE BEAMS AND IN ACCORDANCE WITH SFBC SECTION 2905.1.
INSTALLATION IN ACCORDANCE WITH DWG 409783 IS AN ACCEPTABLE ALTERNATIVE.

BLOCK WALL OR CONCRETE

2X4 MIN. 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 CONTINUOUS FROM THE TIE 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 SFBC SECTION 2704.2.



2X6 JAMB TO SUPPORTING STRUCTURE ATTACHMENT

(NOT TO BE USED FOR ATTACHMENT OF TRACK BRACKETS TO 2X8 VERTICAL JAMBS OR SUPPORTING STRUCTURE)

BUILDING TYPE	FASTENER TYPE	MIN. NO. OF FASTENERS PER VERTICAL JAMB		MAXIMUM ON CENTER DISTANCE BETWEEN FASTENERS	STEEL WASHERS REQUIRED?
		7' HIGH	8' HIGH		
WOOD FRAME (SPF)	5/16" X 3" LAG SCREW (ASTM A307, GRADE A), 1-5/8" MIN. EMBED.	7	8	16"	YES
C-90 BLOCK (2,500 PSI GROUT)	1/4" x 4" ITW TAPCON CONCRETE ANCHOR, 1-3/4" MIN. EMBED.*	7	8	16"	YES
C-90 BLOCK (2,500 PSI GROUT)	3/8" X 4" RAWL LOK/BOLT ANCHOR BOLT, 1-5/8" MIN. EMBED.*	6	7	16"	NO
CONCRETE COLUMN (2,500 PSI)	3/8" X 4" RAWL LOK/BOLT ANCHOR BOLT, 1-5/8" MIN. EMBED.*	6	7	16"	NO

* - TAPCONS/ANCHOR BOLTS CAN BE INSTALLED DIRECTLY THROUGH TRACK BRACKETS/ANGLE IN LIEU OF 5/16" X 1-5/8" LAG SCREWS. RAWL LOK/BOLT SHALL BE TORQUED AS SPECIFIED BY THE RAWL DRILLING AND ANCHORING SYSTEMS DESIGN MANUAL.

APPROVED

DRAWN BY: G. FINERAN	8/12/98	DRAWING TITLE: RESIDENTIAL JAMB DETAIL	
CHECKED BY: PE VESSELS	8/19/98	DRAWING NUMBER: C-409431	
APPROVED BY: DAVID FAW	8/19/98	SCALE: FULL	SHEET 1 OF 1
MATERIAL: N/A			
FINISH: N/A	UNIT OF MEASURE: N/A		

NOTES:
1. TESTED IN ACCORDANCE WITH DASMA 108.
2. FOUR SECTION 7' TALL DOOR SHOWN. 8' DOORS HAVE 5 SECTIONS. SECTION HEIGHTS OF 20.80, 19.00 AND 16.75 ARE AVAILABLE AND MAY BE USED IN COMBINATION TO ACHIEVE VARIOUS DOOR HEIGHTS.
3. EMBOSSMENT PATTERN OF 14.5 X 20.6 SHOWN. ALTERNATE PATTERNS OF 12.5 X 43.4 AND 12.5 X 20.6 MAY BE USED.
4. ARMORTITE/REVOLUTION COUNTERBALANCE SHOWN. TORSION AND EXTENSION COUNTERBALANCE SYSTEMS AVAILABLE. 403964-0002 REQUIRED AT TRACK INTERFACE ON TORSION AND EXTENSION SYSTEMS.

5. USE THIS BRACKET 403964-0002 ON 8' HIGH DOORS ONLY.

6. LOCATE 409317 CHANNELS AS SHOWN. VERTICAL PLACEMENT CAN VARY PLUS/MINUS 3 INCHES.

7. ON THE MIDDLE CENTER STILE THERE IS NO TOOL CLEARANCE HOLE FOR THE UPPER 005911-0001 SCREW. INSTALL FROM BELOW.

8. USE 005911-0001 AB POINT SCREWS FOR ALL COMPONENT INSTALLATION UNLESS OTHERWISE NOTED.

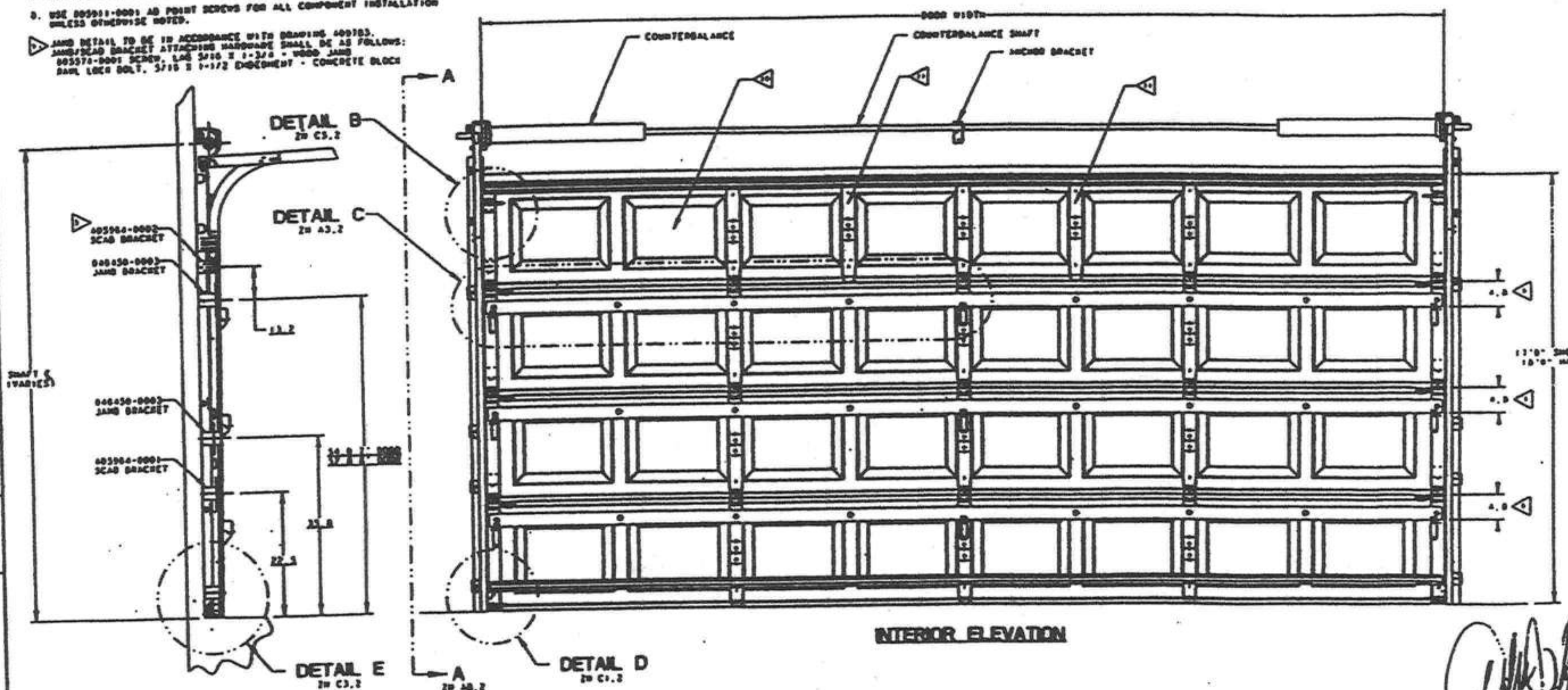
9. JAMB DETAIL TO BE IN ACCORDANCE WITH DRAWING 409783. JAMB/SCAB BRACKET ATTACHING HARDWARE SHALL BE AS FOLLOWS: 005576-0001 SCREW, LAG 5/16 X 1-3/4 - WOOD JAMB; RAWL LOCK BOLT, 5/16 X 1-1/2 EMBEDMENT - CONCRETE BLOCK

10. WINDOW INSTALLATION ALLOWED. WINDOWS MUST BE INSTALLED IN TOP SECTION.

11. EXTRA CENTER STILES ARE NOT REQUIRED ON DOORS WITHOUT A WINDOW SECTION.

12. USE 18 GAUGE CHANNEL.

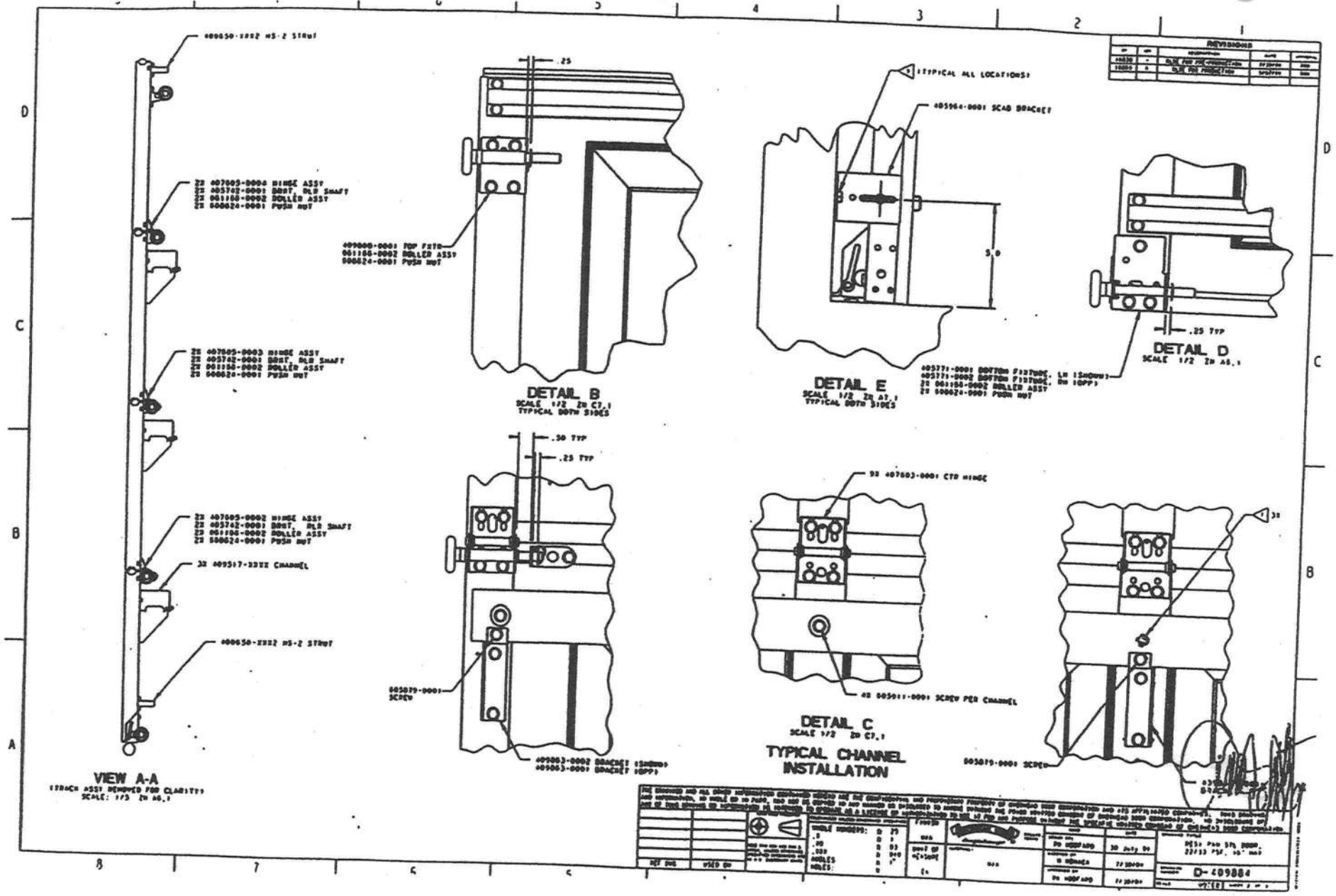
OHD/GENIE DOOR EQUIVALENCY CHART		
OHD DOOR SERIES No.	GENIE DOOR SERIES No.	PAN STEEL THICKNESS
SERIES 180	SERIES GD0300	24 GA
SERIES 180	SERIES GD0300	24 GA
SERIES 281	SERIES GD5200	25 GA
SERIES 280	SERIES GD5300	25 GA



STD TRACK DETAIL FOR 16' WIDE DOOR

DOOR WIDTH	CENTER STILE	END STILE	OLD SHAFT BRACKET	STRUTS/SECT	ROLLER	HEIGHT FOR GA	JAMB LOAD
16'	7	SINGLE	YES	[illegible]	[illegible]	[illegible]	[illegible]

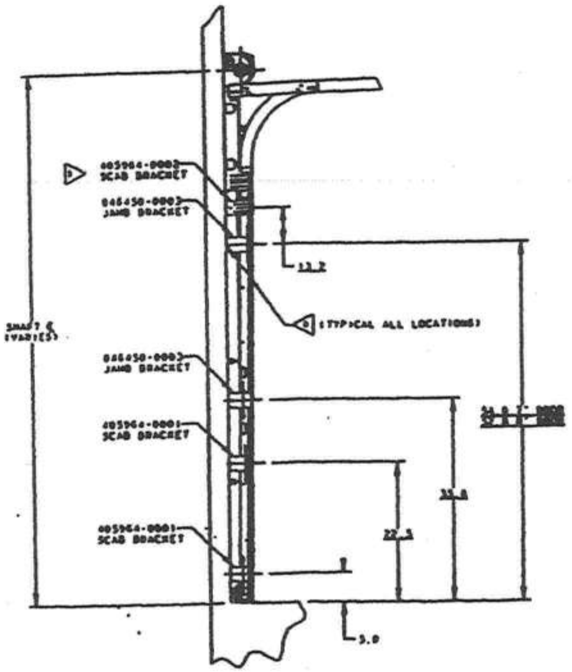
D-409884


VIEW A-A
DETAIL B
DETAIL C
DETAIL D
DETAIL E
TYPICAL CHANNEL INSTALLATION

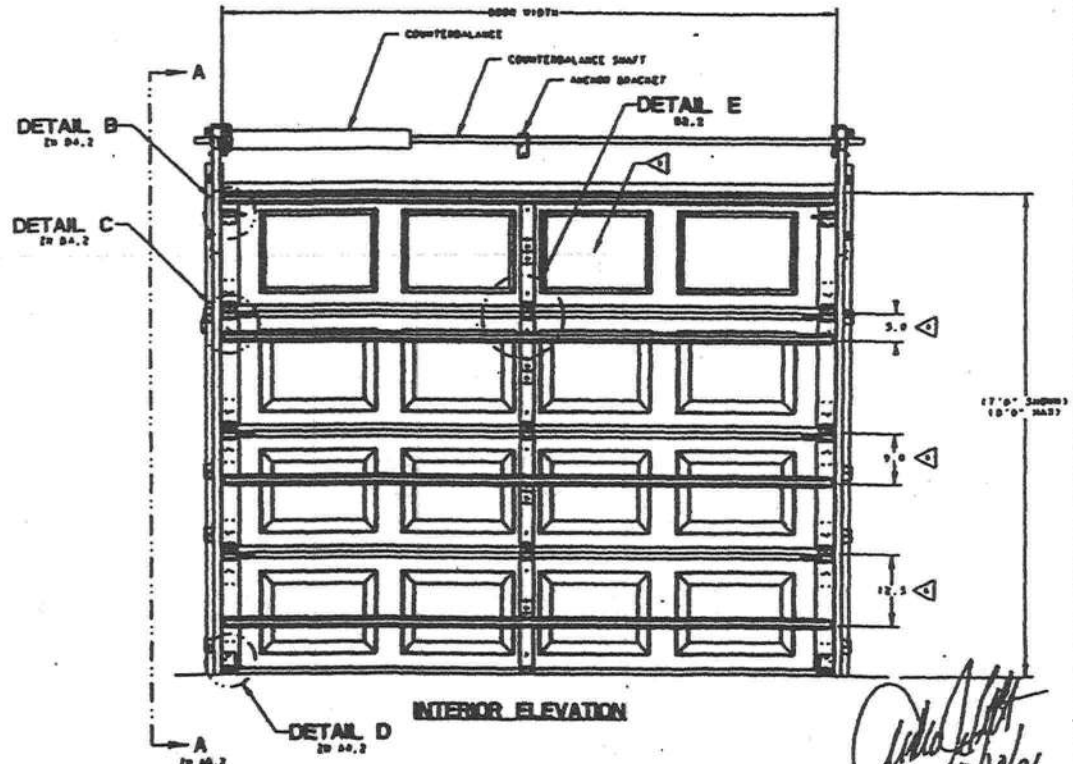
NOTES:
1. TESTED IN ACCORDANCE WITH DASMA 108.
2. FOUR SECTION 7' TALL DOOR SHOWN. 8' DOORS HAVE 3 SECTIONS. SECTION HEIGHTS OF 20.00, 19.00 AND 16.75 ARE AVAILABLE AND MAY BE USED IN COMBINATION TO ACHIEVE VARIOUS DOOR HEIGHTS.
3. EMBOSSMENT PATTERN OF 14.5 X 20.0 SHOWN. ALTERNATE PATTERNS OF 12.5 X 43.0 AND 12.5 X 20.4 MAY BE USED.
4. ANNOTITE/REVOLUTION COUNTERBALANCE SHOWN. TORSION AND EXTENSION COUNTERBALANCE SYSTEMS AVAILABLE. 405964-0002 REQUIRED AT TRACK INTERFACE ON TORSION AND EXTENSION SYSTEMS.
5. USE THIS BRACKET 405964-0002 ON 8' HIGH DOORS ONLY.
6. LOCATE 400030 STRUTS AS SHOWN. VERTICAL PLACEMENT CAN VARY PLUS/MINUS 3 INCHES.
7. USE 009911-0001 AB POINT SCREWS FOR ALL COMPONENT INSTALLATION UNLESS OTHERWISE NOTED.
8. JAMB DETAIL TO BE IN ACCORDANCE WITH DRAWING 409783. JAMB/SCAB BRACKET ATTACHING HARDWARE SHALL BE AS FOLLOWS: 605974-0001 SCREW, LAG 5/16 X 1-3/4 - WOOD JAMB; DAWL LOCK BOLT, 5/16 X 1-1/2 EMBEDMENT - CONCRETE BLOCK

9. WINDOW INSTALLATION ALLOWED. WINDOWS MUST BE INSTALLED IN TOP SECTION.

OHD DOOR SERIES No.	GENIE DOOR SERIES No.	PAN STEEL THICKNESS
SERIES 100	SERIES 6DS300	24 GA
SERIES 109	SERIES 6DS300	24 GA
SERIES 201	SERIES 6DS200	25 GA
SERIES 200	SERIES 6DS300	25 GA



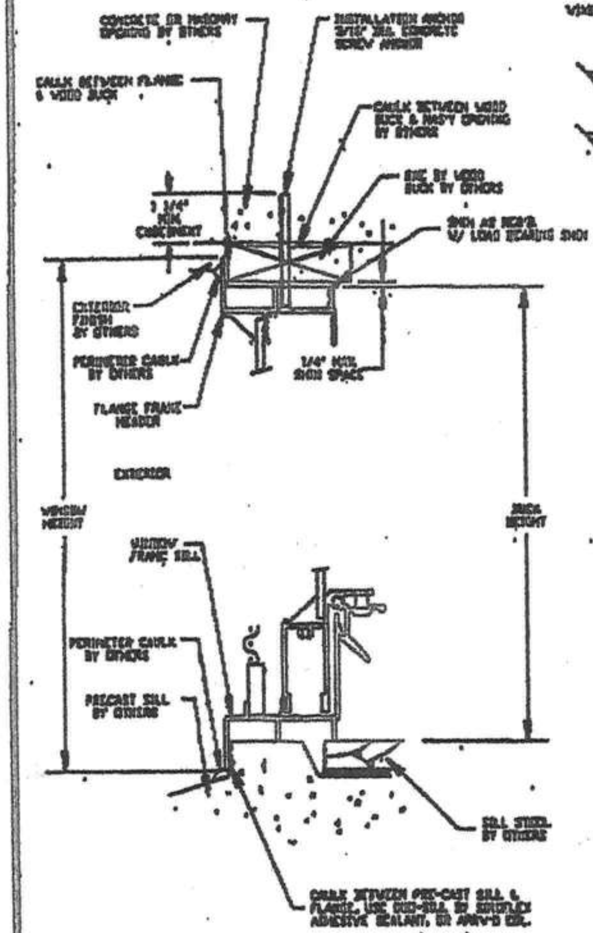
STD TRACK DETAIL
FOR 9' WIDE DOOR



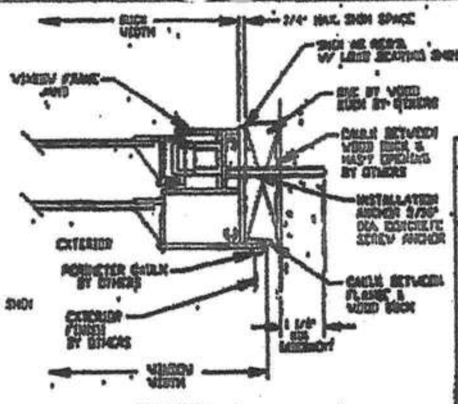
INTERIOR ELEVATION

DOOR WIDTH	CENTER STILE	END STILE	OLD SHAFT BRACKET	STRUTS/SECT	ROLLER	VERT TRK GA	JAMB LOAD
9	1	SINGLE	YES		STL		99

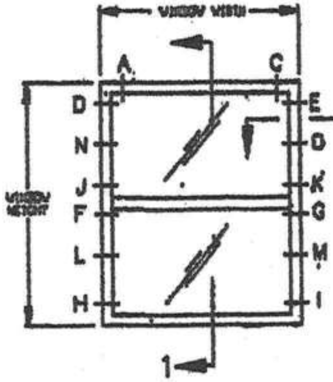
D-409887



SECTION 1



SECTION 2



ELEVATION
VIEWED FROM EXTERIOR

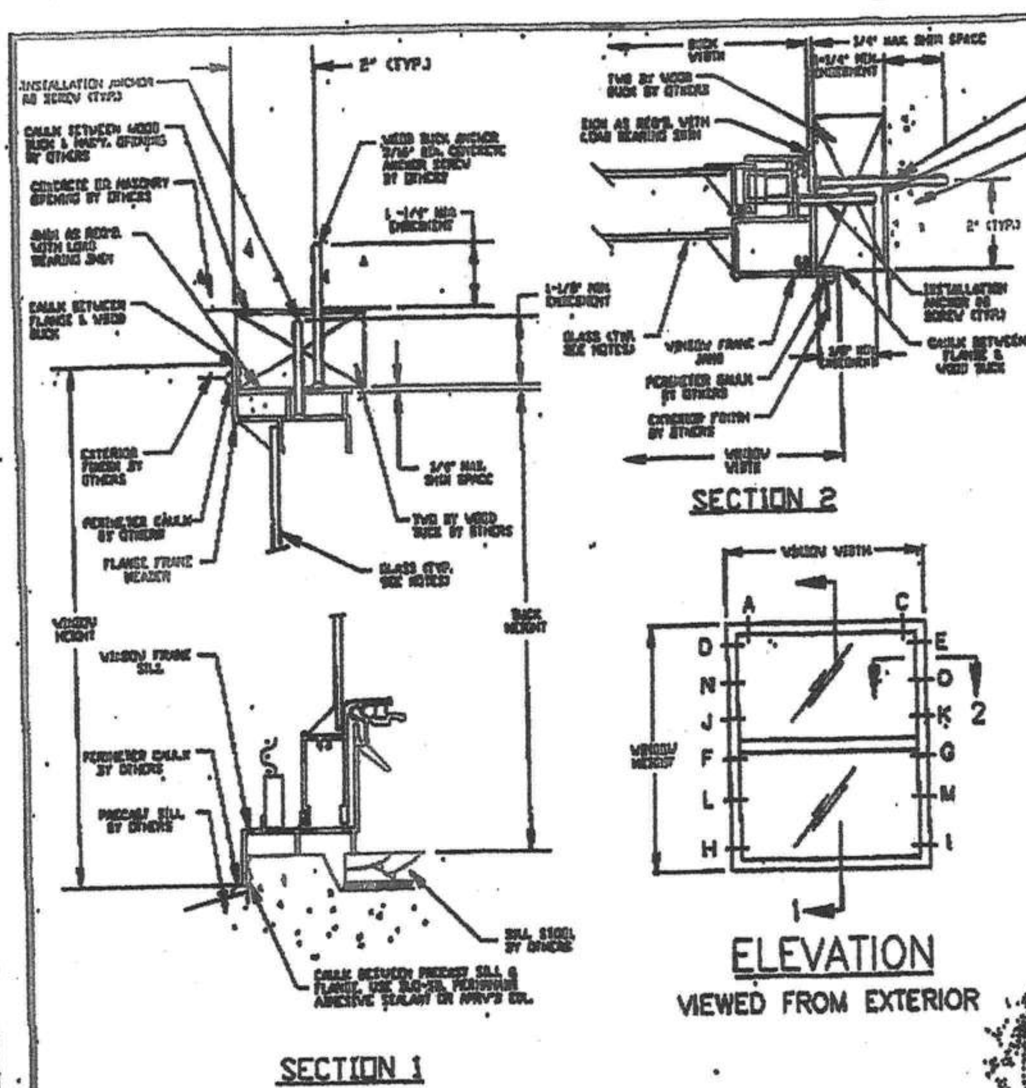
ANCHOR LOCATION CHART					
CALL SIZE	BUCK SIZE	LOCATIONS IN HEAD		LOCATIONS IN JAMB	
		UP TO 45psf	46psf TO 70psf	UP TO 45psf	46psf TO 70psf
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

NOTES:
1) SHIM AS REQ'D. AT EACH INSTALLATION ANCHOR W/LOAD BEARING SHIM. MAX. ALLOWABLE SHIM STACK TO BE 1/4". USE SHIMS WHERE SPACE GREATER THAN 1/16" IS PRESENT.
2) WINDOW FRAME MATERIAL: ALUMINUM ALLOY 6063.
3) 3/16" DIA. CONCRETE SCREW ANCHOR MUST BE OF SUFFICIENT LGH. TO ACHIEVE MIN. EMBEDMENT OF 1-1/4" INTO MASONRY OR CONCRETE. (TYP. LTH. 2-3/4")
4) CAULK BEHIND WINDOW FLANGE WITH DUO-SIL ADHESIVE CAULK OR APPROVED EQUAL. APPLICATION OF DUO-SIL ADHESIVE CAULK SEALANT MUST COMPLY WITH SEALANT MANUFACTURER'S RECOMMENDATIONS.
5) USE LATEX CAULK OR EQUIVALENT FOR PERIMETER SEAL AROUND EXTERIOR OF WINDOW FLANGE BY OTHERS.
6) IF EXACT WINDOW SIZE IS NOT LISTED IN ANCHOR CHART, USE ANCHOR QUANTITY LISTED WITH NEXT LARGER SIZE. FOR ALL APPROPRIATE DESIGN PRESSURE REQ'D.
7) GLASS THICKNESS MAY VARY PER THE REQUIREMENTS OF ASTM E1300 GLASS CHARTS. SINGLE GLAZING IS SHOWN, INSULATING GLASS ALSO QUALIFIED.
8) LETTER DESIGNATIONS ON THE ANCHOR LOCATION CHART INDICATE WHERE CONCRETE SCREW ANCHORS ARE TO BE INSTALLED WHEN USING THE EXTERIOR ELEVATION AS A KEY.
9) NOT ALL ANCHORS SHOWN ON ELEVATION ARE APPLIED BY FACTORY IN ALL SIZES. ALL FACTORY APPLIED HOLES NOT DESIGNATED FOR CONCRETE SCREW ANCHOR SHOULD BE FILLED WITH #8 SCREWS OF SUFFICIENT LGH. TO PROVIDE MIN. 5/8 IN. EMBEDMENT INTO WOOD BUCK. FACTORY PUNCHED HOLES IN JAMBS ARE TO BE NO MORE THAN 6" FROM CORNERS AND 20" O.C. MAX.

REV.	DESCRIPTION	DATE

KINCO, LTD. 5245 OLD KINGS ROAD, JACKSONVILLE, FLORIDA 32254

TITLE: INSTALLATION DETAIL W/ONE BY WOOD BUCK FLG. SINGLE HUNG WINDOW M40/50 & M40/50 HP		
DESIGNER: MANUEL MARTINEZ	DWN: BB	DATE: 11/05/01
DESIGNED: CIVIL	SCALE: N.T.S.	
FL. REG. NO. 47182		SHEET: 1 OF 1



CALL SIZE	BUCK SIZE	LOCATIONS IN HEAD UP TO 48"	LOCATIONS IN HEAD 48" TO 70"	LOCATIONS IN JAMB UP TO 48"	LOCATIONS IN JAMB 48" TO 70"
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

ANCHOR LOCATION CHART

NOTES:
1) SHIM AS REQ'D. AT EACH INSTALLATION ANCHOR WITH LOAD BEARING SHIM. MAX. ALLOWABLE SHIM SPACE TO BE 1/4". [illegible]
2) WINDOW FRAME MATERIAL: ALUMINUM ALLOY 6063. [illegible]
3) [illegible]
4) [illegible]
5) [illegible]
6) [illegible]
7) [illegible]
8) [illegible]
9) [illegible]
10) [illegible]

KINCO, LTD. 2010 OLD KINGS ROAD JACKSONVILLE, FLORIDA 32254

INSTALLATION DETAIL W/TWO BY WOOD BUCK FLG. SINGLE HUNG WINDOW H40/50 & H40/50 HP

MANUEL MARTINEZ | BB | 11/16/01
CIVIL | N.T.S. |
FL. REG. NO. 47182 | | 1 OF 1

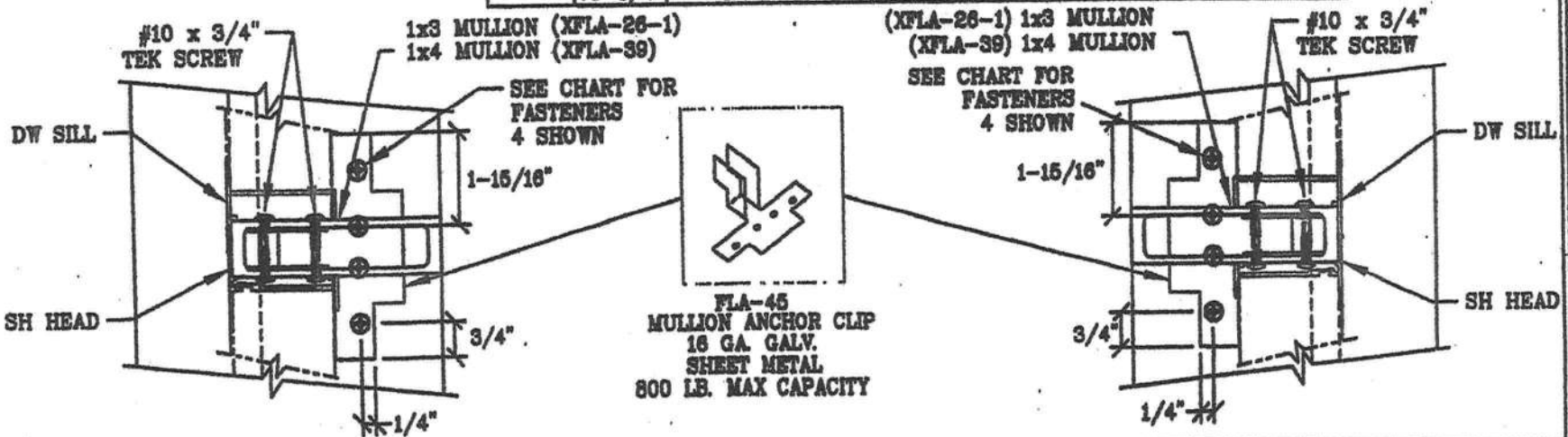
REV.	DESCRIPTION	DATE

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.

HORIZONTAL MULLION SCHEDULE

SINGLE UNIT WINDOW WIDTH INCH	SINGLE UNIT WINDOW HEIGHT INCH	TYPE OF MULLION DESIGN PRESSURE 35 PSF	TYPE OF CLIP FLA-45	NUMBER AND TYPE OF FASTENERS
19-1/8"	26"	1.0 x 3.0	OK	(4) 3/16ø" x 1-1/2" TAPCONS
	38-1/4"	1.0 x 3.0	OK	(4) 3/16ø" x 1-1/2" TAPCONS
	50-5/8"	1.0 x 3.0	OK	(4) 3/16ø" x 1-1/2" TAPCONS
	63"	1.0 x 3.0	OK	(4) 3/16ø" x 1-1/2" TAPCONS
	76-3/4"	1.0 x 3.0	OK	(4) 3/16ø" x 1-1/2" TAPCONS
26-1/2"	26"	1.0 x 3.0	OK	(4) 3/16ø" x 1-1/2" TAPCONS
	38-1/4"	1.0 x 3.0	OK	(4) 3/16ø" x 1-1/2" TAPCONS
	50-5/8"	1.0 x 3.0	OK	(4) 3/16ø" x 1-1/2" TAPCONS
	63"	1.0 x 3.0	OK	(4) 3/16ø" x 1-1/2" TAPCONS
	76-3/4"	1.0 x 3.0	OK	(4) 3/16ø" x 1-1/2" TAPCONS
37"	26"	1.0 x 3.0	OK	(4) 3/16ø" x 1-1/2" TAPCONS
	38-1/4"	1.0 x 3.0	OK	(4) 3/16ø" x 1-1/2" TAPCONS
	50-5/8"	1.0 x 3.0	OK	(4) 3/16ø" x 1-1/2" TAPCONS
	63"	1.0 x 3.0	OK	(4) 3/16ø" x 1-1/2" TAPCONS
	76-3/4"	1.0 x 3.0	OK	(4) 3/16ø" x 1-1/2" TAPCONS
53-1/8"	26"	1.0 x 3.0	OK	(4) 3/16ø" x 1-1/2" TAPCONS
	38-1/4"	1.0 x 3.0	OK	(4) 3/16ø" x 1-1/2" TAPCONS
	50-5/8"	1.0 x 3.0	OK	(2) 1/4ø" x 1-1/2" TAPCONS
	63"	1.0 x 3.0	OK	(2) 1/4ø" x 1-1/2" TAPCONS
	76-3/4"	1.0 x 3.0	OK	(2) 1/4ø" x 1-1/2" TAPCONS



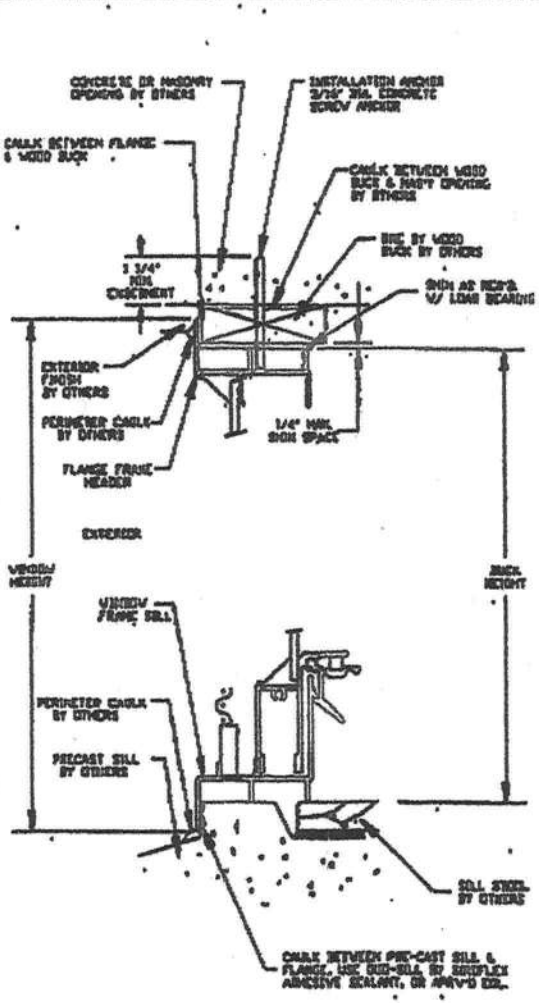
HORIZONTAL MULLION
FLA-45 ANCHOR CLIP
INSTALLATION DETAIL AND
FASTENER SCHEDULE

SERIES: MULLION
ALUMINUM SINGLE HUNG

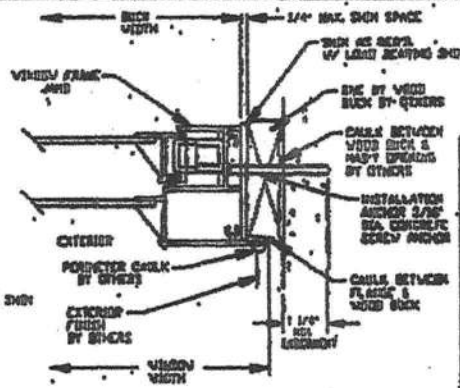
NORANDEX
4405 30th STREET WEST
BRADENTON, FL 34207
PHONE: (941) 752-1691

REVISIONS DESCRIPTION

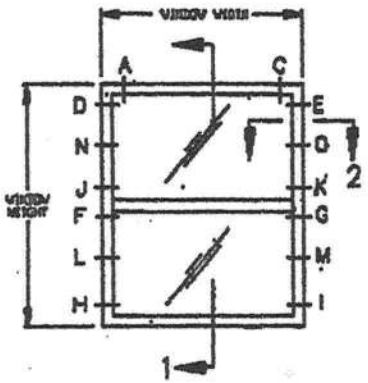
DWG. NO.: FHC-636



SECTION 1



SECTION 2



ELEVATION
VIEWED FROM EXTERIOR

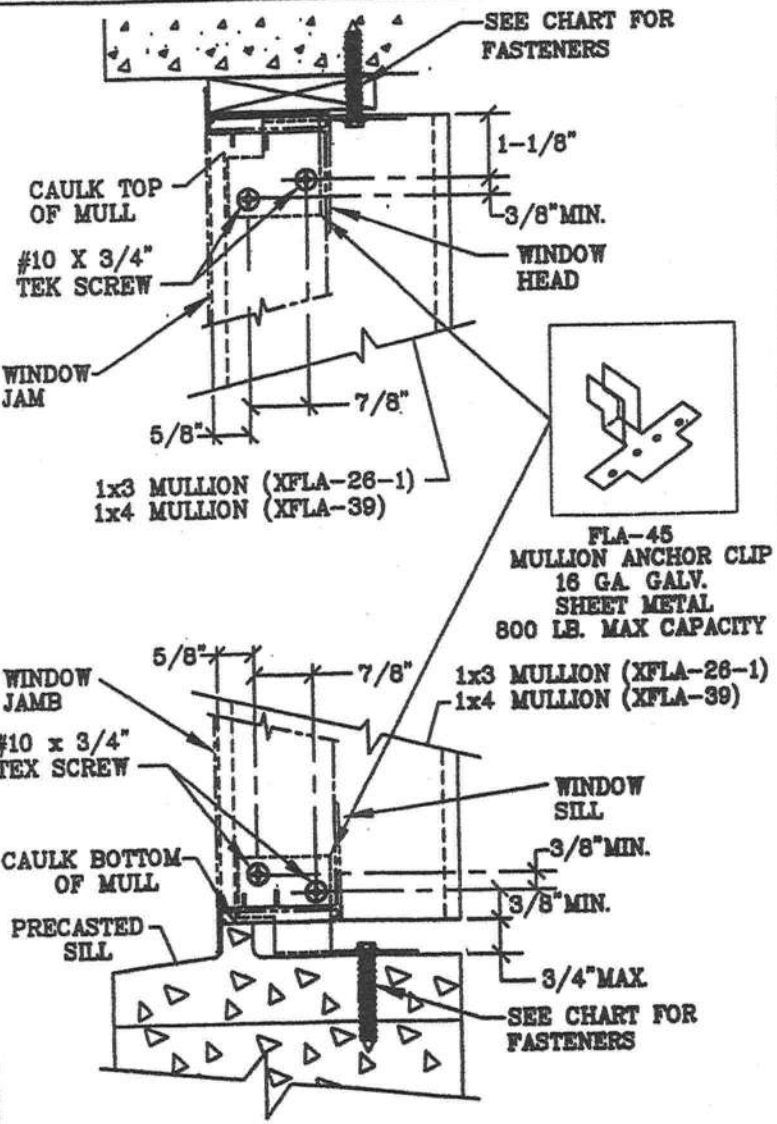
ANCHOR LOCATION CHART

CALL SIZE	BUCK SIZE	LOCATIONS IN HEAD		LOCATIONS IN JAMB	
		UP TO 45psf	46psf TO 70PSF	UP TO 45psf	46psf TO 70psf

NOTES:
1) SHIM AS REQ'D. AT EACH INSTALLATION ANCHOR W/LOAD BEARING SHIM. MAX. ALLOWABLE SHIM STACK TO BE 1/4". USE SHIMS WHERE SPACE GREATER THAN 1/16" IS PRESENT.
2) WINDOW FRAME MATERIAL: ALUMINUM ALLOY 6063.
3) 3/16" DIA. CONCRETE SCREW ANCHOR MUST BE OF SUFFICIENT LGH. TO ACHIEVE MIN. EMBEDMENT OF 1-1/4" INTO MASONRY OR CONCRETE. (TYP. LTH. 2-3/4")
4) CAULK BEHIND WINDOW FLANGE WITH DUO-SIL ADHESIVE SEALANT OR APPROVED EQUAL. APPLICATION OF DUO-SIL ADHESIVE CAULK SEALANT MUST COMPLY WITH SEALANT MANUFACTURER'S RECOMMENDATIONS.
5) USE LATEX CAULK OR EQUIVALENT FOR PERIMETER SEAL AROUND EXTERIOR OF WINDOW FLANGE BY OTHERS.
6) IF EXACT WINDOW SIZE IS NOT LISTED IN ANCHOR CHART, USE ANCHOR QUANTITY LISTED WITH NEXT LARGER SIZE. FOR THE APPROPRIATE DESIGN PRESSURE REQ'D.
7) GLASS THICKNESS MAY VARY FOR THE REQUIREMENTS OF ASTM E1300 GLASS CHARTS. SINGLE GLAZING OR ANNUAL INSULATING GLASS ARE QUALIFIED.
8) LETTER DESIGNATIONS ON THE ANCHOR LOCATION CHART INDICATE WHERE CONCRETE SCREW ANCHORS ARE TO BE INSTALLED WHEN USING THE EXTERIOR ELEVATION AS A REF.
9) NOT ALL ANCHORS SHOWN ON ELEVATION ARE APPLIED BY FACTORY IN ALL SIZES. ALL FACTORY APPLIED HOLES NOT DESIGNATED FOR CONCRETE SCREW ANCHOR SHOULD BE FILLED WITH #8 SCREWS OF SUFFICIENT LTH. TO PENETRATE MIN. 5/8 IN. EMBEDMENT INTO WOOD BUCK. FACTORY PUNCHED HOLES IN JAMBS ARE TO BE NO MORE THAN 5" FROM CORNERS AND 24" O.C. MAX.

KINCO, LTD.	3345 OLD KINGS ROAD JACKSONVILLE, FLORIDA 32254	
TITLE: INSTALLATION DETAIL W/ONE BY WOOD BUCK FLG. SINGLE HUNG WINDOW H40/50 & H40/50 HP		
ENGINEER: MANUEL MARTINEZ	DRN: BB	DATE: 11/05/01
DISCIPLINE: CIVIL	SCALE: N.T.S.	DWG. NO:
FL. REG. NO: 47182	REV. LETTER:	SHEET: 1 OF 1

REV.	DESCRIPTION	DATE



VERTICAL MULLION SCHEDULE

SINGLE UNIT WINDOW WIDTH INCH	SINGLE UNIT WINDOW HEIGHT INCH	TYPE OF MULLION DESIGN PRESSURE 35 PSF	TYPE OF CLIP FLA-45	NUMBER AND TYPE OF FASTENERS
19-1/8"	26"	1.0 x 3.0	OK	(4) 3/16ø" x 1-1/2" TAPCONS
	38-1/4"	1.0 x 3.0	OK	(4) 3/16ø" x 1-1/2" TAPCONS
	50-5/8"	1.0 x 3.0	OK	(4) 3/16ø" x 1-1/2" TAPCONS
	63"	1.0 x 3.0	OK	(4) 3/16ø" x 1-1/2" TAPCONS
	76-3/4"	1.0 x 3.0	OK	(4) 3/16ø" x 1-1/2" TAPCONS
26-1/2"	26"	1.0 x 3.0	OK	(4) 3/16ø" x 1-1/2" TAPCONS
	38-1/4"	1.0 x 3.0	OK	(4) 3/16ø" x 1-1/2" TAPCONS
	50-5/8"	1.0 x 3.0	OK	(4) 3/16ø" x 1-1/2" TAPCONS
	63"	1.0 x 3.0	OK	(4) 3/16ø" x 1-1/2" TAPCONS
	76-3/4"	1.0 x 3.0	OK	(4) 3/16ø" x 1-1/2" TAPCONS
37"	26"	1.0 x 3.0	OK	(4) 3/16ø" x 1-1/2" TAPCONS
	38-1/4"	1.0 x 3.0	OK	(4) 3/16ø" x 1-1/2" TAPCONS
	50-5/8"	1.0 x 3.0	OK	(4) 3/16ø" x 1-1/2" TAPCONS
	63"	1.0 x 3.0	OK	(4) 3/16ø" x 1-1/2" TAPCONS
	76-3/4"	1.0 x 4.0	OK	(4) 1/4ø" x 1-1/2" TAPCONS
53-1/8"	26"	1.0 x 3.0	OK	(4) 3/16ø" x 1-1/2" TAPCONS
	38-1/4"	1.0 x 3.0	OK	(4) 3/16ø" x 1-1/2" TAPCONS
	50-5/8"	1.0 x 3.0	OK	(2) 1/4ø" x 1-1/2" TAPCONS
	63"	1.0 x 3.0	OK	(2) 1/4ø" x 1-1/2" TAPCONS
	76-3/4"	1.0 x 4.0	OK	(2) 1/4ø" x 1-1/2" TAPCONS

NOTES:
1) ALL ALUMINUM EXTRUSIONS ARE ALLOY 6063 T6, OR 6063 T5.
2) WHEN THERE IS ONE TAPCON (1/4ø" 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.

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

SERIES: MULLION
ALUMINUM SINGLE HUNG

NORANDEX
4626 36th STREET WEST
BRADENTON, FL. 34207
PHONE: (941) 755-1691

NO.	DATE	REVISIONS DESCRIPTION

3/11/02
SCALE: N.T.S.
DWG. BY: RLP
CHK. BY: RLP

DWG. NO.: FSC-029

Jax Apex Technology, Inc.
4745 Sutton Park Court, Suite 402
Jacksonville, FL 32224

All products listed in this report are currently approved for state use under the provisions of Florida Product Approval Rule 9B-72 and/or 61G15-36. Reference product approval number FL1901. All substantiating data submitted for the original application has been reviewed for compliance with the 2004 Florida Building and *Residential Codes*.

Evaluation reports are the opinion of the engineer who prepared the report, based on the findings, and in no way constitute or imply approval by a local building authority. The engineer, in review of the data submitted, finds that, in his opinion, the product, material, system, or method of construction specifically identified in this report conforms with or is a suitable alternate to that specified in the Florida Building Code, SUBJECT TO THE LIMITATIONS IN THIS REPORT

Jeffrey P. Arneson, P.E., a licensed Florida professional engineer and employee of Jax Apex Technology, Inc. (Apex Technology) has reviewed the data submitted for compliance with the Florida Building Code. Neither Jeffrey P. Arneson, nor Apex Technology, are responsible for any errors or omissions to any documents, calculations, drawings, specifications, tests, or summaries prepared and submitted by the design professional or preparer of record who are listed in the Substantiating Data section of this report.

REPORT NO: SIM200401-R2

EXPIRES: October 1st, 2008

CATEGORY: Metal Connectors

SUBMITTED BY:
SIMPSON STRONG-TIE COMPANY, INC.
4120 DUBLIN BLVD., SUITE 400
DUBLIN, CA 94568

1. PRODUCT NAME

Strap Ties

LSTA9, LSTA12, LSTA15, LSTA18, LSTA21, LSTA24, LSTA30, LSTA36, MSTA9, MSTA12, MSTA15, MSTA18, MSTA21, MSTA24, MSTA30, MSTA36, MSTC28, MSTC40, MSTC52, MSTC66, MSTC78, MST27, MST37, MST48, MST60, MST72, LSTI49, LSTI73, MSTI26, MSTI36, MSTI48, MSTI60, MSTI72, RPS18, RPS22, RPS28, ST2115, ST292, ST2122, ST2215, ST6215, ST6224, ST6236, ST9, ST12, ST18, ST22, FHA6, FHA9, FHA12, FHA18, FHA24, FHA30.

Coiled Strap Ties

CMST12, CMST14, CMSTC16, CS16, CS18, CS20, CS22

Wood to Masonry Strap Ties

MSTAM24, MSTAM36, MSTCM40

Pre-bent Strap Ties

MSTC48B3, MSTC66B3

Heavy Straps

HRS6, HRS8, HRS12

ROOFING INFORMATION

TAMKO BUILDING PRODUCTS

Application Instructions for
• HERITAGE® VINTAGE™ AR – Phillipsburg, KS
LAMINATED ASPHALT SHINGLES

THESE ARE THE MANUFACTURER'S APPLICATION INSTRUCTIONS FOR THE ROOFING CONDITIONS DESCRIBED. TAMKO BUILDING 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.

TAMKO does not recommend re-roofing over existing roof.

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 150 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. FASTENERS

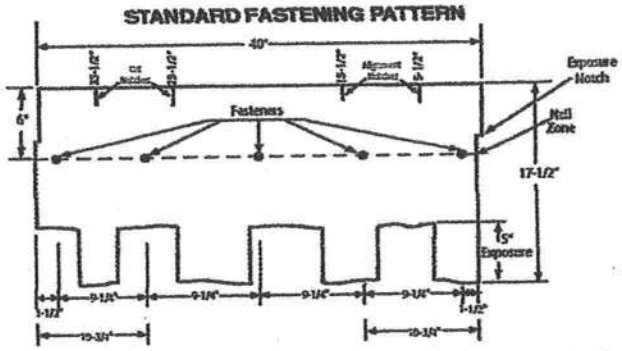
WIND CAUTION: Extreme wind velocities can damage these shingles after application when proper sealing of the shingles does not occur. This can especially be a problem if the shingles are applied in cooler months or in areas on the roof that do not receive direct sunlight. These conditions may impede 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, this will result in the termination of TAMKO's liabilities under the limited warranty. TAMKO will not be responsible for damage to shingles caused by winds in excess of the applicable miles per hour as stated in the limited warranty. See limited warranty for details.

FASTENING PATTERNS: Fasteners must be placed 6 in. from the top edge of the shingle located horizontally as follows:

1) Standard Fastening Pattern. (For use on decks with slopes 2 in. per foot to 21 in. per foot.) One fastener 1-1/2 in. back from each end, one 10-3/4 in. back from each end and one 20 in. from one end of the shingle for a total of 5 fasteners. (See standard fastening pattern illustrated below).

STANDARD FASTENING PATTERN



2) Mansard or Steep Slope Fastening Pattern. (For use on decks with slopes greater than 21 in. per foot.) Use standard nailing instructions with four additional nails placed 6 in. from the butt edge of the shingle making certain nails are covered by the next (successive) course of shingles.

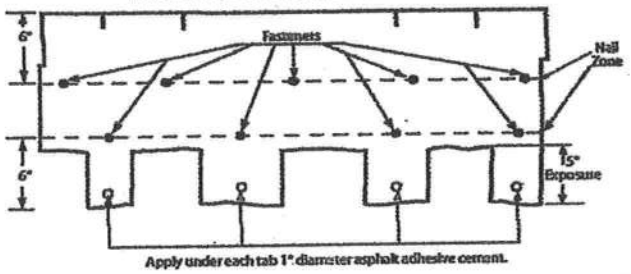
(Continued)

(CONTINUED from Pg. 1)

• HERITAGE® VINTAGE™ AR – Phillipsburg, KS
LAMINATED ASPHALT SHINGLES

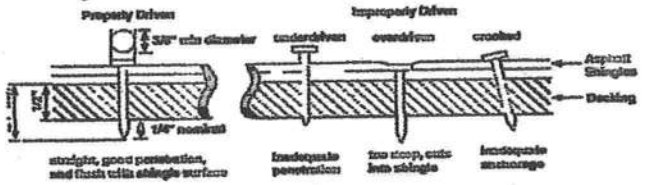
Each shingle tab must be sealed underneath with quick setting asphalt adhesive cement immediately upon installation. Spots of cement must be equivalent in size to a $.25 piece and applied to shingles with a 5 in. exposure, use 9 fasteners per shingle.

MANSARD FASTENING PATTERN



Apply under each tab 1" diameter asphalt adhesive cement.

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. 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.



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 and leaks which are 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 ends join, 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.

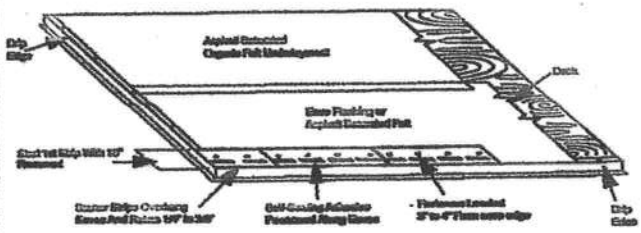
Products which are acceptable for use as underlayment are:

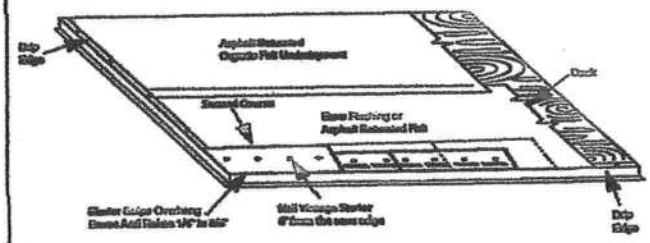
- TAMKO No. 15 Asphalt Saturated Organic Felt
- A non-perforated asphalt saturated organic felt which meets ASTM: D226, Type I or ASTM D4869, Type I
- Any TAMKO non-perforated asphalt saturated organic felt
- TAMKO TW Metal and Tile Underlayment, TW Underlayment and Moisture Guard Plus® (additional ventilation maybe required. Contact TAMKO's technical services department for more information)

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, rakes, 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: Two starter course layers must be applied prior to application of Heritage Vintage AR Shingles.
The first starter course may consist of TAMKO Shingle Starter, three tab self-sealing type shingles or a 9 inch wide strip of mineral surface roll roofing. If three tab self-sealing shingles are used, remove the exposed tab portion and install with the factory applied adhesive adjacent to the eaves. If using three tab self-sealing shingles or shingle starter, remove 18 in. from first shingle to offset the end joints of the Vintage Starter. Attach the first starter course with approved fasteners along a line parallel to and 3 in. to 4 in. above the eave edge. The starter course should overhang both the eave and rake edge 1/4 in. to 3/8 in. Over the first starter course, install Heritage Vintage Starter AR and begin at the left rake edge with a full size shingle and continue across the roof nailing the Heritage Vintage Starter AR along a line parallel to and 6 in. from the eave edge.





Note: Do not allow Vintage Starter AR joints to be visible between shingle tabs. Cutting of the starter may be required.

HERITAGE VINTAGE STARTER AR
12 1/2" x 36" 20 PIECES PER BUNDLE
60 LINEAL FT. PER BUNDLE

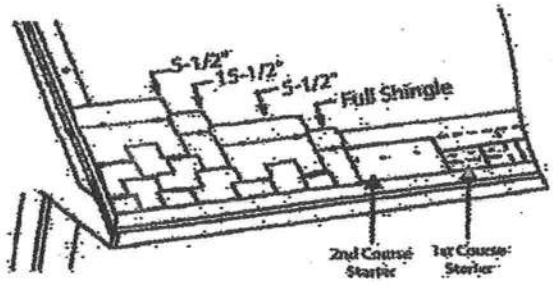
(Continued)

(CONTINUED from Pg. 2)

TAMKO BUILDING PRODUCTS

• HERITAGE® VINTAGE™ AR – Phillipsburg, KS
LAMINATED ASPHALT SHINGLES

SHINGLE APPLICATION: Start the first course at the left rake edge with a full size shingle and overhang the rake edge 1/4 in. to 3/8 in.. To begin the second course, align the right side of the shingle with the 5-1/2 in. alignment notch on the first course shingle making sure to align the exposure notch. (See shingle illustration on next page) Cut the appropriate amount from the rake edge so the overhang is 1/4" to 3/8". For the third course, align the shingle with the 15-1/2 in. alignment notch at the top of the second course shingle, again being sure to align the exposure notch. Cut the appropriate amount from the rake edge. To begin the fourth course, align the shingle with the 5-1/2 in. alignment notch from the third course shingle while aligning the exposure notch. Cut the appropriate amount from the rake edge. Continue up the rake in as many rows as necessary using the same formula as outlined above. Cut pieces may be used to complete courses at the right side. As you work across the roof, install full size shingles taking care to align the exposure notches. Shingle joints should be no closer than 4 in.



6. LOW SLOPE APPLICATION
On pitches 2 in. per foot to 4 in. per foot cover the deck with two layers of underlayment. Begin by applying the underlayment 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 laps of the entire underlayment to each other with plastic cement from eaves and rakes to a point of a 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. VALLEY APPLICATION
TAMKO recommends an open valley construction with Heritage Vintage AR shingles.

To begin, center a sheet of TAMKO Moisture Guard Plus, TW Underlayment or TW Metal & Tile Underlayment in the valley.

After the underlayment has been secured, install the recommended corrosion resistant metal (26 gauge galvanized metal or an equivalent) in the valley. Secure the valley metal to the roof deck. Overlaps should be 12" and cemented.

Following valley metal application; a 9" to 12" wide strip of TAMKO Moisture Guard Plus, TW Underlayment or TW Metal & Tile Underlayment should be applied along the edges of the metal valley flashing (max. 6" onto metal valley flashing) and on top of the valley underlayment. The valley will be completed with shingle application.

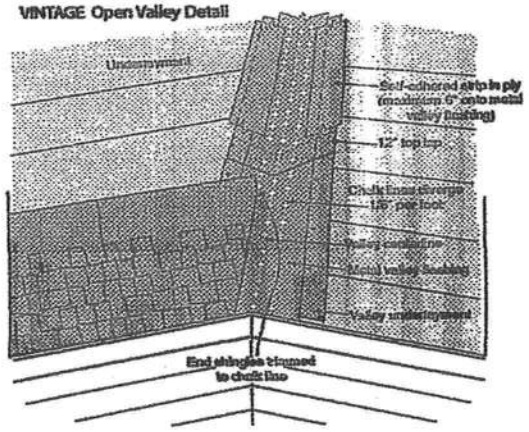
SHINGLE APPLICATION INSTRUCTIONS (OPEN VALLEY)

- Snap two chalk lines, one on each side of the valley centerline over the full length of the valley flashing. Locate the upper ends of the chalk lines 3" to either side of the valley centerline.
- The lower end should diverge from each other by 1/8" per foot. Thus, for an 8' long valley, the chalk lines should be 7" either side of the centerline at the eaves and for a 16' valley 8".

As shingles are applied toward the valley, trim the last shingle in each course to fit on the chalk line. Never use a shingle trimmed to less than 12" in length to finish a course running into a valley. If necessary, trim the adjacent shingle in the course to allow a longer portion to be used.

- Clip 1" from the upper corner of each shingle on a 45° angle to direct water into the valley and prevent it from penetrating between the courses.
- Form a tight seal by cementing the shingle to the valley lining with a 3" width of asphalt plastic cement (conforming to ASTM D 4586).

VINTAGE Open Valley Detail



- **CAUTION:**
Adhesive must be applied in smooth, thin, even layers.

Excessive use of adhesive will cause blistering to this product.

TAMKO assumes no responsibility for blistering.

(Continued)

(CONTINUED from Pg. 3)

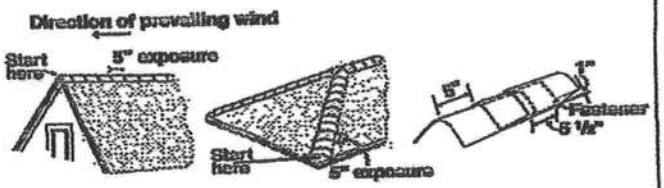
TAMKO BUILDING PRODUCTS

• HERITAGE® VINTAGE™ AR – Phillipsburg, KS
LAMINATED ASPHALT SHINGLES

9. 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 on each side, 5-1/2 in. back from the exposed end and 1 in. up from the edge. TAMKO recommends the use of TAMKO Heritage Vintage Hip & Ridge shingle products.

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

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



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INTERIOR WALL INSULATION INFORMATION

R-Matte® Plus-3

Sheathing Insulation

07212/RMRP

MANUFACTURER

Rmax, Inc.
13824 Welch Road; Dallas, Texas 75244-5291
Phone - 972-387-4500 800-627-0890 (Central)
800-845-4455 (Eastern) 800-762-9462 (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	40 - 110
Water Vapor Transmission	ASTM E96	< 1 perm
Water Absorption	ASTM C209	< 1% Vol.
Dimensional Stability	ASTM D2126 7 days, 158°F, 88% 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 2603; Standard Building Code (SBCCI), Section 2603; Uniform Building Code (ICBO), 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.

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 sidings 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 facer 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

Rmatte® 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 for 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	76	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

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

Embedded Truss Anchors

META12, META14, META16, META18, META20, META22, META24, META40, HETA12, HETA16, HETA20, HETA24, HETA40, HETAL12, HETAL16, HETAL20, HHETA12, HHETA16, HHETA20, HHETA24, HHETA40

2. SCOPE OF EVALUATION

Load Evaluation as a Structural Component using the requirements of the Florida Building and Residential Codes

3.11 MSTCB3 Pre-bent Strap Tie. The MSTC48B3 and MSTC66B3 Pre-bent Strap Ties are designed to transfer a heavy tension load from framing on an upper story wall to a beam or header on the story below. For example, this could be from shearwall overturning or a large girder truss uplift load. They are installed with 10d common nails, with a minimum of four nails in the bottom of the beam or header. Allowable loads are shown in Table 8. The straps are manufactured from 14 ga. steel meeting ASTM A-653 SS Grade 50, Class 1. They are coated with a G90 galvanized finish.

3.12 META, HETA, HETAL, HHETA Embedded Truss Anchors. Embedded Truss Anchors are used to anchor a wood member (usually a truss) to a masonry or concrete wall. Embedded truss anchors fasten to a single-ply wood truss with 10d×1½ nails or to a multiple-ply truss with 16d common nails. They are embedded in the masonry or concrete wall to a depth indicated on the side of the anchor (4" for META, HETA, and HETAL, and $5^{1}/_{16}$" for HETAL). The strap portion of the anchor is 1⅛" wide. Allowable loads are shown in Table 9 for single installations and Table 10 for double installations. The anchors are manufactured from steel meeting ASTM A-653 SS Grade 50, Class 1, with the exception of the truss seat of the HETAL which is manufactured from steel meeting ASTM A-653 SS Grade 33. Steel thickness is as specified in Table 9. The Embedded Truss Anchors are coated with a G90 galvanized finish.

4. MATERIALS

4.1 Steel. Steel specifications for each product listed in this evaluation report shall be as indicated in the previous section. In addition to the standard G90 finish, some products are available with a G185 finish, indicated as Z-Max. Allowable loads published in this report will apply to G185 products as well as G90 products.

4.2 Wood. Wood members to which these connectors are fastened shall be solid sawn lumber, glued-laminated lumber, or structural composite lumber having dimensions consistent with the connector dimensions shown in Tables1 through 4. Unless otherwise noted, lumber shall be Southern Pine or Douglas Fir-Larch having a minimum specific gravity of 0.50. Where indicated by SPF, lumber shall be Spruce-Pine-Fir having a minimum specific gravity of 0.42.

4.3 Nails and Bolts. Unless noted otherwise, nails shall be common nails. Nails shall comply with ASTM F 1667 and shall have the minimum bending yield strengths F_{yb}:

Nail Pennyweight	Nail Shank Diameter (inch)	F_{yb} (psi)
10d Common	0.148	90,000
16d Sinker	0.148	90,000
16d Common	0.162	90,000

Fasteners for galvanized connectors in pressure-preservative treated wood shall be hot-dipped zinc coated galvanized steel, except where otherwise permitted by the treatment manufacturer. Fasteners for stainless steel connectors shall be stainless steel.

4.4 Concrete/Masonry. Concrete and Masonry design specifications shall be the stricter of the specifications by the engineer of record, the Florida Building Code minimum standards, or the following:

Material	Specification	Minimum Compressive Strength
Concrete, f'c	-	2500 psi
Masonry, f'm	ASTM E447	1500 psi
Masonry Unit	ASTM C90	1900 psi
Mortar	ASTM C270 Type S	1800 psi (or by proportions)
Grout	ASTM C476	2000 psi (or by proportions)

5. INSTALLATION

Installation shall be in accordance with this report and the most recent edition of the Simpson Strong-Tie *Wood Construction Connectors* catalog. Information in this report supersedes any conflicting information between information provided in this report and the catalogue, the information in this report supersedes the catalogue.

6. SUBSTANTIATING DATA

Test data submitted by Testing Engineers Inc. and Product Testing, Inc., and signed and sealed calculations performed by Jeremy Gilstrap, P.E. in accordance with the 2004 Florida Building and Residential Codes.

7. FINDINGS

Upon review of the data submitted by Simpson Strong-Tie, it is my opinion that the connectors as described in this report conform with or are a suitable alternative to the standards and sections in the 2004 Florida Building and Residential Code editions listed in section 10 of this report. Connectors shall be installed in accordance with this report. Maximum allowable loads shall not exceed the allowable loads listed in this report.

8. LIMITATIONS

1. Maximum allowable loads shall not exceed the allowable loads listed in this report. Allowable loads listed in this report are based on allowable stress design. The loads in this report are not applicable to Load and Resistance Factor Design.
2. Capacity of wood members is not covered by this report. Capacity of wood members must be checked by the building designer.
3. Allowable loads for more than one direction for a single connection cannot be added together. A design load which can be divided into components in the directions given must be evaluated as follows:
   (Design Uplift/Allowable Uplift) + (Design Lateral Parallel to Plate/Allowable Lateral Parallel to Plate) + (Design Lateral Perp. to Plate/Allowable Lateral Perp. to Plate) < 1.0

9. ALLOWABLE LOADS

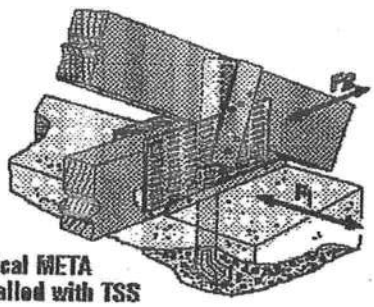
The tables that follow provide the allowable loads for the aforementioned products.

TABLE 9 ALLOWABLE LOADS

Model No.	Ga	H	Fasteners and Uplift								Lateral Loads	
			160 Load Duration Increase				133 Load Duration Increase				133/160	
			1 Ply So. Pine Truss		2 or 3 Ply So. Pine Truss		1 Ply So. Pine Truss		2 or 3 Ply So. Pine Truss		F_1 (parallel to wall)	F_2 (perpen. to wall)
			Fasteners	Load	Fasteners	Load	Fasteners	Load	Fasteners	Load		
META12	18	8	7-10d×1½	1450	6-16d	1450	7-10d×1½	1240	7-16d	1450	280	725
META14		10	7-10d×1½	1450	6-16d	1450	9-10d×1½	1450	7-16d	1450	280	725
META16		12	7-10d×1½	1450	6-16d	1450	9-10d×1½	1450	7-16d	1450	280	725
META18		14	7-10d×1½	1450	6-16d	1450	9-10d×1½	1450	7-16d	1450	280	725
META20		16	6-10d×1½	1270	5-16d	1245	8-10d×1½	1415	6-16d	1250	280	725
			7-10d×1½	1450	8-16d	1450	9-10d×1½	1450	7-16d	1450	280	725
META22		18	7-10d×1½	1450	6-16d	1450	9-10d×1½	1450	7-16d	1450	280	725
META24		20	7-10d×1½	1450	6-16d	1450	9-10d×1½	1450	7-16d	1450	280	725
META40		36	7-10d×1½	1450	6-16d	1450	9-10d×1½	1450	7-16d	1450	280	725
HETA12	16	8	7-10d×1½	1520	7-16d	1780	7-10d×1½	1265	7-16d	1475	280	725
HETA16		12	9-10d×1½	1810	8-16d	1810	10-10d×1½	1810	9-16d	1810	280	725
HETA20		16	8-10d×1½	1735	7-16d	1780	9-10d×1½	1630	8-16d	1690	280	725
			9-10d×1½	1810	8-16d	1810	10-10d×1½	1810	9-16d	1810	280	725
HETA24		20	9-10d×1½	1810	8-16d	1810	10-10d×1½	1810	9-16d	1810	280	725
HETA40		36	9-10d×1½	1810	8-16d	1810	10-10d×1½	1810	9-16d	1810	280	725
HHETA12	14	8	7-10d×1½	1565	7-16d	1820	7-10d×1½	1305	7-16d	1520	435	815
HHETA16		12	10-10d×1½	2235	9-16d	2235	12-10d×1½	2235	11-16d	2235	435	815
HHETA20		16	9-10d×1½	2010	8-16d	2080	11-10d×1½	2050	10-16d	2170	435	815
			10-10d×1½	2235	9-16d	2235	12-10d×1½	2235	11-16d	2235	435	815
HHETA24		20	10-10d×1½	2235	9-16d	2235	12-10d×1½	2235	11-16d	2235	435	815
HHETA40		36	10-10d×1½	2235	9-16d	2235	12-10d×1½	2235	11-16d	2235	435	815
HETAL12	16	7	10-10d×1½	1085	10-16d	1270	10-10d×1½	905	10-16d	1055	415	1100
HETAL16		11	14-10d×1½	1810	13-16d	1810	15-10d×1½	1810	14-16d	1810	415	1100
HETAL20		15	14-10d×1½	1810	13-16d	1810	15-10d×1½	1810	14-16d	1810	415	1100

Notes:

1. Loads do not include a stress increase on the strength of the steel. No further increases are permitted. Reduce loads where other loads govern.
2. Five nails must be installed into the truss seat of the HETAL
3. Parallel-to-plate load towards face of HETAL is 1975 lbs.
4. Except for HETAL straps, lateral loads are based on a minimum installation of 12 nails and the strap wrapped over the heel
5. Minimum f'c is 2,000psi
6. It is acceptable to use a reduced number of fasteners in a product provided that there is a reduction in load capacity. The load per nail can be approximated by dividing the allowable load by the number of fasteners. This concept applies to all member sizes. There should be a minimum of 4 nails installed in the strap.



Typical META Installed with TSS

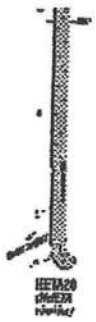
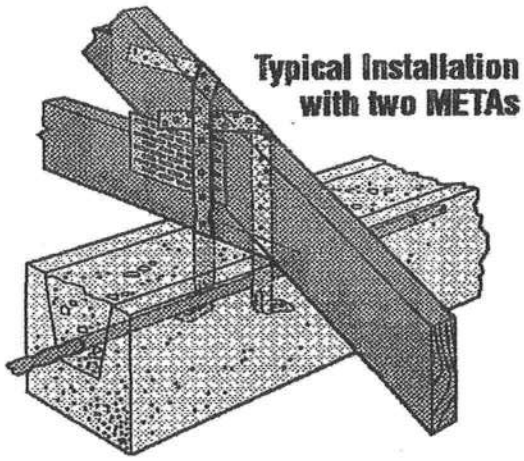


TABLE 10 ALLOWABLE LOADS FOR DOUBLE EMBEDDED TRUSS ANCHORS										
Double Embedded Anchor Installation Into Grouted CMU Bond Beam										
Model No.	Uplift - 160 Load Duration Increase				Uplift - 133 Load Duration Increase				Lateral Loads 133/160	
	1 Ply Southern Pine Truss		2 or 3 Ply Southern Pine Truss		1 Ply Southern Pine Truss		2 or 3 Ply Southern Pine Truss		F_1 (parallel to wall)	F_2 (perpen. to wall)
	Fasteners	Load	Fasteners	Load	Fasteners	Load	Fasteners	Load		
META	10-10d×1½	1985	14-16d	1900	12-10d×1½	1985	14-16d	1900	1210	1160
HETA	10-10d×1½	2035	12-16d	2500	12-10d×1½	2035	14-16d	2500	1225	1520
HHETA	10-10d×1½	2035	12-16d	2500	12-10d×1½	2035	14-16d	2500	1225	1520

Notes:

1. Minimum f'c is 2,500psi.
2. Install with spoons facing outward and spaced no more than 1/8" wider than the truss width.
3. Install half of the required number of fasteners in each strap.
4. For uplift loads for poured concrete tie beam applications with 2 or 3 ply trusses, increase the META load by 35%, the HETA load by 8%, and the HHETA load by 34%. Listed lateral loads apply to concrete applications.
5. Lateral loads apply only to anchors spaced a minimum of 3" apart.



10. CODE REFERENCES:

Florida Building Code 2004 Edition

Section 104.11	Alternate Materials and Methods
Chapter 1714.2	Load Test Procedure Specified
Chapter 21	Masonry
Chapter 22	Steel
Chapter 23	Wood

Florida Residential Code 2004 Edition

R101.2.1	Scope
R4407	HVHZ Masonry
R4408	HVHZ Steel
R4409	HVHZ Wood

11. IDENTIFICATION:

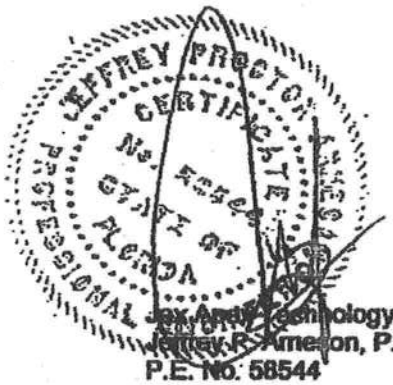
Each connector covered by this report shall be stamped with the manufacturer's name and/or trademark and the product name.

12. PERIOD OF ISSUANCE:

The content of this report expires on October 1st, 2008. For information on this report, contact Apex Technology. (904) 821-5200

13. CERTIFICATION OF INDEPENDENCE:

Jeffrey P. Ameson, the Florida engineer who prepared this report, and Apex Technology have no financial interest in the manufacturing, sales, or distribution of the products included in this report. Jeffrey P. Ameson and Apex Technology comply with all criteria as stated in Florida Administrative Code Chapter 9B-72.110.



Apex Technology, Inc.
Jeffrey P. Ameson, P.E.
P.E. No. 58544
August 5, 2005

META/HETA/HHETA/HETAL/TSS

EMBEDDED TRUSS ANCHORS AND TRUSS SEAT SNAP-IN

The embedded truss anchor series provides an engineered method to properly attach roof trusses to concrete and masonry walls. The products are designed with staggered nail patterns for greater uplift resistance. New to this year's catalog is information regarding the use of two anchors on single- and multi-ply trusses.

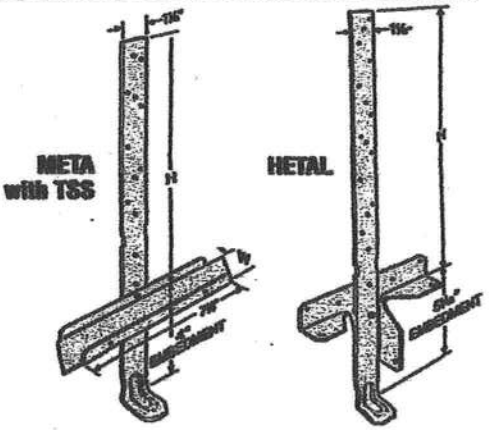
The TSS, a companion product of the META, provides a moisture barrier between the concrete and truss. The preassembled unit is riveted with no height adjustment.

MATERIAL: HHETA–14 gauge; HETA–16 ga; HETAL strap 16 gauge, truss seat 18 gauge; META–18 gauge; TSS–22 gauge.

FINISH: Galvanized. Some products available in Z-MAX; see Corrosion Resistance, page 5.

INSTALLATION:
- Use all specified fasteners. See General Notes.
- The META, HETA and HHETA are embedded 4" into a concrete beam or grouted block wall; HETAL is embedded 5⅛".
- Do not drive nails through the truss plate on the opposite side of the truss, which could force the plate off the truss.
- The TSS moisture barrier may be preattached to the truss using 6d commons.

CODES: See page 10 for Code Listing Key Chart.



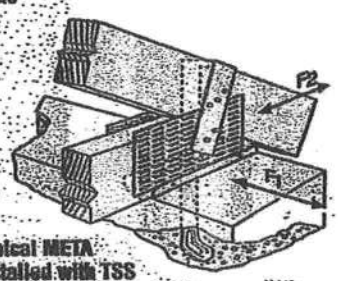
Model No.	W
TSS2	1¾
TSS2-2	3¼
TSS4	5¾

Model No.	H	Fasteners and Uplift: 133 Load Duration Increase: 1 Ply So. Pine Truss: Fasteners	1 Ply So. Pine Truss: Load	2 or 3 Ply So. Pine Truss: Fasteners	2 or 3 Ply So. Pine Truss: Load	160 Load Duration Increase: 1 Ply So. Pine Truss: Fasteners	1 Ply So. Pine Truss: Load	2 or 3 Ply So. Pine Truss: Fasteners	2 or 3 Ply So. Pine Truss: Load	Lateral Loads (133 & 160): DF/SP: F_1	DF/SP: F_2	SPF/HF: F_1	SPF/HF: F_2	Code Ref.
META12	8	7-10dx1½	1240	7-16d	1450	7-10dx1½	1450	6-16d	1450	335	635	270	545	
META14	10	9-10dx1½	1450	7-16d	1450	7-10dx1½	1450	6-16d	1450	335	635	270	545	
META16	12	9-10dx1½	1450	7-16d	1450	7-10dx1½	1450	6-16d	1450	335	635	270	545	
META18	14	9-10dx1½	1450	7-16d	1450	7-10dx1½	1450	6-16d	1450	335	635	270	545	
META20	16	8-10dx1½	1415	6-16d	1250	6-10dx1½	1270	5-16d	1245	335	635	270	545	160
		9-10dx1½	1450	7-16d	1450	7-10dx1½	1450	6-16d	1450	335	635	270	545	
META22	18	9-10dx1½	1450	7-16d	1450	7-10dx1½	1450	6-16d	1450	335	635	270	545	
META24	20	9-10dx1½	1450	7-16d	1450	7-10dx1½	1450	6-16d	1450	335	635	270	545	
META40	36	9-10dx1½	1450	7-16d	1450	7-10dx1½	1450	6-16d	1450	—	—	—	—	
HETA12	8	7-10dx1½	1265	7-16d	1475	7-10dx1½	1520	7-16d	1780	335	730	270	625	
HETA16	12	10-10dx1½	1810	9-16d	1810	9-10dx1½	1810	8-16d	1810	335	730	270	625	8, 62
HETA20	16	9-10dx1½	1630	8-16d	1690	8-10dx1½	1735	7-16d	1780	335	730	270	625	
		10-10dx1½	1810	9-16d	1810	8-10dx1½	1810	8-16d	1810	335	730	270	625	
HETA24	20	10-10dx1½	1810	9-16d	1810	8-10dx1½	1810	8-16d	1810	335	730	270	625	170
HETA40	36	10-10dx1½	1810	9-16d	1810	8-10dx1½	1810	8-16d	1810	—	—	—	—	
HHETA12	8	7-10dx1½	1305	7-16d	1520	7-10dx1½	1565	7-16d	1820	335	730	270	625	
HHETA16	12	12-10dx1½	2235	11-16d	2235	10-10dx1½	2235	9-16d	2235	335	730	270	625	
HHETA20	16	11-10dx1½	2050	10-16d	2170	9-10dx1½	2010	8-16d	2080	335	730	270	625	
		12-10dx1½	2235	11-16d	2235	10-10dx1½	2235	9-16d	2235	335	730	270	625	160
HHETA24	20	12-10dx1½	2235	11-16d	2235	10-10dx1½	2235	9-16d	2235	335	730	270	625	
HHETA40	36	12-10dx1½	2235	11-16d	2235	10-10dx1½	2235	9-16d	2235	—	—	—	—	
HETAL12	7	10-10dx1½	905	10-16d	1055	10-10dx1½	1085	10-16d	1270	415	1100	355	945	
HETAL16	11	15-10dx1½	1810	14-16d	1810	14-10dx1½	1810	13-16d	1810	415	1100	355	945	8, 62
HETAL20	15	15-10dx1½	1810	14-16d	1810	14-10dx1½	1810	13-16d	1810	415	1100	355	945	

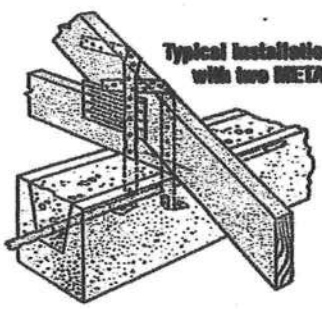
1. Loads include a 33% or 60% load duration increase on the fasteners for seismic or wind loading, but do not include a 33% stress increase on the steel capacity. Refer to page 12 for further explanation.
2. Five nails must be installed into the truss seat of the HETAL.
3. Parallel-to-plate load towards face of HETAL is 1975 lbs.
4. Lateral loads are based on a minimum installation of 12 nails and the strap wrapped over the heel.
5. Minimum f'c is 2,000psi.
6. It is acceptable to use a reduced number of fasteners in a product provided that there is a reduction in load capacity. The load per nail can be approximated by dividing the allowable load by the number of fasteners. This concept applies to all member sizes. There should be a minimum of 4 nails installed in the strap.

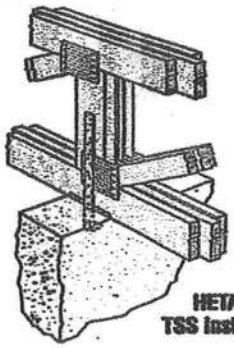
Model No.	Double Embedded Anchor Installation Into Grouted CMU Bond Beam: 133 Load Duration Increase: 1 Ply So. Pine Truss: Fasteners	1 Ply So. Pine Truss: Load	2 or 3 Ply So. Pine Truss: Fasteners	2 or 3 Ply So. Pine Truss: Load	160 Load Duration Increase: 1 Ply So. Pine Truss: Fasteners	1 Ply So. Pine Truss: Load	2 or 3 Ply So. Pine Truss: Fasteners	2 or 3 Ply So. Pine Truss: Load	Lateral Loads (133 & 160): DF/SP: F_1	DF/SP: F_2	SPF/HF: F_1	SPF/HF: F_2	Code Ref.
META	12-10dx1½	1985	14-16d	1900	10-10dx1½	1985	14-16d	1900	1210	1160	1040	1000	160
HETA	12-10dx1½	2035	14-16d	2500	10-10dx1½	2035	12-16d	2500	1225	1520	1055	1305	

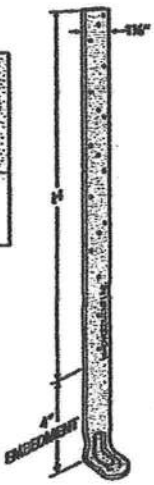
1. For concrete tie beam applications for 2 or 3 ply trusses, increase the META load 35% and the HETA load 5%.
2. Divide total number of fasteners equally between both straps.
3. Minimum f'c is 2,500 psi.
4. See instruction to the Designer page 9 for loads in multiple directions.
5. Lateral loads are based on a minimum installation of 12 nails and the strap wrapped over the heel.



Typical META installed with TSS


Typical installation with two META's


Typical HETA20 with TSS installation



HETA20 (HHETA similar)

/MGT/HGT HEAVY GIRDER TIEDOWNS

SIMPSON Strong-Tie

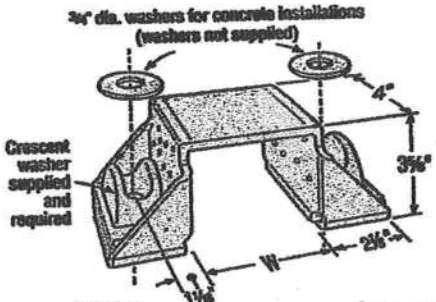
GT provide lighter load alternatives for
he HGT-4 is sized for 4-2x widths. This series
uplift resistance for wood frame and concrete block
n. The HGT can be installed on trusses and beams
chord slopes from 3:12 to 8:12. Available in 2-ply,
and 4-ply widths.

MATERIAL: LGT—14 ga; MGT—12 ga; HGT—7 ga.

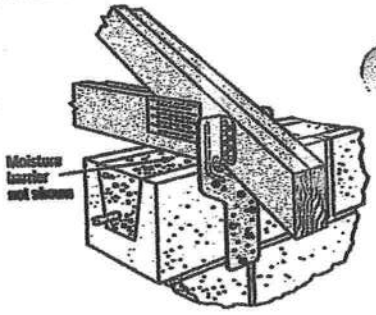
FINISH: HGT—Simpson gray paint;
LGT, MGT—galvanized

INSTALLATION:
- When the HGT-3 is used with a 2-ply girder or beam, shimming is required. Fasten to act as one unit.
- Attach to grouted concrete block with a minimum one #5 rebar horizontal in the top lintel block.
- Minimum f'_c = 2500 psi maximum aggregate ⅜".

CODES: See page 10 for Code Listing Key Chart.

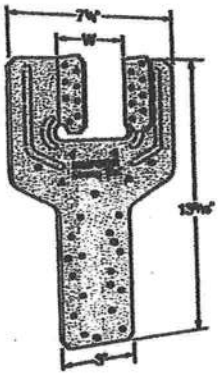


HGT-2
(HGT-3 and HGT-4 similar)

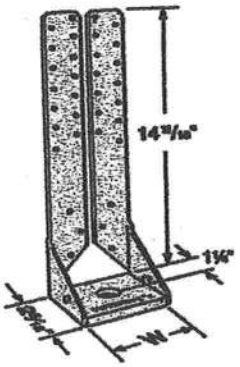


Typical LGT2 Installation Into Masonry

Model No.	W	O.C. Dim Between Anchors	Fasteners: Anchor Dia. Concrete	Fasteners: Girder	Ave Ult	DF/SP Allowable Loads (133/160)	SPF Allowable Loads (133/160)	Code Ref.
MGT	3¾	—	1-⅝	22-10d	19005	3985	3330	160
HGT-2	3⅛	6¼	2-¾	16-10d	35400	10980	6485	6,38, 62
HGT-3	4⅛	7⅜	2-¾	16-10d	35580	10530	9035	
HGT-4	6⅛	9	2-¾	16-10d	28805	9250	9250	



LGT2

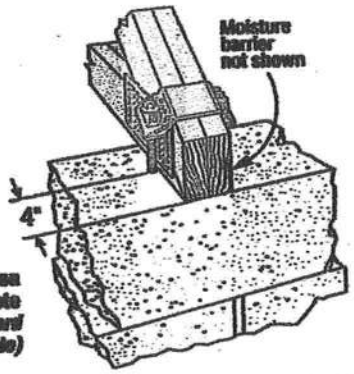


MGT

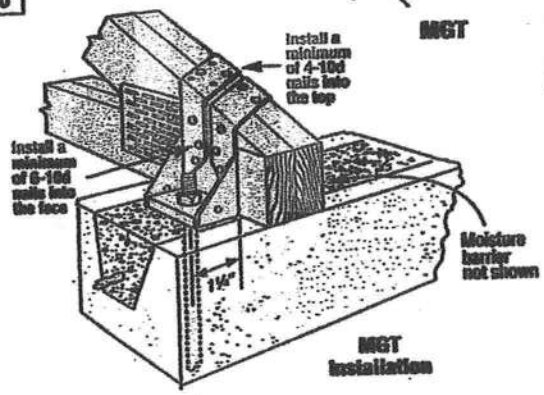
Masonry Application

Model No.	W	O.C. Dim Between Anchors	Fasteners: CMU	Fasteners: Concrete	Fasteners: Girder	Ave Ult	DF/SP Allowable Loads (133/160)	SPF Allowable Loads (133/160)	Code Ref.
LGT2	3⅛	—	7-¼x2¼ Titen	7-¼x1¾ Titen	16-16d Sinker	6533	2150	1850	160

1. Attached members must be designed to resist applied loads.
2. To achieve the loads listed, anchorage into a concrete block bond beam shall be designed by the building designer.
3. To achieve the loads listed for the HGT, anchorage into a 6" wide concrete tie-beam can be made using Simpson SET epoxy with a ¾" diameter anchor and a minimum embedment depth of 12".
4. Allowable loads have been increased 33% and 60% for earthquake or wind loading; no further increase allowed; reduce where other loads govern.



Typical HGT-2 Installation Into Concrete
(¾" diameter standard washers required for concrete)



MGT Installation

MTSM/HTSM TWIST STRAPS

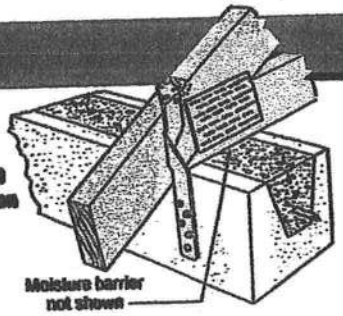
The MTSM and HTSM offer high strength truss to masonry connections.

MATERIAL: MTSM—16 gauge; HTSM—14 gauge

FINISH: Galvanized. Some products available in stainless steel and Z-MAX; see Corrosion-Resistance, page 5.

INSTALLATION:
- Use all specified fasteners. See General Notes.
- Attach to grouted concrete block with a minimum one #5 rebar horizontal.
- Minimum f'_c = 2500 psi maximum aggregate ⅜".

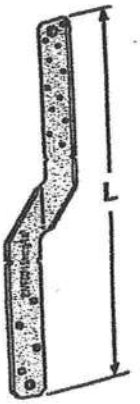
CODES: See page 10 for Code Listing Key Chart.



Typical MTSM20 Installation

Model No.	L	Fasteners[2]: Truss	Fasteners[2]: CMU	Fasteners[2]: Concrete	DF/SP Allowable Uplift Loads[1]: 10d (133/160)	DF/SP: 10dx1½" (133)	DF/SP: 10dx1½" (160)	SPF Allowable Uplift Loads[1]: 10d (133/160)	SPF: 10dx1½" (133)	SPF: 10dx1½" (160)	Code Ref.
MTSM16	16	7-10d	4-¼x2¼ Titen	4-¼x1¾ Titen	860	840	860	750	730	750	160
MTSM20	20	7-10d	4-¼x2¼ Titen	4-¼x1¾ Titen	860	840	860	750	730	750	
HTSM16	16	8-10d	4-¼x2¼ Titen	4-¼x1¾ Titen	1175	1045	1175	1020	905	1020	
HTSM20	20	10-10d	4-¼x2¼ Titen	4-¼x1¾ Titen	1175	1045	1175	1020	1020	1020	

MTSM20

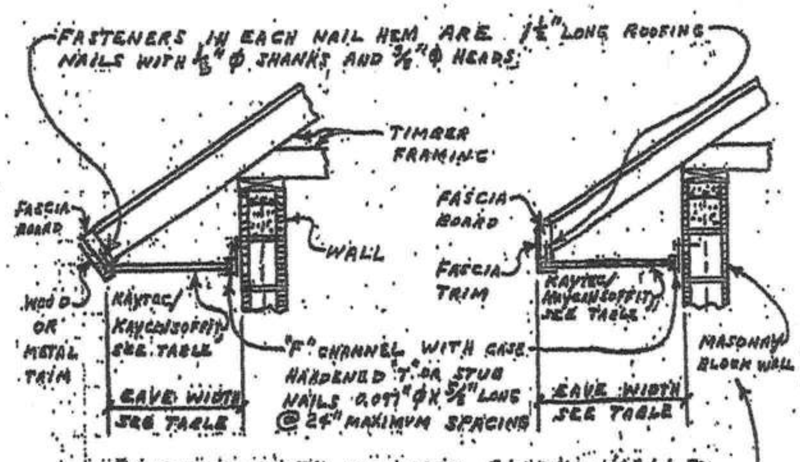


MTSM16

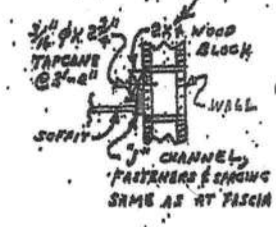
1. Loads have been increased 33% and 60% for earthquake or wind loading; no further increase allowed; reduced where other loads govern.
2. Twist straps do not have to be wrapped over the truss to achieve the allowable load.
3. Minimum edge distance for Titens is 1½".

ALUM FASICA & SOFFIT

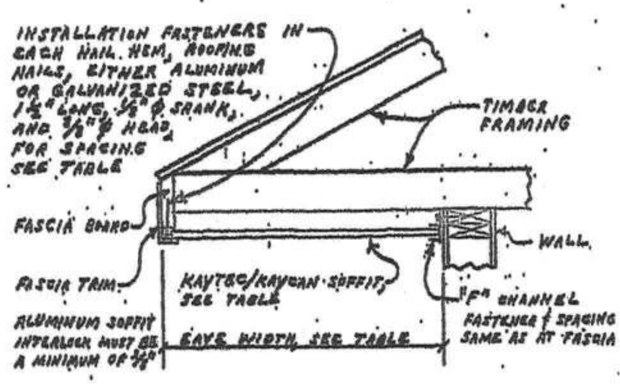
ALLOWABLE DESIGN WIND PRESSURES IN PSF					
KAYTEC/KAYCAN SOFFIT TYPE	EAVE WIDTH IN INCHES				
	12"	15"	18"	21"	24"
SP-600 (ALUMINUM) 16" VENTED CATALOG #0605	+/-72.6	+/-58.1	+/-48.4	+/-41.5	+/-36.3
SP-600 (ALUMINUM) 16" SOLID CATALOG #0606	+/-72.2	+/-57.7	+/-48.1	+/-41.2	+/-36.1
VENTED PANEL 12" (ALUMINUM) CATALOG: #9508	+/-96.6	+/-77.2	+/-64.4	+/-55.2	+/-48.3
SOLID PANEL 12" (ALUMINUM) CATALOG #9510	+/-96.0	+/-76.8	+/-64.0	+/-54.9	+/-48.0
FULL O-VENT T4 (12") VINYL PRODUCT CODE: 0622	+/-47.5	+/-36.5	+/-29.7	+/-25.2	+/-21.6
ECO SOLID, CENTER VENT. & FULL VENT T4 (12") VINYL PROD. CODES 0627, 0628, 0629	+/-45.3	+/-34.9	+/-28.4	+/-23.9	+/-20.6
SOLID, CENTER VENT. & FULL VENT T4 (12") VINYL PROD. CODES 0627, 0628, 0629	+/-45.3	+/-34.9	+/-28.4	+/-23.9	+/-20.6
SOLID & VENTED D5 (10") VINYL PROD. CODES 0616, 0615	+/-54.4	+/-41.8	+/-34.0	+/-28.6	+/-24.7
BEADED, SOLID AND VENTED T2,C7 (8") VINYL PROD. CODES 0634, 0635	+/-68.0	+/-52.3	+/-42.5	+/-35.8	+/-30.9



SOFFITS WITH MASONRY BLOCK WALLS
NOT TO SCALE



ALTERNATE WALL DETAIL
NOT TO SCALE



SOFFIT WITH WOOD FRAMED WALL
NOT TO SCALE

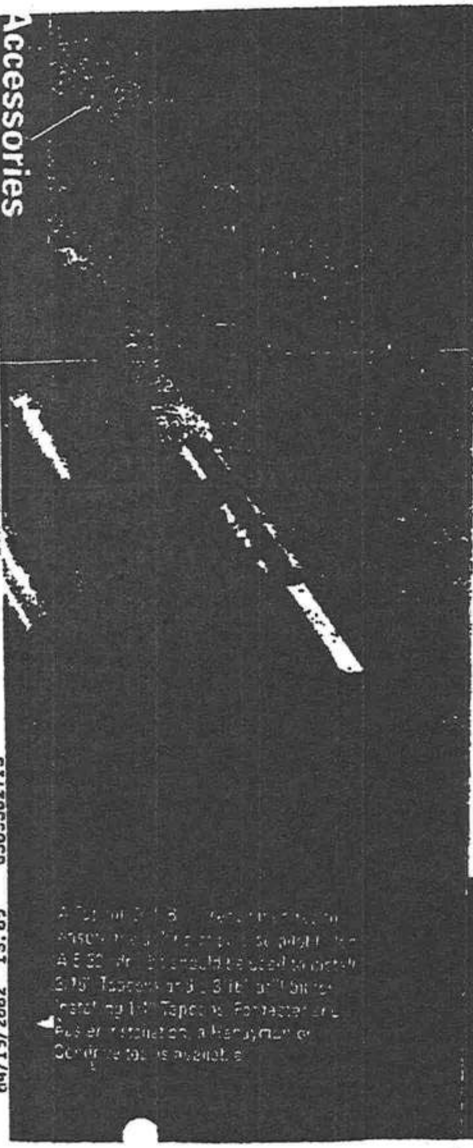
GENERAL NOTES

1. DESIGN PRESSURES LISTED IN TABLE ARE BASED ON A RATIONAL ANALYSES FOR ALUMINUM SOFFITS DONE IN HR ENGINEERING PROJECT 0402000?, AND A COMPARATIVE ANALYSES FOR VINYL SOFFITS DONE IN 0405000? THAT ARE IN CONFORMANCE WITH FLORIDA BUILDING CODE 2004 SECTION 1609 "WIND LOADS".

2. FLORIDA BUILDING CODE 2004 DOES NOT DIRECTLY MANDATE WIND LOAD DESIGN PRESSURES ON SOFFITS.

HR Engineering, Inc.	DATE: 14 JULY 2005	PROJECT NO. 05070005 SHEET 1 OF 1
CLIENT: KAYTEC INC.	BY: A. REEVES	PROJECT NAME: KAYTEC/KAYCAN SOFFITS

Allen N. Reeves
14 July 2005



Technical

Fax 206 454-3622

PULLOUT IN CONCRETE (3146 PSI, cured 40 days)

Anchor Diameter	Depth of Embedment in Solid Material (inches) 1"	1-1/4	1-1/2	1-3/4
3/16"	341 lbs.	581 lbs.	883 lbs.	1059 lbs.
1/4"	716 lbs.	1138 lbs.	1537 lbs.	1880 lbs.

Test Number CH3932/Pittsburgh Testing Laboratories

PULLOUT IN HOLLOW BLOCK

Anchor Diameter	Depth of Embedment in Solid Material (inches) 1	1-1/4	1-1/2	1-3/4
3/16"	209 lbs.	357 lbs.	468 lbs.	547 lbs.
1/4"	406 lbs.	615 lbs.	851 lbs.	984 lbs.

Test Number CH3748/Pittsburgh Testing Laboratories

SHEAR STRENGTH

Anchor Diameter	Anchor Embedment	Shear Strength 3145 PSI [illegible] Concrete	Shear Strength Lightweight Hollow Block
3/16"	1-1/4"	852 lbs.	731 lbs.
1/4"	1-1/4"	1604 lbs.	1058 lbs.

Test Number CH3932/Pittsburgh Testing Laboratories

Fixture Thickness	Recommended Anchor Length	Drill Bit Length
0" to 1/4"	1-1/4"	3-1/2"
1/4" to 3/4"	1-3/4"	3-1/2"
3/4" to 1-1/4"	2-1/4"	4-1/2"
1-1/4" to 1-3/4"	2-3/4"	4-1/2"
1-3/4" to 2-1/4"	3-1/4"	5-1/2"
2-1/4" to 2-3/4"	3-3/4"	5-1/2"
2-1/2" to 3"	4"	5-1/2"

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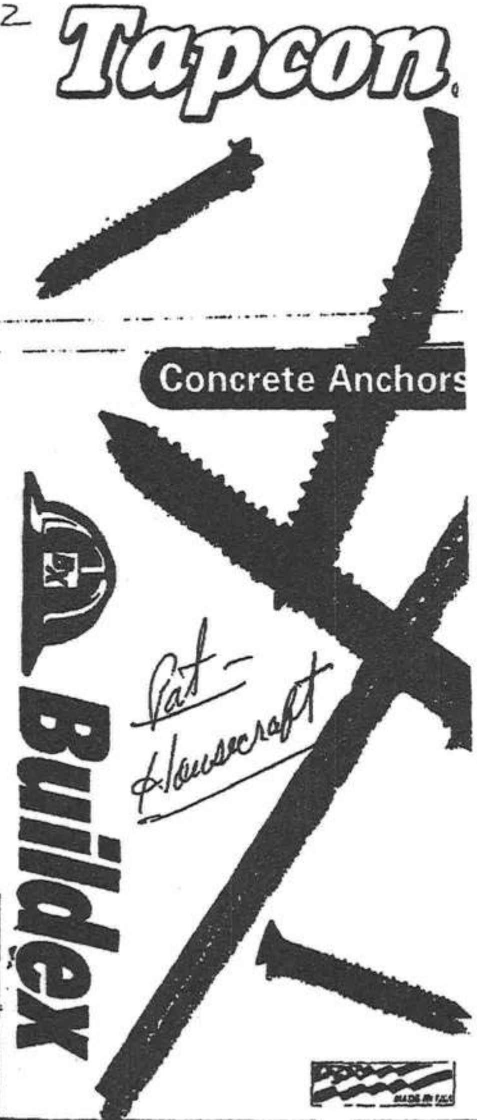
www.itwbrands.com

or call us toll free at 800 727.5833



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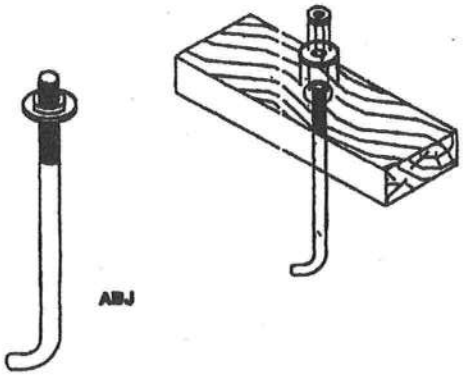
ANCHOR BOLT WITH NUT & 1" WASHER

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.



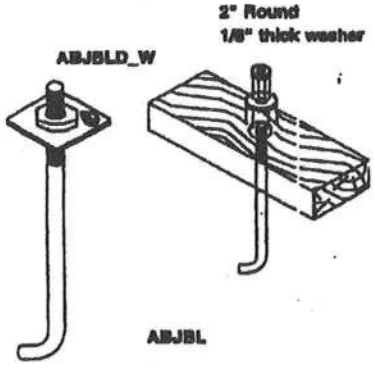
SIZE	PRODUCT CODE	DESCRIPTION	PER CTN
1/2 X8	ABJBL8C	Black	50
1/2 X8	ABJGA8C	Galv.	50
1/2 X10	ABJBL10C	Black	50
1/2 X12	ABJBL12C	Black	50
1/2 X14	ABJBL14C	Black	50
1/2 X16	ABJBL16C	Black	50
1/2 X18	ABJBL18C	Black	50
1/2 X8	ABJGA8	Galv.	50
1/2 X9	ABJGA9	Galv.	50
5/8 X10	ABJBL10D	Black	50
5/8 X12	ABJBL12D	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).



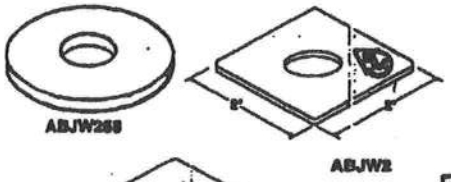
SIZE	PRODUCT CODE	DESCRIPTION	PER CTN
1/2x8	ABJBL8W	Black	50
1/2x8	ABJGA8W	Galv.	50
1/2x10	ABJBL10W	Black	50
1/2x10	ABJGA10W	Galv.	50
5/8x12	ABJBL12DW*	Black	50

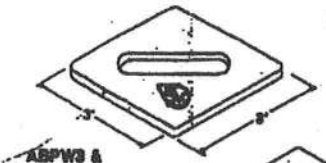
ANCHOR BOLT WASHER/PLATE

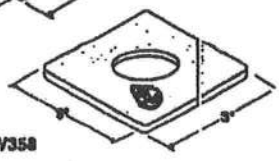
Design Features:
- The washer/plate adds increased resistance to wind uplift for bottom sill plate anchor bolt.

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 (INCHES)	GAUGE	PRODUCT CODE	ANCHOR BOLT (DIAMETER)	ALLOWABLE LOADS WIND / EARTHQUAKE UPLIFT 133%	UPLIFT 100%	PER CTN
2x2	1/8	ABJW2*	1/2"	1635	1635	50
2x2	1/8	ABJW2S*	5/8"	1470	1470	50
3x3	10	ABPG12	1/2"	3675	3675	40
3x3	10	ABPG12S	5/8"	3675	3675	40
3x3	1/4	ABPW3	1/2"	4800	4800	40
3x3	1/4	ABPW3S	5/8"	4800	4800	40

LINTEL
INFORMATION

Cement Precast Products, Inc.

INSTALLATION INSTRUCTIONS

Version 1.0

February 28, 2005

Cement Precast Products, Inc.

PRECAST LINTELS
(6", 8" AND 12" WIDE)

In order for proper installation of precast and prestressed lintels, DANSCO Engineering, LLC, has prepared this installation instructions to be used in conjunction with quality control methods of the contractor and good construction practices.

Preparation

1. All reinforcements shall be cleaned by removing mud, oil, or other materials that will adversely affect or reduce bond at the time mortar or grout is placed. Reinforcement with rust, mill scale, or a combination of both will be accepted as being satisfactory without cleaning or brushing provided the dimensions and weights, including heights of deformations, of a cleaned sample are not less than required by the ASTM specification covering this reinforcement in this Specification.

2. Prior to placing masonry, remove laitance, loose aggregate, and anything else that would prevent mortar from bonding to the lintel.

3. Debris – Construct grout spaces free of mortar dropping, debris, loose aggregates, and any material deleterious to masonry grout.

Lintel / masonry erection

1. Placing lintel – Length of bearing of lintels on their support shall be a minimum of 4 inches for filled lintels and 6 ½ inches for unfilled lintels in the direction of span. Provide a temporary support for lintels that are greater than 14' – 0"; the temporary support shall not be removed until 2 days after the grout placement.

2. Placing mortar and units (for composite lintels only)
   - Bed and head joints – Unless otherwise required, construct 3/8 inches thick bed and head joints. Construct joints that also conform to the following:
   a) Unless otherwise required, tool joint with a round jointer when the mortar is thumbprint hard.
   b) Remove masonry protrusions extending ½ inches or more into cells or cavities to be grouted.

   - Place hollow units so:
   a) Face shells of bed joints are fully mortared.
   b) Head joints are mortared, a minimum distance from each face equal to the face shell thickness of the unit.

c) Vertical cells to be grouted are aligned and unobstructed openings for grout are provided in accordance with the Project Drawings.

- Place clean units while the mortar is soft and plastic. Remove and relay in fresh mortar any unit disturbed to the extend that initial bond is broken after initial positioning.

Reinforcement installation

a) Support and fasten reinforcement together to prevent displacement beyond the tolerances allowed by construction loads or by placement of grout or mortar.
b) Completely embed reinforcing bars in grout in accordance with ACI530-02 Article 3.5.
c) Maintain clear distance between reinforcing bars and any face of masonry unit or formed surface, but not less than ¼ inches for fine grout or ½ inches for coarse grout.
d) Splice only where indicated on the Project Drawings, unless otherwise acceptable.
e) Unless accepted by the Architect/ Engineer, do not bend reinforcement after it is embeded in grout or mortar.
f) Place joint reinforcement so that longitudinal wires are embeded in mortar with a minimum cover of ½ inches when not exposed to weather or earth and 5/8 inches when exposed to weather or earth.

Grout placement

a) Placing time – Place grout within 1½ hours from introducing water in the mixture and prior to initial set.
b) Confinement – Confine grout to the areas indicated on the Project Drawings. Use material to confine grout that permits bond between masonry units and mortar.
c) Grout pour height – Do not exceed the maximum grout pour height given in the ACI530-02 Table 7.
d) Grout lift height – Place grout in lifts not exceeding 5 feet.
e) Consolidation – Consolidate grout at the time of placement.
   - Consolidate grout pours 12 inches or less in height by mechanical vibration or by puddling.
   - Consolidate pours exceeding 12 inches in height by mechanical vibration and reconsolidate by mechanical vibration after initial water loss and settlement has occurred.

Field quality control

a) Verify masonry unit strength, f'm in accordance with the ACI530-02 Article 1.6.
b) Sample and test grout as required by the ACI530-02 Articles 1.4B and 1.6.

DE
DANSCO ENGINEERING, LLC

P.O. Box 3400
Apollo Beach, FL 33572

Telephone (813) 645-0166
Facsimile (813) 645-9888

E-mail: dengine1@danscoengineering.com
CA25948

Cement Precast Products, Inc.

Precast concrete lintels 6", 8" and 12" wide have been reviewed by our office for compliance with the following codes:

- Florida Building Code 2004 Residential, sections R402.2 and R606.
- Florida Building Code 2004 Building, sections 1901.2 and 2107.

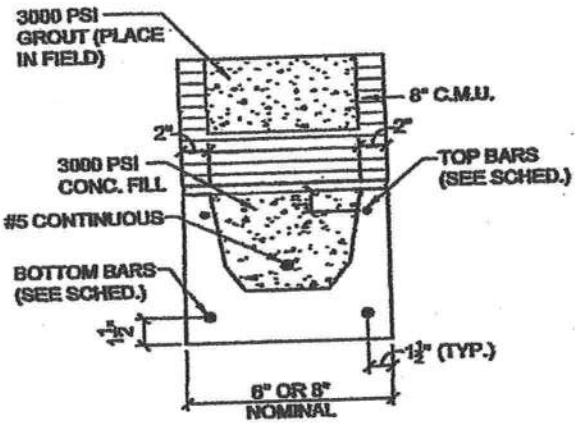
Our review is limited to the precast concrete lintels together with verification that they are accurate and appropriate for use according to the requirements of the above-referenced codes. Only Cement Precast Products, Inc. lintels may be used for the work depicted herein.

THUY H. HUYNH
LICENSE
No. 66122
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

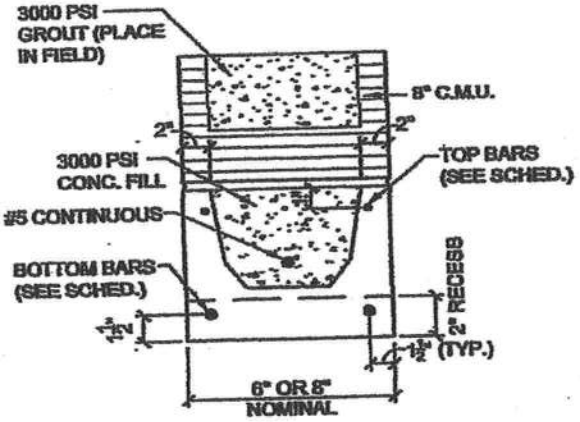
Thuy H. Huynh, PE
Fla. Reg. No. 66122

G:\Clerical Files\Documents\Forms\Cement Precast\Submittal\Proposal statement, C (2004 codes).doc

Cement Precast Products, Inc.
2033 N.E. 27th Avenue Gainesville, Fl 32609 - (352) 372-0953 - Fax: (352) 378-4611
www.cementprecast.com



TYPICAL LINTEL SECTION
(6" OR 8"x8" LINTEL IS SHOWN)



TYPICAL RECESS LINTEL SECTION
(6" OR 8"x8" LINTEL IS SHOWN)

ENGINEERING SPECIFICATIONS:

1.) SAFE LOADS ARE TOTAL SUPERIMPOSED ALLOWABLE LOADS.
2.) DESIGNER MAY EVALUATE CONCENTRATED LOADS FROM THE SAFE LOAD TABLES BY CALCULATING MAX. RESISTING SHEAR AND MOMENT FOR THE LISTED LINTELS.
3.) SAFE LOADS LISTED ON ALL TABLES ARE IN UNITS OF POUND PER LINEAR FOOT.

GENERAL NOTES:

1.) CODES:
- 1.1 FLORIDA BUILDING CODE 2004 RESIDENTIAL, SECTIONS R402.2, & R606.
- 1.2 FLORIDA BUILDING CODE 2004 BUILDING, SECTIONS 1901.2 & 2107.
- 1.3 BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE (ACI 318-02).
- 1.4 AMERICAN SOCIETY OF CIVIL ENGINEERS MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES(ASCE 7-98).

2.) CONCRETE:
- 2.1 CONCRETE COMPRESSIVE STRENGTH AT 28 DAYS:
  - 2.1.1 CONCRETE FILL (PLACE IN FIELD) - 3000 PSI
  - 2.1.2 PRECAST W/ STANDARD REINFORCEMENT - 5000 PSI
  - 2.1.3 GROUT PER ASTM C476 - 3000 PSI W/ MAX. 3/8" AGGERATE. 8" TO 11" SLUMP.
- 2.2 REINFORCING BARS:
  - 2.2.1 STEEL IN LINTEL AND KNOCKOUT BLOCK (PLACED IN FIELD) ASTM A615 (GRADE 40).
- 2.3 DETAIL REINFORCEMENT IN ACCORDANCE WITH ACI 315.
- 2.4 CONCRETING OPERATIONS SHALL COMPLY WITH ACI STANDARDS.

3) MASONRY:
- 3.1 DESIGN AND CONSTRUCTION SHALL CONFORM TO THE SPECIFICATION OF THE NATIONAL CONCRETE MASONRY ASSOCIATION AND ACI 530-02.
- 3.2 MINIMUM MASONRY UNIT STRENGTH: F'M 1500 PSI.
- 3.3 MORTAR SHALL BE TYPE S.

4) STRUCTURAL:
- 4.1 SAFE LOAD VALUES ARE BASED ON LINTELS HAVING A BEARING OF 4".
- 4.2 FOR LINTELS THAT ARE GREATER THAN 14'-0" CLEAR SPAN THEY SHALL BE PROVIDED A TEMPORARY SUPPORT, AND THE TEMPORARY SUPPORT SHALL NOT BE REMOVED UNTIL 2 DAYS AFTER GROUT PLACEMENT.

THUY H. HUYNH LICENSE No. 60122 STATE OF FLORIDA PROFESSIONAL ENGINEER
APR 6 2005

☐ SAMUEL A. GREENBERG, P.E. #34345
☐ ERIK J. BENSON, P.E. #49158
☑ THUY H. HUYNH, P.E. #60122

D.F. DANSCO ENGINEERING, L.L.C.
P.O. BOX [illegible] - APOLLO BEACH - FLORIDA - 33572
PHONE - [illegible] CELL - [illegible]
CA [illegible]

GENERAL NOTES & DETAILS

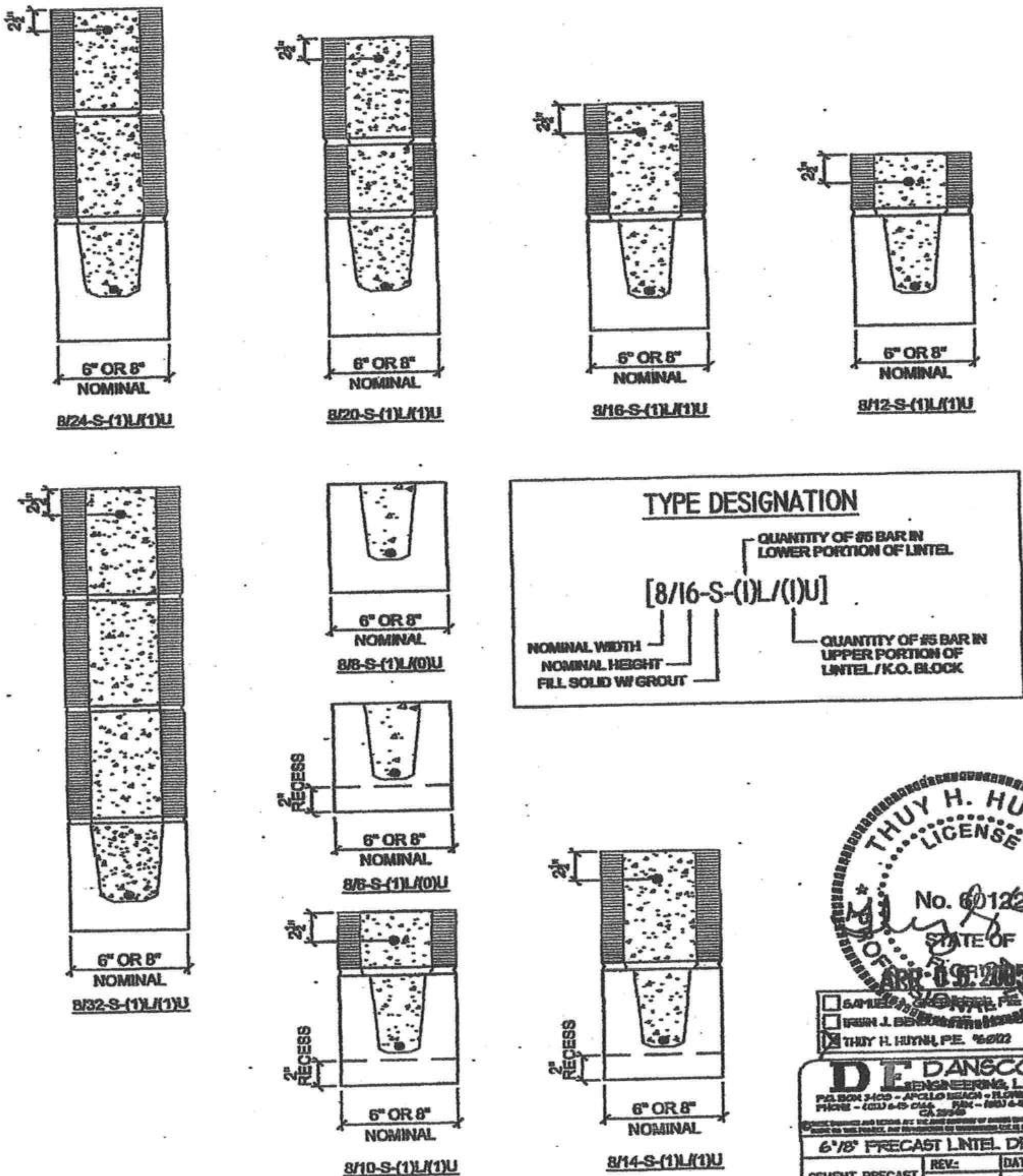
	REV.:	DATE: 03/04/05
CEMENT PRECAST PRODUCTS INC.		DWG: E.U.
		SCALE: N.T.S.
DEP 24-4547		SKT

G:\data\engineering\CEMENT PRECAST PRODUCTS\2445478.5x\11SK01.dwg, 5/31/2005 9:09:12 AM, KJoyner

cp

Cement Precast Products, Inc.

2033 N.E. 27th Avenue Gainesville, Fl 32609 - (352) 372-0953 - Fax: (352) 378-4611
www.cementprecast.com



THUY H. HUYNH LICENSE No. 60122 STATE OF FLORIDA PROFESSIONAL ENGINEER APR 05 2005

☐ SAMUEL ... P.E.
☐ IRWIN J. BENSON ...
☒ THUY H. HUYNH, P.E. #60122

DANSCO ENGINEERING, L.L.C.

6"/8" PRECAST LINTEL DETAILS

CEMENT PRECAST PRODUCTS INC.	REV.:	DATE: 03/04/05
		DWG: E.M.
		SCALE: N.T.S.
DE# 24-1547		SK2

G:\data\engineering\CEMENT PRECAST PRODUCTS\24454\8.5x11\SK02.dwg, 3/16/2005 2:54:18 PM, EMontanez

cp
Cement Precast Products, Inc.
2833 N.E. 27th Avenue Gainesville, Fl 32609 - (352) 372-0953 - Fax: (352) 378-4611
www.cementprecast.com

LINTEL				8" LINTEL SAFE GRAVITY LOADS (PLF)					
TOTAL LENGTH	CLEAR SPAN	TOP REINF.	BOTTOM REINF.	8/8-S-(0)L	8/12-S-(0)L	8/16-S-(0)L	8/20-S-(0)L	8/24-S-(0)L	8/32-S-(0)L
				8/8-S-(1)L	8/12-S-(1)L	8/16-S-(1)L	8/20-S-(1)L	8/24-S-(1)L	8/32-S-(1)L
3'-0"	1'-8"	None	(2)#3	3859	8159	10000	10000	10000	10000
				3859	10000	10000	10000	10000	10000
3'-8"	2'-2"	None	(2)#3	2861	5757	8114	10000	10000	10000
				2861	7219	10000	10000	10000	10000
4'-0"	2'-8"	None	(2)#3	2270	4279	6034	7791	9550	10000
				2270	5183	10000	10000	10000	10000
4'-6"	3'-2"	None	(2)#3	1879	3301	4658	6015	7375	10000
				1879	4037	7450	10000	10000	10000
4'-8"	3'-4"	None	(2)#3	1776	3048	4301	5556	6811	9324
				[illegible]	[illegible]	6748	10000	10000	10000
5'-4"	4'-0"	None	(2)#3	1340	2275	3213	4153	5093	5744
				1457	2948	4895	8224	10000	10000
5'-10"	4'-6"	None	(2)#3	1101	1875	2644	3418	4193	6975
				1282	2529	4055	6408	9705	10000
6'-4"	5'-0"	(2)#2	(2)#4	1178	2258	3513	5083	6245	8570
				1178	2258	3513	5523	8288	10000
6'-6"	5'-2"	(2)#2	(2)#4	1166	2167	3347	4808	5907	8107
				1166	2167	3347	5015	7653	10000
6'-8"	5'-4"	(2)#2	(2)#4	1098	2084	3196	4554	5595	7680
				1098	2088	3196	4741	7424	10000
7'-6"	6'-2"	(2)#2	(2)#4	938	1745	2604	3539	4349	5972
				938	1745	2604	3719	5281	10000
7'-8"	6'-4"	(2)#3	(2)#4	912	1690	2511	3376	4150	5699
				912	1690	2511	3565	5020	9974
8'-0"	6'-8"	(2)#3	(2)#4	852	1589	2342	3082	3789	5204
				852	1589	2342	3291	4567	9115
8'-8"	7'-4"	(2)#3	(2)#4	778	1407	2001	2596	3193	4387
				778	1448	2069	2850	3889	7207
9'-4"	8'-0"	(2)#3	(2)#5	718	1292	1856	2527	3461	5859
				718	1292	1856	2527	3368	5941
10'-4"	9'-0"	(2)#3	(2)#5	632	1125	1597	2141	2800	4669
				632	1125	1597	2141	2800	4669
11'-4"	10'-0"	(2)#3	(2)#5	563	995	1399	1854	2391	3837
				563	995	1399	1854	2391	3837
12'-0"	10'-8"	(2)#3	(2)#5	524.	923	1291	1701	2178	3427
				524	923	1291	1701	2178	3427
12'-8"	11'-4"	(2)#3	(2)#5	490	861	1198	1570	1998	3056
				490	861	1198	1570	1998	3093
13'-4"	12'-0"	(2)#3	(2)#5	460	806	1117	1457	1932	2748
				460	803	1117	1457	1932	2817
14'-0"	12'-8"	(2)#3	(2)#5	434	757	1046	1359	1712	2475
				434	757	1046	1359	1712	2585
14'-8"	13'-4"	(2)#4	(2)#6	412	716	985	1275	1600	2391
				[illegible]	716	985	[illegible]	1600	2391
15'-8"	14'-4"	(2)#4	(2)#6	377	658	903	1163	1452	2142
				380	658	903	[illegible]	1452	2142
17'-4"	16'-0"	(2)#4	(2)#6	263	579	780	1012	1255	1822
				290	579	780	1012	1255	1822
19'-4"	18'-0"	(2)#4	(2)#6	157	505	686	874	1076	1540
				173	505	686	874	1076	1540
20'-0"	18'-8"	(2)#5	(2)#6	132	484	656	835	1027	1463
				140	484	656	835	1027	1463
21'-4"	20'-0"	(2)#5	(2)#6	95	372	604	766	939	1329
				105	440	604	766	939	[illegible]
22'-0"	20'-8"	(2)#5	(2)#6	80	323	580	735	901	1271
				89	[illegible]	580	735	901	[illegible]
24'-0"	22'-8"	(2)#5	(2)#6	N.R.	214	493	656	800	1120
				N.R.	255	[illegible]	656	800	1120

N.R. = NOT RECOMMENDED

THUY H. HUYNH
LICENSE
No. [illegible]
STATE OF FLORIDA
PROFESSIONAL ENGINEER
APR 06 2009

☐ SAMUEL A. GREENBERG, P.E. [illegible]
☐ IRBIN J. BENSON, P.E. [illegible]
☑ THUY H. HUYNH, P.E. [illegible]

DE DANSCO ENGINEERING, LLC.
P.O. BOX 3400 - APOLLO BEACH - FLORIDA - [illegible]
PHONE - [illegible] FAX - [illegible]

8" LINTEL SAFE GRAVITY LOADS		
CEMENT PRECAST PRODUCTS INC.	REV.:	DATE: 03/04/05
		DWG: F.M.
		SCALE: N.T.S.
DE# 24-4547		SK7

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cp Cement Precast Products, Inc.

2033 N.E. 27th Avenue Gainesville, Fl 32609 • (352) 372-0953 • Fax: (352) 378-4611
www.cementprecast.com

LINTEL				8" LINTEL SAFE UPLIFT LOADS (PLF)						LATERAL LOADS (PLF)	
TOTAL LENGTH	CLEAR SPAN	TOP REINF.	BOTTOM REINF.	8/8-S-(1)U 8/8-S-(2)U	8/12-S-(1)U 8/12-S-(2)U	8/16-S-(1)U 8/16-S-(2)U	8/20-S-(1)U 8/20-S-(2)U	8/24-S-(1)U 8/24-S-(2)U	8/32-S-(1)U 8/32-S-(2)U	8/8-P	8/8-S
3'-0"	1'-8"	None	(2) #3	3369 3393	9999 10000	10000 10000	10000 10000	10000 10000	10000 10000	811	2089
3'-6"	2'-2"	None	(2) #3	2539 2539	6508 10000	10000 10000	10000 10000	10000 10000	10000 10000	575	1481
4'-0"	2'-8"	None	(2) #3	2038 2058	4763 4783	7739 9803	10000 10000	10000 10000	10000 10000	429	1105
4'-6"	3'-2"	None	(2) #3	1701 1701	3756 3758	5993 6316	7894 10000	9796 10000	10000 10000	332	855
4'-8"	3'-4"	None	(2) #3	1613 1618	3508 3508	5541 6288	7298 10000	9057 10000	10000 10000	307	791
5'-4"	4'-0"	None	(2) #3	1334 1339	2401 2401	4162 4639	5481 7739	6803 10000	9448 10000	230	594
5'-10"	4'-6"	None	(2) #3	1182 1182	2350 2377	3439 3874	4530 6101	5622 10000	7808 10000	190	491
6'-4"	5'-0"	(2) #2	(2) #4	1110 1110	1975 2115	2890 3325	3906 5036	4724 7760	6561 10000	333	884
6'-6"	5'-2"	(2) #2	(2) #4	1083 1083	1869 2035	2736 3175	3603 4750	4472 7213	6211 10000	316	847
6'-8"	5'-4"	(2) #2	(2) #4	1048 1048	1772 1980	2594 3038	3416 4511	4240 [illegible]	5888 10000	299	803
7'-6"	6'-2"	(2) #2	(2) #4	802 802	1384 1655	2025 2489	2663 3579	3311 [illegible]	4598 [illegible]	233	627
7'-8"	6'-4"	(2) #3	(2) #4	916 968	1322 1605	1934 2414	2548 3498	3162 [illegible]	4392 8592	273	742
8'-0"	6'-8"	(2) #3	(2) #4	823 823	1209 1518	1770 2259	2331 3184	2893 4633	4018 7959	249	679
8'-8"	7'-4"	(2) #3	(2) #4	746 748	1023 1359	1498 2602	1973 2776	2449 3784	3410 8731	205	575
9'-4"	8'-0"	(2) #3	(2) #5	721 720	877 1233	1294 1798	1694 2460	2099 3284	2916 5752	175	653
10'-4"	9'-0"	(2) #3	(2) #5	639 639	711 1023	1040 1559	1370 2101	1700 2751	2362 4570	125	529
11'-4"	10'-0"	(2) #3	(2) #5	573 573	587 985	859 1376	1132 1894	1405 2380	1952 3700	92	437
12'-0"	10'-8"	(2) #3	(2) #5	536 537	522 900	764 1276	1006 1661	1249 2188	1735 [illegible]	N.R	389
12'-8"	11'-4"	(2) #3	(2) #5	479 505	467 893	684 1090	900 1569	1118 1999	1552 3073	N.R	348
13'-4"	12'-0"	(2) #3	(2) #5	431 476	420 793	615 1145	810 1482	1006 1884	1397 [illegible]	N.R	313
14'-0"	12'-8"	(2) #3	(2) #5	388 451	380 791	557 1048	733 1370	910 1720	1284 2602	N.R	283
14'-8"	13'-4"	(2) #4	(2) #6	432 [illegible]	346 [illegible]	506 [illegible]	667 1288	827 1619	1149 2275	N.R	447
15'-6"	14'-4"	(2) #4	(2) #6	353 400	302 [illegible]	442 867	582 1148	723 1427	1004 [illegible]	N.R	357
17'-4"	16'-0"	(2) #4	(2) #6	256 [illegible]	246 579	350 705	474 893	588 1180	817 [illegible]	N.R	251
19'-4"	18'-0"	(2) #4	(2) #6	169 169	196 383	288 584	379 736	471 929	654 1294	N.R	169
20'-0"	18'-8"	(2) #5	(2) #6	181 186	183 357	269 537	354 697	439 867	610 1208	N.R	168
21'-4"	20'-0"	(2) #5	(2) #6	141 152	161 290	235 462	310 [illegible]	385 760	535 1050	N.R	131
22'-0"	20'-8"	(2) #5	(2) #6	128 135	151 260	221 434	291 574	362 714	503 [illegible]	N.R	116
24'-0"	22'-8"	(2) #5	(2) #6	101 108	134 218	196 365	259 500	321 [illegible]	446 [illegible]	N.R	80

N.R. = NOT RECOMMENDED

THUY H. HUYNH
LICENSE
No. 60122
STATE OF FLORIDA
PROFESSIONAL ENGINEER
APR 06 2005

☐ SAMUEL A. GREENBERG, P.E. #34245
☐ ERWIN J. BENSON, P.E. #49158
☒ THUY H. HUYNH, P.E. #60122

DE DANSCO ENGINEERING, L.L.C.

8" LINTEL SAFE UPLIFT LOADS		
CEMENT PRECAST PRODUCTS INC.	REV.:	DATE: 03/04/05
		DWG: E.H.
		SCALE: N.T.S.
DE# 24-4547		SK8

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cp
Cement Precast Products, Inc.
2033 N.E. 27th Avenue Gainesville, Fl 32609 - (352) 372-0953 - Fax: (352) 378-4811
www.cementprecast.com

LINTEL		8" RECESS LINTEL SAFE GRAVITY LOADS (PLF)				
TOTAL LENGTH	CLEAR SPAN	TOP REINF.	BOTTOM REINF.	8/6-S-(0)L 8/6-S-(1)L	8/10-S-(0)L 8/10-S-(1)L	8/14-S-(0)L 8/14-S-(1)L
3'-6"	2'-2"	None	(2)#3	1530 1530	4400 4400	6931 10000
4'-0"	2'-8"	None	(2)#3	1250 1250	3351 3351	5155 6758
4'-4"	3'-0"	None	(2)#3	1113 1113	2851 2890	4322 5483
4'-6"	3'-2"	None	(2)#3	1005 1005	2624 2703	3979 5010
4'-8"	3'-4"	None	(2)#3	1003 1003	2422 2538	3674 4612
5'-8"	4'-4"	None	(2)#3	764 774	1584 1856	2406 [illegible]
6'-8"	5'-4"	(2)#2	(2)#4	652 652	1491 1491	2401 [illegible]
7'-8"	6'-4"	(2)#3	(2)#4	546 546	1225 1225	1919 1919

THUY H. HUYNH
LICENSE
No. 60122
STATE OF FLORIDA
PROFESSIONAL ENGINEER

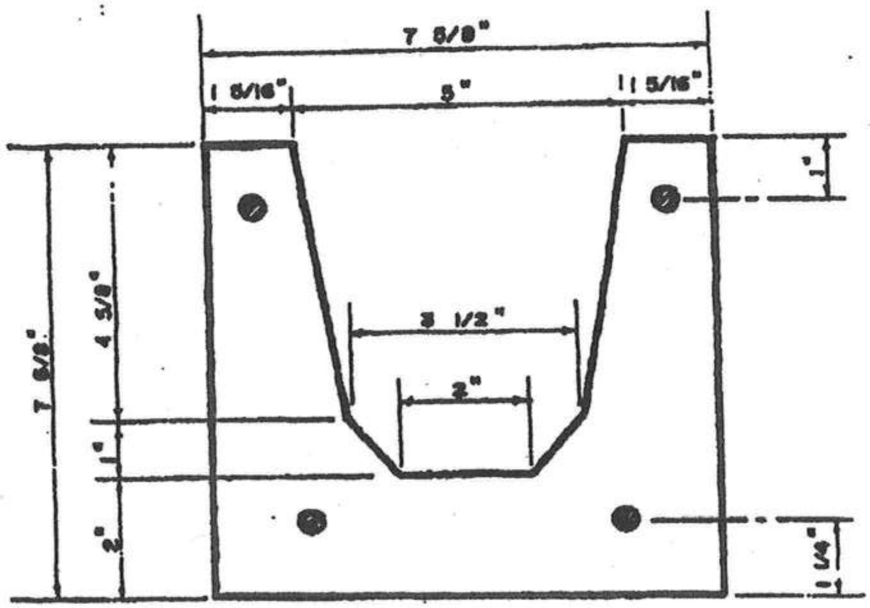
APR 06 2005

☐ SAM...
☐ IRWIN J. B...
☒ THUY H. HUYNH, P.E. #60122

DANSCO ENGINEERING, L.L.C.

8" RECESS LINTEL SAFE GRAVITY LOADS

CEMENT PRECAST PRODUCTS INC.	REV.:	DATE: 03/04/05
		DWG: E.M.
		SCALE: N.T.S.
DE# 24-4547		SK9



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

Cement Precast Products, Inc.
2033 N.E. 27th Avenue Gainesville, Fl 32609 - (352) 372-0953 - Fax: (352) 378-4611
www. cementprecast.com

LINTEL				8" RECESS LINTEL SAFE UPLIFT LOADS (PLF)		
TOTAL LENGTH	CLEAR SPAN	TOP REINF.	BOTTOM REINF.	8/6-S-(1)U 8/6-S-(2)U	8/10-S-(1)U 8/10-S-(2)U	8/14-S-(1)U 8/14-S-(2)U
3'-6"	2'-2"	None	(2) #3	2571 2571	3986 3986	8716 9281
4'-0"	2'-8"	None	(2) #3	2063 2063	3063 3086	6237 6237
4'-4"	3'-0"	None	(2) #3	1823 1823	2660 2660	5122 5122
4'-6"	3'-2"	None	(2) #3	1723 1823	2496 2496	4701 4701
4'-8"	3'-4"	None	(2) #3	1633 1633	2350 2350	4345 4345
5'-8"	4'-4"	None	(2) #3	1244 1224	1742 1742	2986 2986
6'-8"	5'-4"	(2) #2	(2) #4	1005 1005	1358 1248	2179 2275
7'-8"	6'-4"	(2) #3	(2) #4	708 842	1013 1186	1625 1837

THUY H. HUYNH
LICENSE
No. 60122
STATE OF FLORIDA
PROFESSIONAL ENGINEER
APR 08 2005

☐ SAMEH ...
☐ IRWIN ...
☑ THUY H. HUYNH, P.E. 60122

DANSCO ENGINEERING, L.L.C.
P.O. BOX 3480 - APOLLO BEACH - FLORIDA - 33572
PHONE - (813) 645-2564 FAX - (813) 645-1560
CA 28649

8" RECESS LINTEL SAFE UPLIFT LOADS

CEMENT PRECAST PRODUCTS INC.	REV.:	DATE: 03/04/05
		DWG: E.M.
		SCALE: N.T.S.
DE# 24-4547		SK10

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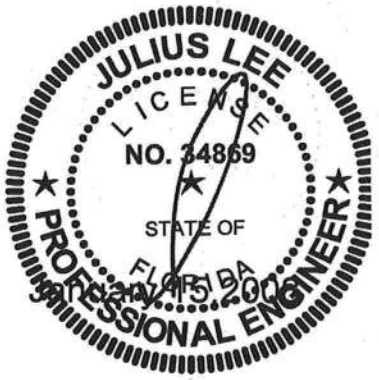
Builders FirstSource



Project Information for: L264772

Builder: Homes by House Craft, LLC
Lot : 30
Subdivision: Three Rivers Estates
County: Marion
Truss Count: 24
Design Program: MiTek 20/20 6.3
Building Code: FBC2004/TPI2002

Truss Design Load Information:

Gravity: **Wind:**

Roof (psf): 42.0 Wind Standard: ASCE 7-02 Wind Exposure: B
Floor (psf): N/A Wind Speed (mph): 110

Note: See the individual truss drawings for special loading conditions.

Contractor of Record, responsible for structural engineering:

Jonh D. Harrington Florida Certified General Contractor License No. CGC038861
Address: Homes by House Craft, L.L.C. 24113 NW Old Bellamy Road High Springs, Florida 32643

Truss Design Engineer: Julius Lee, PE Florida P.E. License No. 34869
Address: 1109 Coastal Bay Blvd. Boynton Beach, FL 33435

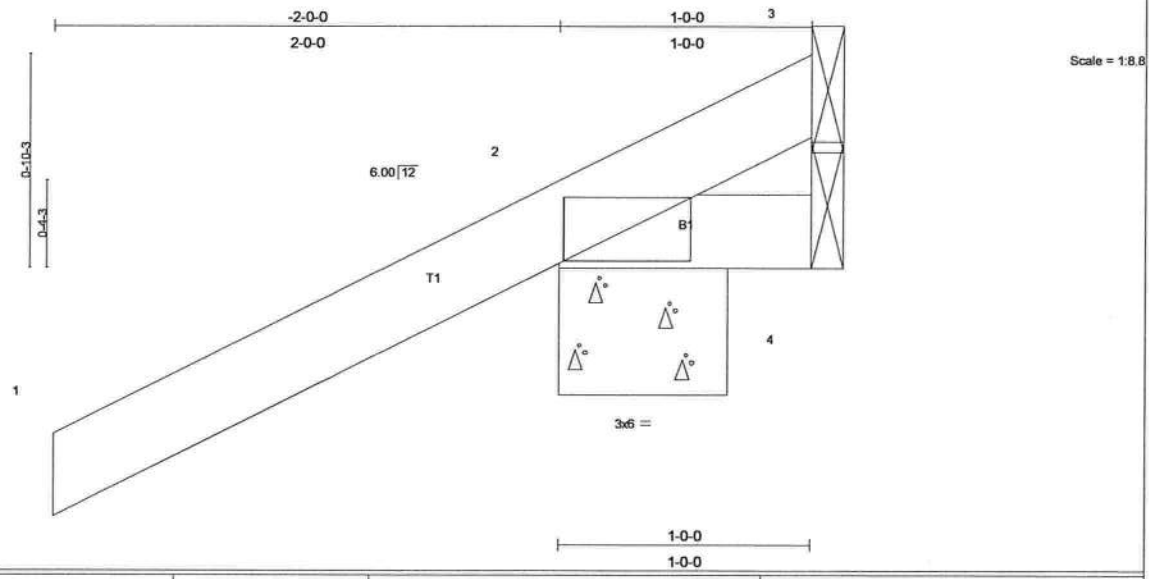
Notes:

1. Determination as to the suitability of these truss components for the structure is the responsibility of the building designer/engineer of record, as defined in ANSI/TPI 1-2002 Section 2.2
2. The seal date shown on the individual truss component drawings must match the seal date on this index sheet.
3. The Truss Design Engineer's responsibility relative to this structure consists solely of the design of the individual truss components and does not include the design of any additional structural elements including but not limited to continuous lateral bracing elelments in the web and chord planes. See Florida Administrative Code 61G15-31.003 sections 3 c) & 5 and Chapter 2 of the National Design Standard for Metal Plate Connected Wood Truss Construction ANSI/TPI 1-2002 for additional information on the responsibilities of the delegated "Truss Design Engineer". Builders FirstSource and Julius Lee, PE do not accept any additional delegations beyond the scope of work described in the referenced documents above.

No.	Drwg. #	Truss ID	Date
1	J1926893	CJ1	1/15/08
2	J1926894	CJ3	1/15/08
3	J1926895	CJ5	1/15/08
4	J1926896	EJ7	1/15/08
5	J1926897	HJ9	1/15/08
6	J1926898	T01	1/15/08
7	J1926899	T02	1/15/08
8	J1926900	T03	1/15/08
9	J1926901	T04	1/15/08
10	J1926902	T05	1/15/08
11	J1926903	T06	1/15/08
12	J1926904	T07	1/15/08
13	J1926905	T08	1/15/08
14	J1926906	T09	1/15/08
15	J1926907	T10	1/15/08
16	J1926908	T11	1/15/08
17	J1926909	T12	1/15/08
18	J1926910	T13	1/15/08
19	J1926911	T14	1/15/08
20	J1926912	T15	1/15/08
21	J1926913	T16	1/15/08
22	J1926914	T17	1/15/08
23	J1926915	T18	1/15/08
24	J1926916	T18G	1/15/08

Job	Truss	Truss Type	Qty	Ply	HBH - MONROE RES.
L264772	CJ1	JACK	10	1	Job Reference (optional)

Builders FirstSource, Lake City, Fl 32055 — 6.300 s Apr 19 2006 MiTek Industries, Inc. Thu Jan 10 19:49:15 2008 Page 1



LOADING (psf)			SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0		Plates Increase	1.25	TC	0.28	Vert(LL)	-0.00	2	>999	360	MT20	244/190
TCDL	7.0		Lumber Increase	1.25	BC	0.01	Vert(TL)	-0.00	2	>999	240		
BCLL	10.0	*	Rep Stress Incr	YES	WB	0.00	Horz(TL)	0.00	3	n/a	n/a		
BCDL	5.0		Code FBC2004/TPI2002		(Matrix)							Weight: 7 lb	

LUMBER
TOP CHORD 2 X 4 SYP No.2
BOT CHORD 2 X 4 SYP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 1-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 2=266/0-8-0, 4=5/Mechanical, 3=-100/Mechanical
Max Horz 2=87(load case 6)
Max Uplift2=-286(load case 6), 3=-100(load case 1)
Max Grav 2=266(load case 1), 4=14(load case 2), 3=138(load case 6)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/47, 2-3=-75/85
BOT CHORD 2-4=0/0

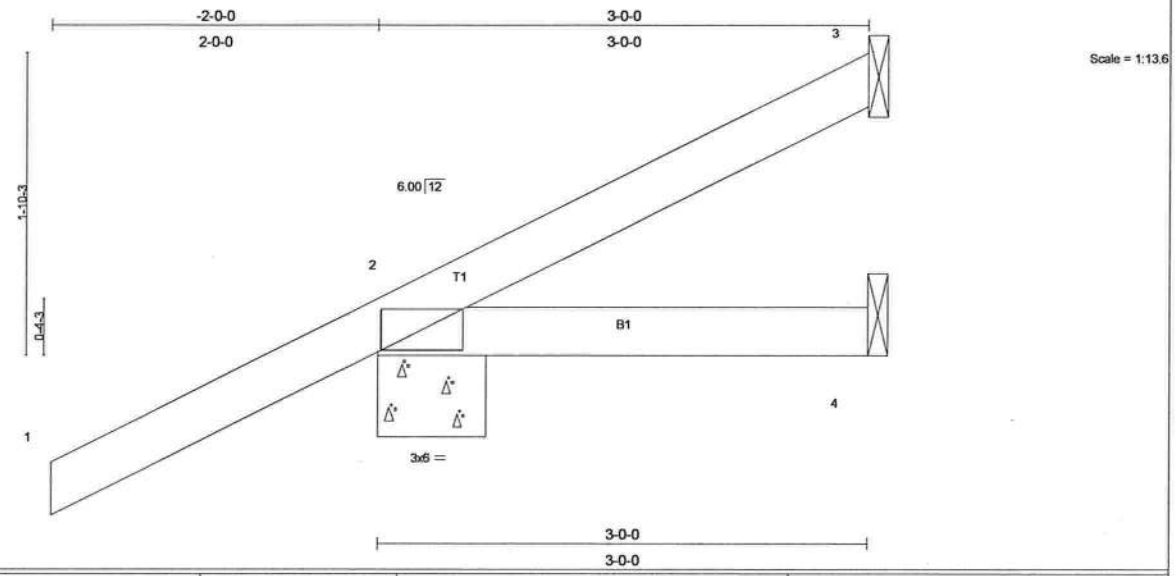
JOINT STRESS INDEX
2 = 0.15

NOTES
1) Wind: ASCE 7-02; 110mph (3-second gust); h=20ft; TCDL=4.2psf; BCDL=3.0psf; Category II; Exp B; enclosed; MWFRS gable end zone and C-C Exterior(2) zone; Lumber DOL=1.60 plate grip DOL=1.60. This truss is designed for C-C for members and forces, and for MWFRS for reactions specified.
2) *This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) All bearings are assumed to be SYP No.2 crushing capacity of 565.00 psi
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 286 lb uplift at joint 2 and 100 lb uplift at joint 3.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	HBH - MONROE RES.
L264772	CJ3	JACK	10	1	Job Reference (optional)

Builders FirstSource, Lake City, Fl 32055 — 6.300 s Apr 19 2006 MiTek Industries, Inc. Thu Jan 10 19:49:19 2008 Page 1



LOADING (psf)			SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0		Plates Increase	1.25	TC	0.34	Vert(LL)	-0.00	2-4	>999	360	MT20	244/190
TCDL	7.0		Lumber Increase	1.25	BC	0.05	Vert(TL)	-0.00	2-4	>999	240		
BCLL	10.0	*	Rep Stress Incr	YES	WB	0.00	Horz(TL)	-0.00	3	n/a	n/a		
BCDL	5.0		Code FBC2004/TPI2002		(Matrix)							Weight: 13 lb	

LUMBER
TOP CHORD 2 X 4 SYP No.2
BOT CHORD 2 X 4 SYP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 3=14/Mechanical, 2=266/0-8-0, 4=13/Mechanical
Max Horz 2=132(load case 6)
Max Uplift3=-22(load case 7), 2=-222(load case 6)
Max Grav 3=18(load case 4), 2=266(load case 1), 4=39(load case 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/48, 2-3=-63/8
BOT CHORD 2-4=0/0

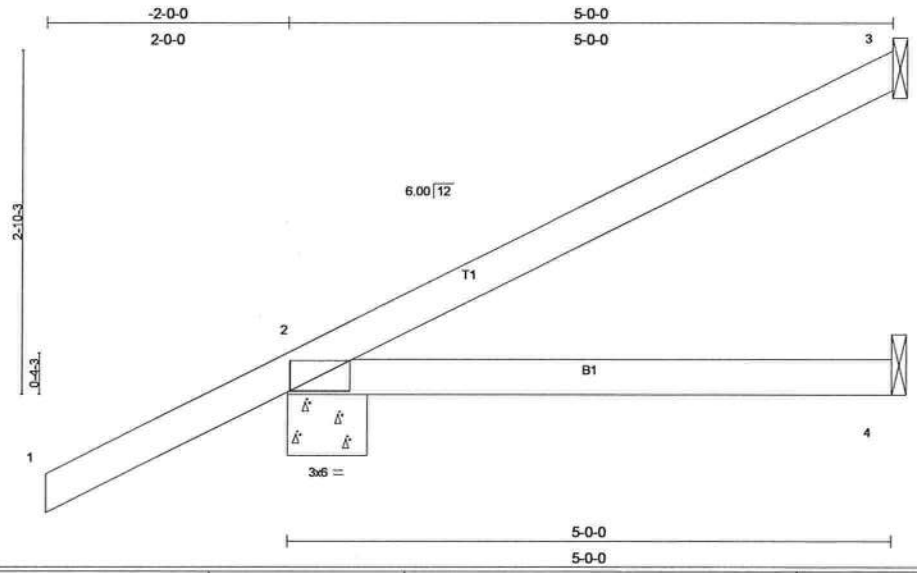
JOINT STRESS INDEX
2 = 0.14

NOTES
1) Wind: ASCE 7-02; 110mph (3-second gust); h=20ft; TCDL=4.2psf; BCDL=3.0psf; Category II; Exp B; enclosed; MWFRS gable end zone and C-C Exterior(2) zone; Lumber DOL=1.60 plate grip DOL=1.60. This truss is designed for C-C for members and forces, and for MWFRS for reactions specified.
2) *This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) All bearings are assumed to be SYP No.2 crushing capacity of 565.00 psi
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 22 lb uplift at joint 3 and 222 lb uplift at joint 2.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	HBH - MONROE RES.
L264772	CJ5	JACK	10	1	Job Reference (optional)

Builders FirstSource, Lake City, Fl 32055 — 6.300 s Apr 19 2006 MiTek Industries, Inc. Thu Jan 10 19:49:23 2008 Page 1



LOADING (psf)		SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plates Increase	1.25	TC	0.34	Vert(LL)	-0.02	2-4	>999	360	MT20	244/190
TCDL	7.0	Lumber Increase	1.25	BC	0.15	Vert(TL)	-0.04	2-4	>999	240		
BCLL	10.0 *	Rep Stress Incr	YES	WB	0.00	Horz(TL)	-0.00	3	n/a	n/a		
BCDL	5.0	Code FBC2004/TPI2002		(Matrix)							Weight: 19 lb	

LUMBER
TOP CHORD 2 X 4 SYP No.2
BOT CHORD 2 X 4 SYP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 3=92/Mechanical, 2=305/0-8-0, 4=23/Mechanical
Max Horz 2=178(load case 6)
Max Uplift3=-79(load case 6), 2=-212(load case 6)
Max Grav 3=92(load case 1), 2=305(load case 1), 4=69(load case 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/48, 2-3=-84/32
BOT CHORD 2-4=0/0

JOINT STRESS INDEX
2 = 0.15

NOTES
1) Wind: ASCE 7-02; 110mph (3-second gust); h=20ft; TCDL=4.2psf; BCDL=3.0psf; Category II; Exp B; enclosed; MWFRS gable end zone and C-C Exterior(2) zone; Lumber DOL=1.60 plate grip DOL=1.60. This truss is designed for C-C for members and forces, and for MWFRS for reactions specified.
2) *This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) All bearings are assumed to be SYP No.2 crushing capacity of 565.00 psi
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 79 lb uplift at joint 3 and 212 lb uplift at joint 2.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	HBH - MONROE RES.
L264772	EJ7	JACK	28	1	Job Reference (optional)

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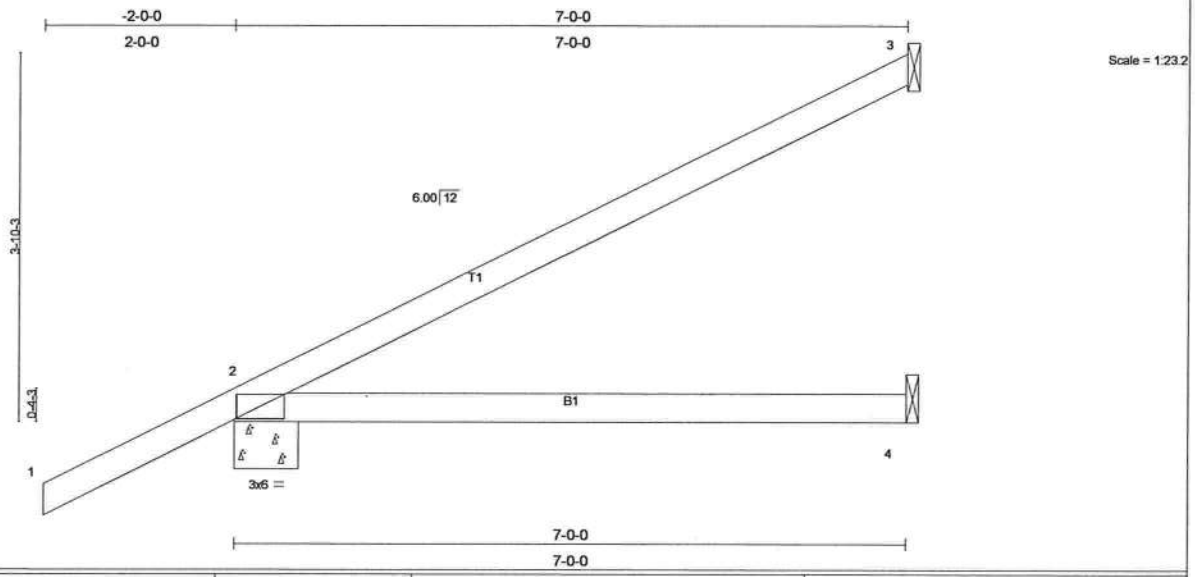

LOADING (psf)		SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plates Increase	1.25	TC	0.49	Vert(LL)	-0.07	2-4	>999	360	MT20	244/190
TCDL	7.0	Lumber Increase	1.25	BC	0.26	Vert(TL)	-0.14	2-4	>556	240		
BCLL	10.0 *	Rep Stress Incr	YES	WB	0.00	Horz(TL)	-0.00	3	n/a	n/a		
BCDL	5.0	Code FBC2004/TPI2002		(Matrix)							Weight: 26 lb	

LUMBER
TOP CHORD 2 X 4 SYP No.2
BOT CHORD 2 X 4 SYP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 3=148/Mechanical, 2=360/0-8-0, 4=41/Mechanical
Max Horz 2=161(load case 6)
Max Uplift3=-82(load case 6), 2=-148(load case 6)
Max Grav 3=148(load case 1), 2=360(load case 1), 4=91(load case 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/48, 2-3=-118/53
BOT CHORD 2-4=0/0

JOINT STRESS INDEX
2 = 0.67

NOTES
1) Wind: ASCE 7-02; 110mph (3-second gust); h=20ft; TCDL=4.2psf; BCDL=3.0psf; Category II; Exp B; enclosed; MWFRS and C-C Exterior(2) zone; Lumber DOL=1.60 plate grip DOL=1.60. This truss is designed for C-C for members and forces, and for MWFRS for reactions specified.
2) *This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) All bearings are assumed to be SYP No.2 crushing capacity of 565.00 psi
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 82 lb uplift at joint 3 and 148 lb uplift at joint 2.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	HBH - MONROE RES.
L264772	HJ9	MONO TRUSS	5	1	Job Reference (optional)

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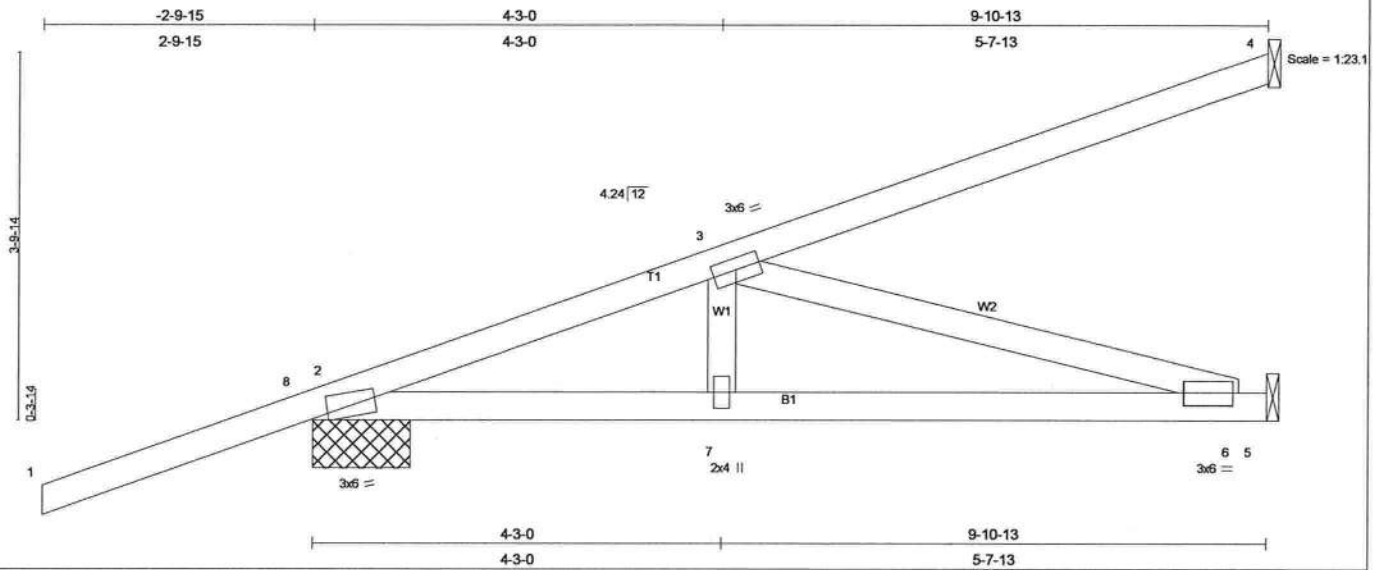

LOADING (psf)		SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plates Increase	1.25	TC	0.60	Vert(LL)	-0.04	6-7	>999	360	MT20	244/190
TCDL	7.0	Lumber Increase	1.25	BC	0.41	Vert(TL)	-0.11	6-7	>999	240		
BCLL	10.0 *	Rep Stress Incr	NO	WB	0.35	Horz(TL)	0.01	5	n/a	n/a		
BCDL	5.0	Code FBC2004/TPI2002		(Matrix)							Weight: 45 lb	

LUMBER
TOP CHORD 2 X 4 SYP No.2
BOT CHORD 2 X 4 SYP No.2
WEBS 2 X 4 SYP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 4=267/Mechanical, 2=449/1-0-1, 5=215/Mechanical
Max Horz 2=265(load case 3)
Max Uplift4=-231(load case 3), 2=-274(load case 3), 5=-59(load case 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-8=0/45, 2-8=0/45, 2-3=-633/106, 3-4=-105/65
BOT CHORD 2-7=-294/583, 6-7=-294/583, 5-6=0/0
WEBS 3-7=0/185, 3-6=-607/306

JOINT STRESS INDEX
2 = 0.85, 3 = 0.16, 6 = 0.17 and 7 = 0.14

NOTES
1) Wind: ASCE 7-02; 110mph (3-second gust); h=20ft; TCDL=4.2psf; BCDL=3.0psf; Category II; Exp B; enclosed; MWFRS gable end zone; Lumber DOL=1.60 plate grip DOL=1.60.
2) *This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) All bearings are assumed to be SYP No.2 crushing capacity of 565.00 psi
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 231 lb uplift at joint 4, 274 lb uplift at joint 2 and 59 lb uplift at joint 5.
5) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Regular: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (plf)
Vert: 1-8=-54
Trapezoidal Loads (plf)
Vert: 8=0(F=27, B=27)-to-4=-134(F=-40, B=-40), 2=-1(F=5, B=5)-to-5=-25(F=-7, B=-7)

Job	Truss	Truss Type	Qty	Ply	HBH - MONROE RES.
L264772	T01	HIP	1	1	Job Reference (optional)

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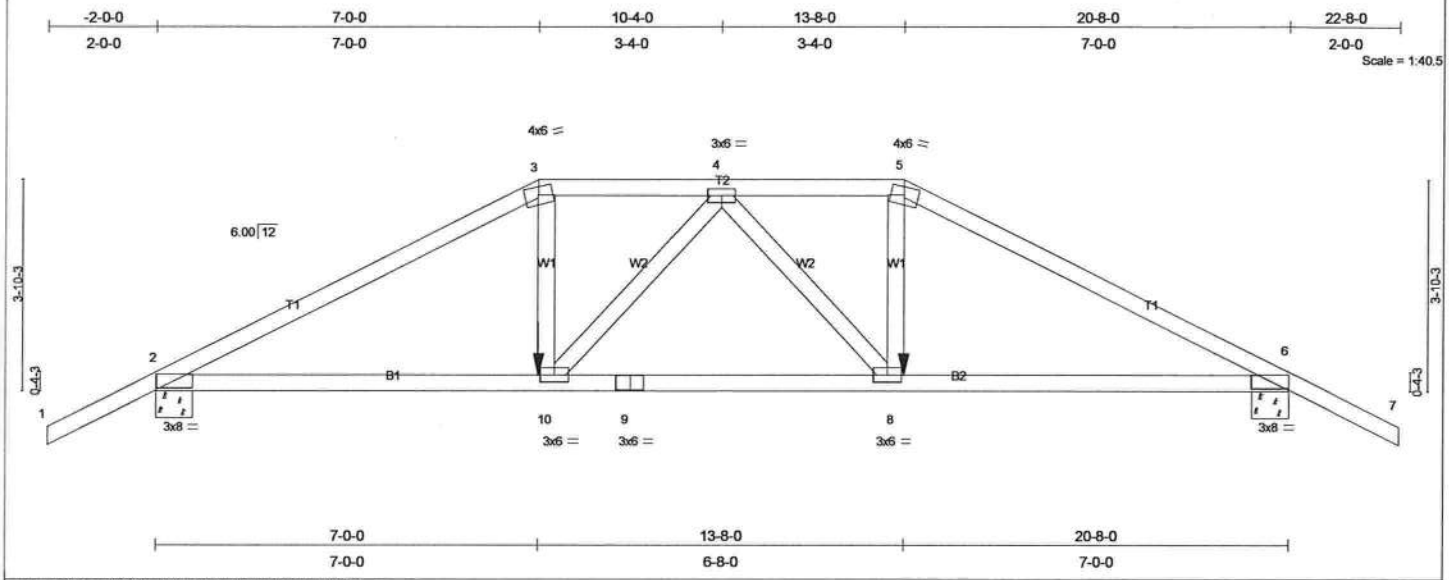

Plate Offsets (X,Y): [2:0-8-0,0-0-6], [6:0-8-0,0-0-6]

LOADING (psf)		SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plates Increase	1.25	TC	0.40	Vert(LL)	-0.09	8-10	>999	360	MT20	244/190
TCDL	7.0	Lumber Increase	1.25	BC	0.48	Vert(TL)	-0.21	8-10	>999	240		
BCLL	10.0 *	Rep Stress Incr	NO	WB	0.24	Horz(TL)	0.07	6	n/a	n/a		
BCDL	5.0	Code FBC2004/TPI2002		(Matrix)							Weight: 94 lb	

LUMBER
TOP CHORD 2 X 4 SYP No.2
BOT CHORD 2 X 4 SYP No.2
WEBS 2 X 4 SYP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-9-12 oc purlins.
BOT CHORD Rigid ceiling directly applied or 7-9-5 oc bracing.

REACTIONS (lb/size) 2=1406/0-8-0, 6=1406/0-8-0
Max Horz 2=77(load case 5)
Max Uplift2=-484(load case 5), 6=-484(load case 6)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/48, 2-3=-2378/712, 3-4=-2054/666, 4-5=-2054/666, 5-6=-2378/712, 6-7=0/48
BOT CHORD 2-10=-594/2026, 9-10=-660/2183, 8-9=-660/2183, 6-8=-560/2026
WEBS 3-10=-220/740, 4-10=-303/174, 4-8=-303/174, 5-8=-220/740

JOINT STRESS INDEX
2 = 0.76, 3 = 0.82, 4 = 0.38, 5 = 0.82, 6 = 0.76, 8 = 0.48, 9 = 0.77 and 10 = 0.48

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-02; 110mph (3-second gust); h=20ft; TCDL=4.2psf; BCDL=3.0psf; Category II; Exp B; enclosed; MWFRS; Lumber DOL=1.60 plate grip DOL=1.60.
3) Provide adequate drainage to prevent water ponding.
4) *This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) All bearings are assumed to be SYP No.2 crushing capacity of 565.00 psi
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 484 lb uplift at joint 2 and 484 lb uplift at joint 6.
7) Girder carries hip end with 7-0-0 end setback.
8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 411 lb down and 165 lb up at 13-8-0, and 411 lb down and 165 lb up at 7-0-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Regular: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (plf)
Vert: 1-3=-54, 3-5=-113(F=-58), 5-7=-54, 2-10=-10, 8-10=-21(F=-11), 6-8=-10
Concentrated Loads (lb)
Vert: 10=-411(F) 8=-411(F)

Job	Truss	Truss Type	Qty	Ply	HBH - MONROE RES.
L264772	T02	HIP	1	1	Job Reference (optional)

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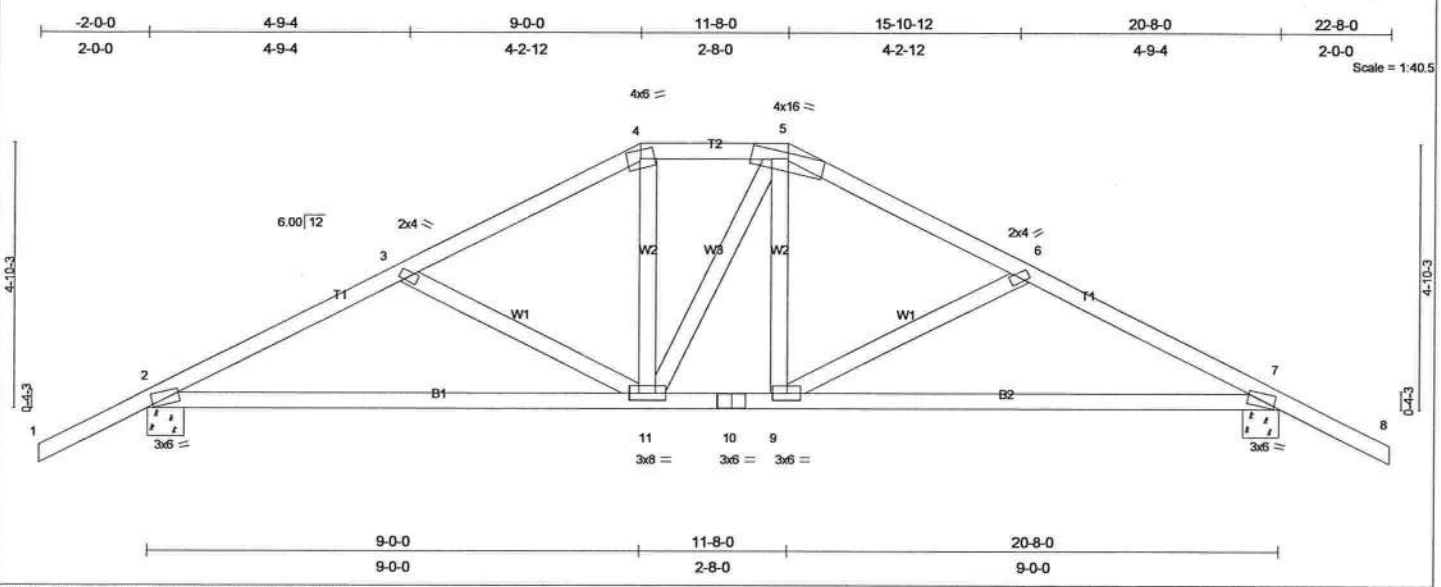

Plate Offsets (X,Y): [2:0-1-5,0-0-7], [7:0-1-5,0-0-7]

LOADING (psf)		SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plates Increase	1.25	TC	0.34	Vert(LL)	-0.13	7-9	>999	360	MT20	244/190
TCDL	7.0	Lumber Increase	1.25	BC	0.38	Vert(TL)	-0.23	7-9	>999	240		
BCLL	10.0 *	Rep Stress Incr	YES	WB	0.10	Horz(TL)	0.03	7	n/a	n/a		
BCDL	5.0	Code FBC2004/TPI2002		(Matrix)							Weight: 106 lb	

LUMBER
TOP CHORD 2 X 4 SYP No.2
BOT CHORD 2 X 4 SYP No.2
WEBS 2 X 4 SYP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 2=766/0-8-0, 7=766/0-8-0
Max Horz 2=-89(load case 7)
Max Uplift2=-237(load case 6), 7=-237(load case 7)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/48, 2-3=-1048/548, 3-4=-813/448, 4-5=-682/452, 5-6=-812/448, 6-7=-1048/548, 7-8=0/48
BOT CHORD 2-11=-320/870, 10-11=-142/682, 9-10=-142/682, 7-9=-320/871
WEBS 3-11=-222/202, 4-11=-50/208, 5-11=-96/98, 5-9=-50/209, 6-9=-223/202

JOINT STRESS INDEX
2 = 0.87, 3 = 0.34, 4 = 0.36, 5 = 0.44, 6 = 0.34, 7 = 0.88, 9 = 0.35, 10 = 0.50 and 11 = 0.62

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-02; 110mph (3-second gust); h=20ft; TCDL=4.2psf; BCDL=3.0psf; Category II; Exp B; enclosed; MWFRS and C-C Exterior(2) zone; Lumber DOL=1.60 plate grip DOL=1.60. This truss is designed for C-C for members and forces, and for MWFRS for reactions specified.
3) Provide adequate drainage to prevent water ponding.
4) *This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) All bearings are assumed to be SYP No.2 crushing capacity of 565.00 psi
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 237 lb uplift at joint 2 and 237 lb uplift at joint 7.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	HBH - MONROE RES.
L264772	T03	COMMON	6	1	Job Reference (optional)

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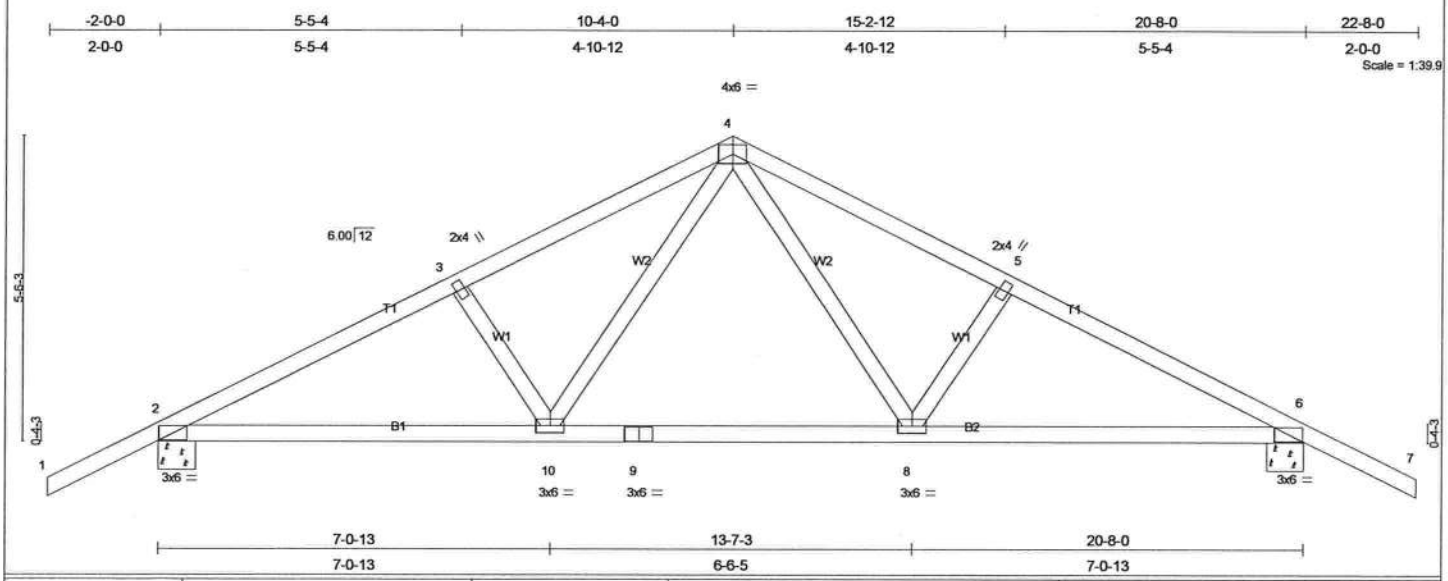

LOADING (psf)		SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plates Increase	1.25	TC	0.39	Vert(LL)	0.19	8-10	>999	360	MT20	244/190
TCDL	7.0	Lumber Increase	1.25	BC	0.59	Vert(TL)	-0.29	8-10	>837	240		
BCLL	10.0 *	Rep Stress Incr	NO	WB	0.19	Horz(TL)	0.04	6	n/a	n/a		
BCDL	5.0	Code FBC2004/TPI2002		(Matrix)							Weight: 98 lb	

LUMBER
TOP CHORD 2 X 4 SYP No.2
BOT CHORD 2 X 4 SYP No.2
WEBS 2 X 4 SYP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-0-4 oc purlins.
BOT CHORD Rigid ceiling directly applied or 8-5-15 oc bracing.

REACTIONS (lb/size) 2=962/0-8-0, 6=962/0-8-0
Max Horz 2=97(load case 6)
Max Uplift2=-298(load case 6), 6=-298(load case 7)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/48, 2-3=-1495/791, 3-4=-1351/794, 4-5=-1351/794, 5-6=-1495/791, 6-7=0/48
BOT CHORD 2-10=-528/1252, 9-10=-278/885, 8-9=-278/885, 6-8=-528/1252
WEBS 3-10=-195/190, 4-10=-279/531, 4-8=-279/531, 5-8=-195/190

JOINT STRESS INDEX
2 = 0.68, 3 = 0.34, 4 = 0.56, 5 = 0.34, 6 = 0.68, 8 = 0.43, 9 = 0.54 and 10 = 0.43

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-02; 110mph (3-second gust); h=20ft; TCDL=4.2psf; BCDL=3.0psf; Category II; Exp B; enclosed; MWFRS and C-C Exterior(2) zone; Lumber DOL=1.60 plate grip DOL=1.60. This truss is designed for C-C for members and forces, and for MWFRS for reactions specified.
3) *This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) All bearings are assumed to be SYP No.2 crushing capacity of 565.00 psi
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 298 lb uplift at joint 2 and 298 lb uplift at joint 6.
6) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Regular: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (plf)
Vert: 1-4=-54, 4-7=-54, 2-10=-10, 8-10=-70(F=-60), 6-8=-10

Job	Truss	Truss Type	Qty	Ply	HBH - MONROE RES.
L264772	T04	COMMON	1	2	Job Reference (optional)

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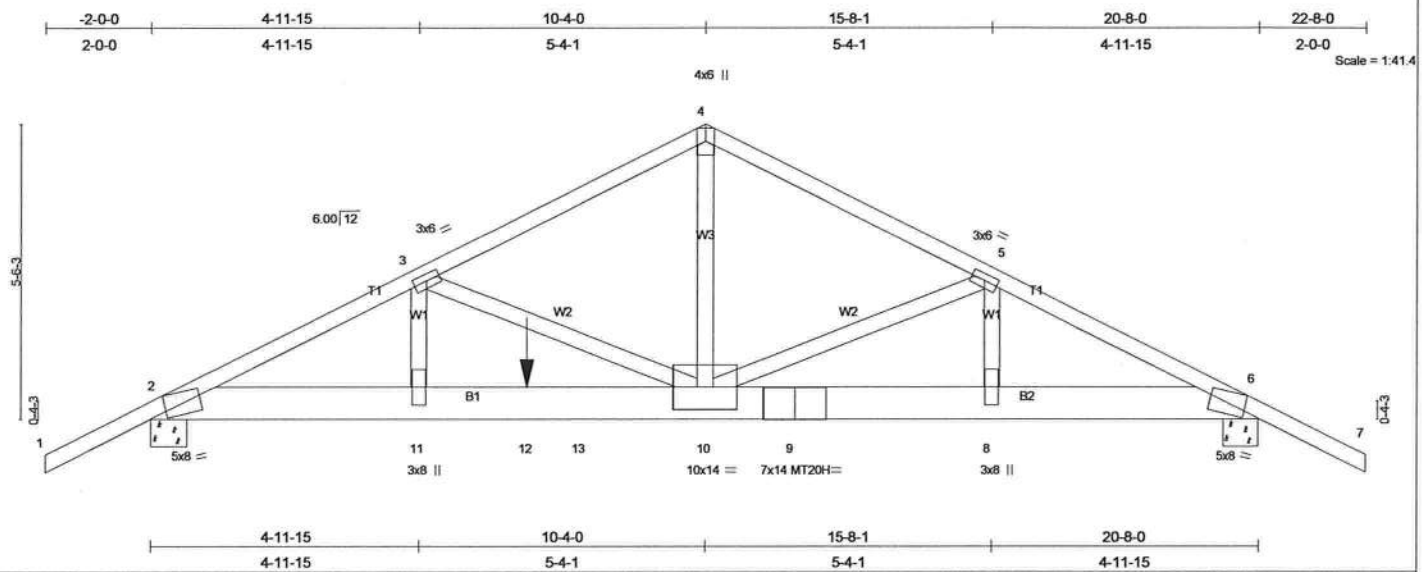

LOADING (psf)		SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plates Increase	1.25	TC	0.31	Vert(LL)	-0.14	10-11	>999	360	MT20	244/190
TCDL	7.0	Lumber Increase	1.25	BC	0.82	Vert(TL)	-0.26	10-11	>913	240	MT20H	187/143
BCLL	10.0 *	Rep Stress Incr	NO	WB	0.48	Horz(TL)	0.05	6	n/a	n/a		
BCDL	5.0	Code FBC2004/TPI2002		(Matrix)							Weight: 268 lb	

LUMBER
TOP CHORD 2 X 4 SYP No.2
BOT CHORD 2 X 8 SYP No.1D
WEBS 2 X 4 SYP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-4-2 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 2=3906/0-8-0, 6=5376/0-8-0
Max Horz 2=101(load case 5)
Max Uplift2=-1113(load case 5), 6=-1519(load case 6)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/54, 2-3=-8072/2112, 3-4=-6281/1699, 4-5=-6296/1700, 5-6=-8872/2338, 6-7=0/54
BOT CHORD 2-11=-1877/7129, 11-12=-1877/7129, 12-13=-1877/7129, 10-13=-1877/7129, 9-10=-2025/7864, 8-9=-2025/7864, 6-8=-2025/7864
WEBS 3-11=-331/1356, 3-10=-1722/494, 4-10=-1396/5238, 5-10=-2526/742, 5-8=-554/2026

JOINT STRESS INDEX
2 = 0.92, 3 = 0.75, 4 = 0.60, 5 = 0.75, 6 = 0.92, 8 = 0.33, 9 = 0.45, 10 = 0.39 and 11 = 0.33

NOTES
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2 X 4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2 X 8 - 2 rows at 0-7-0 oc.
Webs connected as follows: 2 X 4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-02; 110mph (3-second gust); h=20ft; TCDL=4.2psf; BCDL=3.0psf; Category II; Exp B; enclosed; MWFRS; Lumber DOL=1.60 plate grip DOL=1.60.
5) *This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) All plates are MT20 plates unless otherwise indicated.
7) All bearings are assumed to be SYP No.2 crushing capacity of 565.00 psi
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 1113 lb uplift at joint 2 and 1519 lb uplift at joint 6.
9) Girder carries tie-in span(s): 31-4-0 from 8-0-0 to 20-8-0
10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 2093 lb down and 579 lb up at 7-0-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard
1) Regular: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (plf)
Vert: 1-4=-54, 4-7=-54, 2-13=-10, 6-13=-469(F=-459)
Concentrated Loads (lb)
Vert: 12=-2093(F)

Job	Truss	Truss Type	Qty	Ply	HBH - MONROE RES.
L264772	T05	HIP	1	1	Job Reference (optional)

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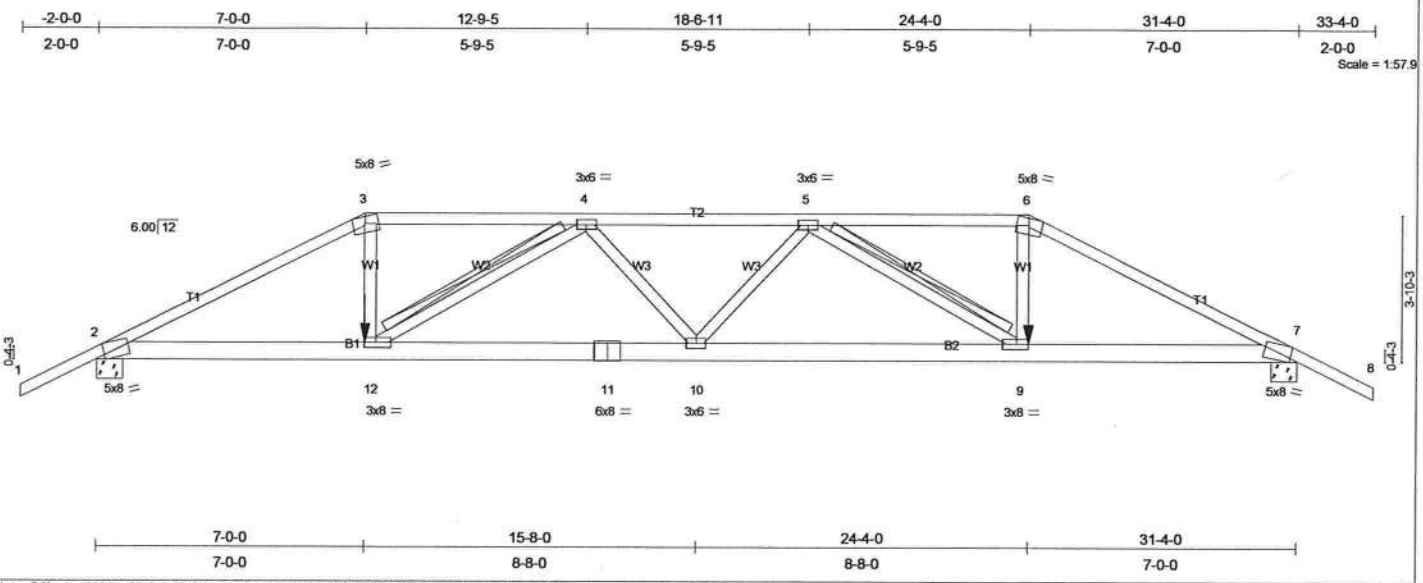

Plate Offsets (X,Y): [2:0-2-7,Edge], [7:0-2-7,Edge], [9:0-3-8,0-1-8], [12:0-3-8,0-1-8]

LOADING (psf)		SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plates Increase	1.25	TC	0.67	Vert(LL)	-0.26	10	>999	360	MT20	244/190
TCDL	7.0	Lumber Increase	1.25	BC	0.60	Vert(TL)	-0.51	9-10	>721	240		
BCLL	10.0 *	Rep Stress Incr	NO	WB	0.43	Horz(TL)	0.12	7	n/a	n/a		
BCDL	5.0	Code FBC2004/TPI2002		(Matrix)							Weight: 170 lb	

LUMBER
TOP CHORD 2 X 4 SYP No.2
BOT CHORD 2 X 6 SYP No.1D
WEBS 2 X 4 SYP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-5-8 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-9-1 oc bracing.
WEBS T-Brace: 2 X 4 SYP No.3 - 4-12, 5-9
Fasten T and I braces to narrow edge of web with 10d Common wire nails, 9in o.c. ,with 4in minimum end distance.
Brace must cover 90% of web length.

REACTIONS (lb/size) 2=2117/0-8-0, 7=2117/0-8-0
Max Horz 2=-79(load case 6)
Max Uplift2=-668(load case 5), 7=-668(load case 6)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/52, 2-3=-3962/1262, 3-4=-3502/1168, 4-5=-4805/1554, 5-6=-3502/1168, 6-7=-3962/1262, 7-8=0/52
BOT CHORD 2-12=-1087/3448, 11-12=-1543/4723, 10-11=-1543/4723, 9-10=-1523/4723, 7-9=-1055/3448
WEBS 3-12=-376/1313, 4-12=-1520/590, 4-10=0/238, 5-10=0/238, 5-9=-1520/590, 6-9=-376/1313

JOINT STRESS INDEX
2 = 0.78, 3 = 0.74, 4 = 0.44, 5 = 0.44, 6 = 0.74, 7 = 0.78, 9 = 0.85, 10 = 0.38, 11 = 0.91 and 12 = 0.85

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-02; 110mph (3-second gust); h=20ft; TCDL=4.2psf; BCDL=3.0psf; Category II; Exp B; enclosed; MWFRS; Lumber DOL=1.60 plate grip DOL=1.60.
3) Provide adequate drainage to prevent water ponding.
4) *This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) All bearings are assumed to be SYP No.2 crushing capacity of 565.00 psi
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 668 lb uplift at joint 2 and 668 lb uplift at joint 7.
7) Girder carries hip end with 7-0-0 end setback.
8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 411 lb down and 165 lb up at 24-4-0, and 411 lb down and 165 lb up at 7-0-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Regular: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (plf)
Vert: 1-3=-54, 3-6=-113(F=-59), 6-8=-54, 2-12=-10, 9-12=-21(F=-11), 7-9=-10
Concentrated Loads (lb)
Vert: 12=-411(F) 9=-411(F)

Job	Truss	Truss Type	Qty	Ply	HBH - MONROE RES.
L264772	T06	HIP	1	1	Job Reference (optional)

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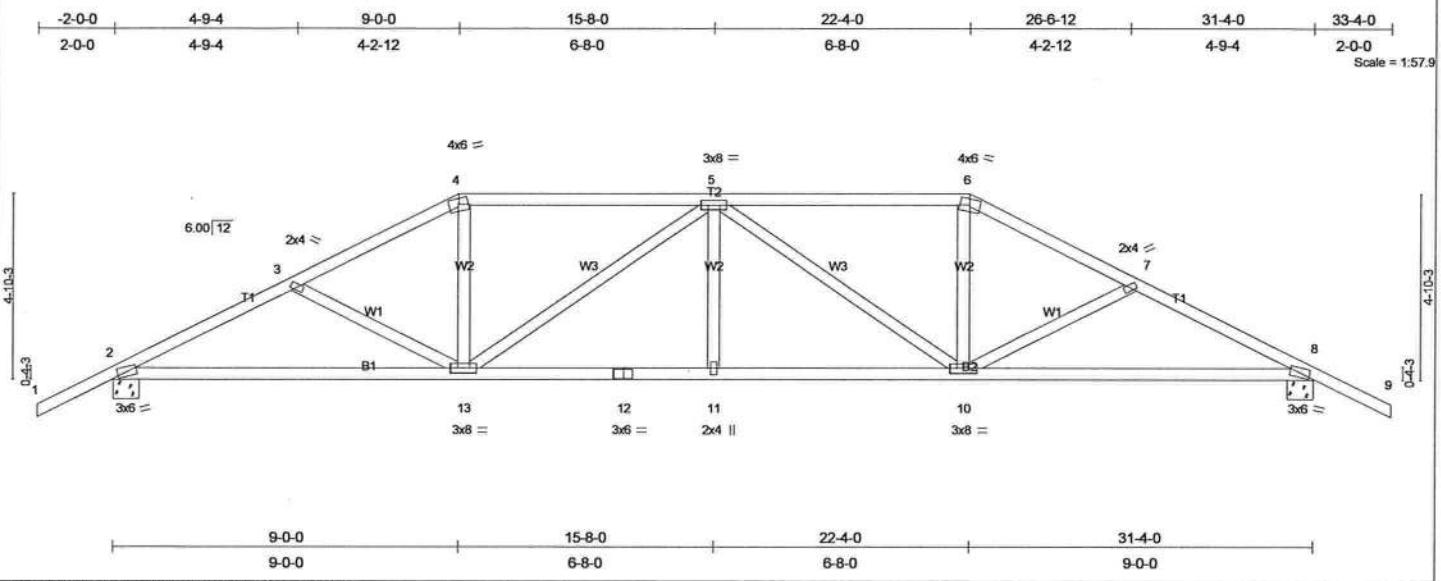

Plate Offsets (X,Y): [2:0-1-9,0-0-7], [8:0-1-9,0-0-7]

LOADING (psf)		SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plates Increase	1.25	TC	0.34	Vert(LL)	-0.14	8-10	>999	360	MT20	244/190
TCDL	7.0	Lumber Increase	1.25	BC	0.53	Vert(TL)	-0.26	8-10	>999	240		
BCLL	10.0 *	Rep Stress Incr	YES	WB	0.51	Horz(TL)	0.08	8	n/a	n/a		
BCDL	5.0	Code FBC2004/TPI2002		(Matrix)							Weight: 159 lb	

LUMBER
TOP CHORD 2 X 4 SYP No.2
BOT CHORD 2 X 4 SYP No.2
WEBS 2 X 4 SYP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-8-8 oc purlins.
BOT CHORD Rigid ceiling directly applied or 7-8-4 oc bracing.

REACTIONS (lb/size) 2=1107/0-8-0, 8=1107/0-8-0
Max Horz 2=89(load case 6)
Max Uplift2=-276(load case 6), 8=-276(load case 7)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/48, 2-3=-1746/903, 3-4=-1553/828, 4-5=-1363/802, 5-6=-1363/802, 6-7=-1553/828, 7-8=-1746/903, 8-9=0/48
BOT CHORD 2-13=-629/1478, 12-13=-662/1670, 11-12=-662/1670, 10-11=-662/1670, 8-10=-629/1478
WEBS 3-13=-149/159, 4-13=-129/403, 5-13=-463/207, 5-11=0/162, 5-10=-463/207, 6-10=-129/403, 7-10=-149/159

JOINT STRESS INDEX
2 = 0.88, 3 = 0.34, 4 = 0.69, 5 = 0.57, 6 = 0.69, 7 = 0.34, 8 = 0.88, 10 = 0.57, 11 = 0.34, 12 = 0.59 and 13 = 0.57

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-02; 110mph (3-second gust); h=20ft; TCDL=4.2psf; BCDL=3.0psf; Category II; Exp B; enclosed; MWFRS and C-C Exterior(2) zone; Lumber DOL=1.60 plate grip DOL=1.60. This truss is designed for C-C for members and forces, and for MWFRS for reactions specified.
3) Provide adequate drainage to prevent water ponding.
4) *This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) All bearings are assumed to be SYP No.2 crushing capacity of 565.00 psi
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 276 lb uplift at joint 2 and 276 lb uplift at joint 8.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	HBH - MONROE RES.
L264772	T07	HIP	1	1	Job Reference (optional)

Builders FirstSource, Lake City, Fl 32055 — 6.300 s Apr 19 2006 MiTek Industries, Inc. Thu Jan 10 19:49:56 2008 Page 1

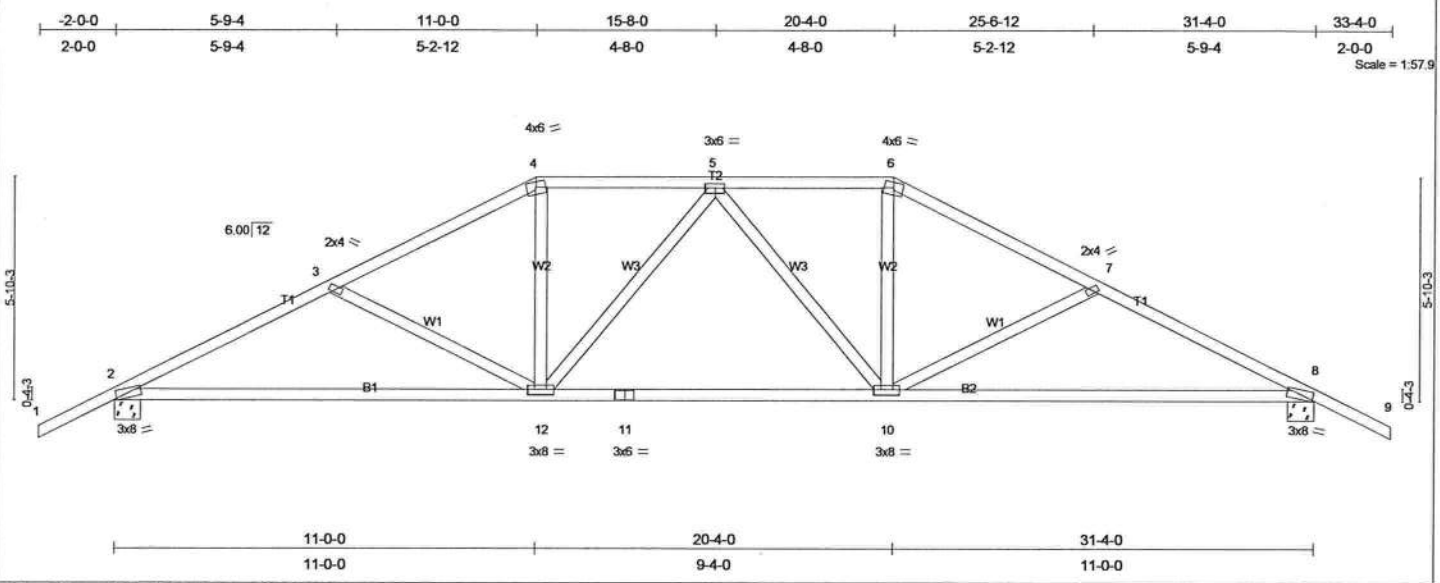

Plate Offsets (X,Y): [2:0-0-10,Edge], [8:0-0-10,Edge]

LOADING (psf)		SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plates Increase	1.25	TC	0.36	Vert(LL)	-0.28	8-10	>999	360	MT20	244/190
TCDL	7.0	Lumber Increase	1.25	BC	0.51	Vert(TL)	-0.52	8-10	>708	240		
BCLL	10.0 *	Rep Stress Incr	YES	WB	0.23	Horz(TL)	0.07	8	n/a	n/a		
BCDL	5.0	Code FBC2004/TPI2002		(Matrix)							Weight: 158 lb	

LUMBER
TOP CHORD 2 X 4 SYP No.2
BOT CHORD 2 X 4 SYP No.2
WEBS 2 X 4 SYP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-7-12 oc purlins.
BOT CHORD Rigid ceiling directly applied or 7-9-1 oc bracing.

REACTIONS (lb/size) 2=1107/0-8-0, 8=1107/0-8-0
Max Horz 2=-101(load case 7)
Max Uplift2=-291(load case 6), 8=-291(load case 7)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/48, 2-3=-1739/931, 3-4=-1448/799, 4-5=-1245/780, 5-6=-1245/780, 6-7=-1448/799, 7-8=-1739/931, 8-9=0/48
BOT CHORD 2-12=-648/1475, 11-12=-477/1338, 10-11=-477/1338, 8-10=-648/1475
WEBS 3-12=-276/262, 4-12=-127/382, 5-12=-259/116, 5-10=-259/115, 6-10=-127/382, 7-10=-276/262

JOINT STRESS INDEX
2 = 0.90, 3 = 0.34, 4 = 0.65, 5 = 0.40, 6 = 0.65, 7 = 0.34, 8 = 0.90, 10 = 0.57, 11 = 0.45 and 12 = 0.57

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-02; 110mph (3-second gust); h=20ft; TCDL=4.2psf; BCDL=3.0psf; Category II; Exp B; enclosed; MWFRS and C-C Exterior(2) zone; Lumber DOL=1.60 plate grip DOL=1.60. This truss is designed for C-C for members and forces, and for MWFRS for reactions specified.
3) Provide adequate drainage to prevent water ponding.
4) *This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) All bearings are assumed to be SYP No.2 crushing capacity of 565.00 psi
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 291 lb uplift at joint 2 and 291 lb uplift at joint 8.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	HBH - MONROE RES.
L264772	T08	HIP	1	1	Job Reference (optional)

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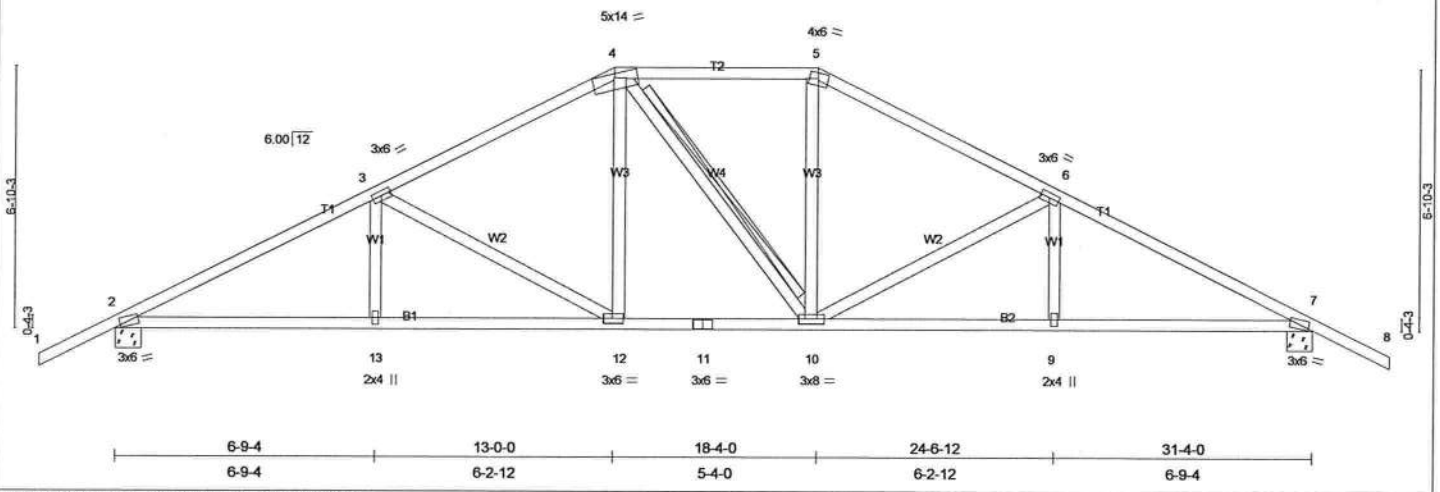

Plate Offsets (X,Y): [2:0-1-9,0-0-7], [7:0-1-9,0-0-7]

LOADING (psf)		SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plates Increase	1.25	TC	0.34	Vert(LL)	0.10	12-13	>999	360	MT20	244/190
TCDL	7.0	Lumber Increase	1.25	BC	0.33	Vert(TL)	-0.17	12-13	>999	240		
BCLL	10.0 *	Rep Stress Incr	YES	WB	0.38	Horz(TL)	0.07	7	n/a	n/a		
BCDL	5.0	Code FBC2004/TPI2002		(Matrix)							Weight: 165 lb	

LUMBER
TOP CHORD 2 X 4 SYP No.2
BOT CHORD 2 X 4 SYP No.2
WEBS 2 X 4 SYP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-6-8 oc purlins.
BOT CHORD Rigid ceiling directly applied or 7-11-13 oc bracing.
WEBS T-Brace: 2 X 4 SYP No.3 - 4-10
Fasten T and I braces to narrow edge of web with 10d Common wire nails, 9in o.c. ,with 4in minimum end distance.
Brace must cover 90% of web length.

REACTIONS (lb/size) 2=1107/0-8-0, 7=1107/0-8-0
Max Horz 2=-113(load case 7)
Max Uplift2=-303(load case 6), 7=-303(load case 7)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/48, 2-3=-1751/907, 3-4=-1323/780, 4-5=-1119/765, 5-6=-1323/780, 6-7=-1751/907, 7-8=0/48
BOT CHORD 2-13=-622/1476, 12-13=-622/1476, 11-12=-354/1119, 10-11=-354/1119, 9-10=-622/1476, 7-9=-622/1476
WEBS 3-13=0/208, 3-12=-416/307, 4-12=-115/308, 4-10=-149/150, 5-10=-115/308, 6-10=-415/307, 6-9=0/208

JOINT STRESS INDEX
2 = 0.79, 3 = 0.41, 4 = 0.78, 5 = 0.69, 6 = 0.41, 7 = 0.79, 9 = 0.34, 10 = 0.58, 11 = 0.38, 12 = 0.35 and 13 = 0.34

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-02; 110mph (3-second gust); h=20ft; TCDL=4.2psf; BCDL=3.0psf; Category II; Exp B; enclosed; MWFRS and C-C Exterior(2) zone; Lumber DOL=1.60 plate grip DOL=1.60. This truss is designed for C-C for members and forces, and for MWFRS for reactions specified.
3) Provide adequate drainage to prevent water ponding.
4) *This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) All bearings are assumed to be SYP No.2 crushing capacity of 565.00 psi
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 303 lb uplift at joint 2 and 303 lb uplift at joint 7.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	HBH - MONROE RES.
L264772	T09	SPECIAL	1	1	Job Reference (optional)

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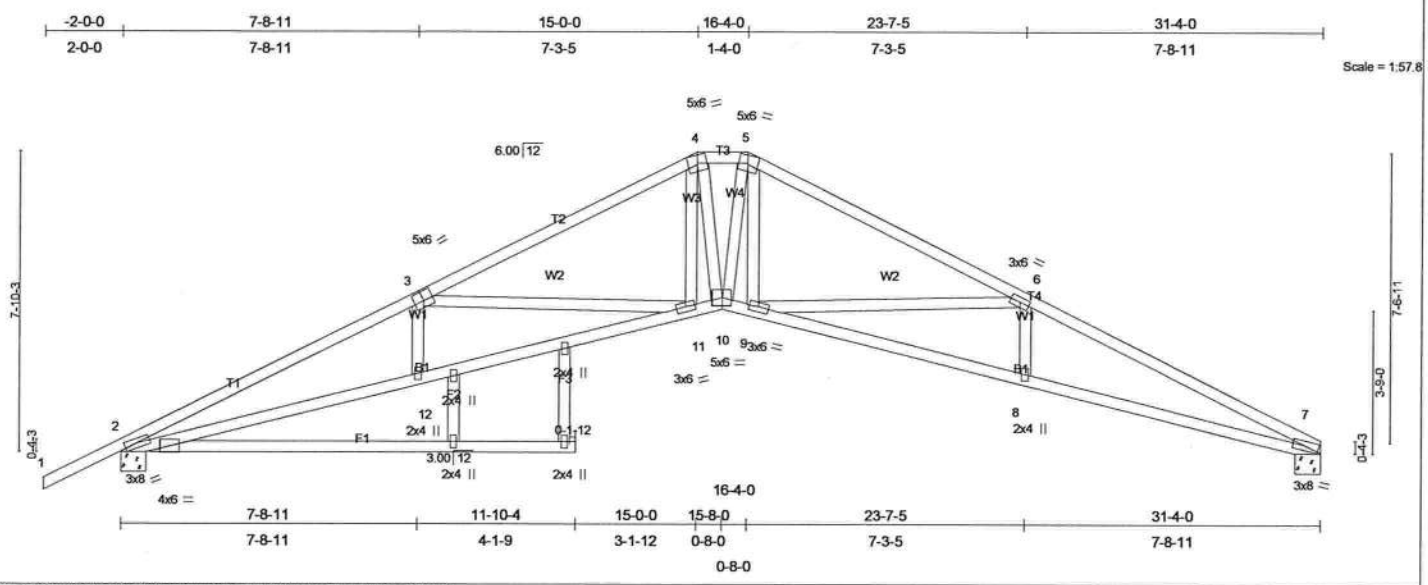

Plate Offsets (X,Y): [2:0-1-12,Edge], [3:0-3-0,0-3-0], [7:0-1-3,0-0-5]

LOADING (psf)		SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plates Increase	1.25	TC	0.60	Vert(LL)	0.35	10	>999	360	MT20	244/190
TCDL	7.0	Lumber Increase	1.25	BC	0.69	Vert(TL)	-0.58	11-12	>630	240		
BCLL	10.0 *	Rep Stress Incr	YES	WB	0.71	Horz(TL)	0.43	7	n/a	n/a		
BCDL	5.0	Code FBC2004/TPI2002		(Matrix)							Weight: 174 lb	

LUMBER
TOP CHORD 2 X 4 SYP No.2
BOT CHORD 2 X 4 SYP No.2
WEBS 2 X 4 SYP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-11-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 5-0-5 oc bracing. Except:
2 Rows at 1/3 pts 2-11

REACTIONS (lb/size) 7=977/0-8-0, 2=1112/0-8-0
Max Horz 2=135(load case 6)
Max Uplift7=-218(load case 7), 2=-314(load case 6)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/45, 2-3=-3089/1582, 3-4=-2261/1151, 4-5=-1999/1135, 5-6=-2269/1154, 6-7=-3147/1673
BOT CHORD 2-12=-1320/2729, 11-12=-1324/2727, 10-11=-735/1961, 9-10=-743/1972, 8-9=-1413/2788, 7-8=-1416/2792
WEBS 3-12=0/232, 3-11=-744/563, 4-11=-147/438, 4-10=-204/525, 5-10=-185/466, 5-9=-146/436, 6-9=-789/647, 6-8=0/234

JOINT STRESS INDEX
2 = 0.81, 3 = 0.85, 4 = 0.69, 5 = 0.67, 6 = 0.41, 7 = 0.81, 8 = 0.34, 9 = 0.38, 10 = 0.71, 11 = 0.38, 12 = 0.34, 13 = 0.12, 15 = 0.34, 16 = 0.34, 17 = 0.34 and 18 = 0.34

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-02; 110mph (3-second gust); h=20ft; TCDL=4.2psf; BCDL=3.0psf; Category II; Exp B; enclosed; MWFRS and C-C Exterior(2) zone; Lumber DOL=1.60 plate grip DOL=1.60. This truss is designed for C-C for members and forces, and for MWFRS for reactions specified.
3) Provide adequate drainage to prevent water ponding.
4) *This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) All bearings are assumed to be SYP No.2 crushing capacity of 565.00 psi
6) Bearing at joint(s) 7, 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 218 lb uplift at joint 7 and 314 lb uplift at joint 2.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	HBH - MONROE RES.
L264772	T10	SPECIAL	3	1	Job Reference (optional)

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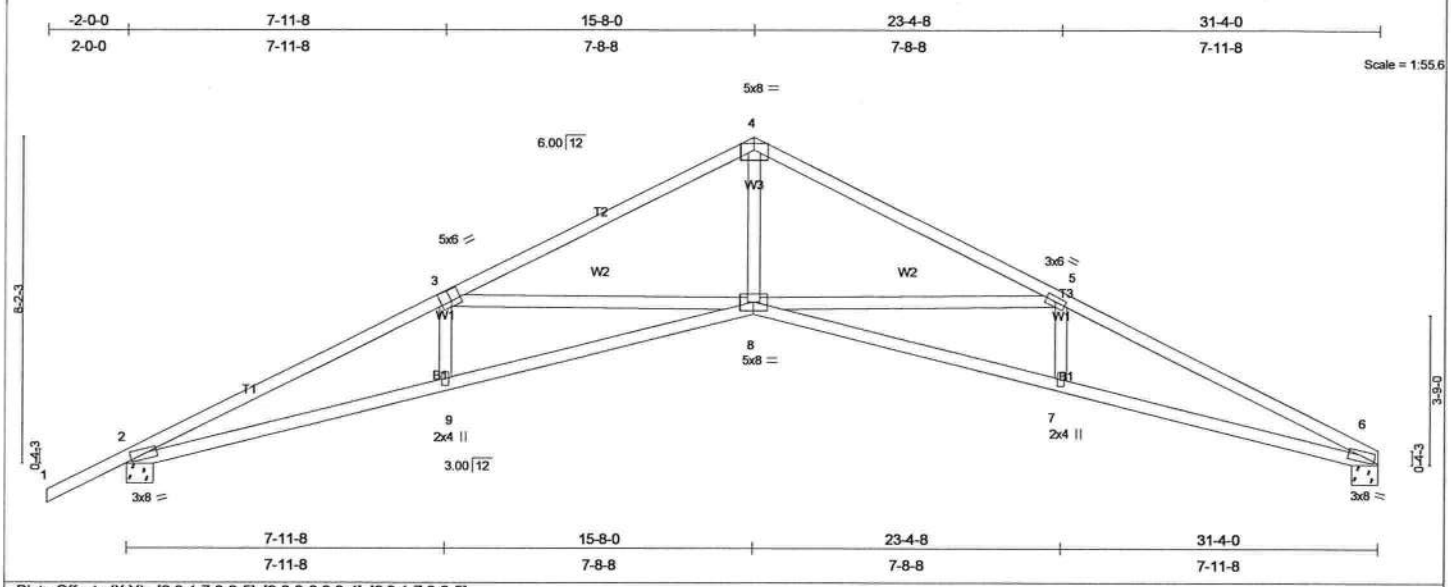

Plate Offsets (X,Y): [2:0-1-7,0-0-5], [3:0-3-0,0-3-4], [6:0-1-7,0-0-5]

LOADING (psf)		SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plates Increase	1.25	TC	0.66	Vert(LL)	0.37	8-9	>991	360	MT20	244/190
TCDL	7.0	Lumber Increase	1.25	BC	0.71	Vert(TL)	-0.62	8-9	>597	240		
BCLL	10.0 *	Rep Stress Incr	YES	WB	0.93	Horz(TL)	0.45	6	n/a	n/a		
BCDL	5.0	Code FBC2004/TPI2002		(Matrix)							Weight: 138 lb	

LUMBER
TOP CHORD 2 X 4 SYP No.2
BOT CHORD 2 X 4 SYP No.2
WEBS 2 X 4 SYP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-9-12 oc purlins.
BOT CHORD Rigid ceiling directly applied or 4-11-15 oc bracing.

REACTIONS (lb/size) 6=977/0-8-0, 2=1112/0-8-0
Max Horz 2=138(load case 6)
Max Uplift6=-213(load case 7), 2=-317(load case 6)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/45, 2-3=-3082/1586, 3-4=-2199/1120, 4-5=-2201/1121, 5-6=-3136/1670
BOT CHORD 2-9=-1321/2724, 8-9=-1325/2720, 7-8=-1407/2777, 6-7=-1411/2782
WEBS 3-9=0/242, 3-8=-822/597, 4-8=-663/1467, 5-8=-879/678, 5-7=0/243

JOINT STRESS INDEX
2 = 0.81, 3 = 0.76, 4 = 0.78, 5 = 0.41, 6 = 0.81, 7 = 0.34, 8 = 0.90 and 9 = 0.34

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-02; 110mph (3-second gust); h=20ft; TCDL=4.2psf; BCDL=3.0psf; Category II; Exp B; enclosed; MWFRS and C-C Exterior(2) zone; Lumber DOL=1.60 plate grip DOL=1.60. This truss is designed for C-C for members and forces, and for MWFRS for reactions specified.
3) *This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) All bearings are assumed to be SYP No.2 crushing capacity of 565.00 psi
5) Bearing at joint(s) 6, 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 213 lb uplift at joint 6 and 317 lb uplift at joint 2.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	HBH - MONROE RES.
L264772	T11	MONO HIP	1	1	Job Reference (optional)

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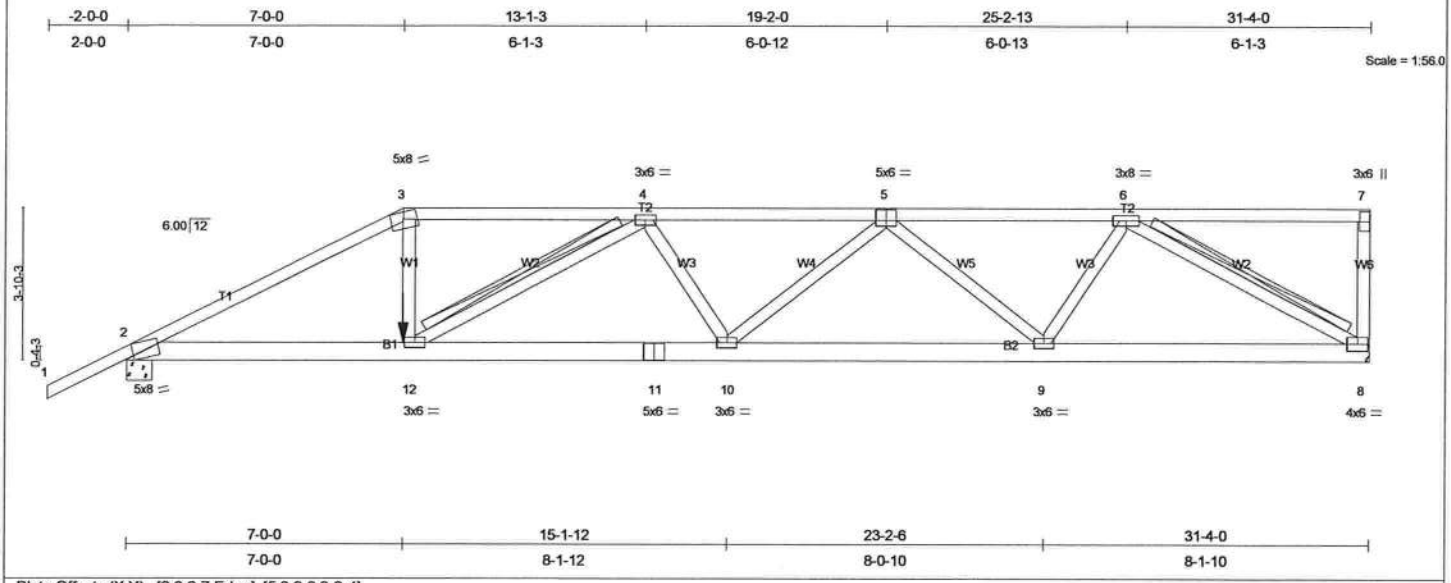

Plate Offsets (X,Y): [2:0-2-7,Edge], [5:0-3-0,0-3-4]

LOADING (psf)		SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plates Increase	1.25	TC	0.70	Vert(LL)	-0.26	10	>999	360	MT20	244/190
TCDL	7.0	Lumber Increase	1.25	BC	0.59	Vert(TL)	-0.49	9-10	>751	240		
BCLL	10.0 *	Rep Stress Incr	NO	WB	1.00	Horz(TL)	0.12	8	n/a	n/a		
BCDL	5.0	Code FBC2004/TPI2002		(Matrix)							Weight: 179 lb	

LUMBER
TOP CHORD 2 X 4 SYP No.2
BOT CHORD 2 X 6 SYP No.1D
WEBS 2 X 4 SYP No.3 *Except*
W6 2 X 4 SYP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-4-15 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-6-14 oc bracing.
WEBS T-Brace: 2 X 4 SYP No.3 - 4-12, 6-8
Fasten T and I braces to narrow edge of web with 10d Common wire nails, 9in o.c. ,with 4in minimum end distance.
Brace must cover 90% of web length.

REACTIONS (lb/size) 8=2093/Mechanical, 2=2094/0-8-0
Max Horz 2=165(load case 5)
Max Uplift8=-717(load case 4), 2=-651(load case 5)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/52, 2-3=-3914/1273, 3-4=-3459/1178, 4-5=-4706/1579, 5-6=-3557/1178, 6-7=-121/43, 7-8=-321/162
BOT CHORD 2-12=-1163/3406, 11-12=-1637/4693, 10-11=-1637/4693, 9-10=-1580/4524, 8-9=-1047/2984
WEBS 3-12=-358/1239, 4-12=-1428/578, 4-10=0/196, 5-10=-9/247, 5-9=-1276/530, 6-9=-258/1132, 6-8=-3314/1162

JOINT STRESS INDEX
2 = 0.77, 3 = 0.73, 4 = 0.43, 5 = 0.78, 6 = 0.87, 7 = 0.75, 8 = 0.87, 9 = 0.87, 10 = 0.43, 11 = 0.98 and 12 = 0.81

NOTES
1) Wind: ASCE 7-02; 110mph (3-second gust); h=20ft; TCDL=4.2psf; BCDL=3.0psf; Category II; Exp B; enclosed; MWFRS; Lumber DOL=1.60 plate grip DOL=1.60.
2) Provide adequate drainage to prevent water ponding.
3) *This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) All bearings are assumed to be SYP No.2 crushing capacity of 565.00 psi
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 717 lb uplift at joint 8 and 651 lb uplift at joint 2.
6) Girder carries hip end with 0-0-0 right side setback, 7-0-0 left side setback, and 7-0-0 end setback.
7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 411 lb down and 165 lb up at 7-0-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Regular: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (plf)
Vert: 1-3=-54, 3-7=-113(F=-58), 2-12=-10, 8-12=-21(F=-11)
Concentrated Loads (lb)
Vert: 12=-411(F)

Job	Truss	Truss Type	Qty	Ply	HBH - MONROE RES.
L264772	T12	MONO HIP	1	1	Job Reference (optional)

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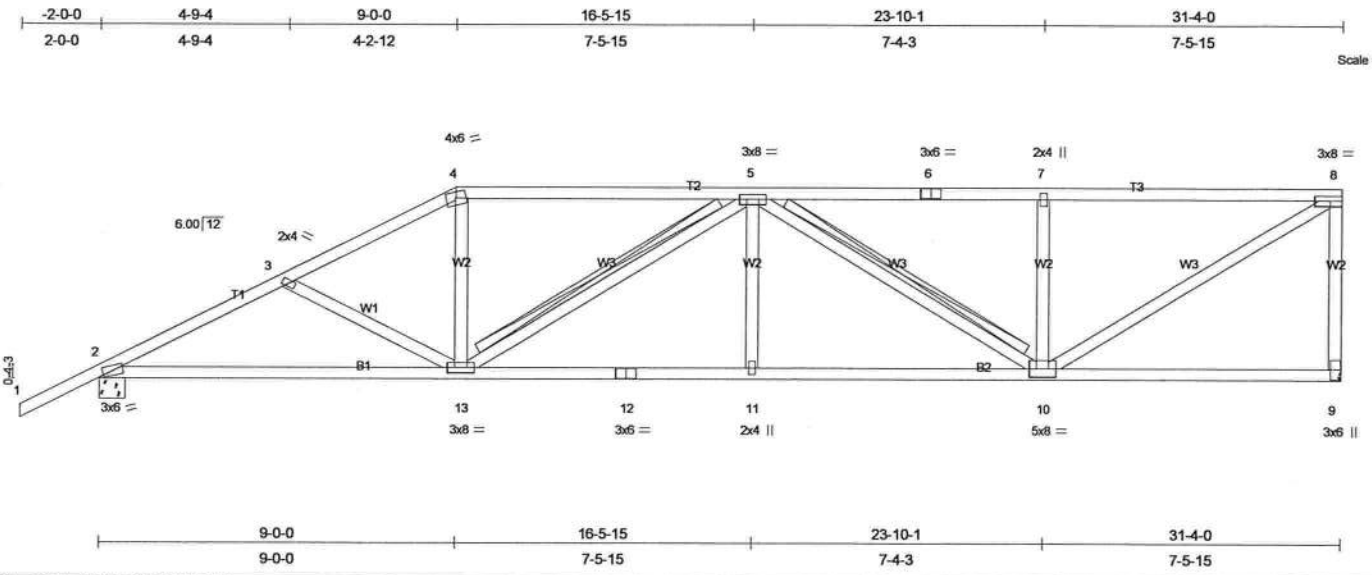

Plate Offsets (X,Y): [2:0-1-9,0-0-7]

LOADING (psf)		SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plates Increase	1.25	TC	0.90	Vert(LL)	0.14	11-13	>999	360	MT20	244/190
TCDL	7.0	Lumber Increase	1.25	BC	0.45	Vert(TL)	-0.26	2-13	>999	240		
BCLL	10.0 *	Rep Stress Incr	YES	WB	0.98	Horz(TL)	0.07	9	n/a	n/a		
BCDL	5.0	Code FBC2004/TPI2002		(Matrix)							Weight: 168 lb	

LUMBER
TOP CHORD 2 X 4 SYP No.2
BOT CHORD 2 X 4 SYP No.2
WEBS 2 X 4 SYP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-7-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-5-13 oc bracing.
WEBS T-Brace: 2 X 4 SYP No.3 - 5-13, 5-10
Fasten T and I braces to narrow edge of web with 10d Common wire nails, 9in o.c. ,with 4in minimum end distance.
Brace must cover 90% of web length.

REACTIONS (lb/size) 9=983/Mechanical, 2=1118/0-8-0
Max Horz 2=195(load case 6)
Max Uplift9=-269(load case 5), 2=-271(load case 6)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/48, 2-3=-1765/877, 3-4=-1582/808, 4-5=-1392/786, 5-6=-1268/676, 6-7=-1268/676, 7-8=-1268/676, 8-9=-940/534
BOT CHORD 2-13=-915/1493, 12-13=-934/1715, 11-12=-934/1715, 10-11=-934/1715, 9-10=-26/51
WEBS 3-13=-126/148, 4-13=-98/401, 5-13=-380/174, 5-11=0/207, 5-10=-527/304, 7-10=-410/298, 8-10=-764/1432

JOINT STRESS INDEX
2 = 0.87, 3 = 0.34, 4 = 0.82, 5 = 0.57, 6 = 0.35, 7 = 0.34, 8 = 0.66, 9 = 0.29, 10 = 0.66, 11 = 0.34, 12 = 0.61 and 13 = 0.57

NOTES
1) Wind: ASCE 7-02; 110mph (3-second gust); h=20ft; TCDL=4.2psf; BCDL=3.0psf; Category II; Exp B; enclosed; MWFRS and C-C Exterior(2) zone; Lumber DOL=1.60 plate grip DOL=1.60. This truss is designed for C-C for members and forces, and for MWFRS for reactions specified.
2) Provide adequate drainage to prevent water ponding.
3) *This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) All bearings are assumed to be SYP No.2 crushing capacity of 565.00 psi
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 269 lb uplift at joint 9 and 271 lb uplift at joint 2.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	HBH - MONROE RES.
L264772	T13	HIP	1	1	Job Reference (optional)

Builders FirstSource, Lake City, Fl 32055 — 6.300 s Apr 19 2006 MiTek Industries, Inc. Thu Jan 10 19:50:18 2008 Page 1

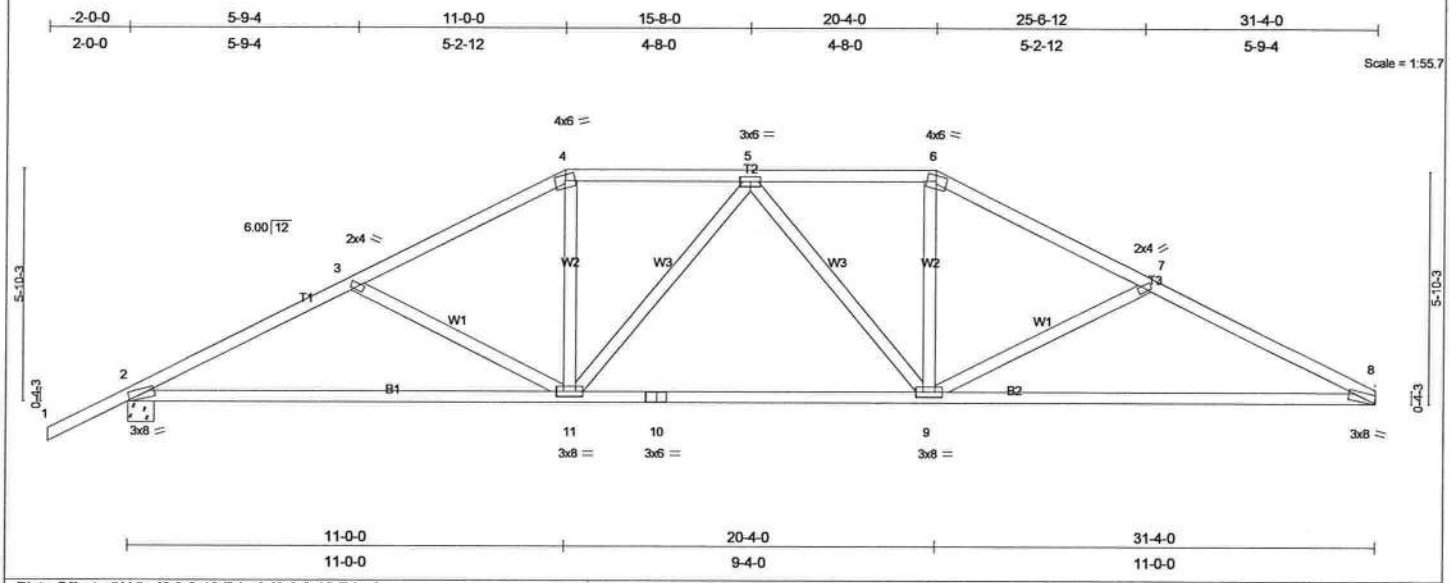

Plate Offsets (X,Y): [2:0-0-10,Edge], [8:0-0-10,Edge]

LOADING (psf)		SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plates Increase	1.25	TC	0.39	Vert(LL)	-0.31	8-9	>999	360	MT20	244/190
TCDL	7.0	Lumber Increase	1.25	BC	0.68	Vert(TL)	-0.60	8-9	>616	240		
BCLL	10.0 *	Rep Stress Incr	YES	WB	0.25	Horz(TL)	0.08	8	n/a	n/a		
BCDL	5.0	Code FBC2004/TPI2002		(Matrix)							Weight: 155 lb	

LUMBER
TOP CHORD 2 X 4 SYP No.2
BOT CHORD 2 X 4 SYP No.2
WEBS 2 X 4 SYP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-2-11 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-8-9 oc bracing.

REACTIONS (lb/size) 8=985/Mechanical, 2=1121/0-8-0
Max Horz 2=114(load case 6)
Max Uplift8=-191(load case 7), 2=-292(load case 6)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/48, 2-3=-1766/956, 3-4=-1476/825, 4-5=-1270/803, 5-6=-1295/826, 6-7=-1507/855, 7-8=-1836/1035
BOT CHORD 2-11=-749/1499, 10-11=-592/1377, 9-10=-592/1377, 8-9=-842/1598
WEBS 3-11=-276/261, 4-11=-139/389, 5-11=-280/119, 5-9=-250/112, 6-9=-163/400, 7-9=-356/341

JOINT STRESS INDEX
2 = 0.90, 3 = 0.34, 4 = 0.65, 5 = 0.40, 6 = 0.65, 7 = 0.34, 8 = 0.90, 9 = 0.57, 10 = 0.49 and 11 = 0.57

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-02; 110mph (3-second gust); h=20ft; TCDL=4.2psf; BCDL=3.0psf; Category II; Exp B; enclosed; MWFRS and C-C Exterior(2) zone; Lumber DOL=1.60 plate grip DOL=1.60. This truss is designed for C-C for members and forces, and for MWFRS for reactions specified.
3) Provide adequate drainage to prevent water ponding.
4) *This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) All bearings are assumed to be SYP No.2 crushing capacity of 565.00 psi
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 191 lb uplift at joint 8 and 292 lb uplift at joint 2.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	HBH - MONROE RES.
L264772	T14	SPECIAL	1	1	Job Reference (optional)

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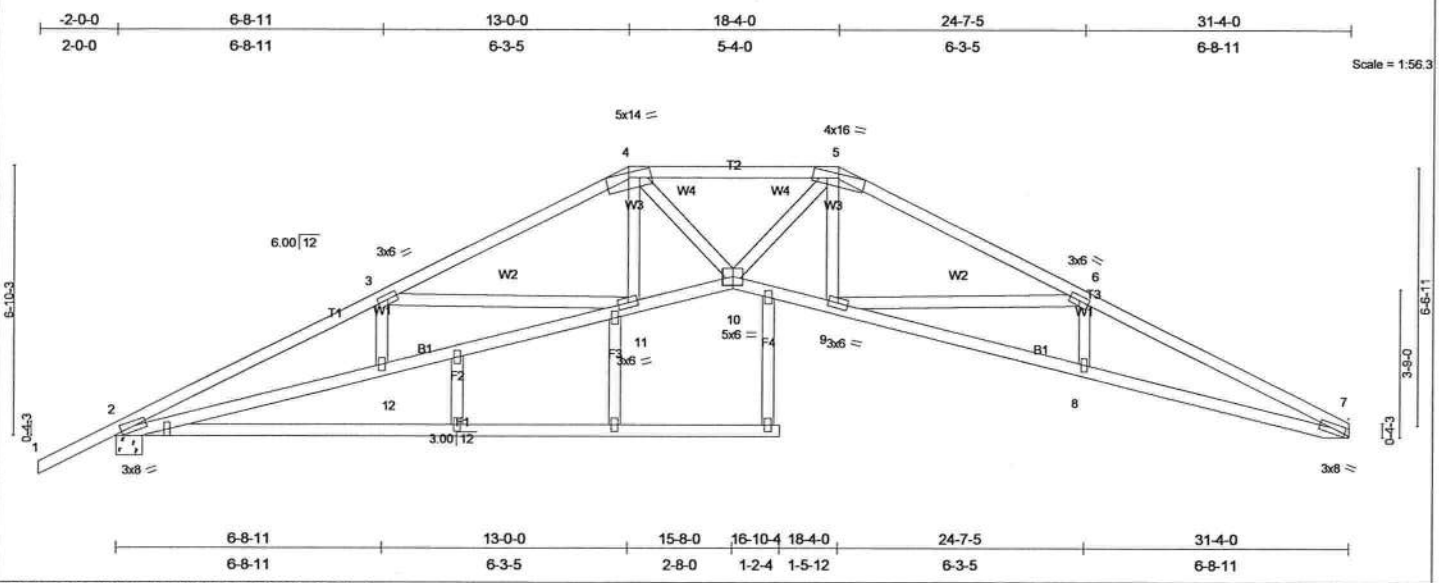

6-8-11	13-0-0	15-8-0	16-10-4	18-4-0	24-7-5	31-4-0
6-8-11	6-3-5	2-8-0	1-2-4	1-5-12	6-3-5	6-8-11

Plate Offsets (X,Y): [2:0-1-11,Edge], [7:0-1-11,Edge]

LOADING (psf)		SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plates Increase	1.25	TC	0.47	Vert(LL)	0.38	10	>978	360	MT20	244/190
TCDL	7.0	Lumber Increase	1.25	BC	0.84	Vert(TL)	-0.62	10	>597	240		
BCLL	10.0 *	Rep Stress Incr	YES	WB	0.49	Horz(TL)	0.46	7	n/a	n/a		
BCDL	5.0	Code FBC2004/TPI2002		(Matrix)							Weight: 181 lb	

LUMBER
TOP CHORD 2 X 4 SYP No.2
BOT CHORD 2 X 4 SYP No.2
WEBS 2 X 4 SYP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-0-11 oc purlins.
BOT CHORD Rigid ceiling directly applied or 4-11-15 oc bracing. Except:
2 Rows at 1/3 pts 2-10

REACTIONS (lb/size) 7=985/Mechanical, 2=1121/0-8-0
Max Horz 2=121(load case 6)
Max Uplift7=-203(load case 7), 2=-304(load case 6)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/45, 2-3=-3125/1575, 3-4=-2493/1255, 4-5=-2680/1395, 5-6=-2512/1270, 6-7=-3280/1728
BOT CHORD 2-12=-1317/2760, 11-12=-1323/2764, 10-11=-880/2233, 9-10=-893/2250, 8-9=-1478/2921, 7-8=-1480/2922
WEBS 3-12=0/197, 3-11=-542/429, 4-11=-111/295, 4-10=-292/737, 5-10=-274/715, 5-9=-142/311, 6-9=-672/570, 6-8=0/207

JOINT STRESS INDEX
2 = 0.82, 3 = 0.41, 4 = 0.80, 5 = 0.98, 6 = 0.41, 7 = 0.83, 8 = 0.34, 9 = 0.38, 10 = 0.81, 11 = 0.38, 11 = 0.34, 12 = 0.34, 13 = 0.37, 15 = 0.34, 16 = 0.34, 17 = 0.34, 18 = 0.34 and 19 = 0.34

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-02; 110mph (3-second gust); h=20ft; TCDL=4.2psf; BCDL=3.0psf; Category II; Exp B; enclosed; MWFRS and C-C Exterior(2) zone; Lumber DOL=1.60 plate grip DOL=1.60. This truss is designed for C-C for members and forces, and for MWFRS for reactions specified.
3) Provide adequate drainage to prevent water ponding.
4) *This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) All plates are 2x4 MT20 unless otherwise indicated.
6) All bearings are assumed to be SYP No.2 crushing capacity of 565.00 psi
7) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 203 lb uplift at joint 7 and 304 lb uplift at joint 2.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	HBH - MONROE RES.
L264772	T15	SPECIAL	1	1	Job Reference (optional)

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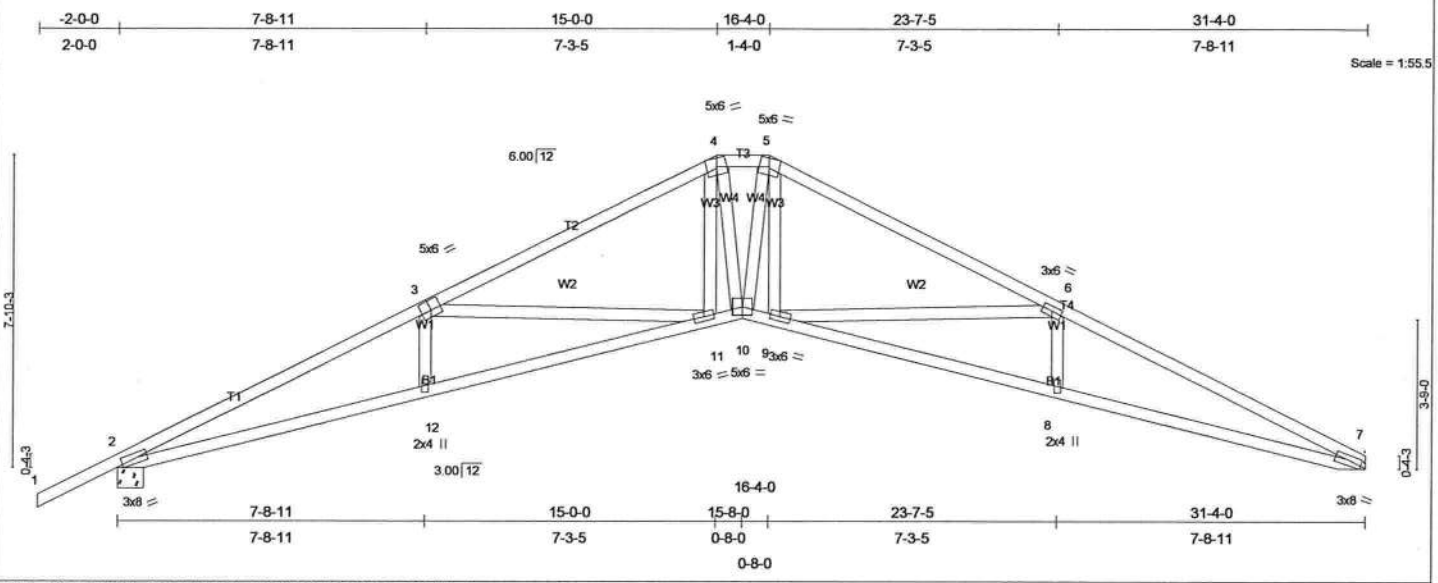

Plate Offsets (X,Y): [2:0-1-12,Edge], [3:0-3-0,0-3-0], [7:0-1-12,Edge]

LOADING (psf)		SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plates Increase	1.25	TC	0.65	Vert(LL)	0.37	9	>999	360	MT20	244/190
TCDL	7.0	Lumber Increase	1.25	BC	0.73	Vert(TL)	-0.61	8-9	>607	240		
BCLL	10.0 *	Rep Stress Incr	YES	WB	0.77	Horz(TL)	0.45	7	n/a	n/a		
BCDL	5.0	Code FBC2004/TPI2002		(Matrix)							Weight: 152 lb	

LUMBER
TOP CHORD 2 X 4 SYP No.2
BOT CHORD 2 X 4 SYP No.2
WEBS 2 X 4 SYP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-9-3 oc purlins.
BOT CHORD Rigid ceiling directly applied or 4-10-13 oc bracing.

REACTIONS (lb/size) 7=985/Mechanical, 2=1121/0-8-0
Max Horz 2=133(load case 6)
Max Uplift7=-221(load case 7), 2=-315(load case 6)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/45, 2-3=-3122/1597, 3-4=-2297/1167, 4-5=-2033/1150, 5-6=-2308/1172, 6-7=-3251/1727
BOT CHORD 2-12=-1331/2759, 11-12=-1335/2758, 10-11=-747/1994, 9-10=-755/2006, 8-9=-1466/2892, 7-8=-1470/2897
WEBS 3-12=0/232, 3-11=-742/562, 4-11=-147/438, 4-10=-209/536, 5-10=-188/468, 5-9=-157/445, 6-9=-849/686, 6-8=0/239

JOINT STRESS INDEX
2 = 0.82, 3 = 0.85, 4 = 0.69, 5 = 0.69, 6 = 0.41, 7 = 0.82, 8 = 0.34, 9 = 0.38, 10 = 0.72, 11 = 0.38 and 12 = 0.34

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-02; 110mph (3-second gust); h=20ft; TCDL=4.2psf; BCDL=3.0psf; Category II; Exp B; enclosed; MWFRS and C-C Exterior(2) zone; Lumber DOL=1.60 plate grip DOL=1.60. This truss is designed for C-C for members and forces, and for MWFRS for reactions specified.
3) Provide adequate drainage to prevent water ponding.
4) *This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) All bearings are assumed to be SYP No.2 crushing capacity of 565.00 psi
6) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 221 lb uplift at joint 7 and 315 lb uplift at joint 2.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	HBH - MONROE RES.
L264772	T16	SPECIAL	2	1	Job Reference (optional)

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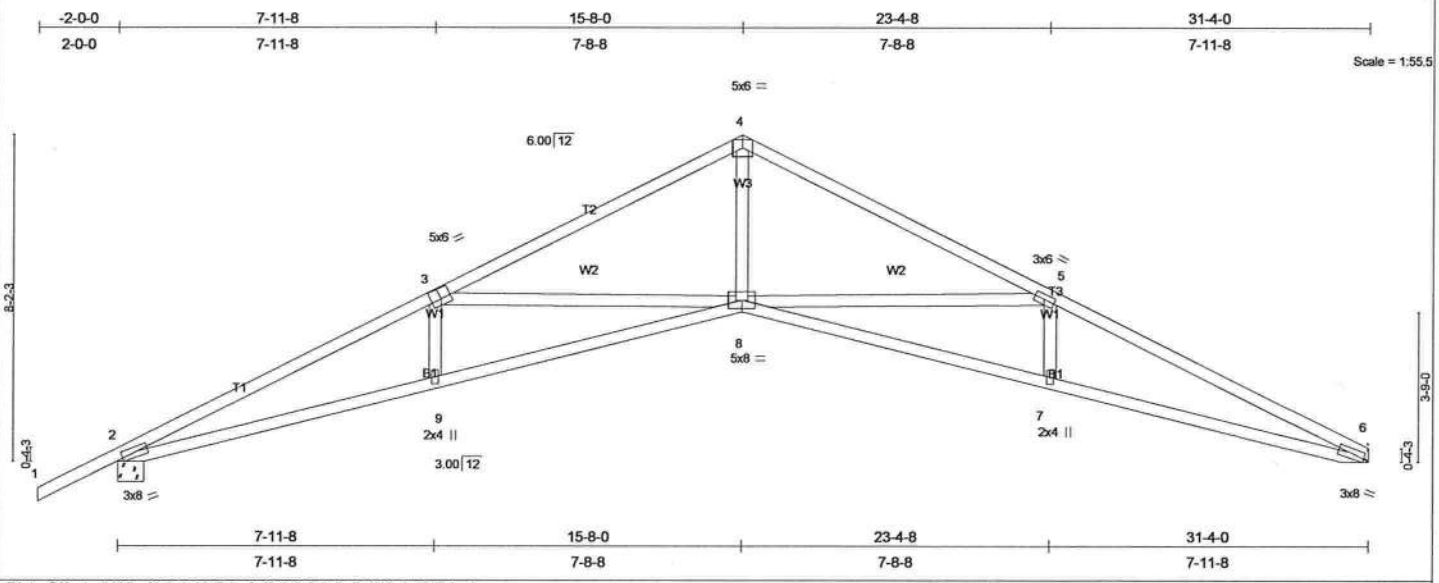

Plate Offsets (X,Y): [2:0-1-12,Edge], [3:0-3-0,0-3-4], [6:0-1-12,Edge]

LOADING (psf)		SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plates Increase	1.25	TC	0.71	Vert(LL)	0.39	8-9	>961	360	MT20	244/190
TCDL	7.0	Lumber Increase	1.25	BC	0.74	Vert(TL)	-0.64	8-9	>580	240		
BCLL	10.0 *	Rep Stress Incr	YES	WB	0.99	Horz(TL)	0.46	6	n/a	n/a		
BCDL	5.0	Code FBC2004/TPI2002		(Matrix)							Weight: 138 lb	

LUMBER
TOP CHORD 2 X 4 SYP No.2
BOT CHORD 2 X 4 SYP No.2
WEBS 2 X 4 SYP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-7-9 oc purlins.
BOT CHORD Rigid ceiling directly applied or 4-10-7 oc bracing.

REACTIONS (lb/size) 6=985/Mechanical, 2=1121/0-8-0
Max Horz 2=137(load case 6)
Max Uplift6=-216(load case 7), 2=-318(load case 6)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/45, 2-3=-3116/1602, 3-4=-2234/1136, 4-5=-2236/1137, 5-6=-3237/1722
BOT CHORD 2-9=-1332/2755, 8-9=-1336/2751, 7-8=-1459/2878, 6-7=-1463/2883
WEBS 3-9=0/242, 3-8=-821/597, 4-8=-679/1500, 5-8=-937/718, 5-7=0/248

JOINT STRESS INDEX
2 = 0.81, 3 = 0.76, 4 = 0.77, 5 = 0.41, 6 = 0.81, 7 = 0.34, 8 = 0.91 and 9 = 0.34

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-02; 110mph (3-second gust); h=20ft; TCDL=4.2psf; BCDL=3.0psf; Category II; Exp B; enclosed; MWFRS and C-C Exterior(2) zone; Lumber DOL=1.60 plate grip DOL=1.60. This truss is designed for C-C for members and forces, and for MWFRS for reactions specified.
3) *This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) All bearings are assumed to be SYP No.2 crushing capacity of 565.00 psi
5) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 216 lb uplift at joint 6 and 318 lb uplift at joint 2.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	HBH - MONROE RES.
L264772	T17	SPECIAL	5	1	Job Reference (optional)

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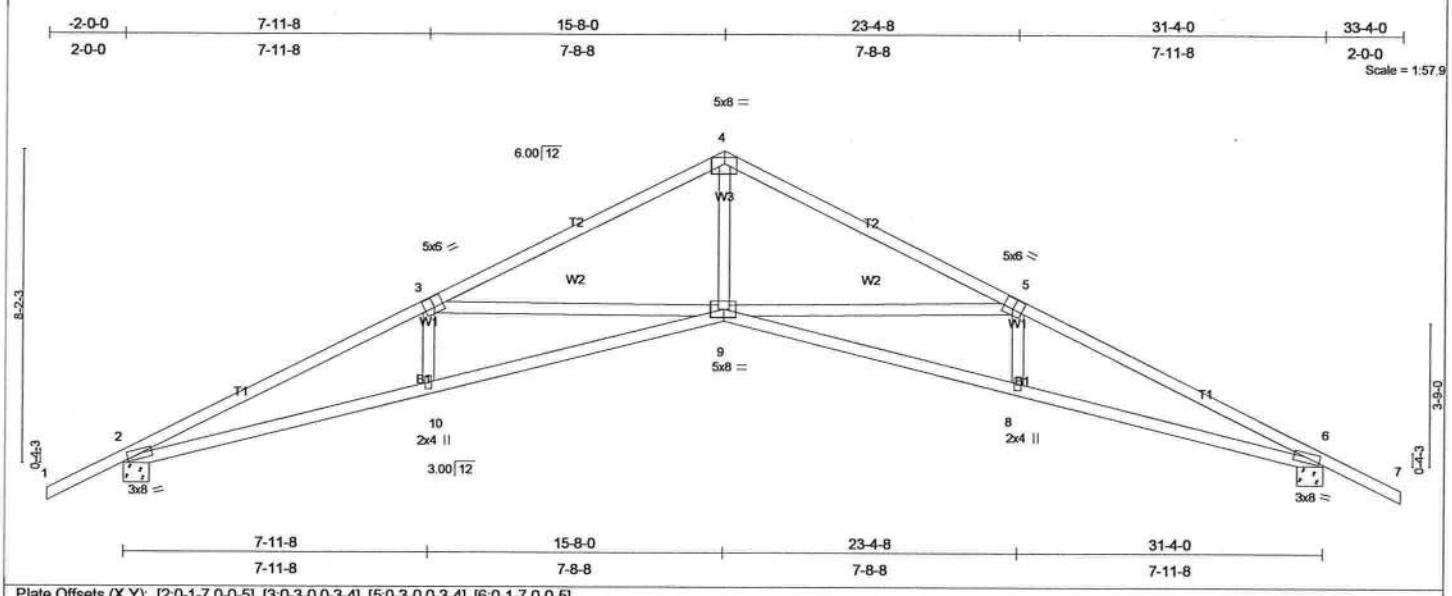

Plate Offsets (X,Y): [2:0-1-7,0-0-5], [3:0-3-0,0-3-4], [5:0-3-0,0-3-4], [6:0-1-7,0-0-5]

LOADING (psf)		SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plates Increase	1.25	TC	0.60	Vert(LL)	0.34	9-10	>999	360	MT20	244/190
TCDL	7.0	Lumber Increase	1.25	BC	0.61	Vert(TL)	-0.61	9-10	>607	240		
BCLL	10.0 *	Rep Stress Incr	YES	WB	0.87	Horz(TL)	0.44	6	n/a	n/a		
BCDL	5.0	Code FBC2004/TPI2002		(Matrix)							Weight: 141 lb	

LUMBER
TOP CHORD 2 X 4 SYP No.2
BOT CHORD 2 X 4 SYP No.2
WEBS 2 X 4 SYP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-11-10 oc purlins.
BOT CHORD Rigid ceiling directly applied or 5-10-2 oc bracing.

REACTIONS (lb/size) 2=1107/0-8-0, 6=1107/0-8-0
Max Horz 2=-126(load case 7)
Max Uplift2=-316(load case 6), 6=-316(load case 7)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/45, 2-3=-3063/1486, 3-4=-2180/1017, 4-5=-2180/1017, 5-6=-3063/1486, 6-7=0/45
BOT CHORD 2-10=-1157/2706, 9-10=-1161/2703, 8-9=-1161/2702, 6-8=-1157/2706
WEBS 3-10=0/242, 3-9=-822/602, 4-9=-569/1450, 5-9=-822/602, 5-8=0/242

JOINT STRESS INDEX
2 = 0.80, 3 = 0.75, 4 = 0.78, 5 = 0.75, 6 = 0.80, 8 = 0.34, 9 = 0.90 and 10 = 0.34

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-02; 110mph (3-second gust); h=20ft; TCDL=4.2psf; BCDL=3.0psf; Category II; Exp B; enclosed; MWFRS and C-C Exterior(2) zone; Lumber DOL=1.60 plate grip DOL=1.60. This truss is designed for C-C for members and forces, and for MWFRS for reactions specified.
3) *This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) All bearings are assumed to be SYP No.2 crushing capacity of 565.00 psi
5) Bearing at joint(s) 2, 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 316 lb uplift at joint 2 and 316 lb uplift at joint 6.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	HBH - MONROE RES.
L264772	T18	COMMON	2	1	Job Reference (optional)

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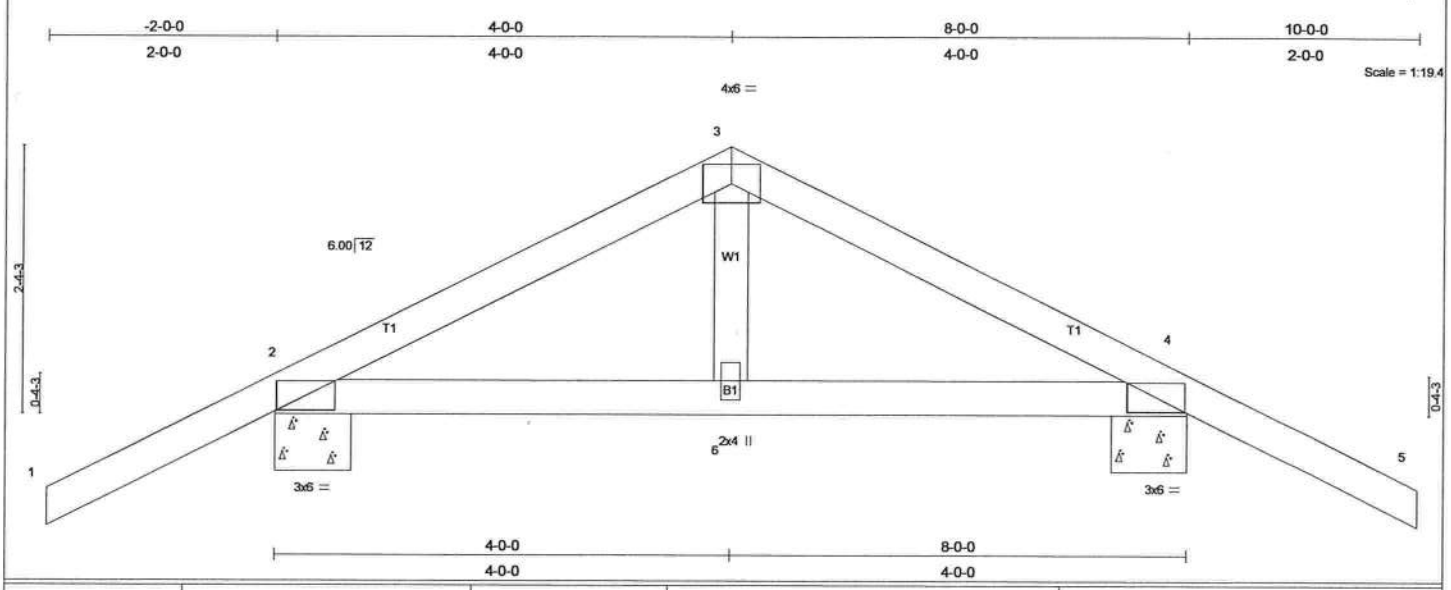

LOADING (psf)		SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plates Increase	1.25	TC	0.34	Vert(LL)	0.01	6	>999	360	MT20	244/190
TCDL	7.0	Lumber Increase	1.25	BC	0.12	Vert(TL)	-0.01	2-6	>999	240		
BCLL	10.0 *	Rep Stress Incr	YES	WB	0.04	Horz(TL)	-0.00	4	n/a	n/a		
BCDL	5.0	Code FBC2004/TPI2002		(Matrix)							Weight: 35 lb	

LUMBER
TOP CHORD 2 X 4 SYP No.2
BOT CHORD 2 X 4 SYP No.2
WEBS 2 X 4 SYP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 2=361/0-8-0, 4=361/0-8-0
Max Horz 2=-60(load case 7)
Max Uplift2=-257(load case 6), 4=-257(load case 7)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/48, 2-3=-229/351, 3-4=-229/351, 4-5=0/48
BOT CHORD 2-6=-150/152, 4-6=-150/152
WEBS 3-6=-159/112

JOINT STRESS INDEX
2 = 0.68, 3 = 0.26, 4 = 0.68 and 6 = 0.08

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-02; 110mph (3-second gust); h=20ft; TCDL=4.2psf; BCDL=3.0psf; Category II; Exp B; enclosed; MWFRS and C-C Exterior(2) zone; porch left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60. This truss is designed for C-C for members and forces, and for MWFRS for reactions specified.
3) *This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) All bearings are assumed to be SYP No.2 crushing capacity of 565.00 psi
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 257 lb uplift at joint 2 and 257 lb uplift at joint 4.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	HBH - MONROE RES.
L264772	T18G	GABLE	1	1	Job Reference (optional)

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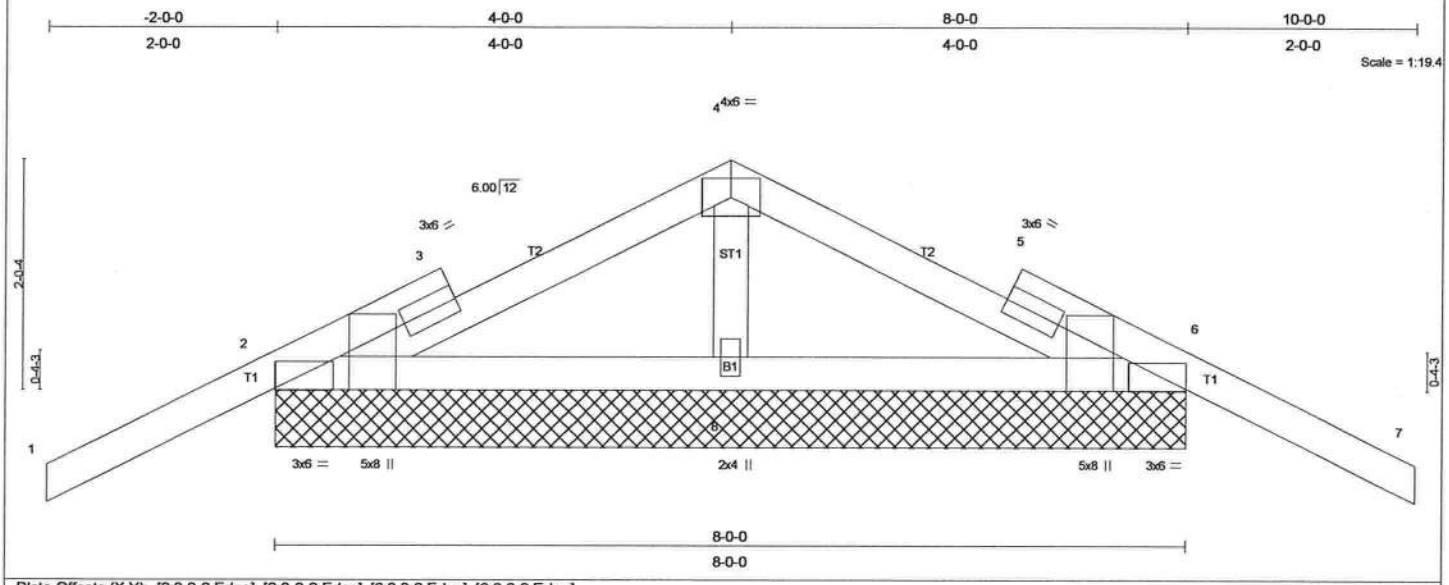


Plate Offsets (X,Y): [2:0-3-8,Edge], [2:0-0-8,Edge], [6:0-3-8,Edge], [6:0-0-8,Edge]

LOADING (psf)		SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plates Increase	1.25	TC	0.26	Vert(LL)	-0.01	7	n/r	120	MT20	244/190
TCDL	7.0	Lumber Increase	1.25	BC	0.06	Vert(TL)	-0.02	7	n/r	90		
BCLL	10.0 *	Rep Stress Incr	YES	WB	0.04	Horz(TL)	0.00	6	n/a	n/a		
BCDL	5.0	Code FBC2004/TPI2002		(Matrix)							Weight: 37 lb	

LUMBER
TOP CHORD 2 X 4 SYP No.2
BOT CHORD 2 X 4 SYP No.2
OTHERS 2 X 4 SYP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied or 8-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (lb/size) 2=229/8-0-0, 6=229/8-0-0, 8=270/8-0-0
Max Horz 2=-62(load case 7)
Max Uplift2=-206(load case 6), 6=-215(load case 7), 8=-58(load case 6)
Max Grav 2=239(load case 10), 6=239(load case 11), 8=270(load case 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/47, 2-3=-10/33, 3-4=0/85, 4-5=0/85, 5-6=-10/33, 6-7=0/47
BOT CHORD 2-8=-38/95, 6-8=-38/95
WEBS 4-8=-226/126

JOINT STRESS INDEX
2 = 0.41, 2 = 0.00, 3 = 0.00, 3 = 0.22, 4 = 0.28, 5 = 0.00, 5 = 0.22, 6 = 0.41, 6 = 0.00 and 8 = 0.08

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-02; 110mph (3-second gust); h=20ft; TCDL=4.2psf; BCDL=3.0psf; Category II; Exp B; enclosed; MWFRS gable end zone and C-C Exterior(2) zone; porch left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60. This truss is designed for C-C for members and forces, and for MWFRS for reactions specified.
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see MiTek "Standard Gable End Detail"
4) *This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 2-0-0 oc.
7) All bearings are assumed to be SYP No.2 crushing capacity of 565.00 psi
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 206 lb uplift at joint 2, 215 lb uplift at joint 6 and 58 lb uplift at joint 8.

LOAD CASE(S) Standard

Butler
HVAC Load Calculations

for

House Craft Homes
12501 N.W U.S HWY 441
Alachua Fl 32615

Elite Software

RHVAC RESIDENTIAL HVAC LOADS

Prepared By:

Chuck Fischer
North Central Florida Air Conditioning I
P. O. Box 700
High Springs Fl 32655-0700
(386) 454-4767
Wednesday, January 09, 2008

Project Report

General Project Information

Project Title:	Butler
Designed By:	Chuck Fischer
Project Date:	Monday, January 07, 2008
Client Name:	House Craft Homes
Client Address:	12501 N.W U.S HWY 441
Client City:	Alachua Fl 32615
Client Phone:	386-462-5323
Client Fax:	386-462-1509
Company Name:	North Central Florida Air Conditioning I
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:	heat load for addition

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	Outdoor Wet Bulb	Indoor Rel.Hum	Indoor Dry Bulb	Grains Difference
Winter:	31	0	50	72	38
Summer:	93	77	50	75	50

Check Figures

Total Building Supply CFM:	1,179	CFM Per Square ft.:	0.720
Square ft. of Room Area:	1,636	Square ft. Per Ton:	586
Volume (ft³) of Cond. Space:	15,986	Air Turnover Rate (per hour):	4.4

Building Loads

Total Heating Required With Outside Air:	40,246 Btuh	40.246 MBH	
Total Sensible Gain:	25,789 Btuh	84 %	
Total Latent Gain:	4,758 Btuh	16 %	
Total Cooling Required With Outside Air:	30,547 Btuh	2.55 Tons (Based On Sensible + Latent)	
		2.79 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.

Load Preview Report

Scope	Area	Sens Gain	Lat Gain	Net Gain	Sens Loss	Win CFM	Sum CFM	Sys CFM	Duct Size
Building: 2.55 Net Tons, 2.79 Recommended Tons, 586 ft.²/Ton, 40.25 MBH Heating									
Building	1,636	25,789	4,758	30,547	40,246	526	1,179	1,179	
System 1: 2.55 Net Tons, 2.79 Recommended Tons, 586 ft.²/Ton, 40.25 MBH Heating									
System 1	1,636	25,789	4,758	30,547	40,246	526	1,179	1,179	15x15
AED Excursion		93		93					
Zone 1	1,636	25,696	4,758	30,454	40,246	526	1,179	1,179	
1-Bedroom 3	196	3,186	778	3,964	6,142	80	146	146	1-7
2-Bath 2	60	1,345	108	1,453	1,256	16	62	62	1-5
3-Bedroom 2	230	3,331	796	4,127	6,354	83	153	153	1-7
4-Great Room	321	5,020	605	5,625	7,969	104	230	230	2-6
5-Dining Room	257	3,193	493	3,686	5,306	69	146	146	1-7
6-Kitchen	144	3,379	494	3,873	2,203	29	155	155	1-7
7-Master Bath	113	1,918	417	2,335	4,002	52	88	88	1-5
8-Master Bedroom	238	3,952	1,067	5,019	6,800	89	181	181	1-8
9-Master W.I.C	41	338	0	338	107	1	15	15	1-2
10-Hall	36	31	0	31	107	1	1	1	1-1

Total Building Summary Loads

Component Description	Area Quan	Sen Loss	Lat Gain	Sen Gain	Total Gain
1D-cb-o: Glazing-Double pane, operable window, clear, metal frame with break, ground reflectance = 0.23, outdoor insect screen with 50% coverage, external shade screen coefficient of 0.45 and 50% coverage	129.6	3,453	0	3,605	3,605
10B-m: Glazing-French door, double pane clear glass, metal frame no break, ground reflectance = 0.23	40.8	2,426	0	2,447	2,447
11P: Door-Polyurethane Core	39.4	469	0	332	332
13A-4ocs: Wall-Block, board insulation only, R-4 board insulation, open core, siding finish	1095.6	6,426	0	2,867	2,867
12B-3sw: Wall-Frame, R-11 insulation in 2 x 4 stud cavity, R-3 board insulation, siding finish, wood studs	169	547	0	300	300
16DR-30: Roof/Ceiling-Under attic or knee wall, Vented Attic with Radiant Barrier, White or Light Color Shingles, Any Wood Shake, Light Metal, Tar and Gravel Membrane, R-30 insulation	250	330	0	260	260
22A-ph: Floor-Slab on grade, No edge insulation, no insulation below floor, any floor cover, passive, heavy moist soil	164	9,132	0	0	0
Subtotals for structure:		22,783	0	9,811	9,811
People:	5		1,150	1,500	2,650
Equipment:			0	1,200	1,200
Lighting:	1995			6,803	6,803
Ductwork:		6,707	0	4,282	4,282
Infiltration: Winter CFM: 240, Summer CFM: 107		10,756	3,608	2,100	5,708
Ventilation: Winter CFM: 0, Summer CFM: 0		0	0	0	0
AED Excursion:		0	0	93	93
Total Building Load Totals:		40,246	4,758	25,789	30,547

Check Figures

Total Building Supply CFM:	1,179	CFM Per Square ft.:	0.720
Square ft. of Room Area:	1,636	Square ft. Per Ton:	586
Volume (ft³) of Cond. Space:	15,986	Air Turnover Rate (per hour):	4.4

Building Loads

Total Heating Required With Outside Air:	40,246 Btuh	40.246 MBH	
Total Sensible Gain:	25,789 Btuh	84 %	
Total Latent Gain:	4,758 Btuh	16 %	
Total Cooling Required With Outside Air:	30,547 Btuh	2.55 Tons (Based On Sensible + Latent)	
		2.79 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 Description	Area Quan	Sen Loss	Lat Gain	Sen Gain	Total Gain
1D-cb-o: Glazing-Double pane, operable window, clear, metal frame with break, ground reflectance = 0.23, outdoor insect screen with 50% coverage, external shade screen coefficient of 0.45 and 50% coverage	129.6	3,453	0	3,605	3,605
10B-m: Glazing-French door, double pane clear glass, metal frame no break, ground reflectance = 0.23	40.8	2,426	0	2,447	2,447
11P: Door-Polyurethane Core	39.4	469	0	332	332
13A-4ocs: Wall-Block, board insulation only, R-4 board insulation, open core, siding finish	1095.6	6,426	0	2,867	2,867
12B-3sw: Wall-Frame, R-11 insulation in 2 x 4 stud cavity, R-3 board insulation, siding finish, wood studs	169	547	0	300	300
16DR-30: Roof/Ceiling-Under attic or knee wall, Vented Attic with Radiant Barrier, White or Light Color Shingles, Any Wood Shake, Light Metal, Tar and Gravel Membrane, R-30 insulation	250	330	0	260	260
22A-ph: Floor-Slab on grade, No edge insulation, no insulation below floor, any floor cover, passive, heavy moist soil	164	9,132	0	0	0
Subtotals for structure:		22,783	0	9,811	9,811
People:	5		1,150	1,500	2,650
Equipment:			0	1,200	1,200
Lighting:	1995			6,803	6,803
Ductwork:		6,707	0	4,282	4,282
Infiltration: Winter CFM: 240, Summer CFM: 107		10,756	3,608	2,100	5,708
Ventilation: Winter CFM: 0, Summer CFM: 0		0	0	0	0
AED Excursion:		0	0	93	93
System 1 Main Floor Load Totals:		40,246	4,758	25,789	30,547

Check Figures

Supply CFM:	1,179	CFM Per Square ft.:	0.720
Square ft. of Room Area:	1,636	Square ft. Per Ton:	586
Volume (ft³) of Cond. Space:	15,986	Air Turnover Rate (per hour):	4.4

System Loads

Total Heating Required With Outside Air:	40,246 Btuh	40.246 MBH	
Total Sensible Gain:	25,789 Btuh	84 %	
Total Latent Gain:	4,758 Btuh	16 %	
Total Cooling Required With Outside Air:	30,547 Btuh	2.55 Tons (Based On Sensible + Latent)	
		2.79 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, Zone 1 Summary Loads (Average Load Procedure for Rooms)

Component Description	Area Quan	Sen Loss	Lat Gain	Sen Gain	Total Gain
1D-cb-o: Glazing-Double pane, operable window, clear, metal frame with break, ground reflectance = 0.23, outdoor insect screen with 50% coverage, external shade screen coefficient of 0.45 and 50% coverage	129.6	3,453	0	3,605	3,605
10B-m: Glazing-French door, double pane clear glass, metal frame no break, ground reflectance = 0.23	40.8	2,426	0	2,447	2,447
11P: Door-Polyurethane Core	39.4	469	0	332	332
13A-4ocs: Wall-Block, board insulation only, R-4 board insulation, open core, siding finish	1095.6	6,426	0	2,867	2,867
12B-3sw: Wall-Frame, R-11 insulation in 2 x 4 stud cavity, R-3 board insulation, siding finish, wood studs	169	547	0	300	300
16DR-30: Roof/Ceiling-Under attic or knee wall, Vented Attic with Radiant Barrier, White or Light Color Shingles, Any Wood Shake, Light Metal, Tar and Gravel Membrane, R-30 insulation	250	330	0	260	260
22A-ph: Floor-Slab on grade, No edge insulation, no insulation below floor, any floor cover, passive, heavy moist soil	164	9,132	0	0	0
Subtotals for structure:		22,783	0	9,811	9,811
People:	5		1,150	1,500	2,650
Equipment:			0	1,200	1,200
Lighting:	1995			6,803	6,803
Ductwork:		6,707	0	4,282	4,282
Infiltration: Winter CFM: 240, Summer CFM: 107		10,756	3,608	2,100	5,708
System 1, Zone 1 Load Totals:		40,246	4,758	25,696	30,454

Check Figures

Supply CFM:	1,179	CFM Per Square ft.:	0.720
Square ft. of Room Area:	1,636	Square ft. Per Ton:	588
Volume (ft³) of Cond. Space:	15,986	Air Turnover Rate (per hour):	4.4

Zone Loads

Total Heating Required:	40,246 Btuh	40.246 MBH	
Total Sensible Gain:	25,696 Btuh	84 %	
Total Latent Gain:	4,758 Btuh	16 %	
Total Cooling Required:	30,454 Btuh	2.54 Tons (Based On Sensible + Latent)	
		2.78 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

No	Room Name	Area SF	Htg Sens Btuh	Htg Nom CFM	Run Duct Size	Run Duct Vel	Clg Sens Btuh	Clg Lat Btuh	Clg Nom CFM	Air Sys CFM
---Zone 1---										
1	Bedroom 3	196	6,142	80	1-7	547	3,186	778	146	146
2	Bath 2	60	1,256	16	1-5	453	1,345	108	62	62
3	Bedroom 2	230	6,354	83	1-7	572	3,331	796	153	153
4	Great Room	321	7,969	104	2-6	586	5,020	605	230	230
5	Dining Room	257	5,306	69	1-7	548	3,193	493	146	146
6	Kitchen	144	2,203	29	1-7	580	3,379	494	155	155
7	Master Bath	113	4,002	52	1-5	645	1,918	417	88	88
8	Master Bedroom	238	6,800	89	1-8	519	3,952	1,067	181	181
9	Master W.I.C	41	107	1	1-2	710	338	0	15	15
10	Hall	36	107	1	1-1	261	31	0	1	1
	AED Excursion						93			
	System 1 total	1,636	40,246	526			25,789	4,758	1,179	1,179

System 1 Main Trunk Size: 15x15 in.
Velocity: 844 ft./min
Loss per 100 ft.: 0.087 in.wg

Cooling System Summary

	Cooling Tons	Sensible/Latent Split	Sensible Btuh	Latent Btuh	Total Btuh
Net Required:	2.55	84% / 16%	25,789	4,758	30,547
Recommended:	2.79	77% / 23%	25,789	7,703	33,492
Actual:	2.92	76% / 24%	26,500	8,500	35,000

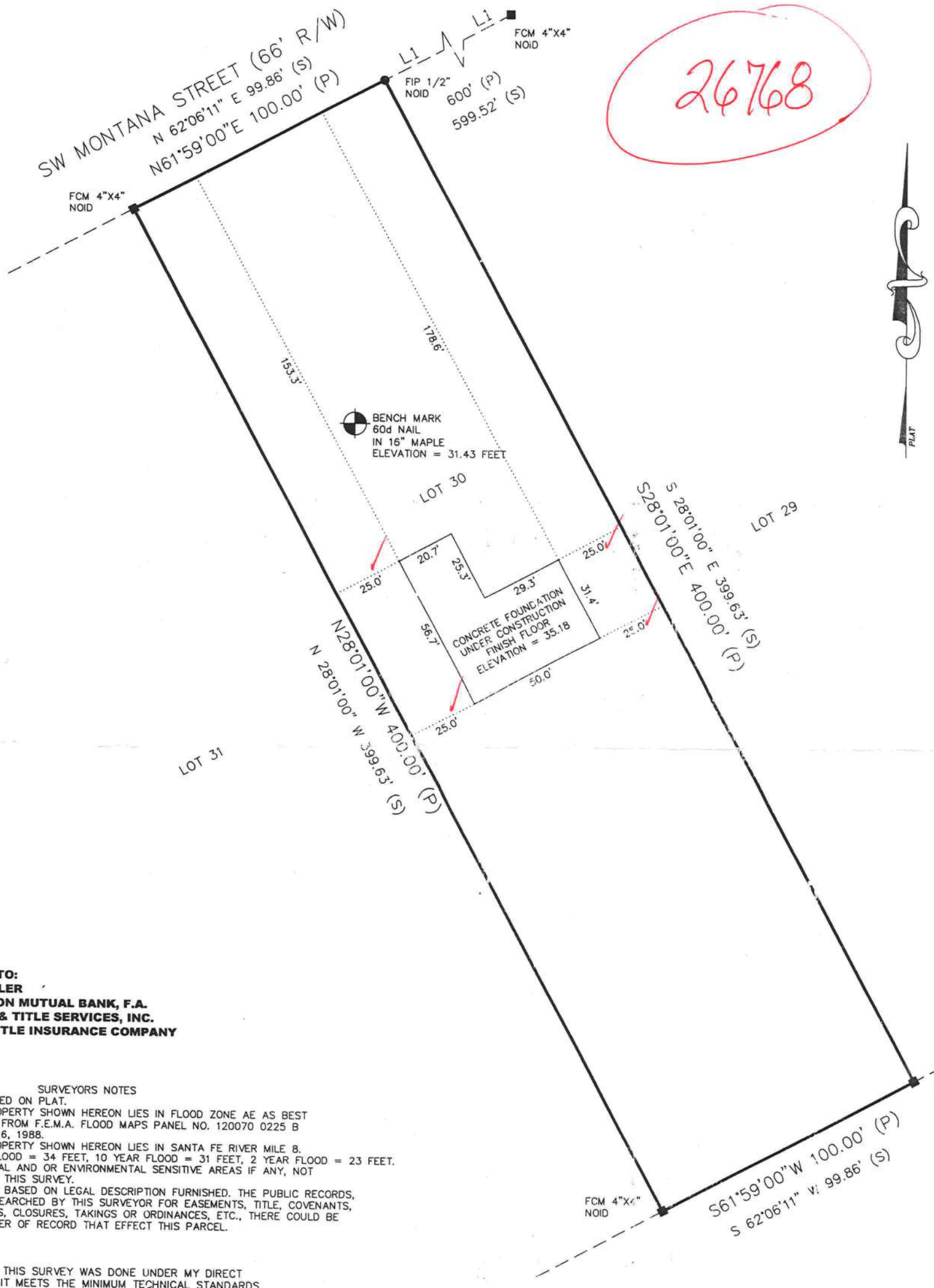
Equipment Data

	Heating System	Cooling System
Type:	air source heat pump	Air Source Heat Pump
Model:	GSH130361+ARUF364216+HKR-10	GSH130361+ARUF364216
Brand:	Goodman	Goodman
Efficiency:	7.7 HSPF	13 seer
Sound:	0	
Capacity:	32000	35000
Sensible Capacity:	n/a	26,500 Btuh
Latent Capacity:	n/a	8,500 Btuh

MAP OF BOUNDARY SURVEY

SHOWING LOT 30, UNIT 10, THREE RIVER ESTATES, ACCORDING TO THE PLAT THEREOF RECORDED IN PLAT BOOK 6, PAGE 10, OF THE PUBLIC RECORDS OF COLUMBIA COUNTY, FLORIDA.

26768



CERTIFIED TO:
RENEE BUTLER
WASHINGTON MUTUAL BANK, F.A.
ABSTRACT & TITLE SERVICES, INC.
CHICAGO TITLE INSURANCE COMPANY

SURVEYORS NOTES

1. BEARING BASED ON PLAT.
2. SUBJECT PROPERTY SHOWN HEREON LIES IN FLOOD ZONE AE AS BEST DETERMINED FROM F.E.M.A. FLOOD MAPS PANEL NO. 120070 0225 B DATED JAN. 6, 1988.
3. SUBJECT PROPERTY SHOWN HEREON LIES IN SANTA FE RIVER MILE 8. 100 YEAR FLOOD = 34 FEET, 10 YEAR FLOOD = 31 FEET, 2 YEAR FLOOD = 23 FEET.
4. JURISDICTIONAL AND OR ENVIRONMENTAL SENSITIVE AREAS IF ANY, NOT LOCATED BY THIS SURVEY.
5. THIS SURVEY BASED ON LEGAL DESCRIPTION FURNISHED. THE PUBLIC RECORDS, WERE NOT SEARCHED BY THIS SURVEYOR FOR EASEMENTS, TITLE, COVENANTS, RESTRICTIONS, CLOSURES, TAKINGS OR ORDINANCES, ETC., THERE COULD BE OTHER MATTER OF RECORD THAT EFFECT THIS PARCEL.

I HEREBY CERTIFY THIS SURVEY WAS DONE UNDER MY DIRECT SUPERVISION AND IT MEETS THE MINIMUM TECHNICAL STANDARDS FOR LAND SURVEYING PURSUANT TO CHAPTER 61G17-6, FLORIDA ADMINISTRATION CODE, CHAPTER 472, FLORIDA STATUES.

WILLIAM N. KITCHEN PSM 5490

William N. Kitchen

3-25-2008

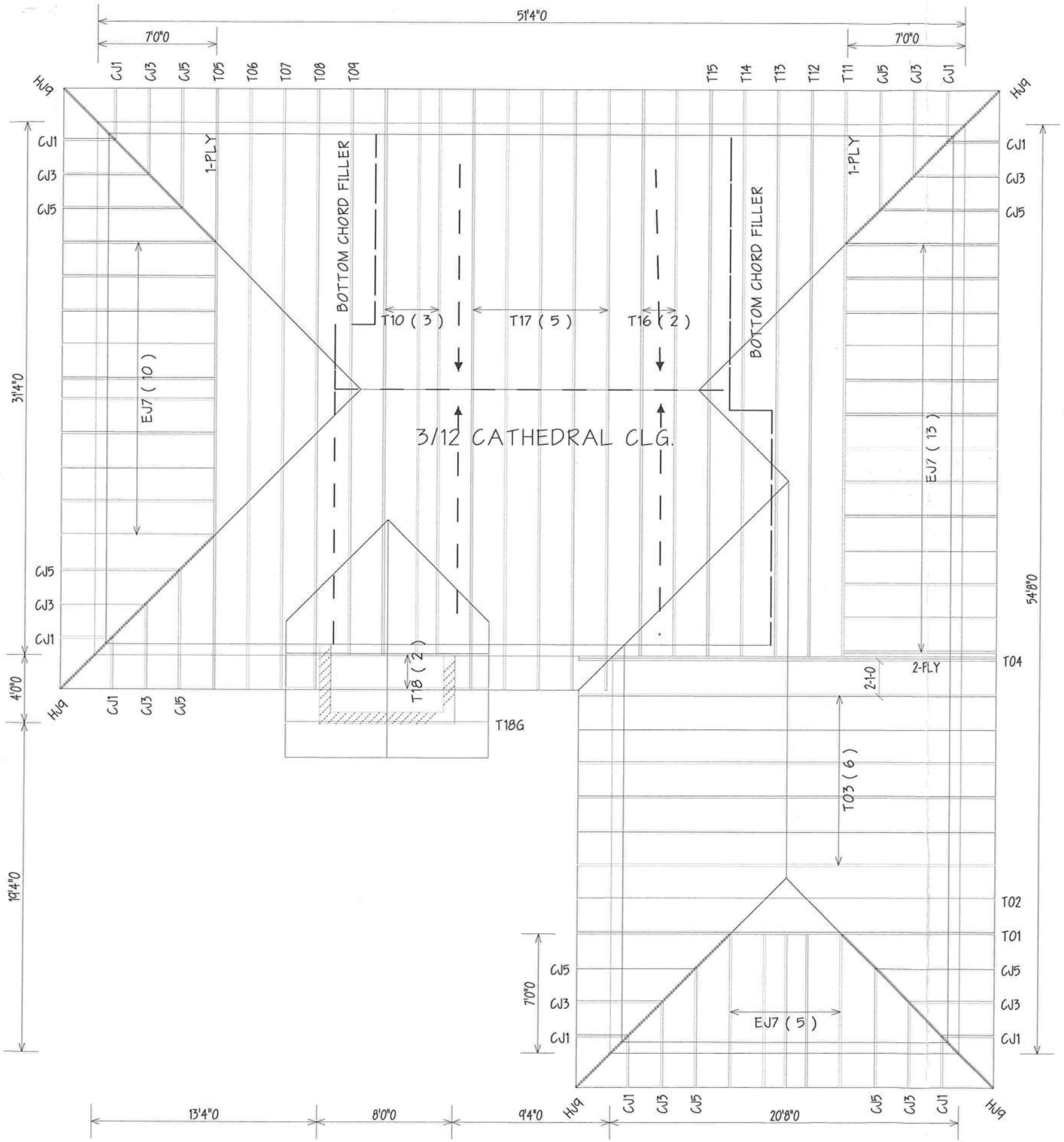
NOT VALID WITHOUT THE SIGNATURE AND THE ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER.

REV: FOUNDATION SURVEY	3/21/2008	
WILLIAM N. KITCHEN PROFESSIONAL SURVEYOR AND MAPPER 152 N MARION AVENUE LAKE CITY, FLORIDA 32055 PHONE (386) 755-7786	DRAWN BY: WNK	FIELD BOOK: 06030
	SCALE: 1" = 40'	
	SURVEY DATE: FEBRUARY 5, 2006	
	JOB NUMBER	SHEET
CLIENT: RENEE BUTLER	08049	1 OF 1

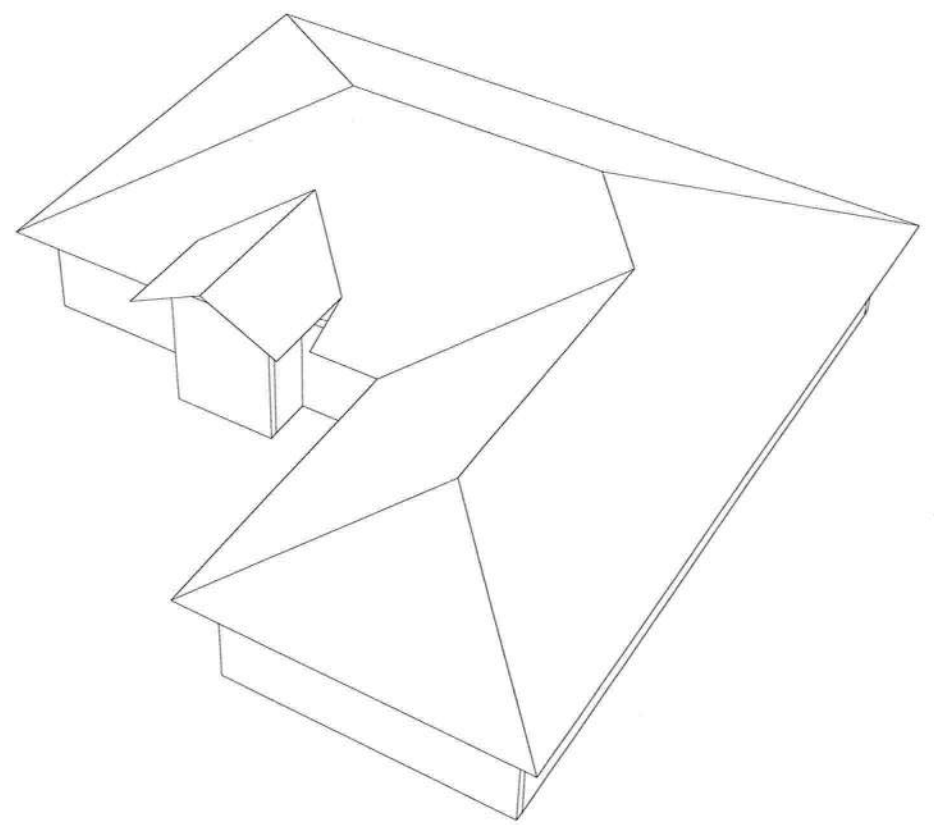
LEGEND

(D) = DEED
(P) = PLAT
(S) = SURVEY MEASUREMENT
(C) = CALCULATED MEASUREMENT
NOID = NO SURVEYORS IDENTIFICATION
LS = LAND SURVEYOR
LB = LICENSE BUSINESS
FIR = FOUND IRON ROD
FIP = FOUND IRON PIPE
FCM = FOUND CONCRETE MONUMENT
SIR = SET IRON ROD
SCM = SET CONCRETE MONUMENT
PRM = PERMANENT REFERENCE MONUMENT
C/L = CENTER LINE

30 = CONTOUR ELEVATION
R/W = RIGHT OF WAY
EOP = EDGE OF PAVEMENT
ASP = ASPHALT PAVING
CONC = CONCRETE
OHE = OVER HEAD ELECTRIC
= WOOD POWER POLE
S.T. = SEPTIC TANK
X——X = WIRE FENCE
□——□ = WOOD FENCE
UGE = UNDER GROUND ELECTRIC



6/12 PITCH
24" O.H.



BEARING HEIGHT SCHEDULE

8'-0"

10'-0"

NOTES:

1.) REFER TO HIB 91 (RECOMMENDATIONS FOR HANDLING INSTALLATION AND TEMPORARY BRACING.) REFER TO ENGINEERED DRAWINGS FOR PERMANENT BRACING REQUIRED.

2.) ALL TRUSSES (INCLUDING TRUSSES UNDER VALLEY FRAMING) MUST BE COMPLETELY DECKED OR REFER TO DETAIL V105 FOR ALTERNATE BRACING REQUIREMENTS.

3.) ALL VALLEYS ARE TO BE CONVENTIONALLY FRAMED BY BUILDER.

4.) ALL TRUSSES ARE DESIGNED FOR 2' o.c. MAXIMUM SPACING, UNLESS OTHERWISE NOTED.

5.) ALL WALLS SHOWN ON PLACEMENT PLAN ARE CONSIDERED TO BE LOAD BEARING, UNLESS OTHERWISE NOTED.

6.) SY42 TRUSSES MUST BE INSTALLED WITH THE TOP BEING UP.

7.) ALL ROOF TRUSS HANGERS TO BE SIMPSON HTU26 UNLESS OTHERWISE NOTED. ALL FLOOR TRUSS HANGERS TO BE SIMPSON THA422 UNLESS OTHERWISE NOTED.

8.) BEAM/HEADER/LINTEL (HDR) TO BE FURNISHED BY BUILDER.

SHOP DRAWING APPROVAL

THIS LAYOUT IS THE SOLE SOURCE FOR FABRICATION OF TRUSSES AND VOIDS ALL PREVIOUS ARCHITECTURAL OR OTHER TRUSS LAYOUTS. REVIEW AND APPROVAL OF THIS LAYOUT MUST BE RECEIVED BEFORE ANY TRUSSES WILL BE BUILT. VERIFY ALL CONDITIONS TO INSURE AGAINST CHANGES THAT WILL RESULT IN EXTRA CHARGES TO YOU.

Requested Delivery Date: _____

Approved by: _____ Date: _____

Builders FirstSource
Bunnell
PHONE: 904-437-3349 FAX: 904-437-3994
Jacksonville
PHONE: 904-772-6100 FAX: 904-772-1973
Lake City
PHONE: 386-755-6894 FAX: 386-755-7973
Sanford
PHONE: 407-322-0059 FAX: 407-322-5553

BUILDER: HOMES BY HOUSECRAFT

LEGAL ADDRESS: CARRIER RES.

MODEL:	REVISION:
CUSTOM	SCALE: NTS
DATE: 1-10-08	DRAWN BY: B.CANNADY
	JOB #: L264772