

DATE 05/28/2010

Columbia County Building Permit

PERMIT

This Permit Must Be Prominently Posted on Premises During Construction

000028609

APPLICANT RANDALL MARKHAM PHONE 386.965.1739
 ADDRESS 137 SE BREAM LOOP LAKE CITY FL 32025
 OWNER RICARDO COLON & MERLINDA GOMEZ PHONE 787 408-6809
 ADDRESS 314 SW ARROWBEND DRIVE LAKE CITY FL 32025
 CONTRACTOR RANDALL MARKHAM PHONE 386.965.1739

LOCATION OF PROPERTY 90W, TL SISTERS WELCOME, TL KICKLIGHTER, TL CANNON CREEK, TR GERALD CONNER, TL ARROWBEND, 8TH LOT ON RIGHT.

TYPE DEVELOPMENT POOL ENCLOSURE ESTIMATED COST OF CONSTRUCTION 7500.00

HEATED FLOOR AREA _____ TOTAL AREA _____ HEIGHT _____ STORIES _____

FOUNDATION _____ WALLS _____ ROOF PITCH _____ FLOOR _____

LAND USE & ZONING RSF-2 MAX. HEIGHT _____

Minimum Set Back Requirments: STREET-FRONT 25.00 REAR 15.00 SIDE 10.00

NO. EX.D.U. 1 FLOOD ZONE _____ DEVELOPMENT PERMIT NO. _____

PARCEL ID 24-4S-16-03114-132 SUBDIVISION CANNON CREEK PLACE

LOT 32 BLOCK _____ PHASE _____ UNIT _____ TOTAL ACRES 0.50

_____ 000775 _____ *Russell Markham*
 Culvert Permit No. Culvert Waiver Contractor's License Number Applicant/Owner/Contractor

EXISTING X-10-162 BLK HD

Driveway Connection Septic Tank Number LU & Zoning checked by Approved for Issuance New Resident

COMMENTS: ACCESSORY USE.....

Check # or Cash CASH REC'D.

FOR BUILDING & ZONING DEPARTMENT ONLY

(footer/Slab)

Temporary Power _____ Foundation _____ Monolithic _____
 date/app. by _____ date/app. by _____ date/app. by _____

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

Framing _____ Insulation _____
 date/app. by _____ date/app. by _____

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

Heat & Air Duct _____ Peri. beam (Lintel) _____ Pool _____
 date/app. by _____ date/app. by _____ date/app. by _____

Permanent power _____ C.O. Final _____ Culvert _____
 date/app. by _____ date/app. by _____ date/app. by _____

Pump pole _____ Utility Pole _____ M/H tie downs, blocking, electricity and plumbing _____
 date/app. by _____ date/app. by _____ date/app. by _____

Reconnection _____ RV _____ Re-roof _____
 date/app. by _____ date/app. by _____ date/app. by _____

BUILDING PERMIT FEE \$ 40.00 CERTIFICATION FEE \$ 0.00 SURCHARGE FEE \$ 0.00

MISC. FEES \$ 0.00 ZONING CERT. FEE \$ _____ FIRE FEE \$ 0.00 WASTE FEE \$ _____

FLOOD DEVELOPMENT FEE \$ _____ FLOOD ZONE FEE \$ _____ CULVERT FEE \$ _____ **TOTAL FEE** 40.00

INSPECTORS OFFICE _____ CLERKS OFFICE _____

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 NOT SUSPENDED, ABANDONED OR INVALID WHEN THE PERMIT HAS RECIEVED AN APPROVED INSPECTION WITHIN 180 DAYS OT THE PREVIOUS INSPECTION.

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

DATE 04/16/2010

Columbia County Building Permit
This Permit Must Be Prominently Posted on Premises During Construction

PERMIT
000028490

APPLICANT ROBERT MILNER PHONE 386 292-9295
ADDRESS 931 NW SAVANNAH CIRCLE LAKE CITY FL 32055
OWNER RICARDO COLON PHONE 787 408-6809
ADDRESS 314 SW ARROWBEND DRIVE LAKE CITY FL 32025
CONTRACTOR ROBERT MILNER PHONE 386 292-9295

LOCATION OF PROPERTY 90W, TL SISTERS WELCOME, TL KICKLIGHTER, TL CANNON CREEK,
TR GERALD CONNER, TL ARROWBEND, 8TH LOT ON RIGHT

TYPE DEVELOPMENT SWIMMING POOL ESTIMATED COST OF CONSTRUCTION 36000.00

HEATED FLOOR AREA TOTAL AREA HEIGHT STORIES

FOUNDATION WALLS ROOF PITCH FLOOR

LAND USE & ZONING RSF-2 MAX. HEIGHT

Minimum Set Back Requirments: STREET-FRONT 25.00 REAR 15.00 SIDE 10.00

NO. EX.D.U. FLOOD ZONE N/A DEVELOPMENT PERMIT NO.

PARCEL ID 24-4S-16-03114-132 SUBDIVISION CANNON CREEK PLACE

LOT 32 BLOCK PHASE UNIT 0 TOTAL ACRES 0.50

CPC1456862

Culvert Permit No. Culvert Waiver Contractor's License Number Applicant/Owner/Contractor
EXISTING X10-090 BK HD N
Driveway Connection Septic Tank Number LU & Zoning checked by Approved for Issuance New Resident

COMMENTS: NOC ON FILE

Check # or Cash 1224

FOR BUILDING & ZONING DEPARTMENT ONLY

(footer/Slab)

Temporary Power Foundation Monolithic
date/app. by date/app. by date/app. by

Under slab rough-in plumbing Slab Sheathing/Nailing
date/app. by date/app. by date/app. by

Framing Insulation
date/app. by date/app. by

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

Heat & Air Duct Peri. beam (Lintel) Pool
date/app. by date/app. by date/app. by

Permanent power C.O. Final Culvert
date/app. by date/app. by date/app. by

Pump pole Utility Pole M/H tie downs, blocking, electricity and plumbing
date/app. by date/app. by date/app. by

Reconnection RV Re-roof
date/app. by date/app. by date/app. by

BUILDING PERMIT FEE \$ 180.00 CERTIFICATION FEE \$ 0.00 SURCHARGE FEE \$ 0.00

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

FLOOD DEVELOPMENT FEE \$ FLOOD ZONE FEE \$ CULVERT FEE \$ TOTAL FEE 230.00

INSPECTORS OFFICE CLERKS OFFICE

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.

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

Columbia County Building Permit Application

For Office Use Only Application # 1606-44 Date Received 5/20/10 By GA Permit # 29609
 Zoning Official BLK Date 27.05.10 Flood Zone N/A Land Use RES. Low Density Zoning RSF-2
 FEMA Map # N/A Elevation N/A MFE N/A River N/A Plans Examiner HO Date 5-26-10
 Comments _____
 NOC EH Deed or PA Site Plan State Road Info Parent Parcel # _____
 Dev Permit # _____ In Floodway Letter of Auth. from Contractor F W Comp. letter _____
 IMPACT FEES: EMS _____ Fire _____ Corr _____ Road/Code _____
 School _____ = TOTAL N/A - ~~Standard~~ Accessory Structure

Septic Permit No. 10-162 in box Fax (386) 466-1076

Name Authorized Person Signing Permit Randall Markham Phone (386) 965-1739

Address 137 SE Bream Loop Lake city FL 32025

Owners Name Merlinda Gomez, RICARDO COLON Phone _____

911 Address 314^{SW} Arrow Dr. Lake city FL 32055

Contractors Name Randall Markham Phone 965-1739

Address 137 SE Bream Loop Lake city FL

Fee Simple Owner Name & Address _____

Bonding Co. Name & Address N/A

Architect/Engineer Name & Address _____

Mortgage Lenders Name & Address _____

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

Property ID Number 24-45-16-03114-132 Estimated Cost of Construction \$7500.00

Subdivision Name Conner Creek place Lot 32 Block _____ Unit _____ Phase _____

Driving Directions 90 west TL Sisters welcome TL on Sw Kicklighter

TR on Sw Conner Dr TL on Arrow bend Dr. Last house on RT 314 house #

Number of Existing Dwellings on Property 1

Construction of Pool enclosure Pool Permit Enclosed Total Acreage _____ Lot Size _____

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

Actual Distance of Structure from Property Lines - Front _____ Side L 30' Side R 40' Rear 101'

Number of Stories _____ Heated Floor Area _____ Total Floor Area _____ Roof Pitch _____

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.

CASH

Columbia County Building Permit Application

TIME LIMITATIONS OF APPLICATION : An application for a permit for any proposed work shall be deemed to have been abandoned 180 days after the date of filing, unless such application has been pursued in good faith or a permit has been issued; except that the building official is authorized to grant one or more extensions of time for additional periods not exceeding 90 days each. The extension shall be requested in writing and justifiable cause demonstrated.

TIME LIMITATIONS OF PERMITS: 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 work is commenced. A valid permit receives an approved inspection every 180 days. Work shall be considered not suspended, abandoned or invalid when the permit has received an approved inspection within 180 days of the previous approved inspection.

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.

WARNING TO OWNER: YOUR FAILURE TO RECORD A NOTICE OF COMMENCEMENT 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.

OWNERS CERTIFICATION: I CERTIFY THAT ALL THE FOREGOING INFORMATION IS ACCURATE AND THAT ALL WORK WILL BE DONE IN COMPLIANCE WITH ALL APPLICABLE LAWS REGULATING CONSTRUCTION AND ZONING.

NOTICE TO OWNER: There are some properties that may have deed restrictions recorded upon them. These restrictions may limit or prohibit the work applied for in your building permit. It may be to your advantage to check and see if your property is encumbered by any restrictions.

(Owners Must Sign All Applications Before Permit Issuance.)

Ricardo Colon

Owners Signature

****OWNER BUILDERS MUST PERSONALLY APPEAR AND SIGN THE BUILDING PERMIT.**

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 including all application and permit time limitations.

Rodriguez

Contractor's Signature (Permitee)

Contractor's License Number _____
Columbia County
Competency Card Number 000775

Affirmed under penalty of perjury to by the Contractor and subscribed before me this 20 day of May 2010

Personally known _____ or Produced Identification FIDL M625-737-79-1640

Jarodanne Rentz

State of Florida Notary Signature (For the Contractor)

SEAL: NOTARY PUBLIC-STATE OF FLORIDA
Jarodanne Rentz
Commission #DD904447
Expires: JULY 05, 2013
BONDED THRU ATLANTIC BONDING CO., INC.

Columbia County Property Appraiser

DB Last Updated: 5/6/2010

2009 Tax Roll Year

Tax Collector

Tax Estimator

Property Card

Parcel List Generator

Interactive GIS Map

Print

Parcel: 24-4S-16-03114-132

<< Next Lower Parcel

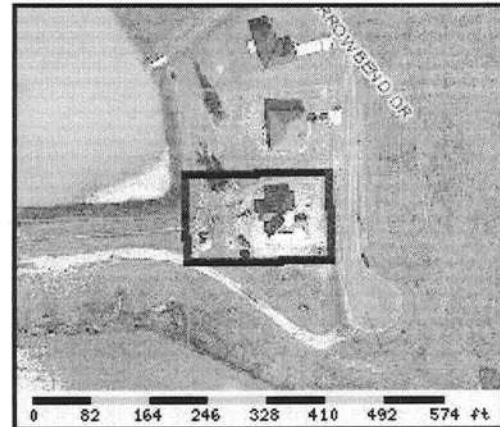
Next Higher Parcel >>

Search Result: 1 of 11

Next >>

Owner & Property Info

Owner's Name	COLON RICARDO &		
Mailing Address	MERLINDA GOMEZ P O BOX 946 LAKE CITY, FL 32056-0946		
Site Address	314 SW ARROWBEND DR		
Use Desc. (code)	SINGLE FAM (000100)		
Tax District	2 (County)	Neighborhood	24416
Land Area	0.550 ACRES	Market Area	06
Description	NOTE: This description is not to be used as the Legal Description for this parcel in any legal transaction. LOT 32 CANNON CREEK PLACE S/D. WD 1120-651, 751		



Property & Assessment Values

2009 Certified Values		
Mkt Land Value	cnt: (0)	\$29,000.00
Ag Land Value	cnt: (1)	\$0.00
Building Value	cnt: (1)	\$156,874.00
XFOB Value	cnt: (1)	\$4,167.00
Total Appraised Value		\$190,041.00
Just Value		\$190,041.00
Class Value		\$0.00
Assessed Value		\$176,090.00
Exempt Value	(code: HX)	\$50,000.00
Total Taxable Value		Cnty: \$126,090 Other: \$126,090 Schl: \$151,090

2010 Working Values

NOTE:
2010 Working Values are NOT certified values and therefore are subject to change before being finalized for ad valorem assessment purposes.

Show Working Values

Sales History

Show Similar Sales within 1/2 mile

Sale Date	OR Book/Page	OR Code	Vacant / Improved	Qualified Sale	Sale RCode	Sale Price
5/24/2007	1120/651	WD	I	Q		\$215,000.00
5/24/2007	1120/751	WD	V	Q		\$42,000.00

Building Characteristics

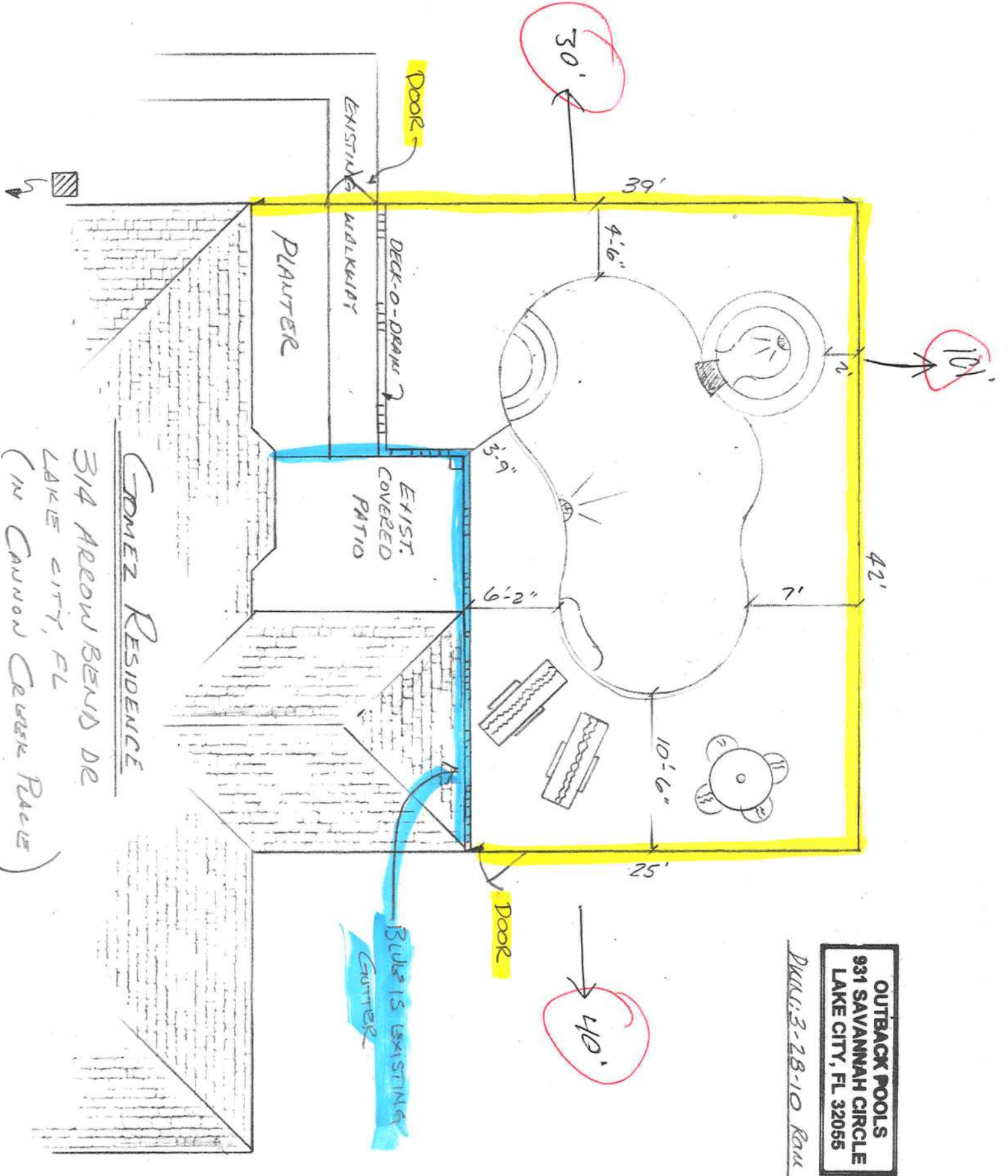
Bldg Item	Bldg Desc	Year Blt	Ext. Walls	Heated S.F.	Actual S.F.	Bldg Value
1	SINGLE FAM (000100)	2007	COMMON BRK (19)	1989	2767	\$155,689.00
Note: All S.F. calculations are based on exterior building dimensions.						

Extra Features & Out Buildings

Code	Desc	Year Blt	Value	Units	Dims	Condition (% Good)
0166	CONC,PAVMT	2007	\$4,167.00	0001389.000	0 x 0 x 0	(000.00)
0296	SHED METAL	2009	\$1,200.00	0000001.000	0 x 0 x 0	(000.00)

Land Breakdown

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OUTBACK POOLS
 931 SAVANNAH CIRCLE
 LAKE CITY, FL 32055

DATE: 3-28-10 Row

SUBCONTRACTOR VERIFICATION FORM

APPLICATION NUMBER 1005-44 CONTRACTOR RANDALL MARKHAM PHONE 965-1739

THIS FORM MUST BE SUBMITTED PRIOR TO THE ISSUANCE OF A PERMIT

In Columbia County one permit will cover all trades doing work at the permitted site. It is **REQUIRED** that we have records of the subcontractors who actually did the trade specific work under the permit. Per Florida Statute 440 and Ordinance 89-6, a contractor shall require all subcontractors to provide evidence of workers' compensation or exemption, general liability insurance and a valid Certificate of Competency license in Columbia County.

Any changes, the permitted contractor is responsible for the corrected form being submitted to this office prior to the start of that subcontractor beginning any work. Violations will result in stop work orders and/or fines.

ELECTRICAL	Print Name _____ License #: _____	Signature _____ Phone #: _____
MECHANICAL/ A/C _____	Print Name _____ License #: _____	Signature _____ Phone #: _____
PLUMBING/ GAS	Print Name _____ License #: _____	Signature _____ Phone #: _____
ROOFING	Print Name _____ License #: _____	Signature _____ Phone #: _____
SHEET METAL	Print Name _____ License #: _____	Signature _____ Phone #: _____
FIRE SYSTEM/ SPRINKLER	Print Name _____ License #: _____	Signature _____ Phone #: _____
SOLAR	Print Name _____ License #: _____	Signature _____ Phone #: _____

Specialty License	License Number	Sub-Contractors Printed Name	Sub-Contractors Signature
MASON			
CONCRETE FINISHER			
FRAMING			
INSULATION			
STUCCO			
DRYWALL			
PLASTER			
CABINET INSTALLER			
PAINTING			
ACOUSTICAL CEILING			
GLASS			
CERAMIC TILE			
FLOOR COVERING			
ALUM/VINYL SIDING	775	<i>Randall Markham</i>	<i>Randall Markham</i>
GARAGE DOOR			
METAL BLDG ERECTOR			

F. S. 440.103 Building permits; identification of minimum premium policy.--Every employer shall, as a condition to applying for and receiving a building permit, show proof and certify to the permit issuer that it has secured compensation for its employees under this chapter as provided in ss. 440.10 and 440.38, and shall be presented each time the employer applies for a building permit.

#28609

Inst: 201012009594 Date: 6/15/2010 Time: 11:26 AM
DC, P. DeWitt Cason, Columbia County Page 1 of 1 B: 1196 P: 594

NOTICE OF COMMENCEMENT

County Clerk's Office Stamp or Seal

Tax Parcel Identification Number 24-45-16-C3114-132

THE UNDERSIGNED hereby gives notice that improvements will be made to certain real property, and in accordance with Section 713.13 of the Florida Statutes, the following information is provided in this NOTICE OF COMMENCEMENT.

- 1. Description of property (legal description): Lot 32 Cannon Creek Place S/D
a) Street (job) Address: 314 SW Arrowhead Dr Lake City FL 32024
- 2. General description of improvements: Covered screen porch
- 3. Owner Information
a) Name and address: Colon, Ricardo + Merlinda Gomez
b) Name and address of fee simple titleholder (if other than owner) _____
c) Interest in property _____
- 4. Contractor Information
a) Name and address: Randall Mackham
b) Telephone No.: (386) 965-1739 Fax No. (Opt.) _____
- 5. Surety Information
a) Name and address: _____
b) Amount of Bond: N/A
c) Telephone No.: _____ Fax No. (Opt.) _____
- 6. Lender
a) Name and address: First Federal Bank of FL 4705 W US 90 Lake City FL 32056
b) Phone No. _____
- 7. Identity of person within the State of Florida designated by owner upon whom notices or other documents may be served:
a) Name and address: _____
b) Telephone No.: _____ Fax No. (Opt.) _____
- 8. In addition to himself, owner designates the following person to receive a copy of the Lienor's Notice as provided in Section 713.13(1)(b).
Florida Statutes:
a) Name and address: N/A
b) Telephone No.: _____ Fax No. (Opt.) _____
- 9. Expiration date of Notice of Commencement (the expiration date is one year from the date of recording unless a different date is specified): _____

WARNING TO OWNER: ANY PAYMENTS MADE BY THE OWNER AFTER THE EXPIRATION OF THE NOTICE OF COMMENCEMENT ARE CONSIDERED IMPROPER PAYMENTS UNDER CHAPTER 713, PART I, SECTION 713.13, FLORIDA STATUTES, AND CAN RESULT IN YOUR 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 YOUR LENDER OR AN ATTORNEY BEFORE COMMENCING WORK OR RECORDING YOUR NOTICE OF COMMENCEMENT.

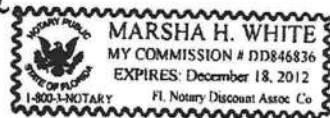
STATE OF FLORIDA
COUNTY OF COLUMBIA

10. Merlinda Gomez
Signature of Owner or Owner's Authorized Officer/Director/Partner/Manager
Merlinda Gomez
Print Name

The foregoing instrument was acknowledged before me, a Florida Notary, this 4 day of June, 2010, by:
Marsha White as notary public (type of authority, e.g. officer, trustee, attorney
fact) for Merlinda Gomez (name of party on behalf of whom instrument was executed).

Personally Known _____ OR Produced Identification Type FL Driver's license

Notary Signature Marsha H White Notary Stamp or Seal:



--AND--

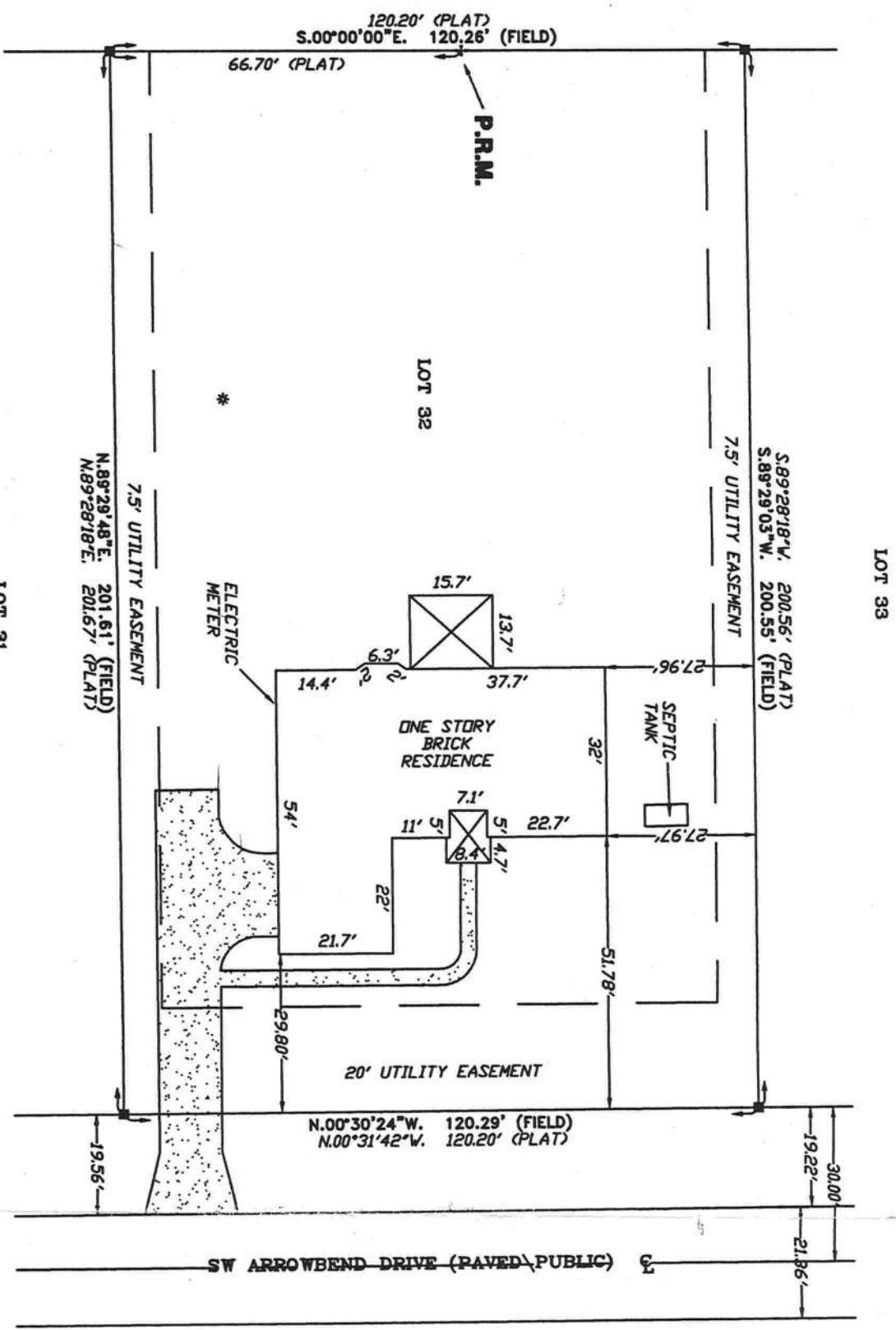
11. Verification pursuant to Section 92.525, Florida Statutes. Under penalties of perjury, I declare that I have read the foregoing and that the facts stated in it are true to the best of my knowledge and belief.

Merlinda Gomez
Signature of Natural Person Signing (on line #10 above.)

File

NOTE: ALL PROPERTY CORNERS LOCATED WERE IDENTIFIED AS L.S. BRITT, P.L.S. 5757.

BOUNDARY SURVEY IN SECTION 24, TOWNSHIP 4 SOUTH,
RANGE 16 EAST, COLUMBIA COUNTY, FLORIDA.



SPECIAL FLOOD NOTE:
ACCORDING TO THE PLAT OF RECORD
A MINIMUM FLOOR ELEVATION HAS
BEEN ESTABLISHED TO BE 98.00 FEET
FOR LOT 32.

CERTIFIED TO:

RICARDO COLON & MERLINDA GOMEZ
FIRST FEDERAL SAVINGS BANK OF FLORIDA
ABSTRACT AND TITLE SERVICES, INC.
CHICAGO TITLE INSURANCE COMPANY

FIELD BOOK: 300 PAGES(S): 36

SURVEYOR'S CERTIFICATION

I HEREBY CERTIFY THAT THIS SURVEY WAS MADE UNDER MY RESPONSIBLE CHARGE AND MEETS THE MINIMUM TECHNICAL STANDARDS AS SET FORTH BY THE FLORIDA BOARD OF PROFESSIONAL SURVEYORS AND MAPPERS IN CHAPTER 61G17-6, FLORIDA ADMINISTRATIVE CODE, PURSUANT TO SECTION 499.027, FLORIDA STATUTES.

05/30/07 SURVEY DATE
05/07/07 DRAWING DATE

NOTE: UNLESS IT BEARS THE SIGNATURE AND THE ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER THIS DRAWING, SKETCH, PLAT OR MAP IS FOR INFORMATIONAL PURPOSES ONLY AND IS NOT VALID.

SCALE: 1" = 30'

SYMBOL LEGEND

■	4"x4" CONCRETE MONUMENT FOUND
□	4"x4" CONCRETE MONUMENT SET
●	IRON PIPE FOUND
○	IRON PIN AND CAP SET
⊙	POWER POLE
▲	WATER METER
⊕	CENTERLINE
*	WELL
⊗	SATELLITE DISH
⊙	TELEPHONE BOX
—E—	ELECTRIC LINES
—X—	WIRE FENCE
—○—	CHAIN LINK FENCE
—□—	WOODEN FENCE

DESCRIPTION:
LOT 32 OF 'CANNON CREEK PLACE' AS PER PLAT THEREOF RECORDED IN PLAT BOOK 8,
PAGES 31-34 OF THE PUBLIC RECORDS OF COLUMBIA COUNTY, FLORIDA.

- SURVEYOR'S NOTES:
1. BOUNDARY BASED ON MONUMENTATION FOUND IN ACCORDANCE WITH THE RETRACEMENT OF THE ORIGINAL SURVEY FOR SAID PLAT OF RECORD.
 2. BEARINGS ARE BASED ON SAID PLAT OF RECORD.
 3. THIS PARCEL IS IN ZONE 'X' AND IS DETERMINED TO BE OUTSIDE THE 500 YEAR FLOOD PLAIN AS PER FLOOD RATE MAP, DATED 6 JANUARY, 1988 COMMUNITY PANEL NUMBER 120070 0175 B. HOWEVER, THE FLOOD INSURANCE RATE MAPS ARE SUBJECT TO CHANGE.
 4. THE IMPROVEMENTS, IF ANY, INDICATED ON THIS SURVEY DRAWING ARE AS LOCATED ON DATE OF FIELD SURVEY AS SHOWN HEREON.
 5. IF THEY EXIST, NO UNDERGROUND ENCROACHMENTS AND/OR UTILITIES WERE LOCATED FOR THIS SURVEY EXCEPT AS SHOWN HEREON.
 6. THIS SURVEY WAS COMPLETED WITHOUT THE BENEFIT OF A TITLE COMMITMENT OR A TITLE POLICY.

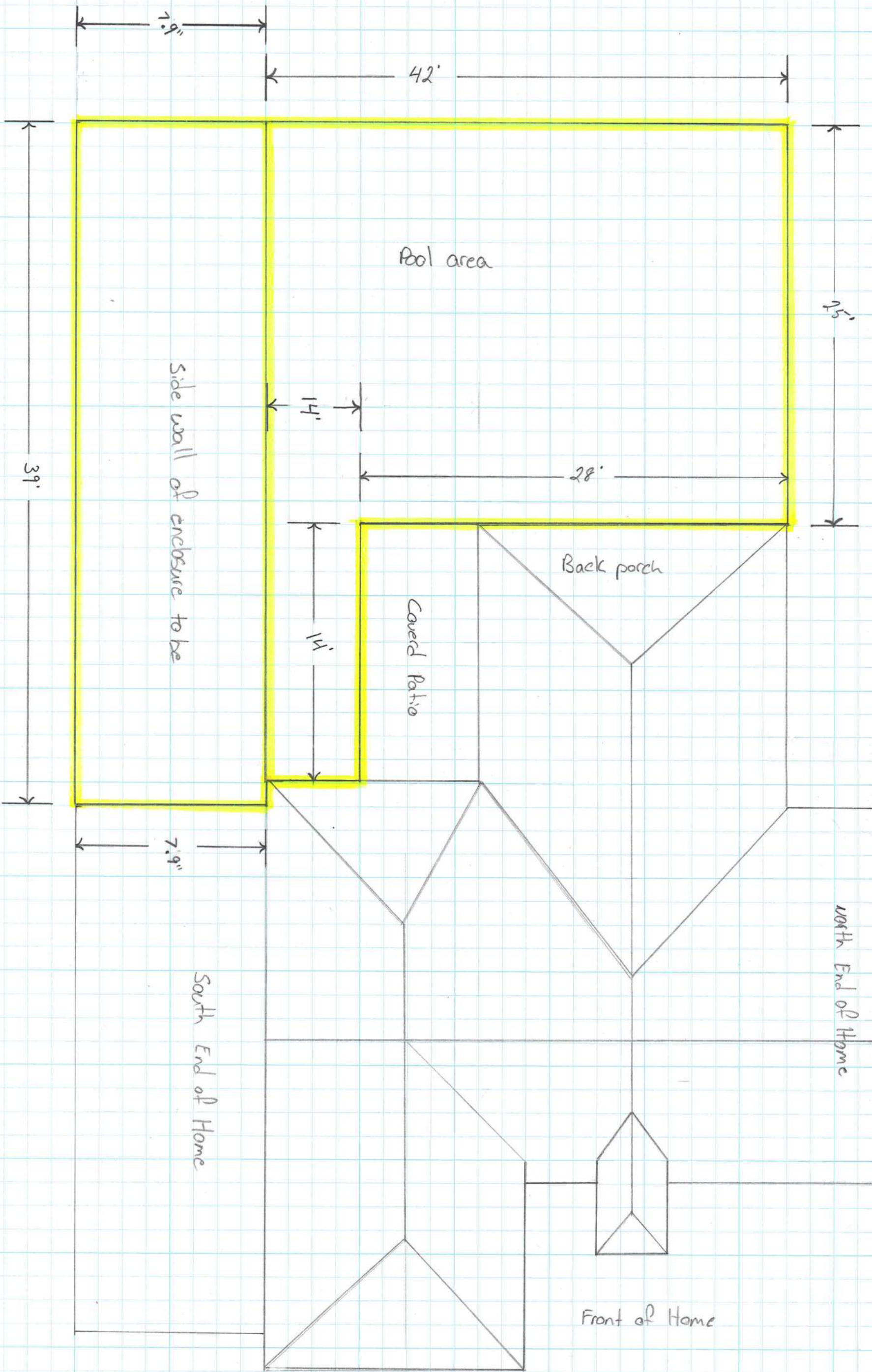


BRITT SURVEYING
& ASSOCIATES, INC.

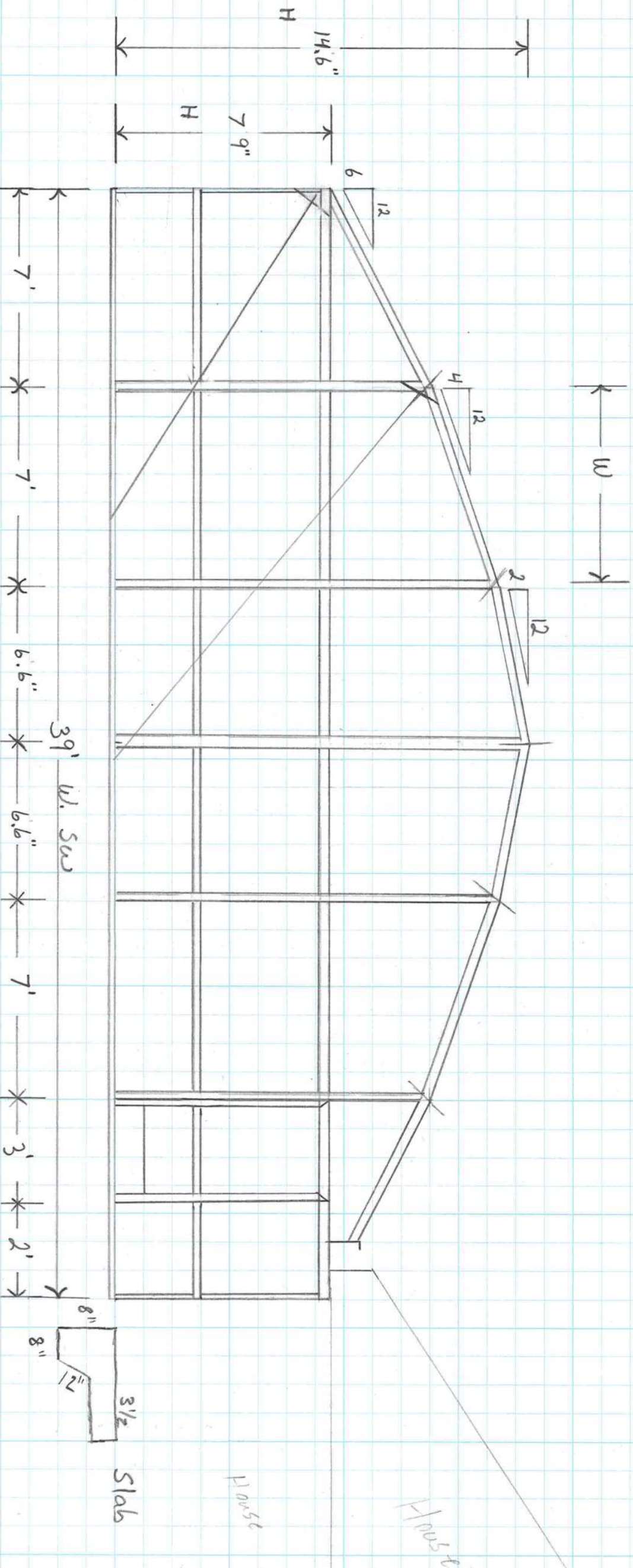
LAND SURVEYORS AND MAPPERS
830 WEST DUVAL STREET LAKE CITY, FLORIDA 32095
(386)752-7163 FAX (386)752-5573
WORK ORDER # L-18389

Britt

NORTHFIELD SCREENMASTERS LLC.



South End Wall / North End Wall



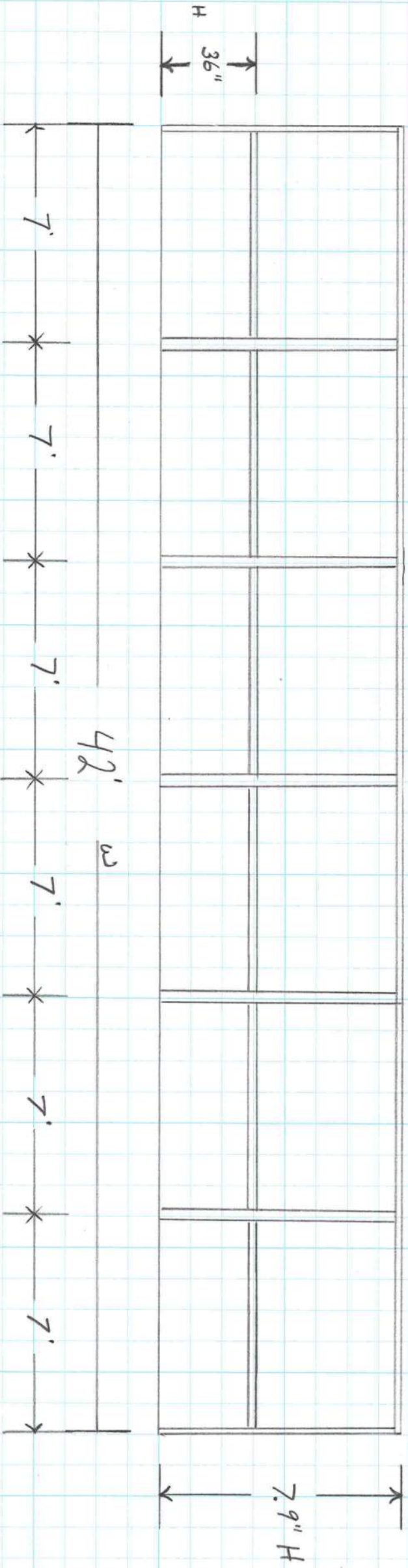
- 2"x2" = .040 Girt screwed with #10x2"
- Columns 2"x4" = .040 Self making beams
- Purlins 2"x6" = .040 Self making beams
- Bottom plate 1"x2" = .040 screwed with #10x2"
- Bottom plate fastened to concrete with 3/4 topcons.

SYMBOL LEGEND

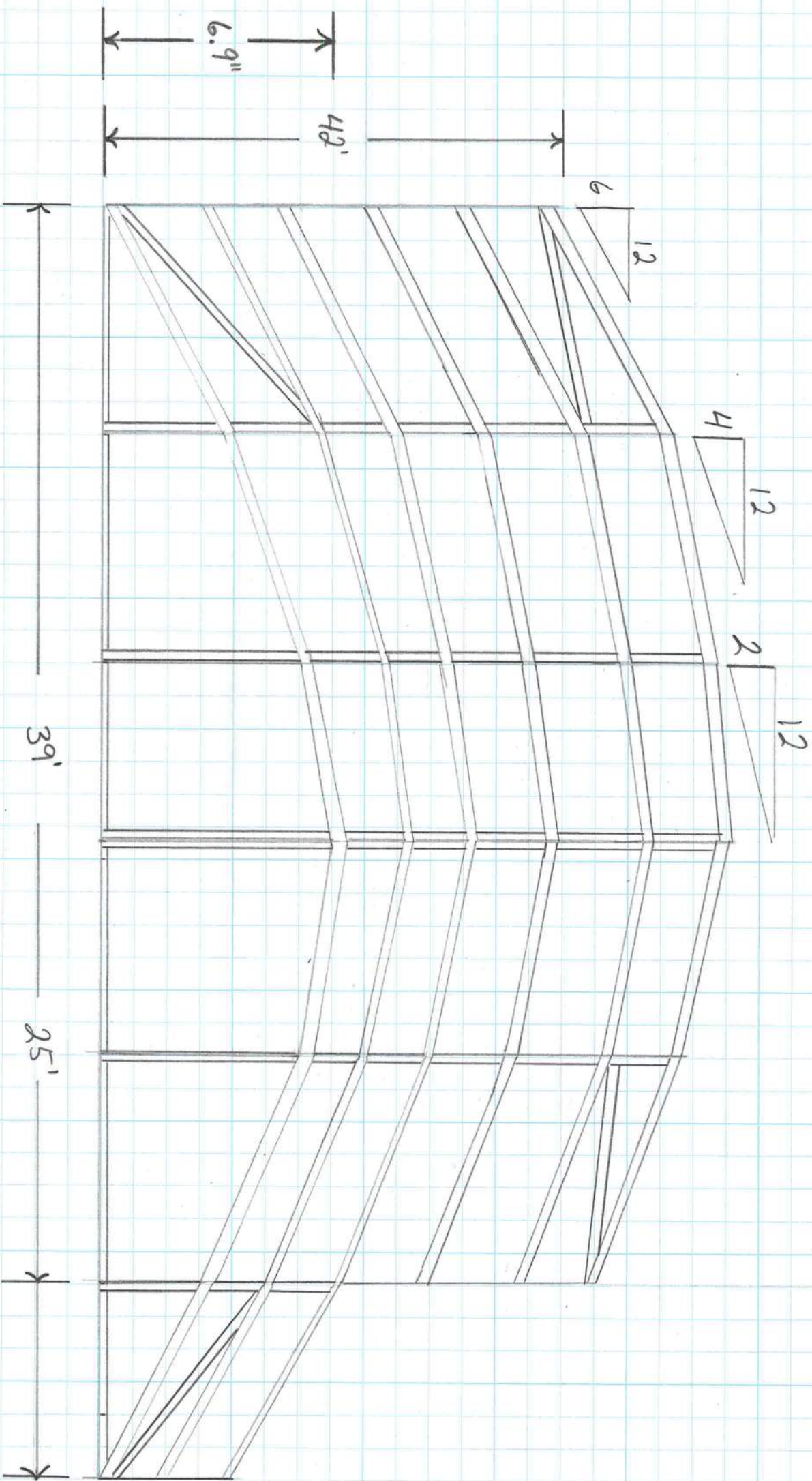
- Roof Pitch
- Girt
- Cable Brace
- Columns
- Purlins

End Wall Elevation

- 1"x2" Bottom plate anchored with 3 3/4 top caps
- 2"x4" SCLD mating columns
- 2"x2" purlins fastened with #10X2" screws
- 1"x2" Top plate fastened with #10X2" screws



Dome Roof



- 2" x 6" Self nailing Beams
- 2" x 2" Hollow with #10 x 2" screws
- 2" x 2" Hollow Corner Brace with #10 x 2"
- Gusset plates Internal Joining Beams

INSPECTION GUIDE FOR POOL ENCLOSURES

1. Check the building permit for the following:	Yes	No
a. Permit card & address	_____	_____
b. Approved drawings and addendums as required	_____	_____
c. Plot plan or survey	_____	_____
d. Notice of commencement	_____	_____
2. Check the approved site specific drawings or shop drawings against the "AS BUILT" structure for:	Yes	No
a. Structures length, projection, plan & height as shown on the plans	_____	_____
b. Beam size, span, spacing & stitching screws	_____	_____
c. Purlin size, span & spacing	_____	_____
d. Upright size, height, spacing & stitching screws	_____	_____
e. Chair rail size, length & spacing	_____	_____
f. Ever rail size, length, spacing & stitching of 1" x 2" to 2" x 2"	_____	_____
g. Enclosure roof diagonal bracing is installed snug	_____	_____
h. Wall cables or "K" bracing are installed snug	_____	_____
i. Kræe braces are properly installed	_____	_____
3. Check load bearing uprights for the following:	Yes	No
a. Angle bracket size & thickness	_____	_____
b. Correct number, size & spacing of fasteners to upright	_____	_____
c. Correct number, size & spacing of fasteners of angle to deck and sole plate	_____	_____
d. Upright is anchored to deck through brick pavers then anchors shall go through pavers into concrete	_____	_____
4. Check the load bearing beam to upright for:	Yes	No
a. Upright to beam connection and / or splices have correct number & spacing of screws	_____	_____
b. Overlap beam to upright or gusset plate	_____	_____
c. If angle brackets are used in framing check for correct thickness and size & number of fasteners	_____	_____
5. Check load bearing beam to host structure and / or gutter for:	Yes	No
a. Receiver bracket, angle or receiving channel size & thickness	_____	_____
b. Size, number & spacing of anchors of beam to receiver	_____	_____
c. Size, number & spacing of anchors of receiver to host structure of gutter	_____	_____
d. Correct anchoring of gutters to host structure	_____	_____
6. Check the wall cables:	Yes	No
a. Location & number	_____	_____
b. Top bracket size and fasteners	_____	_____
c. Eye bolts are welded	_____	_____
d. Bottom strap to concrete connection	_____	_____
7. Check wall "K" bracing (if required):	Yes	No
a. Location & size	_____	_____
b. Angle, gusset or clip size & number	_____	_____
c. Number & size of fasteners	_____	_____
8. Check electrical ground:	Yes	No
a. Properly completed	_____	_____
b. Angle, gusset or clip size & number	_____	_____
c. Number & size of fasteners	_____	_____
9. Check the doors on pool enclosures:	Yes	No
a. Door handle @ 54" from the deck	_____	_____

LEGEND

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- Contractor represents and warrants the Contractor:
 - Is a contractor licensed in the state of Florida to build the structures encompassed in the ASDM;
 - Has attended the ASDM training course within two years prior to the date of the purchase;
 - Has signed a Masterfile License Agreement and obtained a valid approval card from Bennett evidencing the license granted in such agreement;
 - Will not alter, amend, or obscure any notice on the ASDM;
 - Will only use the ASDM in accord with the provisions of Florida Statute section 489.113(9)(b) and the notes limiting the appropriate use of the plans and the calculations in the ASDM;
 - Understands that the ASDM is protected by the federal Copyright Act and that further distribution of the ASDM to any third party (other than a local building department as part of any Contractor's own work) would constitute infringement of Bennett Engineering Group's copyright; and
 - Contractor is solely responsible for its construction of any and all structures using the ASDM.
- DISCLAIMER OF WARRANTIES.** Contractor acknowledges and agrees that the ASDM is provided "as is" and "as available." Bennett hereby expressly disclaims all warranties of merchantability, fitness for a particular purpose, and non-infringement. In particular, Bennett its officers, employees, agents, representatives, and successors, do not represent or warrant that (a) use of the ASDM will meet Contractor's requirements or that the ASDM is free from error.
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CONTRACTOR NAME: U.F.L. Screen Masters L.L.C. / Randall Mathon

CONTRACTOR LICENSE NUMBER: 7002909 comp # 000775

COURSE # 0002299 ATTENDANCE DATE: August 2010

CONTRACTOR SIGNATURE: Randall Mathon

SUPPLIER: Town & Country (Soc)

BUILDING DEPARTMENT
 CONTRACTOR INFORMATION AND COURSE #0002299 ATTENDANCE DATE HAS BEEN VERIFIED: _____ (INITIAL)

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 SCREEN ENCLOSURES
 INSPECTION GUIDE / LEGEND
 2007 FLORIDA BUILDING CODE
 WITH 2009 SUPPLEMENTS - 2009 EDITION

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THE DESIGNS AND SPANS SHOWN ON THESE DRAWINGS ARE
 BASED ON THE LOAD REQUIREMENTS FOR THE FLORIDA
 BUILDING CODE 2007 EDITION W/ 2009 SUPPLEMENTS.

JOB NAME: _____
 ADDRESS: _____

DRAWING FOR ONE PERMIT ONLY 2009

GENERAL NOTES AND SPECIFICATIONS

- The following structures are designed to be married to site built block or wood frame DCA approved modular structures of adequate structural capacity. The contractor / home owner shall verify that the host structure is in good condition and of sufficient strength to hold the proposed addition.
- If the owner or contractor has a question about the host structure, the owner (at his own expense) shall hire an architect, engineer, or a certified home inspection company to verify host structure capacity.
- The structures designed using this section shall be limited to a maximum combined span and upright height of 50' and a maximum upright height of 16'. Structures larger than these limits shall have site specific engineering.
- Spans are for enclosures with mean roof heights less than 30'. For greater heights, site specific is required.
- Connections to fascia shall be limited to overhangs shown in table 1.11 or less unless site specific engineering is provided.
- The proper structural name for a chair rail or top rail of an enclosure is a girt. Thus the terminology shall be interchangeable.
- Screws that penetrate the water channel of the super gutter shall have ends clipped off for safety of cleaning gutter and the heads of screws through the fascia shall be caulked.
- Span tables and attachment details for composite panels are in the solid roof panel products section.
- When using TEK screws in lieu of S.M.S., longer screws must be used to compensate for drill head.
- An additional super gutter strap or ferrule is required to be located near the midpoint of the beam spacing. Straps shall be attached to each truss / rafter tail and spacing of straps does not exceed 2'-0".
- Super or extended gutter details are applicable to all widths of super or extended gutters, and gutters may be substituted. Gutter straps and/or ferrules shall be the width of the inside and outside of the super or extended gutter respectively. The center of the knee braces shall not be more than 6" above the top of the super or extended gutter.
- If the sub-fascia is 3/4", and the sub-fascia is in good repair, a 3/4" P.T.P. strip the width of the fascia #8 x 3" screws. This gives the equivalent of a 2" fascia.
- Spans may be interpolated between values but not extrapolated outside values.
- All 2" X 4" and larger purlins shall have an internal or external angle clip or screw boss to fasten the bottom of the purlin to the beam.
- Load width and / or panel spacing used in determining spans / heights is measured from center to center of the members.

EXAMPLE:

Screen panel A is 6' center to center. Screen panel B is 7' center to center. The load width of the frame member between panel A and B is (6'12" + 7'12") = 6.5' or 6'-6".

- The distance, spacing or load width is not measured between frame members as that would reduce it by 2" to the load width if figured that way.
- Definition, standards and specifications can be viewed online at www.lebpe.com.
- Moment connections and moment tables can not be used in solid roof / screen roof combination enclosures or any connection that requires a knee brace such as in a dome roof.
- All aluminum extrusions shall meet the strength requirements of ASTM B221 after powder coating.
- Other shapes than those shown in Section 8 with State Product Approvals may be used with the details of this section so long as the shapes are compatible with the details.
- All aluminum shall be ordered as to the alloy and hardness after heat treatment and paint is applied. Example: 6063-T6 after heat treatment and paint process.
- Aluminum metals that will come in contact with ferrous metal surfaces or concrete masonry products or pressure treated wood shall be coated w/ two coats of aluminum metal-and-masonry paint or a coat of heavy-bodied bituminous paint, or the wood or other absorbing material shall be painted with two coats of aluminum house paint and the joints sealed with a good quality caulking compound. The protective materials shall be as listed in section 2003.8.4.3 through 2003.8.4.6 of the Florida Building Code or Corobond Cold Galvanizing Primer and Finisher.
- All fasteners or aluminum parts shall be corrosion resistant, such as non magnetic stainless steel grade 304 or 316; Ceramic coated, double zinc coated or powder coated steel fasteners. Only fasteners that are warranted as corrosion resistant shall be used. Unprotected steel fasteners shall not be used.
- Any structure within 1500 feet of a salt water area, (bay or ocean) shall have fasteners made of non-magnetic stainless steel 304 or 316 series. 410 series has not been approved for use with aluminum by the Aluminum Association and should not be used.
- Any project covering a pool with a salt water chlorination distribution system shall use the above recommended fasteners. This is not limited to base anchoring systems but includes all connection types.

SECTION 1 DESIGN STATEMENT

The structures designed for Section 1 are framing systems with screen roofs & walls and bays have been determined by wind tunnel test that include any negative internal pressure coefficient. Since these structures are open, the negative internal pressure coefficient is considered to be 0.00. The design loads used are from Chapter 20 of The 2007 Florida Building Code with 2009 Supplements. The loads assume a mean roof height of less than 30', roof slope of 0° to 20°, I = 0.87 for 100 MPH and 0.77 for 110 or higher. All loads are based on 20 / 20 screen or larger. All pressures shown in the below table are in PSF (#SF). All framing components are considered to be 6063-T6 alloy.

GENERAL NOTES AND SPECIFICATIONS FOR SECTION 1 TABLES

SECTION 1 Uniform Loads for Structures with Screen Roof & Walls

Wind Velocity (m.p.h.)	Exposure 'B'		Exposure 'C'	
	Roofs (p.s.f.)	Walls (p.s.f.)	Roofs (p.s.f.)	Walls (p.s.f.)
100	13	12	10	5
110	14	13	9	5
120	17	15	11	6
130	18	15.9	11.3	6.3
1401 & 2	23	21	15	8
150	26	24	18	9

Loads per table 2002.4
Multipliers only apply to members when spans / heights are controlled by wind pressure, not by point load.

Conversion Table 1A
Wind Zone Conversion Factors for Screen Roof or Wall Frame Members
From 120 MPH Wind Zone to Others; Exposure 'B'

Wind Zone MPH	Roofs		Walls	
	Applied Load #/SF	Conversion Factor	Applied Load #/SF	Conversion Factor
100	3	1.15	12	1.12
110	4	1.00	13	1.07
120	4.3	1.00	15	1.00
130	5	0.98	15.9	0.97
1401 & 2	6	0.82	18	0.91
150	7	0.76	21	0.85

Note:
Multipliers are for wall loads only.
Multipliers only apply to members when spans / heights are controlled by wind pressure, not by point load.

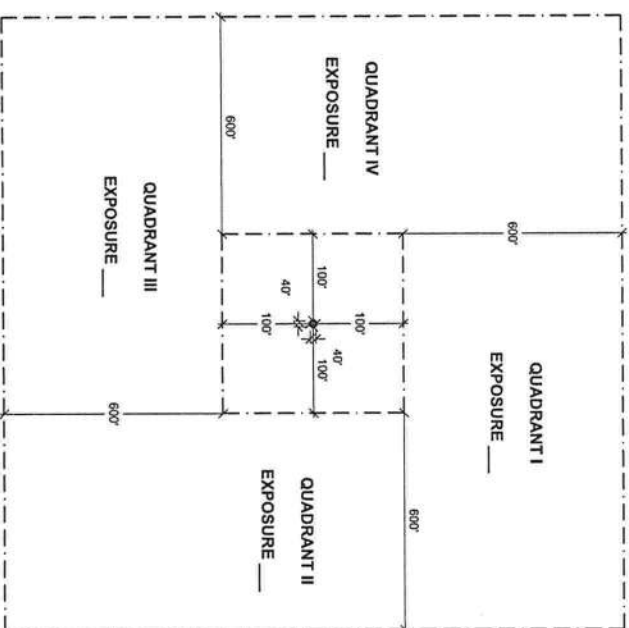
Conversion Table 1B
Load Conversion Factors Based on Mean Roof Height from Exposure 'B' to 'C' & 'D'

Mean Roof Height*	Exposure 'B' to 'C'		Exposure 'B' to 'D'	
	Conversion Factor	Span Multiplier	Conversion Factor	Span Multiplier
0 - 15'	1.21	0.91	1.47	0.83
15' - 20'	1.29	0.88	1.54	0.81
20' - 25'	1.34	0.86	1.60	0.79
25' - 30'	1.40	0.85	1.66	0.78
30' - 40'	1.37	0.85	1.61	0.79

* Use larger mean roof height of host structure or enclosure.
Values are from ASCE 7-05
Multipliers only apply to members when spans / heights are controlled by wind pressure, not by point load.

Conversion Example (Convert span for Exposure 'B' to 'C'):
If max span found from span tables for Exposure 'B' = 31'-11" = 31.92'
and the mean roof height of the structure is 0-15' then multiply span by 0.91
the span for Exposure 'C' is 31.92' * 0.91 = 29.05' = 29'-1"

SITE EXPOSURE EVALUATION FORM



NOTE: ZONES ARE MEASURED FROM STRUCTURE OUTWARD

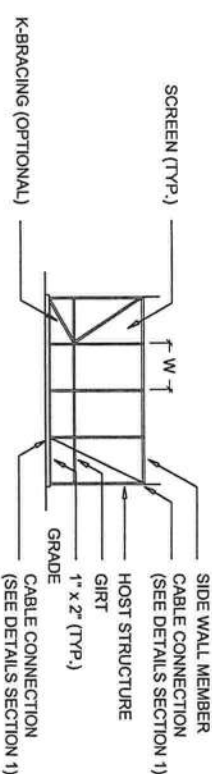
SITE

USING THE FOLLOWING CRITERIA, EVALUATE EACH QUADRANT AND MARK IT AS 'B', 'C', OR 'D'.
EXPOSURE: 'C' OR 'D' EXPOSURE IN ANY QUADRANT MAKES THE SITE THAT EXPOSURE.

- Open terrain with scattered obstructions, including surface undulations or other irregularities, having heights generally less than 30 feet extending more than 1,500 feet from the building site in any quadrant.
- Any building located within Exposure B-type terrain where the building is within 100 feet horizontally in any direction of open areas of Exposure C-type terrain that extends more than 600 feet and width greater than 150 ft.
- No short term changes in 'B' type terrain before site evaluation and build out within 3 years, site will be 'D'.
- Flat, open country, grasslands, ponds and ocean or shorelines in any quadrant for greater than 1,500 feet.
- Open terrain for more than 1,500 feet in any quadrant.

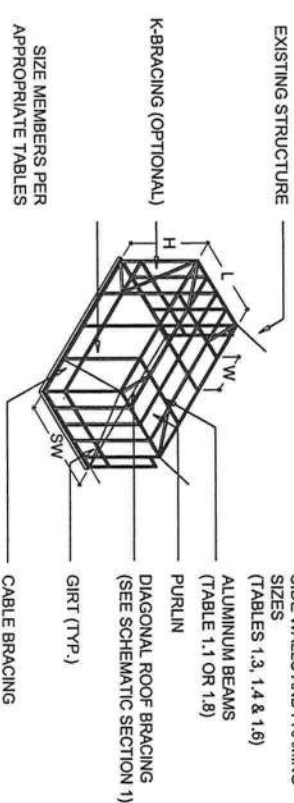
SITE IS EXPOSURE: _____ EVALUATED BY: _____ DATE: _____

SIGNATURE: _____ LICENSE #: _____



TYPICAL FLAT ROOF - FRONT WALL ELEVATION

SCALE: N.T.S.



TYPICAL FLAT ROOF - ISOMETRIC

SCALE: N.T.S.

TYPICAL NOMENCLATURE FOR SCREENED ENCLOSURES:

- H- MAXIMUM UPRIGHT HEIGHTS
 - L- MAXIMUM BEAM SPAN WITHOUT KNEE BRACE
 - SW- (ADD HORIZONTAL LENGTH OF KNEE BRACE TO SPAN FROM TABLES) SIDE WALLS CAN BE FRAMED WITHOUT TOP BEAM AND CAN BE SMALLEST EXTRUSIONS ALLOWED BY SPAN TABLES
 - W- SCREEN PANEL SPACING
- CONNECTION DETAILS AND NOTES ARE FOUND IN SUBSEQUENT PAGES.

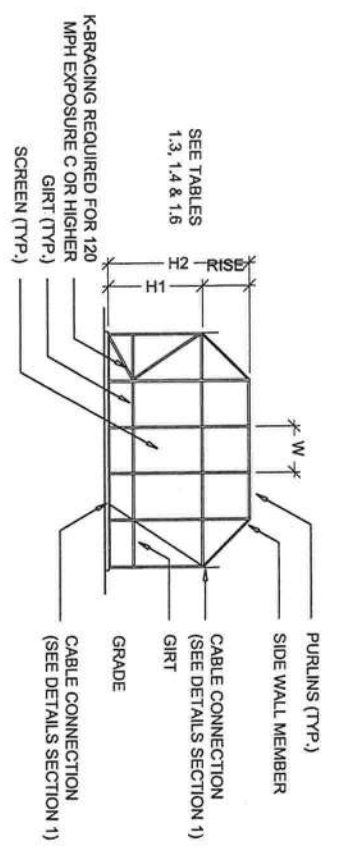
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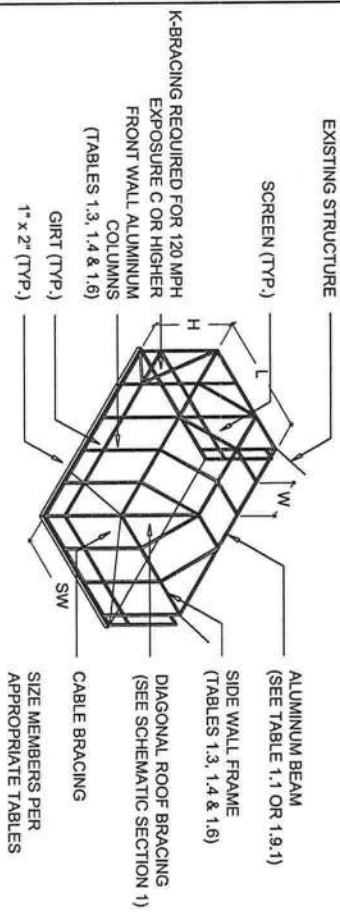
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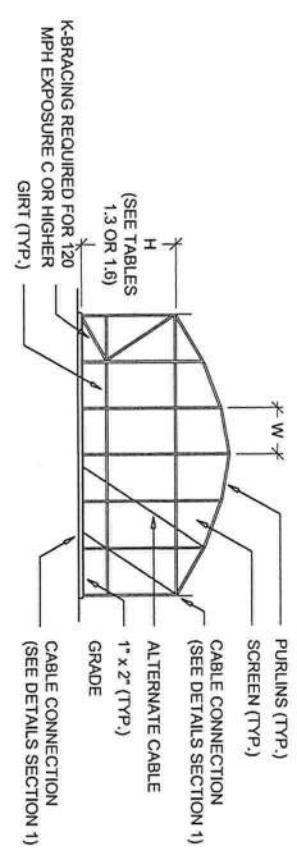
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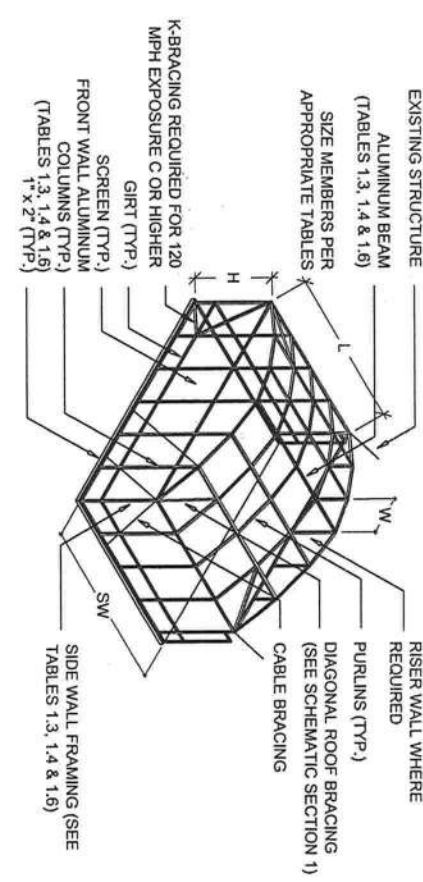
TYPICAL MANSARD ROOF - FRONT WALL ELEVATION
SCALE: N.T.S.



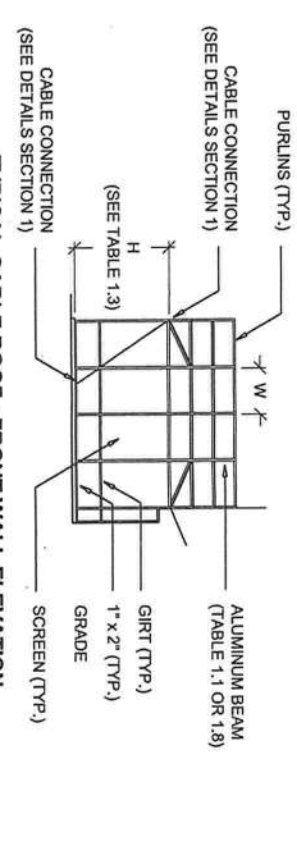
TYPICAL MANSARD ROOF - ISOMETRIC
SCALE: N.T.S.



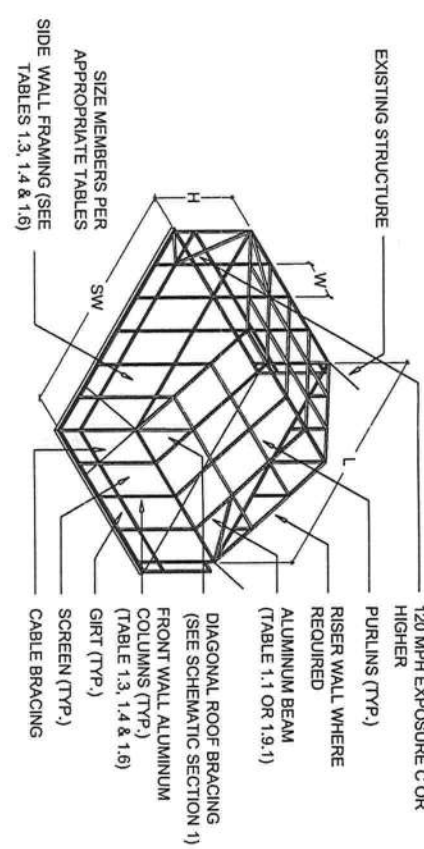
TYPICAL DOME ROOF - FRONT WALL ELEVATION
SCALE: N.T.S.



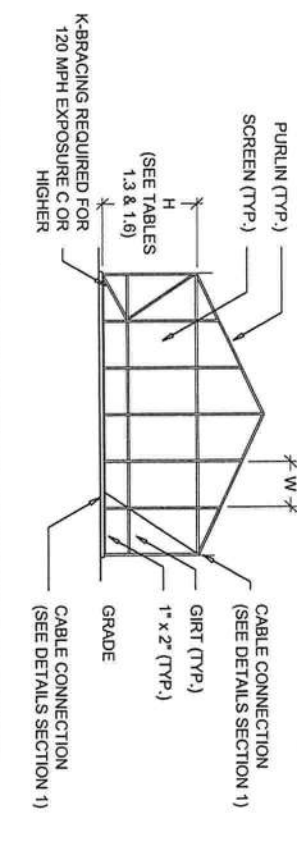
TYPICAL DOME ROOF - ISOMETRIC
SCALE: N.T.S.



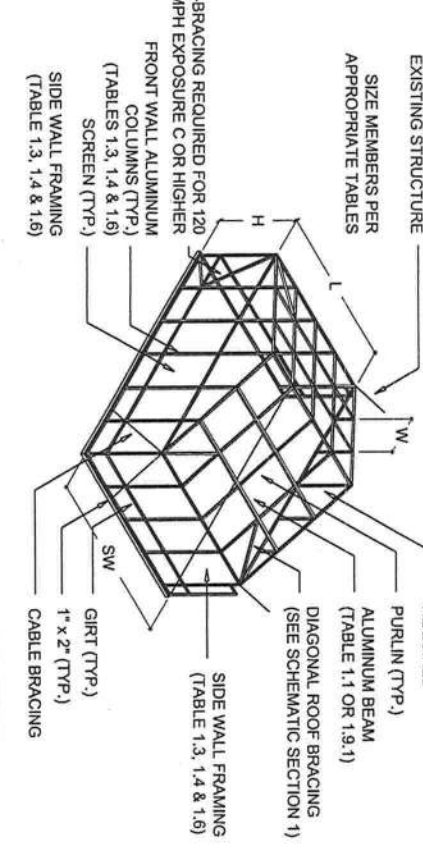
TYPICAL GABLE ROOF - FRONT WALL ELEVATION
SCALE: N.T.S.



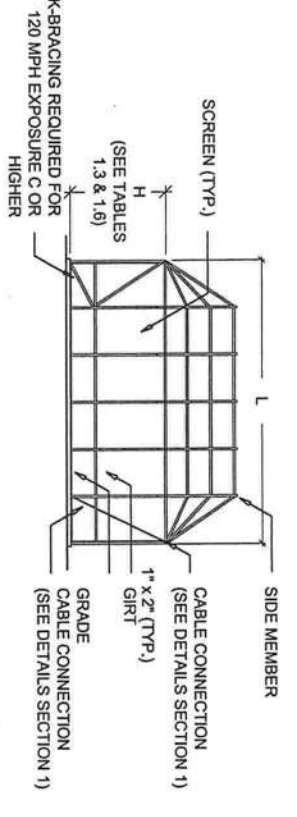
TYPICAL GABLE ROOF - ISOMETRIC
SCALE: N.T.S.



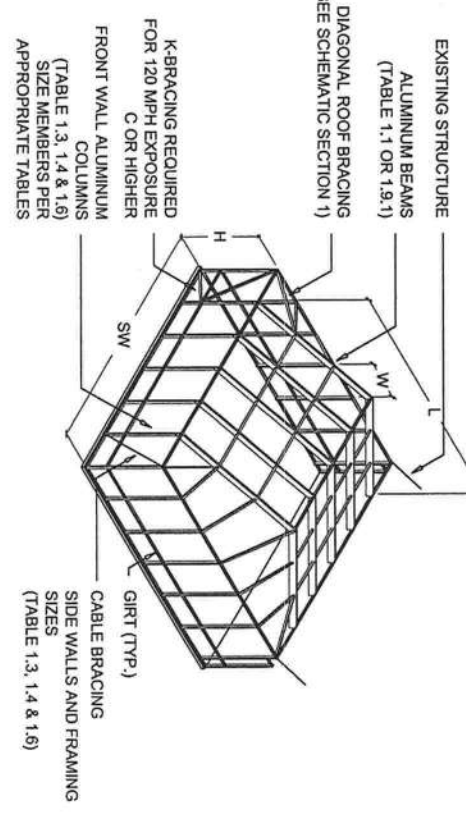
TYPICAL TRANSVERSE GABLE ROOF - FRONT WALL ELEVATION
SCALE: N.T.S.



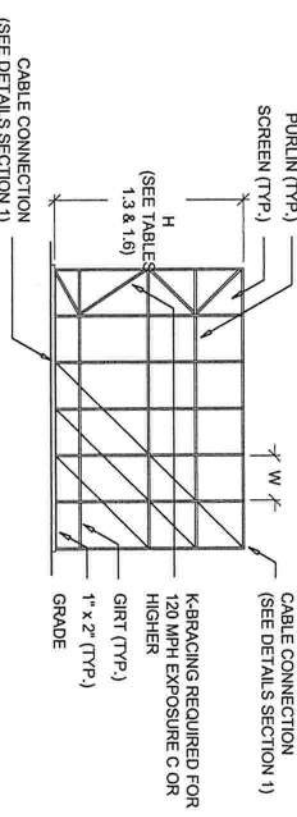
TYPICAL TRANSVERSE GABLE ROOF - ISOMETRIC
SCALE: N.T.S.



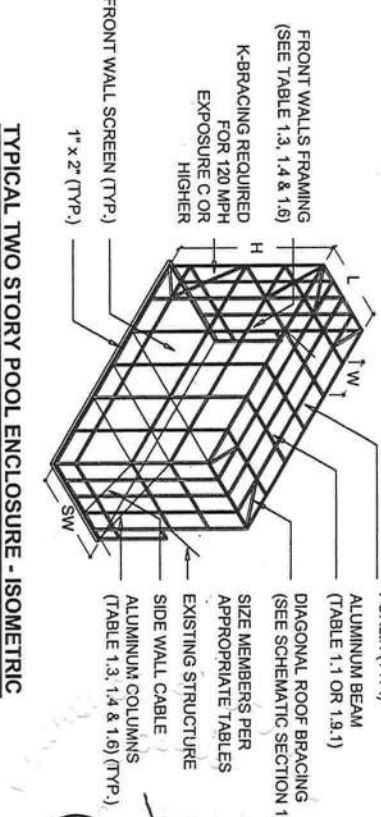
TYPICAL MODIFIED HIP ROOF - FRONT WALL ELEVATION
SCALE: N.T.S.



TYPICAL MODIFIED HIP ROOF - ISOMETRIC
SCALE: N.T.S.



TYPICAL TWO STORY POOL ENCLOSURE - FRONT WALL ELEVATION
(ALL ROOF TYPES)
SCALE: N.T.S.



TYPICAL TWO STORY POOL ENCLOSURE - ISOMETRIC
(ALL ROOF TYPES)
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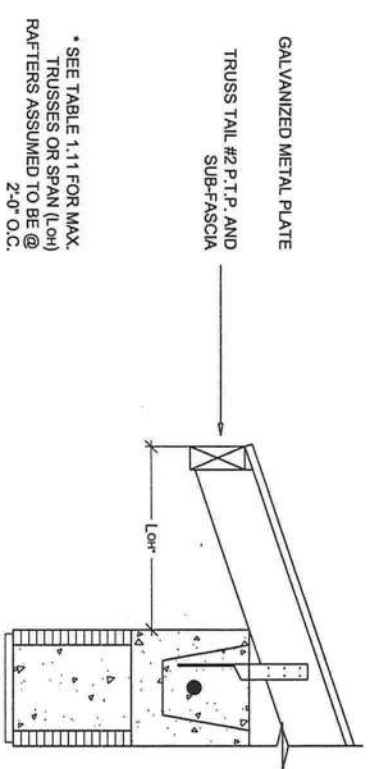
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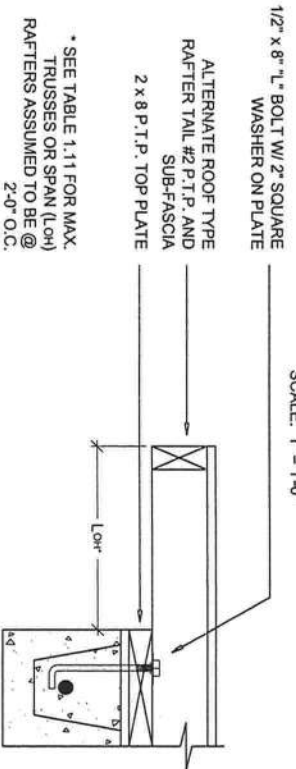
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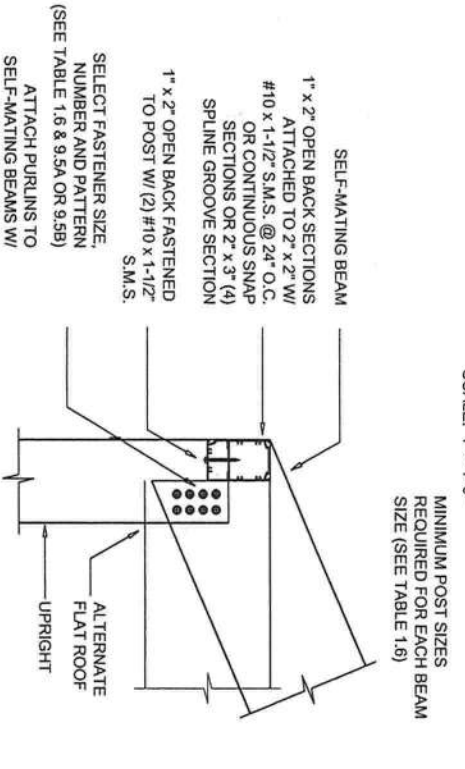
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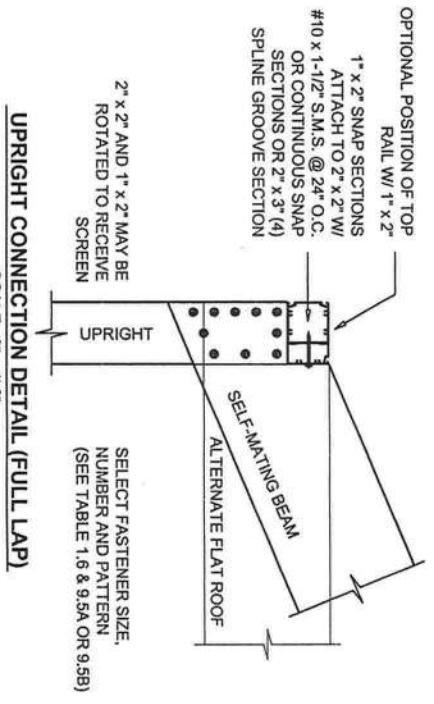
TRUSS / RAFTER TAIL
SCALE: 1" = 1'-0"



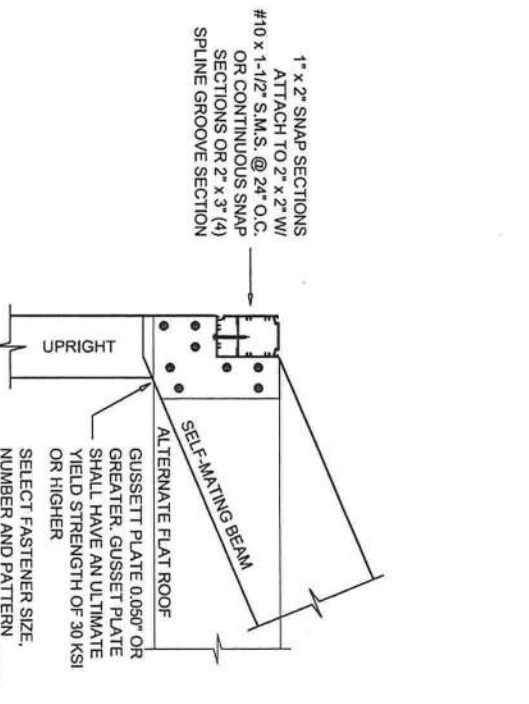
ALTERNATE TOP PLATE TRUSS / RAFTER TAIL ASSEMBLY
SCALE: 1" = 1'-0"



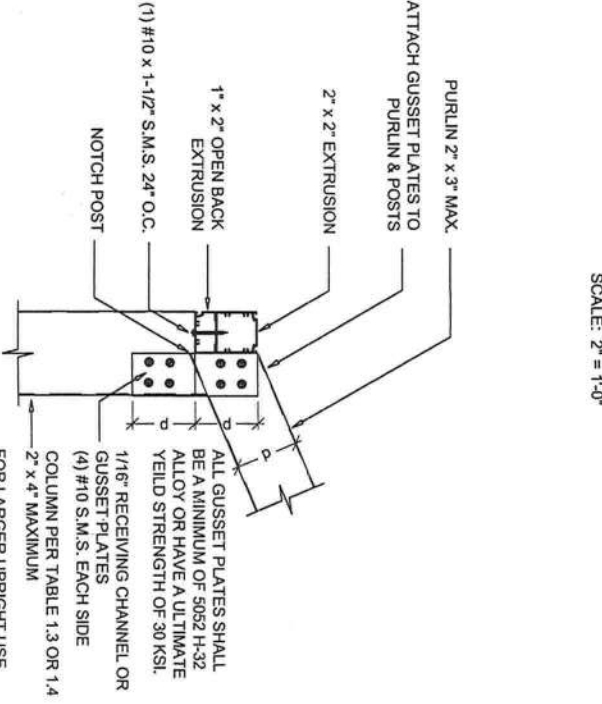
SLOPING BEAM TO UPRIGHT CONNECTION DETAIL (PARTIAL LAP)
SCALE: 2" = 1'-0"



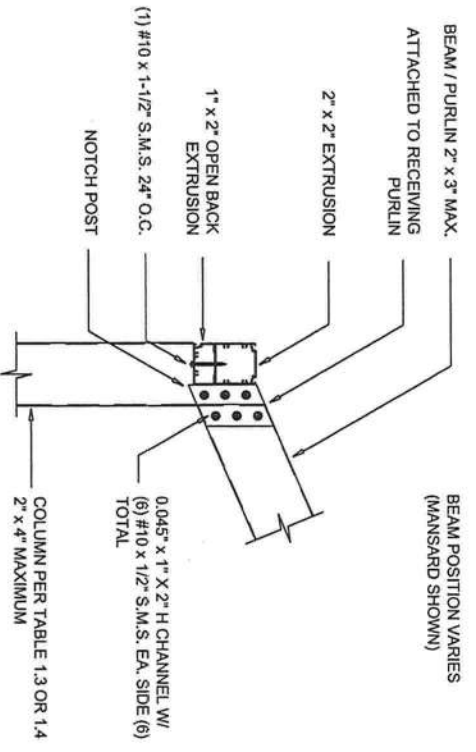
UPRIGHT CONNECTION DETAIL (FULL LAP)
SCALE: 2" = 1'-0"



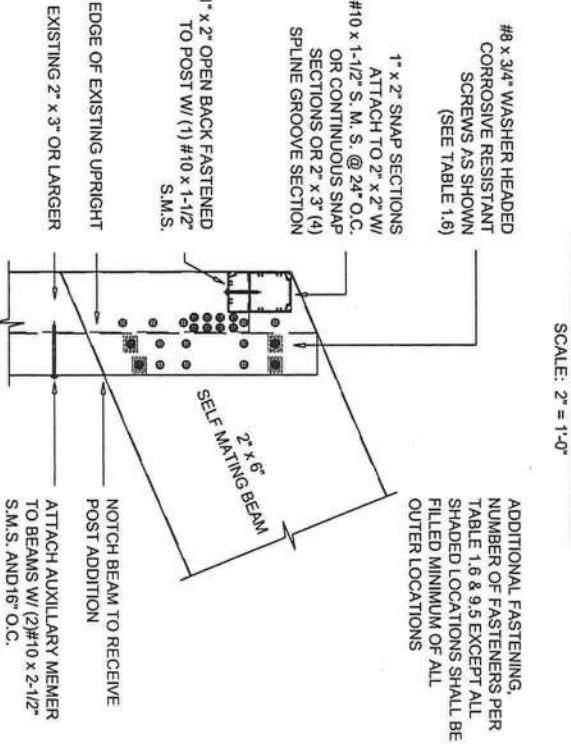
UPRIGHT CONNECTION WITH GUSSET PLATE DETAIL (FULL LAP)
SCALE: 2" = 1'-0"



SIDE WALL TO PURLIN DETAIL
SCALE: 2" = 1'-0"



BEAM TO POST CONNECTION
SCALE: 2" = 1'-0"



COMPOSITE BEAM W/ ADDITION OF AUXILIARY MEMBER TO EXISTING HOLLOW MEMBER FOR EQUIVALENT HOLLOW MEMBER
SCALE: 3" = 1'-0"

Existing Hollow Member	Member Added	Equivalent Hollow Member
2" x 2" x 0.040"	1" x 2" x 0.044"	2" x 3" x 0.045
2" x 3" x 0.040"	1" x 2" x 0.044"	2" x 3" x 0.045
2" x 4" x 0.040"	1" x 2" x 0.044"	2" x 4" x 0.045
2" x 4" x 0.040"	1" x 2" x 0.044"	2" x 4" x 0.045

Joined using 2" H channel.

BEAM TO UPRIGHT CONNECTION DETAIL (FULL LAP)
SCALE: 2" = 1'-0"

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ADDITIONAL FASTENING, NUMBER OF FASTENERS PER TABLE 1.6 & 9.5 EXCEPT ALL SHADED LOCATIONS SHALL BE FILLED MINIMUM OF ALL OUTER LOCATIONS

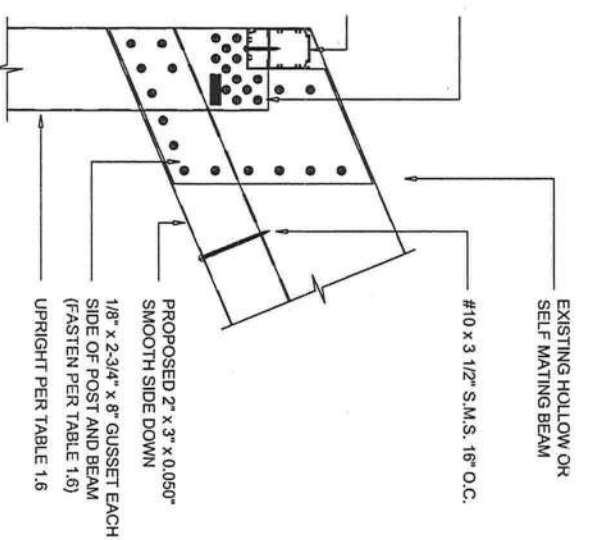
(10) #8 x 1/2" S.M.S., EACH SIDE OF BEAM / POST

1" x 2" OPEN BACK ATTACH TO 2" x 2" W/ #10 x 1-1/2" S.M.S. @ 24" O.C. OR CONTINUOUS 2" x 3" (4) SPLINE GROOVE SECTION

CONNECT 2" x 2" OR 2" x 3" TO BEAM W/ MIN. OF (3) #10 x 1-1/2" S.M.S. INTO SCREW BOSSES

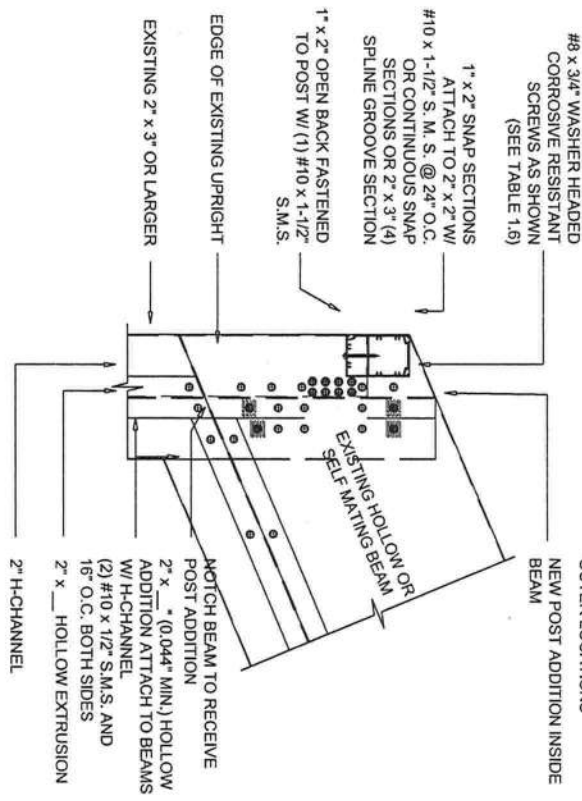
ADDITION OF 2" x 3" TO EXISTING S.M.B.

SCALE: 2" = 1'-0"



ADDITIONAL FASTENING, NUMBER OF FASTENERS PER TABLE 1.6 & 9.5 EXCEPT ALL SHADED LOCATIONS SHALL BE FILLED MINIMUM OF ALL OUTER LOCATIONS

NEW POST ADDITION INSIDE BEAM



ALTERNATE POST / BEAM ADDITION OF 2" x " TO EXISTING 2" x "

SCALE: 2" = 1'-0"

1-3/4" STRAP MADE FROM REQUIRED GUSSET PLATE MATERIAL (SEE TABLE FOR LENGTH AND # OF SCREWS REQUIRED)

CONNECT 2" x 2" OR 2" x 3" TO BEAM W/ MIN. (3) #10 x 1-1/2" S.M.S. INTO SCREW BOSSES

1" x 2" OPEN BACK ATTACHED TO 2" x 2" W/ #10 x 1-1/2" S.M.S. @ 24" O.C.

SCREW LOCATIONS PER TABLE 1.6 FILL OUTSIDE LOCATIONS FIRST

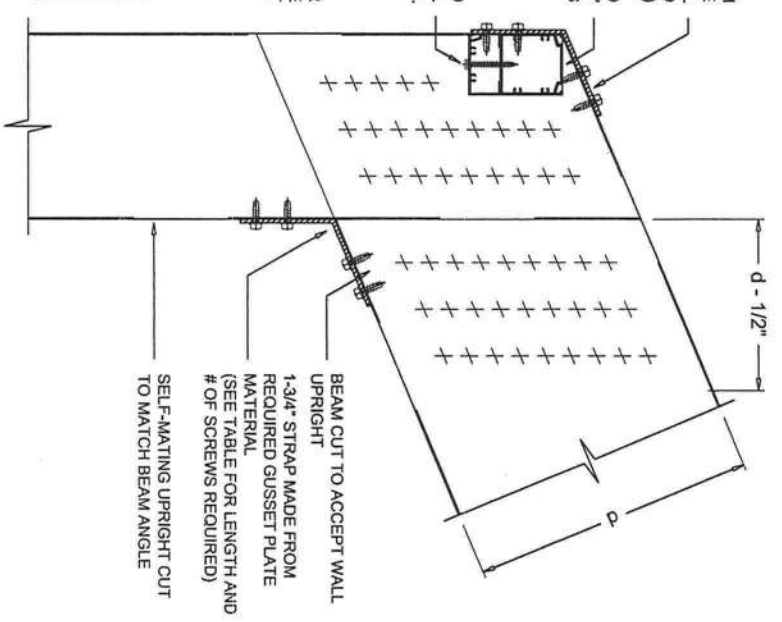
Strap Table

Beam Size	Screws #/Side	Strap Length
2" x 2"	(4) #12	2-3/4"
2" x 3"	(4) #14	3-1/4"
2" x 3"	(4) #14	3-1/4"
2" x 10"	(6) #14	4-1/2"

* ALL SCREWS 3/4" LONG

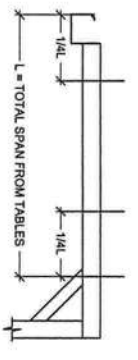
- Notes:
- 1) Fill outer screw positions first until required number of screws is achieved.
 - 2) See Table 1.6 for screw sizes and number.
 - 3) Screw pattern layout with spacing between screws greater than minimum is allowed so that equal spacing is achieved.
 - 4) 2" x 3" beam with 2" x 5" upright shown. Other beam to upright combinations per table 1.6 may be used.

ALTERNATE BEAM TO POST CONNECTION (FULL LAP)



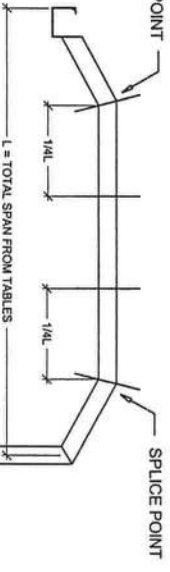
SPLICE POINTS FOR FLAT OR DOME ROOF

SCALE: N.T.S.



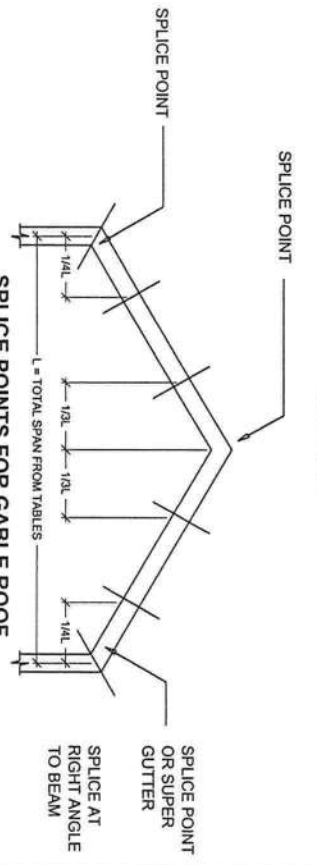
SPLICE POINTS FOR FLAT OR DOME ROOF

SCALE: N.T.S.



SPLICE POINTS FOR GABLE ROOF

SCALE: N.T.S.

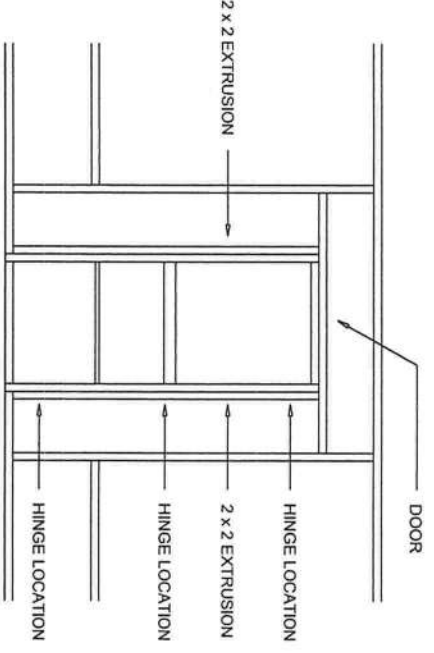


NOTES:

1. Door to be attached to structure with minimum two (2) hinges.
2. Each hinge to be attached to structure with minimum four (4) #12 x 3/4" S.M.S.
3. Each hinge to be attached to door with minimum three (3) #12 x 3/4" S.M.S.
4. Bottom hinge to be mounted between 10 inches and 20 inches from ground.
5. Top hinge to be mounted between 10 inches and 20 inches from top of door.
6. If door location is adjacent to upright a 1" x 2" x 0.044" may be fastened to upright with #12 x 1" S.M.S. at 12" on center and within 3" from end of upright.

TYPICAL SCREEN DOOR CONNECTION DETAIL

SCALE: N.T.S.



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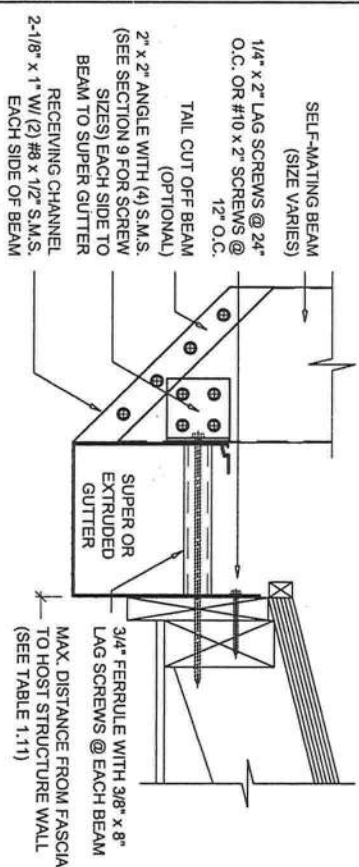
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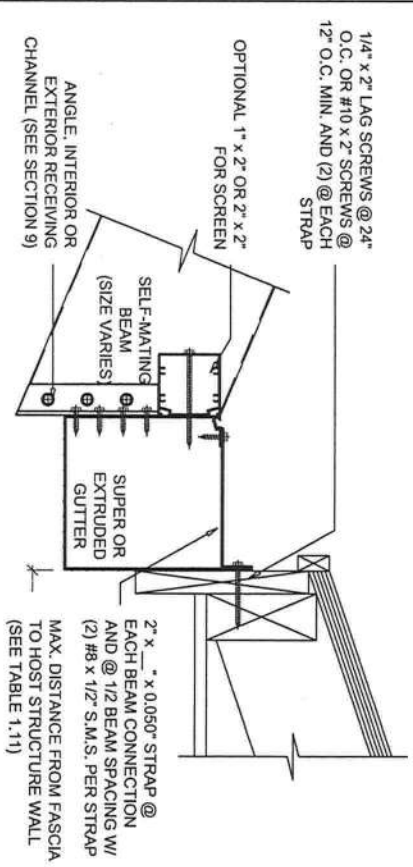
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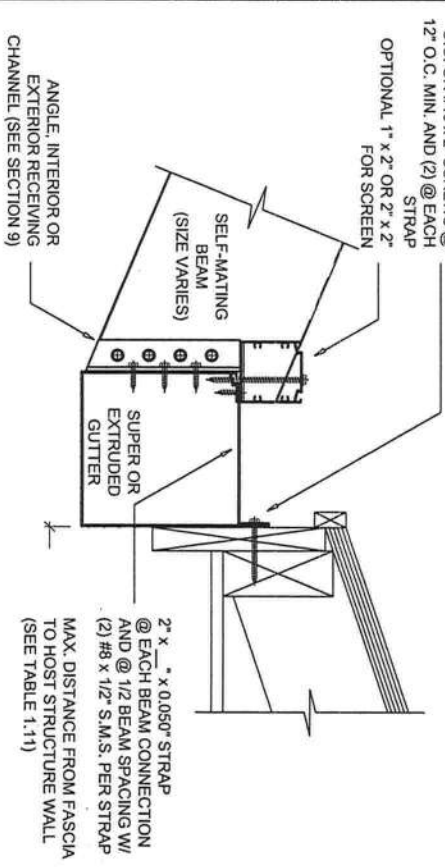
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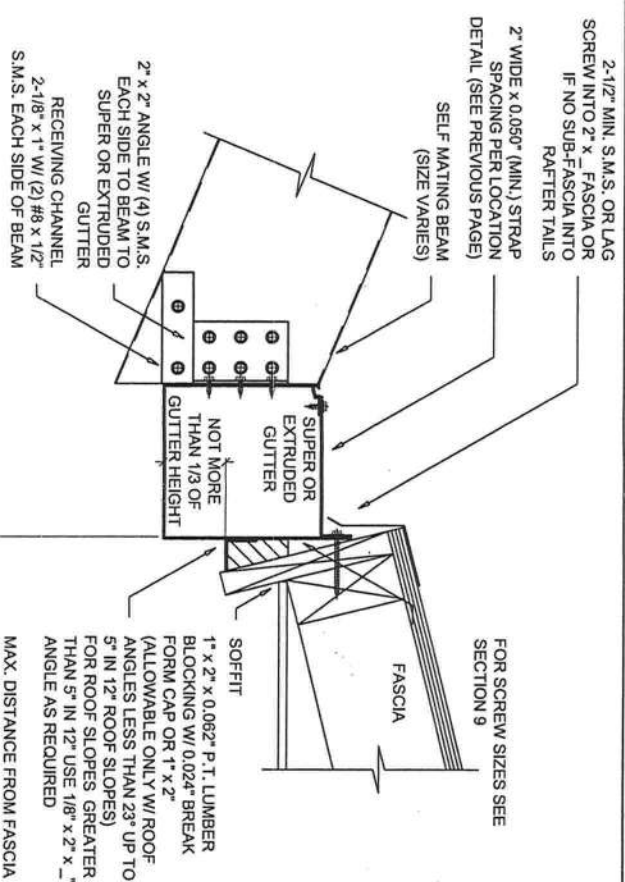
SELF-MATING BEAM AND SUPER OR EXTRUDED GUTTER CONNECTION
SCALE: 2" = 1'-0"



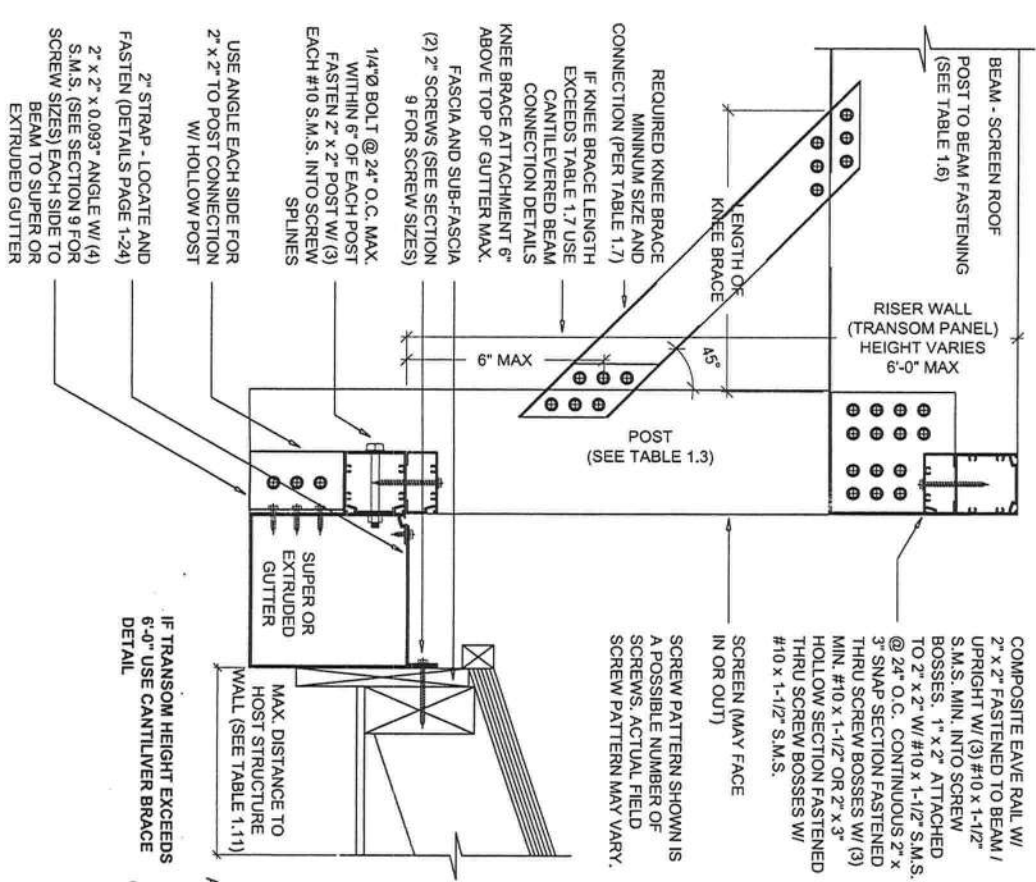
SELF-MATING BEAM CONNECTION TO SUPER OR EXTRUDED GUTTER
SCALE: 2" = 1'-0"



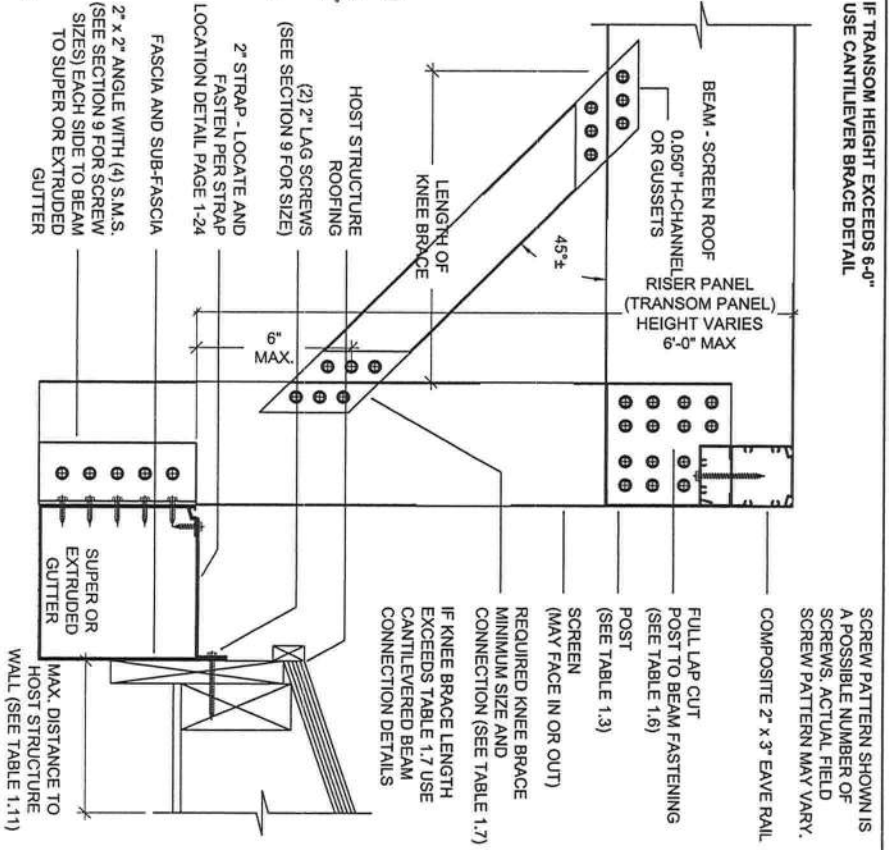
ALTERNATE SELF-MATING BEAM CONNECTION TO SUPER OR EXTRUDED GUTTER
SCALE: 2" = 1'-0"



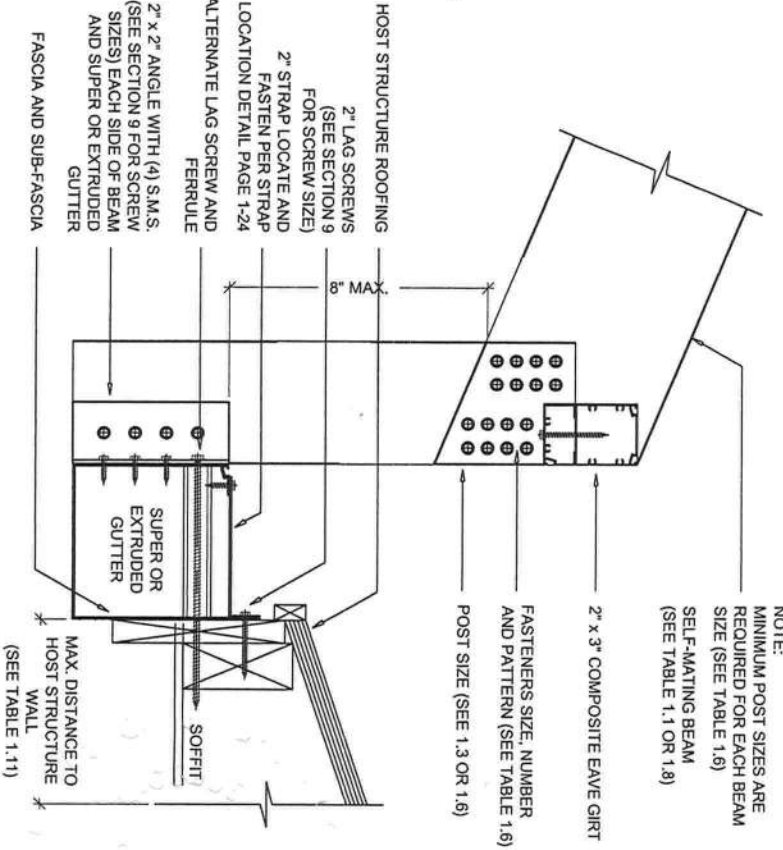
TYPICAL SELF-MATING BEAM AND SUPER OR EXTRUDED GUTTER CONNECTION
SCALE: 2" = 1'-0"



SUPER OR EXTRUDED GUTTER AT FASCIA - DETAIL 1
SCALE: 3" = 1'-0"



SUPER OR EXTRUDED GUTTER AT FASCIA - DETAIL 2
SCALE: 3" = 1'-0"



SUPER OR EXTRUDED GUTTER AT FASCIA - DETAIL 3
SCALE: 3" = 1'-0"

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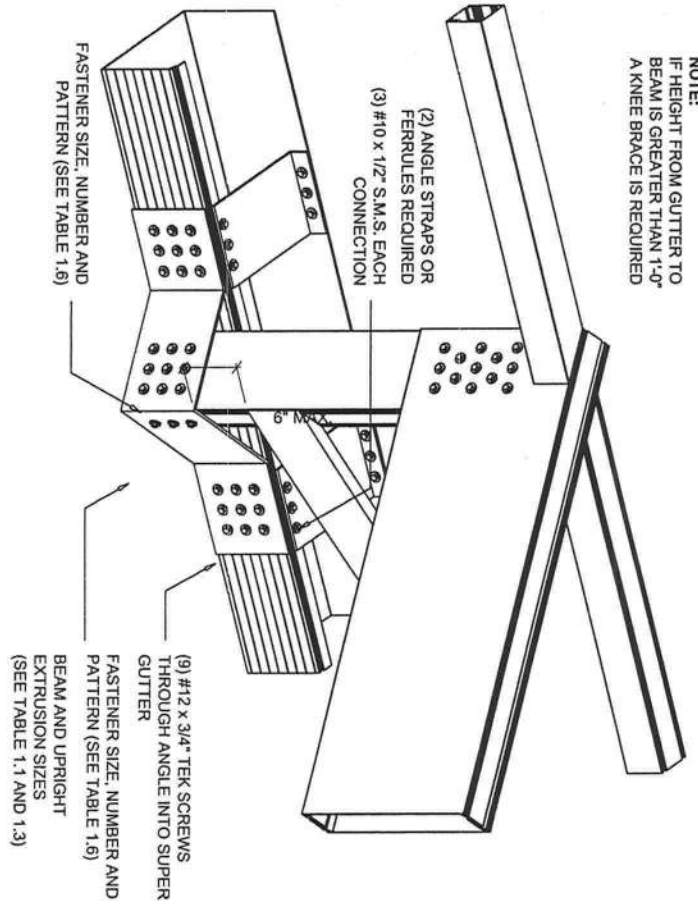
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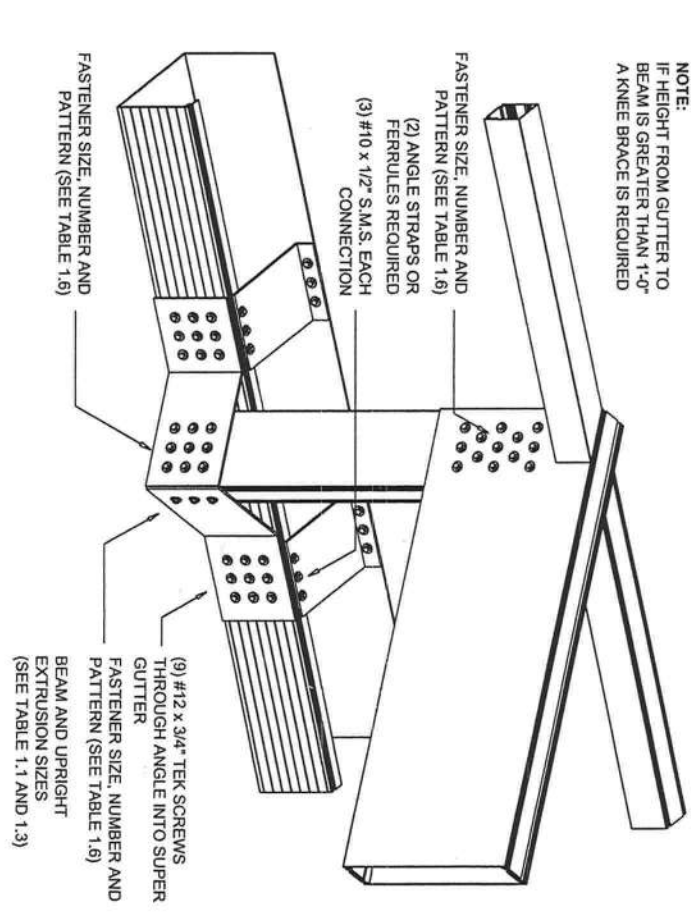
DATE: JAN 04 2010
SHEET: 8 OF 21

NOTE:
IF HEIGHT FROM GUTTER TO BEAM IS GREATER THAN 1'-0" A KNEE BRACE IS REQUIRED

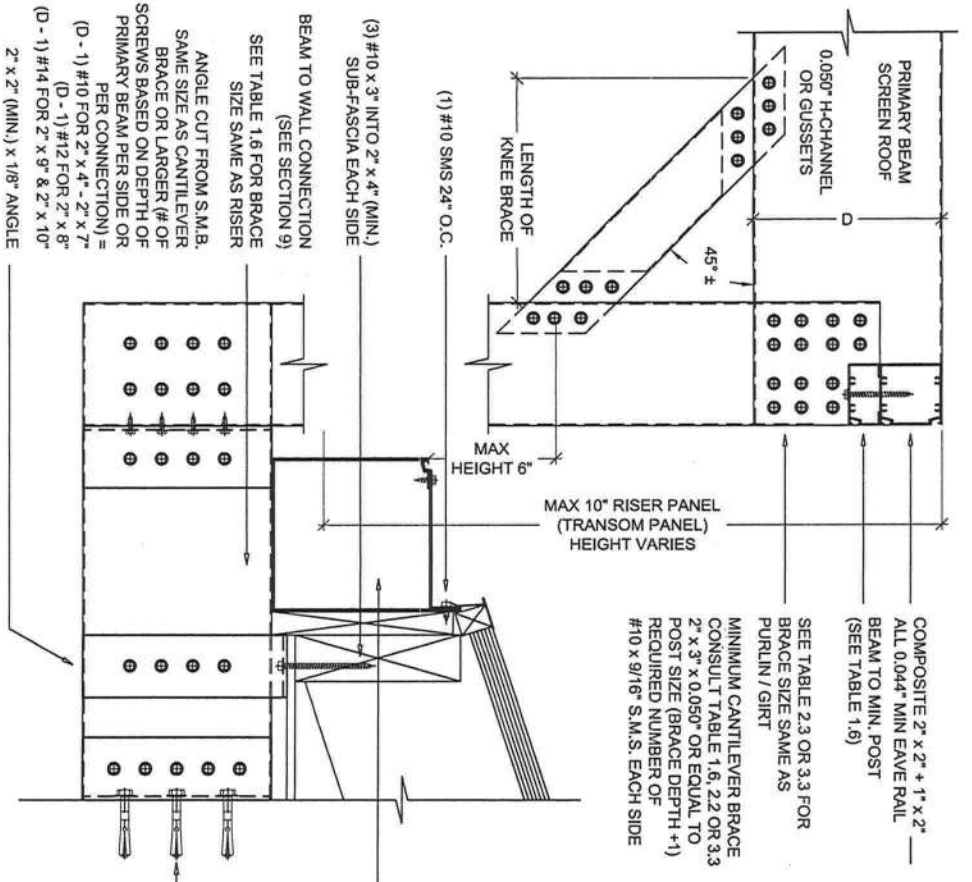


SUPER GUTTER TO UPRIGHT WITH ANGLE CONNECTION DETAIL.

NOTE:
IF HEIGHT FROM GUTTER TO BEAM IS GREATER THAN 1'-0" A KNEE BRACE IS REQUIRED

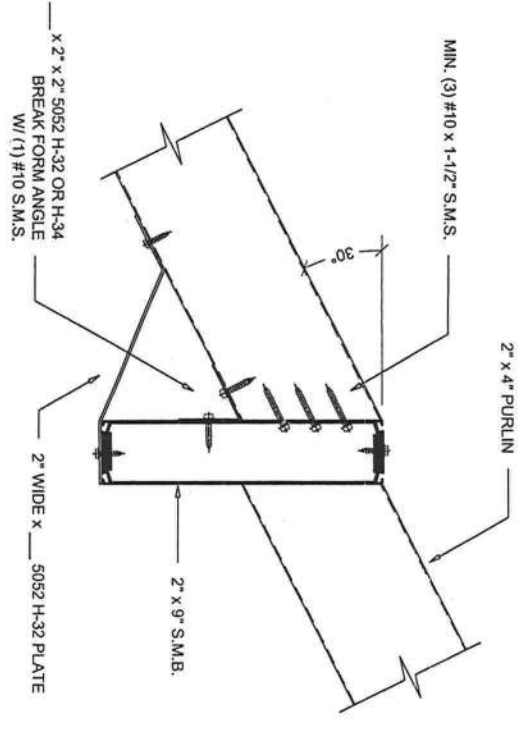


SUPER GUTTER TO UPRIGHT WITH ANGLE CONNECTION DETAIL.

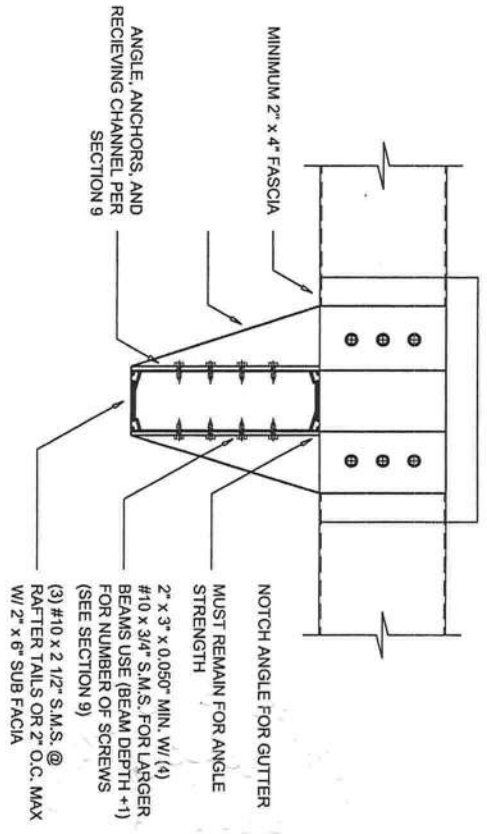


NOTE
1. For post to beam sizing see Table 1.6, 2.2, or 3.3
2. For connection members see Table 9.8 U-Channel
3. Inside connection members shall be used whenever possible.
Use U-Channel in lieu of angles where possible.

ALTERNATE CANTILEVERED BRACE CONNECTION TO WALL AND FASCIA DETAIL



BRACING SYSTEM FOR STEEP ANGLE GABLES



CANTILEVERED BRACE CONNECTION AT FASCIA (END VIEW)

COMPOSITE 2" x 2" + 1" x 2" — ALL 0.044" MIN LEAVE RAIL (SEE TABLE 1.6)
SEE TABLE 2.3 OR 3.3 FOR BRACE SIZE SAME AS PURLIN / GIRT
MINIMUM CANTILEVER BRACE CONSULT TABLE 1.6, 2.2 OR 3.3
2" x 3" x 0.090" OR EQUAL TO POST SIZE (BRACE DEPTH +1)
REQUIRED NUMBER OF #10 x 9/16" S.M.S. EACH SIDE

GUTTER IS NON STRUCTURAL
MAY USE ROLL FORMED GUTTER
NO STRAP IS REQUIRED EXCEPT FOR EXTRUDED GUTTER

(3) 1/4" x 1-3/4" TAP CON OR LAG SCREW VARY SIZE WITH WIND ZONE

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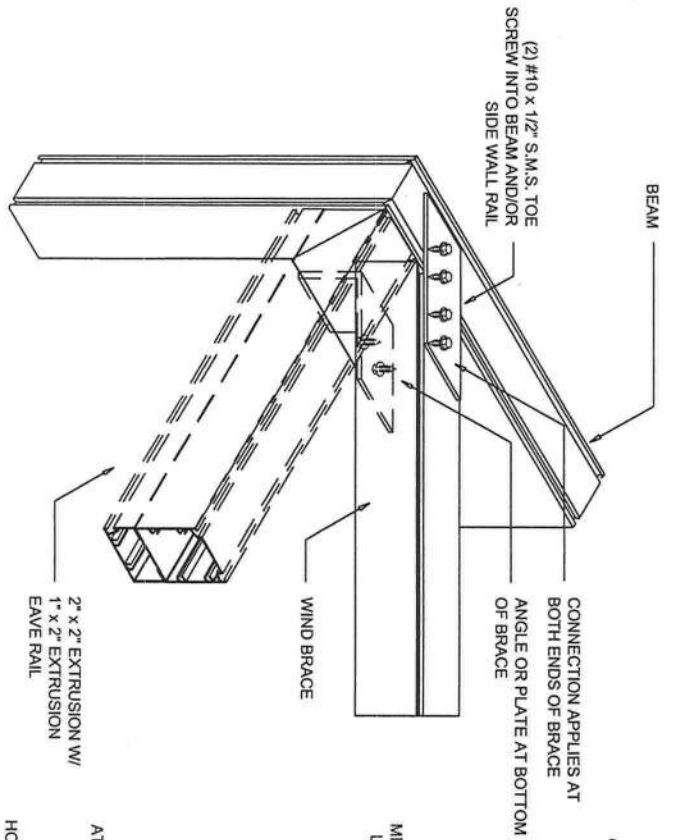
JAN 04 2010
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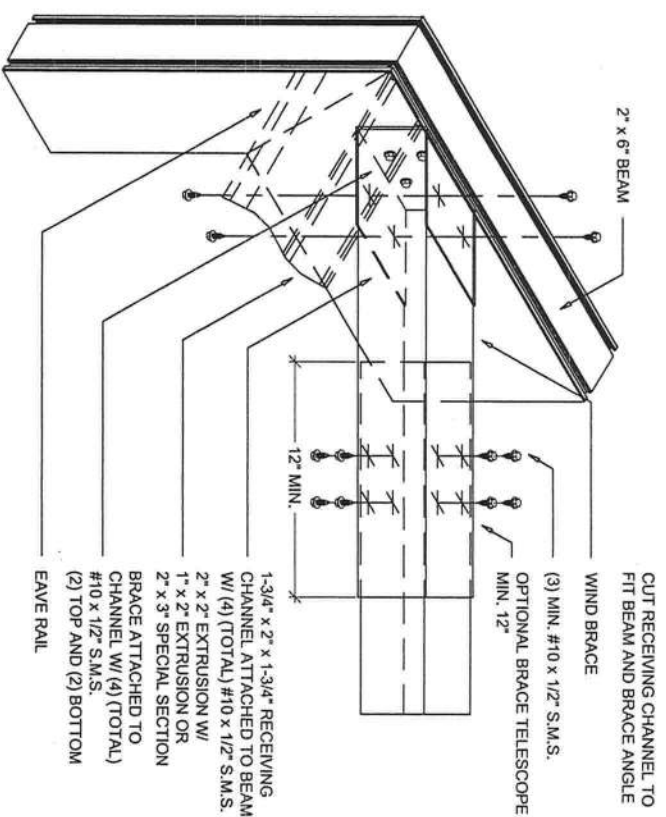
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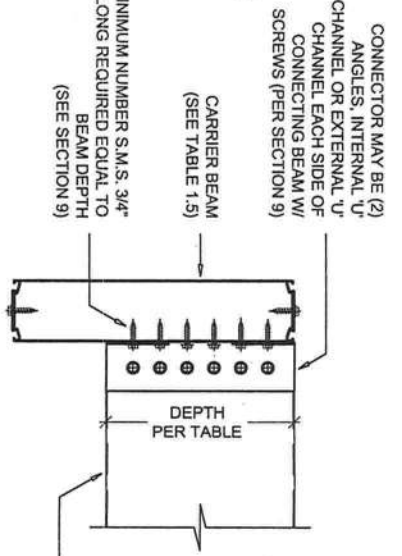
WIND BRACE CONNECTION DETAIL
SCALE: 2" = 1'-0"

NOTES:
1. Wind bracing shall be provided at each side wall panel when enclosure projects more than (4) panels from host structure.



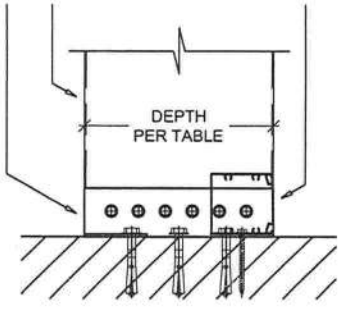
TELESCOPING WIND BRACE CONNECTION DETAIL
SCALE: 2" = 1'-0"

NOTES:
1. Wind bracing shall be provided at each side wall panel when enclosure projects more than three panels from host structure. Structures of four or more panels shall be spaced for even number of panels for opposing wind bracing.
2. Cut brace parts with min. 12" lap of larger and smaller brace.
3. Cut receiving channel with angle.



CARRIER BEAM TO BEAM CONNECTION DETAIL
SCALE: 2" = 1'-0"

CONNECTOR MAY BE (2) ANGLES, INTERNAL U-CHANNEL OR EXTERNAL U-CHANNEL EACH SIDE OF CONNECTING BEAM W/ SCREWS (PER SECTION 9)
CARRIER BEAM (SEE TABLE 1.5)
MINIMUM NUMBER S.M.S. 3/4\"/>



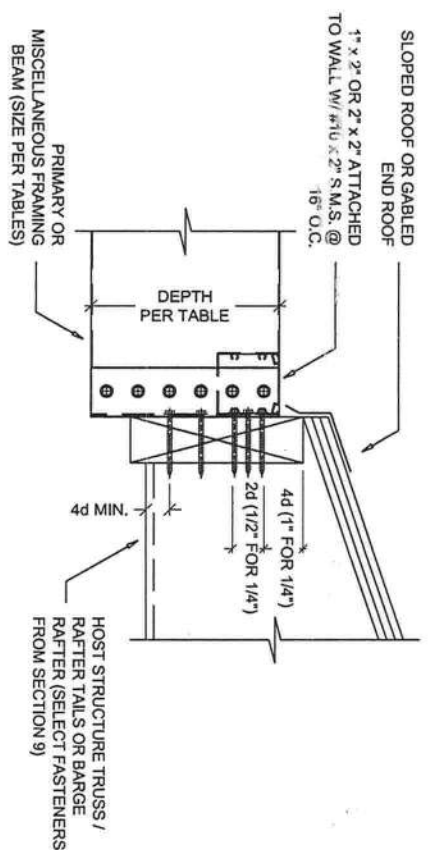
BEAM TO WALL CONNECTION DETAIL
SCALE: 2" = 1'-0"

ALTERNATE: 1" x 2", 1" x 3" OR 2" x 2" ATTACHED TO WALL W/ #10 x 2" S.M.S. @ 16" O.C.
HOST STRUCTURE MASONRY OR FRAMED WALL (SELECT FASTENERS FROM SECTION 9 TABLES)
PRIMARY OR MISC. FRAMING BEAM (SIZE PER TABLES) ANGLE OR RECEIVING CHANNEL



BEAM TO WALL CONNECTION:
SCALE: 2" = 1'-0"

EXTRUSIONS W/ INTERNAL SCREW BOLTS MAY BE CONNECTED W/ (3) #10 x 1-1/2" INTERNALLY
PRIMARY BEAM (SEE TABLE 1.1 OR 1.8)



$$\left[\frac{\text{ROOF WIND LOAD} \times \text{BEAM SPACING} \times \left(\frac{\text{BEAM SPAN}}{2} \right) \right] \div \text{ANCHOR ALLOWABLE LOAD} = \# \text{ OF ANCHORS}$$

* FIND ROOF WIND LOAD IN DESIGN SPECIFICATIONS ON PAGE 3

BEAM TO FASCIA CONNECTION DETAIL
SCALE: 2" = 1'-0"

CALCULATE THE NUMBER OF SCREWS REQUIRED BY SOLVING THE FOLLOWING EQUATION:
UP/LIFT / FORCE ON FASTENER
ANCHOR IN TENSION OR TENSILE LOAD
ANCHOR IN SHEAR LOAD

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CABLE BRACING

General Notes and Specifications:

1) The following shall apply to the installation of cables as additional bracing to DIAGONAL bracing for pool enclosures:

a) FRONT WALL CABLES - 7 x 19 STAINLESS STEEL

CABLE DIAMETER	TOTAL ALLOWABLE WALL AREA *
3/32"	233 Sq. Ft. / PAIR OF CABLES
1/8"	445 Sq. Ft. / PAIR OF CABLES

* TOTAL WALL AREA = 100% OF FRONT WALL + 50% OF ONE SIDE WALL
 EXAMPLE: FRONT WALL AREA @ 100% (8' x 32') = 256 Sq. Ft.
 SIDE WALL AREA @ 50% (9' x 20') = 90 Sq. Ft.
 TOTAL WALL AREA = 346 Sq. Ft.

233 Sq. Ft. x 2 sets = 466 Sq. Ft. > 336 Sq. Ft.; thus two sets of 3/32" cables is required.

b) SIDE WALL CABLES - 7 x 19 STAINLESS STEEL

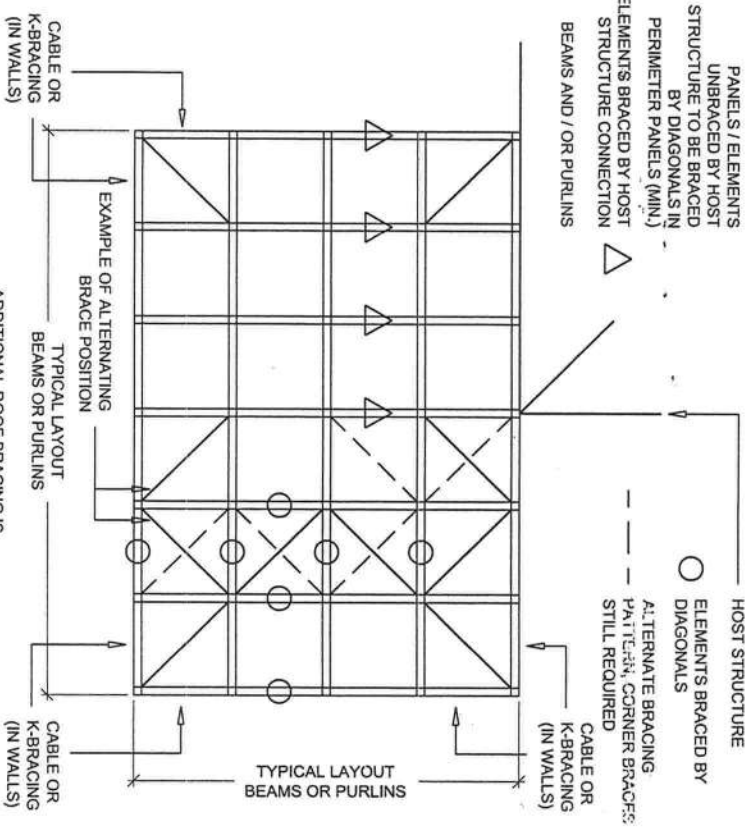
CABLE DIAMETER	SIDE WALL CABLE **
3/32"	ONE PER 233 Sq. Ft. OF WALL
1/8"	ONE PER 445 Sq. Ft. OF WALL

** SIDE WALL CABLES ARE NOT REQUIRED FOR SIDE WALLS LESS THAN 233 Sq. Ft.

c) To calculate the required pair of cables for free standing pool enclosures use 100% of each wall area & 50% of the area of one adjacent wall.

NOTES:

- Where wall height is such that a girt is required between the top or eave rail and the chair rail, (i.e. a mid-rise girt), then the front wall shall have two cable pairs and they shall be attached to the top rail and the mid-rise rail. If more than one additional girt is required between the top or eave rail and the chair rail, then there shall be an additional front wall cable pair at that girt also.
- Side walls do not require cables until the side wall area is greater than 233 Sq. Ft. The side wall cable may be attached at the mid-rise girt or the top rail.
- Standard rounding of rules apply. i.e. if the number of cables calculated is less than 2.5 pairs use two cables; if the number of cables calculated is 2.5 pairs or greater use 3 pairs of cables.
- Additional roof bracing is required for all side walls larger than 4 panels. Number of panels shall be even and position shall be alternating.
- Cables shall be snugged up tight only to not put strain on cables.



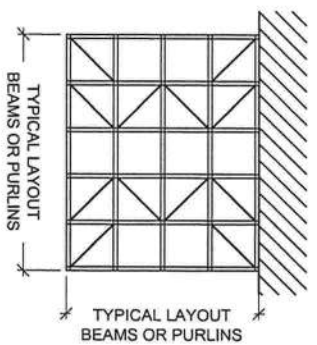
PANELS / ELEMENTS UNBRACED BY HOST STRUCTURE TO BE BRACED BY DIAGONALS IN PERIMETER PANELS (MIN.) ELEMENTS BRACED BY HOST STRUCTURE CONNECTION BEAMS AND / OR PURLINS

HOST STRUCTURE
 ELEMENTS BRACED BY DIAGONALS
 ALTERNATE BRACING PATTERN; CORNER BRACES: STILL REQUIRED
 CABLE OR K-BRACING (IN WALLS)
 TYPICAL LAYOUT BEAMS OR PURLINS
 EXAMPLE OF ALTERNATING BRACE POSITION
 TYPICAL LAYOUT BEAMS OR PURLINS
 CABLE OR K-BRACING (IN WALLS)
 ADDITIONAL ROOF BRACING IS REQUIRED FOR ALL SIDE WALLS LARGER THAN 4 PANELS. NUMBER OF PANELS SHOULD BE EVEN TO PERMIT POSITION OF BRACES ALTERNATING
 2 x 2 (MIN) ROOF DIAGONAL, MEET WALL AT WALL BRACING AT CORNERS (TYP.)

POOL ENCLOSURE SCREEN ROOF MAY BE FLAT, GABLE, MANSARD, DOME, OR HIP

POOL ENCLOSURE DIAGONAL BRACING - SCHEMATIC PLAN VIEW

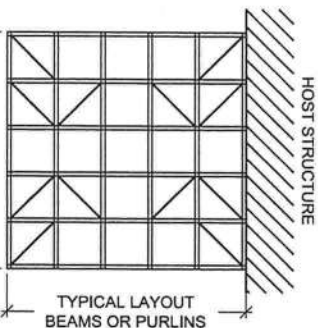
SCALE: 1/4" = 1'-0"



WIND BRACING PATTERN

TYPICAL FOR EVEN NUMBER OF SIDE PANELS OVER 4

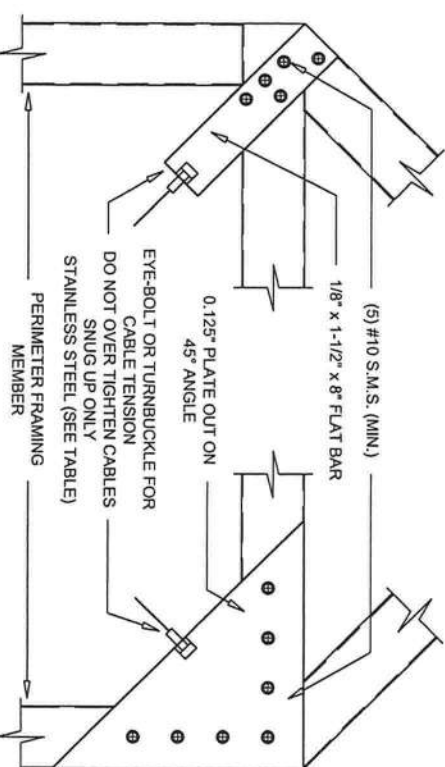
SCALE: 1/8" = 1'-0"



WIND BRACING PATTERN

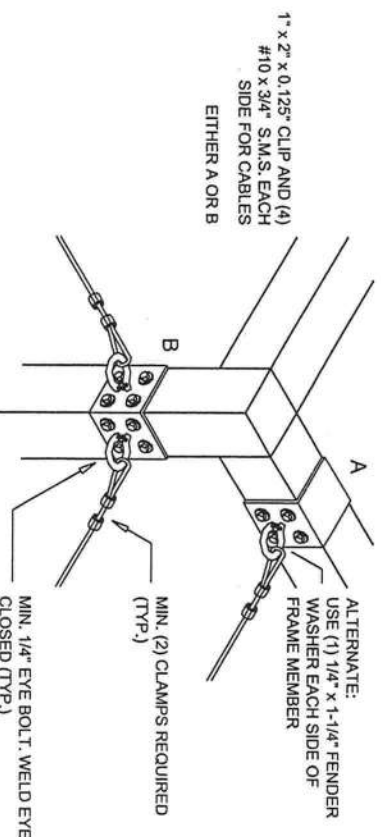
TYPICAL FOR ODD NUMBER OF SIDE PANELS OVER 4

SCALE: 1/8" = 1'-0"



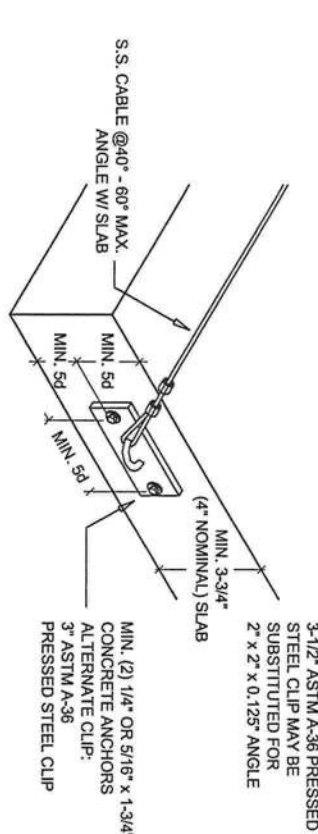
TYPICAL CABLE CONNECTIONS AT CORNER - DETAIL 1

SCALE: 2" = 1'-0"



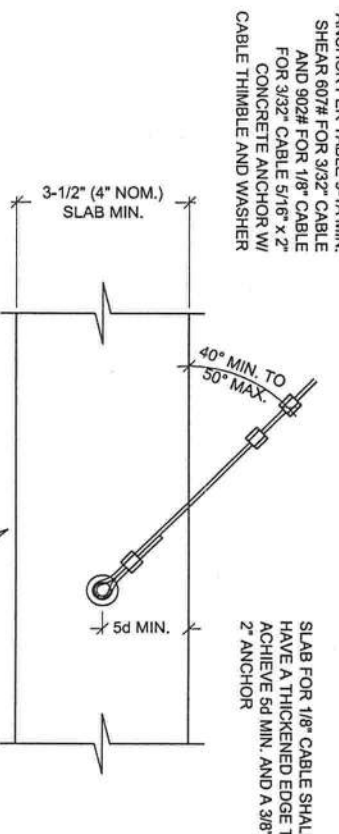
ALTERNATE TOP CORNER OF CABLE CONNECTION - DETAIL 1A

SCALE: 2" = 1'-0"



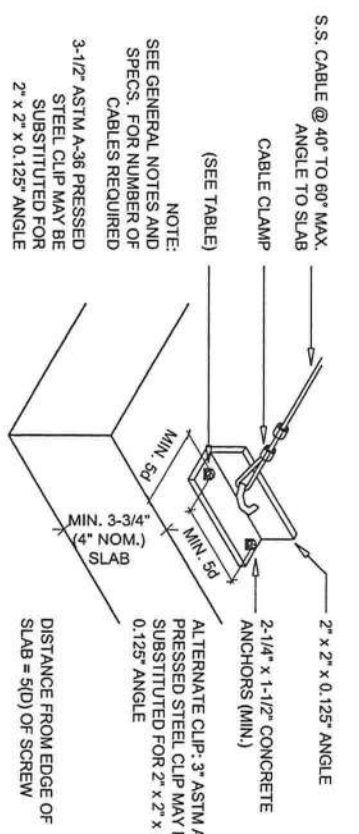
TYPICAL CABLE CONNECTION AT SLAB DETAIL - DETAIL 2

SCALE: 2" = 1'-0"



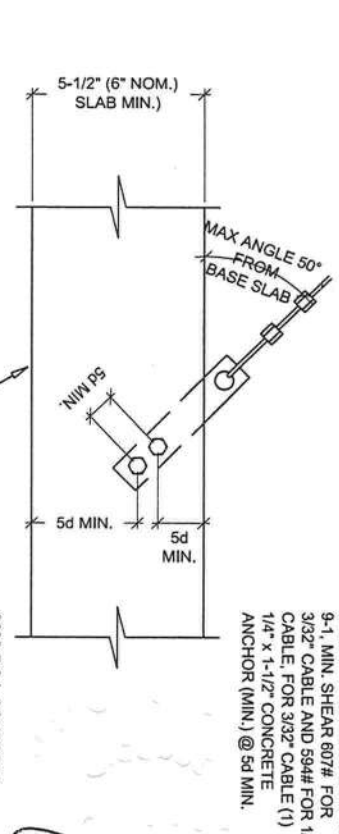
ALTERNATE CABLE CONNECTIONS AT FOUNDATION - DETAIL 2A

SCALE: 2" = 1'-0"



ALTERNATE CABLE CONNECTION AT SLAB DETAIL - DETAIL 2B

SCALE: 2" = 1'-0"



ALTERNATE CABLE CONNECTIONS AT FOUNDATION - DETAIL 2C

SCALE: 2" = 1'-0"

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K-BRACING

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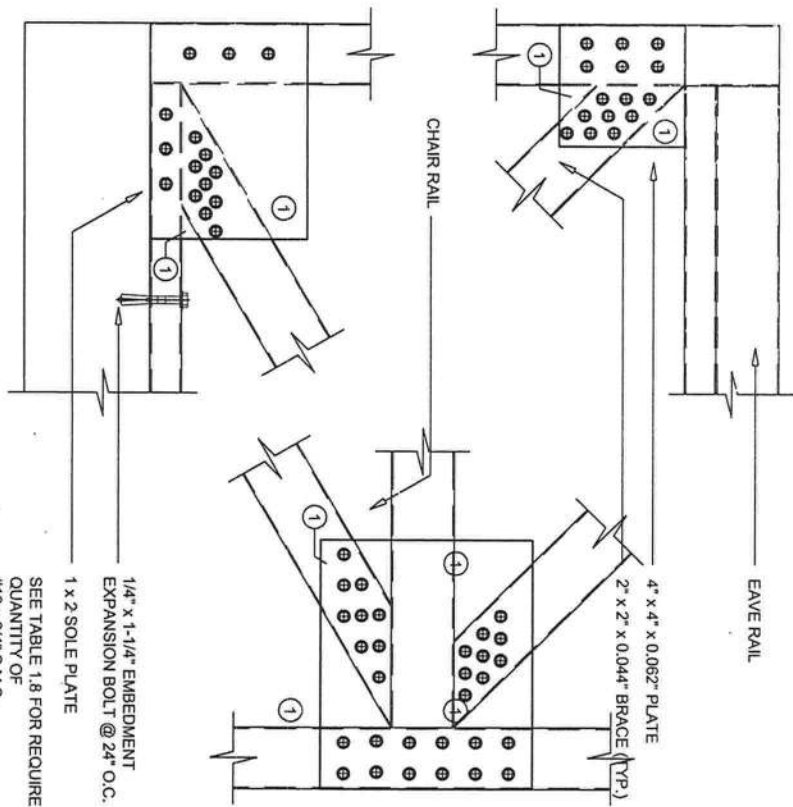
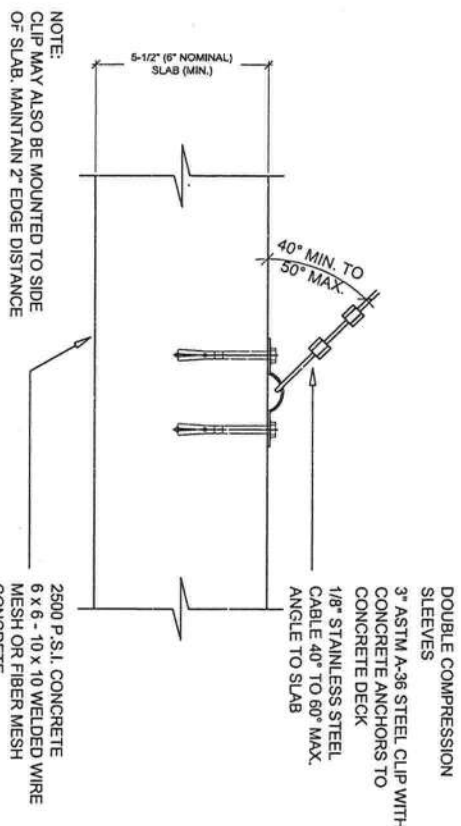
- The following shall apply to the installation of K-BRACING: additional bracing to diagonal wind bracing for pool enclosures:
 - FRONT WALL K-BRACING - ONE SET FOR EACH 800 SF OF TOTAL WALL AREA
TOTAL WALL AREA = 100% OF FRONT WALL + 50% OF ONE SIDE WALL
EXAMPLE: FRONT WALL AREA @ 100% (8' x 32') = 256 Sq. Ft.
SIDE WALL AREA @ 50% (8' x 20') = 80 Sq. Ft.
TOTAL WALL AREA = 336 Sq. Ft.
800 SF > 336 SF THUS ONE SET OF FRONT WALL K-BRACING IS REQUIRED.
 - SIDE WALL K-BRACING - ONE SET FOR 233 SF TO 800 SF OF WALL
 - To calculate the required pair of K-bracing for free standing pool enclosures use 100% of each wall area & 50% of the area of one adjacent wall.

NOTES:

- K-bracing shall be used for all wind zones of 120 MPH EXPOSURE "C" and higher.
- Side walls do not require K-bracing until the side wall area is greater than 233 SF.
- Standard rounding off rules apply, i.e. if the number of K-bracing sets calculated is less than 1.5 sets use one set of K-braces; if the number of K-braces calculated is 1.5 sets or greater use 2 sets of K-bracing.

ALTERNATE CABLE CONNECTIONS AT FOUNDATION - DETAIL 2D

SCALE: 2" = 1'-0"

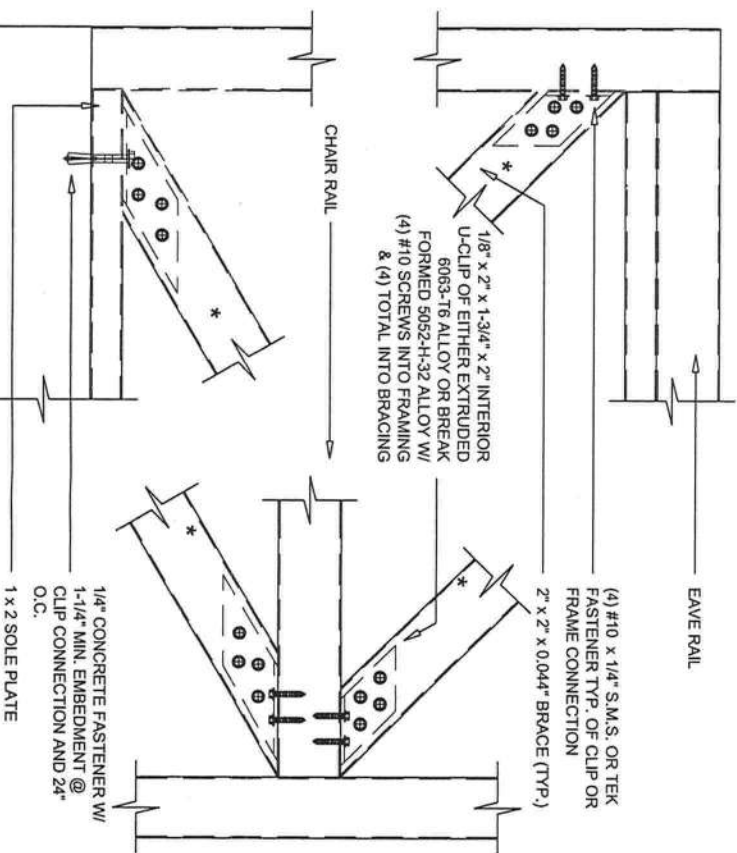


K-BRACING CONNECTION DETAILS

SCALE: 2" = 1'-0"

- NOTES:**
- Can trim plate this area.
 - Alternate connections use 1" bar cut to fit connections.

SEE TABLE 1.8 FOR REQUIRED QUANTITY OF #10 x 3/4" S.M.S.



ALTERNATE K-BRACING CONNECTION DETAILS

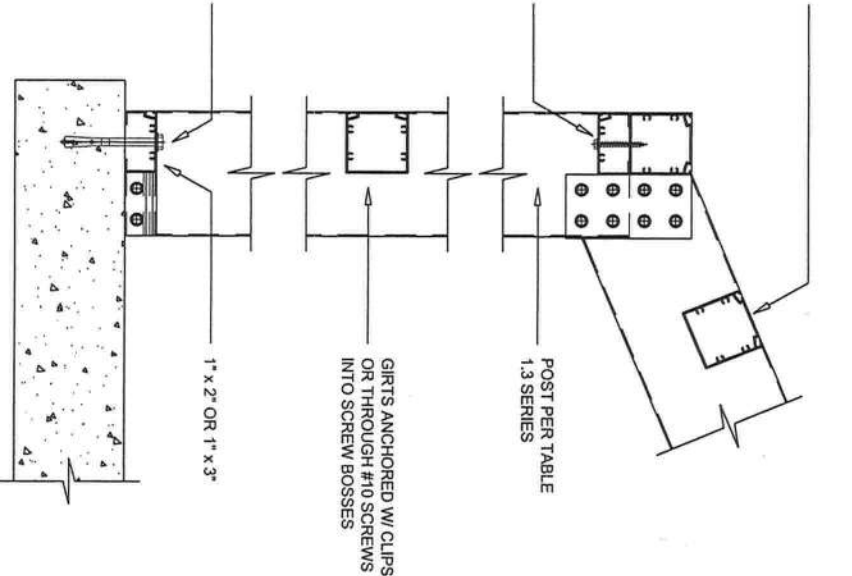
SCALE: 2" = 1'-0"

- NOTE:**
- Alternate connections use 1" bar cut to fit connections.

PURLINS ANCHORED W/ CLIPS OR #10 SCREWS THROUGH PURLINS INTO SCREW BOSSES

EAVE RAILS SHALL BE STITCHED W/ #10 x 1-1/2" SMS @ 6" FROM EACH END AND 24" OC MAX.

FRONT AND SIDE BOTTOM RAILS ATTACHED TO CONCRETE W/ 1/4" x 2-1/4" CONCRETE / MASONRY ANCHORS @ PRIMARY & SECONDARY ANGLES OR @ 6" FROM EACH POST AND 24" O.C. MAX. AND WALLS MIN. 1" FROM EDGE OF CONCRETE



PURLIN & CHAIR RAIL DETAIL

SCALE: 2" = 1'-0"

- PURLIN OR CHAIR RAIL ATTACHED TO BEAM OR POST W/ INTERNAL OR EXTERNAL 'U' CLIP OR 'U' CHANNEL W/ MIN. (4) #10 S.M.S.
- FOR WALLS LESS THAN 6'-9" FROM TOP OF PLATE TO CENTER OF BEAM CONNECTION OR BOTTOM OF TOP RAIL, THE GIRT IS DECORATIVE AND SCREW HEADS MAY BE REMOVED AND INSTALLED IN PILOT HOLES
- FOR ALL OTHER PURLINS AND GIRTS IF THE SCREW HEADS ARE REMOVED THEN THE OUTSIDE OF THE CONNECTION MUST BE STRAPPED FROM GIRT TO POST WITH 0.050" x 1-3/4" x 4" STRAP AND (4) #10 x 3/4" S.M.S. SCREWS TO POST AND GIRT
- IF GIRT IS ON BOTH SIDES OF THE POST THEN STRAP SHALL BE 6" LONG AND CENTERED ON THE POST AND HAVE A TOTAL (12) #10 x 3/4" S.M.S.

PURLIN TO BEAM OR GIRT TO POST DETAIL

SCALE: 2" = 1'-0"

RAISED SEAL COPIES REQUIRED FOR ENGINEERING TO BE VALID FOR PERMITTING

Lawrence E. Bennett, P.E. FL # 16644
 CIVIL & STRUCTURAL ENGINEERING
 315 Herbert St., Port Orange, FL 32129
 Telephone #: (386) 767-4774 Fax #: (386) 767-6556
 http://www.lebpe.com/

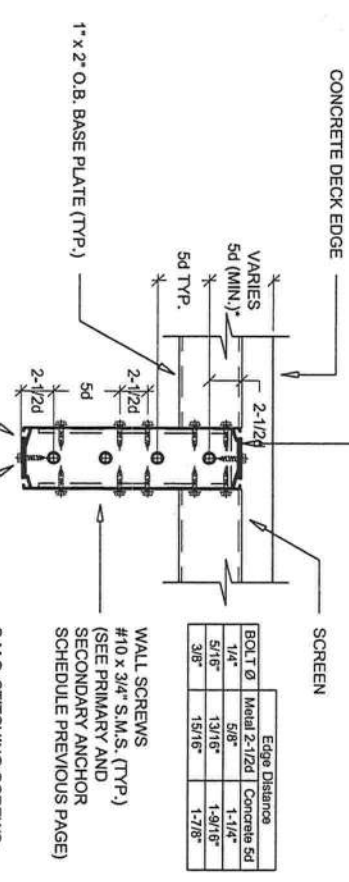
ALUMINUM STRUCTURES DESIGN MANUAL
 SCREEN ENCLOSURES
 SECTION 1 DETAILS
 2007 FLORIDA BUILDING CODE
 WITH 2009 SUPPLEMENTS - 2009 EDITION

Turn & Country
 INDUSTRIES, INC.
 Wholesale Aluminum Distributors

400 W. McNAB ROAD, FORT LAUDERDALE, FLORIDA 33309 PHONE: (954) 970-9999 1-800-432-5019 FAX: (954) 972-1338

1/8" x 2" x 1-3/4" x 2" INTERIOR U-CLIP OF EITHER EXTRUDED 60051-5 ALLOY OR BREAK FORMED 6063 T-6 RO 5052 H-32 OR 34 ALLOY

DETAIL ILLUSTRATES TYPICAL 2" x 4" S.M.B. THRU 2" x 9" SUB CONNECTIONS



2" x 4" S.M.B. COLUMN

1" x 2" O.B. BASE PLATE (TYP.)

2" x 2" S.M.B. COLUMN

TOP VIEW POST THRU PAVER DETAIL

SCALE: 2" = 1'-0"

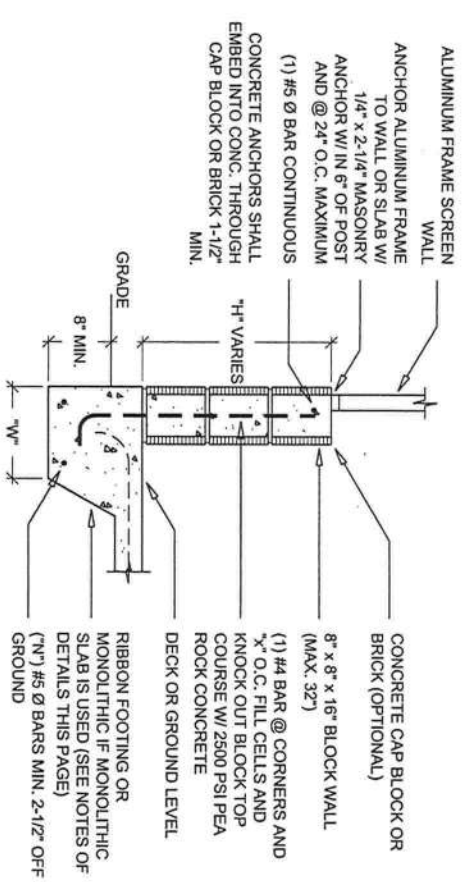
EXAMPLE OF NUMBER OF SCREWS REQUIRED:

ANCHOR LOAD = BEAM / UPRIGHT SPACING x BEAM SPAN / 2 x 10 PSF = P

1. CONCRETE ANCHORS: ANCHORS ARE IN TENSILE OR TENSION LOAD P / ALLOWABLE LOAD FROM TABLE 9.4 = TOTAL NUMBER OF ANCHORS

2. UPRIGHT WALL ANCHORS: ANCHORS ARE IN SHEAR & THROUGH BOLTS ARE IN DOUBLE SHEAR P / ALLOWABLE LOAD FROM TABLE 9.4 = TOTAL NUMBER OF ANCHORS

SEE PAGE 3 FOR ROOF WIND LOAD

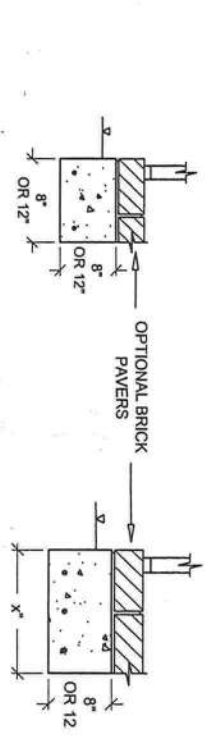


Knee Wall Table

h	w	#3	#4	N	X
32"	12"	3	2	10'-0"	
40"	12"	3	2	8'-0"	
48"	18"	N/A	3	6'-0"	
56"	18"	N/A	3	4'-0"	
64"	24"	N/A	3	2'-8"	
72"	30"	N/A	4	1'-8"	

KNEE WALL FOOTING FOR SCREENED ENCLOSURES

SCALE: 1/2" = 1'-0"



ALUMINUM STRUCTURE (16" MAX. HEIGHT SIDE WALL ONLY)

FOOTING 2500 PSI CONCRETE W/ (1) #50 OR (2) #30 CONT. BARS MIN. 2-1/2" OFF GROUND

ALUMINUM STRUCTURE (ALL FRONT WALLS)

FOOTING 2500 PSI CONCRETE W/ (1) #30 OR (2) #50 BARS CONTINUOUS BARS MIN. 2-1/2" OFF GROUND

RIBBON FOOTING - TYPE 1

SCALE: 1/2" = 1'-0"

RIBBON FOOTING - TYPE 2

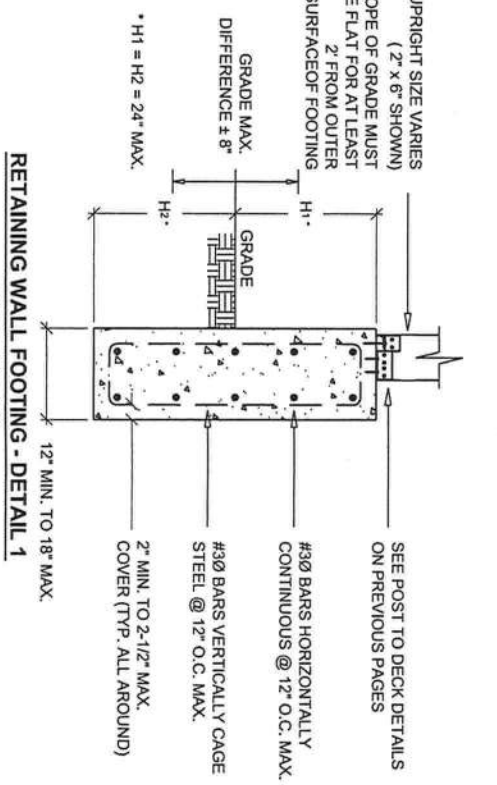
SCALE: 1/2" = 1'-0"

Allowable Beam Span for Wind Zone & Exposure Category

Ribbon Footing Data	100-125 MPH			126-134 MPH			135-144 MPH			145-150 MPH		
	Depth	h ¹	n ²	B	C	B	C	B	C	B	C	
8"	2	1	15.4	12.8	15.4	11.0	12.8	9.5	11.0	6.5	7.2	
8"	2	1	23.0	18.2	23.0	16.5	18.2	14.4	16.5	12.8	14.4	
12"	2	1	23.0	18.2	23.0	16.5	18.2	14.4	16.5	12.8	14.4	
12"	2	1	24.0	20.7	24.0	17.1	20.7	15.0	17.1	13.3	15.0	
12"	3	2	36.0	28.6	31.9	21.9	25.6	19.2	21.9	17.1	19.2	
12"	3	2	31.9	30.0	36.0	25.7	30.0	22.5	25.7	20.0	21.6	
12"	4	3	48.0	40.0	48.0	34.3	40.0	34.3	34.3	26.7	28.8	
12"	4	3	51.6	48.0	51.6	41.1	48.0	41.1	41.1	32.0	36.0	
12"	5	4	69.1	57.6	69.1	49.4	57.6	49.4	49.4	39.4	43.2	
Nominal 4" Slab			100-125 MPH	126-134 MPH	135-144 MPH	145-150 MPH						
Depth			50.4	42.0	50.4	38.0	42.0	31.5	35.0	28.0	28.0	

¹h1 = number of #30 bars @ 0.11 sq. in. grade 60 steel

²n2 = number of #50 bars @ 0.31 sq. in. grade 60 steel



UPRIGHT SIZE VARIES (2" x 6" SHOWN)

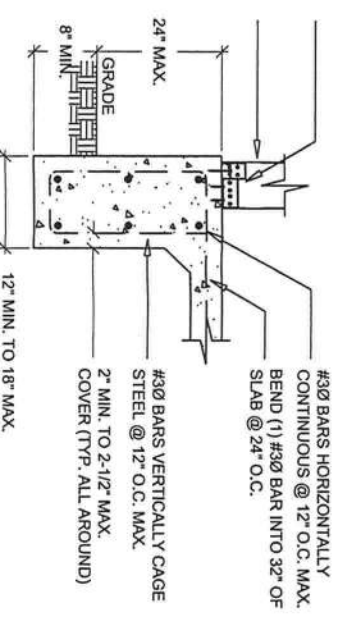
SLOPE OF GRADE MUST BE FLAT FOR AT LEAST 2' FROM OUTER SURFACE OF FOOTING

GRADE MAX. DIFFERENCE ± 8"

* H1 = H2 = 24" MAX.

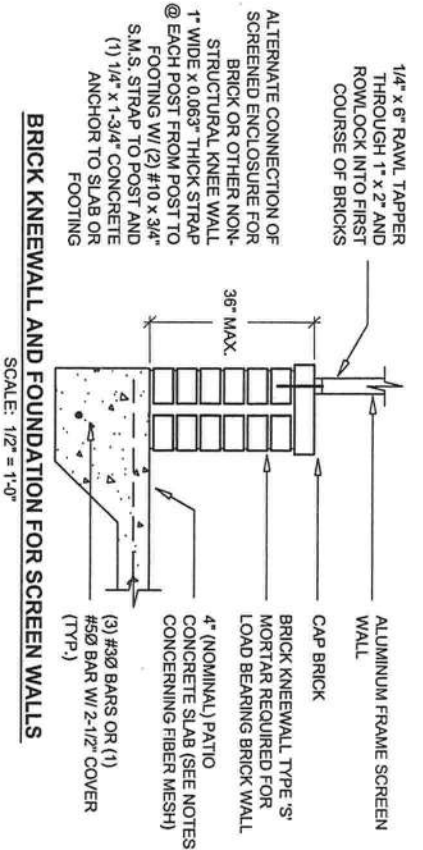
SEE POST TO DECK DETAILS ON PREVIOUS PAGES

UPRIGHT SIZE VARIES (2" x 6" SHOWN)



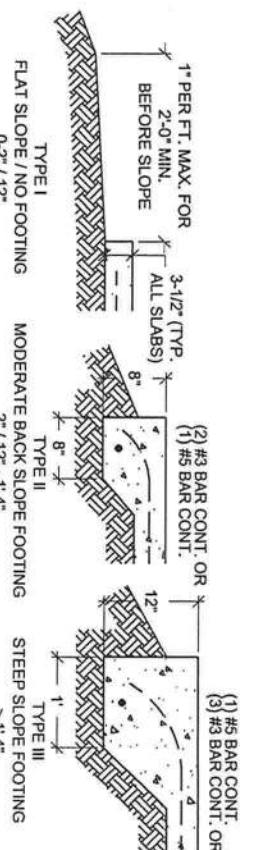
RETAINING WALL TO FOOTING - DETAIL 2

SCALE: 1/2" = 1'-0"



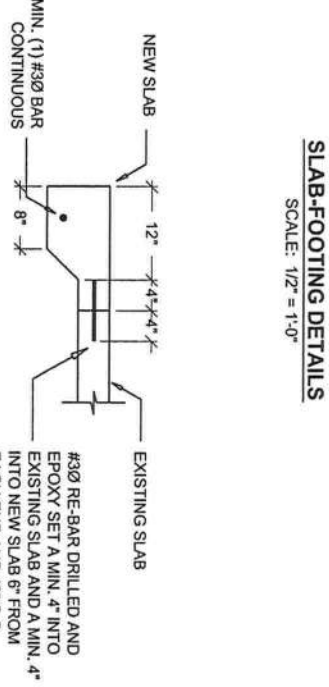
BRICK KNEEWALL AND FOUNDATION FOR SCREEN WALLS

SCALE: 1/2" = 1'-0"



Notes for all foundation types:

- The foundations shown are based on a minimum soil bearing pressure of 1,500 PSF. Bearing capacity of soil shall be verified prior to placing slab by field soil test (soil penetrometer) or a soil testing lab.
- The slab / foundation shall be cleared of debris, roots and compacted prior to placement of concrete.
- No footing is required except when addressing erosion until the slab width in the direction of the primary beams exceeds the span per table on to the left, then a Type II slab is required under the load bearing wall only unless the side wall exceeds maximum height of tables in which case a Type II footing is required.
- Monolithic slabs and footings shall be minimum 2,500 psi concrete with 6 x 6 - 10 x 10 welded wire mesh or crack control fiber mesh; Fibermesh® Mesh, InForce™ e3™ (Formerly Fibermesh MD) per manufacturer's specification may be used in lieu of wire mesh. All slabs / footings shall be allowed to cure for 7 days before installing anchors.
- If local codes require a minimum footing use Type II footing or footing section required by local code. Local codes govern.



DOWEL DETAIL FOR EXTENDING EXISTING 4" SLAB

SCALE: 3/4" = 1'-0"

Lawrence E. Bennett, P.E. FL # 16644

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315 Herbert St., Port Orange, FL 32129

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SHEET 15 OF 21

ALUMINUM STRUCTURES DESIGN MANUAL

SCREEN ENCLOSURES

SECTION 1 DETAILS

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John & Country INDUSTRIES, INC.

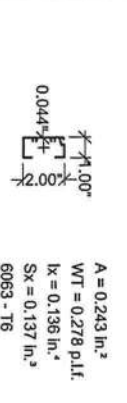
Wholesale Aluminum Distributors

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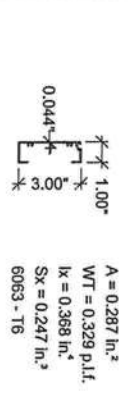
PHONE: (954) 970-9999 1-800-432-5019 FAX: (954) 972-1338

GENERAL NOTES AND SPECIFICATIONS:

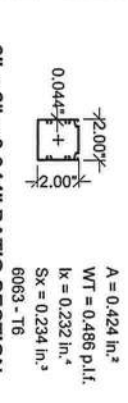
The following extrusions are considered to be "Industry Standard" shapes. The properties are based on die drawings furnished by Florida Extruders International, Inc.



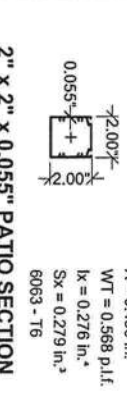
1" x 2" x 0.044" OPEN BACK SECTION



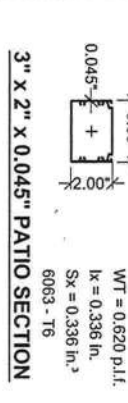
1" x 3" x 0.044" OPEN BACK SECTION



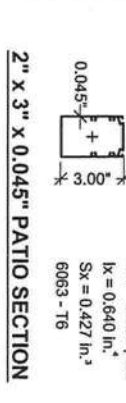
2" x 2" x 0.044" PATIO SECTION



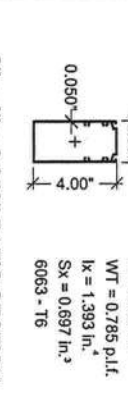
2" x 2" x 0.055" PATIO SECTION



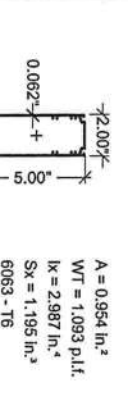
3" x 2" x 0.045" PATIO SECTION



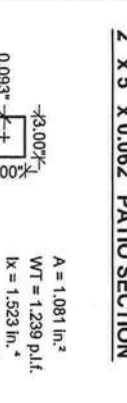
2" x 3" x 0.045" PATIO SECTION



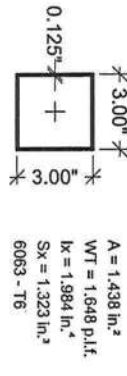
2" x 4" x 0.050" PATIO SECTION



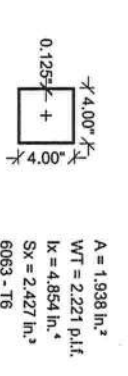
2" x 5" x 0.062" PATIO SECTION



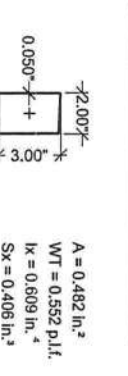
3" x 3" x 0.093" PATIO SECTION



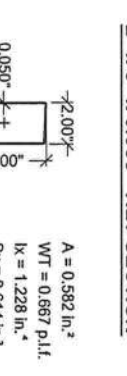
3" x 3" x 0.125" PATIO SECTION



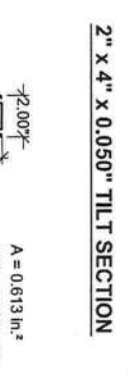
4" x 4" x 0.125" PATIO SECTION



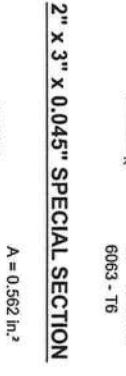
2" x 3" x 0.050" TILT SECTION



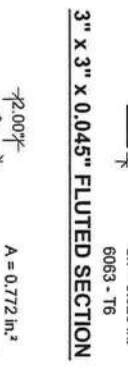
2" x 4" x 0.050" TILT SECTION



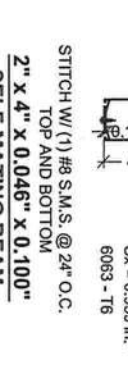
2" x 3" x 0.045" SPECIAL SECTION



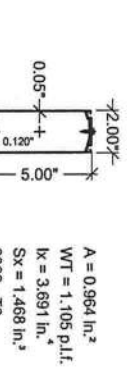
3" x 3" x 0.045" FLUTED SECTION



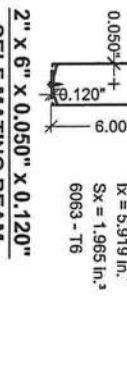
2" x 4" x 0.046" x 0.100" SELF MATING BEAM



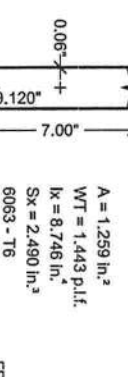
2" x 5" x 0.050" x 0.120" SELF MATING BEAM



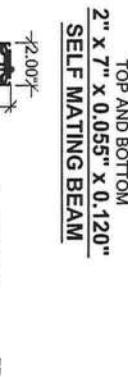
2" x 9" x 0.082" x 0.306" SELF MATING BEAM



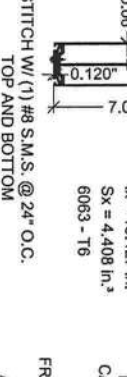
2" x 6" x 0.050" x 0.120" SELF MATING BEAM



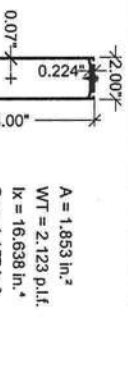
2" x 7" x 0.055" x 0.120" SELF MATING BEAM



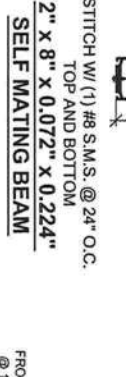
2" x 7" x 0.055" x 0.120" SELF MATING BEAM



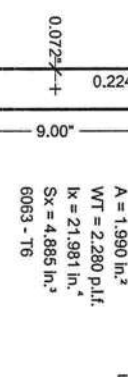
2" x 7" x 0.055" x 0.120" SELF MATING BEAM



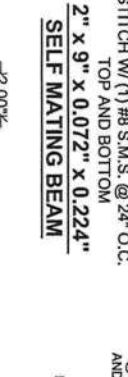
2" x 8" x 0.072" x 0.224" SELF MATING BEAM



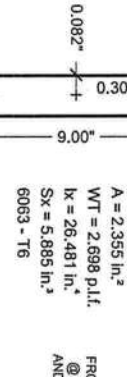
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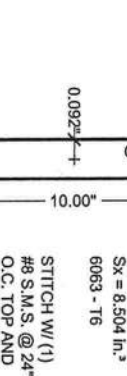
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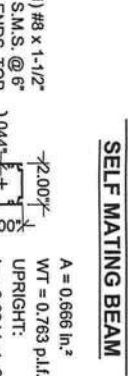
2" x 9" x 0.082" x 0.306" SELF MATING BEAM



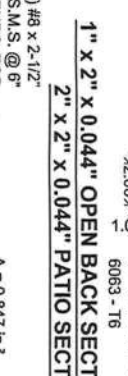
2" x 9" x 0.082" x 0.306" SELF MATING BEAM



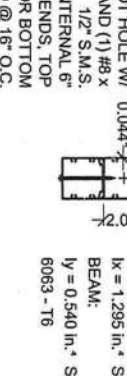
2" x 10" x 0.092" x 0.369" SELF MATING BEAM



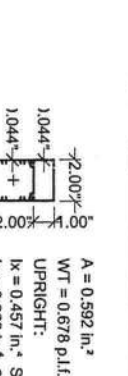
1" x 2" x 0.044" OPEN BACK SECTION WITH SELF MATING BEAM



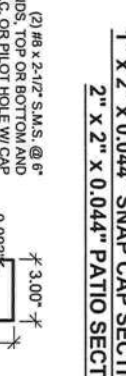
1" x 2" x 0.044" OPEN BACK SECTION WITH SELF MATING BEAM



1" x 2" x 0.044" OPEN BACK SECTION WITH SELF MATING BEAM



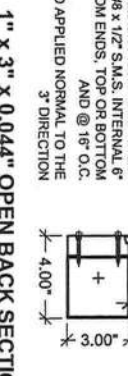
1" x 2" x 0.044" OPEN BACK SECTION WITH SELF MATING BEAM



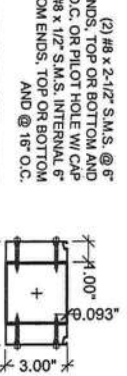
1" x 3" x 0.044" OPEN BACK SECTION WITH SELF MATING BEAM



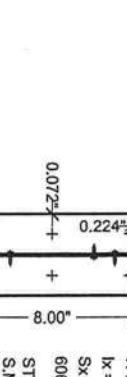
1" x 3" x 0.044" OPEN BACK SECTION WITH SELF MATING BEAM



1" x 3" x 0.044" OPEN BACK SECTION WITH SELF MATING BEAM



1" x 3" x 0.044" OPEN BACK SECTION WITH SELF MATING BEAM



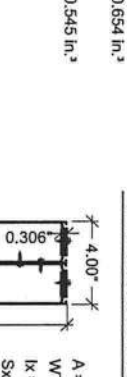
2" x 8" x 0.072" x 0.224" SELF MATING BEAM



2" x 8" x 0.072" x 0.224" SELF MATING BEAM



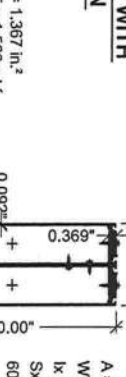
2" x 9" x 0.072" x 0.224" SELF MATING BEAM



2" x 9" x 0.072" x 0.224" SELF MATING BEAM



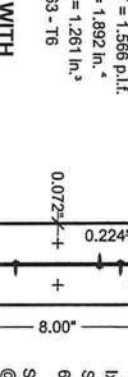
2" x 9" x 0.072" x 0.224" SELF MATING BEAM



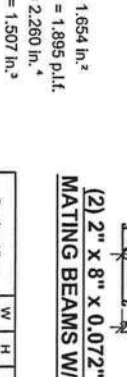
2" x 10" x 0.092" x 0.369" SELF MATING BEAM



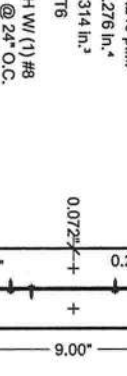
2" x 10" x 0.092" x 0.369" SELF MATING BEAM



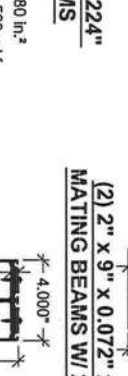
2" x 10" x 0.092" x 0.369" SELF MATING BEAM



2" x 10" x 0.092" x 0.369" SELF MATING BEAM



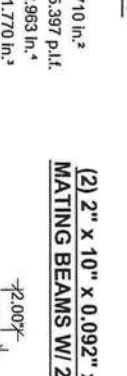
2" x 8" x 0.072" x 0.224" SELF MATING BEAM



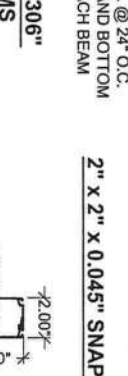
2" x 8" x 0.072" x 0.224" SELF MATING BEAM



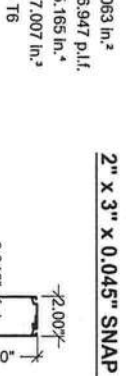
2" x 9" x 0.072" x 0.224" SELF MATING BEAM



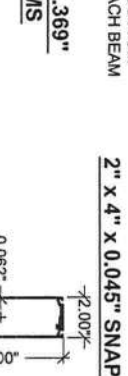
2" x 9" x 0.072" x 0.224" SELF MATING BEAM



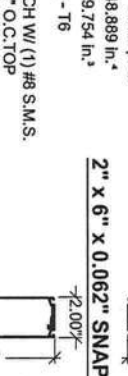
2" x 9" x 0.072" x 0.224" SELF MATING BEAM



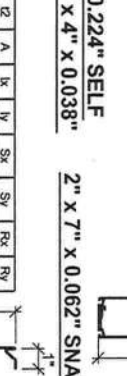
2" x 10" x 0.092" x 0.369" SELF MATING BEAM



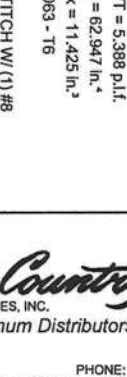
2" x 10" x 0.092" x 0.369" SELF MATING BEAM



2" x 10" x 0.092" x 0.369" SELF MATING BEAM



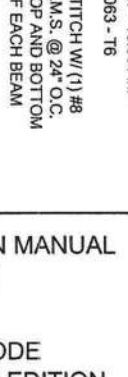
2" x 10" x 0.092" x 0.369" SELF MATING BEAM



2" x 8" x 0.072" x 0.224" SELF MATING BEAM



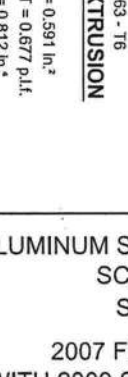
2" x 8" x 0.072" x 0.224" SELF MATING BEAM



2" x 9" x 0.072" x 0.224" SELF MATING BEAM



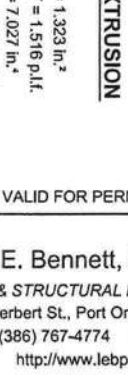
2" x 9" x 0.072" x 0.224" SELF MATING BEAM



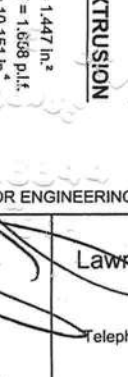
2" x 9" x 0.072" x 0.224" SELF MATING BEAM



2" x 10" x 0.092" x 0.369" SELF MATING BEAM



2" x 10" x 0.092" x 0.369" SELF MATING BEAM



2" x 10" x 0.092" x 0.369" SELF MATING BEAM



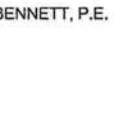
2" x 10" x 0.092" x 0.369" SELF MATING BEAM



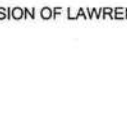
2" x 8" x 0.072" x 0.224" SELF MATING BEAM



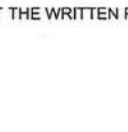
2" x 8" x 0.072" x 0.224" SELF MATING BEAM



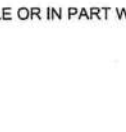
2" x 9" x 0.072" x 0.224" SELF MATING BEAM



2" x 9" x 0.072" x 0.224" SELF MATING BEAM



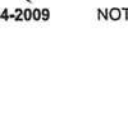
2" x 9" x 0.072" x 0.224" SELF MATING BEAM



2" x 10" x 0.092" x 0.369" SELF MATING BEAM



2" x 10" x 0.092" x 0.369" SELF MATING BEAM



2" x 10" x 0.092" x 0.369" SELF MATING BEAM



2" x 10" x 0.092" x 0.369" SELF MATING BEAM

Table 1.1 110 Allowable Beam Spans
Town & Country Industries, Inc.
Aluminum Alloy 6005 T-5
For Wind Zones up to 110 M.P.H., Exposure "B" and Latitudes Below 30°-30'-00" North (Jacksonville, FL)
Uniform Load = 4 #/SF, a Point Load of 300 #/SF over (1) linear ft. is also considered

Hollow Sections	Tributary Load Width W = Beam Spacing			
	3'-0"	4'-0"	5'-0"	6'-0"
2" x 2" x 0.044"	5'-9"	5'-9"	5'-9"	5'-9"
3" x 2" x 0.045"	6'-11"	6'-11"	6'-11"	6'-11"
3" x 3" x 0.045"	9'-6"	9'-6"	9'-6"	9'-6"
2" x 3" x 0.050"	11'-1"	11'-1"	11'-1"	11'-1"
2" x 4" x 0.050"	14'-2"	14'-2"	14'-2"	14'-2"
2" x 5" x 0.050"	20'-6"	20'-6"	20'-6"	20'-6"

Note:
1. Thicknesses shown are "nominal" industry standard tolerances. No wall thickness shall be less than 0.040".
2. The structures designed using this section shall be limited to a maximum combined span and upright height of 50' and a maximum upright height of 16'. Structures larger than these limits shall have site specific engineering.
3. Spans measured from center of beam and upright connection to fascia or wall connection.
4. Above spans do not include length of knee brace. Add horizontal distance from upright to center of brace to beam connection to the above spans for total beam spans.
5. Spans are based on a maximum wall height of 16' including a 4' max. mansard or gable.
6. To convert spans to "C" and "D" exposure categories see exposure multipliers and example on Table 18 Page 3.
7. To convert spans to "C" and "D" exposure categories see exposure multipliers and example on Table 18 Page 3.

Table 1.2 110 Allowable Purlin Spans
Town & Country Industries, Inc.
Aluminum Alloy 6005 T-5
For Wind Zones up to 110 M.P.H., Exposure "B" and Latitudes Below 30°-30'-00" North (Jacksonville, FL)
Uniform Load = 4 #/SF, a Point Load of 300 #/SF over (1) linear ft. is also considered

Hollow Sections	Tributary Load Width W = Purlin Spacing			
	3'-0"	4'-0"	5'-0"	6'-0"
2" x 2" x 0.044"	5'-9"	5'-9"	5'-9"	5'-9"
3" x 2" x 0.045"	6'-11"	6'-11"	6'-11"	6'-11"
3" x 3" x 0.045"	9'-6"	9'-6"	9'-6"	9'-6"
2" x 3" x 0.050"	11'-1"	11'-1"	11'-1"	11'-1"
2" x 4" x 0.050"	14'-2"	14'-2"	14'-2"	14'-2"
2" x 5" x 0.050"	20'-6"	20'-6"	20'-6"	20'-6"

Note:
1. Thicknesses shown are "nominal" industry standard tolerances. No wall thickness shall be less than 0.040".
2. The structures designed using this section shall be limited to a maximum combined span and upright height of 50' and a maximum upright height of 16'. Structures larger than these limits shall have site specific engineering.
3. Spans measured from center of beam and upright connection to fascia or wall connection.
4. Above spans do not include length of knee brace. Add horizontal distance from upright to center of brace to beam connection to the above spans for total beam spans.
5. Spans are based on a maximum wall height of 16' including a 4' max. mansard or gable.
6. To convert spans to "C" and "D" exposure categories see exposure multipliers and example on Table 18 Page 3.
7. To convert spans to "C" and "D" exposure categories see exposure multipliers and example on Table 18 Page 3.

Table 1.3 110 Allowable Post / Upright Heights
Town & Country Industries, Inc.
Aluminum Alloy 6005 T-5
For 3 second wind gust at a velocity of 110 MPH, Exposure "B" or an applied load of 13 #/sq. ft.

Hollow Sections	Tributary Load Width W = Upright Spacing			
	3'-0"	4'-0"	5'-0"	6'-0"
2" x 2" x 0.044"	7'-5"	6'-9"	6'-3"	5'-7"
3" x 2" x 0.045"	8'-5"	7'-7"	7-3"	6-8"
3" x 3" x 0.045"	10'-4"	9'-5"	8'-10"	8-3"
2" x 3" x 0.050"	11-6"	10-5"	11-1"	9-4"
2" x 4" x 0.050"	13-6"	12-3"	12-7"	11-1"
2" x 5" x 0.050"	17-4"	15-9"	14-1"	12-1"

Note:
1. Thicknesses shown are "nominal" industry standard tolerances. No wall thickness shall be less than 0.040".
2. Using screen panel width W, select post heights.
3. Site specific engineering required for post enclosures over 30' in mean roof height.
4. Span height is to be measured from center of beam and upright connection to fascia or wall connection.
5. Chair rails to be 2" x 2" x 0.044" min. and set @ 36" in height are designed to be residential/generals provided they are attached with min. (3) #10 x 1-1/2" S.S. min. into the screw bosses and do not exceed 6'-0" o.c.
6. Chair rails for 2" x 2" x 0.044" min. and set @ 36" in height are designed to be residential/generals provided they are attached with min. (3) #10 x 1-1/2" S.S. min. into the screw bosses and do not exceed 6'-0" o.c.
7. Max. beam size for 2" x 5" x 0.050" x 0.120"
8. 2" x 4" x 0.050" x 0.120"
9. Span heights may be interpolated.
10. To convert spans to "C" and "D" exposure categories see exposure multipliers and example on Table 18 Page 3.

Table 1.4 110 Allowable Post / Girt / Chair Rail / Header Spans & Upright Heights
Town & Country Industries, Inc.
Aluminum Alloy 6005 T-5
For 3 second wind gust at a velocity of 110 MPH, Exposure "B" or an applied load of 13 #/sq. ft.

Hollow Sections	Tributary Load Width W = Member Spacing			
	3'-0"	4'-0"	5'-0"	6'-0"
2" x 2" x 0.044"	7-1"	6-6"	6-3"	5-7"
3" x 2" x 0.045"	7-11"	6-6"	6-3"	5-7"
3" x 3" x 0.045"	9-10"	7-7"	7-3"	6-8"
2" x 3" x 0.050"	10-11"	8-5"	8-1"	7-3"
2" x 4" x 0.050"	12-10"	10-5"	11-1"	9-4"
2" x 5" x 0.050"	16-5"	15-2"	13-3"	12-1"

Note:
1. Thicknesses shown are "nominal" industry standard tolerances. No wall thickness shall be less than 0.040".
2. Using screen panel width W, select girt heights.
3. Site specific engineering required for post enclosures over 30' in mean roof height.
4. Span height is to be measured from center of beam and upright connection to fascia or wall connection.
5. Chair rails to be 2" x 2" x 0.044" min. and set @ 36" in height are designed to be residential/generals provided they are attached with min. (3) #10 x 1-1/2" S.S. min. into the screw bosses and do not exceed 6'-0" o.c.
6. Chair rails for 2" x 2" x 0.044" min. and set @ 36" in height are designed to be residential/generals provided they are attached with min. (3) #10 x 1-1/2" S.S. min. into the screw bosses and do not exceed 6'-0" o.c.
7. Max. beam size for 2" x 5" x 0.050" x 0.120"
8. 2" x 4" x 0.050" x 0.120"
9. Span heights may be interpolated.
10. To convert spans to "C" and "D" exposure categories see exposure multipliers and example on Table 18 Page 3.

Table 1.5 110 Town & Country Industries, Inc. Allowable Spans for Miscellaneous Framing Beams as Supporting Screen Roof Frame Members
Aluminum Alloy 6005 T-5
For Areas with Wind Loads up to 110 M.P.H., Exposure "B" and Latitudes Below 30°-30'-00" North (Jacksonville, FL)
Uniform Load = 4 #/SF, a Point Load of 300 #/SF over (1) linear ft. is also considered

Single Self-Mating Beams	Tributary Load Width			
	10'-0"	14'-0"	18'-0"	22'-0"
2" x 4" x 0.046" x 0.100"	16-7"	13-11"	12-4"	11-2"
2" x 5" x 0.050" x 0.098"	21-4"	18-0"	15-11"	14-5"
2" x 6" x 0.050" x 0.120"	24-3"	20-5"	18-1"	16-4"
2" x 7" x 0.060" x 0.120"	28-4"	23-11"	21-1"	19-7"
2" x 8" x 0.072" x 0.224"	30-4"	27-2"	24-11"	23-4"
2" x 9" x 0.072" x 0.224"	33-5"	29-10"	27-5"	25-9"
2" x 10" x 0.092" x 0.374"	41-6"	37-11"	34-11"	30-2"

Note:
1. It is recommended that the engineer be consulted on any carrier beam that spans more than 50'.
2. Span is measured from center of connection to fascia or wall connection.
3. Above spans do not include length of knee brace. Add horizontal distance from upright to center of brace to beam connection to the above spans for total beam spans.
4. Spans may be interpolated.
5. To convert spans to "C" and "D" exposure categories see exposure multipliers and example on Table 18 Page 3.
6. The Maximum L for a 2" x 4" x 0.046" x 0.100" Single Self-Mating Beam with Tributary Load Width = 22'-0" is 11'-2".

Table 1.6 110 T Town & Country Industries, Inc. Allowable Spans for Miscellaneous Framing Beams as Supporting Screen Roof Frame Members
One End of Beams Attached to Host Structure
For Areas with Wind Loads up to 110 M.P.H., Exposure "B" and Latitudes Below 30°-30'-00" North (Jacksonville, FL)
Uniform Load = 4 #/SF, a Point Load of 300 #/SF over (1) linear ft. is also considered

Single Self-Mating Beams	Tributary Load Width			
	10'-0"	14'-0"	18'-0"	22'-0"
2" x 4" x 0.046" x 0.100"	12-11"	12-1"	11-0"	10-2"
2" x 5" x 0.050" x 0.118"	15-9"	15-9"	14-8"	13-4"
2" x 6" x 0.050" x 0.120"	18-5"	16-1"	14-7"	13-5"
2" x 7" x 0.055" x 0.120"	20-11"	18-10"	16-10"	15-10"
2" x 8" x 0.070" x 0.224"	25-4"	22-4"	20-4"	18-4"
2" x 9" x 0.070" x 0.204"	27-3"	24-3"	21-4"	19-11"
2" x 9" x 0.082" x 0.328"	29-3"	26-3"	23-5"	21-5"
2" x 10" x 0.090" x 0.374"	34-2"	31-2"	28-2"	25-2"

Note:
1. It is recommended that the engineer be consulted on any carrier beam that spans more than 50'.
2. Span is measured from center of connection to fascia or wall connection.
3. Above spans do not include length of knee brace. Add horizontal distance from upright to center of brace to beam connection to the above spans for total beam spans.
4. Spans may be interpolated.
5. To convert spans to "C" and "D" exposure categories see exposure multipliers and example on Table 18 Page 3.

Table 1.7 110 T Town & Country Industries, Inc. Allowable Spans for Miscellaneous Framing Beams as Supporting Screen Roof Frame Members
One End of Beams Attached to Host Structure
For Areas with Wind Loads up to 110 M.P.H., Exposure "B" and Latitudes Below 30°-30'-00" North (Jacksonville, FL)
Uniform Load = 4 #/SF, a Point Load of 300 #/SF over (1) linear ft. is also considered

Single Self-Mating Beams	Tributary Load Width			
	10'-0"	14'-0"	18'-0"	22'-0"
2" x 4" x 0.046" x 0.100"	12-11"	12-1"	11-0"	10-2"
2" x 5" x 0.050" x 0.118"	15-9"	15-9"	14-8"	13-4"
2" x 6" x 0.050" x 0.120"	18-5"	16-1"	14-7"	13-5"
2" x 7" x 0.055" x 0.120"	20-11"	18-10"	16-10"	15-10"
2" x 8" x 0.070" x 0.224"	25-4"	22-4"	20-4"	18-4"
2" x 9" x 0.070" x 0.204"	27-3"	24-3"	21-4"	19-11"
2" x 9" x 0.082" x 0.328"	29-3"	26-3"	23-5"	21-5"
2" x 10" x 0.090" x 0.374"	34-2"	31-2"	28-2"	25-2"

Note:
1. It is recommended that the engineer be consulted on any carrier beam that spans more than 50'.
2. Span is measured from center of connection to fascia or wall connection.
3. Above spans do not include length of knee brace. Add horizontal distance from upright to center of brace to beam connection to the above spans for total beam spans.
4. Spans may be interpolated.
5. To convert spans to "C" and "D" exposure categories see exposure multipliers and example on Table 18 Page 3.

Table 1.8 110 T Town & Country Industries, Inc. Allowable Spans for Miscellaneous Framing Beams as Supporting Screen Roof Frame Members
One End of Beams Attached to Host Structure
For Areas with Wind Loads up to 110 M.P.H., Exposure "B" and Latitudes Below 30°-30'-00" North (Jacksonville, FL)
Uniform Load = 4 #/SF, a Point Load of 300 #/SF over (1) linear ft. is also considered

Single Self-Mating Beams	Tributary Load Width			
	10'-0"	14'-0"	18'-0"	22'-0"
2" x 4" x 0.046" x 0.100"	12-11"	12-1"	11-0"	10-2"
2" x 5" x 0.050" x 0.118"	15-9"	15-9"	14-8"	13-4"
2" x 6" x 0.050" x 0.120"	18-5"	16-1"	14-7"	13-5"
2" x 7" x 0.055" x 0.120"	20-11"	18-10"	16-10"	15-10"
2" x 8" x 0.070" x 0.224"	25-4"	22-4"	20-4"	18-4"
2" x 9" x 0.070" x 0.204"	27-3"	24-3"	21-4"	19-11"
2" x 9" x 0.082" x 0.328"	29-3"	26-3"	23-5"	21-5"
2" x 10" x 0.090" x 0.374"	34-2"	31-2"	28-2"	25-2"

Note:
1. It is recommended that the engineer be consulted on any carrier beam that spans more than 50'.
2. Span is measured from center of connection to fascia or wall connection.
3. Above spans do not include length of knee brace. Add horizontal distance from upright to center of brace to beam connection to the above spans for total beam spans.
4. Spans may be interpolated.
5. To convert spans to "C" and "D" exposure categories see exposure multipliers and example on Table 18 Page 3.

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Table 1.1.120 Allowable Beam Spans
Town & Country Industries, Inc.
Aluminum Alloy 6005 T-5
For 120 M.P.H. Wind Zones, Exposure "B" and Latitudes Below 30°-30'-00" North (Jacksonville, FL)
Uniform Load = 4 #/SF, a Point Load of 300 #/SF over (1) linear ft. is also considered

Hollow Sections	Tributary Load Width "W" = Beam Spacing				
	3'-0"	4'-0"	5'-0"	6'-0"	7'-0"
2" x 2" x 0.044"	3'-0"	4'-0"	5'-0"	6'-0"	7'-0"
2" x 2" x 0.045"	3'-0"	4'-0"	5'-0"	6'-0"	7'-0"
2" x 3" x 0.045"	3'-0"	4'-0"	5'-0"	6'-0"	7'-0"
2" x 3" x 0.060"	3'-0"	4'-0"	5'-0"	6'-0"	7'-0"
2" x 4" x 0.050"	3'-0"	4'-0"	5'-0"	6'-0"	7'-0"
2" x 5" x 0.062"	3'-0"	4'-0"	5'-0"	6'-0"	7'-0"
Self-Mating Sections					
2" x 4" x 0.046" x 0.100"	16'-2"	16'-2"	16'-2"	16'-2"	16'-2"
2" x 5" x 0.050" x 0.098"	22'-2"	22'-2"	22'-2"	22'-2"	22'-2"
2" x 6" x 0.050" x 0.130"	28'-10"	28'-10"	28'-10"	28'-10"	28'-10"
2" x 7" x 0.060" x 0.130"	35'-3"	35'-3"	35'-3"	35'-3"	35'-3"
2" x 8" x 0.072" x 0.224"	45'-4"	45'-4"	45'-4"	45'-4"	45'-4"
2" x 8" x 0.072" x 0.224"	49'-11"	49'-11"	49'-11"	49'-11"	49'-11"
2" x 8" x 0.082" x 0.306"	53'-6"	53'-6"	53'-6"	53'-6"	53'-6"
2" x 10" x 0.092" x 0.374"	57'-4"	57'-4"	57'-4"	57'-4"	57'-4"

Note:
1. Thicknesses shown are "nominal" industry standard tolerances. No wall thickness shall be less than 0.040".
2. The structures designed using this section shall be limited to a maximum combined span and upright height of 50' and a maximum upright height of 16'. Structures larger than these limits shall have site specific engineering.
3. Span is measured from center of beam and upright connection to fascia or wall connection.
4. Above spans do not include length of knee brace. Add horizontal distance from upright to center of brace to beam connection to the above spans for total beam spans.
5. Tables are based on a maximum wall height of 16' including a 4" max. mansard or gable.
6. To convert spans to "C" and "D" exposure categories see exposure multipliers and example on Table 1B Page 3.
7. To convert spans to "C" and "D" exposure categories see exposure multipliers and example on Table 1B Page 3.

Table 1.2.120 Allowable Purlin Spans
Town & Country Industries, Inc.
Aluminum Alloy 6005 T-5
For 120 M.P.H. Wind Zones, Exposure "B" and Latitudes Below 30°-30'-00" North (Jacksonville, FL)
Uniform Load = 4 #/SF, a Point Load of 300 #/SF over (1) linear ft. is also considered

Hollow Sections	Tributary Load Width "W" = Purlin Spacing				
	3'-6"	4'-0"	4'-6"	5'-0"	5'-6"
2" x 2" x 0.044"	5'-0"	5'-0"	5'-0"	5'-0"	5'-0"
2" x 2" x 0.045"	6'-11"	6'-11"	6'-11"	6'-11"	6'-11"
2" x 3" x 0.045"	9'-6"	9'-6"	9'-6"	9'-6"	9'-6"
2" x 3" x 0.060"	11'-1"	11'-1"	11'-1"	11'-1"	11'-1"
2" x 4" x 0.050"	14'-2"	14'-2"	14'-2"	14'-2"	14'-2"
2" x 5" x 0.062"	20'-6"	20'-6"	20'-6"	20'-6"	20'-6"
B. Sections As Horizontal Members Fastened To Posts Through Sill Into Screw Bases					
2" x 2" x 0.044"	3'-6"	4'-0"	4'-6"	5'-0"	5'-6"
2" x 2" x 0.045"	7'-3"	7'-3"	7'-3"	7'-3"	7'-3"
2" x 3" x 0.045"	9'-2"	9'-2"	9'-2"	9'-2"	9'-2"
2" x 3" x 0.060"	13'-6"	13'-6"	13'-6"	13'-6"	13'-6"
2" x 4" x 0.050"	16'-7"	16'-7"	16'-7"	16'-7"	16'-7"
2" x 5" x 0.062"	30'-9"	30'-9"	30'-9"	30'-9"	30'-9"
C. Sections As Horizontal Members Fastened To Beams With Clips					
2" x 2" x 0.044"	3'-6"	4'-0"	4'-6"	5'-0"	5'-6"
2" x 2" x 0.045"	6'-11"	6'-11"	6'-11"	6'-11"	6'-11"
2" x 3" x 0.045"	9'-6"	9'-6"	9'-6"	9'-6"	9'-6"
2" x 3" x 0.060"	11'-1"	11'-1"	11'-1"	11'-1"	11'-1"
2" x 4" x 0.050"	14'-2"	14'-2"	14'-2"	14'-2"	14'-2"
2" x 5" x 0.062"	20'-6"	20'-6"	20'-6"	20'-6"	20'-6"
D. Sections As Horizontal Members Fastened To Posts Through Sill Into Screw Bases					
2" x 2" x 0.044"	3'-6"	4'-0"	4'-6"	5'-0"	5'-6"
2" x 2" x 0.045"	7'-3"	7'-3"	7'-3"	7'-3"	7'-3"
2" x 3" x 0.045"	9'-2"	9'-2"	9'-2"	9'-2"	9'-2"
2" x 3" x 0.060"	13'-6"	13'-6"	13'-6"	13'-6"	13'-6"
2" x 4" x 0.050"	16'-7"	16'-7"	16'-7"	16'-7"	16'-7"
2" x 5" x 0.062"	30'-9"	30'-9"	30'-9"	30'-9"	30'-9"

Note:
1. Thicknesses shown are "nominal" industry standard tolerances. No wall thickness shall be less than 0.040".
2. Span is measured from center of beam and upright connection to fascia or wall connection.
3. Tables are based on a maximum wall height of 16' including a 4" max. mansard or gable.
4. Spans may be interpolated.
5. 2" x 4" & 2" x 5" Hollow Girts shall be connected w/ an internal or external 1-1/2" x 1-1/2" x 0.044" angle.
6. To convert spans to "C" and "D" exposure categories see exposure multipliers and example on Table 1B Page 3.
CHECK TABLE 1.6 FOR MINIMUM PURLIN SIZE FOR BEAMS.

Table 1.3.120 Allowable Post / Upright Heights
Town & Country Industries, Inc.
Aluminum Alloy 6005 T-5
For a second wind gust at a velocity of 120 MPH, Exposure "B" or an applied load of 15 #/sq. ft.

Hollow Sections	Tributary Load Width "W" = Upright Spacing				
	3'-0"	4'-0"	5'-0"	6'-0"	7'-0"
2" x 2" x 0.044"	7'-1"	6'-5"	6'-1"	5'-8"	5'-1"
2" x 2" x 0.045"	7'-11"	7'-3"	6'-7"	6'-2"	5'-9"
2" x 3" x 0.045"	9'-0"	8'-11"	8'-3"	7'-7"	7'-2"
2" x 3" x 0.060"	10'-11"	10'-3"	9'-5"	8'-8"	8'-2"
2" x 4" x 0.050"	12'-11"	11'-8"	10'-8"	9'-10"	8'-8"
2" x 5" x 0.062"	16'-5"	14'-1"	13'-1"	11'-3"	10'-7"
Self-Mating Sections					
2" x 4" x 0.046" x 0.100"	14'-4"	14'-4"	14'-4"	14'-4"	14'-4"
2" x 5" x 0.050" x 0.098"	17'-5"	17'-5"	17'-5"	17'-5"	17'-5"
2" x 6" x 0.050" x 0.130"	20'-9"	20'-9"	20'-9"	20'-9"	20'-9"
2" x 7" x 0.060" x 0.130"	29'-2"	29'-2"	29'-2"	29'-2"	29'-2"
2" x 8" x 0.072" x 0.224"	39'-2"	39'-2"	39'-2"	39'-2"	39'-2"
2" x 8" x 0.072" x 0.224"	42'-1"	42'-1"	42'-1"	42'-1"	42'-1"
2" x 8" x 0.082" x 0.306"	45'-3"	45'-3"	45'-3"	45'-3"	45'-3"
2" x 10" x 0.092" x 0.374"	49'-11"	49'-11"	49'-11"	49'-11"	49'-11"

Note:
1. Thicknesses shown are "nominal" industry standard tolerances. No wall thickness shall be less than 0.040".
2. Using screen panel width "W" select upright height "H".
3. Above heights do not include length of knee brace. Add vertical distance from upright to center of brace to beam connection to the above spans for total beam spans.
4. Site specific engineering required for roof enclosures over 30' in mean roof height.
5. Spans are based on a maximum wall height of 16' including a 4" max. mansard or gable.
6. To convert spans to "C" and "D" exposure categories see exposure multipliers and example on Table 1B Page 3.
7. Max. beam size for 2" x 5" is 2" x 7" x 0.055" x 0.120".
8. Spans may be interpolated.
9. To convert spans to "C" and "D" exposure categories see exposure multipliers and example on Table 1B Page 3.

Table 1.4.120 Allowable Post / Girt / Chair Rail / Header Spans & Upright Heights
Town & Country Industries, Inc.
Aluminum Alloy 6005 T-5
For a second wind gust at a velocity of 120 MPH, Exposure "B" or an applied load of 15 #/sq. ft.

Hollow Sections	Tributary Load Width "W" = Member Spacing				
	3'-6"	4'-0"	4'-6"	5'-0"	5'-6"
2" x 2" x 0.044"	6'-3"	6'-3"	6'-3"	6'-3"	6'-3"
2" x 2" x 0.045"	7'-7"	7'-3"	6'-11"	6'-7"	6'-3"
2" x 3" x 0.045"	9'-4"	8'-11"	8'-6"	8'-2"	7'-8"
2" x 3" x 0.060"	10'-5"	10'-1"	9'-7"	9'-3"	8'-9"
2" x 4" x 0.050"	12'-3"	11'-9"	11'-2"	10'-8"	10'-4"
2" x 5" x 0.062"	15'-8"	14'-1"	13'-1"	12'-7"	12'-3"
B. Sections As Horizontal Members Fastened To Posts Through Sill Into Screw Bases					
2" x 2" x 0.044"	3'-6"	4'-0"	4'-6"	5'-0"	5'-6"
2" x 2" x 0.045"	7'-11"	7'-5"	6'-11"	6'-7"	6'-3"
2" x 3" x 0.045"	10'-6"	10'-1"	9'-6"	9'-2"	8'-7"
2" x 3" x 0.060"	12'-4"	11'-6"	10'-10"	10'-5"	10'-1"
2" x 4" x 0.050"	13'-11"	13'-1"	12'-4"	11'-10"	11'-6"
2" x 5" x 0.062"	16'-11"	15'-9"	14'-9"	13'-3"	12'-7"
C. Sections As Horizontal Members Fastened To Posts Through Sill Into Screw Bases					
2" x 2" x 0.044"	3'-6"	4'-0"	4'-6"	5'-0"	5'-6"
2" x 2" x 0.045"	7'-11"	7'-5"	6'-11"	6'-7"	6'-3"
2" x 3" x 0.045"	10'-6"	10'-1"	9'-6"	9'-2"	8'-7"
2" x 3" x 0.060"	12'-4"	11'-6"	10'-10"	10'-5"	10'-1"
2" x 4" x 0.050"	13'-11"	13'-1"	12'-4"	11'-10"	11'-6"
2" x 5" x 0.062"	16'-11"	15'-9"	14'-9"	13'-3"	12'-7"

Note:
1. Thicknesses shown are "nominal" industry standard tolerances. No wall thickness shall be less than 0.040".
2. Using screen panel width "W" select girt lengths.
3. Site specific engineering required for roof enclosures over 30' in mean roof height.
4. Spanheight is to be measured from center of beam and upright connection to fascia or wall connection.
5. Chail rails of 2" x 2" x 0.044" min. and set @ 36" in height are designed to be residential guardrails provided they are attached with min. (3) #10 x 1-1/2" s.s. min. into the screw bases and do not exceed 8'-0" o.c.
6. Girt spacing shall not exceed 8'-0".
7. Max. beam size for 2" x 5" is 2" x 7" x 0.055" x 0.120".
8. 2" x 4" & 2" x 5" hollow girts shall be connected w/ an internal or external 1-1/2" x 1-1/2" x 0.044" angle.
9. Spanheights may be interpolated.
10. To convert spans to "C" and "D" exposure categories see exposure multipliers and example on Table 1B Page 3.

Table 1.5.1.120 Allowable Spans for Miscellaneous Framing Beams as Supporting Screen Roof Frame Members
Town & Country Industries, Inc.
Aluminum Alloy 6005 T-5
For Areas with Wind Loads up to 120 M.P.H., Exposure "B" and Latitudes Below 30°-30'-00" North (Jacksonville, FL)
Uniform Load = 4 #/SF, a Point Load of 300 #/SF over (1) linear ft. is also considered

Single Self-Mating Beams	Tributary Load Width				
	10'-0"	14'-0"	18'-0"	22'-0"	26'-0"
2" x 4" x 0.046" x 0.100"	16'-7"	13'-11"	12'-4"	11'-2"	10'-3"
2" x 5" x 0.050" x 0.098"	21'-4"	16'-0"	15'-11"	14'-5"	13'-3"
2" x 6" x 0.050" x 0.098"	24'-3"	20'-0"	18'-1"	16'-4"	15'-4"
2" x 7" x 0.050" x 0.120"	28'-4"	23'-11"	21'-1"	19'-1"	17'-7"
2" x 8" x 0.072" x 0.224"	30'-4"	27'-2"	24'-11"	23'-4"	22'-1"
2" x 9" x 0.072" x 0.224"	33'-5"	29'-10"	27'-5"	25'-8"	24'-3"
2" x 9" x 0.082" x 0.208"	35'-9"	31'-11"	29'-5"	27'-8"	26'-0"
2" x 10" x 0.092" x 0.374"	41'-6"	37'-1"	34'-1"	31'-11"	30'-2"
Double Self-Mating Beams					
(2) 2" x 8" x 0.072" x 0.224"	10'-0"	14'-0"	18'-0"	22'-0"	26'-0"
(2) 2" x 9" x 0.072" x 0.224"	51'-4"	43'-4"	38'-3"	34'-7"	31'-10"
(2) 2" x 9" x 0.082" x 0.208"	55'-9"	47'-2"	41'-7"	37'-7"	34'-7"
(2) 2" x 9" x 0.082" x 0.208"	61'-11"	52'-4"	46'-2"	41'-9"	38'-5"
(2) 2" x 10" x 0.092" x 0.374"	73'-4"	61'-11"	54'-8"	49'-5"	45'-8"

Note:
1. It is recommended that the engineer be consulted on any carrier beam that spans more than 50'.
2. Span is measured from center of connection to fascia or wall connection.
3. Above spans do not include length of knee brace. Add horizontal distance from upright to center of brace to beam connection to the above spans for total beam spans.
4. Spans may be interpolated.
5. To convert spans to "C" and "D" exposure categories see exposure multipliers and example on Table 1B Page 3.
Example:
The Maximum "L" for a 2" x 4" x 0.046" x 0.100" Single Self-Mating Beam with Tributary Load Width = 22'-0" is 11'-2".

Table 1.5.2.120 T Allowable Spans for Miscellaneous Framing Beams as Supporting Screen Roof Frame Members
Town & Country Industries, Inc.
One End of Beam Attached to Host Structure
For Areas with Wind Loads up to 120 M.P.H., Exposure "B" and Latitudes Below 30°-30'-00" North (Jacksonville, FL)
Uniform Load = 4 #/SF, a Point Load of 300 #/SF over (1) linear ft. is also considered

Single Self-Mating Beams	Tributary Load Width				
	10'-0"	14'-0"	18'-0"	22'-0"	26'-0"
2" x 4" x 0.046" x 0.100"	12'-11"	12'-11"	12'-2"	11'-0"	10'-2"
2" x 5" x 0.050" x 0.100"	15'-9"	15'-9"	14'-8"	13'-4"	12'-3"
2" x 6" x 0.050" x 0.116"	18'-5"	18'-5"	16'-1"	14'-7"	13'-5"
2" x 7" x 0.050" x 0.120"	20'-11"	20'-11"	17'-8"	15'-10"	14'-7"
2" x 8" x 0.070" x 0.224"	25'-4"	25'-4"	22-7"	20'-9"	19'-4"
2" x 9" x 0.070" x 0.204"	27'-3"	27'-3"	24-11"	22-7"	21-5"
2" x 9" x 0.082" x 0.328"	29'-3"	29'-3"	26-3"	23-3"	21-5"
2" x 10" x 0.090" x 0.374"	34'-2"	34'-2"	31-2"	28-11"	27-9"

Note:
1. It is recommended that the engineer be consulted on any carrier beam that spans more than 50'.
2. Span is measured from center of connection to fascia or wall connection.
3. Above spans do not include length of knee brace. Add horizontal distance from upright to center of brace to beam connection to the above spans for total beam spans.
4. Spans may be interpolated.
5. To convert spans to "C" and "D" exposure categories see exposure multipliers and example on Table 1B Page 3.



ALUMINUM STRUCTURES DESIGN MANUAL
SCREEN ENCLOSURES
120 MPH ROOF & WALL MEMBER SPANS
2007 FLORIDA BUILDING CODE
WITH 2009 SUPPLEMENTS - 2009 EDITION

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Table 1.6 Minimum Upright Sizes and Number of Screws for Connection of Roof Beams to Wall Uprights or Beam Splicing

Beam Size	Upright / Column Size	Minimum Purlin Size	Minimum Girt Size	Number of Screws*	Minimum Spacing
2" x 3" x 0.045" Hollow	2" x 3" x 0.045" Hollow	2" x 2" x 0.044" Hollow	2" x 2" x 0.044" Hollow	8	16" @ 18" O.C.
2" x 4" x 0.050" Hollow	2" x 4" x 0.045" Hollow	2" x 3" x 0.045" Hollow	2" x 2" x 0.044" Hollow	8	16" @ 18" O.C.
2" x 5" x 0.050" Hollow	2" x 5" x 0.045" Hollow	2" x 4" x 0.045" Hollow	2" x 3" x 0.045" Hollow	8	16" @ 18" O.C.
2" x 6" x 0.045" Hollow	2" x 6" x 0.045" Hollow	2" x 5" x 0.045" Hollow	2" x 4" x 0.045" Hollow	8	16" @ 18" O.C.
2" x 7" x 0.050" Hollow	2" x 7" x 0.045" Hollow	2" x 6" x 0.045" Hollow	2" x 5" x 0.045" Hollow	8	16" @ 18" O.C.
2" x 8" x 0.050" Hollow	2" x 8" x 0.045" Hollow	2" x 7" x 0.045" Hollow	2" x 6" x 0.045" Hollow	8	16" @ 18" O.C.
2" x 9" x 0.050" Hollow	2" x 9" x 0.045" Hollow	2" x 8" x 0.045" Hollow	2" x 7" x 0.045" Hollow	8	16" @ 18" O.C.
2" x 10" x 0.050" Hollow	2" x 10" x 0.045" Hollow	2" x 9" x 0.045" Hollow	2" x 8" x 0.045" Hollow	8	16" @ 18" O.C.
2" x 10" x 0.092" x 0.374" SMB	2" x 8" x 0.072" x 0.224" SMB	2" x 5" x 0.060" Hollow or SMB	2" x 4" x 0.050" Hollow or SMB	20	16" @ 18" O.C.

Connection Example:
 2" x 7" Beam & 2" x 4" at beam & gusset plate, (14) #8 x 1/2" sbs & upright & gusset plate (14) #8 x 1/2" sbs ea. side of beam & upright.
 Note:
 1. Connection of 2" x 6" to 2" x 4" shall use a full lap cut or 1/16" gusset plate.
 2. For beam splice connections the number of screws shown is the total for each splice with 1/2 the screws on each side of the cut.
 3. The number of deck anchors is based on RWML. R Trupper allowable load data for 2,500 psi concrete and/or equal anchors may be used.
 4. The number shown is the total use 1/2 per side.
 5. Hollow splice connections can be made provided the connection is approved by the engineer.
 6. If a larger than minimum upright is used the number of screws is the same for each splice with 1/2 the screws on each side of the cut.
 7. For minimum girt size read upright size as a beam and purlin size is minimum girt size. (i.e. 2" x 9" upright shall have a 2" x 3" beam.
 8. All connections shall use a full lap cut.

Table 1.7 Minimum Size Screen Enclosure Knee Braces and Anchoring Required

Brace Length*	Extrusion	Anchoring System
0'-2'-0"	2" x 2" x 0.044"	2" H-Channel With (3) #10 x 1/2" each leg of channel
0'-3'-0"	2" x 3" x 0.045"	2" H-Channel With (3) #10 x 1/2" each leg of channel
Up to 6'-0"	2" x 4" x 0.045" x 0.100"	2" H-Channel With (4) #10 x 1/2" each leg of channel

*Knee brace length shall be the horizontal and vertical length @ a 45° angle from the center of the connection to the face of the beam or upright.
 Note:
 1. For required knee braces greater than 4'-6" contact engineer for specifications and details.
 2. Cantilever beam detail shown on page 1-40 shall be used for transition wall to host structure attachment when knee brace length exceeds 6'-0".

Table 1.8 K-Bracing Fastening Schedule

Maximum Wall Width =	Number of #10 x 3/4" S.M.S. Required	Required Corner Post @ Top	Intermediate Corner Post @ Chair Rail	Plate to Sole Plate
20'-0"	2	2	4	2
30'-0"	3	3	6	2
40'-0"	4	4	8	2
50'-0"	5	5	10	3
60'-0"	6	6	12	3

*Use screw sizes specified in the table below.
 Use front wall width when determining number of s.m.s. for the side wall K-bracing.
 Use side wall width when determining number of s.m.s. for the front end / or back wall K-bracing.

Wind Zone	Screw Size
90 MPH	#10
100 MPH	#10
110 MPH	#10
120 MPH	#12
130 MPH	#14
140-182 MPH	#14
150 MPH	#14

Table 1.11 Maximum Overhang for Rafter / Truss Tails when Connected to Screen Roof

20' Max. Enclosure Span (Wind Zone)	Wind Pressure (#SF)	Rafter / Truss Tail #2 Span / bending (b) or deflection (d)	2x4	2x6	2x8	2x10	2x12
100-110	4	2'-2" b	5'-4" b	6'-3" b	7'-5" b	8'-10" b	9'-10" b
120	4.3	2'-2" b	5'-4" b	6'-3" b	7'-5" b	8'-10" b	9'-10" b
130	5	1'-2" b	2'-10" b	3'-4" b	4'-11" b	5'-10" b	6'-11" b
140	6	0'-11" b	2'-4" b	3'-1" b	3'-6" b	4'-1" b	4'-6" b
150	7	0'-10" b	2'-0" b	2'-6" b	3'-5" b	4'-0" b	4'-6" b
40' Max. Enclosure Span (Wind Zone)	Wind Pressure (#SF)	Rafter / Truss Tail #2 Span / bending (b) or deflection (d) <td>2x4</td> <td>2x6</td> <td>2x8</td> <td>2x10</td> <td>2x12</td>	2x4	2x6	2x8	2x10	2x12
100-110	4	1'-5" b	3'-7" b	4'-7" b	5'-10" b	6'-10" b	7'-10" b
120	4.3	1'-5" b	3'-7" b	4'-7" b	5'-10" b	6'-10" b	7'-10" b
130	5	1'-4" b	3'-4" b	4'-2" b	5'-0" b	5'-10" b	6'-10" b
140	6	1'-2" b	2'-10" b	3'-4" b	4'-11" b	5'-10" b	6'-11" b
150	7	0'-11" b	2'-4" b	3'-1" b	3'-6" b	4'-1" b	4'-6" b
40' Max. Enclosure Span (Wind Zone)	Wind Pressure (#SF)	Rafter / Truss Tail #2 Span / bending (b) or deflection (d) <td>2x4</td> <td>2x6</td> <td>2x8</td> <td>2x10</td> <td>2x12</td>	2x4	2x6	2x8	2x10	2x12
100-110	4	1'-1" b	2'-8" b	3'-7" b	4'-7" b	5'-10" b	6'-10" b
120	4.3	1'-1" b	2'-8" b	3'-7" b	4'-7" b	5'-10" b	6'-10" b
130	5	0'-10" b	2'-6" b	3'-4" b	4'-11" b	5'-10" b	6'-11" b
140	6	0'-9" b	2'-6" b	3'-4" b	4'-11" b	5'-10" b	6'-11" b
150	7	0'-7" b	2'-4" b	3'-1" b	3'-6" b	4'-1" b	4'-6" b

1. For overhangs with spans that exceed those listed above site specific engineering is required. If truss bottom cord extends more than 24" over the wall site specific engineering is required.
 2. To convert from exposure 'B' spans to 'C' or 'D' exposure spans see multipliers and example Table 1.8 on page 3.
 Example:
 For a pool enclosure with 30' max. beam span, in a 123 MPH wind zone, 'B' exposure, For 2 x 6 rafter / truss the max overhang from the wall of the host structure to the sub-facade is 3'-4".

Table 1.9.1 Allowable Beam Spans Town & Country Industries, Inc. Aluminum Alloy 6005 T-5

Allowable Span L / Point Load (P) or Uniform Load (U) bending (b) or deflection (d)	3'-0"	4'-0"	5'-0"	6'-0"	8'-0"	9'-0"
2" x 2" x 0.040"	16'-0" b	14'-0" b	12'-0" b	10'-0" b	8'-0" b	7'-0" b
2" x 3" x 0.045"	18'-0" b	16'-0" b	14'-0" b	12'-0" b	10'-0" b	9'-0" b
2" x 4" x 0.050"	20'-0" b	18'-0" b	16'-0" b	14'-0" b	12'-0" b	11'-0" b
2" x 5" x 0.050"	22'-0" b	20'-0" b	18'-0" b	16'-0" b	14'-0" b	13'-0" b
2" x 6" x 0.050"	24'-0" b	22'-0" b	20'-0" b	18'-0" b	16'-0" b	15'-0" b
2" x 7" x 0.050"	26'-0" b	24'-0" b	22'-0" b	20'-0" b	18'-0" b	17'-0" b
2" x 8" x 0.050"	28'-0" b	26'-0" b	24'-0" b	22'-0" b	20'-0" b	19'-0" b
2" x 9" x 0.050"	30'-0" b	28'-0" b	26'-0" b	24'-0" b	22'-0" b	21'-0" b
2" x 10" x 0.050"	32'-0" b	30'-0" b	28'-0" b	26'-0" b	24'-0" b	23'-0" b
2" x 10" x 0.092" x 0.374"	39'-11" b	37'-0" b	35'-0" b	33'-0" b	31'-0" b	30'-0" b

Note:
 1. Thicknesses shown are "nominal" industry standard tolerances. No wall thickness shall be less than 0.040".
 2. The structures Uniformed using this section shall be limited to a maximum combined span and upright height of 50' and a maximum upright height of 16'. Structures larger than these limits shall have site specific engineering.
 3. Spans are measured from center of beam and upright connection to fascia or wall connection.
 4. Above spans do not include length of knee brace. Add horizontal distance from upright to center of brace to beam connection to the above spans for total beam spans.
 5. Tables are based on a maximum wall height of 16' including a 4' max. mansard or gable.
 6. Spans may be interpolated.
 7. To convert spans to 'C' and 'D' exposure categories see exposure multipliers and example on Table 1.8 Page 3.
 Example: Max. 'L' for 2" x 4" x 0.050" hollow section with 'W' = 5'-0" = 10'-10"

Table 1.9.2 Allowable Purlin Spans Town & Country Industries, Inc. Aluminum Alloy 6005 T-5

Allowable Span L / Point Load (P) or Uniform Load (U) bending (b) or deflection (d)	3'-0"	4'-0"	5'-0"	6'-0"	8'-0"	9'-0"
2" x 2" x 0.044"	14'-0" b	12'-0" b	10'-0" b	8'-0" b	6'-0" b	5'-0" b
2" x 3" x 0.045"	16'-0" b	14'-0" b	12'-0" b	10'-0" b	8'-0" b	7'-0" b
2" x 4" x 0.045"	18'-0" b	16'-0" b	14'-0" b	12'-0" b	10'-0" b	9'-0" b
2" x 5" x 0.045"	20'-0" b	18'-0" b	16'-0" b	14'-0" b	12'-0" b	11'-0" b
2" x 6" x 0.045"	22'-0" b	20'-0" b	18'-0" b	16'-0" b	14'-0" b	13'-0" b
2" x 7" x 0.045"	24'-0" b	22'-0" b	20'-0" b	18'-0" b	16'-0" b	15'-0" b
2" x 8" x 0.045"	26'-0" b	24'-0" b	22'-0" b	20'-0" b	18'-0" b	17'-0" b
2" x 9" x 0.045"	28'-0" b	26'-0" b	24'-0" b	22'-0" b	20'-0" b	19'-0" b
2" x 10" x 0.045"	30'-0" b	28'-0" b	26'-0" b	24'-0" b	22'-0" b	21'-0" b
2" x 10" x 0.092" x 0.374"	39'-11" b	37'-0" b	35'-0" b	33'-0" b	31'-0" b	30'-0" b

Note:
 1. Thicknesses shown are "nominal" industry standard tolerances. No wall thickness shall be less than 0.040".
 2. The structures Uniformed using this section shall be limited to a maximum combined span and upright height of 50' and a maximum upright height of 16'. Structures larger than these limits shall have site specific engineering.
 3. Spans are measured from center of beam and upright connection to fascia or wall connection.
 4. Above spans do not include length of knee brace. Add horizontal distance from upright to center of brace to beam connection to the above spans for total beam spans.
 5. Tables are based on a maximum wall height of 16' including a 4' max. mansard or gable.
 6. Spans may be interpolated.
 7. To convert spans to 'C' and 'D' exposure categories see exposure multipliers and example on Table 1.8 Page 3.
 Example: Max. 'L' for 2" x 4" x 0.050" hollow section with 'W' = 5'-0" = 8'-10"

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ALUMINUM STRUCTURES DESIGN MANUAL
 SCREEN ENCLOSURES
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 WITH 2009 SUPPLEMENTS - 2009 EDITION

Town & Country INDUSTRIES, INC.
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MOMENT CONNECTION TABLES CAN ONLY BE USED IN CONJUNCTION WITH ONE OF THE MOMENT CONNECTION DETAILS ON PAGE 18A

Table 1.1M 110 Moment Connection Allowable Beam Spans Town & Country Industries, Inc. Aluminum Alloy 6005 T-5

For Wind Zones up to 110 M.P.H., Exposure "B" and Latitudes Below 30°-30'-00" North (Jacksonville, FL)
Uniform Load = 4 #/SF, a Point Load of 300 MSF over (1) linear ft. is also considered

Hollow Sections	Tributary Load Width "W" = Beam Spacing			
	3'-0"	4'-0"	5'-0"	6'-0"
2" x 2" x 0.044"	7'-3"	7'-3"	7'-3"	7'-3"
2" x 3" x 0.045"	9'-2"	9'-2"	9'-2"	9'-2"
2" x 4" x 0.050"	13'-6"	13'-6"	13'-6"	13'-6"
2" x 4" x 0.050"	16'-7"	16'-7"	16'-7"	16'-7"
2" x 4" x 0.045"	18'-5"	18'-5"	18'-5"	18'-5"

1. Thicknesses shown are "nominal" industry standard tolerances. No wall thickness shall be less than 0.040".
2. The structures designed using this section shall be limited to a maximum combined span and upright height of 50' and a maximum upright height of 16'. Structures larger than these limits shall have site specific engineering.
3. Above spans do not include length of knee brace. Add horizontal distance from upright to center of brace to beam connection to the above spans for total beam spans.
4. Tables are based on a maximum wall height of 16' including a 4' max. mansard or gable.
5. Spans may be interrupted.
6. To convert spans to "C" and "D" exposure categories see exposure multipliers and example on Table 18 Page 3.
7. Moment connections and moment tables can not be used in solid / screen roof combination enclosures or any connection that requires a knee brace such as in a dome roof.

Table 1.3M 110 Moment Connection Allowable Post / Upright Heights Town & Country Industries, Inc. Aluminum Alloy 6005 T-5

For 3 second wind gust at a velocity of 110 MPH, Exposure "B" or an applied load of 13 #/sq. ft.

Hollow Sections	Tributary Load Width "W" = Upright Spacing			
	3'-0"	4'-0"	5'-0"	6'-0"
2" x 2" x 0.044"	10'-4"	10'-4"	10'-4"	10'-4"
2" x 3" x 0.045"	12'-4"	12'-4"	12'-4"	12'-4"
2" x 4" x 0.050"	14'-3"	14'-3"	14'-3"	14'-3"
2" x 4" x 0.050"	14'-9"	14'-9"	14'-9"	14'-9"

1. Thicknesses shown are "nominal" industry standard tolerances. No wall thickness shall be less than 0.040".
2. Using screen panel width "W" select upright length "H".
3. Above spans do not include length of knee brace. Add vertical distance from upright to center of brace to beam connection to the above spans for total beam spans.
4. Site specific engineering required for pool enclosures over 30' in mean roof height.
5. Span is to be measured from center of beam and upright connection to fascia or wall connection.
6. Chair rails of 2" x 2" x 0.044" min. and set @ 36" in height are designed to be residential guardrails provided they are attached with min. (3) #10 x 1-1/2" S.M.S. into the screw bosses and do not exceed 8'-0" in span.
7. Maximum beam size for 2" x 5" is a 2" x 4" x 0.050" x 0.120"
8. Spans may be interrupted.
9. To convert spans to "C" and "D" exposure categories see exposure multipliers and example on Table 18 Page 3.

Table 1.6A Moment Connection Minimum Upright Sizes and Number of Screws for Connection of Roof Beams To Wall Uprights or Beam Splicing

Beam Size	Minimum Upright Size	Minimum Purin Size	Girt & Knee Brace Size	Minimum Number of Screws*	Beam Splicing Screws & Spacing
2" x 3" x 0.045" Hollow	2" x 3" x 0.045" Hollow	2" x 2" x 0.044" Hollow	2" x 2" x 0.044" Hollow	8	8 @ 24" O.C.
2" x 4" x 0.050" Hollow	2" x 3" x 0.045" Hollow	2" x 2" x 0.044" Hollow	2" x 2" x 0.044" Hollow	8	8 @ 24" O.C.
2" x 4" x 0.045" Hollow	2" x 3" x 0.045" Hollow	2" x 2" x 0.044" Hollow	2" x 2" x 0.044" Hollow	8	8 @ 24" O.C.
2" x 6" x 0.050" x 0.120" S.M.B.	2" x 4" Hollow or S.M.B.	2" x 2" x 0.044" Hollow	2" x 2" x 0.044" Hollow	10	#10 @ 24" O.C.
2" x 7" x 0.055" x 0.120" S.M.B.	2" x 4" Hollow or S.M.B.	2" x 2" x 0.044" Hollow	2" x 2" x 0.044" Hollow	14	#14 @ 24" O.C.
2" x 8" x 0.062" x 0.120" S.M.B.	2" x 6" x 0.050" x 0.120" S.M.B.	2" x 2" x 0.044" Hollow	2" x 2" x 0.044" Hollow	16	#16 @ 24" O.C.
2" x 9" x 0.072" x 0.224" S.M.B.	2" x 6" x 0.050" x 0.120" S.M.B.	2" x 3" x 0.045" Hollow	2" x 2" x 0.044" Hollow	18	#18 @ 16" O.C.
2" x 10" x 0.092" x 0.314" S.M.B.	2" x 8" x 0.062" x 0.306" S.M.B.	2" x 4" Hollow or S.M.B.	2" x 2" x 0.044" Hollow	20	#14 @ 16" O.C.

- * Refers to each side of the connection of the beam and upright and each side of splice connection.
- Connection Example: 2" x 7" beam & 2" x 5" at beam & gusset plate, (14) #8 x 1/2" sms & upright & gusset plate (14) #8 x 1/2" sms ea. side of beam & upright.
1. Connection of 2" x 6" to 2" x 3" shall use a full lap cut or 1/16" gusset plate.
 2. For beam splice connections the number of screws shown is the total for each splice with 1/2 the screws on each side of the cut.
 3. The number of deck anchors is based on RAVM, R1 upper allowable load data for 2500 psi concrete and / or equal anchors may be used. The number shown is the total use 1/2 per side.
 4. Hollow splice connections can be made provided the connection is approved by the engineer.
 5. If a larger than minimum upright is used the number of screws is the same for each splice with 1/2 the screws on each side of the cut.
 6. All beams to upright connections for 2" x 7" beams or larger shall have an internal gusset plate except when a knee brace is used at the connection.
 7. For gusset plate required for 2" x 9" beams or larger use 3/4" long screws.
 8. The slide wall upright shall have a minimum beam size as shown above, i.e., a 2" x 4" upright shall have a 2" x 3" beam.
 9. For minimum girt size read upright size as a beam and purin size is minimum girt size, (i.e., 2" x 9" x 0.072" x 0.224" s.m.b. w/ 2" x 6" x 0.050" x 0.120" s.m.b. upright requires a 2" x 3" x 0.045" girt / chair rail).

Table 1.9.1M Moment Connection Allowable Spans for Primary Screen Roof Frame Members Town & Country Industries, Inc. Aluminum Alloy 6005 T-5

For areas with wind loads up to 130 M.P.H., Exposure "B" and latitudes above 30°-30'-00" North (Jacksonville, Florida)
Uniform Load on Screen = 15 #/SF Point Load is Considered over (1) LF of Beam

Hollow Sections	Tributary Load Width "W" = Beam Spacing			
	3'-0"	4'-0"	5'-0"	6'-0"
2" x 2" x 0.044"	7'-3"	7'-3"	7'-3"	7'-3"
2" x 3" x 0.045"	9'-2"	9'-2"	9'-2"	9'-2"
2" x 4" x 0.050"	13'-6"	13'-6"	13'-6"	13'-6"
2" x 4" x 0.050"	16'-7"	16'-7"	16'-7"	16'-7"

1. Thicknesses shown are "nominal" industry standard tolerances. No wall thickness shall be less than 0.040".
2. The structures designed using this section shall be limited to a maximum combined span and upright height of 50' and a maximum upright height of 16'. Structures larger than these limits shall have site specific engineering.
3. Spans measured from center of beam and upright connection to fascia or wall connection.
4. Above spans do not include length of knee brace. Add horizontal distance from upright to center of brace to beam connection to the above spans for total beam spans.
5. Tables are based on a maximum wall height of 16' including a 4' max. mansard or gable.
6. Spans may be interrupted.
7. To convert spans to "C" and "D" exposure categories see exposure multipliers and example on Table 18 Page 3.

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ALUMINUM STRUCTURES DESIGN MANUAL
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Table 1.10a 110 T
6005 TCI

For Areas in Wind Zones of 110 M.P.H., Exposure "B" or Less and Latitudes Below 30°-30'-00" North
 Uniform Load on Screen = 4 #/SF, Solid Roof = 23.2 #/SF and 300# Point Load is Considered over (1) LF of Beam
5" Super Gutter and Self Mating Beam

Single Self-Mating Beams	Tributary Load Width							
	10'-0"	12'-0"	14'-0"	16'-0"	18'-0"	20'-0"	22'-0"	24'-0"
2" x 6" x 0.050" x 0.100"	11-11" UB	11-8" UB	11-5" UB	11-2" UB	10-11" UB	10-8" UB	10-5" UB	10-2" UB
2" x 6" x 0.050" x 0.120"	12-6" UB	12-2" UB	11-11" UB	11-7" UB	11-4" UB	11-2" UB	10-11" UB	10-1" UB
2" x 7" x 0.055" x 0.120"	12-11" UB	12-4" UB	12-4" UB	12-2" UB	11-10" UB	11-7" UB	11-4" UB	11-2" UB
2" x 8" x 0.072" x 0.224"	18-2" UB	17-8" UB	17-3" UB	16-11" UB	16-6" UB	16-2" UB	15-10" UB	15-5" UB
2" x 8" x 0.072" x 0.204"	19-2" UB	18-8" UB	18-3" UB	17-10" UB	17-5" UB	17-1" UB	16-9" UB	16-5" UB
2" x 8" x 0.082" x 0.326"	23-1" UB	22-6" UB	21-11" UB	21-5" UB	21-0" UB	20-7" UB	20-2" UB	19-9" UB
2" x 10" x 0.090" x 0.374"	27-4" UB	26-8" UB	26-0" UB	25-5" UB	25-1" UB	24-4" UB	23-11" UB	23-5" UB

Note:
 1. If the solid panel is greater or less than 10'-0", then the 1/2 the allowable screen roof beam span shall be adjusted by the factor of 4-2 x 1/2 (the solid roof panel span difference between the actual and 10'-0"). The adjustment to the allowable screen roof panel width is applied as a plus if the solid roof panel is larger than 10'-0" and minus if the solid roof panel is smaller than 10'-0".
 2. For span of "L" of beam, use screen panel width "W" from drawing.
 3. Load span = 1/2 of screen beam length + 1/2 of solid roof span.
 4. Spans may be interpolated.
 5. For minimum beam to upright sizes use Table 2.3
 6. To convert spans to "C" and "D" exposure categories see exposure multipliers and example on page 1-4.

Table 1.10a 120 T
6005 TCI

For Areas in Wind Zones of 120 M.P.H., Exposure "B" or Less and Latitudes Below 30°-30'-00" North
 Uniform Load on Screen = 4 #/SF, Solid Roof = 27.4 #/SF and 300# Point Load is Considered over (1) LF of Beam
5" Super Gutter and Self Mating Beam

Single Self-Mating Beams	Tributary Load Width							
	10'-0"	12'-0"	14'-0"	16'-0"	18'-0"	20'-0"	22'-0"	24'-0"
2" x 6" x 0.050" x 0.100"	11-3" UB	10-11" UB	10-9" UB	10-7" UB	10-4" UB	10-2" UB	9-11" UB	9-5" UB
2" x 6" x 0.050" x 0.120"	11-9" UB	11-6" UB	11-3" UB	11-0" UB	10-8" UB	10-7" UB	10-5" UB	10-2" UB
2" x 7" x 0.055" x 0.120"	12-2" UB	11-11" UB	11-8" UB	11-5" UB	11-3" UB	11-0" UB	10-10" UB	10-2" UB
2" x 8" x 0.072" x 0.224"	17-0" UB	16-8" UB	16-4" UB	15-10" UB	15-6" UB	15-5" UB	15-1" UB	14-5" UB
2" x 8" x 0.072" x 0.204"	17-11" UB	17-7" UB	17-2" UB	16-10" UB	15-6" UB	15-3" UB	15-1" UB	14-5" UB
2" x 8" x 0.082" x 0.326"	21-6" UB	21-2" UB	20-9" UB	20-4" UB	19-11" UB	19-7" UB	19-2" UB	18-9" UB
2" x 10" x 0.090" x 0.374"	25-6" UB	25-1" UB	24-7" UB	24-1" UB	23-7" UB	23-2" UB	22-9" UB	22-5" UB

Note:
 1. If the solid panel is greater or less than 10'-0", then the 1/2 the allowable screen roof beam span shall be adjusted by the factor of 4-2 x 1/2 (the solid roof panel span difference between the actual and 10'-0"). The adjustment to the allowable screen roof panel width is applied as a plus if the solid roof panel is larger than 10'-0" and minus if the solid roof panel is smaller than 10'-0".
 2. For span of "L" of beam, use screen panel width "W" from drawing.
 3. Load span = 1/2 of screen beam length + 1/2 of solid roof span.
 4. Spans may be interpolated.
 5. For minimum beam to upright sizes use Table 2.3
 6. To convert spans to "C" and "D" exposure categories see exposure multipliers and example on page 1-4.

Table 1.10a 130 T
6005 TCI

For Areas in Wind Zones of 130 M.P.H., Exposure "B" or Less and Latitudes Below 30°-30'-00" North
 Uniform Load on Screen = 5 #/SF, Solid Roof = 32.2 #/SF and 300# Point Load is Considered over (1) LF of Beam
5" Super Gutter and Self Mating Beam

Single Self-Mating Beams	Tributary Load Width							
	10'-0"	12'-0"	14'-0"	16'-0"	18'-0"	20'-0"	22'-0"	24'-0"
2" x 6" x 0.050" x 0.100"	10-7" UB	10-4" UB	10-2" UB	9-11" UB	9-10" UB	9-8" UB	9-6" UB	9-4" UB
2" x 6" x 0.050" x 0.120"	10-11" UB	10-9" UB	10-7" UB	10-5" UB	10-3" UB	10-1" UB	9-11" UB	9-9" UB
2" x 7" x 0.055" x 0.120"	11-5" UB	11-3" UB	11-0" UB	10-10" UB	10-8" UB	10-5" UB	10-3" UB	10-1" UB
2" x 8" x 0.072" x 0.224"	15-11" UB	15-8" UB	15-5" UB	15-1" UB	14-7" UB	14-4" UB	14-2" UB	14-1" UB
2" x 8" x 0.072" x 0.204"	16-10" UB	15-8" UB	15-5" UB	15-1" UB	14-7" UB	14-4" UB	14-2" UB	14-1" UB
2" x 8" x 0.082" x 0.326"	20-4" UB	19-1" UB	18-7" UB	18-10" UB	17-7" UB	17-4" UB	17-1" UB	16-8" UB
2" x 10" x 0.090" x 0.374"	24-1" UB	23-7" UB	23-2" UB	22-9" UB	22-4" UB	21-11" UB	21-7" UB	21-3" UB

Note:
 1. If the solid panel is greater or less than 10'-0", then the 1/2 the allowable screen roof beam span shall be adjusted by the factor of 4-2 x 1/2 (the solid roof panel span difference between the actual and 10'-0"). The adjustment to the allowable screen roof panel width is applied as a plus if the solid roof panel is larger than 10'-0" and minus if the solid roof panel is smaller than 10'-0".
 2. For span of "L" of beam, use screen panel width "W" from drawing.
 3. Load span = 1/2 of screen beam length + 1/2 of solid roof span.
 4. Spans may be interpolated.
 5. For minimum beam to upright sizes use Table 2.3
 6. To convert spans to "C" and "D" exposure categories see exposure multipliers and example on page 1-4.

Table 1.10a 140 T
6005 TCI

For Areas in Wind Zones of 140-142 M.P.H., Exposure "B" or Less and Latitudes Below 30°-30'-00" North
 Uniform Load on Screen = 6 #/SF, Solid Roof = 37.3 #/SF and 300# Point Load is Considered over (1) LF of Beam
5" Super Gutter and Self Mating Beam

Single Self-Mating Beams	Tributary Load Width							
	10'-0"	12'-0"	14'-0"	16'-0"	18'-0"	20'-0"	22'-0"	24'-0"
2" x 6" x 0.050" x 0.100"	9-11" UB	9-9" UB	9-7" UB	9-5" UB	9-4" UB	9-2" UB	9-0" UB	8-11" UB
2" x 6" x 0.050" x 0.120"	10-4" UB	10-2" UB	10-0" UB	9-10" UB	9-8" UB	9-7" UB	9-5" UB	9-3" UB
2" x 7" x 0.055" x 0.120"	10-9" UB	10-7" UB	10-5" UB	10-3" UB	10-1" UB	9-11" UB	9-9" UB	9-7" UB
2" x 8" x 0.072" x 0.224"	15-1" UB	14-9" UB	14-7" UB	14-4" UB	14-1" UB	13-11" UB	13-8" UB	13-6" UB
2" x 8" x 0.072" x 0.204"	15-11" UB	15-7" UB	15-4" UB	15-1" UB	14-10" UB	14-6" UB	14-5" UB	14-3" UB
2" x 8" x 0.082" x 0.326"	18-2" UB	18-0" UB	17-8" UB	17-5" UB	17-1" UB	17-0" UB	16-8" UB	16-6" UB
2" x 10" x 0.090" x 0.374"	22-8" UB	22-3" UB	21-11" UB	21-7" UB	21-3" UB	20-11" UB	20-7" UB	20-5" UB

Note:
 1. If the solid panel is greater or less than 10'-0", then the 1/2 the allowable screen roof beam span shall be adjusted by the factor of 4-2 x 1/2 (the solid roof panel span difference between the actual and 10'-0"). The adjustment to the allowable screen roof panel width is applied as a plus if the solid roof panel is larger than 10'-0" and minus if the solid roof panel is smaller than 10'-0".
 2. For span of "L" of beam, use screen panel width "W" from drawing.
 3. Load span = 1/2 of screen beam length + 1/2 of solid roof span.
 4. Spans may be interpolated.
 5. For minimum beam to upright sizes use Table 2.3
 6. To convert spans to "C" and "D" exposure categories see exposure multipliers and example on page 1-4.

Table 1.10b 110 T
6005 TCI

For Areas in Wind Zones of 110 M.P.H., Exposure "B" or Less and Latitudes Below 30°-30'-00" North
 Uniform Load on Screen = 4 #/SF, Solid Roof = 23.2 #/SF and 300# Point Load is Considered over (1) LF of Beam
7" Super Gutter and Self Mating Beam

Single Self-Mating Beams	Tributary Load Width							
	10'-0"	12'-0"	14'-0"	16'-0"	18'-0"	20'-0"	22'-0"	24'-0"
2" x 7" x 0.055" x 0.120"	15-5" UB	15-1" UB	14-9" UB	14-5" UB	14-1" UB	13-9" UB	13-5" UB	13-1" UB
2" x 8" x 0.072" x 0.224"	18-4" UB	18-1" UB	18-0" UB	17-7" UB	17-3" UB	17-0" UB	16-7" UB	16-2" UB
2" x 8" x 0.072" x 0.204"	20-5" UB	19-11" UB	18-6" UB	18-1" UB	17-8" UB	17-4" UB	17-1" UB	16-7" UB
2" x 8" x 0.082" x 0.326"	24-4" UB	23-9" UB	23-2" UB	22-8" UB	22-4" UB	21-9" UB	21-4" UB	20-11" UB
2" x 10" x 0.090" x 0.374"	27-1" UB	27-0" UB	26-5" UB	26-0" UB	25-5" UB	25-2" UB	24-8" UB	24-2" UB

Note:
 1. If the solid panel is greater or less than 10'-0", then the 1/2 the allowable screen roof beam span shall be adjusted by the factor of 4-2 x 1/2 (the solid roof panel span difference between the actual and 10'-0"). The adjustment to the allowable screen roof panel width is applied as a plus if the solid roof panel is larger than 10'-0" and minus if the solid roof panel is smaller than 10'-0".
 2. For span of "L" of beam, use screen panel width "W" from drawing.
 3. Load span = 1/2 of screen beam length + 1/2 of solid roof span.
 4. Spans may be interpolated.
 5. For minimum beam to upright sizes use Table 2.3
 6. To convert spans to "C" and "D" exposure categories see exposure multipliers and example on page 1-4.

Table 1.10b 120 T
6005 TCI

For Areas in Wind Zones of 120 M.P.H., Exposure "B" or Less and Latitudes Below 30°-30'-00" North
 Uniform Load on Screen = 4 #/SF, Solid Roof = 27.4 #/SF and 300# Point Load is Considered over (1) LF of Beam
7" Super Gutter and Self Mating Beam

Single Self-Mating Beams	Tributary Load Width							
	10'-0"	12'-0"	14'-0"	16'-0"	18'-0"	20'-0"	22'-0"	24'-0"
2" x 7" x 0.055" x 0.120"	14-6" UB	14-2" UB	13-11" UB	13-7" UB	13-3" UB	13-1" UB	12-10" UB	12-10" UB
2" x 8" x 0.072" x 0.224"	18-6" UB	18-4" UB	18-2" UB	17-11" UB	17-7" UB	17-3" UB	17-0" UB	16-2" UB
2" x 8" x 0.072" x 0.204"	19-6" UB	19-3" UB	18-9" UB	18-0" UB	17-6" UB	17-2" UB	17-0" UB	16-3" UB
2" x 8" x 0.082" x 0.326"	22-1" UB	22-5" UB	22-1" UB	21-9" UB	21-5" UB	21-1" UB	20-9" UB	20-3" UB
2" x 10" x 0.090" x 0.374"	26-4" UB	26-1" UB	25-4" UB	24-10" UB	24-4" UB	23-11" UB	23-6" UB	23-2" UB

Note:
 1. If the solid panel is greater or less than 10'-0", then the 1/2 the allowable screen roof beam span shall be adjusted by the factor of 4-2 x 1/2 (the solid roof panel span difference between the actual and 10'-0"). The adjustment to the allowable screen roof panel width is applied as a plus if the solid roof panel is larger than 10'-0" and minus if the solid roof panel is smaller than 10'-0".
 2. For span of "L" of beam, use screen panel width "W" from drawing.
 3. Load span = 1/2 of screen beam length + 1/2 of solid roof span.
 4. Spans may be interpolated.
 5. For minimum beam to upright sizes use Table 2.3
 6. To convert spans to "C" and "D" exposure categories see exposure multipliers and example on page 1-4.

Table 1.10b 130 T
6005 TCI

For Areas in Wind Zones of 130 M.P.H., Exposure "B" or Less and Latitudes Below 30°-30'-00" North
 Uniform Load on Screen = 5 #/SF, Solid Roof = 32.2 #/SF and 300# Point Load is Considered over (1) LF of Beam
7" Super Gutter and Self Mating Beam

Single Self-Mating Beams	Tributary Load Width							
	10'-0"	12'-0"	14'-0"	16'-0"	18'-0"	20'-0"	22'-0"	24'-0"
2" x 7" x 0.055" x 0.120"	13-7" UB	13-4" UB	13-1" UB	12-10" UB	12-6" UB	12-3" UB	12-3" UB	12-0" UB
2" x 8" x 0.072" x 0.224"	17-7" UB	17-3" UB	16-11" UB	16-7" UB	16-4" UB	16-1" UB	15-10" UB	15-7" UB
2" x 8" x 0.072" x 0.204"	18-0" UB	17-8" UB	17-4" UB	17-0" UB	16-9" UB	16-5" UB	16-2" UB	15-11" UB
2" x 8" x 0.082" x 0.326"	21-6" UB	21-1" UB	20-8" UB	19-11" UB	19-7" UB	19-3" UB	19-3" UB	18-11" UB
2" x 10" x 0.090" x 0.374"	24-1" UB	24-4" UB	23-11" UB	23-1" UB	22-9" UB	22-4" UB	22-4" UB	21-11" UB

Note:
 1. If the solid panel is greater or less than 10'-0", then the 1/2 the allowable screen roof beam span shall be adjusted by the factor of 4-2 x 1/2 (the solid roof panel span difference between the actual and 10'-0"). The adjustment to the allowable screen roof panel width is applied as a plus if the solid roof panel is larger than 10'-0" and minus if the solid roof panel is smaller than 10'-0".
 2. For span of "L" of beam, use screen panel width "W" from drawing.
 3. Load span = 1/2 of screen beam length + 1/2 of solid roof span.
 4. Spans may be interpolated.
 5. For minimum beam to upright sizes use Table 2.3
 6. To convert spans to "C" and "D" exposure categories see exposure multipliers and example on page 1-4.

Table 1.10b 140 T
6005 TCI

For Areas in Wind Zones of 140-142 M.P.H., Exposure "B" or Less and Latitudes Below 30°-30'-00" North
 Uniform Load on Screen = 6 #/SF, Solid Roof = 37.3 #/SF and 300# Point Load is Considered over (1) LF of Beam
7" Super Gutter and Self Mating Beam

Single Self-Mating Beams	Tributary Load Width							
	10'-0"	12'-0"	14'-0"	16'-0"	18'-0"	20'-0"	22'-0"	24'-0"
2" x 7" x 0.055" x 0.120"	12-10" UB	12-7" UB	12-5" UB	12-2" UB	12-0" UB	11-9" UB	11-8" UB	11-5" UB
2" x 8" x 0.072" x 0.224"	16-7" UB	16-3" UB	16-0" UB	15-9" UB	15-6" UB	15-3" UB	15-1" UB	14-10" UB
2" x 8" x 0.072" x 0.204"	16-11" UB	16-8" UB	16-5" UB	16-2" UB	15-11" UB	15-8" UB	15-5" UB	15-2" UB
2" x 8" x 0.082" x 0.326"	20-3" UB	19-1" UB	19-7" UB	19-3" UB	18-11" UB	18-8" UB	18-4" UB	18-1" UB
2" x 10" x 0.090" x 0.374"	23-3" UB	23-0" UB	22-7" UB	22-3" UB	21-11" UB	21-7" UB	21-3" UB	20-11" UB

Note:
 1. If the solid panel is greater or less than 10'-0", then the 1/2 the allowable screen roof beam span shall be adjusted by the factor of 4-2 x 1/2 (the solid roof panel span difference between the actual and 10'-0"). The adjustment to the allowable screen roof panel width is applied as a plus if the solid roof panel is larger than 10'-0" and minus if the solid roof panel is smaller than 10'-0".
 2. For span of "L" of beam, use screen panel width "W" from drawing.
 3. Load span = 1/2 of screen beam length + 1/2 of solid roof span.
 4. Spans may be interpolated.
 5. For minimum beam to upright sizes use Table 2.3
 6. To convert spans to "C" and "D" exposure categories see exposure multipliers and example on page 1-4.


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Table 2.1

Allowable Attachable Roof Area per Post

Wind Zone =	100 MPH	110 MPH	120 MPH	130 MPH	140-1 MPH	140-2 MPH	150 MPH
Applied Load (#/SF) =	16.6 #/ft ²	17.7 #/ft ²	21.1 #/ft ²	22.2 #/ft ²	24.8 #/ft ²	26.7 #/ft ²	30.9 #/ft ²
Height	7'-0"	8'-6"	10'-0"	11'-6"	13'-0"	14'-6"	16'-0"
Max. Load (#)	6110	4976	3000	2170	1640	1280	1030
8'-6"	3596	2810	1700	1220	950	740	620
10'-0"	2719	1640	1030	770	600	480	410
11'-6"	2128	1280	810	600	480	380	320
13'-0"	1710	1030	690	550	440	350	300
14'-6"	1404	830	610	490	390	310	260
16'-0"	1154	680	500	400	320	250	210
Wind Zone =	100 MPH	110 MPH	120 MPH	130 MPH	140-1 MPH	140-2 MPH	150 MPH
Applied Load (#/SF) =	16.6 #/ft ²	17.7 #/ft ²	21.1 #/ft ²	22.2 #/ft ²	24.8 #/ft ²	26.7 #/ft ²	30.9 #/ft ²
Height	7'-0"	8'-6"	10'-0"	11'-6"	13'-0"	14'-6"	16'-0"
Max. Load (#)	10680	7244	4380	3030	2260	1760	1420
8'-6"	6233	4230	2560	1780	1330	1030	860
10'-0"	3957	2580	1580	1080	810	620	520
11'-6"	3097	1970	1180	820	630	490	410
13'-0"	2489	1500	910	680	520	400	340
14'-6"	2044	1230	740	560	430	330	280
16'-0"	1677	1000	610	470	360	280	240
Wind Zone =	100 MPH	110 MPH	120 MPH	130 MPH	140-1 MPH	140-2 MPH	150 MPH
Applied Load (#/SF) =	16.6 #/ft ²	17.7 #/ft ²	21.1 #/ft ²	22.2 #/ft ²	24.8 #/ft ²	26.7 #/ft ²	30.9 #/ft ²
Height	7'-0"	8'-6"	10'-0"	11'-6"	13'-0"	14'-6"	16'-0"
Max. Load (#)	10680	7244	4380	3030	2260	1760	1420
8'-6"	6233	4230	2560	1780	1330	1030	860
10'-0"	3957	2580	1580	1080	810	620	520
11'-6"	3097	1970	1180	820	630	490	410
13'-0"	2489	1500	910	680	520	400	340
14'-6"	2044	1230	740	560	430	330	280
16'-0"	1677	1000	610	470	360	280	240

Notes:
1. Design must satisfy both height and area requirements.
2. Areas may be interpolated.

Table 2.3 Schedule of Post to Beam Size and Number of Thru-Bolts Possible w/ Min. Edge Distance of 2-1/2"

Beam Size	Minimum Post Size	Max. # Thru-Bolts @ Beam (e)			Max. # Thru-Bolts @ Post Base (Note 5)			Minimum Knee Brace Screws*** (Note 4)	Minimum Spacing
		1/4"	5/16"	3/8"	1/2"	5/8"	3/4"		
2" x 4" x 0.050" TH	2" x 3" x 0.060"	5	3	3	2	3	1	1	#8 @ 24" O.C.
2" x 4" x 0.050" Hollow	3" x 3" x 0.060"	7	5	4	3	3	3	3	#8 @ 24" O.C.
Self-Healing Beams	2" x 4" x 0.044" x 0.100"	5	4	2	2	3	2	2	#8 @ 24" O.C.
2" x 5" x 0.050" x 0.116"	3" x 3" x 0.060"	8	5	3	3	3	2	2	#10 @ 24" O.C.
2" x 6" x 0.050" x 0.120"	3" x 3" x 0.060"	8	5	3	3	3	2	2	#10 @ 24" O.C.
2" x 7" x 0.055" x 0.120"	3" x 3" x 0.060"	11	7	4	4	5	3	3	#10 @ 24" O.C.
2" x 8" x 0.062" x 0.125"	3" x 3" x 0.060"	11	7	4	4	5	3	3	#10 @ 24" O.C.
2" x 9" x 0.072" x 0.125"	3" x 3" x 0.060"	13	10	6	6	7	3	3	#14 @ 24" O.C.
2" x 9" x 0.082" x 0.130"	4" x 4" x 0.125"	13	11	6	6	7	3	3	#14 @ 24" O.C.
2" x 10" x 0.092" x 0.137"	4" x 4" x 0.125"	15	15	7	7	9	4	4	#14 @ 24" O.C.

The minimum number of thru bolts is (2)
1. * Millium post/beam may be used as minimum knee brace
2. ** For screw size see wind zone chart
3. *** For screw size see wind zone chart
4. (2) 1/4" Thru-Bolts may be substituted for screws.
5. All Thru-Bolts shall have minimum 5/8" diameter washers and lock nuts.
Example:
Number of bolts required for 120 MPH, "P" exposure, Attached (Endosed) structure, MWFRS Design Load 14 PSF
load width of post = 12", post spacing = 10", w2 = 14 PSF
Post Uplift = 12 x 10 x 14 = 1680#
From Table 2.4.1, use wall thickness of lesser member
Example: use T-wall = 0.60"
Allowable Loads # Bolts Req'd @ post base @ beam
1/4" = 468# / bolt 3.52 use 4
5/16" = 610# / bolt 2.75 use 3
3/8" = 731# / bolt 1.29 use 2
1/2" = 1004# / bolt 1.57 use 2
* These values are good for post base & beam bolts

Material Type	Top Edge In Direction Of Applied Load & Center To Center	Side Edge
Aluminum	2-1/2" D	1" D
Concrete	5" D	3" D
Wood	4" D	4" D

Knee Brace	Min. Length	Max. Length
2" x 2" x 0.044"	1'-6"	2'-0"
2" x 3" x 0.045"	1'-6"	2'-6"
2" x 4" x 0.050"	1'-6"	3'-0"

Table 2.4.1 Footings - Maximum Roof Area for Screened Enclosure One Side / Solid Roof Other Side

Wind Zone (MPH) =	100	110	120	130	140-1	140-2	150
Attached Cover Uplift** =	16.6 #/SF	17.7 #/SF	21.1 #/SF	22.2 #/SF	24.8 #/SF	26.7 #/SF	30.9 #/SF
Free Standing Uplift** =	10 #/SF	10 #/SF	11 #/SF	12 #/SF	13 #/SF	15 #/SF	17 #/SF
Existing Slab on Grade w/ unknown reinforcement in good repair	22	19	15	15	13	11	10
Dimensions**	1'-0" x 1'-0"	1'-0" x 1'-0"	1'-0" x 1'-0"	1'-0" x 1'-0"	1'-0" x 1'-0"	1'-0" x 1'-0"	1'-0" x 1'-0"
Maximum Uplift (lbs)	308	34	28	27	24	21	9
1'-0" x 1'-0" x 1'-0"	308	34	28	27	24	21	9
1'-0" x 1'-0" x 1'-6"	97	45	37	36	32	28	14
1'-6" x 1'-0" x 1'-0"	790	69	58	55	49	43	37
1'-0" x 1'-6" x 2'-0"	1,223	86	72	69	62	53	46
1'-6" x 1'-6" x 2'-0"	1,529	92	86	82	74	64	55
2'-0" x 2'-0" x 2'-0"	1,584	95	89	85	77	67	58
2'-0" x 2'-0" x 2'-6"	1,980	119	112	94	89	80	69
2'-6" x 2'-6" x 2'-6"	2,756	166	156	131	124	111	96
2'-6" x 2'-6" x 3'-0"	3,309	199	187	157	149	133	115

Notes:
1. Isolated footing is a poured concrete rectangular solid (Length x Width x Depth).
2. Slab on grade must be new or in good condition.
3. For free standing covers, multiply above roof areas by the appropriate multiplier from the table below.

Pre-Cast Block Footing

Wind Zone (MPH) =	100	110	120	130	140-1	140-2	150
Attached Cover Uplift** =	16.6 #/SF	17.7 #/SF	21.1 #/SF	22.2 #/SF	24.8 #/SF	26.7 #/SF	30.9 #/SF
Free Standing Uplift** =	10 #/SF	10 #/SF	11 #/SF	12 #/SF	13 #/SF	15 #/SF	17 #/SF
Dimensions**	(1) x 80# Bag	110	103	89	82	73	63
(2) x 80# Bag	1,819	115	108	90	86	77	66
(3) x 80# Bag	1,904	115	108	90	86	77	66

Note: Maximum uplift on post is determined by multiplying maximum attributable roof area x applied load.
Example: Post tributary roof area = 77'. Applied load for 110 MPH wind zone = 24#/#sq. Ft., Uplift on post = 77 x 24 = 1,848#

Roof Area Conversion Multipliers

Wind Zone	100	110	120	130	140-1	140-2	150
Roof Area Multiplier	1.00	1.05	1.13	1.36	1.48	1.56	1.00



NOTE:
*POST SET IN CONCRETE OR ANY ALUMINUM THAT WILL COME IN CONTACT WITH PRESSURE TREATED WOOD SHALL HAVE ONE OF THE FOLLOWING VAPOR BARRIERS:
1. PEAL AND SEAL OR OTHER WATER SEAL TAPE.
2. COVERED IN 0.006 MIL- 15 # FELT PAPER PLASTIC
3. PAINTED WITH ROOFING CEMENT

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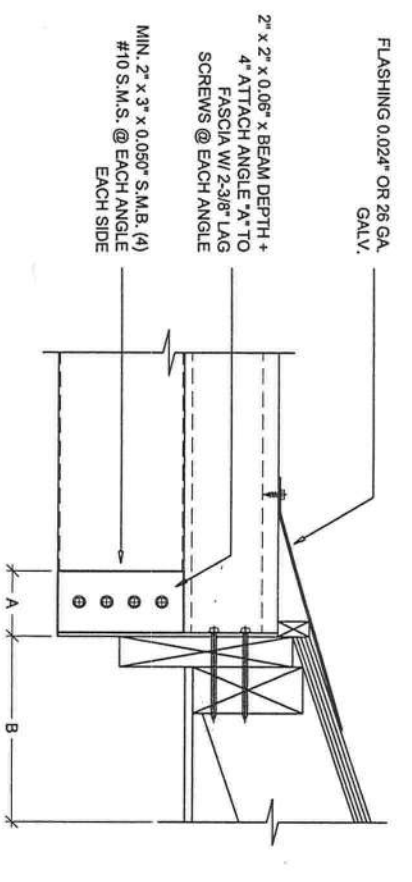
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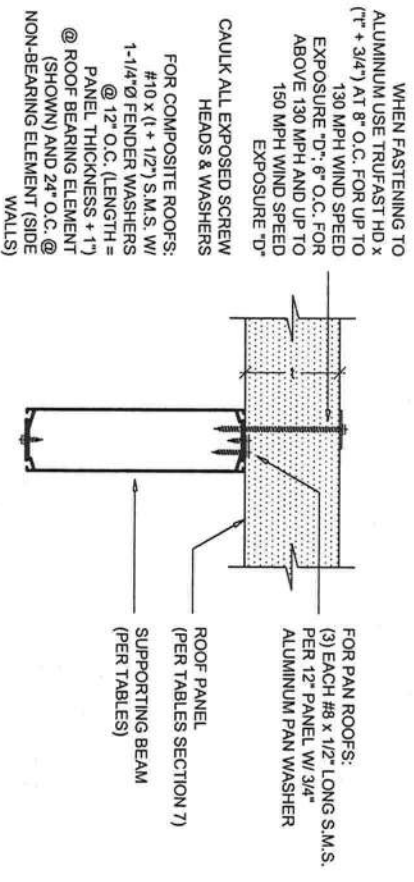
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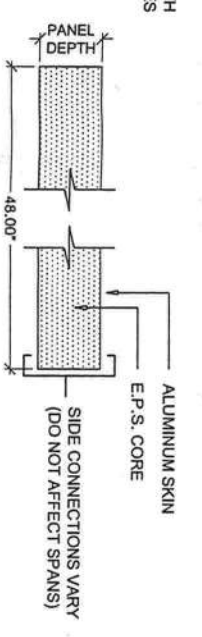
FLASHING 0.024" OR 26 GA. GALV.
 2" x 2" x 0.0625" BEAM DEPTH + 4" ATTACH ANGLE "A" TO FASCIA W/ 2-3/8" LAG SCREWS @ EACH ANGLE
 MIN. 2" x 3" x 0.050" S.M.B. (4) #10 S.M.S. @ EACH ANGLE EACH SIDE

BEAM TO WALL CONNECTION:
 (2) 2" x 2" x 0.0625" EXTERNALLY MOUNTED ANGLES ATTACHED TO WOOD WALL W/ MIN. (2) 3/8" x 2" LAG SCREWS PER SIDE OR (2) 1/4" x 2-1/4" CONCRETE ANCHORS TO CONCRETE OR MASONRY WALL ADD (1) ANCHOR PER SIDE FOR EACH INCH OF BEAM DEPTH LARGER THAN 3"

CANTILEVERED BEAM CONNECTION TO FASCIA DETAIL
 SCALE: 2" = 1'-0"



ROOF PANEL TO BEAM FASTENING DETAIL
 SCALE: 2" = 1'-0"



COMPOSITE ROOF PANEL (INDUSTRY STANDARD)
 SCALE: 2" = 1'-0"

Table 7.1.6 Industry Standard Composite Roof Panels Allowable Spans and Design / Applied Loads* (#/SF)

Wind Zone	3" x 48" x 0.024" Panels Aluminum Alloy 3105 H-14 or H-25 1.0 EPS Core Density Foam				3" x 48" x 0.030" Panels Aluminum Alloy 3105 H-14 or H-25 1.0 EPS Core Density Foam			
	Open Structures Mono-Sloped Roof	Open Structures Mono-Sloped Roof	Screen Rooms & Attached Covers	Glass & Modular Rooms Enclosed	Open Structures Mono-Sloped Roof	Open Structures Mono-Sloped Roof	Screen Rooms & Attached Covers	Glass & Modular Rooms Enclosed
100	15-2'	13-2'	14-2'	14-2'	15-2'	13-2'	14-2'	14-2'
110	13-2'	11-2'	12-2'	12-2'	13-2'	11-2'	12-2'	12-2'
120	12-2'	10-2'	11-2'	11-2'	12-2'	10-2'	11-2'	11-2'
123	11-1'	9-2'	10-2'	10-2'	11-2'	9-2'	10-2'	10-2'
130	11-1'	9-2'	10-2'	10-2'	11-2'	9-2'	10-2'	10-2'
140-1	10-6"	8-2"	9-2"	9-2"	10-6"	8-2"	9-2"	9-2"
140-2	10-6"	8-2"	9-2"	9-2"	10-6"	8-2"	9-2"	9-2"
150	9-2"	7-2"	8-2"	8-2"	9-2"	7-2"	8-2"	8-2"

Note: Total roof panel width = room width + wall width + overhang. *Design or applied load based on the effective area of the panel.

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GENERAL NOTES AND SPECIFICATIONS:

- The Section 9 tables were developed from data for anchors that are considered to be "Industry Standard" anchors. The allowable loads are based on data from catalogs from POWERS FASTENING, INC. (RAWL PRODUCTS), other anchor suppliers, and design criteria and reports from the American Forest and Paper Products and the American Paper Association.
- Unless otherwise noted, the following minimum properties of materials were used in calculating allowable loadings:
 - Aluminum:
 - Sheet, 3105 H-14 or H-25 alloy
 - Extrusions, 6063 T-6 alloy
 - Steel, Grade D Fb/c = 33.0 psi
 - Wood:
 - Framing Lumber #2 S.P.F. minimum
 - Sheathing, 1/2" 4 ply CDX or 7/16" OSB

- 120 MPH wind load was used for all allowable area calculations.
- For high velocity hurricane zones the minimum live load / applied load shall be 30 PSF.
- Spans may be interpolated between values but not extrapolated outside values.
- Aluminum metals that will come in contact with ferrous metal surfaces or concrete masonry products or pressure treated wood shall be coated with two coats of aluminum metal-and-masonry paint or a coat of heavy-bodied aluminum paint, or the wood or other absorbing material shall be painted with two coats of aluminum house paint and the joints sealed with a good quality caulking compound. The protective materials shall be as listed in section 2003.4.3 through 2003.4.6 of the Florida Building Code or Corbocold Galvalume Primer and Finisher. All fasteners or aluminum parts shall be corrosion resistant such as non magnetic stainless steel grade 304 or 316. Ceramic coated, double zinc coated or powder coated steel fasteners. Unprotected steel fasteners warranted as corrosion resistant shall be used. Only fasteners that are shall not be used.
- Any structure within 1500 feet of a salt water area, (bay or ocean) shall have fasteners made of non-magnetic stainless steel 304 or 316 series. Aluminum has not been approved for use with aluminum by the Aluminum Association and should not be used.
- Any project covering a pool with a salt water chlorination disinfection system shall use the above recommended fasteners. This is not limited to base anchoring systems but includes all connection types.

SECTION 9 DESIGN STATEMENT:

The anchor systems in Section 9 are designed for a 130 MPH wind load. Multipliers for other wind zones have been provided. Allowable loads include a 133% wind load increase as provided for in The 2007 Florida Building Code with 2009 Supplements. The use of this multiplier is only allowed once and I have selected anchoring systems which include strapping, nails and other fasteners.

Table 9.1 Allowable Loads for Concrete Anchors

Screw Size d = diameter	Embedment Depth (in.)	Min. Edge Dist. & Anchor Spacing 5d (in.)	Allowable Loads	
			Tension	Shear
1/4"	1-1/2"	1-1/4"	275#	235#
	2"	1-1/4"	315#	255#
3/16"	1-1/4"	1-1/4"	285#	167#
	1-3/4"	1-1/4"	315#	235#
1/4"	1-1/4"	1-1/4"	200#	200#
	1-3/4"	1-1/4"	447#	216#
3/8"	1-1/2"	1-1/4"	511#	402#
	1-3/4"	1-1/4"	705#	455#
1/4"	2"	1-1/4"	624#	261#
3/16"	3"	1-1/4"	935#	751#
1/2"	3-1/2"	1-1/4"	1,575#	1,425#
	5"	2-1/2"	2,332#	2,202#
POWER STUD (Wedge-Bolt @)				
1/4"	2-3/4"	1-1/4"	812#	325#
3/8"	4-1/4"	1-7/8"	1,355#	971#
1/2"	6"	2-1/2"	2,271#	1,718#
5/8"	7"	2-1/4"	3,285#	2,202#
Wedge Bolt				
1/4"	2-1/2"	2-1/4"	875#	355#
3/8"	3-1/2"	3-1/4"	1,705#	916#
1/2"	4"	3-3/4"	1,774#	1,095#

Notes:
1. Concrete screws are limited to 2" embedment by manufacturers.
2. Values listed are allowable loads with a safety factor of 4 applied.
3. Products not listed may be substituted.
4. Anchors requiring loads perpendicular to the diameter are in tension.
5. Allowable loads are increased by 1.00 for wind load.
6. Minimum edge distance and center to center spacing shall be 5d.
7. Anchors receiving loads parallel to the diameter are shear loads.
8. Manufacturers recommend reducers for edge distance of 5d have been applied.
9. Example:
Determine the number of concrete anchors required for a pool enclosure by sliding the uplift load by the anchor allowed load.
For a 27' x 67' beam (1000 lbs):
span = 20'5" (Table 1.1)
UPLIFT LOAD = (1000 lbs) x (67 ft) x (100 / 50) = 2700 lbs
NUMBER OF ANCHORS = 2700 / 1000 = 2.7 → 3 ANCHORS
ALLOWED LOAD ON ANCHOR = 2700 / 3 = 900 lbs
NUMBER OF ANCHORS = 2700 / 900 = 3

Table 9.2 Wood & Concrete Fasteners for Open or Enclosed Buildings

Maximum Allowable - Load and Allowable Roof Area for 120 MPH Wind Zone (27.42 # / SF) (For Wind Regions other than 120 MPH, Use Conversion Table at Bottom of this page)

Fastener Diameter	Embedment Length of	Number of Fasteners			
		1	2	3	4
1/4"	1-1/2"	264# - 10 SF	528# - 19 SF	792# - 29 SF	1056# - 38 SF
	1-1/2"	386# - 14 SF	772# - 28 SF	1158# - 43 SF	1544# - 56 SF
	2-1/2"	690# - 24 SF	1380# - 49 SF	2070# - 74 SF	2760# - 98 SF
3/16"	1-1/2"	312# - 11 SF	624# - 23 SF	936# - 34 SF	1248# - 46 SF
	1-1/2"	468# - 17 SF	936# - 34 SF	1404# - 51 SF	1872# - 68 SF
	2-1/2"	780# - 28 SF	1560# - 57 SF	2340# - 85 SF	3120# - 114 SF
	1-1/2"	356# - 13 SF	712# - 26 SF	1068# - 39 SF	1424# - 52 SF
	1-1/2"	534# - 19 SF	1068# - 39 SF	1602# - 58 SF	2136# - 78 SF
	2-1/2"	890# - 32 SF	1780# - 65 SF	2670# - 97 SF	3560# - 130 SF

Notes:
1. The minimum distance from the edge of the concrete to the concrete anchor and spacing between anchors shall not be less than 5d where d is the anchor diameter.
2. Allowable roof areas are based on loads for Glass / Enclosed Rooms (MWRFS) 1.1 & 1.00.
3. For partially enclosed buildings use a multiplier to roof areas of 0.77.
4. For sections 1 & 2 multiply roof areas by 1.30.

Table 9.5A Allowable Loads & Roof Areas Over Posts for Metal to Metal, Beam to Upright Bolt Connections

Fastener diam.	min. edge distance to ctr.	No. of Fasteners / Roof Area (SF)		4 / Area	
		1 / Area	2 / Area	1 / Area	2 / Area
1/4"	1-1/2"	1,454 - 53	2,908 - 106	4,362 - 159	5,819 - 212
3/8"	1-1/2"	1,894 - 69	3,788 - 138	5,682 - 207	7,576 - 276
1/2"	1-1/2"	2,272 - 82	4,544 - 166	6,816 - 249	9,088 - 331
3/4"	1-1/2"	3,030 - 110	6,060 - 221	9,090 - 332	12,120 - 442

Table 9.5B Allowable Loads & Roof Areas Over Posts for Metal to Metal, Beam to Upright Bolt Connections

Fastener diam.	min. edge distance to ctr.	No. of Fasteners / Roof Area (SF)		4 / Area	
		1 / Area	2 / Area	1 / Area	2 / Area
1/4"	1-1/2"	1,454 - 53	2,908 - 106	4,362 - 159	5,819 - 212
3/8"	1-1/2"	1,894 - 69	3,788 - 138	5,682 - 207	7,576 - 276
1/2"	1-1/2"	2,272 - 82	4,544 - 166	6,816 - 249	9,088 - 331
3/4"	1-1/2"	3,030 - 110	6,060 - 221	9,090 - 332	12,120 - 442

Notes for Tables 9.5 A, B:
1. Tables 9.5 A, B are based on 3 second gust wind of 120 MPH; Exposure B; 1 = 1.0. For exposure C screen rooms multiply the above by 1.3.
2. Minimum spacing is 2-1/2" O.C. for screws & bolts and 3" O.C. for rivets.
3. Minimum edge distance is 2d for screws, bolts, and rivets.

Table 9.8 Alternative Angle and Anchor Systems for Beams Anchored to Wall, Uprights, Carler Beams, or Other Connections

120 mph "C" Exposure Vary Screw Size w/ Wind Zone Use Next Larger Size for "C" Exposures

Attachment Type	Size Description	To Wall	To Upright / Beam
Angle	1" x 1" x 0.045"	3/16"	#10
Angle	1" x 1" x 0.053"	3/16"	#12
U-channel	1-1/2" x 2-1/8" x 1-1/2" x 0.043"	1/2"	#14
U-channel	1" x 2-1/8" x 1" x 0.050"	5/16"	5/16
Angle	1-1/2" x 1-1/2" (1/16" O.052")	3/16"	#12
Angle	1-1/2" x 1-1/2" (3/16" O.082")	1/4"	#12
Angle	1-3/4" x 1-3/4" x 1/8" (0.125")	1/4"	#14
U-channel	1-3/4" x 1-3/4" x 1-3/4" x 1/8"	3/8"	#14
Angle	2" x 2" x 1/8" (0.125")	3/8"	3/8"
Angle	2" x 2" x 3/16" (0.313")	1/2"	1/2"

Table 9.9 Minimum Anchor Size for Extrusions

Extrusions	Wall	Metal Upright	Concrete	Wood
2" x 10"	1/4"	#14	1/4"	1/4"
2" x 8"	1/4"	#12	1/4"	1/4"
2" x 6"	1/4"	#10	1/4"	1/4"
2" x 4" or less	3/16"	#8	3/16"	#8

Table 9.10 Alternative Anchor Selection Factors for Anchor / Screw Sizes

Anchor Size	#8	#10	#12	#14	5/16"	3/8"
Concrete and Wood Anchors (concrete screws: 2" maximum embedment)	1.00	0.80	0.58	0.46	0.27	0.21
Concrete and Wood Anchors (concrete screws: 2" maximum embedment)	1.00	0.80	0.72	0.57	0.33	0.26
Anchor Size	3/16"	1/4"	0.83	0.50	0.46	0.36
Anchor Size	1/4"	0.83	1.00	0.59	0.46	0.36
Anchor Size	3/8"	0.50	0.59	1.00	0.79	1.00

Table 9.2 Wood & Concrete Fasteners for Open or Enclosed Buildings

Maximum Allowable - Load and Allowable Roof Area for 120 MPH Wind Zone (27.42 # / SF) (For Wind Regions other than 120 MPH, Use Conversion Table at Bottom of this page)

Fastener Diameter	Embedment Length of	Number of Fasteners			
		1	2	3	4
1/4"	1-1/2"	264# - 10 SF	528# - 19 SF	792# - 29 SF	1056# - 38 SF
	1-1/2"	386# - 14 SF	772# - 28 SF	1158# - 43 SF	1544# - 56 SF
	2-1/2"	690# - 24 SF	1380# - 49 SF	2070# - 74 SF	2760# - 98 SF
3/16"	1-1/2"	312# - 11 SF	624# - 23 SF	936# - 34 SF	1248# - 46 SF
	1-1/2"	468# - 17 SF	936# - 34 SF	1404# - 51 SF	1872# - 68 SF
	2-1/2"	780# - 28 SF	1560# - 57 SF	2340# - 85 SF	3120# - 114 SF
	1-1/2"	356# - 13 SF	712# - 26 SF	1068# - 39 SF	1424# - 52 SF
	1-1/2"	534# - 19 SF	1068# - 39 SF	1602# - 58 SF	2136# - 78 SF
	2-1/2"	890# - 32 SF	1780# - 65 SF	2670# - 97 SF	3560# - 130 SF

Notes:
1. The minimum distance from the edge of the concrete to the concrete anchor and spacing between anchors shall not be less than 5d where d is the anchor diameter.
2. Allowable roof areas are based on loads for Glass / Enclosed Rooms (MWRFS) 1.1 & 1.00.
3. For partially enclosed buildings use a multiplier to roof areas of 0.77.
4. For sections 1 & 2 multiply roof areas by 1.30.

Table 9.3 Wood & Concrete Fasteners for Partially Enclosed Buildings

Maximum Allowable - Load and Allowable Roof Area for 120 MPH Wind Zone (35.5 # / SF) (For Wind Regions other than 120 MPH, Use Conversion Table at Bottom of this page)

Fastener Diameter	Embedment Length of	Number of Fasteners			
		1	2	3	4
1/4"	1-1/2"	264# - 10 SF	528# - 19 SF	792# - 29 SF	1056# - 38 SF
	1-1/2"	386# - 14 SF	772# - 28 SF	1158# - 43 SF	1544# - 56 SF
	2-1/2"	690# - 24 SF	1380# - 49 SF	2070# - 74 SF	2760# - 98 SF
3/16"	1-1/2"	312# - 11 SF	624# - 23 SF	936# - 34 SF	1248# - 46 SF
	1-1/2"	468# - 17 SF	936# - 34 SF	1404# - 51 SF	1872# - 68 SF
	2-1/2"	780# - 28 SF	1560# - 57 SF	2340# - 85 SF	3120# - 114 SF
	1-1/2"	356# - 13 SF	712# - 26 SF	1068# - 39 SF	1424# - 52 SF
	1-1/2"	534# - 19 SF	1068# - 39 SF	1602# - 58 SF	2136# - 78 SF
	2-1/2"	890# - 32 SF	1780# - 65 SF	2670# - 97 SF	3560# - 130 SF

Notes:
1. The minimum distance from the edge of the concrete to the concrete anchor and spacing between anchors shall not be less than 5d where d is the anchor diameter.
2. Allowable roof areas are based on loads for Glass / Enclosed Rooms (MWRFS) 1.1 & 1.00.
3. For partially enclosed buildings use a multiplier to roof areas of 0.77.
4. For sections 1 & 2 multiply roof areas by 1.30.

Table 9.6 Maximum Allowable Fastener Loads for Metal Plate to Wood Support

Screw Ø	Metal to Plywood		3/4" 4 Ply	
	Shear (lbs)	Pull Out (lbs)	Shear (lbs)	Pull Out (lbs)
#8	48	113	59	134
#10	100	120	69	141
#12	118	131	78	143
#14	132	145	88	157

Table 9.7 Aluminum Rivets with Aluminum or Steel Mandrel

Rivet Diameter	Aluminum Mandrel	Steel Mandrel
1/8"	129	178
5/32"	187	263
3/16"	282	375

Table 9.8 Alternative Angle and Anchor Systems for Beams Anchored to Wall, Uprights, Carler Beams, or Other Connections

120 mph "C" Exposure Vary Screw Size w/ Wind Zone Use Next Larger Size for "C" Exposures

Attachment Type	Size Description	To Wall	To Upright / Beam
Angle	1" x 1" x 0.045"	3/16"	#10
Angle	1" x 1" x 0.053"	3/16"	#12
U-channel	1-1/2" x 2-1/8" x 1-1/2" x 0.043"	1/2"	#14
U-channel	1" x 2-1/8" x 1" x 0.050"	5/16"	5/16
Angle	1-1/2" x 1-1/2" (1/16" O.052")	3/16"	#12
Angle	1-1/2" x 1-1/2" (3/16" O.082")	1/4"	#12
Angle	1-3/4" x 1-3/4" x 1/8" (0.125")	1/4"	#14
U-channel	1-3/4" x 1-3/4" x 1-3/4" x 1/8"	3/8"	#14
Angle	2" x 2" x 1/8" (0.125")	3/8"	3/8"
Angle	2" x 2" x 3/16" (0.313")	1/2"	1/2"

Table 9.9 Minimum Anchor Size for Extrusions

Extrusions	Wall	Metal Upright	Concrete	Wood
2" x 10"	1/4"	#14	1/4"	1/4"
2" x 8"	1/4"	#12	1/4"	1/4"
2" x 6"	1/4"	#10	1/4"	1/4"
2" x 4" or less	3/16"	#8	3/16"	#8

Table 9.10 Alternative Anchor Selection Factors for Anchor / Screw Sizes

Anchor Size	#8	#10	#12	#14	5/16"	3/8"
Concrete and Wood Anchors (concrete screws: 2" maximum embedment)	1.00	0.80	0.58	0.46	0.27	0.21
Concrete and Wood Anchors (concrete screws: 2" maximum embedment)	1.00	0.80	0.72	0.57	0.33	0.26
Anchor Size	3/16"	1/4"	0.83	0.50	0.46	0.36
Anchor Size	1/4"	0.83	1.00	0.59	0.46	0.36
Anchor Size	3/8"	0.50	0.59	1.00	0.79	1.00

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