DATE 11/21/2008

Columbia County Building Permit

This Permit Must Be Prominently Posted on Premises During Construction

PERMIT
000027493

APPLICANT CRAIG TIMBERLAKE PHONE 352 472-6850

ADDRESS 2537 NW 8TH PLACE NEWBERRY FL 32669

OWNER WILLIAM & DORCAS SIMMONS PHONE 755-9271

ADDRESS 517 NW HORIZON STREET LAKE CITY FL 32055

CONTRACTOR RICKY HELMS/TIMBERLAKE PHONE 352 472-6850

LOCATION OF PROPERTY 90W, TR BROWN RD,TL HORIZON, 6TH LOT ON RIGHT

TYPE DEVELOPMENT POOL ENCLOSURE ESTIMATED COST OF CONSTRUCTION 17299.00

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 X DEVELOPMENT PERMIT NO. _____

PARCEL ID 28-3S-16-02374-011 SUBDIVISION FAIRFIELD HILLS

LOT 11 BLOCK ____ PHASE ____ UNIT ____ TOTAL ACRES _____

Culvert Permit No.	Culvert Waiver	Contractor's License Number	Applicant/Owner/Contractor	
		SCC056710	Craig Timberlake	
EXISTING	X08-371	BK	WR	N
Driveway Connection	Septic Tank Number	LU & Zoning checked by	Approved for Issuance	New Resident

COMMENTS: NOC ON FILE, IMPACT EXEMPT, ADDITION TO EXISTING RESIDENCE

Check # or Cash 1744

FOR BUILDING & ZONING DEPARTMENT ONLY

(footer/Slab)

Temporary Power _____ date/app. by

Foundation _____ date/app. by

Monolithic _____ date/app. by

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

Slab _____ date/app. by

Sheathing/Nailing _____ date/app. by

Framing _____ date/app. by

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

Electrical rough-in _____ date/app. by

Heat & Air Duct _____ date/app. by

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

Permanent power _____ date/app. by

C.O. Final _____ date/app. by

Culvert _____ date/app. by

M/H tie downs, blocking, electricity and plumbing _____ date/app. by

Pool _____ date/app. by

Reconnection _____ date/app. by

Pump pole _____ date/app. by

Utility Pole _____ date/app. by

M/H Pole _____ date/app. by

Travel Trailer _____ date/app. by

Re-roof _____ date/app. by

BUILDING PERMIT FEE $ 90.00 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** 90.00

INSPECTORS OFFICE _____ CLERKS OFFICE CH

NOTICE: IN ADDITION TO THE REQUIREMENTS OF THIS PERMIT, THERE MAY BE ADDITIONAL RESTRICTIONS APPLICABLE TO THIS PROPERTY THAT MAY BE FOUND IN THE PUBLIC RECORDS OF THIS COUNTY. AND THERE MAY BE ADDITIONAL PERMITS REQUIRED FROM OTHER GOVERNMENTAL ENTITIES SUCH AS WATER MANAGEMENT DISTRICTS, STATE AGENCIES, OR FEDERAL AGENCIES.

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

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

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

Inst:200812020318 Date:11/10/2008 Time:10:28 AM
DC,P.DeWitt Cason,Columbia County Page 1 of 1 B:1161 P:2397

NOTICE OF COMMENCEMENT
STATE OF FLORIDA COUNTY OF Columbia **CITY OF** Lake City

THE UNDERSIGNED hereby gives notice that improvement(s) will be made to certain real property, and in accordance with Chapter713, Florida Statutes, the following information is provided in this Notice of Commencement.

DESCRIPTION OF PROPERTY:
LOT 11 BLOCK _____ SECTION 28 TOWNSHIP 3 RANGE 16
TAX PARCEL # 28 3S 16 02374-011 Hx
SUBDIVISION: Fairfield Hills
PLATBOOK: _____ MAP PAGE# _____
STREETADDRESS: 517 NW Horizon St.
Lake City Fl 32055

GENERAL DESCRIPTION OF IMPROVEMENT:
TO CONSTRUCT: Screen Enclosure
OWNER INFORMATION:
OWNER(S)NAME: William & Dorcas Simmons
ADDRESS: 517 NW Horizon St PHONE 755 9271
CITY: Lake City STATE Fl ZIP 32025
INTEREST IN THE PROPERTY: Owner
FEE SIMPLE TITLEHOLDER NAME: N/A
FEE SIMPLE TITLEHOLDER ADDRESS:(IF OTHER THAN OWNER)

CONTRACTOR NAME: Timberlake Aluminum Const.
Address: 25370 NW 8th Pl Newberry Fl 32669
BONDING COMPANY: N/AADDRESS: N/A PHONE NUMBER N/A
CITY: N/A STATE N/A ZIP CODE : N/A
LENDER NAME: None
ADDRESS :n/a PHONE N/A
CITY:N/A STATE N/A _Zip: N/A

Prepared by: Peeler Pools, Inc. (Raymond Peeler)
Return to : Peeler Pools, Inc. 9878 S. US Hwy 441 Lake City, Fl 32025

Persons within the State of Florida designated by Owner upon whom notices or other documents may be served as provided by Section 713.13(1) (a) 7., Florida Statutes.
NAME: None ADDRESS: N/A
In addition to himself, Owner designates: Raymond Peeler of Peeler Pools, Inc.
9878 S US Hwy 441 Lake City, Fl 32025
to receive a copy of the Lienor's Notice as provided in Section 713.13 (1) (b), Florida Statutes.

Expiration date is 1 year from date of recording unless a different date is specified.

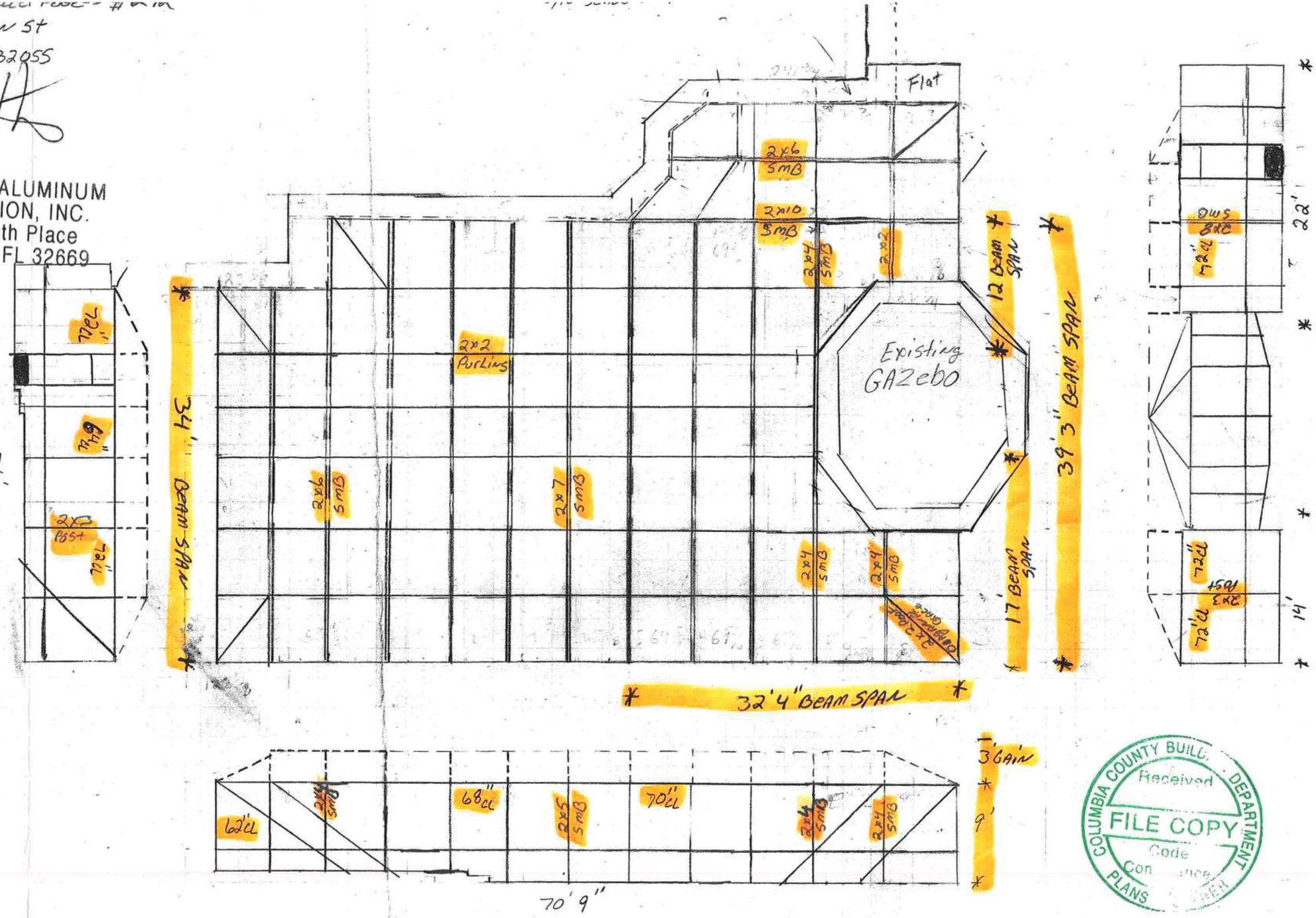
SIGNATURE OF OWNER Dorcas J Simmons
SWORN to and subscribed before me this 9th day of June year of 2008
Notary Public _____ My commission expires _____
Signature: Alice B Peeler

NOTARY PUBLIC STATE OF FLORIDA
ALICE B PEELER
MY COMMISSION # DD472231
EXPIRES: Sept. 15, 2009
(407) 398-0153 Florida Notary Service.com

*****WARNING TO OWNER: ANY PAYMENTS MADE BY THE OWNER AFTER THE EXPIRATION OF NOTICE OF COMMENCEMENT ARE CONSIDERED IMPROPER PAYMENTS UNDER CHAPTER 713, PART 1, SECTION 713.13, FLORIDA STATUTES, AND CAN RESULT IN YOURPAYING 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 AN ATTORNEY BEFORE COMMENCING WORK OR RECORDING YOUR NOTICE OF COMMENCEMENT.**

517 NW Horizon St
Lake City FL 32055

TIMBERLAKE ALUMINUM
CONSTRUCTION, INC.
25370 NW 8th Place
NEWBERRY, FL 32669



STAFF K# IN BOK - CK# 1744

Columbia County Building Permit Application

For Office Use Only Application # 0811-22 Date Received 11/10 By JW Permit # 27493

Zoning Official BLK Date 11.18.08 Flood Zone X FEMA Map # N/A Zoning RSF-2

Land Use RES. Low Den Elevation N/A MFE N/A River N/A Plans Examiner (MR) Date 11-18-08

Comments Impact Fee Exempt – Addition to Existing Residence

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

□ Dev Permit # □ In Floodway ~~Letter of Authorization from Contractor~~

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

Septic Permit No. K-08-371 CRAIG Timberlake Fax 352-472-6855

Name Authorized Person Signing Permit Larry Cole Phone 352-472-6850

Address 25370 NW 8th Ave Newberry FL 32669

Owners Name William + Dorcas Simmons Phone 386-755-9271

911 Address 517 NW Horizon ST Lake City FL 32025

Contractors Name Ricky R Helms Phone 352-472-6850

Address 25370 NW 8th Ave Newberry FL 32669

Fee Simple Owner Name & Address William + Dorcas Simmons

Bonding Co. Name & Address N/A

Architect/Engineer Name & Address Lawrence E. Bennett P.O. Box 214368 S. Daytona FL 32121

Mortgage Lenders Name & Address N/A

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

Property ID Number 28-3S-16E-02374-011... Estimated Cost of Construction 17,299.00

Subdivision Name Fairfield Hills Lot 11 Block ___ Unit ___ Phase ___

Driving Directions US 90 W To Brown Rd (R) To Horizon (L) 0.4 mi 6th ON the R.

Number of Existing Dwellings on Property 1

Construction of Tod Screen Enclosure Total Acreage 2.58 Lot Size ___

Do you need a - Culvert Permit or Culvert Waiver or Have an Existing Drive Total Building Height 11'

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

Number of Stories 1 Heated Floor Area 0 Total Floor Area 3885 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.

spoke to CRAIG 11/19/08

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

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

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

OWNERS CERTIFICATION: I hereby certify that all the foregoing information is accurate and all work will be done in compliance with all applicable laws and regulating construction and zoning. I further understand the above written responsibilities in Columbia County for obtaining this Building Permit.

X Forrest L Simmons William L. Simmons
Owners Signature

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

Contractor's Signature (Permitee)

Contractor's License Number SCL056710
Columbia County
Competency Card Number _____

Affirmed under penalty of perjury to by the Contractor and subscribed before me this 14th **day of** June **20** 08
Personally known 14 **or Produced Identification** _____

Alice B. Peeler
State of Florida Notary Signature (For the Contractor)

SEAL:

NOTARY PUBLIC STATE OF FLORIDA (407) 398-0153
ALICE B PEELER
MY COMMISSION # DD472231
EXPIRES: Sept. 15, 2009
Florida Notary Service.com

THIS INSTRUMENT WAS PREPARED BY:

TERRY McDAVID 05-1041
POST OFFICE BOX 1328
LAKE CITY, FL 32056-1328

RETURN TO:

TERRY McDAVID
POST OFFICE BOX 1328
LAKE CITY, FL 32056-1328

Property Appraiser's
Identification Number R02374-011

Inst:2006000378 Date:01/09/2006 Time:11:08
Doc Stamp-Deed : 2535.40
DC,P.DeWitt Cason,Columbia County B:1070 P:1345

WARRANTY DEED

This Warranty Deed, made this 6th day of January, 2006, BETWEEN PAUL H. BARRETT and DONNA L. BARRETT, Husband and Wife whose post office address is 517 NW Horizon Street, Lake City, FL 32055, of the County of Columbia, State of Florida, grantor*, and WILLIAM L. SIMMONS and DORCAS T. SIMMONS, Husband and Wife whose post office address is 517 NW Horizon Street, Lake City, FL 32055, of the County of Columbia, State of Florida, grantee*.

(Whenever used herein the terms "grantor" and "grantee" include all the parties to this instrument and the heirs, legal representatives and assigns of individuals, and the successors and assigns of corporations, trusts and trustees)

Witnesseth: that said grantor, for and in consideration of the sum of Ten Dollars ($10.00), and other good and valuable considerations to said grantor in hand paid by said grantee, the receipt whereof is hereby acknowledged, has granted, bargained and sold to the said grantee, and grantee's heirs and assigns forever, the following described land, situate, lying and being in Columbia County, Florida, to-wit:

Lot 11, FAIRFIELD HILLS, a subdivision according to the plat thereof as recorded in Plat Book 4, Pages 107-107A of the public records of Columbia County, Florida.

Together with all the tenements, hereditaments and appurtenances thereto belonging or in anywise appertaining.

To Have and to Hold, the same in fee simple forever.

And subject to taxes for the current year and later years and all valid easements and restrictions of record, if any, which are not hereby reimposed; and also subject to any claim, right, title or interest arising from any recorded instrument reserving, conveying, leasing, or otherwise alienating any interest in the oil, gas and other minerals. And grantor does warrant the title to said land and will defend the same against the lawful claims of all persons whomsoever, subject only to the exceptions set forth herein.

In Witness Whereof, grantor has hereunto set grantor's hand and seal the day and year first above written.

Signed, sealed and delivered
in our presence:

(Signature of First Witness)
Crystal L. Brunner
(Typed Name of First Witness)

(Signature of Second Witness)
Karen M. Wright
(Typed Name of Second Witness)

(SEAL)
Grantor
PAUL H. BARRETT
Printed Name

(SEAL)
Grantor
DONNA L. BARRETT
Printed Name

STATE OF Florida
COUNTY OF Columbia

The foregoing instrument was acknowledged before me this 6th day of January, 2006, by PAUL H. BARRETT and DONNA L. BARRETT, Husband and Wife who are personally known to me or who have produced _____ as identification and who did not take an oath.

My Commission Expires:

Notary Public
Printed, typed, or stamped name:

CRYSTAL L. BRUNNER
MY COMMISSION # DD439148
EXPIRES: June 30, 2009
Fl. Notary Discount Assoc. Co.

Inst:2006000378 Date:01/09/2006 Time:11:08
Doc Stamp-Deed : 2535.40
DC,P.DeWitt Cason,Columbia County B:1070 P:1346

Columbia County Property Appraiser

DB Last Updated: 10/21/2008

2008 Certified Values

Tax Record | Property Card | Interactive GIS Map | Print

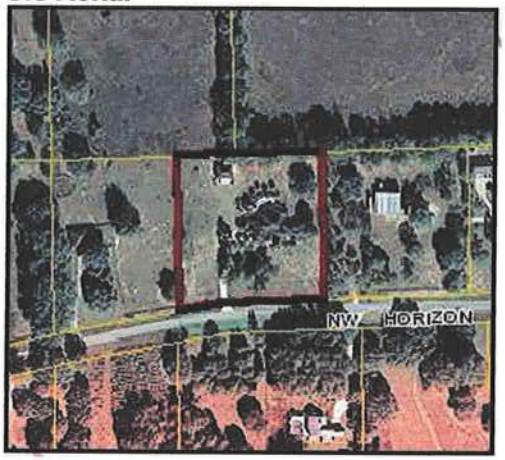
Parcel: 28-3S-16-02374-011 HX

Search Result: 1 of 1

Owner & Property Info

Owner's Name	SIMMONS WILLIAM L & DORCAS T		
Site Address	HORIZON		
Mailing Address	517 NW HORIZON ST LAKE CITY, FL 32055		
Use Desc. (code)	SINGLE FAM (000100)		
Neighborhood	28316.01	**Tax District**	2
UD Codes	MKTA06	**Market Area**	06
Total Land Area	2.580 ACRES		
Description	LOT 11 FAIRFIELD HILLS S/D. ORB 580-575, 845-1636, WD 1070-1345.		

GIS Aerial



Property & Assessment Values

Mkt Land Value	cnt: (1)	$50,310.00	**Just Value**		$335,351.00
Ag Land Value	cnt: (0)	$0.00	**Class Value**		$0.00
Building Value	cnt: (1)	$254,090.00	**Assessed Value**		$335,351.00
XFOB Value	cnt: (6)	$30,951.00	**Exempt Value**	(code: HX)	$50,000.00
Total Appraised Value		$335,351.00	**Total Taxable Value**		$285,351.00

Sales History

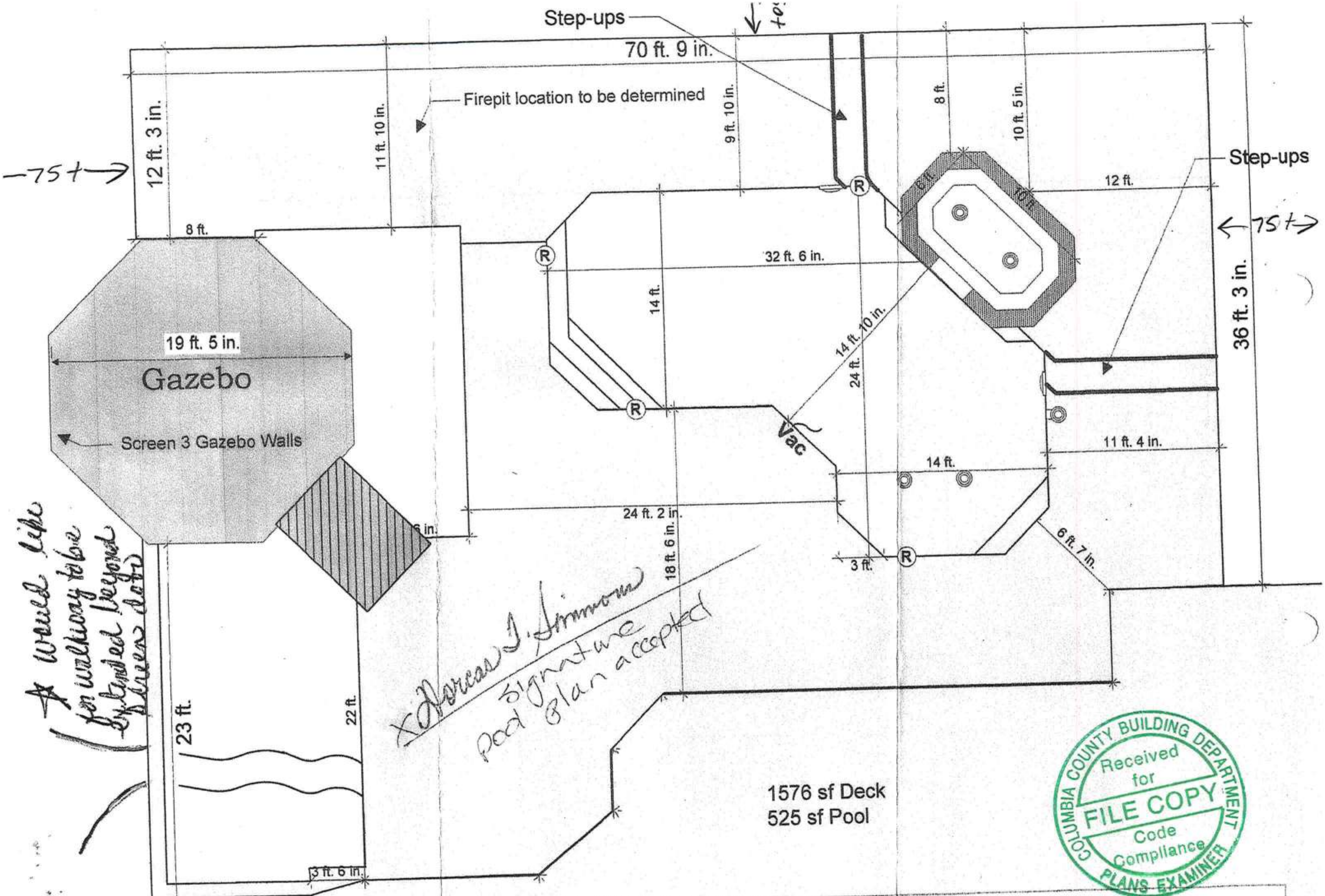
Sale Date	Book/Page	Inst. Type	Sale Vlmp	Sale Qual	Sale RCode	Sale Price
1/6/2006	1070/1345	WD	I	Q		$362,200.00
9/15/1997	845/1636	WD	I	Q		$242,000.00
12/1/1985	580/575	WD	V	Q		$10,500.00

Building Characteristics

Bldg Item	Bldg Desc	Year Blt	Ext. Walls	Heated S.F.	Actual S.F.	Bldg Value
1	SINGLE FAM (000100)	1990	Above Avg. (10)	2964	4523	$254,090.00
	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	1993	$12,378.00	4951.000	0 x 0 x 0	(.00)
0280	POOL R/CON	1993	$7,373.00	512.000	32 x 16 x 0	(.00)
0166	CONC,PAVMT	1993	$4,060.00	1624.000	0 x 0 x 0	(.00)
0262	PRCH,FOP	1993	$4,500.00	1.000	0 x 0 x 0	(.00)
0294	SHED WOOD/	0	$1,020.00	136.000	8 x 17 x 0	(.00)



SCALE: 1/8" = 1'

Peeler Pools 9878 S U.S.Hwy 441 Lake City FL 32025	Phone: 386-755-2848 Fax: 386-755-5577	Designed by: Raymond Peeler 5/13/2008	Designed for:	Simmons 517 NW Horizon St Lake City Fl 32055

Design Check List for Pool Enclosures

I. Design Statement: (EAGLE ALUMINUM 6061 T-6 FRAME MEMBERS)

These plans have been designed in accordance with the Aluminum Structures Design Manual by Lawrence E. Bennett and are in compliance with the 2004 Florida Building Code Edition with 2006 Supplements, Chapter 20, ASM35 and The 2005 Aluminum Design Manual Part I-A & II-A; Exposure 'B'___ or 'C'___ or 'D'___; Importance Factor 0.87 for 100 MPH and 0.77 for 110 MPH and higher; Negative I.P.C. 0.00; ___ MPH Wind Zone for 3 second wind gust; Basic Wind Pressure ____; Design pressures are ___ PSF for roofs & ___ PSF for walls. (see page 1 for wind loads and design pressures) A 300 PLF point load is also considered for screen roof members.

Notes: Wind velocity zones and exposure category is determined by local code. Design pressures and conversion multipliers are on page 1.

II. Host Structure Adequacy Statement:

I have inspected and verify that the host structure is in good repair and attachments made to the structure will be solid.

Carl R Helms — Phone: 352-472-6850
Contractor / Authorized Rep* Name (please print)

Date: 11/7/08
Contractor / Authorized Rep* Signature

Simmons / 517 NW Horizon ST Lake City
Job Name & Address

Note: If the total of beam span & upright height exceeds 50' or upright height exceeds 16', site specific engineering is required.

III. Building Permit Application Package contains the following:

	Yes	No
A. Project name & address on plans	✓	
B. Site plan or survey with enclosure location	✓	
C. Contractor's / Designer's name, address, phone number, & signature on plans	✓	
D. Site exposure form completed	✓	
E. Enclosure layout drawing @ 1/8" or 1/10" scale with the following:	✓	
1. Plan view with host structure, enclosure length, projection from host structure, and all dimensions	✓	
2. Front and side elevation views with all dimensions & heights Note: All mansard wall drawings shall include mansard panel at the top of the wall.	✓	
3. Beam location (show in plan & elevation view) & size (Table 1.1 & 1.6)	✓	

Roof frame member allowable span conversions from 120 MPH wind zone, "B" Exposure to _____ MPH wind zone and / or __"C" or __"D" Exposure for load width of _____:

Note: Conversion factors do not apply to members subject to point load (P).

Look up span in appropriate 120 MPH span table and apply the following formula:

Span @ 120 MPH ____ (b or d) x ____ (b or d) x ____ (b or d) = ____ Required Converted Span / Height

Wind Zone Multiplier (see page 1) — Exposure Multiplier (see page 1)

4. Upright location (show in plan & elevation view) & size (Table 1.3 E & 1.6 E)	✓	
5. Chair rail & girt size, length, & spacing (Table 1.4 E)	✓	
6. Eave rail size, length, spacing and stitching of (Table 1.2 E)	✓	

*** Must have attended Engineer's Continuing Education Class within the past two years.**

Wall frame member allowable span conversions from 120 MPH wind zone, "B" Exposure to ____ MPH wind zone and / or __"C" or __"D" Exposure for load width of _____:

Look up span in appropriate 120 MPH span table and apply the following formula:

Span / Height @ 120 MPH or ___ MPH ____ (b or d) x ____ (b or d) x ____ (b or d) = ____ Required Converted Span / Height

Wind Zone Multiplier ** — Exposure Multiplier (see page 1)

	Yes	No
7. Enclosure roof diagonal bracing in plan view	✓	
8. Knee braces length, location, & size (Table 1.7 E)	✓	
9. Wall cables or K-bracing sizes shown in wall views	✓	
IV. Highlight details from the Aluminum Structures Design Manual:		
A. Beam & purlin tables with size, thickness, spacing, & spans / lengths (Tables 1.0 E & 1.2 E or 1.9.1 E & 1.9.2 E)	✓	
B. Upright & girt tables with size, thickness, spacing, & spans / lengths (Tables 1.3 E & 1.4 E)	✓	
C. Table 1.6 with beam & upright combination	✓	
D. Connection details to be use such as:		
1. Beam to upright	✓	
2. Beam to wall	✓	
3. Beam to beam	✓	
4. Chair rail, purlins, & knee braces	✓	
5. Extruded gutter connections	✓	
6. Angle to deck and / or sole plate	✓	

	Yes	No
7. Anchors go through pavers into concrete		✓
8. Minimum footing and / or knee wall details	✓	
9. Cable or K- brace details Section 1	✓	

Wall area calculations for cables:
W = wall width, H = wall height, R = rise
W1 = width @ top of mansard, W2 = width @ top of wall

E. Select footing from examples in manual.

Example 1: Flat Roof

Front wall @ eave: ____ft. (W) x ____ft. (H) = ____ft.² (a) @ 100% = ____ ft.²

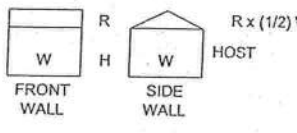
Largest side wall: ____ft. (W) x ____ft. (H) = ____ft.² (b) @ 50% = ____ ft.²

TOTAL = ____ ft.²

Total area / (233 ft.² / cable for 3/32") = ____cable pairs
or
Total area / (445 ft.² / cable for 1/8") = ____cable pairs

Side wall cable calculation: ____ft.² (b) @ 100% = ____ ft.²

Side wall area / (233 ft.² / cable for 3/32") = ____cable(s)
or
Side wall area / (445 ft.² / cable for 1/8") = ____cable(s)



Example 2: Gable Roof

Front wall @ eave: ____ft. (W) x ____ft. (H) = ____ft.² (a) @ 100% = ____ ft.²

Front gable rise: ____ft. (R) x 1/2(____ft. (W)) = ____ft.² (b) @ 100% = ____ ft.²

Largest side wall: ____ft. (W) x ____ft. (H) = ____ft.² (c) @ 50% = ____ ft.²

Largest side gable rise: ____ft. (R) x ____ft. (W) = ____ft.² (d) @ 50% = ____ ft.²

TOTAL = ____ ft.²

Total area / (233 ft.² / cable for 3/32") = ____cable pairs
or
Total area / (445 ft.² / cable for 1/8") = ____cable pairs

Side wall cable calculation: ____ft.² (c) + ____ft.² (d) = ____ft.² @ 100% = ____ ft.²

Side wall area / (233 ft.² / cable for 3/32") = ____cable(s)
or
Side wall area / (445 ft.² / cable for 1/8") = ____cable(s)

Example 3: Transverse Gable Roof

Front wall @ eave: ____ft. (W) x ____ft. (H) = ____ft.² (a) @ 100% = ____ ft.²

Front gable rise: ____ft. (R) x ____ft. (W) = ____ft.² (b) @ 100% = ____ ft.²

Largest side wall: ____ft. (W) x ____ft. (H) = ____ft.² (c) @ 50% = ____ ft.²

Largest side gable rise: ____ft. (R) x 1/2 (____ft. (W)) = ____ft.² (d) @ 50% = ____ ft.²

TOTAL = ____ ft.²

Total area / (233 ft.² / cable for 3/32") = ____cable pairs
or
Total area / (445 ft.² / cable for 1/8") = ____cable pairs

Side wall cable calculation: ____ft.² (c) + ____ft.² (d) = ____ft.² @ 100% = ____ ft.²

Side wall area / (233 ft.² / cable for 3/32") = ____cable(s)
or
Side wall area / (445 ft.² / cable for 1/8") = ____cable(s)

Example 4: Mansard Roof

Front wall @ eave: 709" (W) x 9' (H) = 638 ft.² (a) @ 100% = 638.1 ft.²

Front mansard rise: 3 (R) ft. x 1/2(70.9 ft. (W1) + 57 ft. (W2)) = 191.85 (b) @ 100% = 191.85 ft.²

Largest side wall: 36.3 (W) x 9 (H) = 326.7 ft.² (c) @ 50% = 163.13 ft.²

Largest side mansard rise: 3 (R) ft. x 1/2(36.3 ft. (W1) + 23.75 ft. (W2)) = 90 ft.² (d) @ 50% = 45 ft.²

TOTAL = 1,037.63 ft.²

Total area / (233 ft.² / cable for 3/32") = ____cable pairs
or
Total area / (445 ft.² / cable for 1/8") = 2 cable pairs

Side wall cable calculation: 326 ft.² (c) + 90 ft.² (d) = 416 ft.² @ 100% = 416. ft.²

Side wall area / (233 ft.² / cable for 3/32") = ____cable(s)
or
Side wall area / (445 ft.² / cable for 1/8") = 1 cable(s)

Example 5: Dome Roof

Front dome wall @ eave: ____ft. (W) x ____ft. (H) = ____ft. (a) @ 100% = ____ ft.²

Front dome rise: ____ft. (R) x 1/2(____ft. (W)) = ____ft.² (b) @ 100% = ____ ft.²

Largest side wall: ____ft. (W) x ____ = ____ft.² (c) @ 50% = ____ ft.²

Largest side dome rise: ____ft. (R) x ____ft. (W) = ____ft.² (d) @ 50% = ____ ft.²

TOTAL = ____ ft.²

Total area / (233 ft.² / cable for 3/32") = ____cable pairs
or
Total area / (445 ft.² / cable for 1/8") = ____cable pairs

Side wall cable calculation: ____ft.² (c) + ____ft.² (d) = ____ft.² @ 100% = ____ ft.²

Side wall area / (233 ft.² / cable for 3/32") = ____cable(s)
or
Side wall area / (445 ft.² / cable for 1/8") = ____cable(s)

EAGLE 6061 ALLOY IDENTIFIER™ INSTRUCTIONS FOR PERMIT PURPOSES

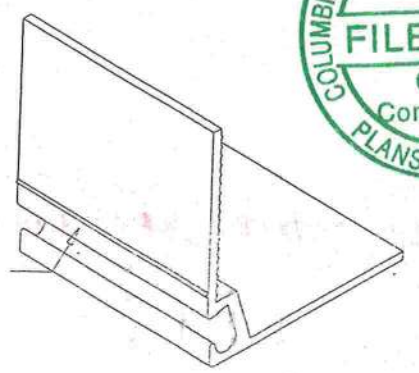
To: Plans Examiners and Inspectors,

These identification instructions are provided to contractors for permit purposes. The pictures below illustrate our unique "raised" external identification mark (Eagle 6061™) and its location next to the spline groove, to signify our 6061 alloy extrusions. It is ultimately the purchaser's / contractor's responsibility to ensure that the proper alloy is used in conjunction with the engineering selected for construction. We are providing this identification mark to simplify identification when using our 6061 Alloy products.

A separate signed and sealed certification letter from Eagle Metals will be provided once the metal is purchased. This should be displayed on site for review at final inspection.

The inspector should look for the identification mark as specified below to validate the use of 6061 engineering.

EAGLE 6061 I.D. DIE MARK



11-2-2007

EAGLE METAL DISTRIBUTORS, INC.
THE FREEDOM OF CHOICE
603-B W. LANSTREET ROAD, ORLANDO, FL 32824
TEL: 407-367-0688 • FAX: 407-367-0684

ALUMINUM STRUCTURES DESIGN MANUAL
SCREEN ENCLOSURES
INSPECTION GUIDE / DESIGN CHECK LIST
2004 FBC W/ 2006 SUPPLEMENTS
2006 EDITION

Lawrence E. Bennett, P.E. FL # 16644
CIVIL & STRUCTURAL ENGINEERING
P.O. Box 214368, South Daytona, Fl 32121
Telephone #: (386) 767-4774 Fax #: (386) 767-6556
Email: lebpe@bellsouth.net

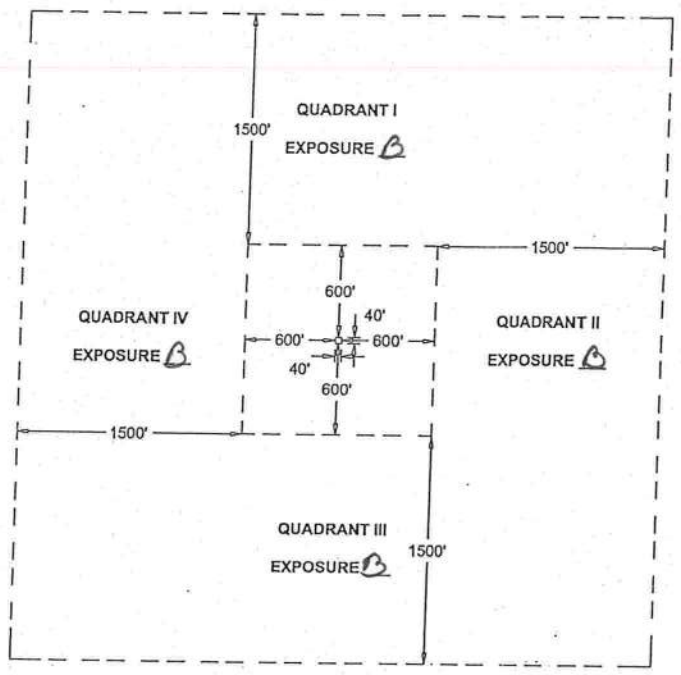
SEAL

SHEET 1 OF 2

Inspection Guide For Pool Enclosures

	Yes	No
1. Check the building permit for the following:		
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. Eve 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. Knee 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	___	___

SITE EXPOSURE EVALUATION FORM



NOTE: ZONES ARE MEASURED FROM STRUCTURE OUTWARD

SITE
SCALE: 1" = 1200'

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

EXPOSURE C:
1. OPEN TERRAIN FOR MORE THAN 1,500 FEET IN ANY QUADRANT.
2. ANY 'C' EXPOSURE FOR GREATER THAN 600 FEET IN ANY QUADRANT.
3. NO SHORT TERM CHANGES IN 'B', 2 YEARS BEFORE SITE EVALUATION AND BUILD OUT WITHIN 3 YEARS, SITE WILL BE 'B'.
4. FLAT, OPEN COUNTRY, GRASSLANDS, PONDS AND OCEAN OR SHORELINES IN ANY QUADRANT FOR GREATER THAN 1,500 FEET.

EXPOSURE D: FLAT, UNOBSTRUCTED AREAS THAT ARE 1,500 FT INLAND FROM THE SHORE LINE AND ARE EXPOSED TO WIND FLOWING OVER WATER FOR A DISTANCE OF AT LEAST 1 MILE.

SITE IS EXPOSURE: B EVALUATED BY: CARL R HOLMS DATE: 11/2/08

SIGNATURE: _____ LICENSE #: SCL056710

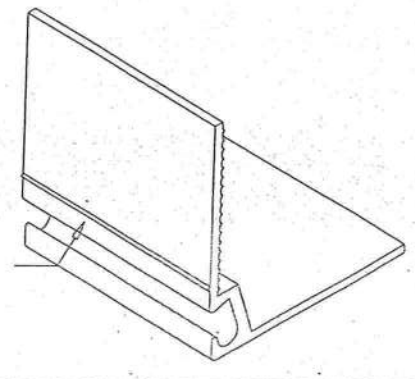
EAGLE 6061 ALLOY IDENTIFIER™ INSTRUCTIONS FOR PERMIT PURPOSES

To: Plans Examiners and Inspectors,

These identification instructions are provided to contractors for permit purposes. The pictures below illustrate our unique "raised" external identification mark (Eagle 6061™) and its location next to the spline groove, to signify our 6061 alloy extrusions. It is ultimately the purchaser's / contractor's responsibility to ensure that the proper alloy is used in conjunction with the engineering selected for construction. We are providing this identification mark to simplify identification when using our 6061 Alloy products.

A separate signed and sealed certification letter from Eagle Metals will be provided once the metal is purchased. This should be displayed on site for review at final inspection.

The inspector should look for the identification mark as specified below to validate the use of 6061 engineering.



EAGLE 6061 I.D.
DIE MARK

10-31-2007

EAGLE METAL DISTRIBUTORS, INC.
THE FREEDOM OF CHOICE
603-B W. LANDSTREET ROAD, ORLANDO, FL 32824
TEL:407-367-0688 • FAX:407-367-0684

ALUMINUM STRUCTURES DESIGN MANUAL
SCREEN ENCLOSURES
INSPECTION GUIDE / DESIGN CHECK LIST
2004 FBC W/ 2006 SUPPLEMENTS
2006 EDITION

Lawrence E. Bennett, P.E. FL # 16644
CIVIL & STRUCTURAL ENGINEERING
P.O. Box 214388, South Daytona, Fl 32121
Telephone #: (386) 767-4774 Fax #: (386) 767-6556
Email: lebpe@bellsouth.net

SEAL

MAR 0 1 2008

SHEET 2 OF 2

General Notes and Specifications:

1. 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.
2. 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.
3. 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.
4. Spans are for enclosures with mean roof heights less than 30'. For greater heights, consult engineer.
5. Connections to fascia shall be limited to overhangs shown in table 1.11 or less unless site specific engineering is provided.
6. The proper structural name for a chair rail or top rail of an enclosure is a girt. Thus the terminology shall be interchangeable.
7. 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 gutter into the fascia shall be caulked.
8. Section 7 contains span tables and attachment details for pans and composite panels.
9. When using TEK screws in lieu of S.M.S., longer screws must be used to compensate for drill head.
10. 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 when a 2" sub-fascia does not exist. Straps at the beam are not required when straps are placed @ each truss / rafter tail and spacing of straps does not exceed 2'-0".
11. Super or extruded gutter details are applicable to all widths of super or extruded gutters, and gutters may be substituted. Gutter straps and/or ferrules shall be the width of the inside and outside of the super or extruded gutter respectively. The center of the knee braces shall not be more than 6" above the top of the super or extruded gutter.
12. 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 may be added to the existing sub-fascia by attaching the plywood with (2) 16d x 3" common nails or (2) #8 x 3" screws. This gives the equivalent of a 2" fascia.
13. Spans may be interpolated between values but not extrapolated outside values.
14. 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.
15. 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'/2 + 7'/2) = 6.5' or 6'-6".
    The distance, spacing or load width is not measured between frame members as that would add 2" to the load width if figured that way.
16. For Design Check List and Inspection Guides for Screened Enclosures, see Appendix (Section 10).
17. All aluminum extrusions shall meet the strength requirements of ASTM B221 after powder coating.
18. 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.
19. All aluminum shall be ordered as to the alloy and hardness after heat treatment and paint is applied. Example: 6061-T6 after heat treatment and paint process.

Section 1 Design Statement (for Structures Constructed using Eagle 6061 T6 Alloy Extruded Members):

The structures designed for Section 1 are framing systems with screen roofs & walls and loads 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 2004 Florida Building Code w/ 2006 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. Multiply wall heights by 1.10 for members controlled by bending(b) and 1.07 for members controlled by deflection(d) when using 18 / 14 screen. All pressures shown in the below table are in PSF (#/SF). All framing components are considered to be 6061-T6 alloy **(see Alloy Identifier Instructions, this page)**.

General Notes and Specifications for Section 1 Tables:

SECTION 1 Uniform Loads for Structures with Screen Roof & Walls

Wind Velocity MPH	Basic Wind Pressure	Exposure 'B'			Exposure 'C'		
		Roofs	Windward Walls	Leeward Walls	Roofs	Windward Walls	Leeward Walls
100	13	3	12	10	5	17	13
110	14	4	13	9	5	18	14
120	17	4	15	13	6	21	17
123	18	4.3	15.9	13.3	6.3	22.2	17.6
130	20	5	18	14	7	25	19
1401 & 2	23	6	21	15	8	29	23
150	26	7	24	18	9	33	27

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	1.00	15	1.00
123	4.3	0.95	15.9	0.97
130	5	0.89	18	0.91
1401 & 2	6	0.82	21	0.85
150	7	0.76	24	0.79

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

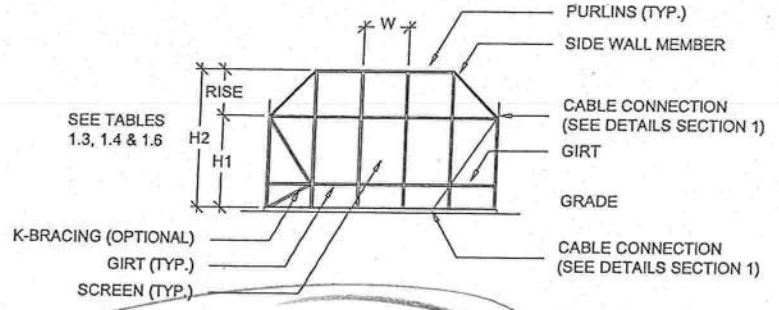
Conversion Table 1B

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"		
	Load Conversion Factor	Span Multiplier		Load Conversion Factor	Span Multiplier	
		Bending	Deflection		Bending	Deflection
0 - 15'	1.21	0.91	0.94	1.47	0.83	0.88
15' - 20'	1.29	0.88	0.92	1.54	0.81	0.87
20' - 25'	1.34	0.86	0.91	1.60	0.79	0.86
25' - 30'	1.40	0.85	0.89	1.66	0.78	0.85
30' - 40'	1.37	0.85	0.90	1.61	0.79	0.85

* Use larger mean roof height of host structure or enclosure
Values are from ASCE 7-02
Multipliers only apply to members when spans / heights are controlled by wind pressure, not by point load.

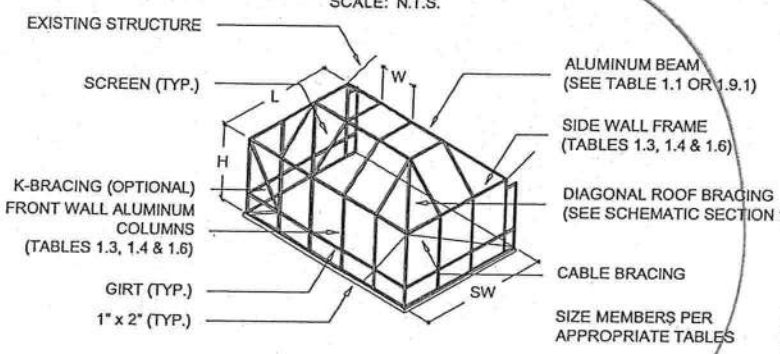
Conversion Example (Convert span for Exposure "B" to "C"):
If max span found from span tables for Exposure "B" = 31'-11" = 31.92'
and the mean roof height of the structure is 0-15' then multiply span by 0.91
the span for Exposure "C" is 31.92' * 0.91 = 29.05' = 29'-1"



NOTE: USE H2 FOR CABLE AREA CALCULATION

TYPICAL MANSARD ROOF - FRONT WALL ELEVATION

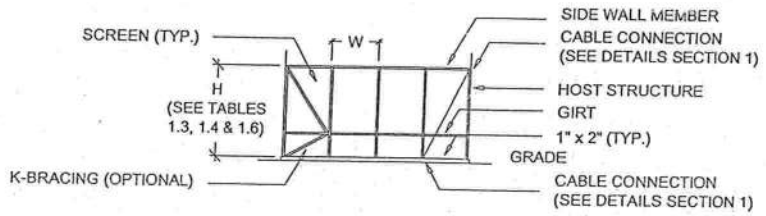
SCALE: N.T.S.



TYPICAL MANSARD ROOF - ISOMETRIC

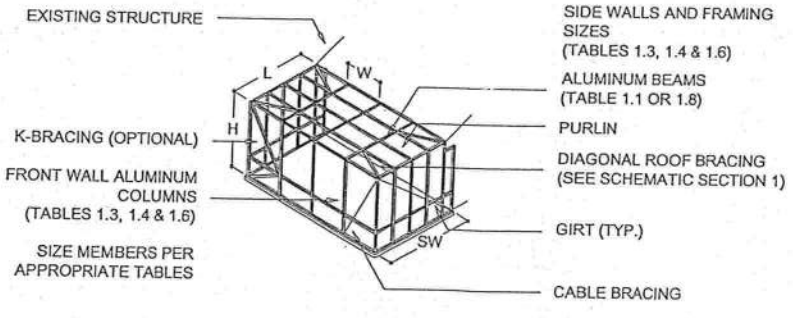
SCALE: N.T.S.

CONNECTION DETAILS AND NOTES ARE FOUND IN THE SUBSEQUENT PAGES.



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.
(ADD HORIZONTAL LENGTH OF KNEE BRACE TO SPAN FROM TABLES)
SW - 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.

EAGLE 6061 ALLOY IDENTIFIER™ INSTRUCTIONS FOR PERMIT PURPOSES

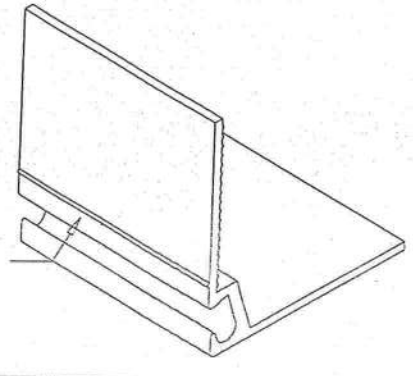
To: Plans Examiners and Inspectors,

These identification instructions are provided to contractors for permit purposes. The pictures below illustrate our unique "raised" external identification mark (Eagle 6061™) and its location next to the spline groove, to signify our 6061 alloy extrusions. It is ultimately the purchaser's / contractor's responsibility to ensure that the proper alloy is used in conjunction with the engineering selected for construction. We are providing this identification mark to simplify identification when using our 6061 Alloy products.

A separate signed and sealed certification letter from Eagle Metals will be provided once the metal is purchased. This should be displayed on site for review at final inspection.

The inspector should look for the identification mark as specified below to validate the use of 6061 engineering.

EAGLE 6061 I.D. DIE MARK



11-4-2007

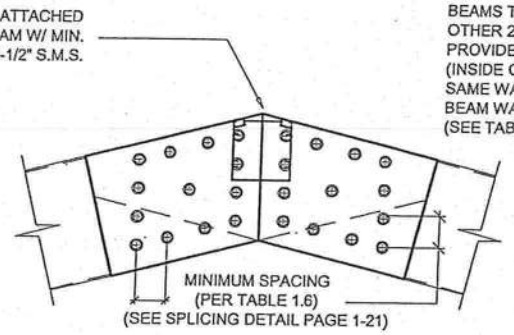
EAGLE METAL DISTRIBUTORS, INC.
❖ THE FREEDOM OF CHOICE ❖
603-B W. LANSTREET ROAD, ORLANDO, FL 32824
• TEL: 407-367-0688 • FAX: 407-367-0684

ALUMINUM STRUCTURES DESIGN MANUAL
SCREEN ENCLOSURES
SECTION 1 DETAILS
2004 FBC W/ 2006 SUPPLEMENTS
2006 EDITION

Lawrence E. Bennett, P.E. FL # 16644
CIVIL & STRUCTURAL ENGINEERING
P.O. Box 214368, South Daytona, Fl 32121
Telephone #: (386) 767-4774 Fax #: (386) 767-6556
Email: lebpe@bellsouth.net

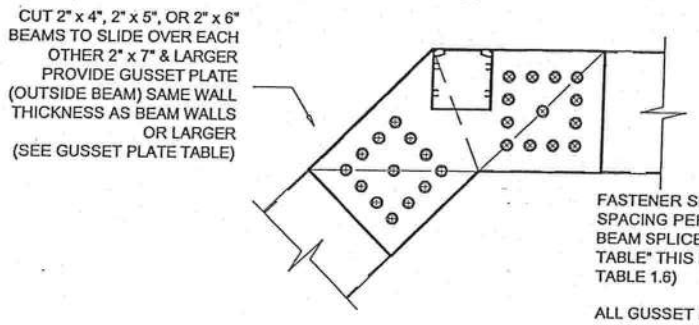
SEAL

SHEET 1 OF 18



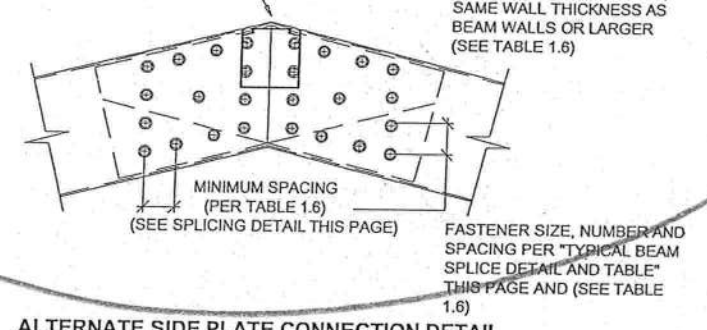
TYPICAL SIDE PLATE CONNECTION DETAIL

SCALE: 2" = 1'-0"



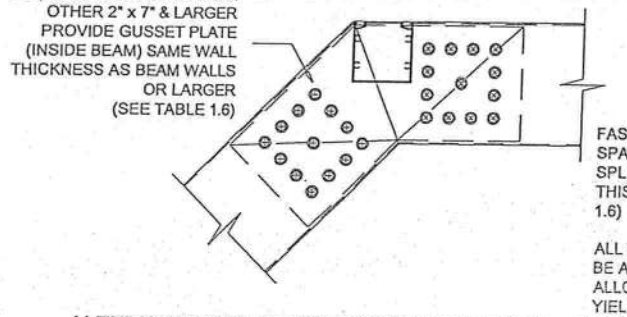
TYPICAL SIDE PLATE CONNECTION DETAIL - MANSARD ROOF

SCALE: 2" = 1'-0"



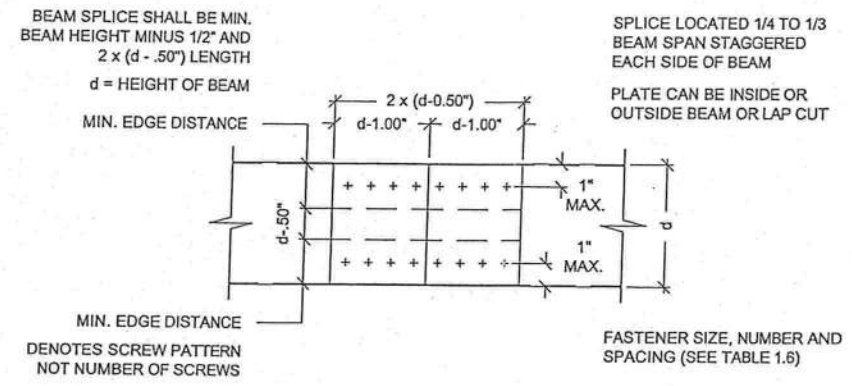
ALTERNATE SIDE PLATE CONNECTION DETAIL
GUSSET PLATE MOUNTED INTERNALLY

SCALE: 2" = 1'-0"



ALTERNATE SIDE PLATE CONNECTION DETAIL - MANSARD ROOF
GUSSET PLATE MOUNTED INTERNALLY

SCALE: 2" = 1'-0"

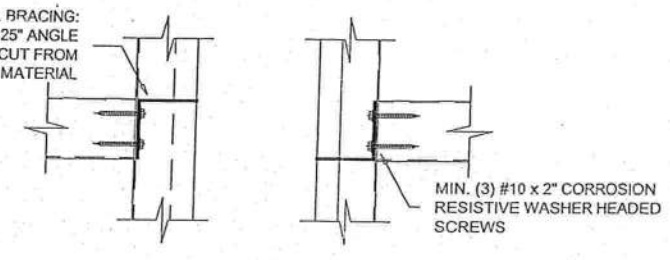


Screw Size	ds (in.)	Minimum Distance and Spacing of Screws*		Gusset Plate	
		Edge to Center 2ds (in.)	Center to Center 2-1/2ds (in.)	Beam Size	Thickness (in.)
#8	0.16	3/8	7/16	2" x 7" x 0.059" x 0.120"**	1/16 = 0.063
#10	0.19	3/8	1/2	2" x 8" x 0.072" x 0.224"	1/8 = 0.125
#12	0.21	7/16	9/16	2" x 9" x 0.072" x 0.224"	1/8 = 0.125
#14 or 1/4"	0.25	1/2	5/8	2" x 9" x 0.082" x 0.306"	1/8 = 0.125
5/16"	0.31	5/8	3/4	2" x 10" x 0.092" x 0.369"	1/4 = 0.25

* refers to each side of splice
** use for 2" x 4" and 2" x 6" also
Note:
1. All gusset plates shall be minimum 5052 H-32 Alloy or have a minimum yield of 30 ksi.

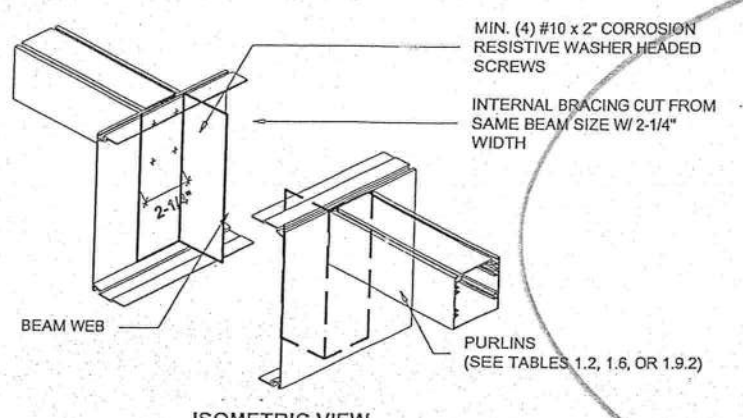
TYPICAL BEAM SPLICE DETAIL

SCALE: 2" = 1'-0"



PLAN VIEW

SCALE: 2" = 1'-0"

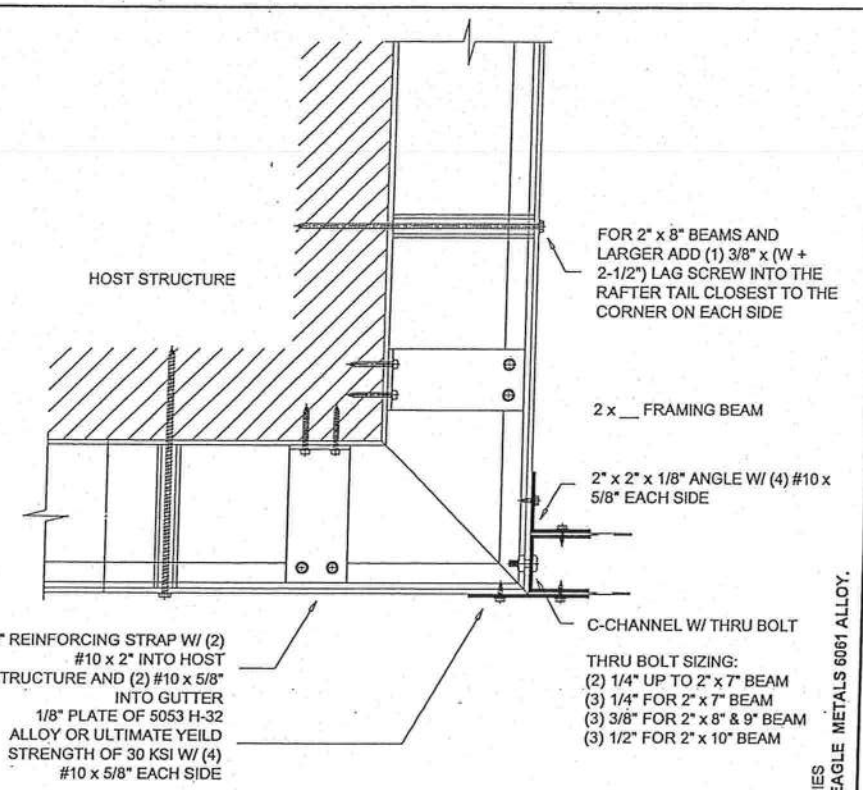


ISOMETRIC VIEW

SCALE: N.T.S.

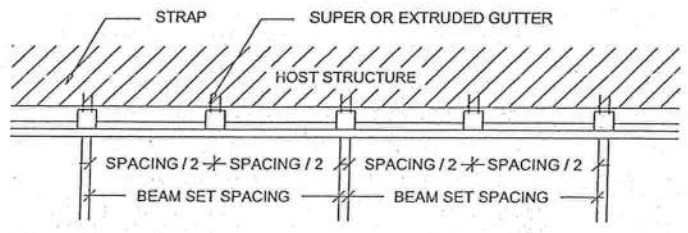
LATERAL BEAM BRACING DETAILS (FOR SPANS GREATER THAN 40'-0")

NOTES:
1. REQUIRED FOR SPANS GREATER THAN 40' AND ALL DOME OR TRANSVERSE GABLE ENCLOSURES.
2. ALL 2x4 AND LARGER PURLINS SHALL HAVE AN INTERNAL OR EXTERNAL ANGLE CLIP OR SCREW BOSS TO FASTEN THE BOTTOM OF THE PURLIN TO THE BEAM OR SCREW BOSS.



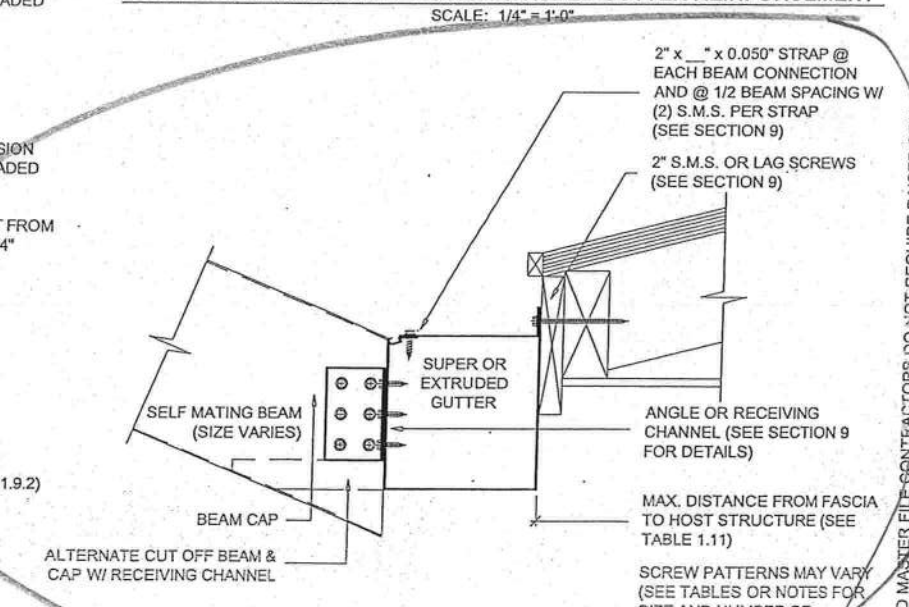
OUTER MITER DETAIL FOR SUPER GUTTER TO CARRIER BEAM

SCALE: 2" = 1'-0"



STRAP LOCATION FOR SUPER OR EXTRUDED GUTTER REINFORCEMENT

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



SELF MATING BEAM CONNECTION TO SUPER OR EXTRUDED GUTTER

SCALE: 2" = 1'-0"

10-31-2007

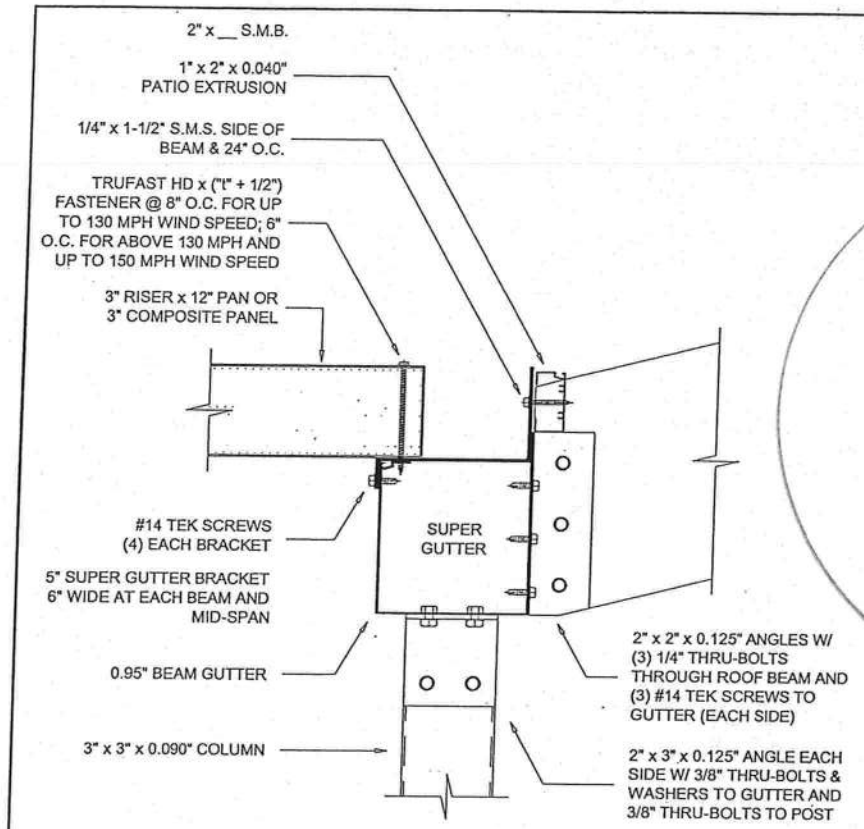
EAGLE METAL DISTRIBUTORS, INC.
THE FREEDOM OF CHOICE
603-B W. LANDSTREET ROAD, ORLANDO, FL 32824
TEL:407-367-0688 • FAX:407-367-0684

ALUMINUM STRUCTURES DESIGN MANUAL
SCREEN ENCLOSURES
SECTION 1 DETAILS
2004 FBC W/ 2006 SUPPLEMENTS
2006 EDITION

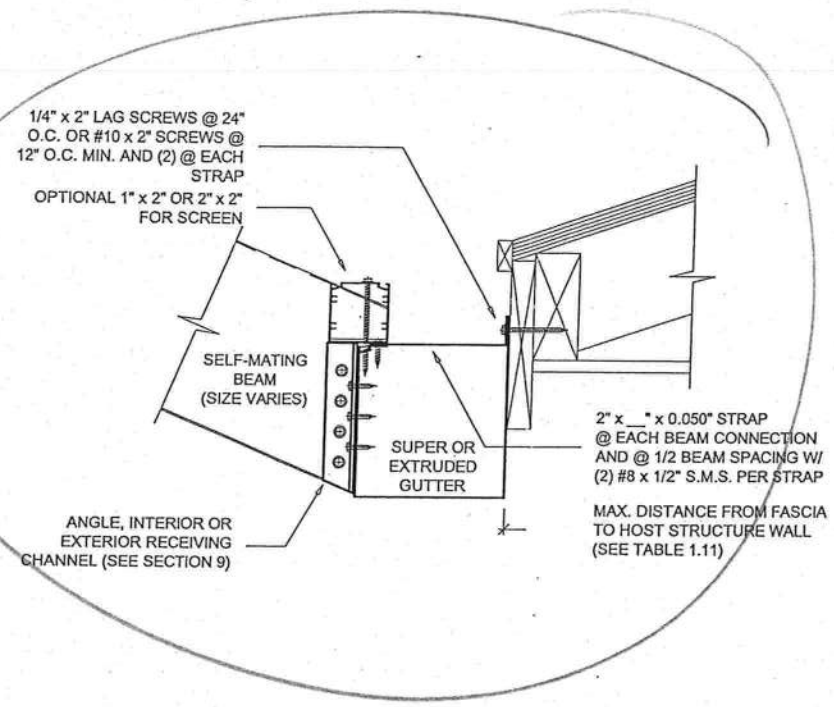
Lawrence E. Bennett, P.E. FL # 16644
CIVIL & STRUCTURAL ENGINEERING
P.O. Box 214368, South Daytona, Fl 32121
Telephone #: (386) 767-4774 Fax #: (386) 767-6566
Email: lebpe@bellsouth.net

SEAL
MAY 2006

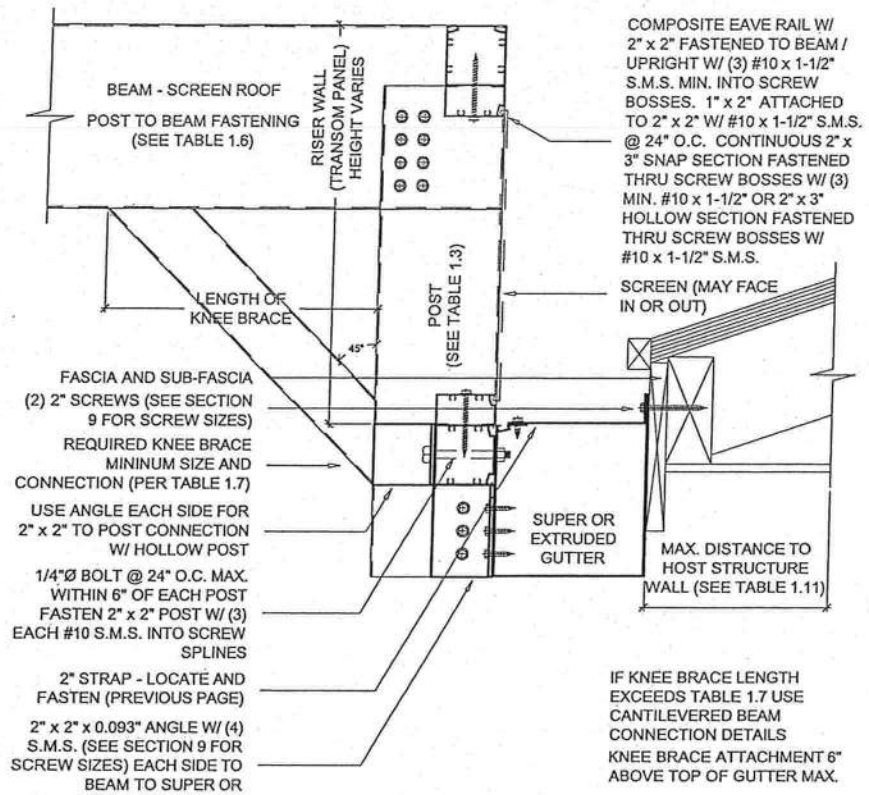
SHEET
5
OF
18



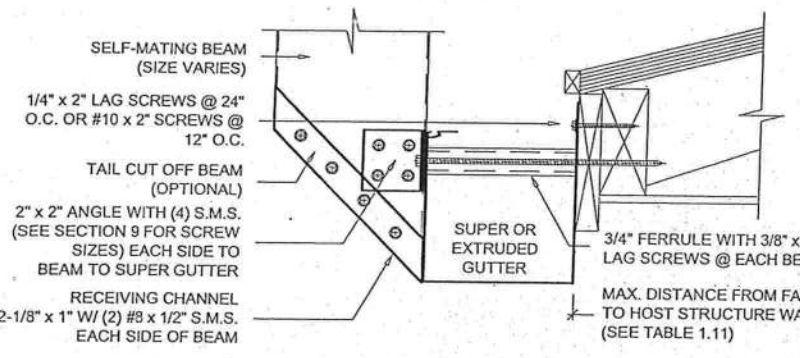
ALTERNATE SELF-MATING BEAM CONNECTION TO SUPER GUTTER
SCALE: 2" = 1'-0"



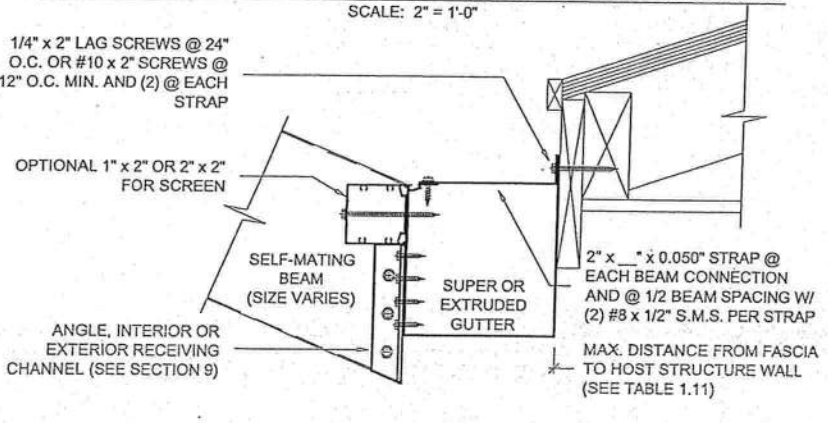
ALTERNATE SELF MATING BEAM CONNECTION
TO SUPER OR EXTRUDED GUTTER
SCALE: 2" = 1'-0"



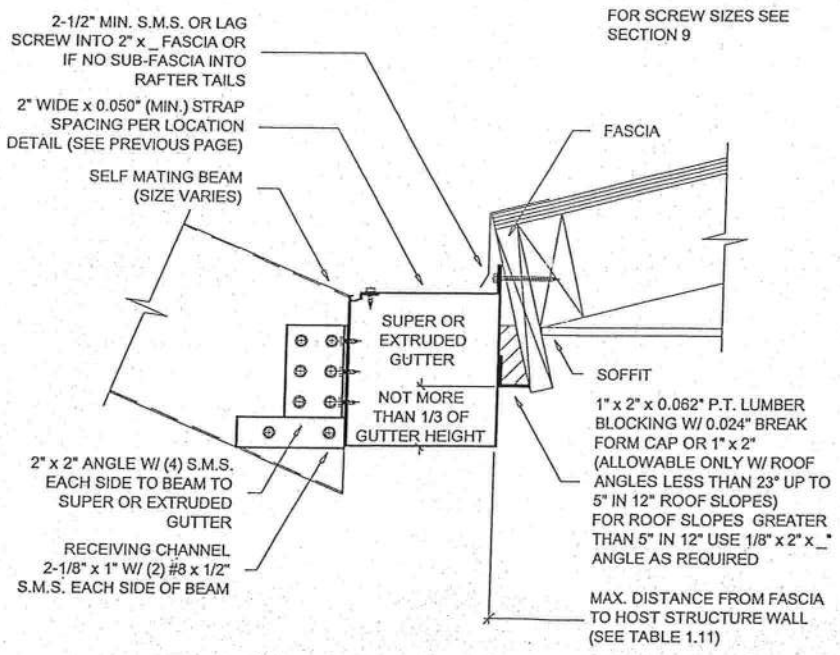
SUPER OR EXTRUDED GUTTER
RISER (OR TRANSOM) WALL AT FASCIA - DETAIL 1
SCALE: 2" = 1'-0"



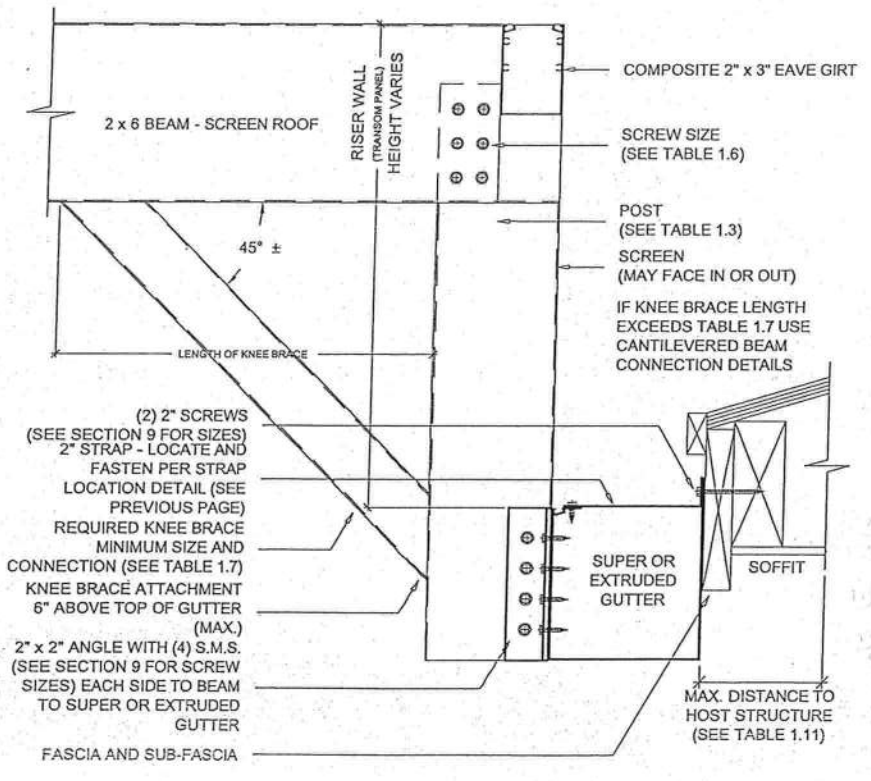
SELF MATING BEAM AND SUPER OR EXTRUDED GUTTER CONNECTION
SCALE: 2" = 1'-0"



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



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



SUPER OR EXTRUDED GUTTER
RISER (OR TRANSOM) WALL AT FASCIA - DETAIL 2
SCALE: 2" = 1'-0"

EAGLE METAL DISTRIBUTORS, INC.
THE FREEDOM OF CHOICE
603-B W. LANDSTREET ROAD, ORLANDO, FL. 32824
TEL: (407)367-0688 • FAX: (407)367-0684

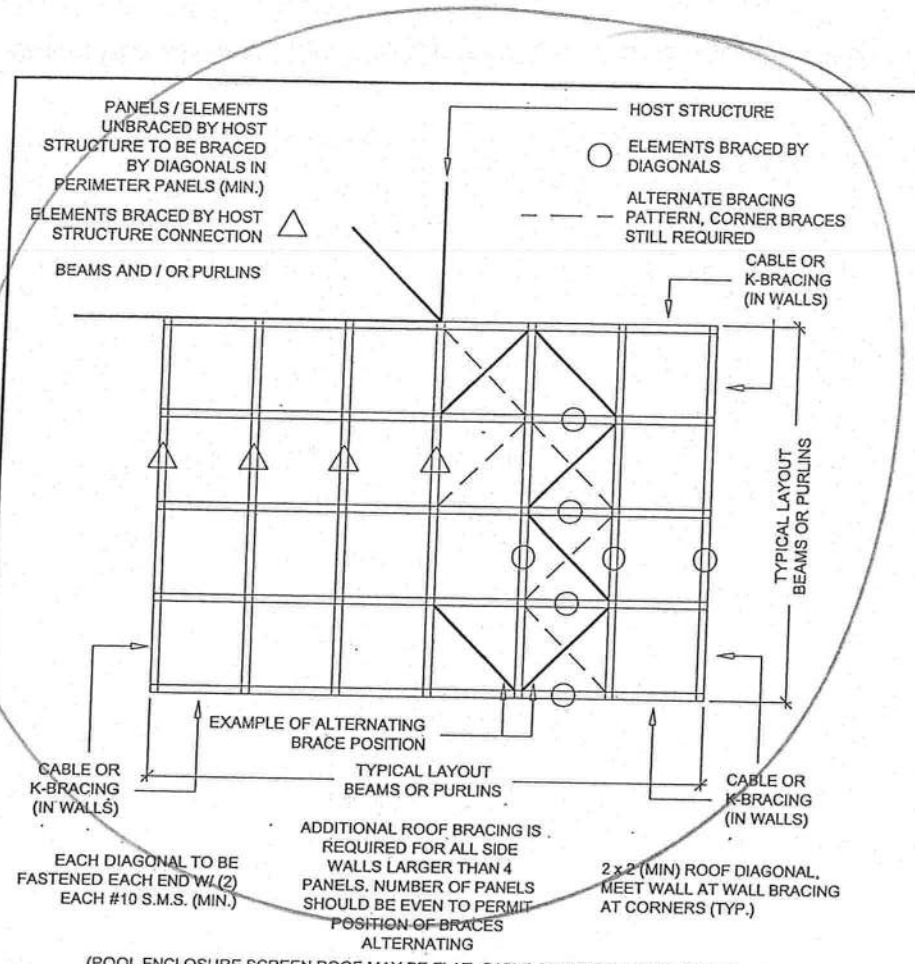
ALUMINUM STRUCTURES DESIGN MANUAL
SCREEN ENCLOSURES
SECTION 1 DETAILS
2004 FBC W/ 2006 SUPPLEMENTS
2006 EDITION

Lawrence E. Bennett, P.E. FL # 16644
CIVIL & STRUCTURAL ENGINEERING
P.O. Box 214368, South Daytona, Fl 32121
Telephone #: (386) 767-4774 Fax #: (386) 767-6556
Email: labpe@bellsouth.net

SEAL

SHEET 6 OF 18

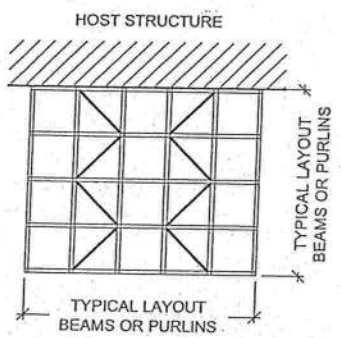
10-31-2007



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

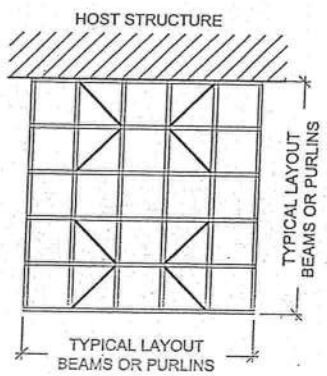
POOL ENCLOSURE DIAGONAL BRACING - SCHEMATIC PLAN VIEW

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"

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% (8' x 20') = 80 Sq. Ft.
TOTAL WALL AREA = 336 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.

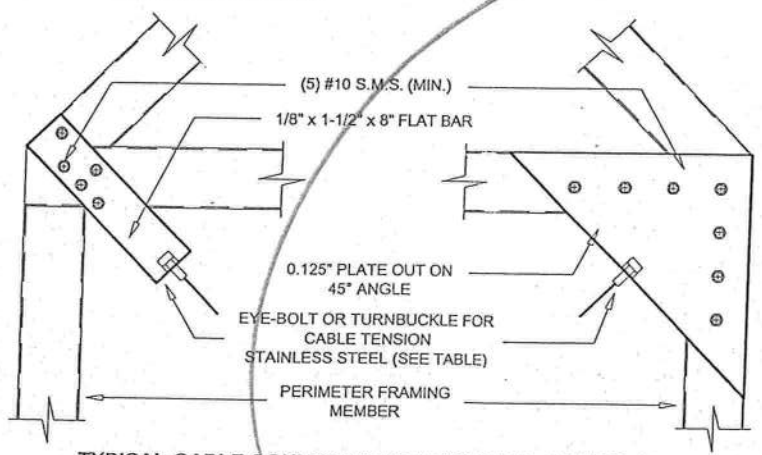
NOTES:

1. 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.

2. 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.

3. Standard rounding off rules apply. ie: 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.

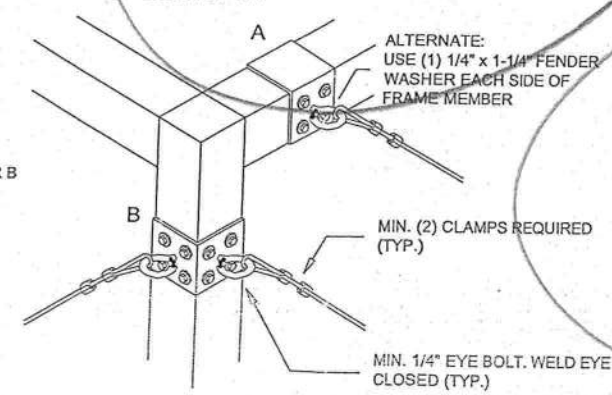
4. Additional roof bracing is required for all side walls larger than 4 panels. Number of panels shall be even and position shall be alternating.



TYPICAL CABLE CONNECTIONS AT CORNER - DETAIL 1

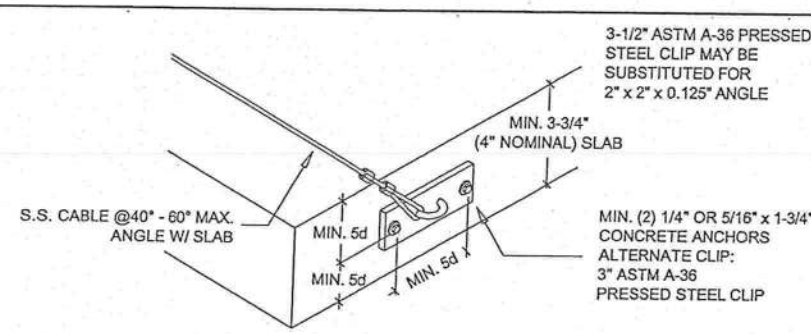
SCALE: 2" = 1'-0"

1" x 2" x 0.125" CLIP AND (4) #10 x 3/4" S.M.S. EACH SIDE FOR CABLES



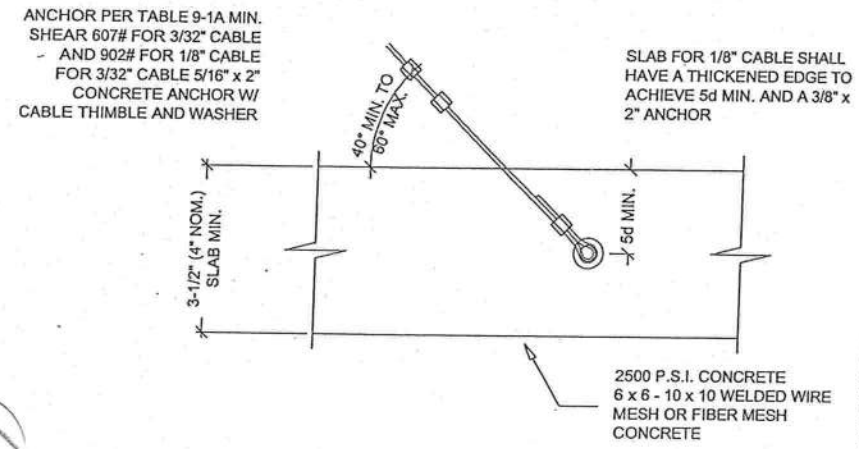
ALTERNATE TOP CORNER OF CABLE CONNECTION - DETAIL 1A

SCALE: 2" = 1'-0"



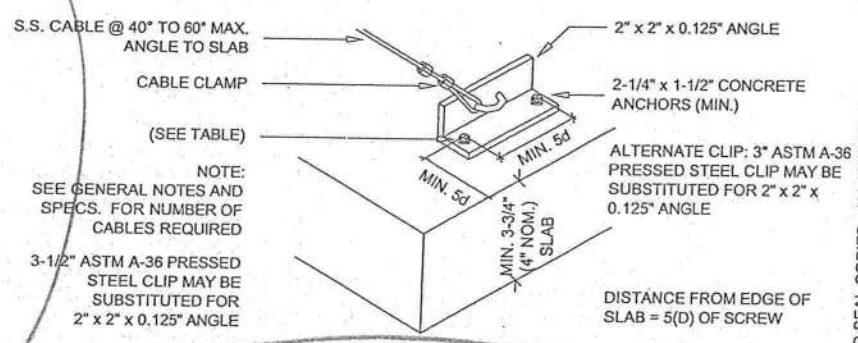
TYPICAL CABLE CONNECTION AT SLAB DETAIL - DETAIL 2

SCALE: 2" = 1'-0"



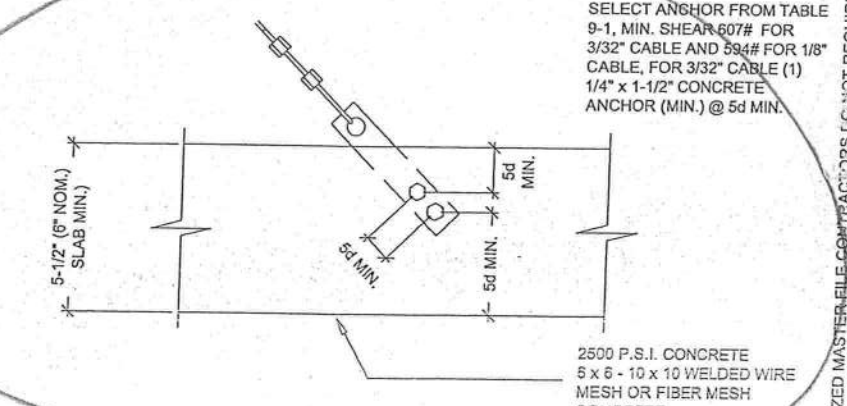
ALTERNATE CABLE CONNECTIONS AT FOUNDATION - DETAIL 2A

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"

10-31-2007

EAGLE METAL DISTRIBUTORS, INC.
THE FREEDOM OF CHOICE
603 - B W. LANCASTER ROAD, ORLANDO, FL. 32824
TEL:407-367-0688 • FAX:407-307-0684

ALUMINUM STRUCTURES DESIGN MANUAL
SCREEN ENCLOSURES
SECTION 1 DETAILS
2004 FBC W/ 2006 SUPPLEMENTS
2006 EDITION

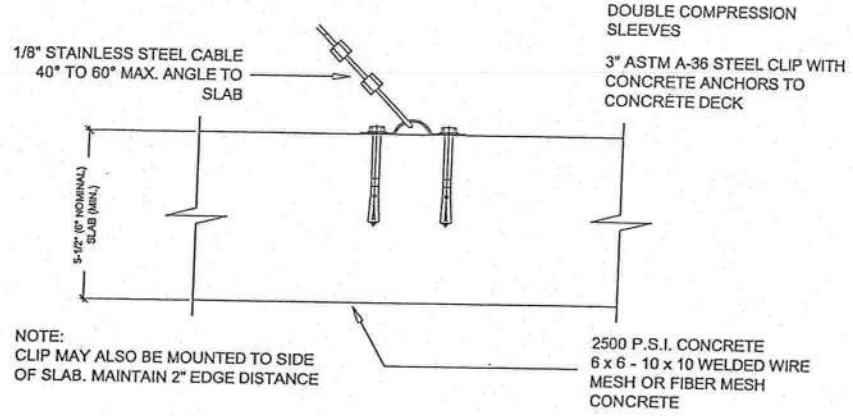
Lawrence E. Bennett, P.E. FL # 16644
CIVIL & STRUCTURAL ENGINEERING
P.O. Box 214368, South Daytona, Fl 32121
Telephone #: (386) 767-4774 Fax #: (386) 767-6556
Email: lebpe@bellsouth.net

SEAL

SHEET

10

18



ALTERNATE CABLE CONNECTIONS AT FOUNDATION - DETAIL 2D

SCALE: 2" = 1'-0"

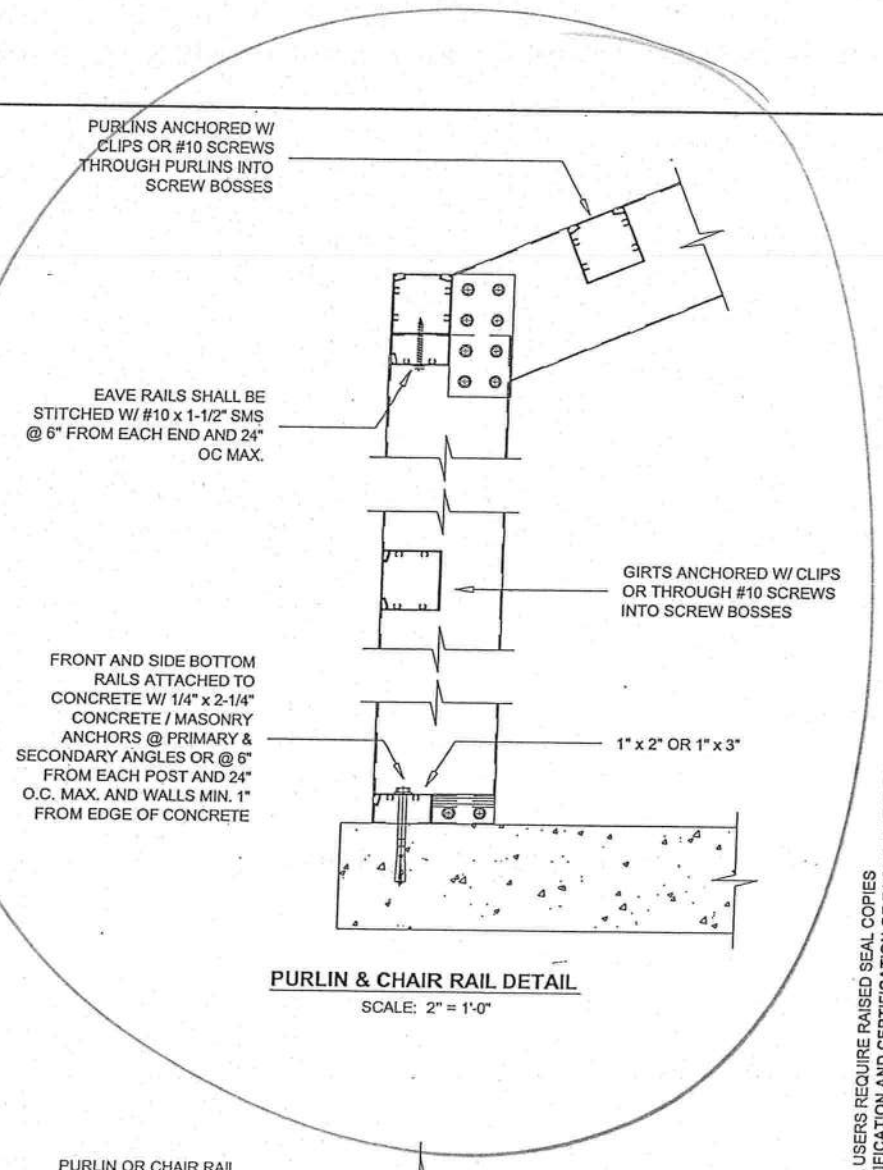
K-BRACING

General Notes and Specifications:

1) The following shall apply to the installation of K-BRACINGas additional bracing to diagonal wind bracing for pool enclosures:
   a) 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.
   b) SIDE WALL K-BRACING - ONE SET FOR 233 SF TO 800 SF OF WALL.
   c) 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.

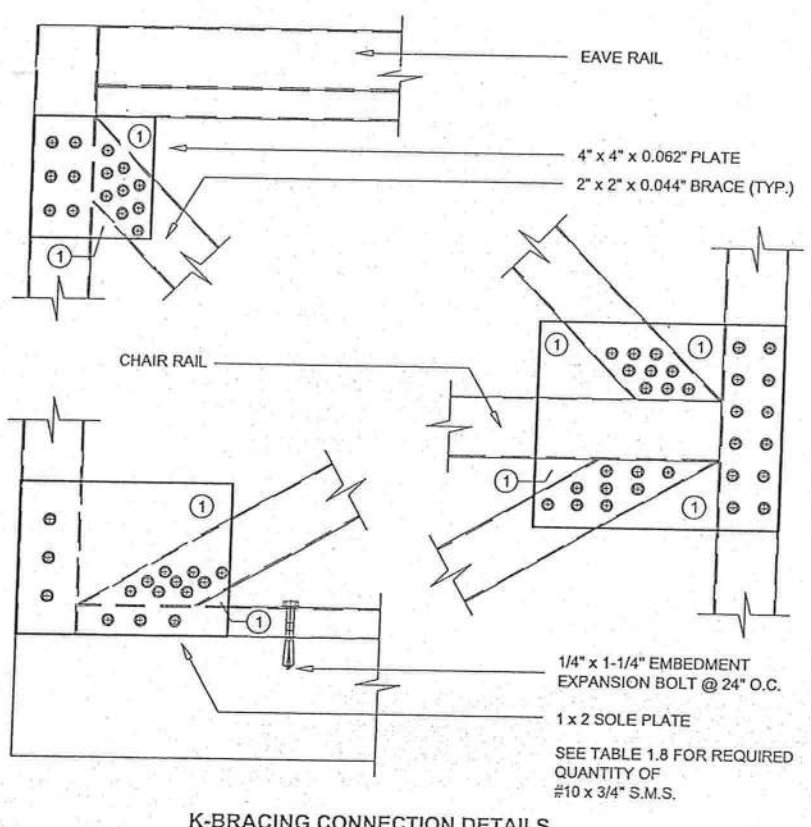
NOTES:

1. K-bracing shall be used for all wind zones of 130 MPH and higher.
2. Side walls do not require k-bracing until the side wall area is greater than 233 SF.
3. Standard rounding off rules apply. ie: 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.



PURLIN & CHAIR RAIL DETAIL

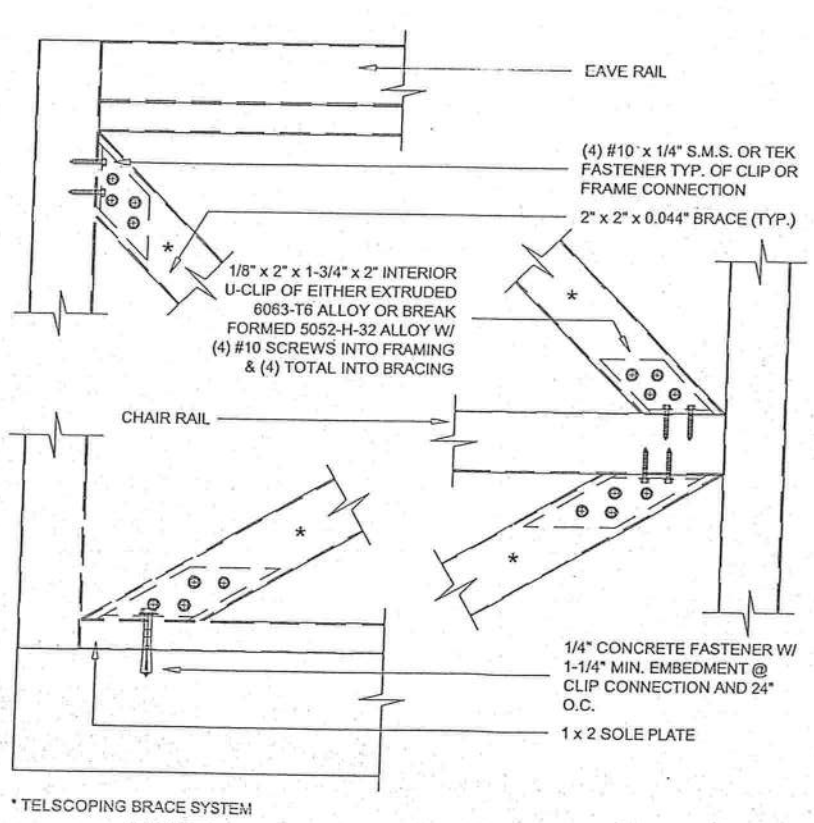
SCALE: 2" = 1'-0"



K-BRACING CONNECTION DETAILS

SCALE: 2" = 1'-0"

NOTES:
1. Can trim plate this area.
2. Alternate connections use 'H' bar cut to fit connections.

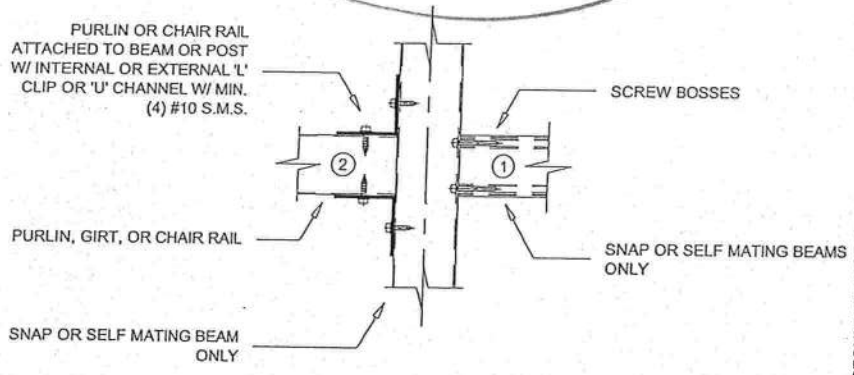


* TELSCOPING BRACE SYSTEM

ALTERNATE K-BRACING CONNECTION DETAILS

SCALE: 2" = 1'-0"

NOTE:
Alternate connections use 'H' bar cut to fit connections.



PURLIN TO BEAM OR GIRT TO POST DETAIL

SCALE: 2" = 1'-0"

① FOR WALLS LESS THAN 6'-8" 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

② 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.

10-31-2007

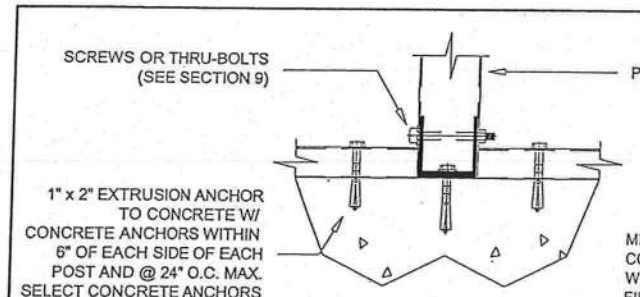
EAGLE METAL DISTRIBUTORS, INC.
❖ THE FREEDOM OF CHOICE ❖
603 - B W. LANDSTREET ROAD, ORLANDO, FL. 32824
• TEL:(407)-367-0688 • FAX:(407)-380-0684

ALUMINUM STRUCTURES DESIGN MANUAL
SCREEN ENCLOSURES
SECTION 1 DETAILS
2004 FBC W/ 2006 SUPPLEMENTS
2006 EDITION

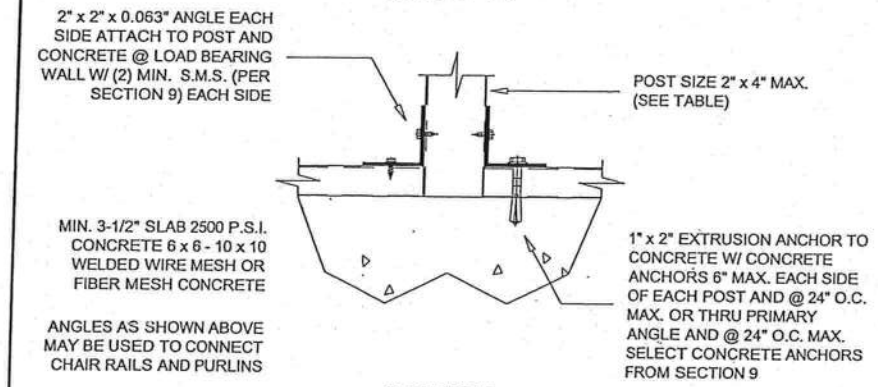
Lawrence E. Bennett, P.E. FL # 16644
CIVIL & STRUCTURAL ENGINEERING
P.O. Box 214368, South Daytona, Fl 32121
Telephone #: (386) 767-4774 Fax #: (386) 767-6556
Email: lebpe@bellsouth.net

SEAL

SHEET 11 OF 18

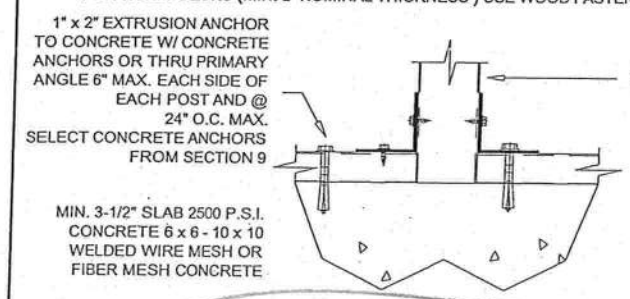


SIDE WALL
POST TO PLATE TO CONCRETE DETAIL
SCALE: 2" = 1'-0"

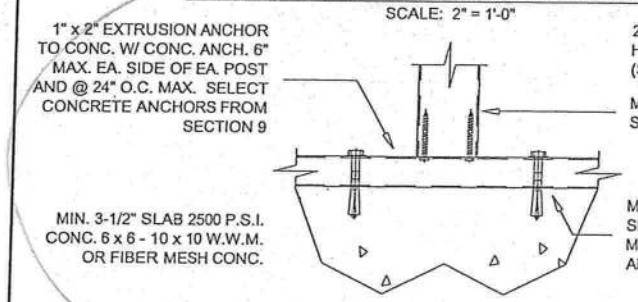


SIDE WALL
ALTERNATE POST TO BEAM AND PLATE TO CONCRETE DETAIL
SCALE: 2" = 1'-0"

FOR WOOD DECKS (MIN. 2" NOMINAL THICKNESS) USE WOOD FASTENERS W/ THESE DETAILS



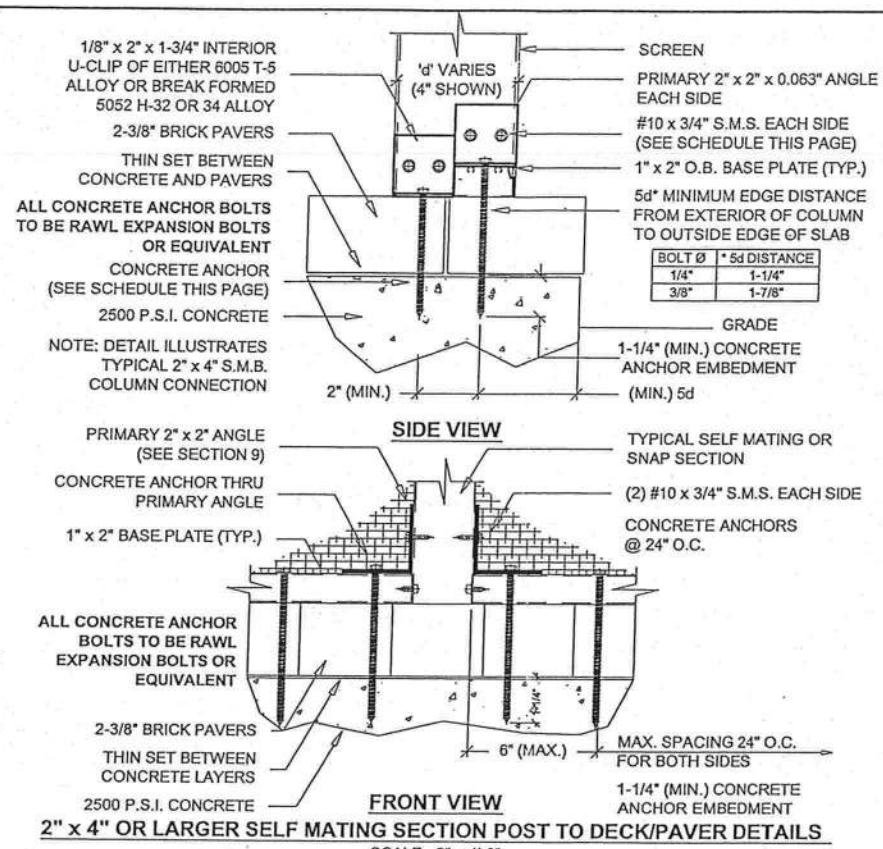
SIDE WALL POST TO PLATE TO CONCRETE DETAIL
SCALE: 2" = 1'-0"



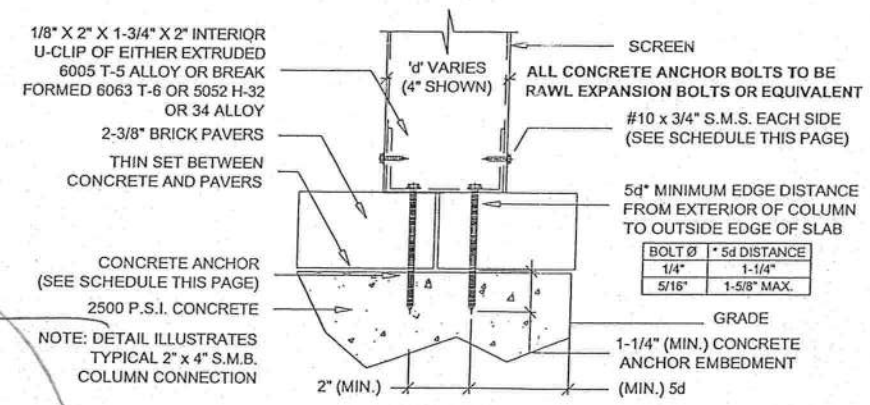
SIDE WALL HOLLOW POST TO BASE DETAIL
SCALE: 2" = 1'-0"

POOL ENCLOSURE UPRIGHT TO DECK ANCHOR REQUIREMENTS

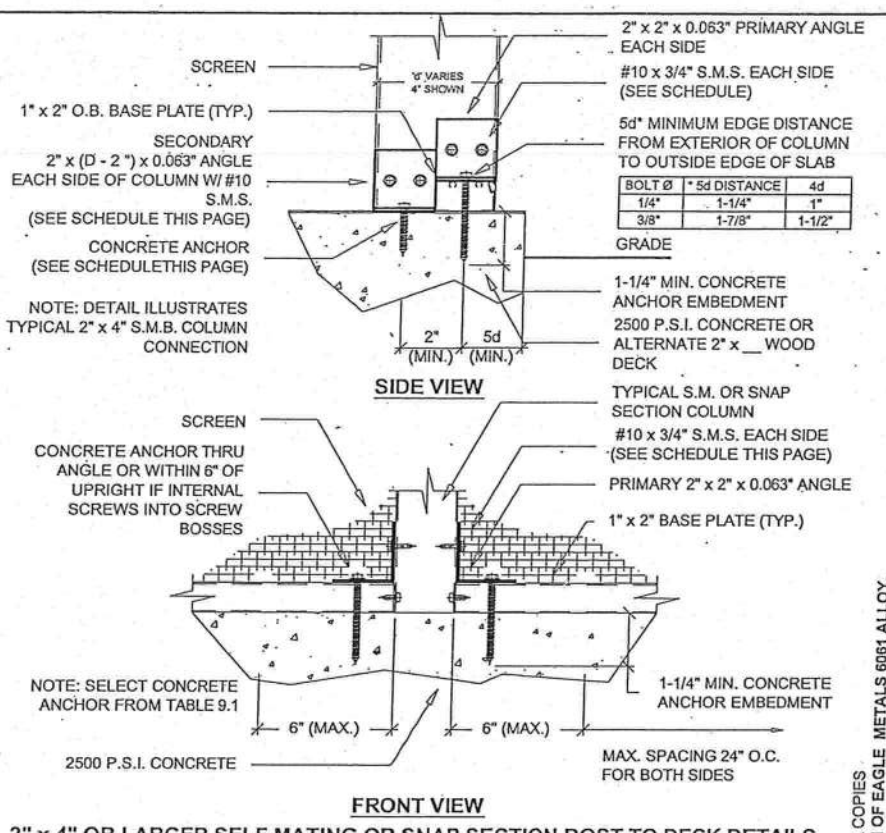
General Notes and Specifications:
1. The uplift load on a pool enclosure upright is calculated as 1/2 the beam span x the beam spacing x the screen load of 7# / Sq. Ft.
   EXAMPLE:
   FOR A 2" x 6" BEAM WITH A SPAN OF 23' AND A BEAM & UPRIGHT SPACING OF 7' USE: 1/2 x 17'-11" x 7' x 10# / Sq. Ft. = 627.2# UPLIFT
2. Table 1.6 of this manual uses the worst case loads for all cases.
3. In all cases there must be a primary anchor within 6" of each side of the upright.
4. For attachment to wood deck (min. 2" nominal thickness) use wood anchors with details shown above (min. 1-3/8" embedment).



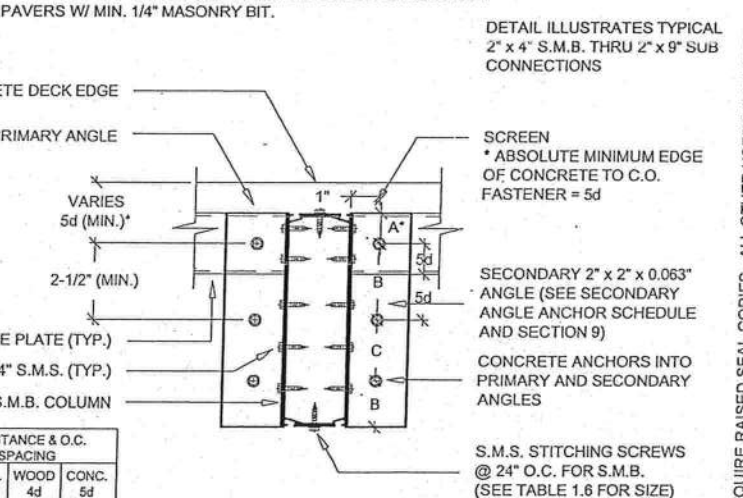
2" x 4" OR LARGER SELF MATING SECTION POST TO DECK/PAVER DETAILS
SCALE: 2" = 1'-0"
NOTE: FOR SIDE WALLS OF 2" x 4" OR SMALLER ONLY ONE ANGLE IS REQUIRED.



2" x 4" OR LARGER SELF MATING SECTION POST TO DECK/PAVER DETAILS
SCALE: 2" = 1'-0"
NOTE:
1. FOR SIDE WALLS OF 2" x 4" OR SMALLER ONLY ONE ANGLE IS REQUIRED.
2. PREDRILL PAVERS W/ MIN. 1/4" MASONRY BIT.



2" x 4" OR LARGER SELF MATING OR SNAP SECTION POST TO DECK DETAILS
SCALE: 2" = 1'-0"
NOTE:
1. FOR SIDE WALLS OF 2" x 4" OR SMALLER ONLY ONE ANGLE IS REQUIRED.
2. PREDRILL PAVERS W/ MIN. 1/4" MASONRY BIT.



MIN. EDGE DISTANCE & O.C. ANCHOR SPACING			
ANCHOR	ALUM. 2-1/2d	WOOD 4d	CONC. 5d
1/4"	5/8"	1"	1-1/4"
5/16"	25/32"	1-1/4"	1-9/16"
3/8"	15/16"	1-1/2"	1-7/8"

TOP VIEW POST TO DECK DETAIL
SCALE: 2" = 1'-0"

Primary and Secondary Anchor Schedule

Column Size	Secondary Angle				Maximum Number and Spacing Anchors											
	Angle Length "L"	Number of Anchors 1/4"	5/16"	3/8"	1/4" #	1/4" "A"	1/4" "B"	1/4" "C"	5/16" #	5/16" "A"	5/16" "B"	5/16" "C"	3/8" #	3/8" "A"	3/8" "B"	3/8" "C"
2 x 4	2"	4	4	4	4	1"	1"	1"	4	1"	1"	1"	4	1"	1"	1"
2 x 5	3"	4	4	4	4	1"	1-1/2"	-	4	1"	1-1/2"	-	4	1"	1-1/2"	-
2 x 6	4"	4	4	4	4	1"	2"	-	4	1"	2"	-	4	1"	2"	-
2 x 7	5"	6	4	4	6	1"	5/8"	1-7/8"	4	1"	2-1/2"	-	4	1"	2-1/2"	-
2 x 8	6"	6	4	4	6	1"	5/8"	2-3/8"	4	1"	3"	-	4	1"	3"	-
2 x 9	7"	6	6	4	6	1"	5/8"	2-7/8"	6	1"	13/16"	2-7/8"	4	1"	3-1/2"	-
2 x 10	8"	8	6	6	8	1"	5/8"	2"	6	1"	13/16"	3-3/16"	6	1"	3/4"	3-1/4"

Example:
Calculate the number of anchors required: 1.5 x beam span / 2 x beam spacing x roof wind pressure (PSF) = total #;
If 1.5 x 30'/2 x 6' x 10 PSF = = 1350# and 1/4" x 1/4" Tapcon in tension @ 5d = 427# / ea. (see table 9.1)
then 1350# / 427# / ea. = 3.16 ea. use (3) ea., secondary angle not required
Actual Edge Distance Example:
From edge of concrete to fastener = 2" / dia. of 0.25" = 8d
Note:
For attachment to wood deck substitute wood fasteners for concrete fasteners & calculate the required number of fasteners using tables from section 9.

10-31-2007

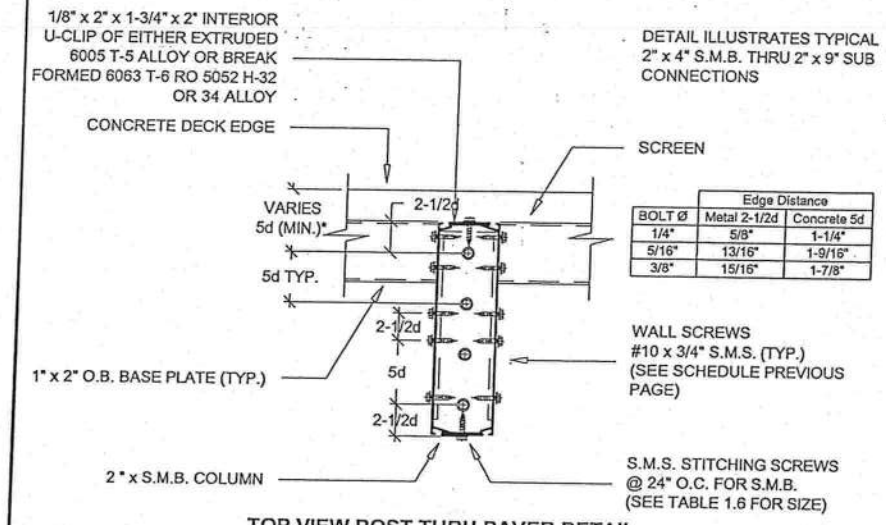
EAGLE METAL DISTRIBUTORS, INC.
THE FREEDOM OF CHOICE
603 - B W. LANDSTREET ROAD, ORLANDO, FL. 32824
TEL:(407)-367-0088 • FAX:(407)-367-0084

ALUMINUM STRUCTURES DESIGN MANUAL
SCREEN ENCLOSURES
SECTION 1 DETAILS
2004 FBC W/ 2006 SUPPLEMENTS
2006 EDITION

Lawrence E. Bennett, P.E. FL # 16644
CIVIL & STRUCTURAL ENGINEERING
P.O. Box 214388, South Daytona, Fl 32121
Telephone #: (386) 767-4774 Fax #: (386) 767-6556
Email: lebpe@bellsouth.net

SEAL

SHEET
12
18



BOLT Ø	Edge Distance	
	Metal 2-1/2d	Concrete 5d
1/4"	5/8"	1-1/4"
5/16"	13/16"	1-9/16"
3/8"	15/16"	1-7/8"

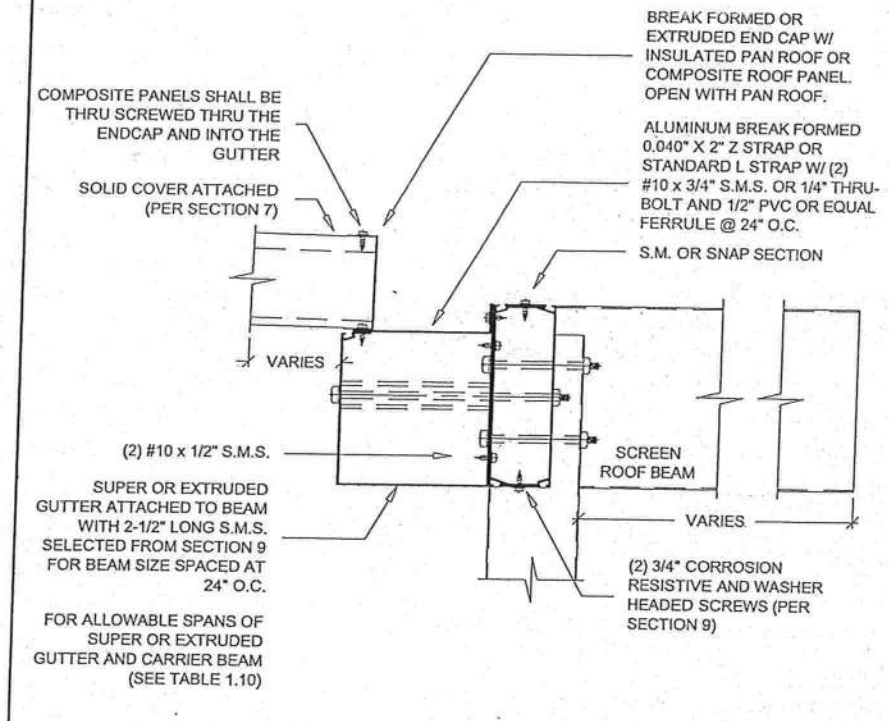
TOP VIEW POST THRU PAVER DETAIL

SCALE: 2" = 1'-0"

EXAMPLE OF NUMBER OF SRCREWS 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 9.1 = TOTAL NUMBER OF ANCHORS
2. UPRIGHT WALL ANCHORS: ANCHORS ARE IN SHEAR & THROUGH BOLTS ARE IN DOUBLE SHEAR
   P / ALLOWABE LOAD FROM TABLE 9.4 = TOTAL NUMBER OF ANCHORS

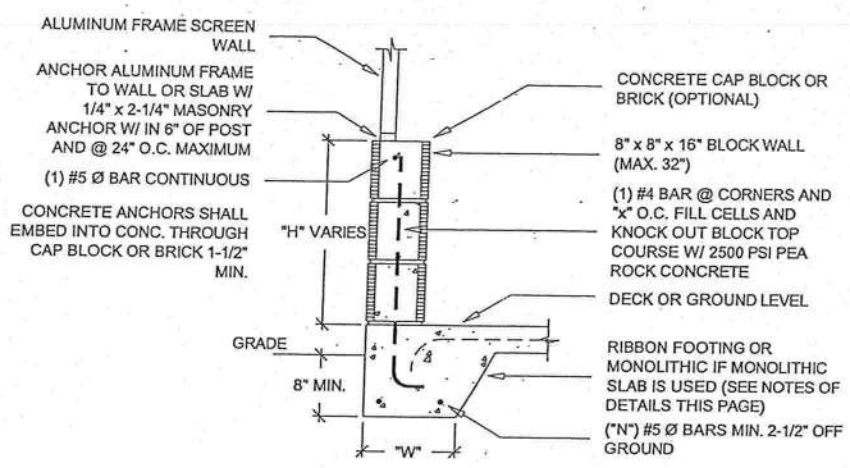
* SEE PAGE 1ii FOR ROOF WIND LOAD



NOTE:
BEAM MAY BE ATTACHED TO SUPER GUTTER AND SOLID ROOF TO S.M.B. PROVIDED A STRAP OR 1/2" P.V.C. OR EQUAL FERRULE IS PROVIDED AT EACH BEAM.

SUPER OR EXTRUDED GUTTER - SOLID ROOF / SCREEN ROOF COMBINATION

SCALE: 2" = 1'-0"

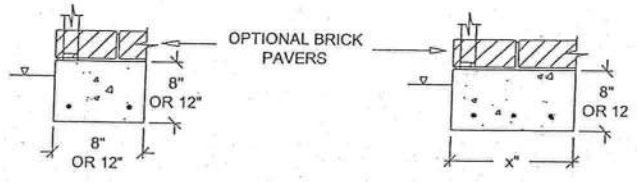


KNEE WALL FOOTING FOR SCREENED ENCLOSURES

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

Knee Wall Table

h	W	N		X
		#3	#4	
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"



ALUMINUM STRUCTURE
(16' MAX. HEIGHT SIDE WALL ONLY)
FOOTING 2500 PSI CONCRETE W/ (1) #5Ø OR (2) #3Ø CONT. BARS MIN. 2-1/2" OFF GROUND

RIBBON FOOTING - TYPE 1

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

ALUMINUM STRUCTURE
(ALL FRONT WALLS)
FOOTING 2500 PSI CONCRETE W/ (n1) #3Ø OR (n2) #5Ø BARS CONTINUOUS BARS MIN. 2-1/2" OFF GROUND

RIBBON FOOTING - TYPE 2

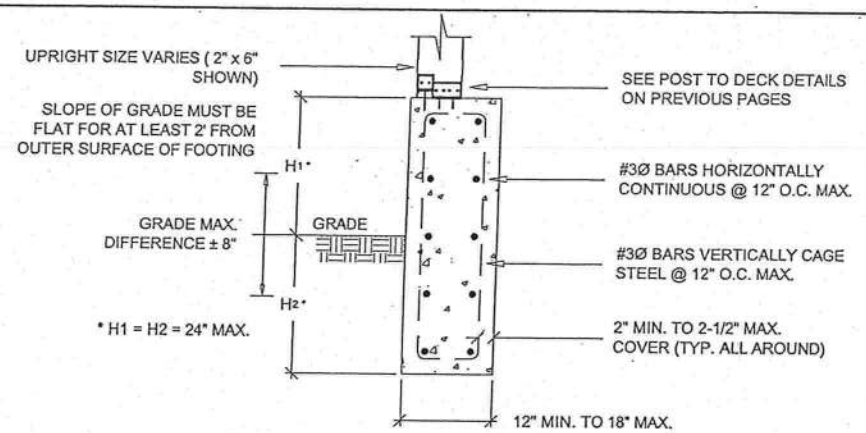
SCALE: 1/2" = 1'-0"

Allowable Beam Span for Wind Zone & Exposure Category

Ribbon Footing Data				100-125 MPH		126-134 MPH		135-144 MPH		145-150 MPH		Areas sq. in.		Number of Bars	
Depth	x	n1*	n2**	B	C	B	C	B	C	B	C	Footing	Steel	#3Ø	#5Ø
8"	8"	2	1	15.4'	12.8'	15.4'	11.0'	12.8'	9.5'	11.0'	8.5'	64	0.12	2	1
12"	8"	2	1	23.0'	19.2'	23.0'	16.5'	19.2'	14.4'	16.5'	12.8'	72	0.13	2	1
8"	12"	2	1	23.0'	19.2'	23.0'	16.5'	19.2'	14.4'	16.5'	12.8'	72	0.13	2	1
12"	12"	3	2	24.0'	20.0'	24.0'	17.1'	17.1'	15.0'	17.1'	13.3'	144	0.26	3	2
12"	16"	3	2	36.0'	26.6'	31.9'	21.9'	25.6'	19.2'	21.9'	17.1'	192	0.35	4	2
12"	18"	3	2	37.9'	30.0'	36.0'	25.7'	30.0'	22.5'	25.7'	20.0'	216	0.39	4	2
12"	24"	4	3	48.0'	40.0'	48.0'	34.3'	40.5'	30.0'	34.3'	26.7'	288	0.52	-	2
12"	30"	4	3	57.6'	48.0'	57.6'	41.1'	48.0'	36.0'	41.1'	32.0'	360	0.65	-	3
12"	36"	5	4	69.1'	57.6'	69.1'	49.4'	57.6'	43.2'	49.4'	38.4'	432	0.78	-	3

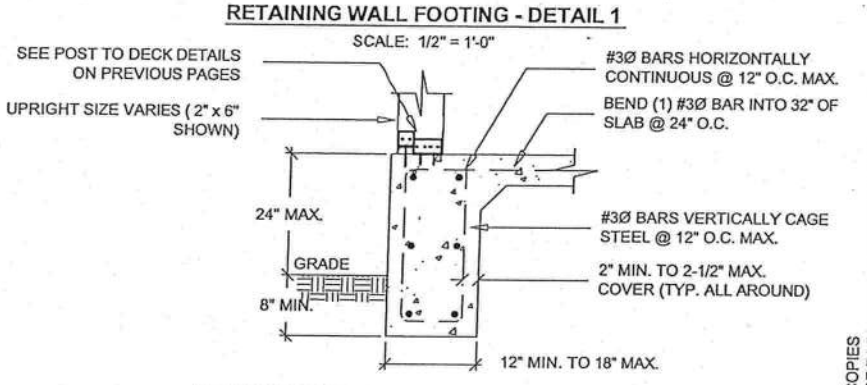
Nominal 4" Slab	100-125 MPH		126-134 MPH		135-144 MPH		145-150 MPH	
Depth	B	C	B	C	B	C	B	C
3-1/2"	50.4'	42.0'	50.4'	36.0'	42.0'	31.5'	36.0'	28.0'

*n1 = number of #3Ø bars @ 0.11 sq. in. grade 60 steel
**n2 = number of #5Ø bars @ 0.31 sq. in grade 60 steel



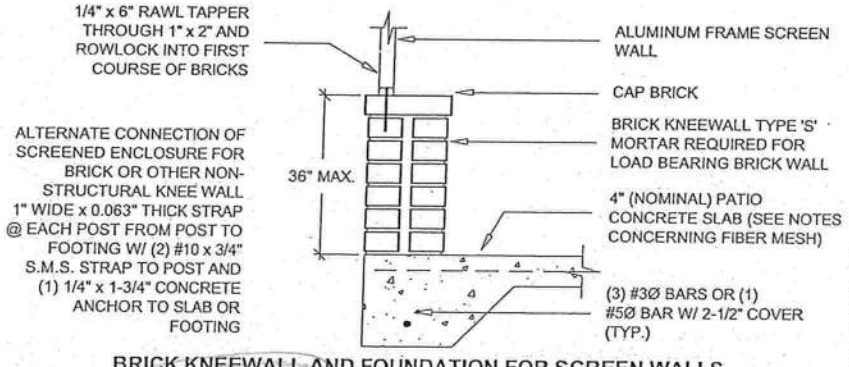
RETAINING WALL FOOTING - DETAIL 1

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



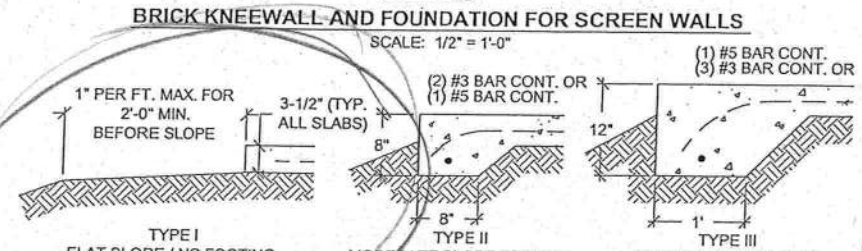
RETAINING WALL TO FOOTING - DETAIL 2

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



BRICK KNEEWALL AND FOUNDATION FOR SCREEN WALLS

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



Notes for all foundation types:

1. 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.
2. The slab / foundation shall be cleared of debris, roots and compacted prior to placement of concrete.
3. 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 16' in height or the enclosure is in a "C" exposure catagory in which case a type II footing is required.
4. 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.
5. If local codes require a minimum footing use Type II footing or footing section required by local code. Local codes govern.

SLAB-FOOTING DETAILS

EAGLE METAL DISTRIBUTORS, INC.
THE FREEDOM OF CHOICE
603-B W. LANDSTREET ROAD, ORLANDO, FL 32824
TEL:407-367-0688 • FAX:407-367-0684

ALUMINUM STRUCTURES DESIGN MANUAL
SCREEN ENCLOSURES
SECTION 1 DETAILS
2004 FBC W/ 2006 SUPPLEMENTS
2006 EDITION

Lawrence E. Bennett, P.E. FL # 16644
CIVIL & STRUCTURAL ENGINEERING
P.O. Box 214388, South Daytona, Fl 32121
Telephone #: (386) 767-4774 Fax #: (386) 767-6556
Email: lebpe@bellsouth.net

SEAL

SHEET 13 18

Table 1.1 120 E Allowable Spans for Eagle Metal Distributors, Inc. for Primary Screen Roof Frame Members

Aluminum Alloy 6061 T-6

For 110 & 120 MPH 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"		8'-0"		9'-0"	
	Allowable Span 'L' / Point Load (P) or Uniform Load (U), bending (b), deflection (d)													
2" x 2" x 0.043"	5'-3"	Pb	5'-3"	Pb	5'-3"	Pb	5'-3"	Pb	5'-3"	Pb	5'-3"	Pb	5'-3"	Pb
3" x 2" x 0.045"	6'-8"	Pb	6'-8"	Pb	6'-8"	Pb	6'-8"	Pb	6'-8"	Pb	6'-8"	Pb	6'-8"	Pb
3" x 2" x 0.070"	8'-4"	Pd	8'-4"	Pd	8'-4"	Pd	8'-4"	Pd	8'-4"	Pd	8'-4"	Pd	8'-4"	Pd
2" x 3" x 0.045"	9'-8"	Pb	9'-8"	Pb	9'-8"	Pb	9'-8"	Pb	9'-8"	Pb	9'-8"	Pb	9'-8"	Pb
2" x 4" x 0.050"	14'-8"	Pd	14'-8"	Pd	14'-8"	Pd	14'-8"	Pd	14'-8"	Pd	14'-8"	Pd	14'-3"	Ud
2" x 5" x 0.060"	21'-1"	Pd	21'-1"	Pd	21'-1"	Pd	20'-9"	Ud	19'-9"	Ud	18'-10"	Ud	18'-2"	Ud

Self Mating Sections	Tributary Load Width 'W' = Beam Spacing													
	3'-0"		4'-0"		5'-0"		6'-0"		7'-0"		8'-0"		9'-0"	
	Allowable Span 'L' / Point Load (P) or Uniform Load (U), bending (b), deflection (d)													
2" x 4" x 0.045 x 0.088"	17'-11"	Pd	17'-11"	Pd	17'-11"	Pd	17'-11"	Pd	17'-8"	Ud	16'-11"	Ud	16'-3"	Ud
2" x 5" x 0.050" x 0.116"	24'-3"	Pd	24'-3"	Pd	24'-2"	Ud	22'-9"	Ud	21'-8"	Ud	20'-8"	Ud	19'-11"	Ud
2" x 6" x 0.050" x 0.120"	30'-8"	Pd	30'-5"	Ud	28'-3"	Ud	26'-7"	Ud	25'-3"	Ud	24'-2"	Ud	23'-3"	Ud
2" x 7" x 0.055" x 0.120"	37'-1"	Pd	34'-7"	Ud	32'-1"	Ud	30'-2"	Ud	28'-8"	Ud	27'-5"	Ud	26'-5"	Ud
2" x 8" x 0.070" x 0.224"	45'-11"	Ud	41'-9"	Ud	38'-10"	Ud	36'-6"	Ud	34'-8"	Ud	33'-2"	Ud	31'-11"	Ud
2" x 9" x 0.070" x 0.204"	49'-7"	Ud	45'-0"	Ud	41'-10"	Ud	39'-4"	Ud	37'-4"	Ud	35'-9"	Ud	34'-4"	Ud
2" x 9" x 0.082" x 0.326"	53'-3"	Ud	48'-5"	Ud	44'-11"	Ud	42'-3"	Ud	40'-2"	Ud	38'-5"	Ud	36'-11"	Ud
2" x 10" x 0.090" x 0.374"	62'-1"	Ud	56'-5"	Ud	52'-4"	Ud	49'-3"	Ud	46'-10"	Ud	44'-9"	Ud	43'-1"	Ud

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. Other conditions may offer better spans w/ enclosure site specific engineering.
6. Spans may be interpolated..
7. To convert spans to "C" and "D" exposure categories see exposure multipliers and example on page 1-ii.

Table 1.2 120 E Allowable Spans for Eagle Metal Distributors, Inc. for Secondary Screen Roof Frame Members

Aluminum Alloy 6061 T-6

'For 110 & 120 MPH 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

A. Sections Fastened To Beams With Clips

Hollow Sections	Tributary Load Width 'W' = Purlin Spacing													
	3'-6"		4'-0"		4'-6"		5'-0"		5'-6"		6'-0"		6'-8"	
	Allowable Span 'L' / Point Load (P) or Uniform Load (U), bending (b), deflection (d)													
2" x 2" x 0.043"	5'-5"	Pb	5'-5"	Pb	5'-5"	Pb	5'-5"	Pb	5'-5"	Pb	5'-5"	Pb	5'-5"	Pb
3" x 2" x 0.045"	6'-10"	Pd	6'-10"	Pd	6'-10"	Pd	6'-10"	Pd	6'-10"	Pd	6'-10"	Pd	6'-10"	Pd
3" x 2" x 0.070"	7'-9"	Pd	7'-9"	Pd	7'-9"	Pd	7'-9"	Pd	7'-9"	Pd	7'-9"	Pd	7'-9"	Pd
2" x 3" x 0.045"	8'-7"	Pd	8'-7"	Pd	8'-7"	Pd	8'-7"	Pd	8'-7"	Pd	8'-7"	Pd	8'-7"	Pd
2" x 4" x 0.050"	11'-3"	Pd	11'-3"	Pd	11'-3"	Pd	11'-3"	Pd	11'-3"	Pd	11'-3"	Pd	11'-3"	Pd
2" x 5" x 0.060"	14'-5"	Pd	14'-5"	Pd	14'-5"	Pd	14'-5"	Pd	14'-5"	Pd	14'-5"	Pd	14'-5"	Pd

B. Sections Fastened Through Beam Webs Into Screw Bosses

Hollow Sections	Tributary Load Width 'W' = Purlin Spacing													
	3'-6"		4'-0"		4'-6"		5'-0"		5'-6"		6'-0"		6'-8"	
	Allowable Span 'L' / Point Load (P) or Uniform Load (U), bending (b), deflection (d)													
2" x 2" x 0.043"	8'-2"	Pb	8'-2"	Pb	8'-2"	Pb	8'-2"	Pb	8'-2"	Pb	8'-2"	Pb	8'-2"	Pb
3" x 2" x 0.045"	10'-5"	Pb	10'-5"	Pb	10'-5"	Pb	10'-5"	Ud	10'-1"	Ud	9'-10"	Ud	9'-6"	Ud
3" x 2" x 0.070"	12'-4"	Pd	12'-4"	Pd	12'-4"	Pd	11'-11"	Ud	11'-6"	Ud	11'-2"	Ud	10'-10"	Ud
2" x 3" x 0.045"	13'-8"	Pd	13'-8"	Pd	13'-8"	Pd	13'-2"	Ud	12'-10"	Ud	12'-5"	Ud	11'-11"	Ud
2" x 4" x 0.050"	17'-11"	Pd	17'-11"	Pd	17'-11"	Pd	17'-4"	Ud	16'-9"	Ud	16'-3"	Ud	15'-9"	Ud
2" x 5" x 0.060"	22'-10"	Pd	22'-10"	Pd	22'-10"	Pd	22'-1"	Ud	21'-4"	Ud	20'-9"	Ud	20'-0"	Ud

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. Other conditions may offer better spans w/ enclosure site specific engineering.
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 page 1-ii.

Table 1.3 110 E Allowable Post / Upright Heights for Eagle Metal Distributors, Inc. for Primary Screen Wall Frame Members

Aluminum Alloy 6061 T-6

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"		7'-0"		8'-0"		9'-0"	
	Allowable Height "H" / bending (b), deflection (d)													
2" x 2" x 0.043"	7'-5"	d	6'-9"	d	6'-3"	d	5'-10"	d	5'-5"	b	5'-0"	b	4'-8"	b
3" x 2" x 0.045"	8'-4"	d	7'-7"	d	7'-1"	d	6'-8"	d	6'-3"	b	5'-9"	b	5'-5"	b
3" x 2" x 0.070"	9'-6"	d	8'-8"	d	8'-0"	d	7'-7"	d	7'-2"	d	6'-10"	d	6'-7"	d
2" x 3" x 0.045"	10'-7"	d	9'-7"	d	8'-11"	d	8'-3"	b	7'-7"	b	7'-0"	b	6'-7"	b
2" x 4" x 0.050"	13'-10"	d	12'-7"	d	11'-6"	b	10'-5"	b	9'-7"	b	8'-11"	b	8'-4"	b
2" x 5" x 0.060"	17'-8"	d	16'-0"	d	14'-11"	d	14'-0"	d	13'-3"	b	12'-5"	b	11'-9"	b

Self Mating Sections	Tributary Load Width 'W' = Upright Spacing													
	3'-0"		4'-0"		5'-0"		6'-0"		7'-0"		8'-0"		9'-0"	
	Allowable Height "H" / bending (b), deflection (d)													
2" x 4" x 0.045 x 0.088"	15'-10"	d	14'-5"	d	13'-4"	d	12'-7"	d	11'-10"	b	10'-11"	b	10'-3"	b
2" x 5" x 0.050" x 0.116"	19'-5"	d	17'-7"	d	16'-4"	d	15'-5"	d	14'-3"	b	13'-3"	b	12'-4"	b
2" x 6" x 0.050" x 0.120"	22'-7"	d	20'-7"	d	19'-1"	d	17'-6"	b	16'-1"	b	14'-10"	b	13'-10"	b
2" x 7" x 0.055" x 0.120"	25'-8"	d	23'-4"	d	21'-8"	d	20'-5"	d	18'-11"	b	17'-7"	b	16'-6"	b
2" x 8" x 0.070" x 0.224"	31'-1"	d	28'-3"	d	26'-2"	d	23'-11"	b	21'-11"	b	20'-4"	b	18'-11"	b
2" x 9" x 0.070" x 0.204"	33'-6"	d	30'-2"	b	26'-11"	b	24'-7"	b	22'-9"	b	21'-3"	b	19'-11"	b
2" x 9" x 0.082" x 0.326"	35'-11"	d	32'-8"	d	30'-4"	d	28'-6"	d	27'-1"	d	25'-11"	d	24'-7"	b
2" x 10" x 0.090" x 0.374"	41'-11"	d	38'-1"	d	35'-4"	d	33'-3"	d	31'-7"	d	30'-3"	d	29'-1"	d

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 length '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 pool enclosures over 30' in mean roof height.
5. Height 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. 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 page 1-ii.

Table 1.4 110 E Eagle Metal Distributors, Inc. Post / Girt / Chair Rail Spans, Header Spans & Upright Heights for Secondary Screen Wall Frame Members

Aluminum Alloy 6061 T-6

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

A. Sections As Horizontals Fastened To Posts With Clips

Hollow Sections	Tributary Load Width 'W' = Member Spacing													
	3'-6"		4'-0"		4'-6"		5'-0"		5'-6"		6'-0"		6'-8"	
	Allowable Height "H" or Span "L" / bending (b), deflection (d)													
2" x 2" x 0.043"	7'-0"	d	6'-9"	d	6'-5"	d	6'-3"	d	6'-0"	d	5'-10"	b	5'-6"	b
3" x 2" x 0.045"	7'-11"	d	7'-7"	d	7'-3"	d	7'-1"	d	6'-10"	d	6'-8"	d	6'-3"	b
2" x 3" x 0.045"	10'-0"	d	9'-7"	d	9'-2"	d	8'-11"	d	8'-6"	b	8'-1"	b	7'-7"	b
3" x 2" x 0.070"	9'-0"	d	8'-8"	d	8'-3"	d	8'-0"	d	7'-9"	d	7'-7"	d	7'-3"	d
2" x 4" x 0.050"	13'-2"	d	12'-7"	d	11'-11"	b	11'-5"	b	10'-10"	b	10'-3"	b	9'-8"	b
2" x 5" x 0.060"	16'-9"	d	16'-0"	d	15'-4"	d	14'-11"	d	14'-5"	d	14'-0"	d	13'-6"	d

B. Sections As Horizontals Fastened To Posts Through Side Into Screw Bosses

Hollow Sections	Tributary Load Width 'W' = Member Spacing													
	3'-6"		4'-0"		4'-6"		5'-0"		5'-6"		6'-0"		6'-8"	
	Allowable Height "H" or Span "L" / bending (b), deflection (d)													
2" x 2" x 0.043"	8'-10"	b	8'-2"	b	7'-7"	b	7'-3"	b	6'-10"	b	6'-6"	b	6'-1"	b
3" x 2" x 0.045"	10'-1"	b	9'-5"	b	8'-8"	b	8'-3"	b	7'-10"	b	7'-5"	b	7'-0"	b
2" x 3" x 0.045"	12'-4"	b	11'-5"	b	10'-7"	b	10'-1"	b	9'-6"	b	9'-1"	b	8'-6"	b
[redacted]	12'-1"	d	11'-7"	d	11'-1"	d	10'-9"	d	10'-3"	b	[redacted]	b	9'-4"	b
2" x 4" x 0.050"	15'-7"	b	14'-6"	b	13'-5"	b	12'-9"	b	12'-1"	b	11'-6"	b	10'-10"	b
2" x 5" x 0.060"	21'-0"	b	19'-8"	b	18'-4"	b	17'-7"	b	16'-9"	b	16'-0"	b	15'-3"	b

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 pool 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 of 2" x 2" x 0.044" min. and set @ 36" in height are designed to be residential gardrails 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" o.c.
6. Girt spacing shall not exceed 6'-8".
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. Spans/heights may be interpolated.
10. To convert spans to "C" and "D" exposure categories see exposure multipliers and example on page 1-ii.

Table 1.10 120 E Eagle Metal Distributors, Inc. Allowable Spans for 5" Super Gutter and Self Mating Beam Screened Enclosure One Side/Solid Roof Other Side

Aluminum Alloy 6061 T-6

for Areas in Wind Zones of 110 and 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
300# Point Load is Considered over (1) LF of Beam

Single Self-Mating Beams	Tributary Load Width													
	10'-0"		12'-0"		14'-0"		16'-0"		18'-0"		20'-0"		22'-0"	
	Allowable Span 'L' / Point Load (P) or Uniform Load (U), bending (b) or deflection (d)													
2" x 6" x 0.050" x 0.120"	15'-4"	Ud	15'-2"	Ud	14'-11"	Ud	14'-9"	Ud	14'-6"	Ud	14'-4"	Ud	14'-2"	Ud
2" x 7" x 0.055" x 0.120"	12'-8"	Ub	12'-4"	Ub	12'-1"	Ub	11'-10"	Ub	11'-8"	Ub	11'-5"	Ub	11'-3"	Ub
2" x 8" x 0.072" x 0.224"	17'-3"	Ub	16'-11"	Ub	16'-7"	Ub	16'-3"	Ub	15'-11"	Ub	15'-7"	Ub	15'-4"	Ub
2" x 9" x 0.072" x 0.204"	17'-9"	Ub	17'-4"	Ub	17'-0"	Ub	16'-8"	Ub	16'-4"	Ub	16'-1"	Ub	15'-9"	Ub
2" x 9" x 0.082" x 0.326"	21'-6"	Ub	21'-0"	Ub	20'-7"	Ub	20'-2"	Ub	19'-9"	Ub	19'-5"	Ub	19'-1"	Ub
2" x 10" x 0.090" x 0.374"	25'-7"	Ub	25'-0"	Ub	24'-6"	Ub	24'-0"	Ub	23'-7"	Ub	23'-1"	Ub	22'-8"	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 +/- 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-ii.

Table 1.5.1 120 E Eagle Metal Distributors, Inc. Allowable Spans for Miscellaneous Framing Beams as Supporting Screen Roof Frame Members Both Ends of Beam Attached to Host Structure (Not Axially Loaded)

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
Aluminum Alloy 6061 T-6

Single Single Self-Mating Beams	Tributary Load Width																							
	10'-0"		14'-0"		18'-0"		22'-0"		26'-0"		30'-0"		34'-0"		38'-0"		42'-0"		46'-0"		50'-0"		54'-0"	
	Allowable Span 'L' / Point Load (P) or Uniform Load (U), bending (b), deflection (d)																							
2" x 4" x 0.045 x 0.088"	12'-11"	P d	12'-11"	U b	11'-5"	U b	10'-4"	U b	9'-6"	U b	8'-10"	U b	8'-3"	U b	7'-10"	U b	7'-5"	U b	7'-1"	U b	6'-10"	U b	6'-7"	U b
2" x 5" x 0.050" x 0.116"	15'-9"	P d	15'-1"	U b	13'-3"	U b	12'-0"	U b	11'-1"	U b	10'-4"	U b	9'-8"	U b	9'-2"	U b	8'-8"	U b	8'-4"	U b	7'-11"	U b	7'-8"	U b
2" x 6" x 0.050" x 0.120"	18'-5"	P d	16'-5"	U b	14'-5"	U b	13'-1"	U b	12'-0"	U b	11'-2"	U b	10'-6"	U b	9'-11"	U b	9'-6"	U b	9'-0"	U b	8'-8"	U b	8'-4"	U b
2" x 7" x 0.055" x 0.120"	20'-5"	U b	17'-3"	U b	15'-3"	U b	13'-9"	U b	12'-8"	U b	11'-10"	U b	11'-1"	U b	10'-6"	U b	9'-11"	U b	9'-6"	U b	9'-2"	U b	8'-10"	U b
2" x 8" x 0.070" x 0.224"	25'-4"	P d	21'-11"	U b	19'-4"	U b	17'-6"	U b	16'-1"	U b	14'-11"	U b	14'-1"	U b	13'-3"	U b	12'-8"	U b	12'-1"	U b	11'-7"	U b	11'-2"	U b
2" x 9" x 0.070" x 0.204"	27'-0"	U b	22'-10"	U b	20'-2"	U b	18'-3"	U b	16'-9"	U b	15'-7"	U b	14'-8"	U b	13'-10"	U b	13'-2"	U b	12'-7"	U b	12'-1"	U b	11'-8"	U b
2" x 9" x 0.082" x 0.326"	29'-3"	P d	27'-5"	U b	24'-2"	U b	21'-10"	U b	20'-1"	U b	18'-9"	U b	17'-7"	U b	16'-8"	U b	15'-10"	U b	15'-1"	U b	14'-6"	U b	13'-11"	U b
2" x 10" x 0.090" x 0.374"	34'-2"	P d	31'-11"	U b	28'-2"	U b	25'-6"	U b	23'-6"	U b	21'-10"	U b	20'-6"	U b	19'-5"	U b	18'-6"	U b	17'-8"	U b	16'-11"	U b	16'-3"	U b

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 page 1-ii.

Table 1.5.2 120 E Eagle Metal Distributors, Inc. Allowable Spans for Miscellaneous Framing Beams as Supporting Screen Roof Frame Members One End of Beam Attached to Host Structure

for Areas with Wind Loads of 110 & 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
Aluminum Alloy 6061 T-6

Single Single Self-Mating Beams	Tributary Load Width																							
	10'-0"		14'-0"		18'-0"		22'-0"		26'-0"		30'-0"		34'-0"		38'-0"		42'-0"		46'-0"		50'-0"		54'-0"	
	Allowable Span 'L' / Point Load (P) or Uniform Load (U), bending (b), deflection (d)																							
2" x 4" x 0.045 x 0.088"	12'-11"	P d	12'-11"	P d	12'-2"	U b	11'-0"	U b	10'-2"	U b	9'-5"	U b	8'-10"	U b	8'-5"	U b	7'-11"	U b	7'-7"	U b	7'-4"	U b	7'-0"	U b
2" x 5" x 0.050" x 0.116"	15'-9"	P d	15'-9"	P d	14'-8"	U b	13'-4"	U b	12'-3"	U b	11'-5"	U b	10'-8"	U b	10'-1"	U b	9'-7"	U b	9'-2"	U b	8'-10"	U b	8'-6"	U b
2" x 6" x 0.050" x 0.120"	18'-5"	P d	18'-3"	U b	16'-1"	U b	14'-7"	U b	13'-5"	U b	12'-6"	U b	11'-9"	U b	11'-1"	U b	10'-7"	U b	10'-1"	U b	9'-8"	U b	9'-4"	U b
2" x 7" x 0.055" x 0.120"	20'-11"	P d	19'-10"	U b	17'-6"	U b	15'-10"	U b	14'-7"	U b	13'-7"	U b	12'-9"	U b	12'-1"	U b	11'-6"	U b	10'-11"	U b	10'-6"	U b	10'-1"	U b
2" x 8" x 0.070" x 0.224"	25'-4"	P d	25'-4"	P d	24'-11"	U b	22'-7"	U b	20'-9"	U b	19'-4"	U b	18'-2"	U b	17'-2"	U b	16'-4"	U b	15'-8"	U b	14'-11"	U b	14'-5"	U b
2" x 9" x 0.070" x 0.204"	27'-3"	P d	27'-3"	P d	25'-9"	U b	23'-3"	U b	21'-5"	U b	19'-11"	U b	18'-9"	U b	17'-9"	U b	16'-10"	U b	16'-1"	U b	15'-5"	U b	14'-10"	U b
2" x 9" x 0.082" x 0.326"	29'-3"	P d	29'-3"	P d	29'-3"	P d	27'-5"	U d	25'-11"	U d	24'-5"	U b	22'-11"	U b	21'-9"	U b	20'-8"	U b	19'-9"	U b	18'-11"	U b	18'-3"	U b
2" x 10" x 0.090" x 0.374"	34'-2"	P d	34'-2"	P d	34'-2"	P d	31'-11"	U d	30'-3"	U d	28'-10"	U d	27'-8"	U b	26'-2"	U b	24'-10"	U b	23'-9"	U b	22'-10"	U b	21'-11"	U b

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 page 1-ii.

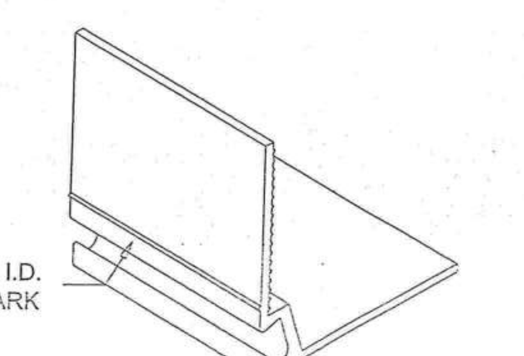
EAGLE 6061 ALLOY IDENTIFIER™ INSTRUCTIONS FOR PERMIT PURPOSES

To: Plans Examiners and Inspectors,

These identification instructions are provided to contractors for permit purposes. The pictures below illustrate our unique "raised" external identification mark (Eagle 6061™) and its location next to the spline groove, to signify our 6061 alloy extrusions. It is ultimately the purchaser's / contractor's responsibility to ensure that the proper alloy is used in conjunction with the engineering selected for construction. We are providing this identification mark to simplify identification when using our 6061 Alloy products.

A separate signed and sealed certification letter from Eagle Metals will be provided once the metal is purchased. This should be displayed on site for review at final inspection.

The inspector should look for the identification mark as specified below to validate the use of 6061 engineering.



EAGLE 6061 I.D.
DIE MARK

1-8-2008

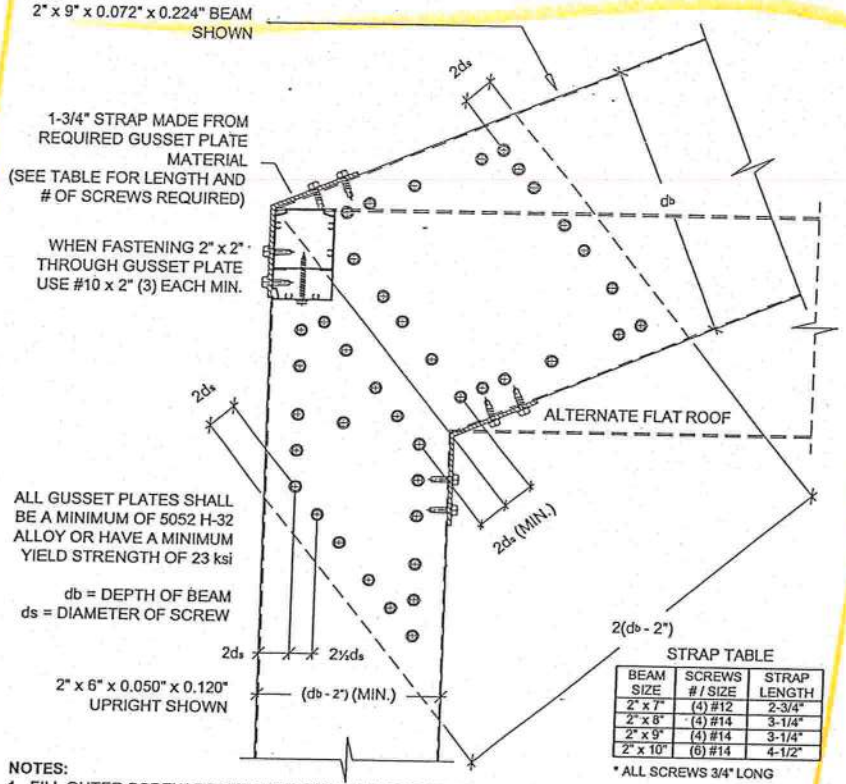
AUTHORIZED MASTER FILE CONTRACTORS DO NOT REQUIRE RAISED SEAL COPIES - ALL OTHER USERS REQUIRE RAISED SEAL COPIES
IF USING THESE EAGLE 6061 TABLES, PLEASE REFER TO INSTRUCTIONS ON IDENTIFICATION AND CERTIFICATION OF EAGLE METALS 6061 ALLOY.

Lawrence E. Bennett, P.E. FL # 16644
CIVIL & STRUCTURAL ENGINEERING
P.O. Box 214368, South Daytona, Fl 32121
Telephone #: (386) 767-4774 Fax #: (386) 767-6556
Email: lebpe@bellsouth.net

ALUMINUM STRUCTURES DESIGN MANUAL
SCREEN ENCLOSURES
6061-T6 Alloy Frame Members - 110 MPH Zone
2004 FBC W/ 2006 SUPPLEMENTS
2006 EDITION

EAGLE METAL DISTRIBUTORS, INC.
THE FREEDOM OF CHOICE
603-B W. Lanistreet Road, Orlando, FL 32824 • Tel: 407-367-0688 • Fax: 407-367-0684

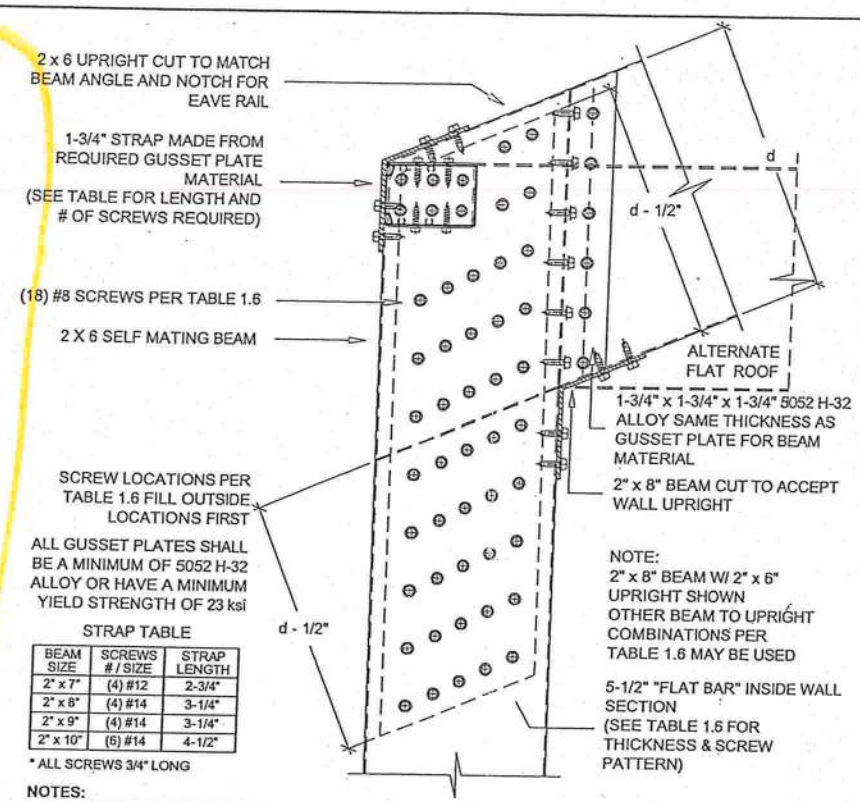
SEAL



NOTES:
1. FILL OUTER SCREW POSITIONS FIRST UNTIL REQUIRED NUMBER OF SCREWS IS ACHIEVED.
2. SEE TABLE 1.6 FOR GUSSETT SIZE, SCREW SIZES, AND NUMBER.
3. GUSSET PLATES ARE REQUIRED ON ALL BEAMS 2" x 7" AND LARGER.
4. SCREW PATTERN LAYOUT W/ SPACING BETWEEN SCREWS GREATER THAN MINIMUM IS ALLOWED SO THAT EQUAL SPACING IS ACHIEVED.

BEAM SPLICE CUT, GUSSET PLATE CONNECTION & GUSSET SCREW PATTERN BEAM TO POST MOMENT CONNECTION DETAIL

SCALE: 2" = 1'-0"



NOTES:
1. FILL OUTER SCREW POSITIONS FIRST UNTIL REQUIRED NUMBER OF SCREWS IS ACHIEVED.
2. SEE TABLE 1.6 FOR GUSSETT SIZE, SCREW SIZES, AND NUMBER.
3. GUSSET PLATES ARE REQUIRED ON ALL BEAMS 2" x 7" AND LARGER.
4. SCREW PATTERN LAYOUT W/ SPACING BETWEEN SCREWS GREATER THAN MINIMUM IS ALLOWED SO THAT EQUAL SPACING IS ACHIEVED.
5. BEAMS THAT ARE 2 x 7 OR LARGER MUST HAVE GUSSET PLATE.

ALTERNATE BEAM TO POST MOMENT CONNECTION DETAIL

SCALE: 2" = 1'-0"

EAGLE METAL DISTRIBUTORS, INC.
THE FREEDOM OF CHOICE
603-B W. LANDSTREET ROAD, ORLANDO, FL 32824
TEL:(407)-367-0688 • FAX:(407)-367-0684

ALUMINUM STRUCTURES DESIGN MANUAL
SCREEN ENCLOSURES
SECTION 1 MOMENT CONNECTION DETAILS
2004 FBC W/ 2006 SUPPLEMENTS
2006 EDITION

Lawrence E. Bennett, P.E. FL # 16644
CIVIL & STRUCTURAL ENGINEERING
P.O. Box 214388, South Daytona, Fl 32121
Telephone #: (386) 767-4774 Fax #: (386) 767-6556
Email: lebpe@bellsouth.net

SEAL

SHEET 17A OF 18

10-31-2007

Table 1.1 120M E 6061 Moment Connection
Allowable Spans for Eagle Metal Distributors, Inc.
for Primary Screen Roof Frame Members
Aluminum Alloy 6061 T-6

For 110 & 120 MPH 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"		[redacted]		7'-0"		8'-0"		9'-0"	
	Allowable Span 'L' / Point Load (P) or Uniform Load (U), bending (b), deflection (d)													
2" x 2" x 0.043"	5'-3"	Pb	5'-3"	Pb	5'-3"	Pb	5'-3"	Pb	5'-3"	Pb	5'-3"	Pb	5'-3"	Pb
3" x 2" x 0.045"	6'-8"	Pb	6'-8"	Pb	6'-8"	Pb	6'-8"	Pb	6'-8"	Pb	6'-8"	Pb	6'-8"	Pb
3" x 2" x 0.070"	10'-8"	Pb	10'-8"	Pb	10'-8"	Pb	10'-8"	Pb	10'-8"	Pb	10'-8"	Pb	10'-8"	Pb
2" x 3" x 0.045"	9'-8"	Pb	9'-8"	Pb	9'-8"	Pb	9'-8"	Pb	9'-8"	Pb	9'-8"	Pb	9'-8"	Pb
2" x 4" x 0.050"	15'-3"	Pb	15'-3"	Pb	15'-3"	Pb	15'-3"	Pb	15'-3"	Pb	15'-3"	Pb	15'-3"	Pb
2" x 5" x 0.060"	27'-3"	Pb	27'-3"	Pb	27'-3"	Pb	27'-3"	Pb	26'-5"	Ud	25'-1"	Ub	23'-7"	Ub

Self Mating Sections	Tributary Load Width 'W' = Beam Spacing													
	3'-0"		4'-0"		5'-0"		6'-0"		7'-0"		8'-0"		9'-0"	
	Allowable Span 'L' / Point Load (P) or Uniform Load (U), bending (b), deflection (d)													
2" x 4" x 0.045 x 0.088"	23'-4"	Pb	23'-4"	Pb	23'-4"	Pb	23'-4"	Pb	23'-4"	Pb	22'-1"	Ub	20'-7"	Ub
2" x 5" x 0.050" x 0.116"	33'-11"	Pb	33'-11"	Pb	32'-5"	Ud	30'-6"	Ud	28'-10"	Ub	26'-8"	Ub	24'-11"	Ub
2" x 6" x 0.050" x 0.120"	42'-8"	Pb	40'-9"	Ud	37'-10"	Ud	35'-3"	Ub	32'-4"	Ub	29'-11"	Ub	27'-11"	Ub
2" x 7" x 0.055" x 0.120"	50'-11"	Ud	46'-4"	Ud	42'-11"	Ud	40'-5"	Ud	38'-1"	Ub	35'-5"	Ub	33'-2"	Ub
2" x 8" x 0.070" x 0.224"	61'-7"	Ud	55'-11"	Ud	51'-11"	Ud	48'-3"	Ub	44'-3"	Ub	40'-11"	Ub	38'-3"	Ub
2" x 9" x 0.070" x 0.204"	66'-5"	Ud	60'-4"	Ud	54'-4"	Ub	49'-6"	Ub	45'-9"	Ub	42'-9"	Ub	40'-3"	Ub
2" x 9" x 0.082" x 0.326"	71'-4"	Ud	64'-10"	Ud	60'-2"	Ud	56'-7"	Ud	53'-9"	Ud	51'-5"	Ud	49'-5"	Ud
2" x 10" x 0.090" x 0.374"	83'-2"	Ud	75'-7"	Ud	70'-2"	Ud	66'-0"	Ud	62'-8"	Ud	59'-11"	Ud	57'-8"	Ud

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. Other conditions may offer better spans w/ enclosure site specific engineering.
6. Spans may be interpolated.
7. To convert spans to "C" and "D" exposure categories see exposure multipliers and example on page 1-ii.

Table 1.3 110M E 6061 Moment Connection
Allowable Post / Upright Heights for Eagle Metal Distributors, Inc.
for Primary Screen Wall Frame Members
Aluminum Alloy 6061 T-6

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"		[redacted]		7'-0"		8'-0"		9'-0"	
	Allowable Height "H" / bending (b), deflection (d)													
2" x 2" x 0.043"	9'-6"	b	8'-2"	b	7'-3"	b	6'-7"	b	6'-1"	b	5'-8"	b	5'-3"	b
3" x 2" x 0.045"	10'-11"	b	9'-5"	b	8'-4"	b	7'-7"	b	6'-11"	b	6'-5"	b	6'-0"	b
3" x 2" x 0.070"	12'-9"	d	11'-7"	d	10'-9"	d	[redacted]	b	9'-1"	b	8'-5"	b	7'-11"	b
2" x 3" x 0.045"	13'-3"	b	11'-5"	b	10'-2"	b	9'-2"	b	8'-5"	b	7'-10"	b	7'-4"	b
2" x 4" x 0.050"	16'-10"	b	14'-6"	b	12'-10"	b	11'-8"	b	10'-8"	b	9'-11"	b	9'-3"	b
2" x 5" x 0.060"	22'-8"	b	19'-8"	b	17'-7"	b	16'-0"	b	14'-10"	b	13'-11"	b	13'-1"	b

Self Mating Sections	Tributary Load Width 'W' = Member Spacing													
	3'-0"		4'-0"		5'-0"		6'-0"		7'-0"		[redacted]		9'-0"	
	Allowable Height "H" / bending (b), deflection (d)													
2" x 4" x 0.045 x 0.088"	20'-11"	b	17'-11"	b	15'-11"	b	14'-5"	b	13'-3"	b	[redacted]	b	11'-5"	b
2" x 5" x 0.050" x 0.116"	25'-4"	b	21'-9"	b	19'-3"	b	17'-5"	b	15'-11"	b	14'-10"	b	13'-10"	b
2" x 6" x 0.050" x 0.120"	28'-6"	b	24'-5"	b	21'-8"	b	19'-7"	b	17'-11"	b	16'-7"	b	15'-6"	b
2" x 7" x 0.055" x 0.120"	33'-1"	b	28'-6"	b	25'-4"	b	22'-11"	b	21'-2"	b	19'-8"	b	18'-5"	b
2" x 8" x 0.070" x 0.224"	38'-11"	b	33'-5"	b	29'-7"	b	26'-9"	b	24'-7"	b	22'-9"	b	21'-3"	b
2" x 9" x 0.070" x 0.204"	38'-11"	b	33'-9"	b	30'-1"	b	27'-6"	b	25'-5"	b	23'-9"	b	22'-4"	b
2" x 9" x 0.082" x 0.326"	47'-10"	b	41'-4"	b	36'-11"	b	33'-9"	b	31'-2"	b	29'-2"	b	27'-6"	b
2" x 10" x 0.090" x 0.374"	56'-2"	d	49'-10"	b	44'-7"	b	40'-8"	b	37'-7"	b	35'-2"	b	33'-1"	b

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 length '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 pool enclosures over 30' in mean roof height.
5. Height 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. 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 page 1-ii.

Table 1.9.1M E 6061 Moment Connection
Allowable Spans for Eagle Metal Distributors, Inc.
for Primary Screen Roof Frame Members
Aluminum Alloy 6061 T-6

for Areas in Wind Zones up to 130 M.P.H., Exposure "B" and Latitudes North of 30°-30'-00" North (Jacksonville, FL)
Uniform Load = 15 #/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"		8'-0"		9'-0"	
	Allowable Span 'L' / Point Load (P) or Uniform Load (U), bending (b), deflection (d)													
2" x 2" x 0.043"	7'-8"	Pb	7'-6"	Ub	6'-8"	Ub	6'-0"	Ub	5'-6"	Ub	5'-1"	Ub	4'-9"	Ub
3" x 2" x 0.045"	9'-11"	Pb	8'-8"	Ub	7'-8"	Ub	6'-11"	Ub	6'-4"	Ub	5'-10"	Ub	5'-5"	Ub
3" x 2" x 0.070"	12'-2"	Ud	11'-0"	Ud	9'-11"	Ub	9'-1"	Ub	8'-4"	Ub	7'-9"	Ub	7'-4"	Ub
2" x 3" x 0.045"	12'-3"	Ub	10'-6"	Ub	9'-3"	Ub	8'-4"	Ub	7'-8"	Ub	7'-1"	Ub	6'-7"	Ub
2" x 4" x 0.050"	15'-6"	Ub	13'-4"	Ub	11'-9"	Ub	10'-7"	Ub	9'-9"	Ub	8'-11"	Ub	8'-4"	Ub
2" x 5" x 0.060"	21'-1"	Ub	18'-3"	Ub	16'-4"	Ub	14'-11"	Ub	13'-10"	Ub	12'-11"	Ub	12'-2"	Ub

Self Mating Sections	Tributary Load Width 'W' = Beam Spacing													
	3'-0"		4'-0"		5'-0"		6'-0"		7'-0"		8'-0"		9'-0"	
	Allowable Span 'L' / Point Load (P) or Uniform Load (U), bending (b), deflection (d)													
2" x 4" x 0.045 x 0.088"	17'-11"	Pd	16'-9"	Ub	14'-10"	Ub	13'-5"	Ub	12'-4"	Ub	11'-5"	Ub	10'-8"	Ub
2" x 5" x 0.050" x 0.116"	23'-7"	Ub	20'-3"	Ub	17'-11"	Ub	16'-3"	Ub	14'-10"	Ub	13'-9"	Ub	12'-10"	Ub
2" x 6" x 0.050" x 0.120"	26'-6"	Ub	22'-9"	Ub	20'-2"	Ub	18'-3"	Ub	16'-8"	Ub	15'-6"	Ub	14'-5"	Ub
2" x 7" x 0.055" x 0.120"	30'-9"	Ub	26'-6"	Ub	23'-7"	Ub	21'-4"	Ub	19'-8"	Ub	18'-3"	Ub	17'-2"	Ub
2" x 8" x 0.070" x 0.224"	36'-3"	Ub	31'-1"	Ub	27'-7"	Ub	24'-11"	Ub	22'-10"	Ub	21'-2"	Ub	19'-9"	Ub
2" x 9" x 0.070" x 0.204"	36'-3"	Ub	31'-4"	Ub	27'-11"	Ub	25'-6"	Ub	23'-7"	Ub	21'-11"	Ub	20'-8"	Ub
2" x 9" x 0.082" x 0.326"	44'-5"	Ub	38'-5"	Ub	34'-4"	Ub	31'-4"	Ub	28'-11"	Ub	27'-1"	Ub	25'-6"	Ub
2" x 10" x 0.090" x 0.374"	53'-6"	Ud	46'-4"	Ub	41'-5"	Ub	37'-9"	Ub	34'-11"	Ub	32'-8"	Ub	30'-9"	Ub

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. 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. Other conditions may offer better spans w/ enclosure site specific engineering.
6. Spans may be interpolated.
7. To convert spans to "C" and "D" exposure categories see exposure multipliers and example on page 1-ii.

Table 1.9.2M E 6061 Moment Connection
Allowable Spans for Eagle Metal Distributors, Inc.
Allowable Spans for Secondary Screen Roof Frame Members
Aluminum Alloy 6061 T-6

for Areas in Wind Zones up to 130 M.P.H., Exposure "B" and Latitudes North of 30°-30'-00" North (Jacksonville, FL)
Uniform Load = 15 #/SF, a Point Load of 300 #/SF over (1) linear ft. is also considered

A. Sections Fastened To Beams With Clips

Hollow Sections	Tributary Load Width 'W' = Purlin Spacing													
	3'-6"		4'-0"		4'-6"		5'-0"		5'-6"		6'-0"		6'-8"	
	Allowable Span 'L' / Point Load (P) or Uniform Load (U), bending (b), deflection (d)													
2" x 2" x 0.043"	5'-5"	Pb	5'-5"	Pb	5'-5"	Pb	5'-5"	Pb	5'-5"	Pb	5'-5"	Pb	5'-5"	Ud
3" x 2" x 0.045"	6'-10"	Pd	6'-10"	Pd	6'-10"	Pd	6'-9"	Ud	6'-6"	Ud	6'-4"	Ud	6'-1"	Ud
3" x 2" x 0.070"	7'-9"	Pd	7'-9"	Pd	7'-9"	Pd	7'-8"	Ud	7'-5"	Ud	7'-2"	Ud	6'-11"	Ud
2" x 3" x 0.045"	8'-7"	Pd	8'-7"	Pd	8'-7"	Pd	8'-6"	Ud	8'-3"	Ud	7'-11"	Ud	7'-9"	Ud
2" x 4" x 0.050"	11'-3"	Pd	11'-3"	Pd	11'-3"	Pd	11'-2"	Ud	10'-9"	Ud	10'-6"	Ud	9'-11"	Ub
2" x 5" x 0.060"	14'-5"	Pd	14'-5"	Pd	14'-5"	Pd	14'-2"	Ud	13'-9"	Ud	13'-4"	Ud	12'-11"	Ud

Uniform Load = 4 #/SF, a Point Load of 300 #/SF over (1) linear ft. is also considered

B. Sections Fastened Through Beam Webs Into Screw Bosses

Hollow Sections	Tributary Load Width 'W' = Purlin Spacing													
	3'-6"		4'-0"		4'-6"		5'-0"		5'-6"		6'-0"		6'-8"	
	Allowable Span 'L' / Point Load (P) or Uniform Load (U), bending (b), deflection (d)													
2" x 2" x 0.043"	6'-8"	Ud	6'-5"	Ud	6'-2"	Ud	5'-11"	Ud	5'-9"	Ud	5'-7"	Ud	5'-5"	Ud
3" x 2" x 0.045"	7'-7"	Ud	7'-3"	Ud	6'-11"	Ud	6'-9"	Ud	6'-6"	Ud	6'-4"	Ud	6'-1"	Ud
3" x 2" x 0.070"	8'-7"	Ud	8'-3"	Ud	7'-11"	Ud	7'-8"	Ud	7'-5"	Ud	7'-2"	Ud	6'-11"	Ud
2" x 3" x 0.045"	9'-7"	Ud	9'-2"	Ud	8'-10"	Ud	8'-6"	Ud	8'-3"	Ud	7'-11"	Ud	7'-9"	Ud
2" x 4" x 0.050"	12'-7"	Ud	11'-11"	Ud	11'-6"	Ud	11'-2"	Ud	10'-9"	Ud	10'-6"	Ud	9'-11"	Ub
2" x 5" x 0.060"	15'-11"	Ud	15'-3"	Ud	14'-8"	Ud	14'-2"	Ud	13'-9"	Ud	13'-4"	Ud	12'-11"	Ud

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. 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. Other conditions may offer better spans w/ enclosure site specific engineering.
6. Spans may be interpolated.
7. To convert spans to "C" and "D" exposure categories see exposure multipliers and example on page 1-ii.

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

Beam/Upright or Post	Upright or Post/Beam	Minimum Purlin, Girt & Knee Brace Size	Notes	Minimum Number of Screws*			Beam Stitching Screw at 24" OC
				#8 x ½"	#10 x ½"	#12 x ½"	
2 x 4 SMB	2 x 4 SMB	2" x 2" x 0.044"	Moment Connection	8	6	4	#8
2 x 5 SMB	2 x 4 SMB	2" x 2" x 0.044"	Moment Connection	8	6	4	#8
2 x 6 SMB	2 x 4 SMB	2" x 2" x 0.044"	Moment Connection	10	8	6	#10
2 x 7 SMB	2 x 5 SMB	2" x 2" x 0.044"	Moment Connection	14	12	10	#12
2 x 8 SMB	2 x 6 SMB	2" x 3" x 0.044"	Moment Connection	16	14	12	#14
2 x 9 SMB	2 x 6 SMB	2" x 3" x 0.045"	Moment Connection	18	16	14	#14
2 x 9 SMB **	2 x 7 SMB	2" x 4" x 0.050"	Moment Connection	20	18	16	#14
2 x 10 SMB	2 x 8 SMB	2" x 5" x 0.050"	Moment Connection	20	18	16	#14

Screw Size	Minimum Distance and Spacing of Screws	
	Edge To Center	Center To Center
#8	5/16"	5/8"
#10	3/8"	3/4"
#12	1/2"	1"
#14 or 1/4"	3/4"	1-1/2"
5/16"	7/8"	1-3/4"
3/8"	1"	2"

Gusset Plate Thickness	
Beam Size	Thickness
2" x 7" x 0.055" x 0.120"	0.063"
2" x 8" x 0.072" x 0.224"	0.125"
2" x 9" x 0.072" x 0.224"	0.125"
2" x 9" x 0.082" x 0..306"	0.190"
2" x 10" x 0.092" x 0.369"	0.250"

* 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.
** 0.082" wall thickness, 0.310" flange thickness

Note:
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 screws is based on the maximum allowable moment of the beam.
4. The number of deck anchors is based on RAWL R Tapper allowable load data for 2,500 psi concrete and / or equal anchors may be used. 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. All beam 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. Gusset plates are required for mansard, gabled and all spliced connections.
8. For gusset plate connections 2" x 9" beams or larger use 3/4" long screws.
9. The side wall upright shall have a minimum beam size as shown above, ie., a 2" x 4" upright shall have a 2" x 3" beam.
10. For minimum girt size read upright size as a beam and purlin 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.)

EAGLE 6061 ALLOY IDENTIFIER™ INSTRUCTIONS FOR PERMIT PURPOSES

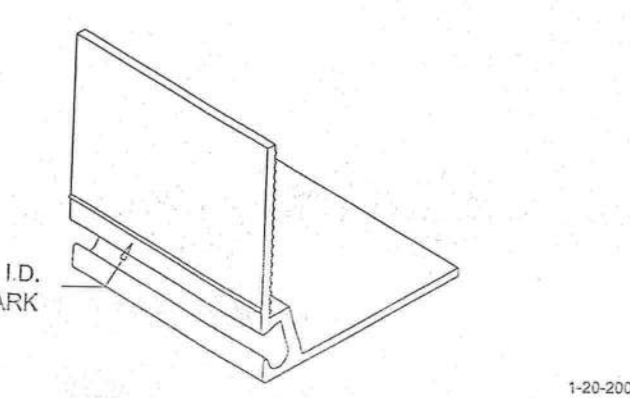
To: Plans Examiners and Inspectors,

These identification instructions are provided to contractors for permit purposes. The pictures below illustrate our unique "raised" external identification mark (Eagle 6061™) and its location next to the spline groove, to signify our 6061 alloy extrusions. It is ultimately the purchaser's / contractor's responsibility to ensure that the proper alloy is used in conjunction with the engineering selected for construction. We are providing this identification mark to simplify identification when using our 6061 Alloy products.

A separate signed and sealed certification letter from Eagle Metals will be provided once the metal is purchased. This should be displayed on site for review at final inspection.

The inspector should look for the identification mark as specified below to validate the use of 6061 engineering.

EAGLE 6061 I.D.
DIE MARK



1-20-2008

AUTHORIZED MASTER FILE CONTRACTORS DO NOT REQUIRE RAISED SEAL COPIES - ALL OTHER USERS REQUIRE RAISED SEAL COPIES
IF USING THESE EAGLE 6061 TABLES, PLEASE REFER TO INSTRUCTIONS ON IDENTIFICATION AND CERTIFICATION OF EAGLE METALS 6061 ALLOY.

Lawrence E. Bennett, P.E. FL # 16644
CIVIL & STRUCTURAL ENGINEERING
P.O. Box 214368, South Daytona, Fl 32121
Telephone #: (386) 767-4774 Fax #: (386) 767-6556
Email: lebpe@bellsouth.net

ALUMINUM STRUCTURES DESIGN MANUAL
SCREEN ENCLOSURES
110 MPH MOMENT CONNECTION TABLES
2004 FBC W/ 2006 SUPPLEMENTS
2006 EDITION

EAGLE METAL DISTRIBUTORS, INC.
❖ THE FREEDOM OF CHOICE ❖
603-B W. LANDSTREET ROAD, ORLANDO, FL 32824 • TEL: 407-367-0688 • FAX: 407-367-0684

SEAL