DATE 07/11/2007

Columbia County Building Permit

This Permit Expires One Year From the Date of Issue

PERMIT 000026014

APPLICANT CRAIG TIMBERLAKE PHONE 352.472.6850

ADDRESS 25370 NW 8TH PLACE NEWBERRY FL 32669

OWNER THEODORE & LEILANI CAMPBELL PHONE 561.964.9313

ADDRESS 485 SW WINTHROP PLACE FT. WHITE FL 32038

CONTRACTOR BONNIE JORDAN PHONE 352.472.6850

LOCATION OF PROPERTY 47-S TO C-238,TR TO HENDERSON,TR TO WINTHROP PLACE,TR GO TO VERY END, LEFT HALF OF THE CUL-DE-SAC.

TYPE DEVELOPMENT POOL ENCLOSURE ESTIMATED COST OF CONSTRUCTION 8600.00

HEATED FLOOR AREA _____ TOTAL AREA _____ HEIGHT _____ STORIES _____

FOUNDATION _____ WALLS _____ ROOF PITCH _____ FLOOR _____

LAND USE & ZONING A-3 MAX. HEIGHT _____

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

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

PARCEL ID 16-6S-16-03832-248 SUBDIVISION SPRING RUN

LOT 48 BLOCK _____ PHASE _____ UNIT _____ TOTAL ACRES _____

		SCC056711	Craig Timberlake	
Culvert Permit No.	Culvert Waiver	Contractor's License Number	Applicant/Owner/Contractor	
	X-07-0270	CFS	JTH	N
Driveway Connection	Septic Tank Number	LU & Zoning checked by	Approved for Issuance	New Resident

COMMENTS: NOC ON FILE.

Check # or Cash 1507

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 $ 45.00 CERTIFICATION FEE $ 0.00 SURCHARGE FEE $ 0.00

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

FLOOD DEVELOPMENT FEE $ _____ FLOOD ZONE FEE $ _____ CULVERT FEE $ _____ **TOTAL FEE** 95.00

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.

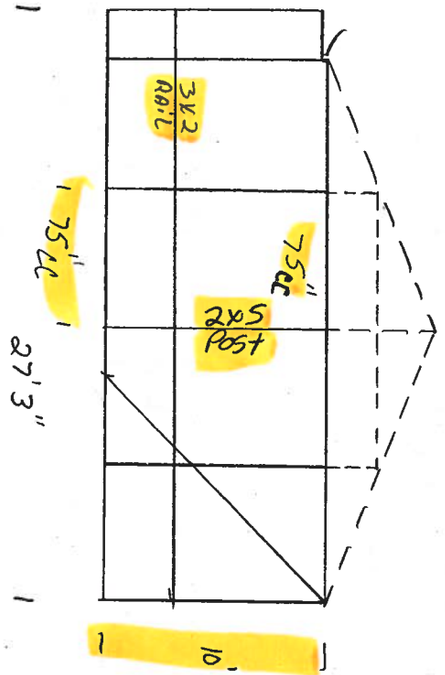
"WARNING TO OWNER: YOUR FAILURE TO RECORD A NOTICE OF COMMENCEMENT MAY RESULT IN YOUR PAYING TWICE FOR IMPROVEMENTS TO YOUR PROPERTY. IF YOU INTEND TO OBTAIN FINANCING, CONSULT WITH YOUR LENDER OR AN ATTORNEY BEFORE RECORDING YOUR NOTICE OF COMMENCEMENT."

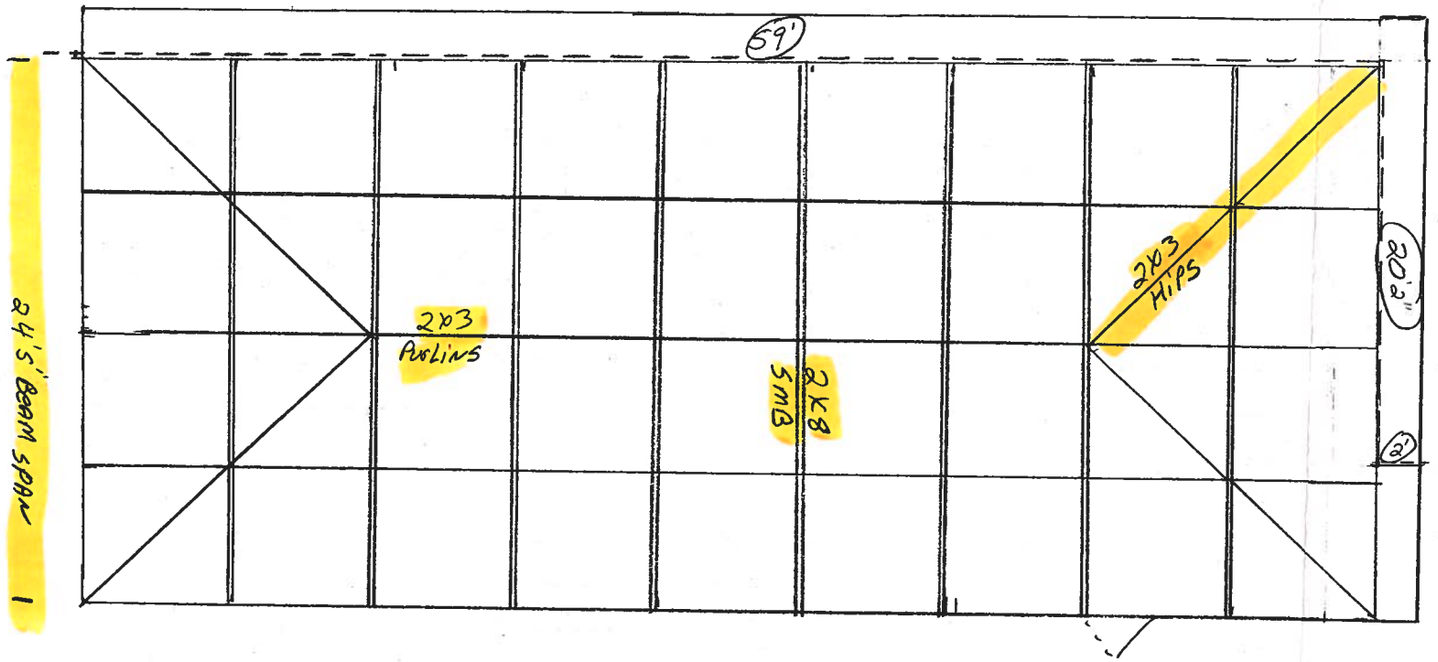
This Permit Must Be Prominently Posted on Premises During Construction

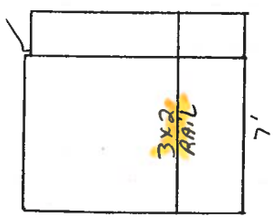
PLEASE NOTIFY THE COLUMBIA COUNTY BUILDING DEPARTMENT AT LEAST 24 HOURS IN ADVANCE OF EACH INSPECTION, IN ORDER THAT IT MAY BE MADE WITHOUT DELAY OR INCONVIENCE, PHONE 758-1008. THIS PERMIT IS NOT VALID UNLESS THE WORK AUTHORIZED BY IT IS COMMENCED WITHIN 6 MONTHS AFTER ISSUANCE.

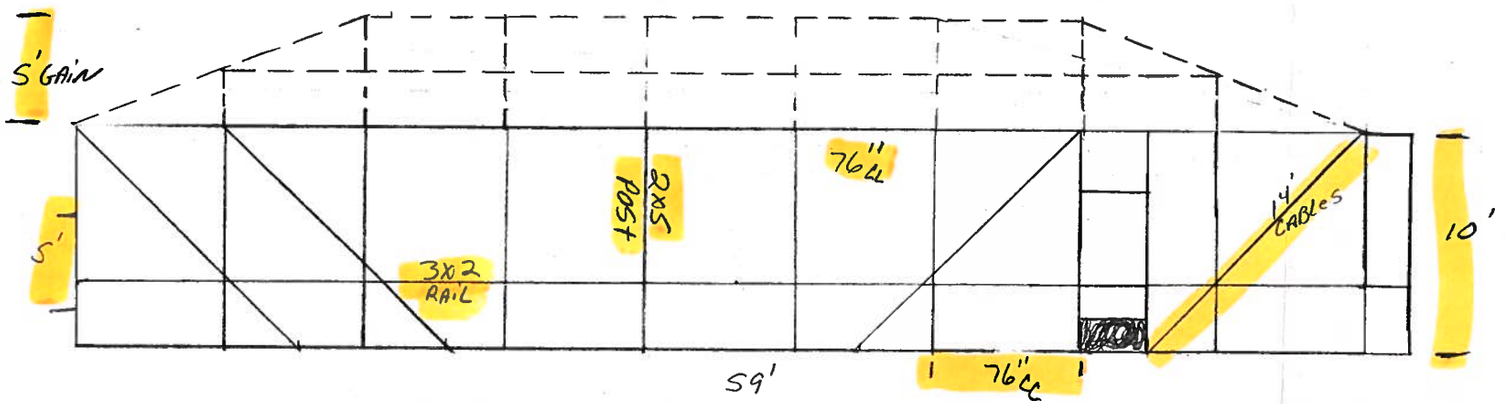
The Issuance of this Permit Does Not Waive Compliance by Permittee with Deed Restrictions.

CAMPBELL / TAC # 117
485 SW WINTHROP AVE
FT WHITE FL









CRAIG TIMBERLAKE, *President*
HARVEY STOKES, *Sales*

Timberlake

luminum Construction, Inc.

Don't clean it - screen it!
License # SCC056711

70 NW 8th Place
wberry, Florida 32669

Toll Free 1-800-976-9890
Phone (352) 472-6850
Fax (352) 472-6855

BENNETT 06

Talked to Craig on 7-9-07 LH

Columbia County Building Permit Application

For Office Use Only Application # 0706-94 Date Received 6/29/07 By [illegible] Permit # #26014

Application Approved by - Zoning Official CS/LH Date 7/6/07 Plans Examiner OK JH Date 7-2-07

Flood Zone N/A Development Permit — Zoning A-3 Land Use Plan Map Category A-3

Comments CR H. 507

☑ NOC ☑ EH ☑ Deed or PA ☑ Site Plan ☑ State Road Info ☐ Parent Parcel # ☐ Development Permi

Name Authorized Person Signing Permit Craig Timberlake (Craig Timberlake) Fax 352 472-6855

Address [illegible], 25370 NW 84 Pl, Newberry FL 3266 Phone 352 472-6850

Owners Name Theodore Campbell Phone —

911 Address 485 SW Winthrop Ave Ft White FL, 32038

Contractors Name Timberlake Alum. Const. - Bonnie Jones Phone 352 472-6850

Address 25370 NW 9th Pl New Berry FL 32669

Fee Simple Owner Name & Address —

Bonding Co. Name & Address N/A

Architect/Engineer Name & Address Bennett PO Box 2369 South Daytona FL 32121

Mortgage Lenders Name & Address N/A

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

Property ID Number 16-65-16-03832-248 Estimated Cost of Construction $ 8,600.00

Subdivision Name Spring Run 16-65-16-03832-248 Lot 48 Block — Unit — Phase —

Driving Directions 441 Take on 47 south T/R on ELAM Church 1/10 mi T/R on Henderson 1/10 mi TO winthrop Ave # 485

Type of Construction Pool Enclosure Number of Existing Dwellings on Property 1

Total Acreage — Lot Size 225 X 754 Do you need a - Culvert Permit or Culvert Waiver or Have an Existing Driv

Actual Distance of Structure from Property Lines - Front 500 Side 78' Side 165 Rear 254'

Total Building Height 10' Number of Stories 1 Heated Floor Area — Roof Pitch —

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

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

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

Owner Builder or Authorized Person by Notarized Letter

STATE OF FLORIDA
COUNTY OF COLUMBIA

Sworn to (or affirmed) and subscribed before me this 29th day of June 2007.

Personally known ____ or Produced Identification DL

Craig Timberlake
Contractor Signature

Contractors License Number SCC 056711

Competency Card Number —

NOTARY STAMP/SEAL

Notary Signature

(Revised Sept. 2006

STATE OF FLORIDA
DEPARTMENT OF HEALTH

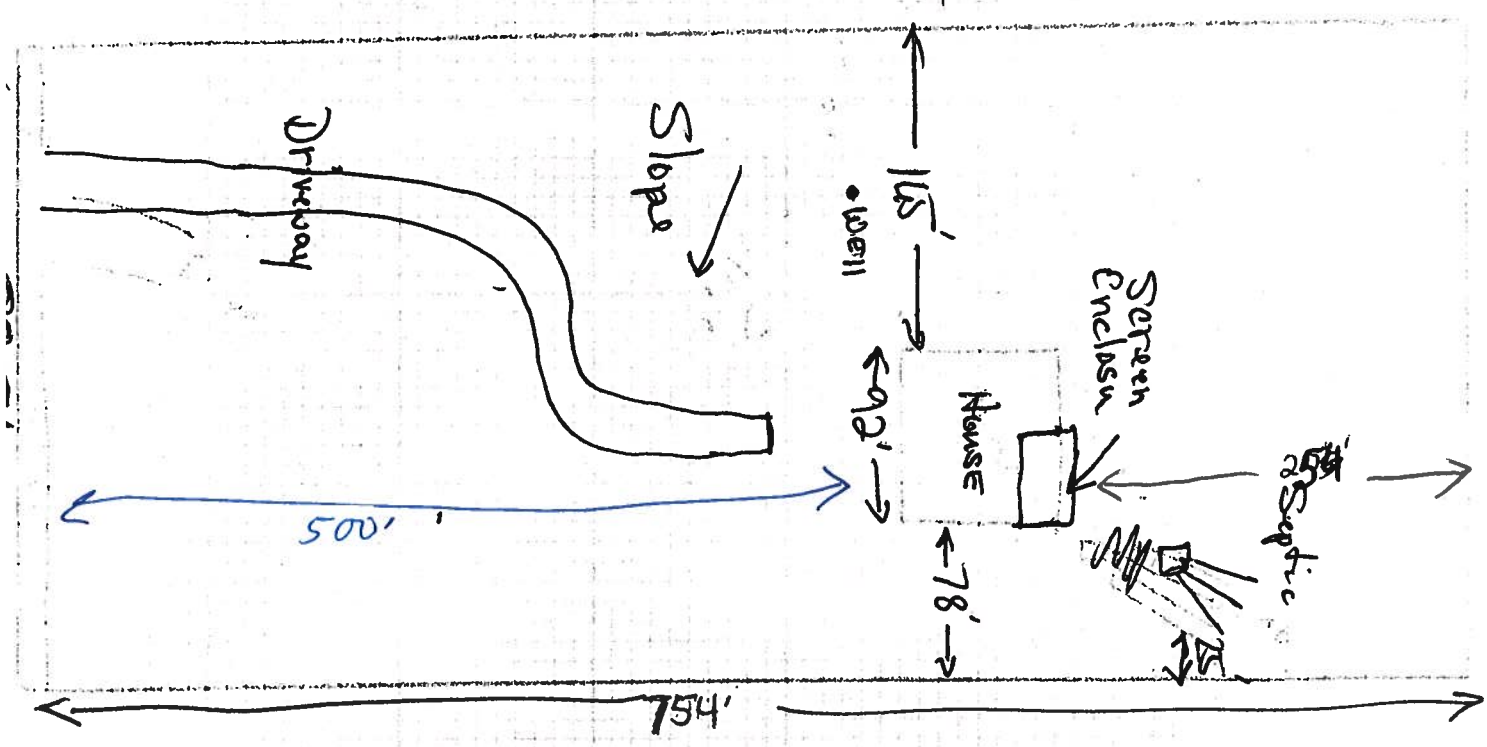
APPLICATION FOR ONSITE SEWAGE DISPOSAL SYSTEM CONSTRUCTION PERMIT

Permit Application Number _____

PART II - SITE PLAN

Scale: Each block represents 5 feet and 1 inch = 50 feet.

Theodore R. Campbell
485 SW Winthrop Place
Fort White, Fl.



Notes: _____

Site Plan submitted by: _____ _____
Signature Title

Plan Approved _____ Not Approved _____ Date _____

By _____ County Health Department

ALL CHANGES MUST BE APPROVED BY THE COUNTY HEALTH DEPARTMENT

Timberlake Aluminum Construction, Inc.

25370 NW 8TH PLACE
NEWBERRY, FL 32669
(352) 472-6850
1-800-976-9890
FAX (352) 472-6855

TO:
RE LETTER OF AUTHORIZATION

THIS LETTER AUHTORIZES CRAIG TIMBERLAKE TO SIGN ALL APPLICABLE FORMS AND AFFADAVITS NECESSARY FOR OBTAING PERMITS OR RENEWAL OF LICENSE FOR BONNIE L JORDAN SCC 056711.

Bonnie L Jordan
BONNIE L JORDAN

SWORN TO AND SUBSCRIBED BEFORE ME THIS 3rd **DAY OF** May **2007**

NOTARY PUBLIC Jennifer R Smith
AFFIX SEAL

Jennifer R. Smith
My Commission DD288541
Expires February 08, 2008

Inst:2006019009 Date:08/10/2006 Time:13:44
Doc Stamp-Deed : 0.70
DC,P.DeWitt Cason,Columbia County B:1092 P:1056

Inst:2006010280 Date:04/28/2006 Time:10:05
Doc Stamp-Deed : 0.70
DC,P.DeWitt Cason,Columbia County B:1081 P:2539

Above Space Reserved for Recording
[If required by your jurisdiction, list above the name & address of: 1) where to return this form; 2) preparer; 3) party requesting recording.]

Quitclaim Deed

Date of this Document: 4/26/06

Reference Number of Any Related Documents: _____

Grantor:

Name: VC Properties LLC
Street Address: 8138 Palomino Drive
City/State/Zip: Lake Worth, FL 33467

Grantee:

Name: Theodore R. & Leilani S. Campbell
Street Address: 8188 Palomino Drive
City/State/Zip: Lake Worth, FL 33467

Abbreviated Legal Description (i.e., lot, block, plat *or* section, township, range, quarter/quarter *or* unit, building and condo name): (Springhurst SD unrecorded AKA Lot 48)

Assessor's Property Tax Parcel/Account Number(s): 16-45-16-03832-248

THIS QUITCLAIM DEED, executed this _____ day of _____, 20 06, by first party, Grantor, VC Properties LLC, whose mailing address is PO Box 20486, West Palm Beach, FL 33416, to second party, Grantee, Theodore R & Leilani S. Campbell, whose mailing address is PO Box 20486, West Palm Beach, FL 33416.

WITNESSETH that the said first party, for good consideration and for the sum of _____ Dollars ($_____) paid by the said second party, the receipt whereof is hereby acknowledged, does hereby remise, release and quitclaim unto the said second party forever, all the right, title, interest and claim,

which the said first party has in and to the following described parcel of land, and improvements and appurtenances thereto in the County of Columbia, State of Florida to wit: Beg NW COR OF NE¼ OF NE¼, RUN W 335.05 FT, SE'LY ALONG CURVE SL 31 FT, E 142.67 FT, N 754.40 FT TO POB (AKA Lot 45 Spring Run S/D UNREC) ORB 632-196, 746-1153

See Exhibit "A" for Correct Legal

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

Signature of Witness: William R. Scott

Print Name of Witness: William R. Scott

Signature of Witness: Charles Alba

Print Name of Witness: Charles Alba

Signature of Grantor: Theodore R. Campbell

Print Name of Grantor: Theodore R. Campbell

State of FLORIDA)
County of PALM BEACH)

On 4-26-06, before me, SOPHIE M. SPRINGER, appeared THEODORE R. CAMPBELL, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

Sophie M. Springer
Signature of Notary

Affiant _____Known ✓ Produced ID
Type of ID _____
(Seal)

Inst:2006010280 Date:04/28/2006 Time:10:05
Doc Stamp-Deed : 0.70
_____DC,P.DeWitt Cason,Columbia County B:1081 P:2600

Sophie M. Springer
Commission # DD339310
Expires September 13, 2008
Bonded Troy Fain - Insurance, Inc. 800-385-7019

Inst:2006019009 Date:08/10/2006 Time:13:44
Doc Stamp-Deed : 0.70
_____DC,P.DeWitt Cason,Columbia County B:1092 P:1057

Exhibit "A"

Columbia County Property Appraiser

DB Last Updated: 6/19/2006

Parcel: 16-6S-16-03832-248

2006 Proposed Values

Tax Record | Property Card | Interactive GIS Map | Print

Search Result: 1 of 1

Owner & Property Info

Owner's Name	CAMPBELL THEODORE R & LEILANI
Site Address	- - -
Mailing Address	P O BOX 20486 WEST PALM BEACH, FL 33416
Description	BEG NW COR OF NE1/4 OF NE1/4, RUN W 335.08 FT, S 754.50 FT, E 134.66 FT, SE ALONG CURVE 51.39 FT, E 142.67 FT, N 754.40 FT TO POB. (AKA LOT 48 SPRING RUN S/D UNREC) ORB 632-186, 746-1153, 751-1479, 801-1546, WD 1010-1207 & QC DEED ORB 1081-2599

Use Desc. (code)	NO AG ACRE (009900)
Neighborhood	16616.02
Tax District	3
UD Codes	MKTA02
Market Area	02
Total Land Area	5.710 ACRES

Property & Assessment Values

Mkt Land Value	cnt: (1)	$32,000.00	Just Value	$32,000.00
Ag Land Value	cnt: (0)	$0.00	Class Value	$0.00
Building Value	cnt: (0)	$0.00	Assessed Value	$32,000.00
XFOB Value	cnt: (0)	$0.00	Exempt Value	$0.00
Total Appraised Value		$32,000.00	Total Taxable Value	$32,000.00

Sales History

Sale Date	Book/Page	Inst. Type	Sale Vimp	Sale Qual	Sale RCode	Sale Price
4/28/2006	1081/2599	QC	V	U	01	$100.00
3/19/2004	1010/1207	WD	V	Q		$25,000.00
2/4/1995	801/1546	QC	V	U	01	$5,200.00

Building Characteristics

Bldg Item	Bldg Desc	Year Blt	Ext. Walls	Heated S.F.	Actual S.F.	Bldg Value
			NONE			

Extra Features & Out Buildings

Code	Desc	Year Blt	Value	Units	Dims	Condition (% Good)
				NONE		

Land Breakdown

Lnd Code	Desc	Units
009900	AC NON-AG (MKT)	1.000 LT - (5.710

Inst:2006019009 Date:08/10/2006 Time:13:44
Doc Stamp-Deed : 0.70
DC,P.DeWitt Cason,Columbia County B:1092 P:1058

Columbia County Property Appraiser DB Last Updated: 6/19/2006

NOTICE OF COMMENCEMENT

STATE OF FLORIDA
COUNTY:

Inst:200712014494 Date:6/29/2007 Time:11:01 AM
DC,P.DeWitt Cason ,Columbia County Page 1 of 1

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

1. Description of Property: Beg NW cor of NE 1/4 Run W 335.08 ft SE along curve S1.39 ft E 142.69 ft N 754.40 ft to POB (AKA Lot 4 Spring Run S/D unrecorded ORB 632 184 746 1153
2. General Description of Improvement: Screen enclosure
3. Owner Information:
   a. Name and Address: Theodore Campbell 8188 Paloma Drive, Lake Worth, FL 33467
   b. Interest in Property: owner
   c. Name and Address of Fee Simple Titleholder (if other than owner): N/A
4. Contractor (name and address): Timberlake Alum / Bonnie Jordan 25370 NW 8th Place New Berry FL 32669
5. Surety:
   a. Name and Address: N/A
   b. Amount of Bond:
6. Lender (name and address): N/A
7. Persons within the State of Florida designated by owner upon whom notices or other documents may be served as provided by Florida Statutes 713.13(1)(a)(7): N/A
8. In addition to himself, owner designates: N/A to receive a copy of the Lienor's Notice as provided in Florida Statutes 713.13(1)(b).
9. Expiration date of Notice of Commencement (the expiration date is 1 year from the date of recording unless a different date is specified):

STATE OF FLORIDA, COUNTY OF COLUMBIA
I HEREBY CERTIFY, that the above and foregoing is a true copy of the original filed in this office.
P. DeWITT CASON, CLERK OF COURTS
By Sharon Feagle
Deputy Clerk
Date 06-29-2007

CLERK CIRCUIT COURT COLUMBIA COUNTY FLORIDA

Theodore Campbell
Type Owner Name:

Type Owner Name:

Sworn to and subscribed before me this 29th day of June, 20 07.

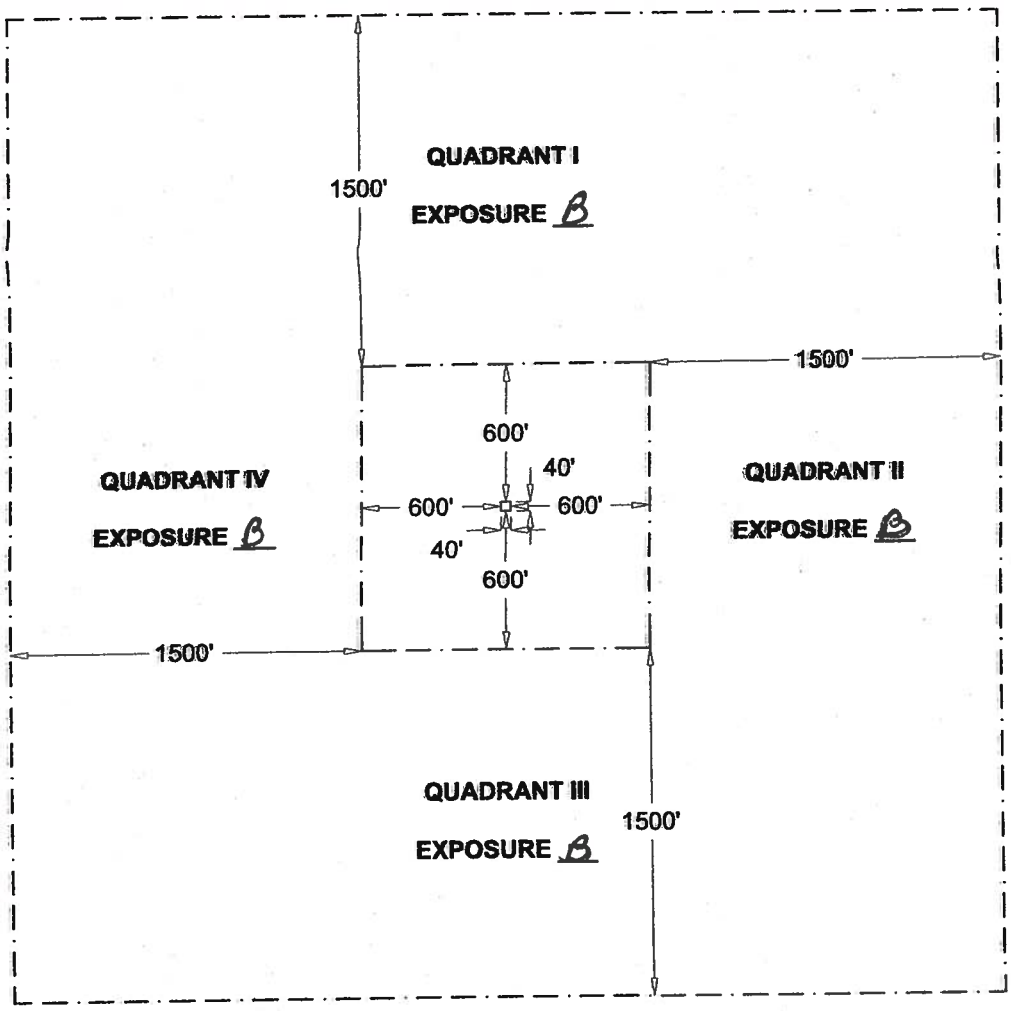
Personally Known
Produced ID License
Did/Did Not Take an Oath

RAYMOND M. DREWNOWSKI
Comm# DD0681685
Expires 6/4/2011
Florida Notary Assn., Inc

Type Notary's Name Raymond Drewnowski
Notary Public, State of Florida
Commission Expiry & Number:

TOTAL P.01

SITE EXPOSURE EVALUATION FORM



NOTE: ZONES ARE MEASURED FROM STRUCTURE OUTWARD

SITE

SCALE: 1" = 800'

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: Craig Timberlake DATE: 6-28-07

SIGNATURE: Craig Timberlake LICENSE #: SCC056711

Design Check List for Pool Enclosures (Page 1 of 4)

I. Design Statement:

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 1ii 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.

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.

Craig Timberlake Phone: 352-472-6850
Contractor / Authorized Rep* Name (please print)

Craig Timberlake Date: 6-28-07
Contractor / Authorized Rep* Signature

Campbell / 185 SW Wintrop Ave Ft White FL
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 — 0 (b or d) x 0 (b or d) x 0 (b or d) = 0 — Required Converted Span / Height

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

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

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

Design Check List for Pool Enclosures (Page 2 of 4)

Wall frame member allowable span conversions from 120 MPH wind zone, "B" Exposure to 0.00 MPH wind zone and / or ☐ "C" or ☐ "D" Exposure for load width of 1.00 :
Look up span in appropriate 120 MPH span table and apply the following formula:

Span / Height @ 120 MPH or ___ MPH → 0 (b or d) x 0 (b or d) x 0 (b or d) = 0 ← Required Converted Span / Height

Wind Zone Multiplier ** ↑ ; Exposure Multiplier (see page 1ii) ↑

	Yes	No
7. Enclosure roof diagonal bracing in plan view	☑	☐
8. Knee braces length, location, & size (Table 1.7)	☑	☐
9. Wall cables or K-bracing sizes shown in wall views	☑	☐
IV. Highlight details from the Aluminum Structures Design Manual:	**Yes**	**No**
A. Beam & purlin tables with size, thickness, spacing, & spans / lengths (Tables 1.1 & 1.2 or 1.9.1 & 1.9.2)	☑	☐
B. Upright & girt tables with size, thickness, spacing, & spans / lengths (Tables 1.3 & 1.4)	☑	☐
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	☑	☐
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: ____ (W) ft. x ____ (H) ft. = 0.00 (a) ft.² @ 100% = ... 0.00 ft.²

Largest side wall: ____ (W) ft. x ____ (H) ft. = 0.00 (b) ft.² @ 50% = ... 0.00 ft.²

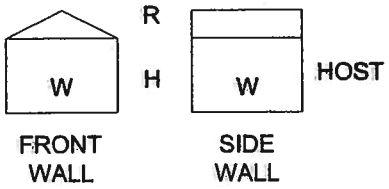
TOTAL = ... 0.00 ft.²

Total area / (233 ft.² / cable for 3/32") = 0 cable pairs
or
Total area / (445 ft.² / cable for 1/8") = 0 cable pairs

Side wall cable calculation: 0.00 (b) ft.² @ 100% = ... 0.00 ft.²

Side wall area / (233 ft.² / cable for 3/32") = 0 cable(s)
or
Side wall area / (445 ft.² / cable for 1/8") = 0 cable(s)

Design Check List for Pool Enclosures (Page 3 of 4)



Example 2: Gable Roof

Front wall @ eave: _____ft. x _____ft. = _____ft.² @ 100% = ... _____ ft.²
W H a

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

Largest side wall: _____ft. x _____ = _____ft.² @ 50% = ... _____ ft.²
W H c

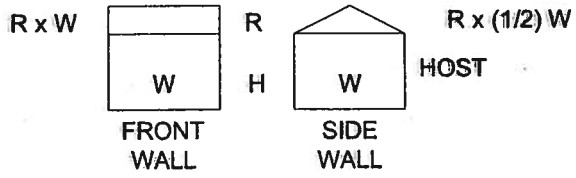
Largest side gable rise: _____ft. x _____ft. = _____ft.² @ 50% = ... _____ ft.²
R W d

TOTAL = ... _____ ft.²

Total area / (233 ft.² / cable for 3/32") = 0 cable pairs
or
Total area / (445 ft.² / cable for 1/8") = _____cable pairs

Side wall cable calculation: _____ft.² + _____ft.² = _____ft.² @ 100% = ... _____ ft.²
c d

Side wall area / (233 ft.² / cable for 3/32") = 0 cable(s)
or
Side wall area / (445 ft.² / cable for 1/8") = _____cable(s)



Example 3: Transverse Gable Roof

Front wall @ eave: 59 ft. x 10 ft. = 590 ft.² @ 100% = ... 590 ft.²
W H a

Front gable rise: 5 ft. x 28 ft. = 140 ft.² @ 100% = ... 140 ft.²
R W b

Largest side wall: 27'3" ft. x 10 = 272.5 ft.² @ 50% = ... 136.25 ft.²
W H c

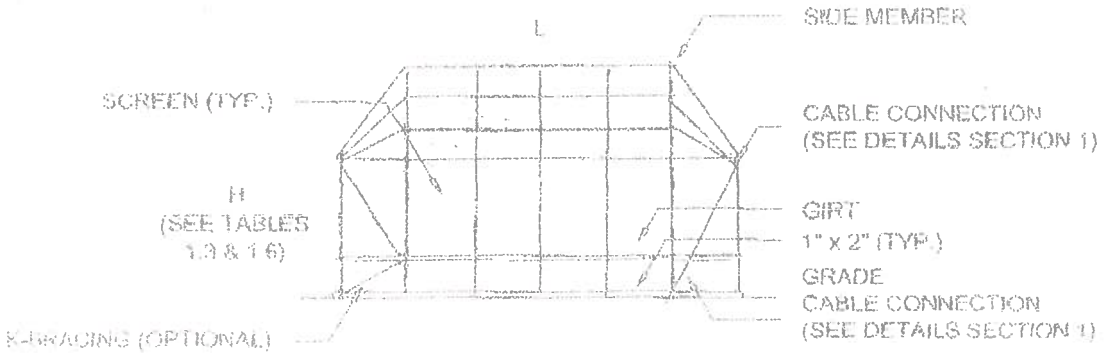
Largest side gable rise: 5 ft. x 1/2 (14 ft.) = 70 ft.² @ 50% = ... 35 ft.²
R W d

TOTAL = ... 901.25 ft.²
901.25

Total area / (233 ft.² / cable for 3/32") = 0 cable pairs
or
Total area / (445 ft.² / cable for 1/8") = 2 cable pairs

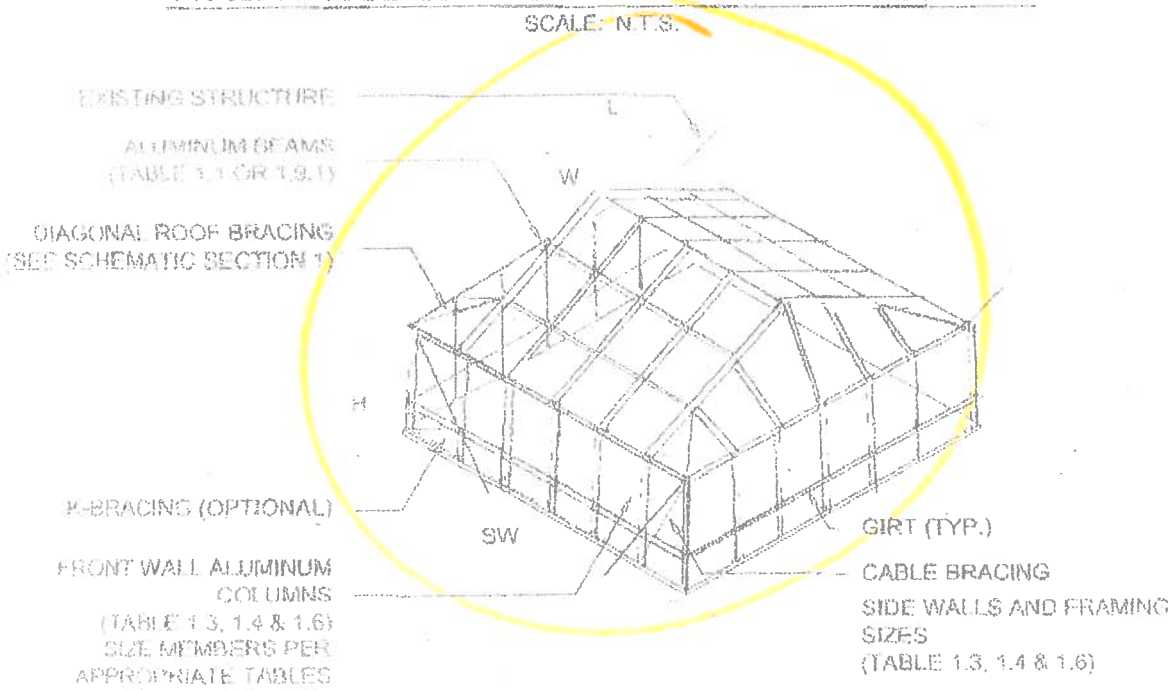
Side wall cable calculation: 272.5 ft.² + 70 ft.² = 342.5 ft.² @ 100% = ... 342.5 ft.²
c d

Side wall area / (233 ft.² / cable for 3/32") = 0 cable(s)
or
Side wall area / (445 ft.² / cable for 1/8") = 1 cable(s)



TYPICAL MODIFIED HIP ROOF - FRONT WALL ELEVATION

SCALE: N.T.S.



TYPICAL MODIFIED HIP ROOF - ISOMETRIC

SCALE: N.T.S.

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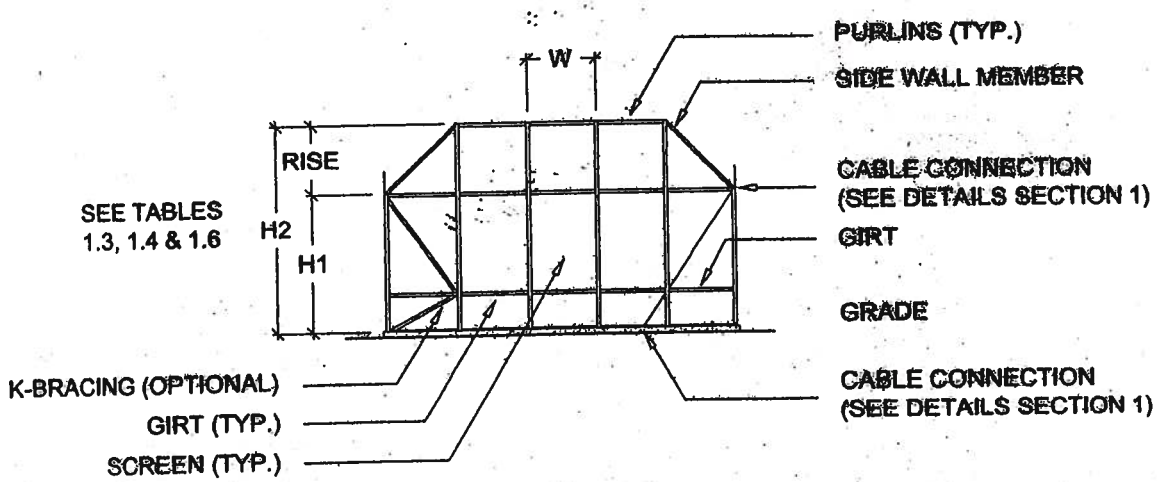
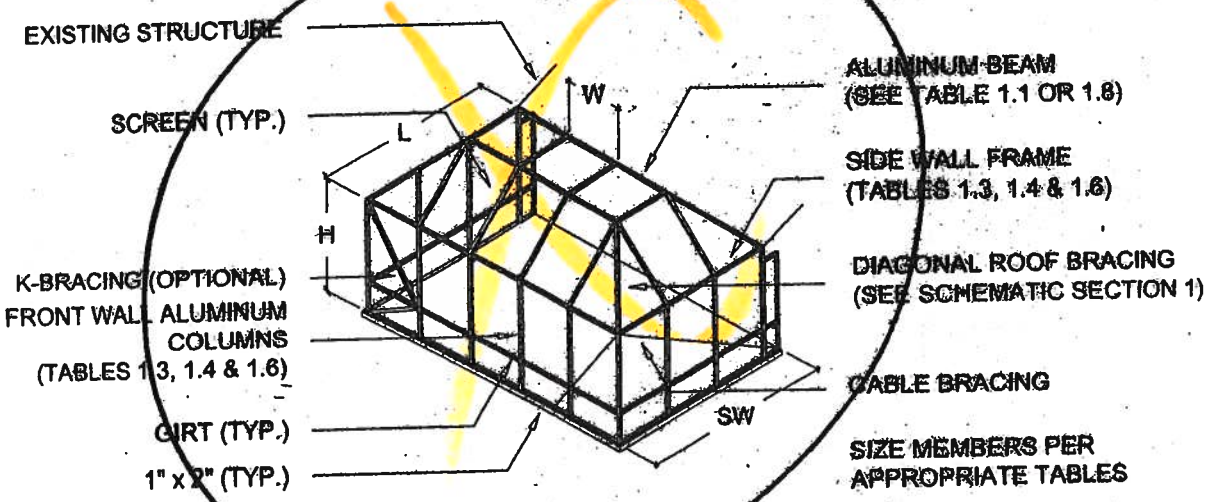


NOTE: USE H2 FOR CABLE AREA CALCULATION

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.

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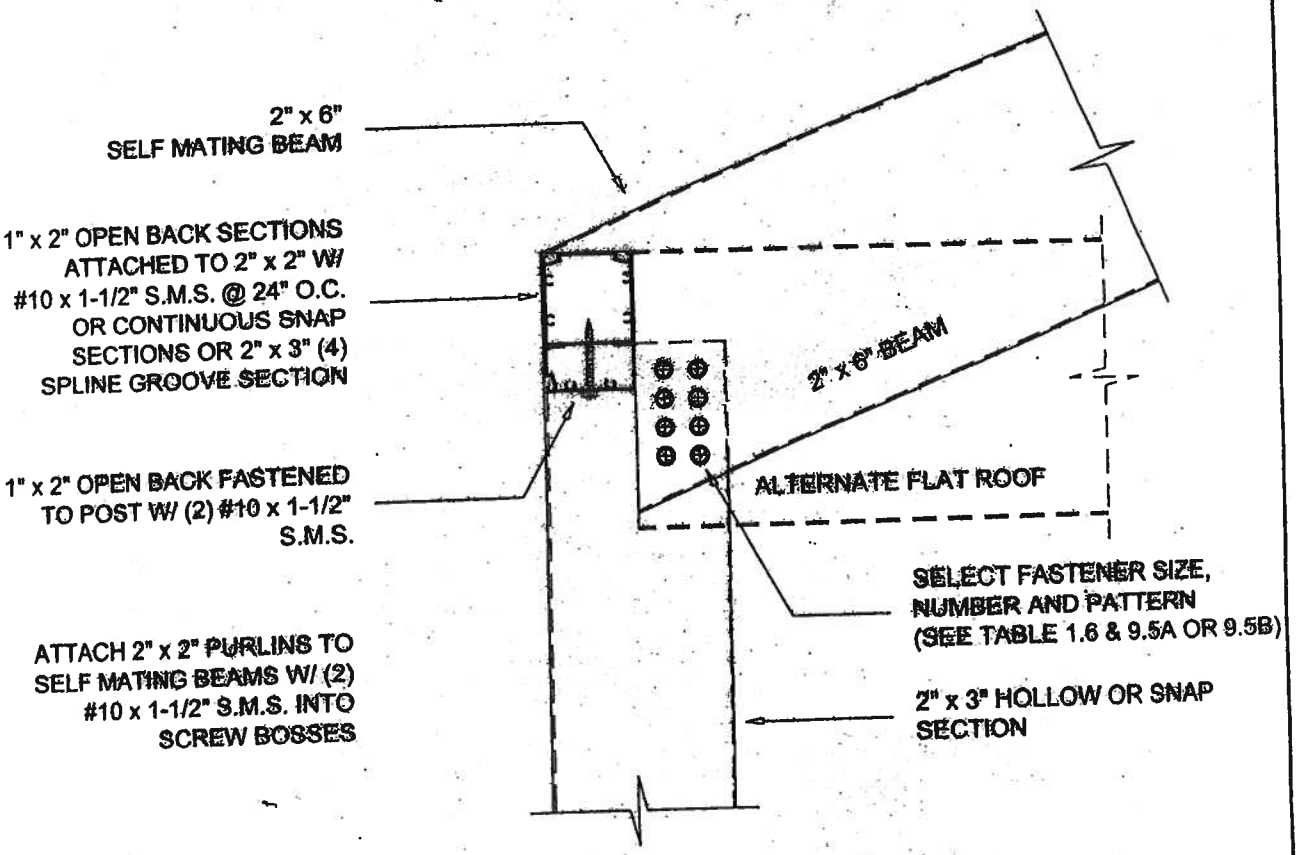

SLOPING BEAM TO UPRIGHT CONNECTION DETAIL (PARTIAL LAP)

SCALE: 3" = 1'-0"

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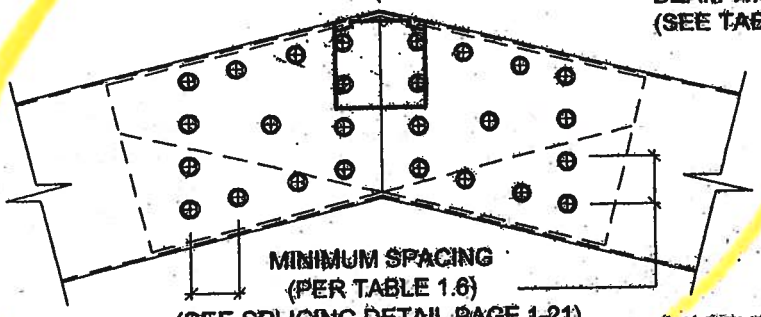
2" x 2" PURLINS ATTACHED TO BEAM W/ MIN. (3) #10 x 1-1/2" S.M.S.

CUT 2" x 4", 2" x 5", OR 2" x 6" BEAMS TO SLIDE OVER EACH OTHER 2" x 7" & LARGER PROVIDE GUSSET PLATE (INSIDE OR OUTSIDE BEAM) SAME WALL THICKNESS AS BEAM WALLS OR LARGER (SEE TABLE 1.6)



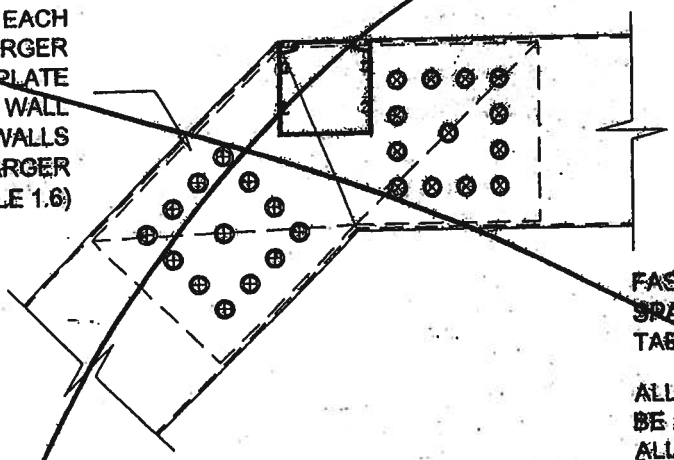
MINIMUM SPACING (PER TABLE 1.6) (SEE SPLICING DETAIL PAGE 1-21)

FASTENER SIZE, NUMBER AND SPACING PER PAGE 1-20(SEE TABLE 1.6)

ALTERNATE SIDE PLATE CONNECTION DETAIL GUSSET PLATE MOUNTED INTERNALLY

SCALE: 3" = 1'-0"

CUT 2" x 4", 2" x 5", OR 2" x 6" BEAMS TO SLIDE OVER EACH OTHER 2" x 7" & LARGER PROVIDE GUSSET PLATE (INSIDE BEAM) SAME WALL THICKNESS AS BEAM WALLS OR LARGER (SEE TABLE 1.6)



FASTENER SIZE, NUMBER AND SPACING PER PAGE 1-20(SEE TABLE 1.6)

ALL GUSSET PLATES SHALL BE A MINIMUM OF 5052 H-32 ALLOY OR HAVE AN ULTIMATE YIELD STRENGTH OF 30 KSI

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

SCALE: 3" = 1'-0"

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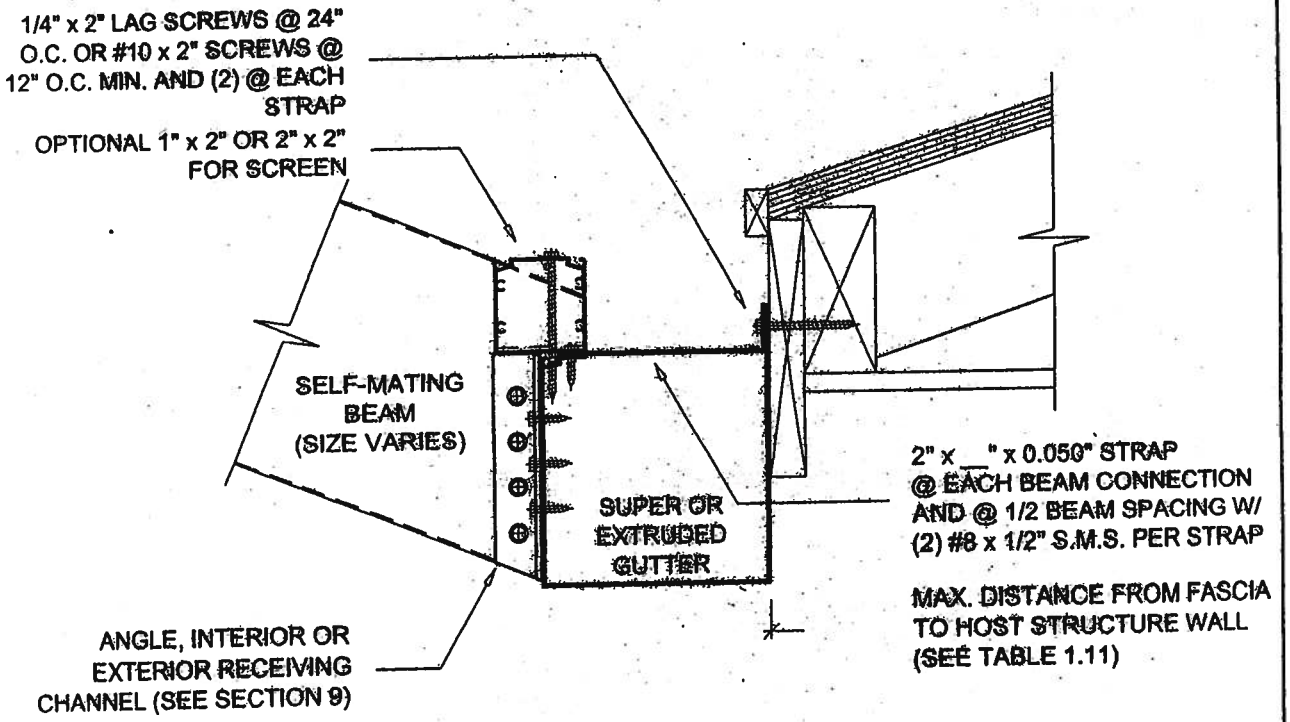

ALTERNATE SELF MATING BEAM CONNECTION TO SUPER OR EXTRUDED GUTTER

SCALE: 3" = 1'-0"

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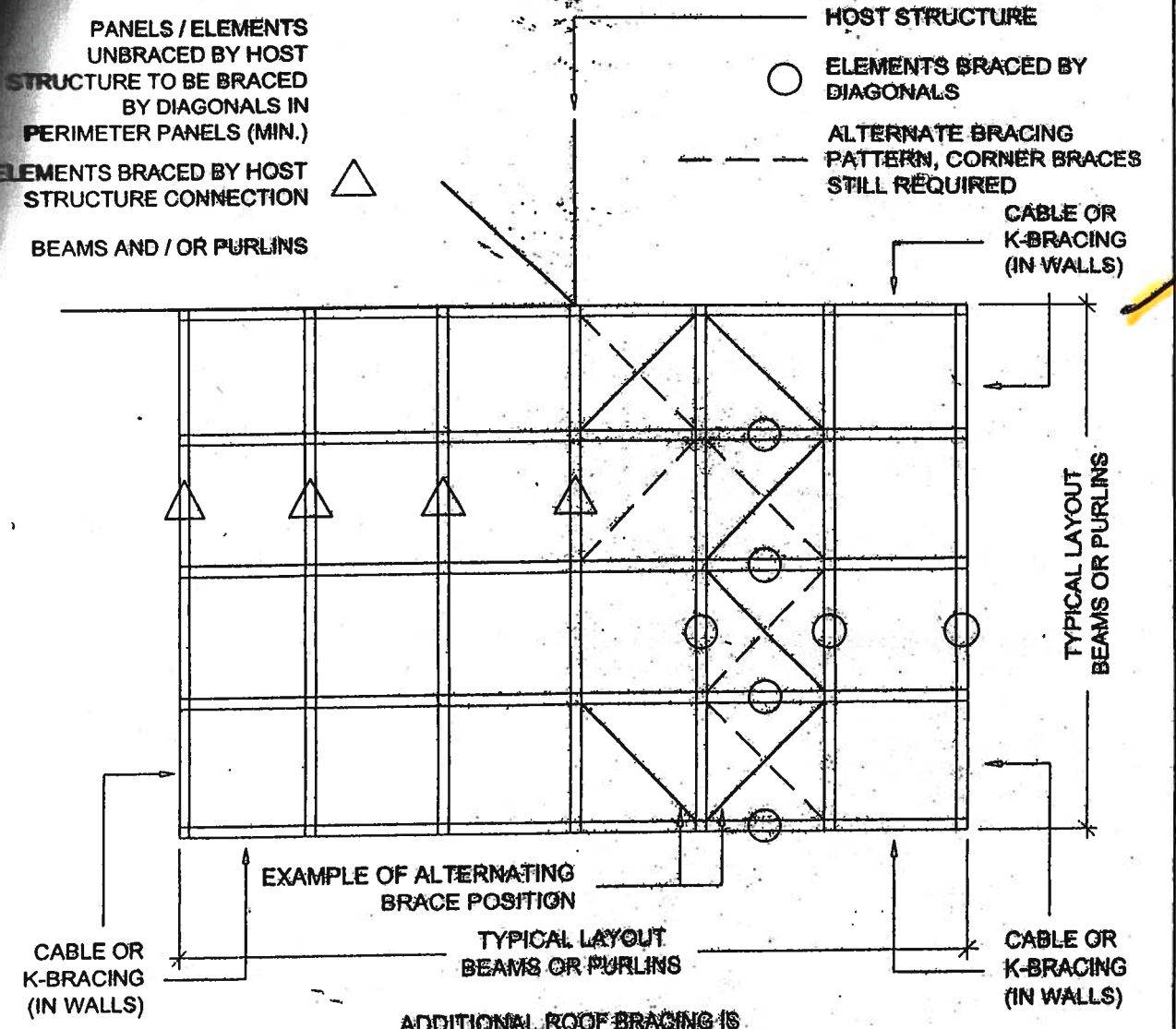

EACH DIAGONAL TO BE FASTENED EACH END W/ (2) EACH #10 S.M.S. (MIN.)

ADDITIONAL ROOF BRACING IS REQUIRED FOR ALL SIDE WALLS LARGER THAN 4 PANELS. NUMBER OF PANELS SHOULD BE EVEN TO PERMIT POSITION OF BRACES ALTERNATING

2 x 2 (MIN) ROOF DIAGONAL, MEET WALL AT WALL BRACING AT CORNERS (TYP.)

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

POOL ENCLOSURE DIAGONAL BRACING - SCHEMATIC PLAN VIEW

SCALE: 3/8" = 1'-0"

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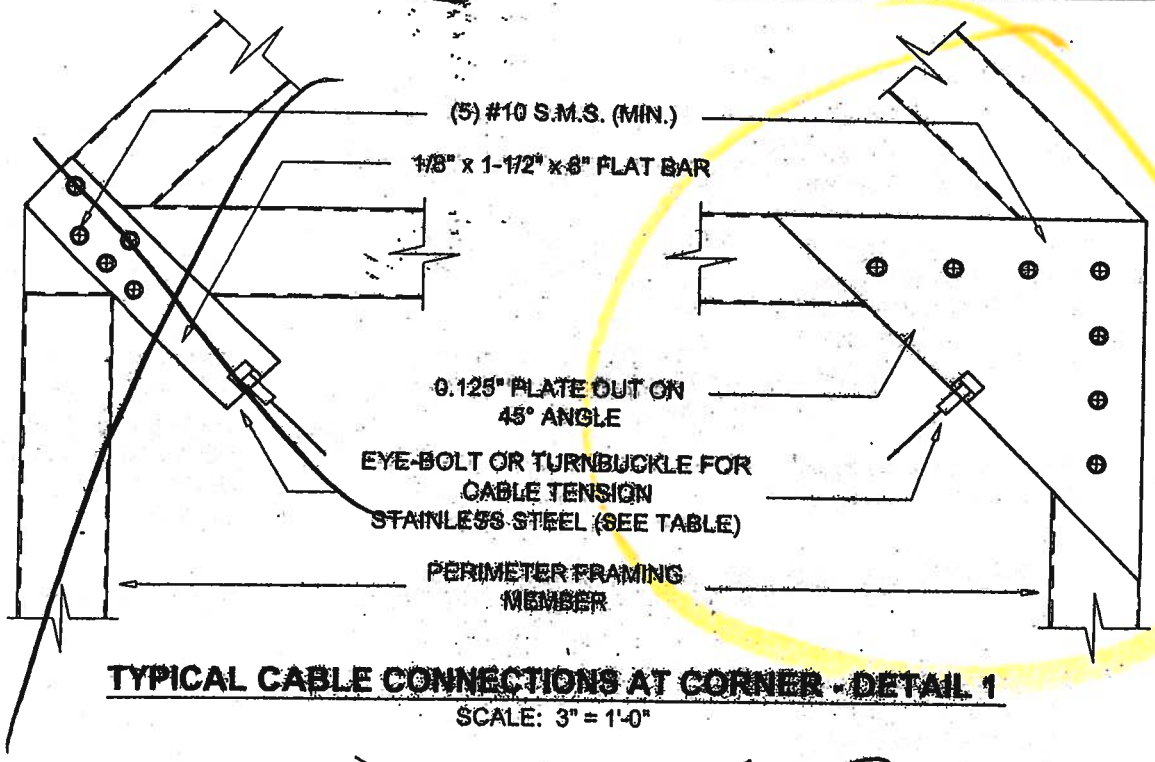
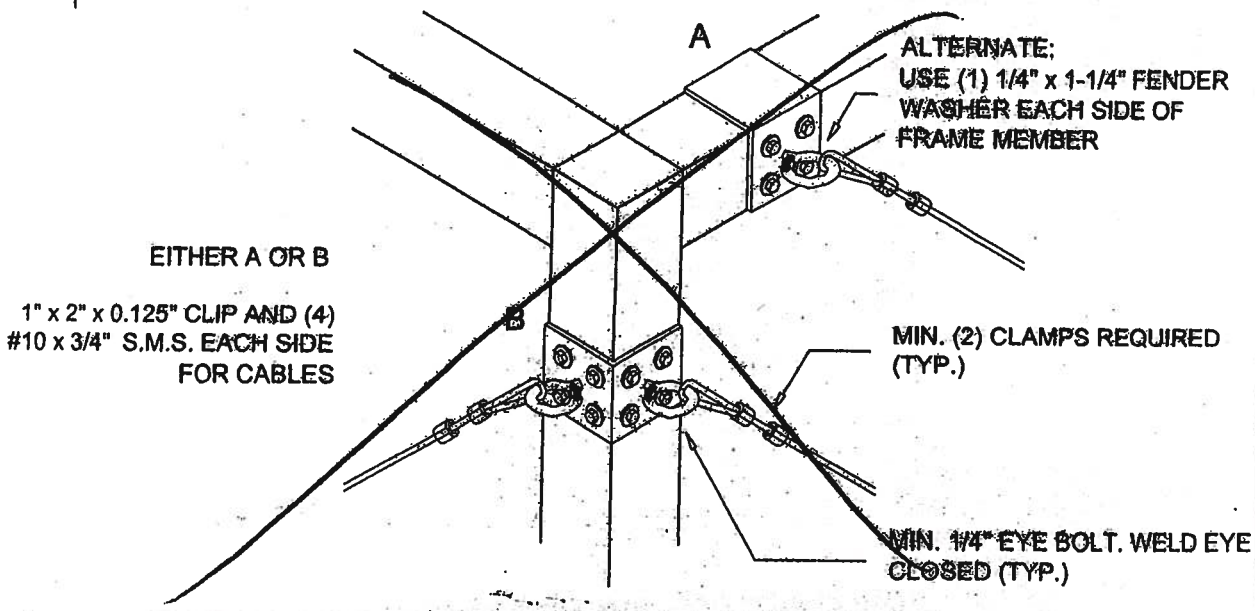


TYPICAL CABLE CONNECTIONS AT CORNER - DETAIL 1

SCALE: 3" = 1'-0"



ALTERNATE TOP CORNER OF CABLE CONNECTION - DETAIL 1A

SCALE: 3" = 1'-0"

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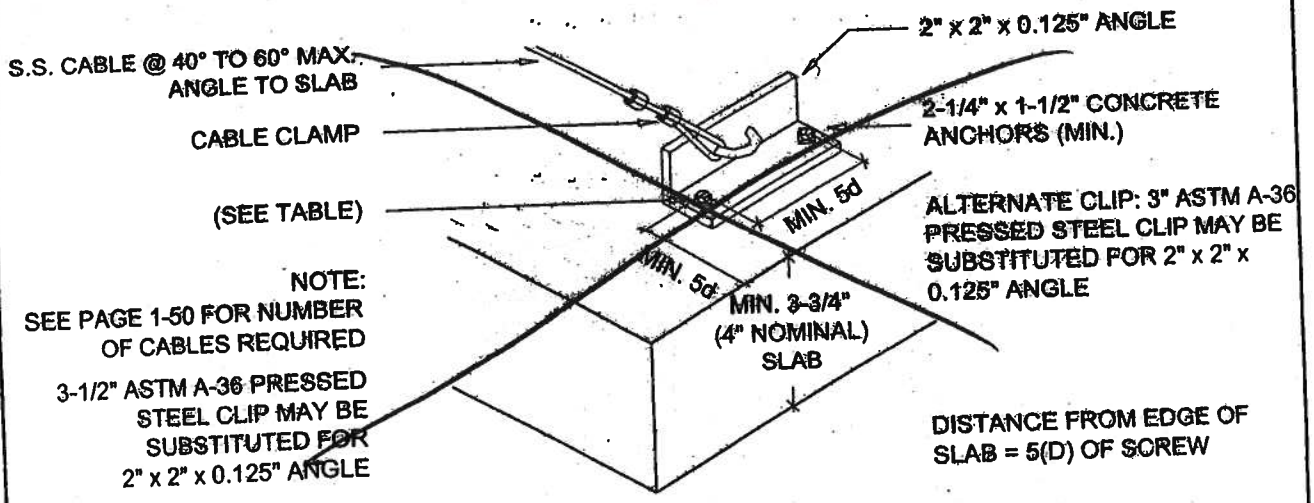
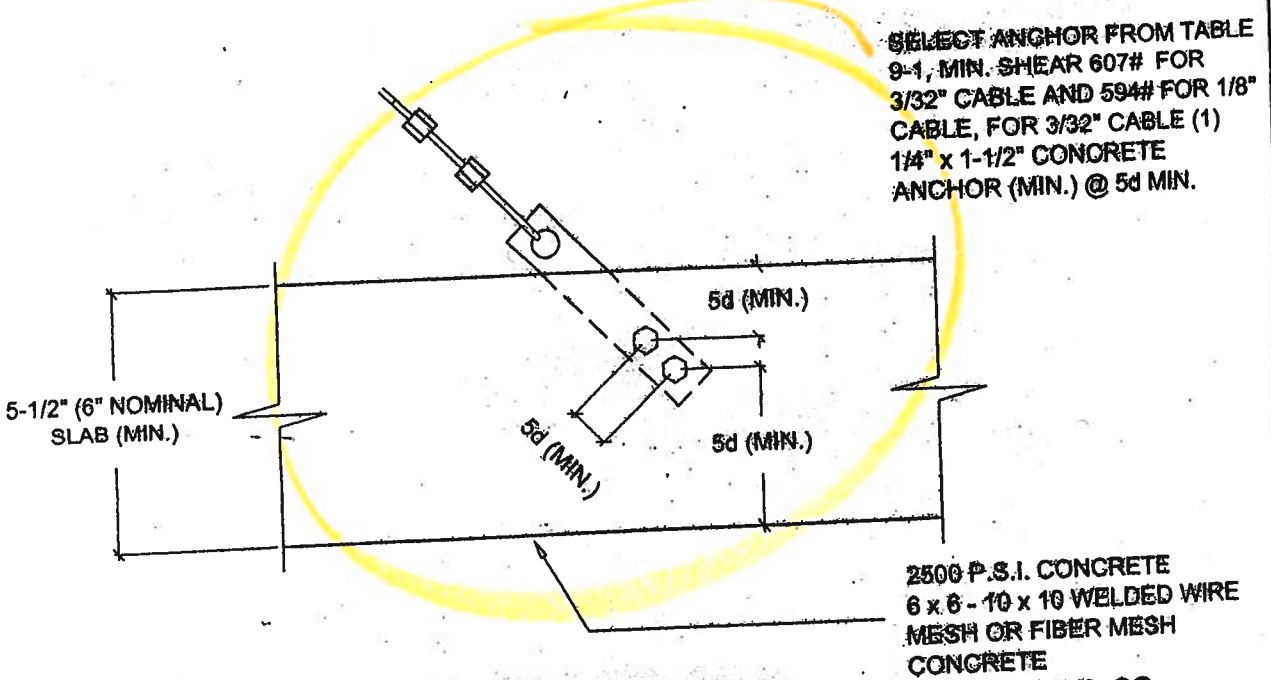


ALTERNATE CABLE CONNECTION AT SLAB DETAIL - DETAIL 2B

SCALE: 3" = 1'-0"



ALTERNATE CABLE CONNECTIONS AT FOUNDATION - DETAIL 2C

SCALE: 3" = 1'-0"

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SCREENED ENCLOSURES

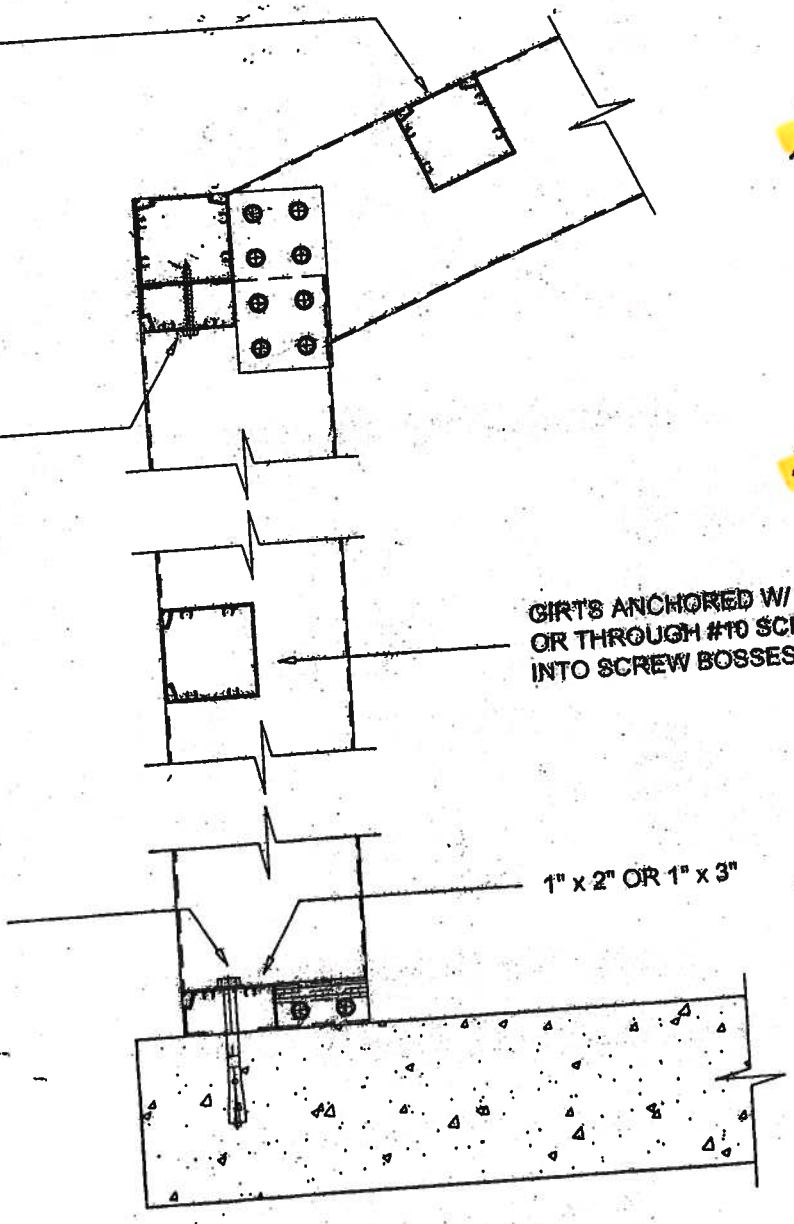
PURLINS ANCHORED W/ CLIPS OR #10 SCREWS THROUGH PURLINS INTO SCREW BOSSES

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

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

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

1" x 2" OR 1" x 3"



PURLIN & CHAIR RAIL DETAIL

SCALE: 3" = 1'-0"

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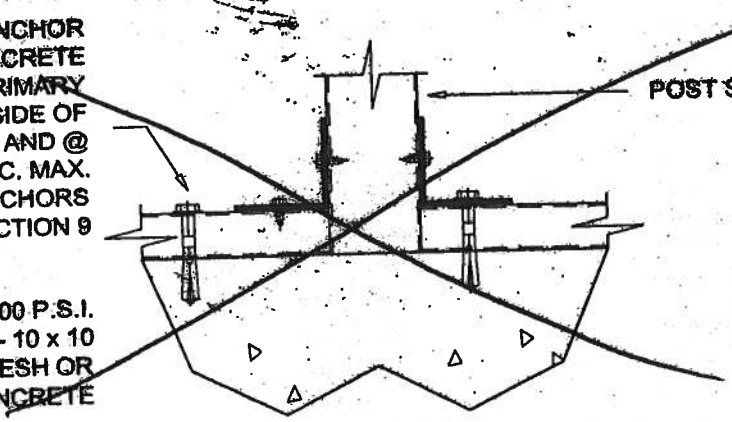
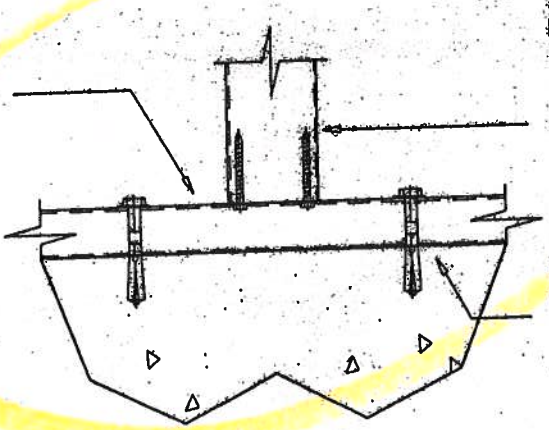


SIDE WALL POST TO PLATE TO CONCRETE DETAIL

SCALE: 3" = 1'-0"



SIDE WALL HOLLOW POST TO BASE DETAIL

SCALE: 3" = 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).

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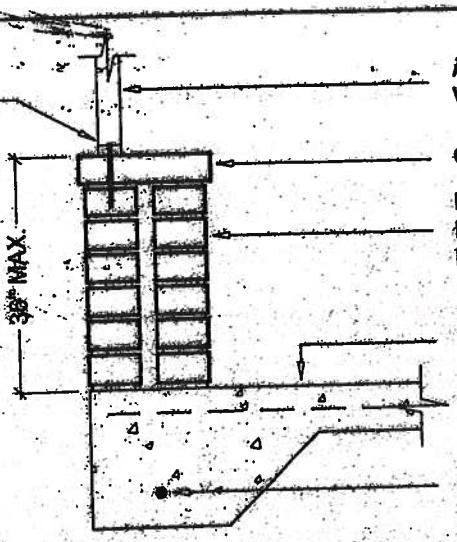
1/4" x 6" RAWL TAPPER THROUGH 1" x 2" AND ROWLOCK INTO FIRST COURSE OF BRICKS

ALTERNATE CONNECTION OF SCREENED ENCLOSURE FOR BRICK OR OTHER NON-STRUCTURAL KNEE WALL 1" WIDE x 0.063" THICK STRAP @ EACH POST FROM POST TO FOOTING W/ (2) #10 x 3/4" S.M.S. STRAP TO POST AND (1) 1/4" x 1-3/4" CONCRETE ANCHOR TO SLAB OR FOOTING



ALUMINUM FRAME SCREEN WALL

CAP BRICK

BRICK KNEEWALL TYPE 'S' MORTAR REQUIRED FOR LOAD BEARING BRICK WALL

4" (NOMINAL) PATIO CONCRETE SLAB (SEE NOTES CONCERNING FIBER MESH)

(3) #3Ø BARS OR (1) #5Ø BAR W/ 2-1/2" COVER (TYP.)

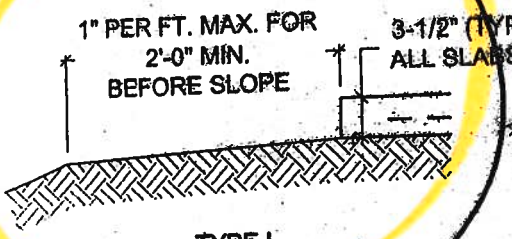
BRICK KNEEWALL AND FOUNDATION FOR SCREEN WALLS

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

Existing Slab

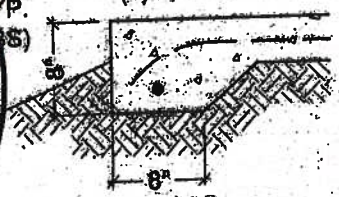
1" PER FT. MAX. FOR 2'-0" MIN. BEFORE SLOPE

3-1/2" (TYP. ALL SLABS)



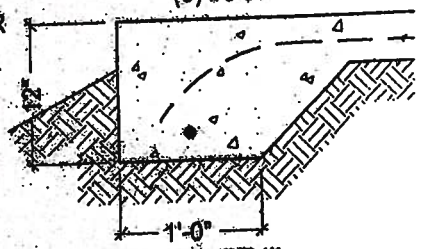
TYPE I
FLAT SLOPE / NO FOOTING
0-2" / 12"

(2) #3 BAR CONT. OR (1) #5 BAR CONT.



TYPE II
MODERATE SLOPE FOOTING
2" / 12" - 1'-10"

(1) #5 BAR CONT. (3) #3 BAR CONT. OR



TYPE III
STEEP SLOPE FOOTING
> 1'-10"

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 page 1-69, 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

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

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Table 1.1 120 Allowable Spans for Primary Screen Roof Frame Members

Aluminum Alloy 6063 T-6

For Wind Zones 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

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 0.044"	4'-5"	Pb	4'-5"	Pb	4'-5"	Pb	4'-5"	Pb	4'-5"	Pb	4'-5"	Pb	4'-5"	Pb
2" x 2" x 0.050"	5'-2"	Pb	5'-2"	Pb	5'-2"	Pb	5'-2"	Pb	5'-2"	Pb	5'-2"	Pb	5'-2"	Pb
2" x 2" x 0.090"	7'-6"	Pb	7'-6"	Pb	7'-6"	Pb	7'-6"	Pb	7'-6"	Pb	7'-6"	Pb	7'-6"	Pb
2" x 3" x 0.045"	7'-7"	Pb	7'-7"	Pb	7'-7"	Pb	7'-7"	Pb	7'-7"	Pb	7'-7"	Pb	7'-7"	Pb
2" x 4" x 0.050"	9'-1"	Pb	9'-1"	Pb	9'-1"	Pb	9'-1"	Pb	9'-1"	Pb	9'-1"	Pb	9'-1"	Pb
2" x 5" x 0.062"	20'-5"	Pb	20'-5"	Pb	20'-5"	Pb	20'-2"	Ud	19'-1"	Ud	18'-3"	Ud	17'-9"	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 0.044 x 0.100"	11'-8"	Pd	11'-8"	Pd	11'-8"	Pd	11'-8"	Pd	11'-8"	Pd	11'-8"	Pd	11'-8"	Pd
2" x 5" x 0.050" x 0.100"	16'-1"	Pd	16'-1"	Pd	16'-1"	Pd	16'-1"	Pd	16'-1"	Pd	16'-9"	Ud	15'-1"	Ud
2" x 6" x 0.050" x 0.120"	20'-4"	Pd	20'-4"	Pd	20'-4"	Pd	20'-3"	Ud	19'-3"	Ud	18'-5"	Ud	17'-8"	Ud
2" x 7" x 0.055" x 0.120"	24'-9"	Pd	24'-9"	Pd	24'-5"	Ud	23'-11"	Ud	22'-11"	Ud	22'-11"	Ud	20'-2"	Ud
2" x 8" x 0.072" x 0.224"	34'-2"	Pd	32'-9"	Ud	30'-5"	Ud	28'-11"	Ud	27'-5"	Ud	25'-11"	Ud	24'-11"	Ud
2" x 9" x 0.072" x 0.224"	39'-3"	Pd	35'-11"	Ud	33'-4"	Ud	31'-8"	Ud	30'-0"	Ud	28'-5"	Ud	27'-3"	Ud
2" x 9" x 0.082" x 0.310"	42'-5"	Ud	38'-7"	Ud	35'-10"	Ud	33'-11"	Ud	32'-2"	Ud	30'-7"	Ud	29'-5"	Ud
2" x 10" x 0.092" x 0.369"	49'-3"	Ud	44'-9"	Ud	41'-7"	Ud	39'-4"	Ud	37'-3"	Ud	35'-9"	Ud	34'-2"	Ud

Snap 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 0.044"	4'-10"	Pd	4'-10"	Pd	4'-10"	Pd	4'-10"	Pd	4'-10"	Pd	4'-10"	Pd	4'-10"	Pd
2" x 3" x 0.045"	7'-6"	Pd	7'-6"	Pd	7'-6"	Pd	7'-6"	Pd	7'-6"	Pd	7'-6"	Pd	7'-6"	Pd
2" x 4" x 0.045"	10'-8"	Pd	10'-8"	Pd	10'-8"	Pd	10'-8"	Pd	10'-8"	Pd	10'-8"	Pd	10'-8"	Pd
2" x 6" x 0.062"	22'-2"	Pd	22'-2"	Pd	22'-2"	Pd	21'-5"	Ud	20'-5"	Ud	19'-6"	Ud	18'-9"	Ud
2" x 7" x 0.062"	26'-8"	Pd	26'-8"	Pd	25'-9"	Ud	24'-3"	Ud	23'-0"	Ud	22'-0"	Ud	21'-2"	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.

Example: Max. 'L' for 2" x 4" x 0.050" hollow section with "W" = 5'-0" = 9'-1"

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Table 1.2 120 Allowable Spans for Secondary Screen Roof Frame Members

Aluminum Alloy 6063 T-6

For Wind Zones 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

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'-6"	
	Allowable Span "L" / Point Load (P) or Uniform Load (U), bending (b), deflection (d)													
2" x 2" x 0.044"	4'-5"	Pb	4'-5"	Pb	4'-5"	Pb	4'-5"	Pb	4'-5"	Pb	4'-5"	Pb	4'-5"	Pb
2" x 2" x 0.050"	5'-2"	Pb	5'-2"	Pb	5'-2"	Pb	5'-2"	Pb	5'-2"	Pb	5'-2"	Pb	5'-2"	Pb
2" x 2" x 0.090"	7'-4"	Pd	7'-4"	Pd	7'-4"	Pd	7'-4"	Pd	7'-4"	Pd	7'-4"	Pd	7'-4"	Pd
3" x 2" x 0.045"	5'-8"	Pb	5'-8"	Pb	5'-8"	Pb	5'-8"	Pb	5'-8"	Pb	5'-8"	Pb	5'-8"	Pb
3" x 2" x 0.070"	7'-8"	Pd	7'-8"	Pd	7'-8"	Pd	7'-8"	Pd	7'-8"	Pd	7'-8"	Pd	7'-8"	Pd
2" x 3" x 0.045"	7'-4"	Pd	7'-4"	Pd	7'-4"	Pd	7'-4"	Pd	7'-4"	Pd	7'-4"	Pd	7'-4"	Pd
2" x 4" x 0.050"	9'-1"	Pb	9'-1"	Pb	9'-1"	Pb	9'-1"	Pb	9'-1"	Pb	9'-1"	Pb	9'-1"	Pb
2" x 5" x 0.062"	14'-1"	Pd	14'-1"	Pd	14'-1"	Pd	14'-1"	Pd	14'-1"	Pd	14'-1"	Pd	14'-1"	Pd

Snap Sections	Tributary Load Width "W" = Purlin Spacing													
	3'-6"		4'-0"		4'-6"		5'-0"		5'-6"		6'-0"		6'-6"	
	Allowable Span "L" / Point Load (P) or Uniform Load (U), bending (b), deflection (d)													
2" x 2" x 0.044	4'-11"	Pb	4'-11"	Pb	4'-11"	Pb	4'-11"	Pb	4'-11"	Pb	4'-11"	Pb	4'-11"	Pb
2" x 3" x 0.045"	7'-3"	Pd	7'-3"	Pd	7'-3"	Pd	7'-3"	Pd	7'-3"	Pd	7'-3"	Pd	7'-3"	Pd
2" x 4" x 0.045"	9'-2"	Pd	9'-2"	Pd	9'-2"	Pd	9'-2"	Pd	9'-2"	Pd	9'-2"	Pd	9'-2"	Pd

B. Sections Fastened Through Beam Webs Into Spline Systems

Hollow Sections	Tributary Load Width "W" = Purlin Spacing													
	3'-6"		4'-0"		4'-6"		5'-0"		5'-6"		6'-0"		6'-6"	
	Allowable Span "L" / Point Load (P) or Uniform Load (U), bending (b), deflection (d)													
2" x 3" x 0.050"	11'-6"	Pb	11'-6"	Pb	11'-6"	Pb	11'-6"	Pb	11'-6"	Pb	10'-6"	Ud	10'-3"	Ud
2" x 4" x 0.050"	13'-8"	Pb	13'-8"	Pb	13'-8"	Pb	13'-8"	Pb	13'-8"	Pb	13'-8"	Pb	13'-8"	Pb
2" x 5" x 0.062"	22'-4"	Pd	22'-4"	Pd	22'-4"	Pd	21'-7"	Ud	20'-11"	Ud	20'-4"	Ud	19'-7"	Ud

Snap Sections	Tributary Load Width "W" = Purlin Spacing													
	3'-6"		4'-0"		4'-6"		5'-0"		5'-6"		6'-0"		6'-6"	
	Allowable Span "L" / Point Load (P) or Uniform Load (U), bending (b), deflection (d)													
2" x 2" x 0.044"	4'-4"	Pb	4'-4"	Pb	4'-4"	Pb	4'-4"	Pb	4'-4"	Pb	4'-4"	Pb	4'-4"	Pb

Notes:

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.

CHECK TABLE 1.6 FOR MINIMUM UPRIGHT SIZE FOR BEAMS.

Example: Max. "L" for 2" x 4" x 0.050" hollow section fastened to beam with clips with "W" = 5'-9" = 9'-1"

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Table 1.3 110 Allowable Post / Upright Heights for Primary Screen Wall Frame Members

Aluminum Alloy 6063 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 0.044"	7'-5"	d	6'-5"	b	5'-8"	b	5'-1"	b	4'-8"	b	4'-3"	b	3'-11"	b
2" x 2" x 0.050"	7'-10"	d	7'-1"	b	6'-9"	b	5'-8"	b	5'-2"	b	4'-9"	b	4'-5"	b
2" x 2" x 0.090"	8'-11"	d	8'-2"	d	7'-10"	d	7'-1"	b	6'-7"	b	6'-1"	b	5'-9"	b
2" x 3" x 0.045"	8'-4"	d	7'-7"	d	7'-2"	d	6'-11"	d	6'-5"	d	5'-11"	b	5'-6"	b
2" x 4" x 0.050"	11'-2"	b	9'-7"	b	8'-6"	b	7'-9"	b	7'-1"	b	6'-7"	b	6'-1"	b
2" x 5" x 0.062"	17'-3"	b	14'-10"	b	13'-2"	b	12'-1"	b	11'-0"	b	10'-3"	b	9'-7"	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 0.044 x 0.100"	11'-11"	d	10'-10"	d	10'-0"	d	9'-5"	b	8'-8"	b	8'-0"	b	7'-8"	b
2" x 5" x 0.050" x 0.100"	14'-9"	d	13'-5"	d	12'-5"	d	11'-7"	b	10'-8"	b	9'-11"	b	9'-4"	b
2" x 6" x 0.050" x 0.120"	17'-3"	d	15'-8"	d	14'-4"	b	13'-1"	b	12'-0"	b	11'-3"	b	10'-6"	b
2" x 7" x 0.055" x 0.120"	19'-8"	d	17'-6"	b	15'-7"	b	14'-2"	b	13'-1"	b	12'-2"	b	11'-5"	b
2" x 8" x 0.072" x 0.224"	24'-4"	d	22'-1"	d	20'-0"	d	18'-2"	d	16'-8"	d	17'-6"	d	16'-10"	d
2" x 9" x 0.072" x 0.224"	26'-8"	d	24'-9"	d	22'-6"	d	20'-5"	d	20'-1"	d	19'-3"	d	18'-2"	b
2" x 9" x 0.082" x 0.310"	28'-8"	d	26'-0"	d	24'-2"	d	22'-9"	d	21'-7"	d	20'-8"	d	19'-10"	d
2" x 10" x 0.092" x 0.369"	33'-3"	d	30'-3"	d	28'-1"	d	26'-5"	d	25'-1"	d	23'-11"	d	23'-1"	d

Snap 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 0.044"	6'-7"	d	5'-11"	d	5'-7"	d	5'-3"	d	4'-10"	b	4'-5"	b	4'-1"	b
2" x 3" x 0.045"	8'-10"	d	8'-1"	d	7'-6"	d	6'-11"	d	6'-5"	b	5'-9"	b	5'-3"	b
2" x 4" x 0.045"	11'-2"	d	10'-2"	d	9'-2"	b	8'-2"	b	7'-8"	b	6'-9"	b	6'-2"	b
2" x 6" x 0.062"	18'-3"	d	16'-7"	d	15'-3"	d	14'-1"	d	13'-0"	d	13'-2"	d	12'-5"	d
2" x 7" x 0.062"	20'-7"	d	18'-9"	d	17'-5"	d	16'-1"	d	15'-0"	d	14'-10"	d	14'-2"	b

Notes:

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.

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Table 1.4 110 Allowable Post / Girt / Chair Rail Spans, Header Spans & Upright Heights for Secondary Screen Wall Frame Members

Aluminum Alloy 6063 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" = Upright Spacing													
	3'-0"		4'-0"		5'-0"		6'-0"		7'-0"		8'-0"		9'-0"	
	Allowable Height "H" or Span "L" / bending (b), deflection (d)													
2" x 2" x 0.044"	7'-5"	d	6'-5"	b	5'-8"	b	5'-1"	b	4'-8"	b	4'-3"	b	3'-11"	b
2" x 2" x 0.050"	7'-10"	d	7'-1"	b	6'-3"	b	5'-8"	b	5'-2"	b	4'-9"	b	4'-5"	b
2" x 2" x 0.090"	8'-11"	d	8'-2"	d	7'-10"	b	7'-1"	b	6'-7"	b	6'-1"	b	5'-9"	b
3" x 2" x 0.045"	8'-4"	d	7'-4"	b	6'-8"	b	5'-10"	b	5'-4"	b	4'-11"	b	4'-7"	b
3" x 2" x 0.070"	9'-5"	d	8'-6"	d	7'-8"	b	7'-0"	b	6'-5"	b	5'-11"	b	5'-7"	b
2" x 3" x 0.045"	8'-4"	d	7'-7"	d	7'-0"	d	6'-11"	d	6'-3"	d	5'-11"	b	5'-5"	b
2" x 4" x 0.050"	11'-2"	b	9'-7"	b	8'-8"	b	7'-9"	b	7'-1"	b	6'-7"	b	6'-1"	b
2" x 5" x 0.062"	17'-3"	b	14'-10"	b	13'-2"	b	11'-11"	b	11'-0"	b	10'-3"	b	9'-7"	b

Snap Sections	Tributary Load Width "W" = Upright Spacing													
	3'-0"		4'-0"		5'-0"		6'-0"		7'-0"		8'-0"		9'-0"	
	Allowable Height "H" or Span "L" / bending (b), deflection (d)													
2" x 2" x 0.044"	6'-7"	d	5'-11"	d	5'-7"	d	5'-3"	d	4'-10"	b	4'-5"	b	4'-1"	b

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

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" or Span "L" / bending (b), deflection (d)													
3" x 2" x 0.045"	9'-7"	b	8'-3"	b	7'-3"	b	6'-6"	b	5'-11"	b	5'-6"	b	5'-1"	b
3" x 2" x 0.070"	11'-5"	b	9'-10"	b	8'-8"	b	7'-10"	b	7'-2"	b	6'-8"	b	6'-3"	b
2" x 3" x 0.045"	11'-2"	d	9'-9"	b	8'-8"	b	7'-10"	b	7'-2"	b	6'-8"	b	6'-2"	b
2" x 4" x 0.050"	12'-5"	b	10'-9"	b	9'-6"	b	8'-7"	b	7'-10"	b	7'-3"	b	6'-10"	b
2" x 5" x 0.062"	19'-3"	b	16'-7"	b	14'-8"	b	13'-3"	b	12'-2"	b	11'-5"	b	10'-9"	b

Snap Sections	Tributary Load Width "W" = Upright Spacing													
	3'-0"		4'-0"		5'-0"		6'-0"		7'-0"		8'-0"		9'-0"	
	Allowable Height "H" or Span "L" / bending (b), deflection (d)													
2" x 2" x 0.044"	8'-10"	d	7'-8"	b	6'-9"	b	6'-0"	b	5'-5"	b	4'-11"	b	4'-7"	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/heights to "C" and "D" exposure categories see exposure multipliers and example on page 1-ii.

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SECTION 1	SCREENED ENCLOSURES

Table 1.6 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 3 SMB or H	2" x 2" x 0.044"	Partial Lap	8	6	4	#10
2 x 5 SMB	2 x 3 SMB or H	2" x 2" x 0.044"	Partial Lap	8	6	4	#8
2 x 6 SMB	2 x 3 SMB or H	2" x 2" x 0.044"	Partial Lap	10	8	6	#10
2 x 7 SMB	2 x 4 SMB or H	2" x 3" x 0.044"	Full Lap	14	12	10	#12
2 x 8 SMB	2 x 5 SMB or H	2" x 3" x 0.044"	Full Lap	16	14	12	#14
2 x 9 SMB	2 x 6 SMB	2" x 3" x 0.046"	Full Lap	18	16	14	#14**
2 x 9 SMB *	2 x 7 SMB	2" x 4" x 0.056"	Full Lap	20	18	16	#14**
2 x 10 SMB	2 x 8 SMB	2" x 5" x 0.050"	Full Lap	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 0.065" 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 0.092" x 0.365"	0.190"
2" x 10" x 0.092" x 0.365"	0.250"

* 0.082" wall thickness, 0.340" flange thickness

** (1) Stitching screw at 16" O.C. max.

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.

Note:

1. Connection of 2" x 6" to 2" x 4" shall use a full lap cut or 1/16" gusset plate.
2. For beam splice connections the number of screws shown is the total for each splice with 1/2 the screws on each side of the cut.
3. The number of 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. 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.
8. 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 0.046" girt / chair rail)

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