

SEMINOLE COUNTY GOVERNMENT  
BOARD OF ADJUSTMENT  
AGENDA MEMORANDUM

**SUBJECT:** Request for a side yard (west) setback variance from 10 feet to 1 foot for a proposed carport in the R-1AAA (Single-Family Dwelling District); (William Park, applicant).

**DEPARTMENT:** Planning & Development **DIVISION:** Planning

**AUTHORIZED BY:** Kathy Fall **CONTACT:** Ian Sikonia **EXT.** 7398

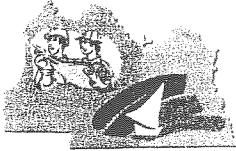
**Agenda Date** 4/24/06 **Regular**  **Consent**  **Public Hearing – 6:00**

**MOTION/RECOMMENDATION:**

1. **APPROVE** the request for a side yard (west) setback variance from 10 feet to 1 foot for a proposed carport in the R-1AAA (Single-Family Dwelling District); or
2. **DENY** the request for a side yard (west) setback variance from 10 feet to 1 foot for a proposed carport in the R-1AAA (Single-Family Dwelling District); or
3. **CONTINUE** the request to a time and date certain.

<b>GENERAL INFORMATION</b>	<b>APPLICANT:</b> William Park <b>LOCATION:</b> 107 Pine Needle Lane <b>ZONING:</b> R-1AAA (Single-Family Dwelling District)
<b>BACKGROUND / REQUEST</b>	<ul style="list-style-type: none"> <li>• The applicant proposes to construct a carport that would encroach 9 feet into the minimum 10 foot side yard setback; the aforementioned rear yard setback variance is thereby requested.</li> <li>• The proposed construction would be an approximately 400 square foot carport on the west side of the existing single-family home.</li> <li>• The applicant has received approval from the Spring Valley Farms Architectural Review Committee for the proposed carport on February 15, 2006.</li> <li>• The Board of Adjustment has granted one similar variance for a side yard setback variance from 10 feet to 0 feet for a proposed carport on 121 Pine Needle Lane in 1989. (BA89-11-159V)</li> </ul>

	<ul style="list-style-type: none"><li>• There are currently no code enforcement or building violations for this property.</li><li>• There is no record of prior variances having been granted for this property.</li></ul>
<b>STAFF FINDINGS</b>	<p>The applicant has not satisfied the criteria for the grant of a variance. Staff has determined that:</p> <ul style="list-style-type: none"><li>• No special conditions or circumstances exist, which are peculiar to the land, structure, or building involved and which are not applicable to other lands, structures or building in the same zoning district.</li><li>• The granting of the variance requested would confer on the applicant special privileges that are denied by Chapter 30 to other lands, buildings, or structures in the same zoning district.</li><li>• The literal interpretation of the provisions of Chapter 30 would not deprive the applicant of rights commonly enjoyed by other properties in the same zoning classification.</li><li>• The applicant would still retain reasonable use of the land, building or structure without the granting of the variance.</li></ul>
<b>STAFF RECOMMENDATION</b>	<ul style="list-style-type: none"><li>• Based on the stated findings, staff recommends denial of the request, unless the applicants can demonstrate a hardship. If the board should decide to grant a variance, staff recommends the following conditions of approval:<ul style="list-style-type: none"><li>• Any variance granted shall apply only to the proposed carport as depicted on the attached site plan; and</li><li>• Any additional condition(s) deemed appropriate by the board, based on information presented at the public hearing.</li></ul></li></ul>



SEMINOLE COUNTY PLANNING & DEVELOPMENT DEPARTMENT  
PLANNING DIVISION  
1101 EAST FIRST STREET  
SANFORD, FL 32771  
(407) 665-7444 PHONE (407) 665-7385 FAX

**COPY**

APPL. NO. BV2006-041

attached 2 car  
carport

**APPLICATION TO THE SEMINOLE COUNTY BOARD OF ADJUSTMENT**

Applications to the Seminole County Board of Adjustment shall include all applicable items listed in the Board of Adjustment Process Checklist. No application will be scheduled for Board of Adjustment consideration until a complete application (including all information requested below) has been received by the Planning & Development Department, Planning Division. Applications for SPECIAL EXCEPTION shall only be received for processing following pre-application conference.

March  
3rd

April  
24th

- VARIANCE** Sidellard Setback Canvas Carport (approved by Architectural Review Board at Spring Valley Farms and next door neighbor Philip Pastore at 109 Pine Needle Lane, Altamonte Springs, FL 32714) APPLICATION TYPE: Variance from 10' to 1' for an attached 2 car carport
- SPECIAL EXCEPTION**
- LIMITED USE**
- SF DWELLING UNDER CONSTRUCTION
- NIGHT WATCHMAN
- YEAR OF MOBILE HOME / RV (EXISTING \_\_\_\_\_) (PROPOSED \_\_\_\_\_)
- SIZE OF MOBILE HOME / RV \_\_\_\_\_
- PLAN TO BUILD  YES  NO IF SO, WHEN As soon as permitted
- APPEAL FROM DECISION OF THE PLANNING MANAGER**

PROPERTY OWNER		AUTHORIZED AGENT *
NAME	WILLIAM B. PARK	
ADDRESS	107 PINE NEEDLE LANE ALTAMONTE SPRINGS, FL 32714	
PHONE 1	407-644-1553	
PHONE 2	407-862-0643	
E-MAIL	wpark@cfl.fl.com	

REC'D  
FEB 24 2006  
PLANNING DIVISION

PROJECT NAME: Canvas Carport

SITE ADDRESS: 107 PINE NEEDLE LANE ALTAMONTE SPRINGS, FL 32714

CURRENT USE OF PROPERTY: Residential

LEGAL DESCRIPTION: LOT 4, BLOCK "A," SPRING VALLEY FARMS - SECTION 7 - BOOK 14 PAGE 59, BOOK 872 PAGE 284.1

SIZE OF PROPERTY: 3/4 acre(s) PARCEL I.D. 15-21-29-511-0A00-0040

UTILITIES:  WATER  WELL  SEWER  SEPTIC TANK  OTHER \_\_\_\_\_

KNOWN CODE ENFORCEMENT VIOLATIONS NONE

IS PROPERTY ACCESSIBLE FOR INSPECTION  YES  NO 4, 24, 06

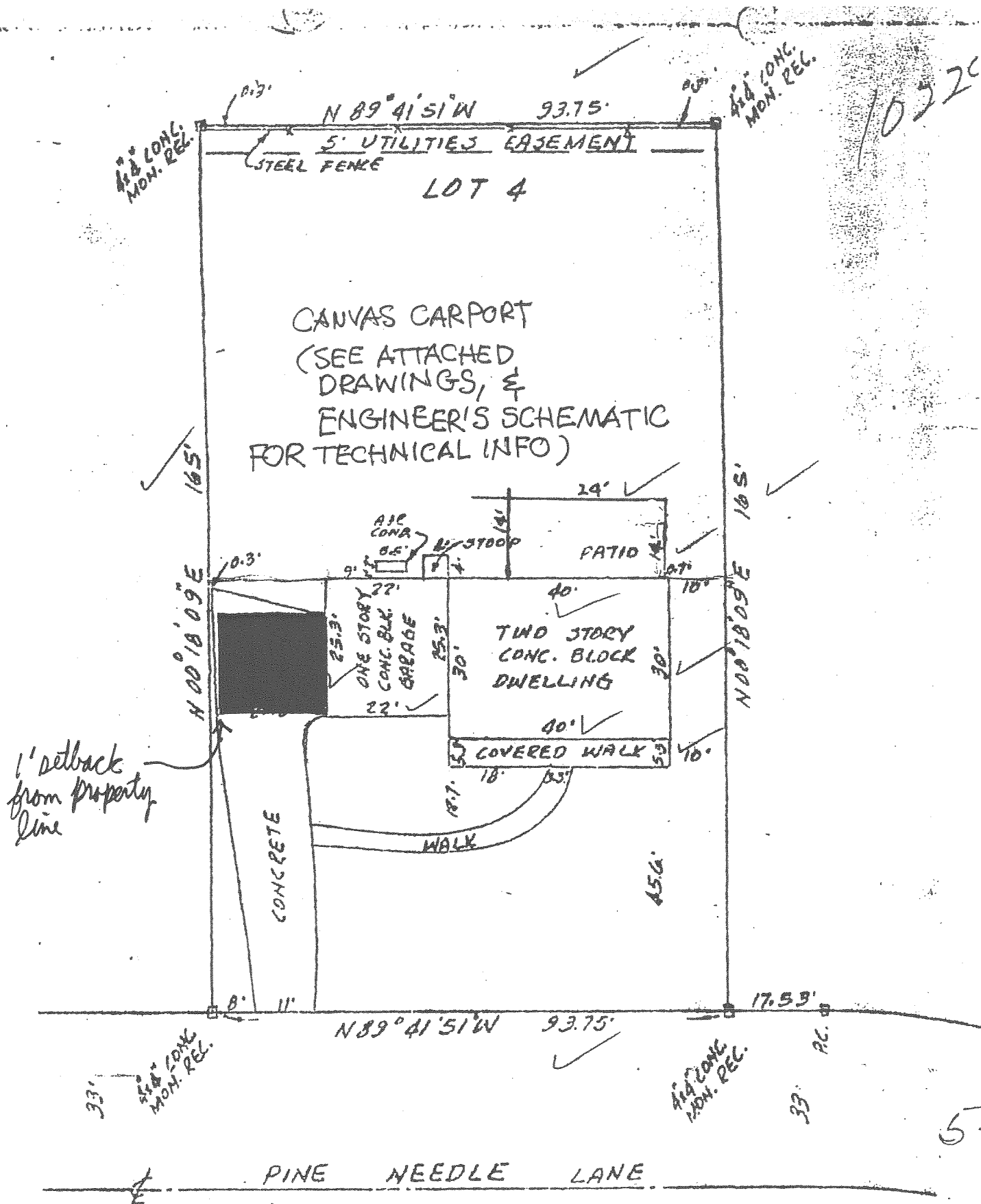
This request will be considered at the Board of Adjustment regular meeting on 4, 24, 06 (mo/day/yr), in the Board Chambers (Room 1028) at 6:00 p.m. on the first floor of the Seminole County Services Building, located at 1101 East First Street in downtown Sanford, FL.

I hereby affirm that all statements, proposals, and/or plans submitted with or contained within this application are true and correct to the best of my knowledge.

William B. Park  
SIGNATURE OF OWNER OR AGENT\*

02/06/06  
DATE





1022c

5

**PLAT OF SURVEY**

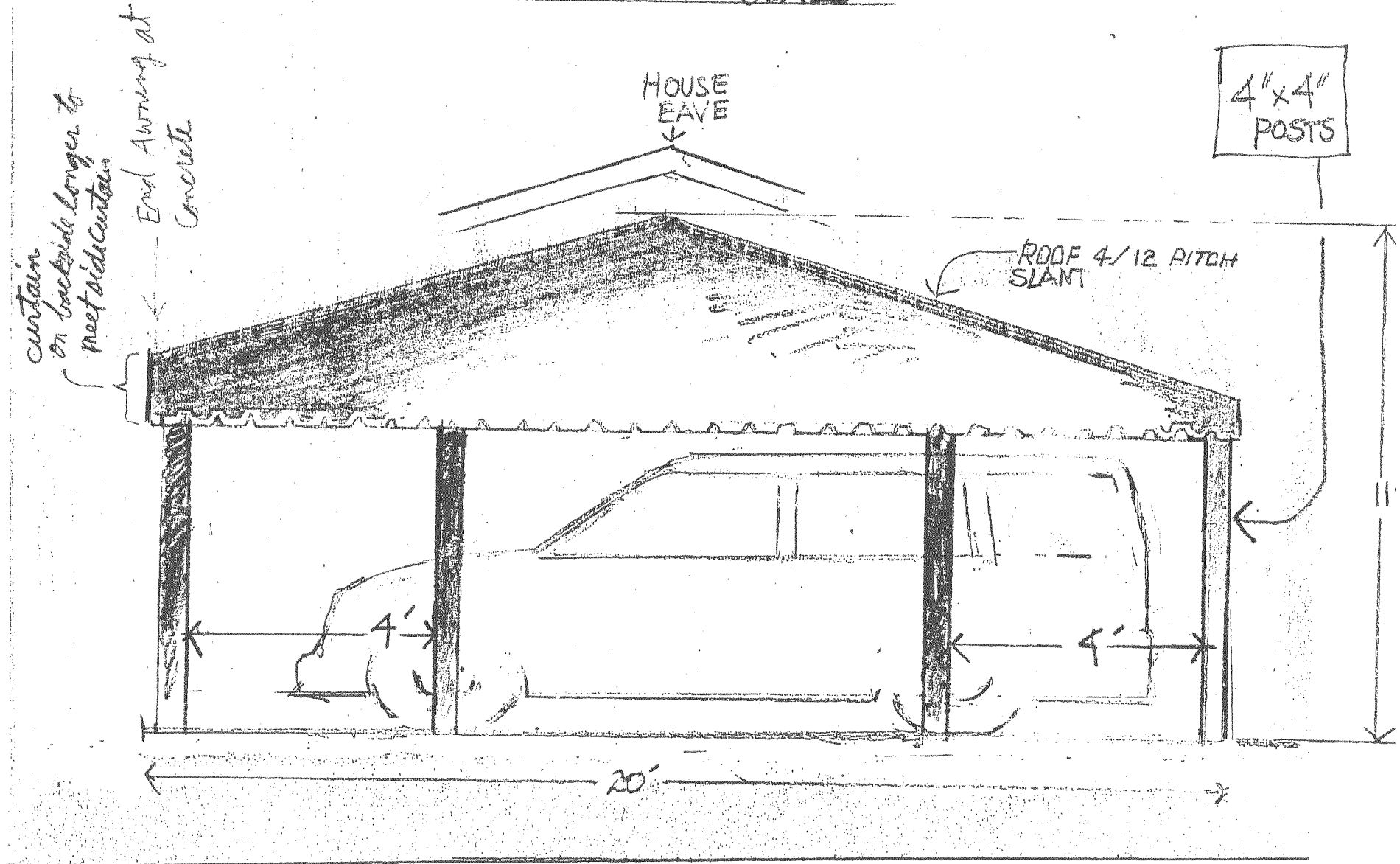
LOT 4, BLOCK "A", SPRING VALLEY FARMS - SECTION 74

ACCORDING TO THE PLAT THEREOF RECORDED IN PLAT BOOK 14 PAGE 59 OF THE PLAT

W. B. Park  
107 Pine Needle Lane  
Altamonte Springs, FL 32714

FRONT →

NOT TO EXACT SCALE



COLOR: DARK GREEN TO MATCH SHUTTERS - WHITE TRIM



W. B. Park  
107 Pine Needle Lane  
Altamonte Springs, FL 32714

6" BELOW  
BOTTOM OF  
HOUSE EAVE

curtain on front: 4"

4"  
SQUARE  
POSTS

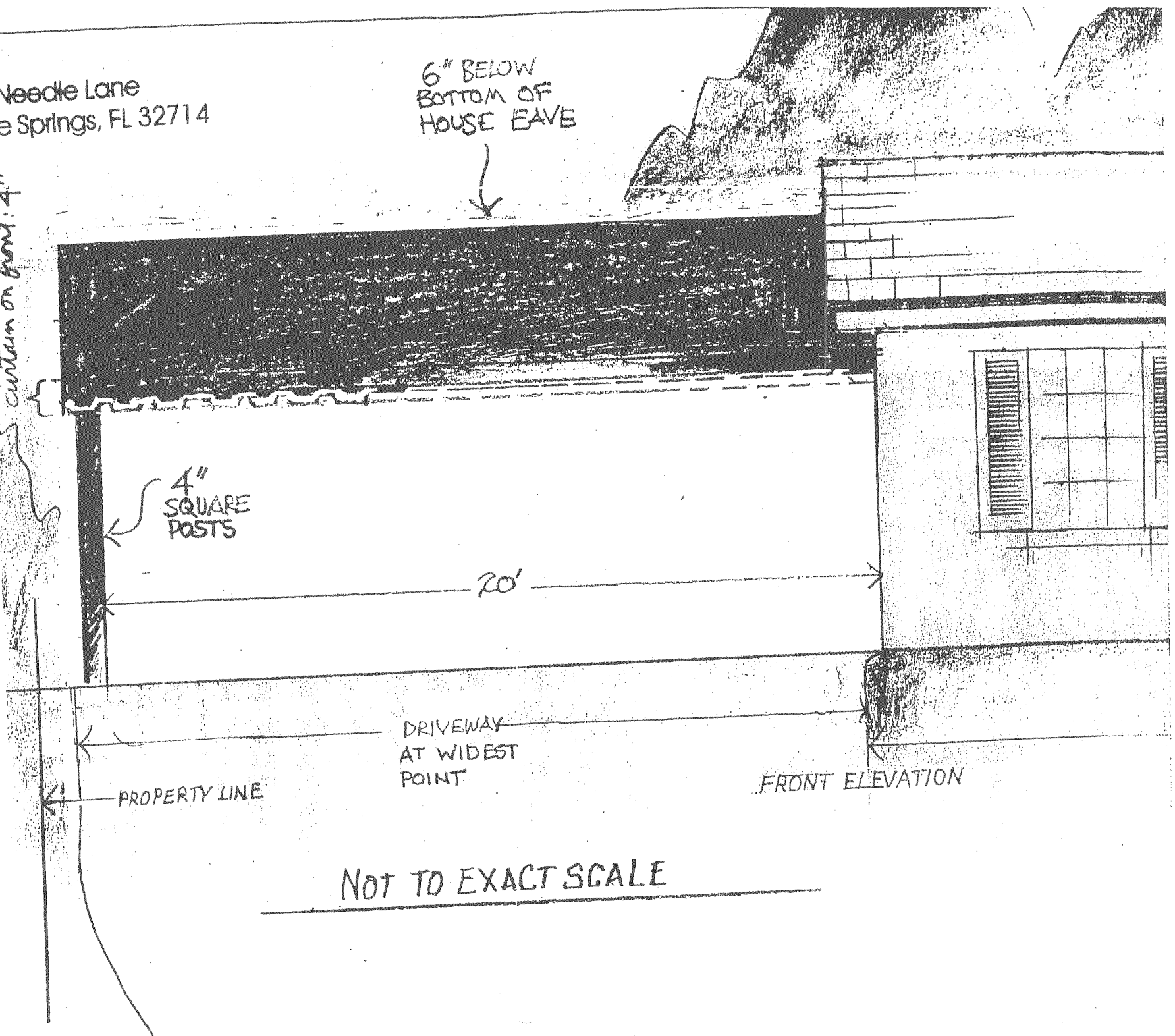
20'

PROPERTY LINE

DRIVEWAY  
AT WIDEST  
POINT

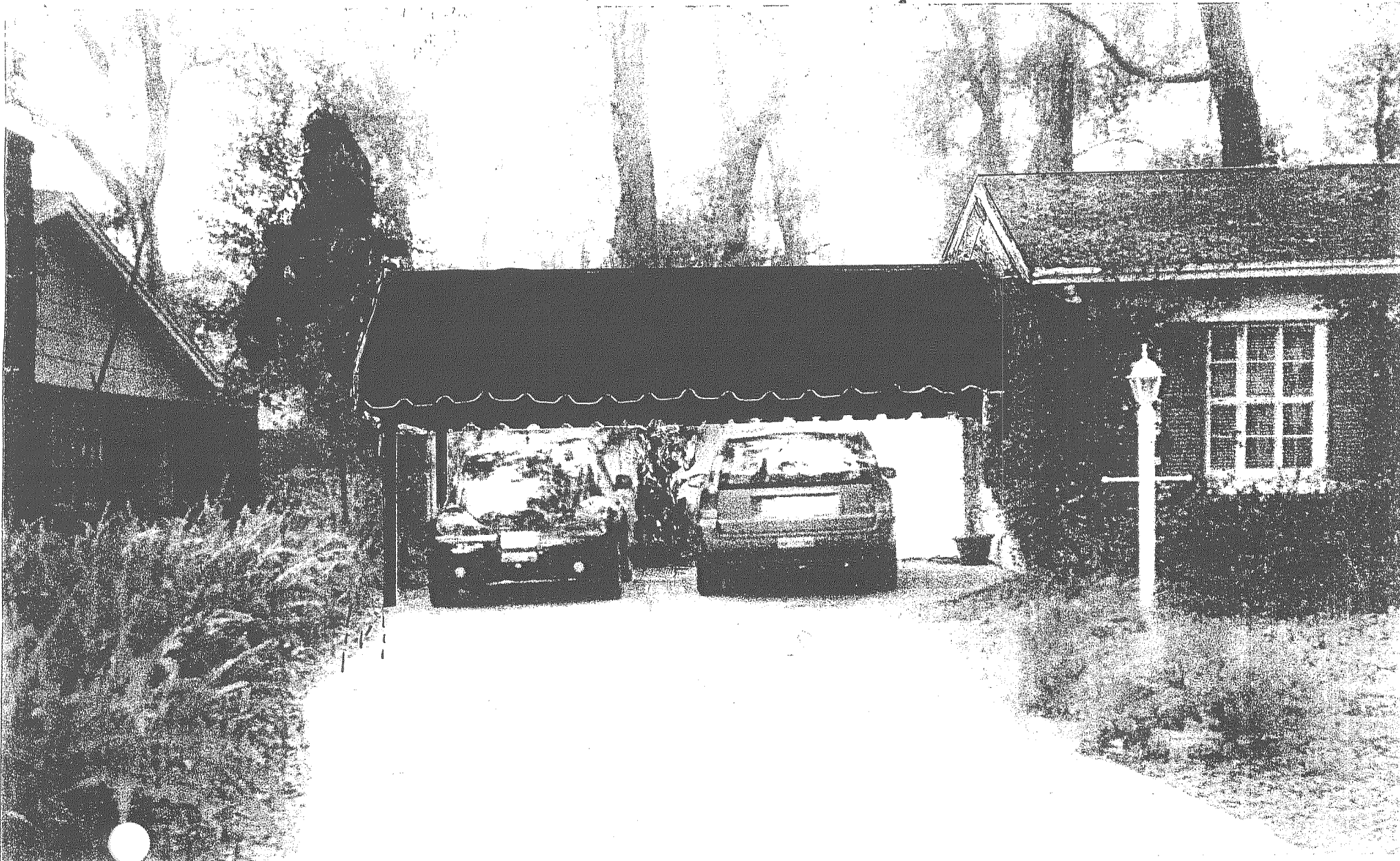
FRONT ELEVATION

NOT TO EXACT SCALE



W. B. Park  
107 Pine Needle Lane  
Altamonte Springs, FL 32714

*Proposed canvas carport*





**W.B. PARK CARPORT**

**107 PINE NEEDLES LANE  
ALTAMONTE SPRINGS, FL 32714**

**ENGINEER OF RECORD:**

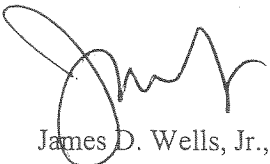
**JAMES D. WELLS, JR., P.E.  
Professional Engineer No. 53616**

1345 Unity Court  
Casselberry, FL 32707  
(407) 496-5489

**Engineer's Design Note:**

These structures have been designed in accordance with the requirements of the Florida Building Code 2004, Chapter 16, Structural Loads. The following wind load requirements, in accordance with Section 1609, were employed in the design of the structure:

Basic Wind Speed: 110 MPH (3-Second Gust Wind Speed) – Orlando, FL  
Building Category: II  
Importance Factor: 1.0  
Wind Exposure: B  
Internal Pressure Coefficient: N/ A  
Design Pressure for Components & Cladding: 32 PSF



James D. Wells, Jr., P.E.

2/16/06  
Date

## Design Standards:

The following are general design standards. The fabrication / shop drawings may show more stringent design standards.

### Design Codes:

- The Florida Building Code, 2004 ed.
- The Aluminum Association, 2000 ed.
- AISC 9<sup>th</sup> ed.
- ASCE 7-98
- Wind Speed 110 mph

### Material Standards:

#### Structural Members:

##### Steel:

- Round pipe: ASTM A53 Grade B or equivalent
- Square and rectangular tube: ASTM A500 Grade B
- Plate, angle, channel, tee and wide flange: ASTM A36

##### Aluminum:

- Aluminum to be 6061-T6
- Aluminum (tensile yield stress)  $f_{ty} = 35$  ksi
- Aluminum (compressive yield stress)  $f_{cy} = 35$  ksi
- Aluminum (shear yield stress)  $f_{vy} = 20$  ksi
- Aluminum (bearing yield stress)  $f_{by} = 56$  ksi

#### Welding:

- Steel Weld IAW AWS D1.1 (latest edition) using E70XX electrodes
- Aluminum Weld IAW AWS D1.2 (latest edition) – Filler Alloy 4043 or equal
- Welds shall be full penetration welds at all points of contact

#### Hardware:

- High strength bolts: ASTM A325, bearing type connections (snug tight)
- Stainless steel bolts: 304 / 316 SS
- Machine bolts: ASTM A307
- Anchor bolts or threaded rod: ASTM A36

#### Concrete:

- Design and construction according to ACI 318 latest edition
- Compressive strength at 28 days,  $f_c = 3,000$  psi minimum
- For pier and caisson footings, concrete must be poured against undisturbed earth.
- Maintain a minimum 3" concrete cover over all embedded steel.
- Steel for reinforced concrete: Grade 60

**Project:** W.B. Park Carport  
**Project No.:** 26011  
**Date:** 2/16/2006  
**Designed By:** James D. Wells, Jr., P.E.

**Design Parameters:**  
 The Florida Building Code, 2001 ed.  
 ASCE 7-98  
 The Aluminum Association, The Aluminum Design Manual, 2000 ed.  
 AISC 9th Ed.

Awning Package Location:	Altamonte Springs, FL		
Exposure Category	B		
Velocity Pressure Coefficient	Table 6.5	$K_z =$	0.57 Exposure B; Height < 15'
Topographic Factor	Fig. 6-2	$K_{zt} =$	1.0
Directionality Factor	Table 6-6	$K_d =$	1.0
Design Wind Speed:	Fig. 6-1b	$W_{speed} =$	110 mph
Importance Factor	Table 6-1	$I =$	1.0
Gust Factor	6.5.8.1	$G =$	0.85
External Pressure Coefficient	Fig. 6-3	$C_{pe} =$	-1.3
Overhang Condition	Para. 6.5.11.4.1	$C_{pi} =$	0.8
External Pressure Coefficient	Fig. 6-4	$C_{pe} =$	-0.69 Windward
External Pressure Coefficient	Fig. 6-4	$C_{pe} =$	-0.48 Leeward

Wind pressure top and bottom surfaces -  
Awning = Blg Overhang

Uplift  
Overturning

**Awning:**

<b>Uplift:</b>	Wall and Ground Mounted Awning			
Awning Type:	Uplift:	Length:	20.00 ft	
Awning Face:		Width:	20.00 ft	
	Face:	Diag. Width:	10.77 ft	Uplift Area, $A_u$ :
				107.70 ft <sup>2</sup>
<b>Pullout:</b>	Face:	height:	1.50 ft	Face Area, $A_f$ :
Awning Roof Slope Face:		width:	20.00 ft	30.00 ft <sup>2</sup>
<b>Truss / Wing:</b>		height:	4.00 ft	Side Face Area:
				30.00 ft <sup>2</sup>
<b>Awning Slope:</b>		height:	4.00 ft	
		Theta, $\theta =$	0.38 radians	
		Theta, $\theta =$	21.80 degrees	
<b>Awning Avg Height Above Grade:</b>		$h_o =$	10.00 ft	
<b>Weight per Linear Foot:</b>		w/ft =	50 lbs/ft	
		wl =	1,000 lbs	
<b>Determine Surface Pressure (Eqn 6-13):</b>		$q_s = 0.00256 K_z K_{zt} K_d K_g V^2 I^2$	$q_s =$	17.66 psf
<b>Determined Factored Pressure on Awning Surface (Eqn. 6-20):</b>		$w = q_s (C_{pe} - C_{pi})$	$w =$	31.52 psf
		$w = q_s (C_{pe} - C_{pi})$	$w =$	17.58 psf

Overturning

<b>Determine Total Wind Load Force:</b>				
<b>Uplift:</b>	$P_{normal} = w A_u$	$P_{normal} =$	3,394.43 lbs	
<b>Uplift (Vertical):</b>	$P_{winduplift} = w A_u \cos \theta$	$P_{winduplift} =$	4,907.57 lbs	
<b>Overturning, (Horizontal):</b>	$P_{overturning} = w A_u \sin \theta$	$P_{overturning} =$	2,908.53 lbs	1454.26

**Determine Loads in Wall Connections:**

$T_{req} = P_{pullout}$	$T_{req} =$	3,854.02 lbs
$V_{req} = P_{winduplift}/2$	$V_{req} =$	2,453.79 lbs
$M = \text{Side Area} \cdot \text{Awning Height}$	$M_{req} =$	2,006.00 ft-lbs

Frame Analysis

**Design Wall Connections:**

3/8"x3" Hilti Kwik Bolt III Expansion Anchor or Equal

No. of anchors, $N_{anchors}$ at each connection =	1
No. of bottom connections =	5
No. of top connections =	5

Project: W.B. Park Carport  
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$N_{total} = 10$

3/8"x3" Expansion Anchors embedded min. 2-1/2"

Determine Load at Each Connection

$T_{req} = 385.40 \text{ lbs}$   
 $V_{req} = 339.93 \text{ lbs}$

Refer to Hilti Design Manual:  
 (3/8" Stainless Steel Kwik Bolt III in Concrete Wall)  
 2-1/2"

$T_{ult} = 1,285.00 \text{ lbs}$   
 $V_{ult} = 1,655.00 \text{ lbs}$

Check Interaction:

$T_{req}/T_{ult} + V_{req}/V_{ult} < 1.0$

$0.3 \leq 1.0 \text{ OK}$

Aluminum Design Manual - Section Property

where:  
 Aluminum 6061-T6

Tensile Yield Strength, $f_y =$	35,000 psi
Compression Yield Strength, $f_{cy} =$	35,000 psi
Shear Yield Strength, $f_{vy} =$	20,000 psi
Factor of Safety, $n =$	2
Allowable Bending Strength, $f_b = f_y / n$	$f_b = 10,000 \text{ psi}$
Increase bending strength by 33% due to temp. wind load	$f_b = 25,270 \text{ psi}$
Allowable Bending Strength - Welded Connection, $f_{bw} =$	$f_{bw} = 16,000 \text{ psi}$
Allowable Tensile Strength - Welded Connection, $f_{tw} =$	$f_{tw} = 11,000 \text{ psi}$

Aluminum Design Manual  
 Table 2-21

Check 1-1/4"x1-1/4"x1/8" Al Tube Truss ( $f_y = 35 \text{ ksi}$ )

Check Tension:

Determine Max Moment:

$M_{max} = w_l^2 l^2 / 8$

Determine Shear Load:

$V_{end} = 3/8 w_l l$

Max spacing width:

$s_{width} = 10.00 \text{ ft}$

$V_{end} = 236.37 \text{ lbs}$

Wind load per unit length:

where:  $w_l = 315.17 \text{ lbs/ft}$

Unbraced Length,  $l$ :

$l = 2.00 \text{ ft}$

$M_{max} = 157.58 \text{ ft-lbs}$

Allowable Bending Strength, Welded Connections  
 6061-T6 Aluminum

$f_{tw} = 11,000 \text{ psi}$

$S_{top} = 0.17 \text{ in}^3$

$S_{bot} = 0.19 \text{ in}^3$

since  $S_{top} > S_{bot}$  OK

Calculate Actual Stress:

$f_a = 9,839.31 \text{ psi}$

Determine  $T_{allowable} =$

$T_{allowable} = f_{tw} \times A_{tube}$

$T_{allowable} = 6,187.50 \text{ lbs}$

Compression: Sec. 3.4.7

1-1/4"x1-1/4"x.125"

Cross-Section Area,  $A =$

Area =  $0.56 \text{ in}^2$

Radius of Gyration =

$r = 0.46 \text{ in}$



**Project:** W.B. Park Carport  
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**Designed By:** James D. Wells, Jr., P.E.

**Unbraced Length =**  $l = 2.00$  ft  
**K Factor**  $k = 1$   
 $kl/r = 52$

**Allowable Compression Strength** (6061-T6 Aluminum)  
 since  $kl/r < 65$   $f_c = 12$  ksi  $f_c = 12,000.00$  psi  
 $f_c = 12,000$  psi

since  $f_c < f_c$  OK

**Determine  $C_{allowable} =$**   $C_{allowable} = f_c \times A_{tube}$   
 $T_{allowable} = 6,750.00$  lbs

**Determine Max Load:**

**Determine Max Moment:**  $M_{max} = w_1 l^2 / 8$   
**Max spacing width:**  $s_{width} = 10.00$  ft  
**Wind load per unit length:** where:  $w_1 = 315.17$  lbs/ft  
**Unbraced Length, l:**  $l = 2.50$  ft  
 $M_{max} = 246.22$  ft-lbs

**Determine Max Load,  $P_{max} =$**   $P_{max} = M_{max} / d_{truss}$   
**Determine Depth of Truss,  $d_{truss} =$**   $d_{truss} = 1.00$  ft  
 $P_{max} = 246.22$  lbs **From Truss Analysis**

Since  $P_{max} < C_{allowable}$  and  $T_{allowable}$  OK

**Check Z Clips:**

**No. of clips:**  $N_{clips} = 10$  **Bottom Connection Only**

**Determine Tension at Clips:**  $T_{clip} = T_{req} / N_{clips}$   
 $T_{clip} = 385.40$  lbs

**Determine Required Thickness of Clips:**  $T_{req} = T_{clip} / f_{ow}$   
 where:

**Aluminum Allowable Bending Strength:**  $f_{ow} = 16,000.00$  psi  
 $T_{req} = 0.02$  in  
 $T_{ed} = 0.125$  in

since  $T_{req} < T_{ed}$  OK

**Check TEK Screws at Angle Clips:**

**#10 TEK Screws at Each Angle Clip**  $V_{allowable} = 422$  lbs **TW Buldex (#10 TEK Screw) Metal to Metal - 1 #10 screws per clip**  
 $T_{allowable} = 166$  lbs

**No. of Screws / Clip:**  $n = 1$   
**No. of Bottom Connections =**  $N_{bottom total} = 10$   
 $V_{total allowable} = 4,220$  lbs  
 $T_{total allowable} = 1,663$  lbs **OK - Temp Wind Loading**  
**OK - Bearing Between Clip and Frame**

Since  $T_{req} < V_{total allowable}$  OK

**Determine  $C_{allowable} =$**   $C_{allowable} = f_c \times A_{tube}$   
 $C_{allowable} = 6,750.00$  lbs

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 Project No. 26011  
 Date: 2/16/2006  
 Designed By: James D. Wells, Jr., P.E.

**Check Column to Frame Attachment Detail:**

**3/8" S.S. Thru Bolts:**

No. of bolts,  $n_{bolts} =$  1  
 Diameter of bolt:  $d_{bolt} =$  3/8 in  
 Area of Bolt:  $A_{bolt} =$  0.11 sq in  
 Allowable Shear Strength (ASTM A325 Bolt):  $f_u =$  21,000 psi  
 Allowable Shear Load:  $V_{all} = f_u \cdot A_{bolt}$   
 $V_{all} =$  2,319.38 lbs  
 Total Allowable Shear per Connection, All bolts:  $V_{alltotal} =$  2,319.38 lbs  $f_u =$  22,216.95 psi  
 No. of Columns:  $N =$  4  
 $V_{alltotal} =$  9,277.52 lbs  
 From Wind Load Analysis:  $V_{max} =$  2,453.79 lbs

Since  $V_{req} < V_{alltotal}$  OK

**Check Column Sleeve to Frame Attachment Detail:**

**1/8" Weld:**

Leg Size of Weld:  $a =$  1/8 in  
 Filler Alloy, 4043:  $F_{tallow} =$  5,000 ksi Table 7.2-2  
2000 AL Design Manual  
 Allowable Tensile Load per Length of Weld:  $Q_t = 0.707 \cdot a \cdot F_{tallow}$   
 $Q_t =$  441.88 lbs / inch of weld  
 Length of Welds, Each Column:  $l =$  12.00 inch 3"x3" Tube Column  
 Total Allowable Shear, Each support:  $V_{alltotal} =$  5,302.50 lbs  
 No. of columns,  $n_{columns} =$  1  
 Total Allowable Shear, All supports:  $V_{alltotal} =$  5,302.50 lbs

Since  $P_{windult} < V_{alltotal}$  OK

**Design Foundation: Existing Slab**

**Determine Reinforcing Steel Required: Not Required - Direct Burial**

**Ganopy Vertical Supports:**

4"x4"x1/4" Tube Supports ( $f_u = 35$ ksi)  
 Determine Actual Section Modulus:  
 $S_{act} =$  4.41 in<sup>3</sup> Aluminum Design Manual - Section Property  
 no. of supports=  
 $n_{supports} =$  1  
 $S_{total} =$  4.41 in<sup>3</sup>

Determine Section Modulus Required:  
 $S_{req} = M \cdot 12 / f_{ce}$   
 where:  
 Moment Overturning,  $M_{ot} = P_{overturning} \cdot (\text{height})$   
 $M_{ot} =$  2,006.00 ft-lbs From Frame Analysis  
 where:  
**5061-T6 Aluminum Grade**  
 Tensile Yield Strength,  $f_{ty} =$  35,000 psi  
 Compression Yield Strength,  $f_{cy} =$  35,000 psi  
 Shear Yield Strength,  $f_{sy} =$  20,000 psi  
 Factor of Safety,  $n =$  2

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Allowable Bending Strength,  $f_b = f_y / n$   $f_b = 21,212$  psi  
 increase bending strength by 33% due to temp. wind load,  $f_{bi} = 28,283$  psi  
 Allowable Tensile Strength welded connections,  $f_{tw} = 11,000$  psi  
 Allowable Bending Strength, Welded Connections,  $f_{bw} = 16,000$  psi

**Section Modulus Required:**  
 $S_{req} = M_{act} * 12 / f_b$

$S_{req} = 1.50$  in<sup>3</sup>

since  $S_{total} > S_{req}$  OK

OK - Due to Wall Connection

**Design Concrete Footer Anchor Bolts**

**Determine Maximum Tensile Force on Bolt:**  $P = M/d_{bolt} * n$

where:  $M_{base} = 2,006.00$  ft-lbs  $24,072$  in-lbs

**Determine Distance Between Bolts:**

$d_{bolt} = 4.00$  in

**Determine No. of Bolts in Line:**

$n = 2$

**Determine Total No. of Bolts:**

$n_{total} = 4$

$P = 3.01$  kips

**Add Wind Uplift:**

**Determine Load Each Bolt:**

$P = 3.62$  kips

$P_{winduplift} = 2,453.79$  lbs

$P_{windshear} = 3,854.02$  lbs

**Determine Load at Bolt Group**

$M_{req} = 24,072.00$  in-lbs

$T_{req} = 480.00$  lbs

$V_{req} = 450.00$  lbs

Refer to Attached Hilti Anchor Program

1/2"x5" Hilti Kwik Bolt III Expansion Anchors embedded min. 4-1/2" or Equal

**Concrete**

$f_c = 3000$  psi

$T_{act} = 1,355$  lbs OK

**Design Column to Base Plate Thickness:**

**Design Baseplate:**

$M_{base} = M_{act} / N_{base}$

$M_{base} = 1,003.00$  ft-lbs

$P_{winduplift} = 480$  lbs

$P = M_{base} / d_{bolt} + P_{winduplift}$

**Determine No. of Bolts:**

$n_{bolts} = 4$

$P = 480.00$  lbs

**Determine Tension at Baseplate:**

OD = 4 in

$d_{bolts} = 6.00$  in

$l = (d_{bolts} - OD) / 2$

B = 8 in

$l = 1.00$  in

**Determine Moment on Plate:**

$M = Pl$

$M = 0.48$  kip-in

**Determine Required Thickness of Baseplate:**

$T_{req} = (6 * Mb / f_{bw})^{1/2}$

where:

**Allowable Bending Strength:**

$f_{bw} = 16.00$  ksi

**Welded Plate Bending Strength**

$T_{req} = 0.15$  in

$T_{act} = 0.38$  in

since  $T_{req} < T_{act}$  OK

**Project:** W.B. Park Carport  
**Project No.:** 26011  
**Date:** 2/16/2006  
**Designed By:** James D. Wells, Jr., P.E.

**Check Weld - Column to Base Plate:**

**3/16" Weld:**  
**Leg Size of Weld:**  $a = 3/16$  in  
**Filler Alloy, 4043**  $F_{allow} = 5,000$  ksi Table 7.2-2  
2000 AL Design Manual  
**Allowable Tensile Load per Length of Weld:**  $q_s = 0.707 \cdot a \cdot F_{allow}$   
 $q = 662.81$  lbs / inch of weld  
**Length of Welds, Each Column:**  $b = 12.57$  inch 4x4  
**Total Allowable Shear, Each supports**  $V_{alltotal} = 24,987.44$  lbs  
Since  $P < V_{alltotal}$  OK  
**Determine Section Modulus of Weld:**  $S = b^2 \cdot a^2 / 3$   $S = 2.36$  in<sup>3</sup>  
**Determine Max Stress Due to Bending:**  $f_b = M/S$   $f_b = 5.11$  ksi  
**Determine Shear Stress Due to Direct Shear:**  $f_s = P_{wind}/A$   $f_s = 0.14$  ksi  
**Determine Total Stress:**  $f_t = 5.2$  ksi  
 $F_{allow} = 5.0$  ksi 4043 Filler Alloy or Equal  
Since  $f_t < F_{allow}$  OK OK - Temporary Wind Load

**Check Z Clips:**

**No. of clips:**  $N_{clip} = 5$  Bottom Connection Only  
**Determine Tension at Clips:**  $T_{clip} = T_{req}/N_{clips}$   
 $T_{clip} = 770.80$  lbs  
**Determine Required Thickness of Clips:**  $T_{req} = T_{clip} / f_{bw}$   
 where:  
**Aluminum Allowable Bending Strength:**  $f_{bw} = 16,000.00$  psi  
 $T_{req} = 0.05$  in  
 $T_{act} = 0.125$  in  
since  $T_{req} < T_{act}$  OK

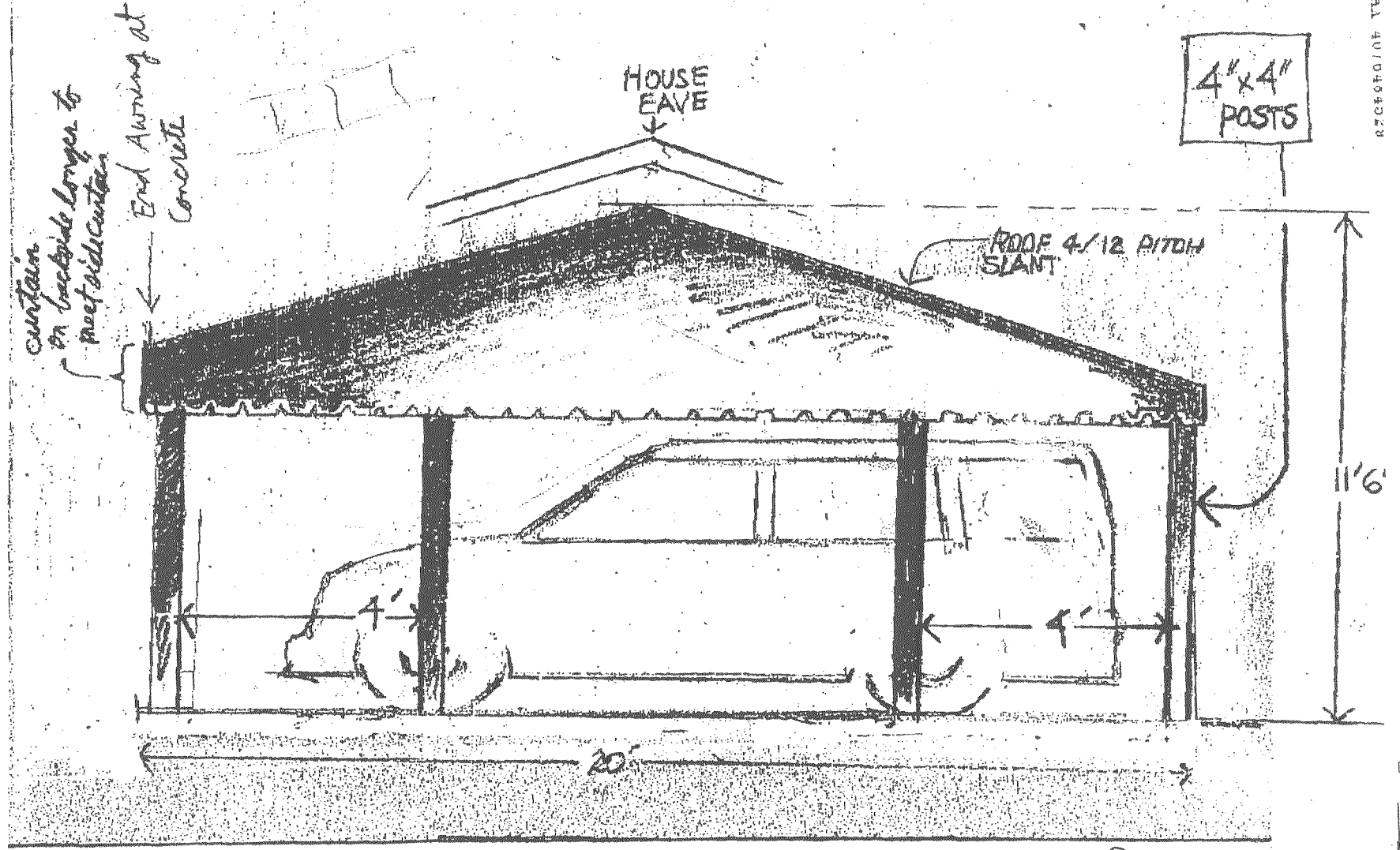
**Check TEK Screws at Angle Clips:**

**#10 TEK Screws at Each Angle Clip**  $V_{allowable} = 422$  lbs TW Bulldex (#10 TEK Screw) Metal to Metal - 1 #10 screws per clip  
 $T_{allowable} = 166$  lbs  
**No. of Screws / Clip:**  $n = 2$   
**No. of Bottom Connections =**  $N_{bottom total} = 5$   
 $V_{totalallowable} = 4,220$  lbs  
 $T_{totalallowable} = 1,663$  lbs OK - Temp Wind Loading  
OK - Bearing Between Clip and Frame  
Since  $T_{req} < V_{totalallowable}$  OK

W. B. PARK  
107 Pine Needle Lane  
Altamonte Springs, FL 32714

FRONT →

NOT TO EXACT SCALE



COLOR: DARK GREEN TO MATCH SHUTTERS-WHITE TRIM

*Jim*  
2/18/06

James David Wells, Jr., P.E.  
1345 Unity Court  
Casselberry, FL 32707  
Florida Professional Engineer No. 53616

02/10/2006 10:44 AM 401049328

001004



W. B. Park  
107 Pine Needle Lane  
Altamonte Springs, FL 32714

6" BELOW  
BOTTOM OF  
HOUSE EAVES

curtain on front: 4"

4" SQUARE  
POSTS

20'

DRIVEWAY  
AT WIDEST  
POINT

PROPERTY LINE

FRONT ELEVATION

NOT TO EXACT SCALE

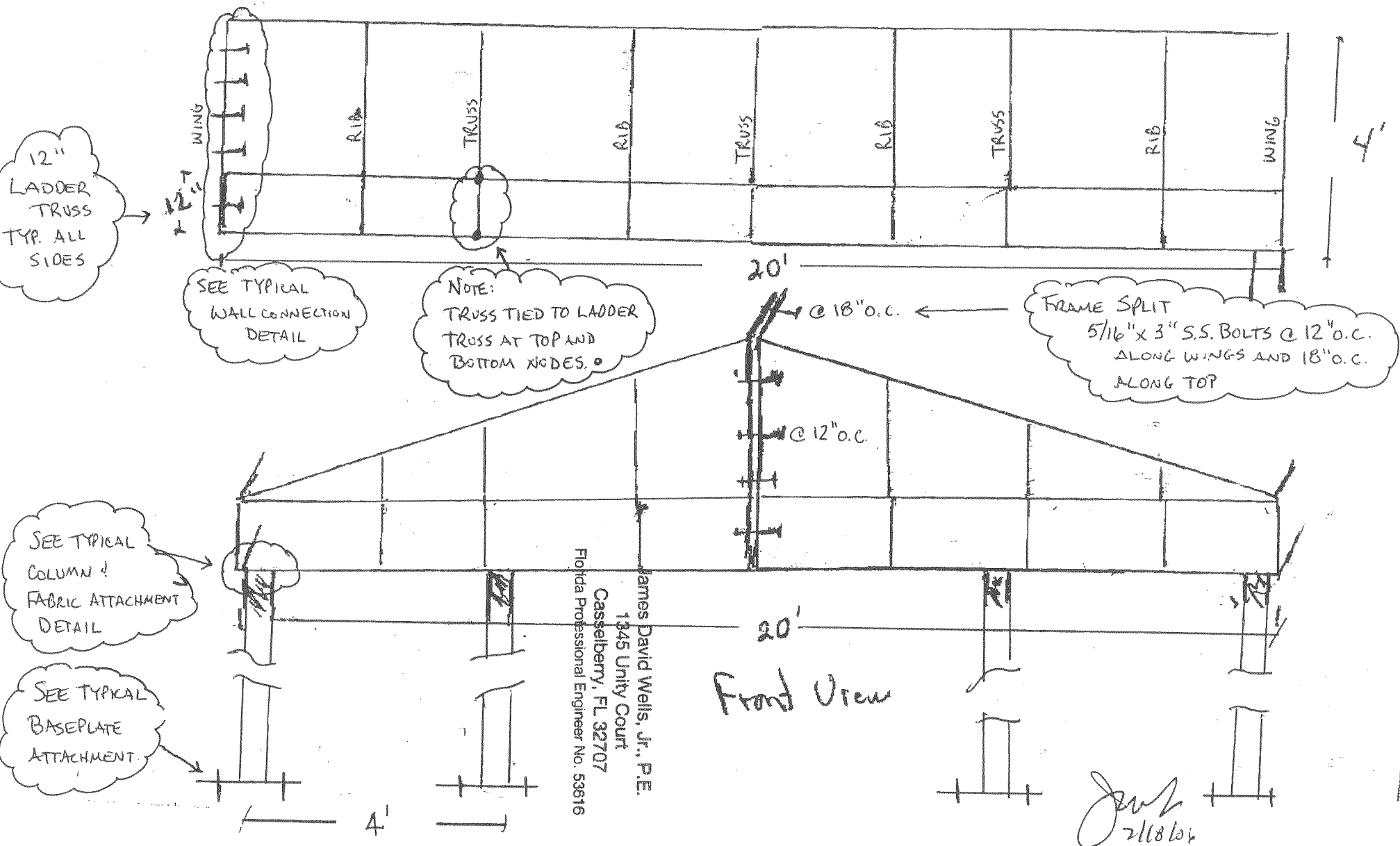
James David Wells, Jr., P.E.  
1345 Unity Court  
Casselberry, FL 32707  
Florida Professional Engineer No. 53616

JDW  
2/18/06

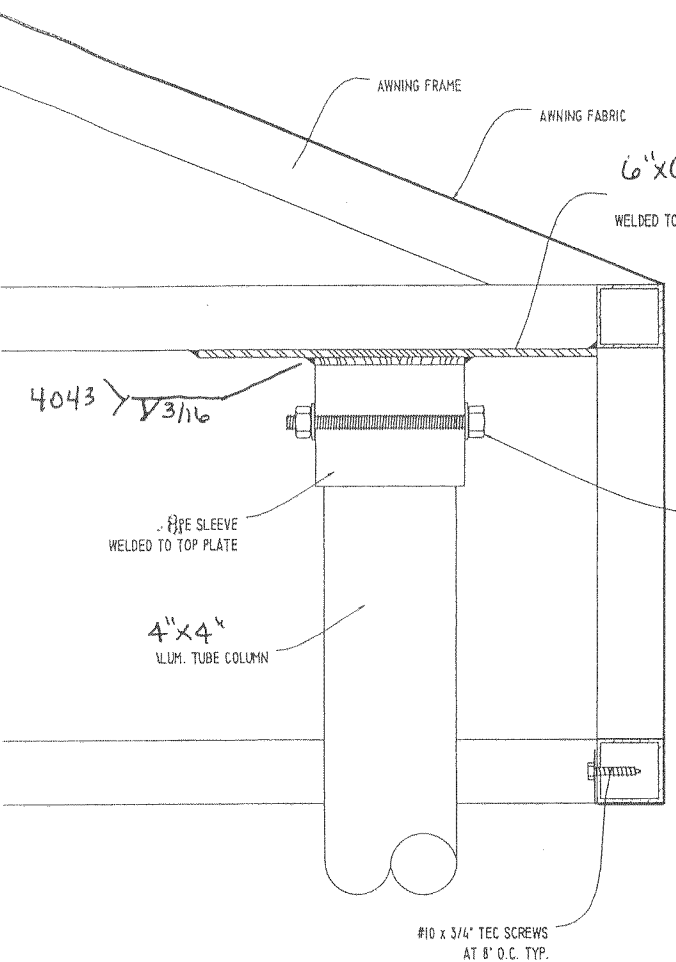
ALL FRAMING TO BE 1-1/4" x 1" x 1/8"  
6061-T6

ALL HARDWARE TO BE STAINLESS STEEL  
BOLTS

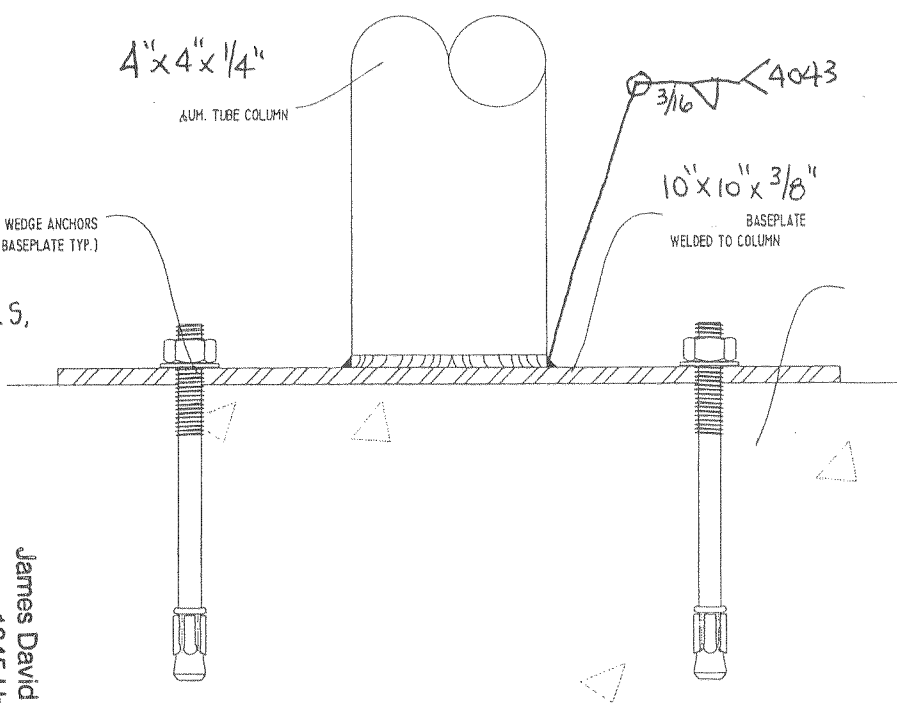
### Side View



DATE PLOTTED: 2/18/04 10:00 AM



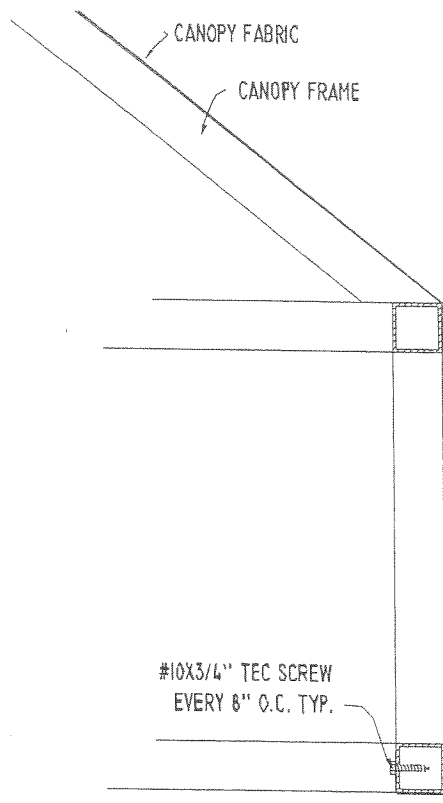
TYP. COLUMN & FABRIC ATTACHMENT DETAIL  
SCALE: N.T.S.



TYP. BASEPLATE ATTACHMENT DETAIL  
SCALE: N.T.S.

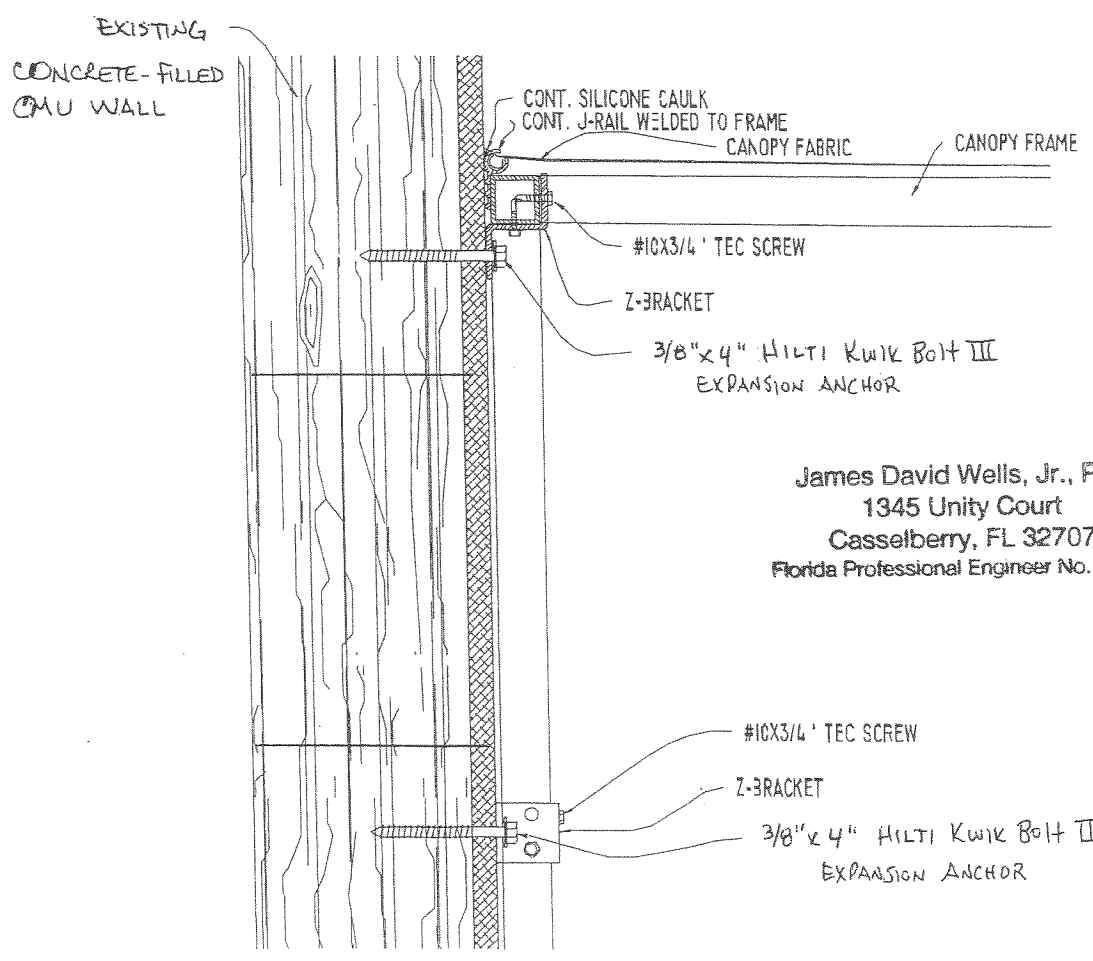
James David Wells, Jr., P.E.  
1345 Unity Court  
Casselberry, FL 32707  
Florida Professional Engineer No. 53616

*James David Wells, Jr.*  
2/18/06



*JDW*  
2/18/01

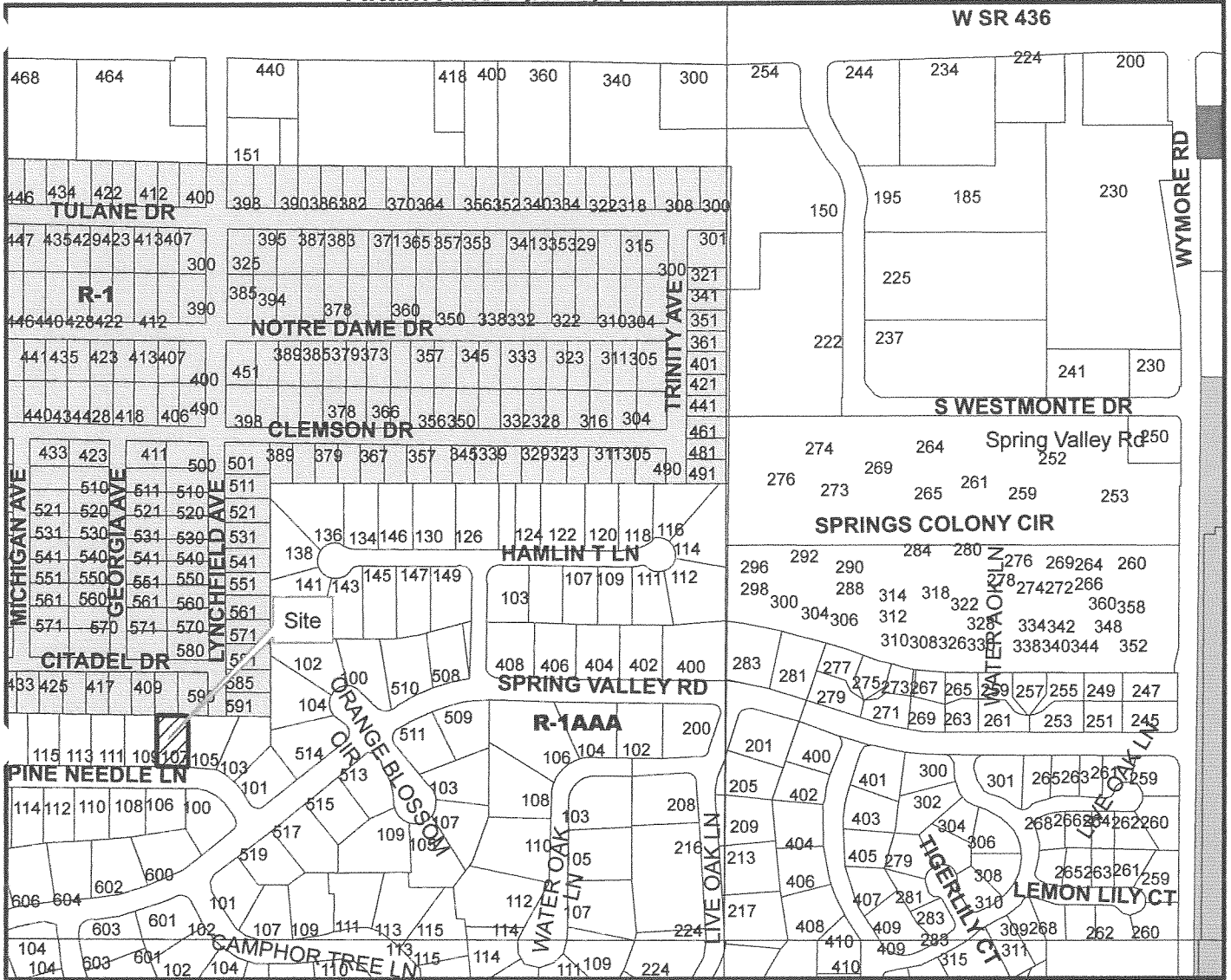
TYP. FABRIC ATTACHMENT



James David Wells, Jr., P.E.  
1345 Unity Court  
Casselberry, FL 32707  
Florida Professional Engineer No. 53616


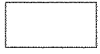
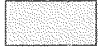


TYP. WALL ATTACHMENT

**Eva & William Park  
107 Pine Needle Lane  
Altamonte Springs, Florida 32714**

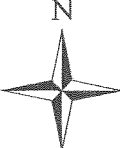



**Seminole County Board of Adjustment**  
**April 24, 2006**  
**Case: BV2006-041**  
**Parcel No: 15-21-29-511-0A00-0040**

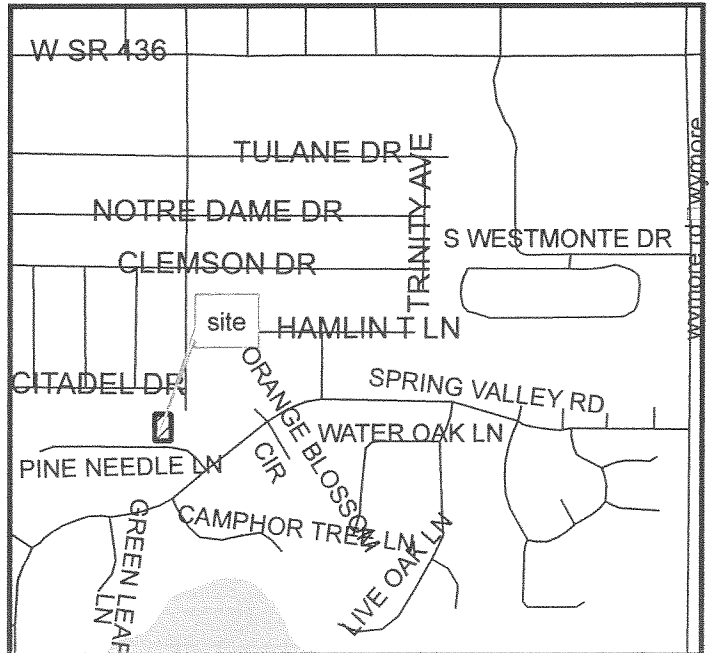
**Zoning**

-  BV2006-041
-  R-1AAA
-  R-1
-  R-3
-  C-2

N



 Feet  
0 70 140 280 420 560





**PARCEL DETAIL**

DAVID JOHNSON, CFA, ASA  
**PROPERTY APPRAISER**  
 SEMINOLE COUNTY FL  
 1101 E. FIRST ST  
 SANFORD, FL 32771-1468  
 407-665-7506

**GENERAL**

Parcel Id: 15-21-29-511-0A00-0040  
 Owner: PARK WILLIAM B & EVA M  
 Mailing Address: 107 PINENEEDLE LN  
 City,State,ZipCode: ALTAMONTE SPRINGS FL 32714  
 Property Address: 107 PINE NEEDLE LN ALTAMONTE SPRINGS 32714  
 Subdivision Name: SPRING VALLEY FARMS SEC 02  
 Tax District: 01-COUNTY-TX DIST 1  
 Exemptions: 00-HOMESTEAD  
 Dor: 01-SINGLE FAMILY

**2006 WORKING VALUE SUMMARY**

Value Method: Market  
 Number of Buildings: 1  
 Depreciated Bldg Value: \$194,729  
 Depreciated EXFT Value: \$1,752  
 Land Value (Market): \$45,000  
 Land Value Ag: \$0  
 Just/Market Value: \$241,481  
 Assessed Value (SOH): \$153,843  
 Exempt Value: \$25,000  
 Taxable Value: \$128,843  
 Tax Estimator

**SALES**

Deed	Date	Book	Page	Amount	Vac/Imp	Qualified
WARRANTY DEED	01/1971	00835	0125	\$45,500	Improved	Yes

Find Comparable Sales within this Subdivision

**2005 VALUE SUMMARY**

Tax Value(without SOH): \$3,190  
 2005 Tax Bill Amount: \$2,038  
 Save Our Homes (SOH) Savings: \$1,152  
 2005 Taxable Value: \$124,362  
 DOES NOT INCLUDE NON-AD VALOREM ASSESSMENTS

**LAND**

Land Assess Method	Frontage	Depth	Land Units	Unit Price	Land Value
LOT	0	0	1.000	45,000.00	\$45,000

**LEGAL DESCRIPTION**

PLATS:

LEG LOT 4 BLK A SPRING VALLEY FARMS SEC 2 PB 14 PG 59

**BUILDING INFORMATION**

Bld Num	Bld Type	Year Blt	Fixtures	Base SF	Gross SF	Living SF	Ext Wall	Bld Value	Est. Cost New
1	SINGLE FAMILY	1966	8	1,200	3,486	2,950	CONC BLOCK	\$194,729	\$243,411
	Appendage / Sqft		SCREEN PORCH FINISHED / 336						
	Appendage / Sqft		BASE SEMI FINISHED / 550						
	Appendage / Sqft		OPEN PORCH FINISHED / 200						
	Appendage / Sqft		UPPER STORY FINISHED / 1200						

NOTE: Appendage Codes included in Living Area: Base, Upper Story Base, Upper Story Finished, Apartment, Enclosed Porch Finished, Base Semi Finished

**EXTRA FEATURE**

Description	Year Blt	Units	EXFT Value	Est. Cost New
SPA	1991	1	\$1,752	\$3,500

NOTE: Assessed values shown are NOT certified values and therefore are subject to change before being finalized for ad valorem tax purposes.  
 \*\*\* If you recently purchased a homesteaded property your next year's property tax will be based on Just/Market value.

**W. B. Park**

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**From:** "sdeklevalaw" <sdeklevalaw@earthlink.net>  
**To:** <wpark@cfl.rr.com>  
**Sent:** Wednesday, February 15, 2006 4:07 PM  
**Subject:** Car Awning 107 Pine Needle Lane

Mr. Park,

Your request to place a car awning over the driveway next to the side of your house has been approved subject to County permitting. Please call if you should have any questions 407-970-2645.

Bill Miller  
Director - Spring Valley Farms Community Assoc.  
Member- Architectural Review Committee

February 7, 2006

To: Seminole County Planning  
& Development Department  
Planning Division

From: Philip Pastore  
109 Pine Needle Lane  
Altamonte Springs, FL 32714

I live next door to William Park. I have no objection to his planned canvas carport with a 1 foot variance setback along our common property line.

Sincerely,

A handwritten signature in black ink, appearing to read 'Philip Pastore', written in a cursive style.

Philip Pastore

## SEMINOLE COUNTY APPROVAL DEVELOPMENT ORDER

On April 24, 2006 Seminole County issued this Development Order relating to and touching and concerning the following described property:

LEG LOT 4 BLK A SPRING VALLEY FARMS SEC 2 PB 14 PG 59

(The aforescribed legal description has been provided to Seminole County by the owner of the aforescribed property.)

### FINDINGS OF FACT

**Property Owner:** William Park  
107 Pine Needle Ln.  
Altamonte Springs, FL 32714

**Project Name:** Pine Needle Lane (107)

#### **Requested Development Approval:**

Request for a side yard (west) setback variance from 10 feet to 1 foot for a proposed carport in the R-1AAA (Single-Family Dwelling District).

The Development Approval sought is consistent with the Seminole County Comprehensive Plan and will be developed consistent with and in compliance to applicable land development regulations and all other applicable regulations and ordinances.

The owner of the property has expressly agreed to be bound by and subject to the development conditions and commitments stated below and has covenanted and agreed to have such conditions and commitments run with, follow and perpetually burden the aforescribed property.

Prepared by: Ian Sikonia, Planner  
1101 East First Street  
Sanford, Florida 32771

### Order

#### **NOW, THEREFORE, IT IS ORDERED AND AGREED THAT:**

- (1) The aforementioned application for development approval is **GRANTED**.
- (2) All development shall fully comply with all of the codes and ordinances in effect in Seminole County at the time of issuance of permits including all impact fee ordinances.
- (3) The conditions upon this development approval and the commitments made as to this development approval, all of which have been accepted by and agreed to by the owner of the property are as follows:
  1. The variance granted will apply only to the proposed carport as depicted on the attached site plan.
- (4) This Development Order touches and concerns the aforescribed property and the conditions, commitments and provisions of this Development Order shall perpetually burden, run with and follow the said property and be a servitude upon and binding upon said property unless released in whole or part by action of Seminole County by virtue of a document of equal dignity herewith. The owner of the said property has expressly covenanted and agreed to this provision and all other terms and provisions of this Development Order.
- (5) The terms and provisions of this Order are not severable and in the event any portion of this Order shall be found to be invalid or illegal then the entire order shall be null and void.



Done and Ordered on the date first written above.

By: \_\_\_\_\_  
Tony Walter  
Planning Manager

STATE OF FLORIDA )  
COUNTY OF SEMINOLE )

I HEREBY CERTIFY that on this day, before me, an officer duly authorized in the State and County aforesaid to take acknowledgments, personally appeared \_\_\_\_\_ who is personally known to me or who has produced \_\_\_\_\_ as identification and who executed the foregoing instrument.

WITNESS my hand and official seal in the County and State last aforesaid this \_\_\_\_\_ day of \_\_\_\_\_, 2006.

\_\_\_\_\_  
Notary Public, in and for the County and State  
Aforementioned

My Commission Expires: