

# Staff Report

- 9 Install steel plate with 1" by 3" PT facing piece to existing second story joists as per engineer's recommendation- **#730 Southard Street - Thomas E. Pope (H11-01-1240)**

This staff report is for the review of a Certificate of Appropriateness that proposes the installation of a steel metal plate ¼" thick by 2 ½" wide to be installed under each of the original 3 joists located on the second floor front and side porch. This new element will give the necessary strength to the second floor porch, as stated in the report submitted by the engineer of the project, Garland Wilson PE. The steel plate will be covered with a ¾" by 3" true dimension pressure treated pine that will be painted to match the existing ones. Since the porch has different spans between columns the engineer has used the larger span in order to create a structural retrofitting equal for all the joist members. The new three joists that were installed between the original joists will be removed.

The Florida Building Code for Existing Buildings adopts the Secretary of the Interior's Standards and Guidelines for Rehabilitating Historic Buildings.

Standard 6 can be reviewed for this application after Mr. Woodson and Engineer Wilson's statements;

Standard 6 (page 21 of the Guidelines and page B2 of the 2010 FBC):

*Deteriorated historic features shall be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature shall match old in design, color, texture and other visual qualities, and, where possible, materials. Replacement of missing features shall be substantiated by documentary, physical or pictorial evidence.*

The following Guidelines for Rehabilitating Historic Buildings shall also be considered (2010 FBC Appendix B.34);

#### Health and Safety Requirements

##### Not Recommended

*Altering, damaging, or destroying character-defining spaces, features, and finishes while making modifications to a building or site to comply with safety codes.*

##### Recommended

*Complying with health and safety codes, including seismic codes and barrier-free access requirements, in such a manner that character-defining spaces, features, and finishes are preserved.*

Not Recommended

*Reinforcing a historic building using measures that damage or destroys character-defining structural and other features.*

Recommended

*Providing seismic reinforcement to a historic building in a manner that avoids damaging the structural system and character-defining features.*

The house located at #730 Southard Street is a magnificent example of a two and a half story frame structure. The restoration of the house was approved by the Commission.

Staff understands that the following guidelines can be reviewed for this application:

Entrances, porches and doors (pages 32-33):

- (4) *A completely deteriorated porch may be rebuilt on a board-for-board basis based on physical or historic documents.*
- (7) *Porch reconstruction on contributing buildings must duplicate the original entryway and porch and be compatible in design, size, scale, material and color with the historical character of the building.*

Secretary of the Interior's Standards and Guidelines for Rehabilitating Historic Structures (pages 16-17);

Standard 2

*The historic character of a property shall be retained and preserved. The removal of historic materials or alteration of features and spaces that characterize a property shall be avoided.*

Standard 5

*Distinctive features, finishes and construction techniques or samples of craftsmanship that characterize a historic property shall be retained and preserved.*

It is staff's opinion that the proposed structural retrofitting is a sensible solution which is in keeping with the Secretary of the Interior's Standards and Guidelines for Rehabilitating Historic Buildings and the Guidelines. The proposed new solution will be minimal, will allow the original joists to be in place and will not create a drastic change that can visually alter the character defining features of the porches. The use of wood to conceal the metal plate is an appropriate solution to hide the new material in the historic fabric.

# Application





**CITY OF KEY WEST  
BUILDING DEPARTMENT  
CERTIFICATE OF APPROPRIATENESS**

APPLICATION # HC 12-01-1290

OWNER'S NAME: Vincent and Laura Barletta DATE: 7/25/12

OWNER'S ADDRESS: \_\_\_\_\_ PHONE #: \_\_\_\_\_

APPLICANT'S NAME: Thomas E. Pope, PA PHONE #: 296-3611

APPLICANT'S ADDRESS: 610 White Street

ADDRESS OF CONSTRUCTION: 730 Southard # OF UNITS: \_\_\_\_\_

**THERE WILL BE A FINAL INSPECTION REQUIRED UNDER THIS PERMIT**

**DETAILED DESCRIPTION OF WORK:**

Install 1/4" x 2-1/2" steel plate with 1" x 3" PT facing piece to existing second story porch joist as per engineers recommendation (3.A) See attached letter and diagram

*Chapter 837.06 F.S.-False Official Statements – Whoever knowingly makes a false statement in writing with the intent to mislead a public servant in the performance of his or her official duty shall be guilty of a misdemeanor of the second degree punishable as provided for in s. 775.082 or 775.083*

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This application for Certificate of Appropriateness must precede applications for building permits, right of way permits, variances, and development review approvals. Applications must meet or exceed the requirements outlined by the Secretary of the Interior's Standards for Rehabilitation and Key West's Historic Architectural Guidelines.

Once completed, the application shall be reviewed by staff for completeness and either approved or scheduled for presentation to the Historic Architectural Review Commission at the next available meeting. The applicant must be present at this meeting. The filing of this application does not ensure approval as submitted.

Applications that do not possess the required Submittals will be considered incomplete and will not be reviewed for approval.

Date: 7/25/12

Applicant's Signature: Matthew Borton  
Thomas E. Pope, PA

**Required Submittals**

	TWO SETS OF SCALED DRAWINGS OF FLOOR PLAN, SITE PLAN AND EXTERIOR ELEVATIONS (for new buildings and additions)
	TREE REMOVAL PERMIT (if applicable)
	PHOTOGRAPHS OF EXISTING BUILDING (repairs, rehabs, or expansions)
	PHOTOGRAPHS OF ADJACENT BUILDINGS (new buildings and additions)
	ILLUSTRATIONS OF MANUFACTURED PRODUCTS TO BE USED SUCH AS SHUTTERS, DOORS, WINDOWS, PAINT COLOR CHIPS, AND AWNING FABRIC SAMPLES

**Staff Use Only**

Date: \_\_\_\_\_

Staff Approval: \_\_\_\_\_

Fee Due: \$ \_\_\_\_\_

HISTORIC ARCHITECTURAL REVIEW APPLICATION



# HISTORIC ARCHITECTURAL REVIEW COMMISSION USE ONLY

\*\*\*\*\*

Approved \_\_\_\_\_

Denied \_\_\_\_\_

Deferred \_\_\_\_\_

Reason for Deferral or Denial:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

HARC Comments:

*House is listed as a contributing resource. Built circa 1919.  
Guidelines for porches (pages 32-33)  
Secretary of the Interior's Standards (pages 16-17)*

Limit of Work Approved, Conditions of Approval and/or Suggested  
Changes:

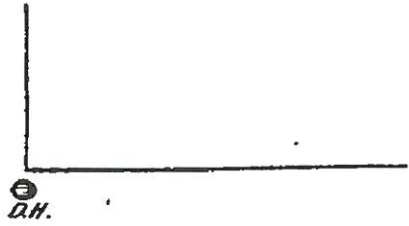
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Date: \_\_\_\_\_

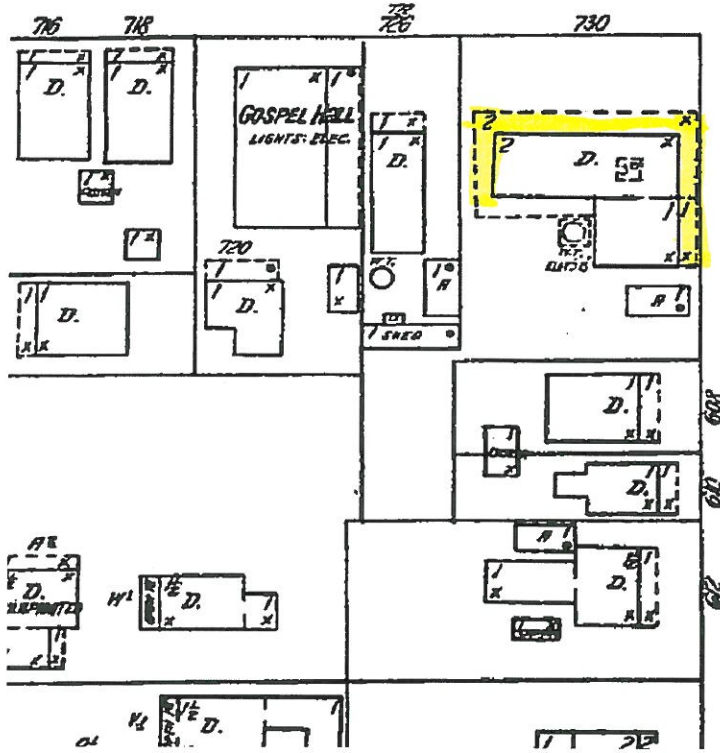
Signature: \_\_\_\_\_

Historic Architectural  
Review Commission

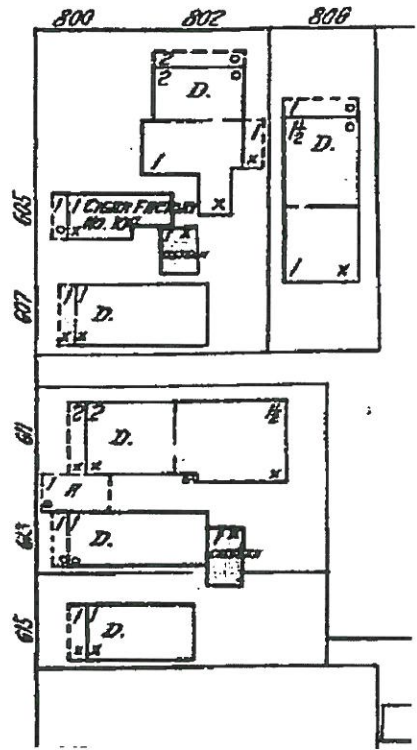
# Sanborn Maps



# SOUTHARD

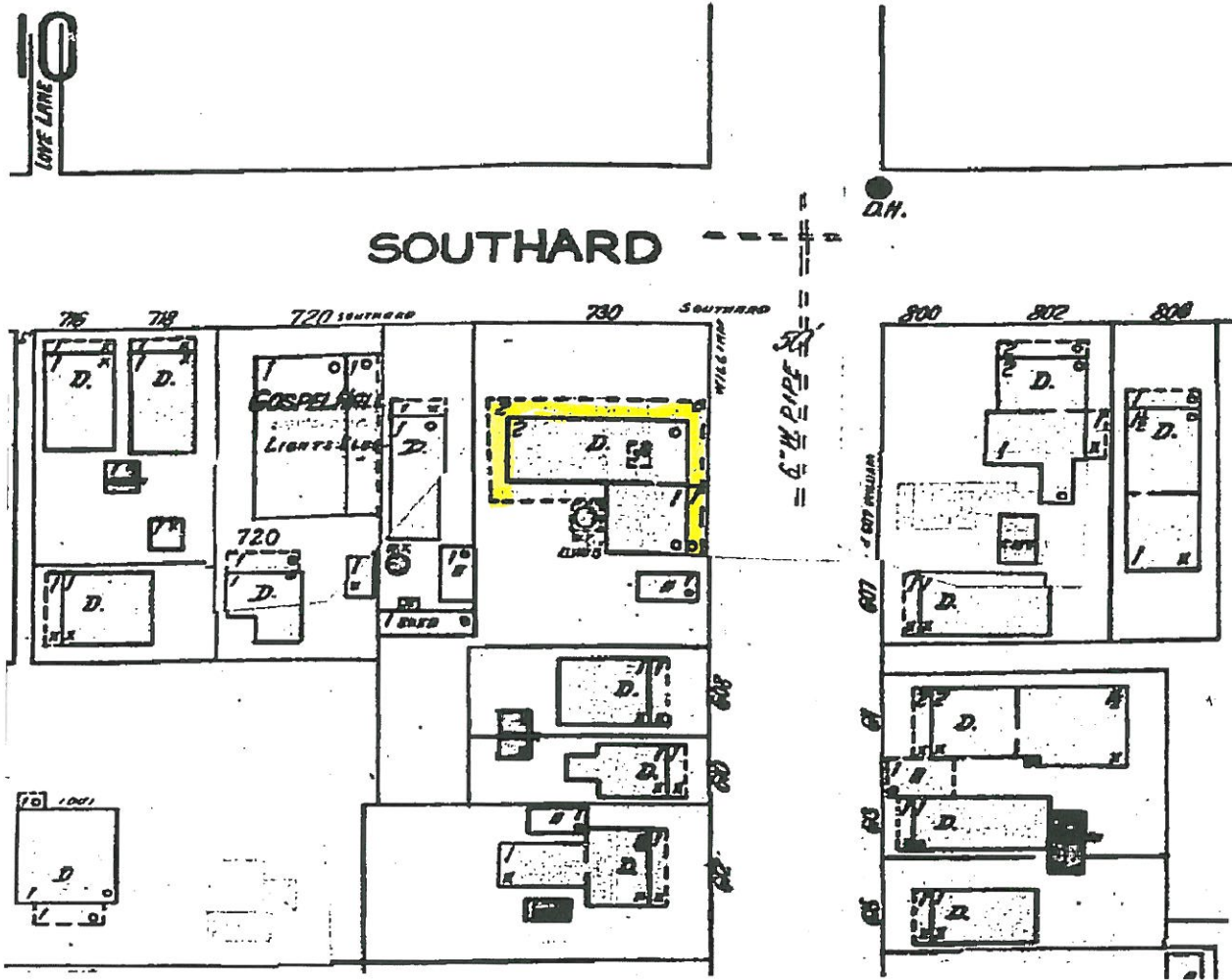


50'



#730 Southard Street Sanborn map 1926





#730 Southard Street Sanborn map 1948



**Project Photos**



The Heritage House Collection, donated by the Campbell, Poirier and Pound families. The house at 730 Southard Street in the 1930s. From a collection of photographs taken or collected during the 1930s by the WPA workers in Key West. Monroe County Library





Photo taken by the Property Appraiser's office c1965; 730 Southard St.; Monroe County Library



The house at 730 Southard Street circa 1970. From the Dale McDonald Collection. Monroe County Library



The front of the Albury house at 730 Southard taken 1971. U.S. Navy photo. Monroe County Library







POSTED  
NO TRESPASSING  
KEEP OUT





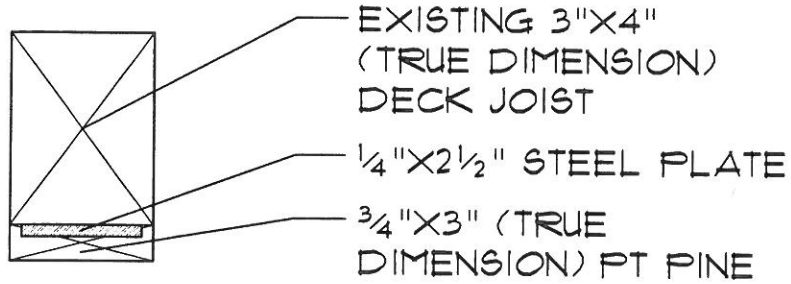




04/10/2012

# Proposed Plans

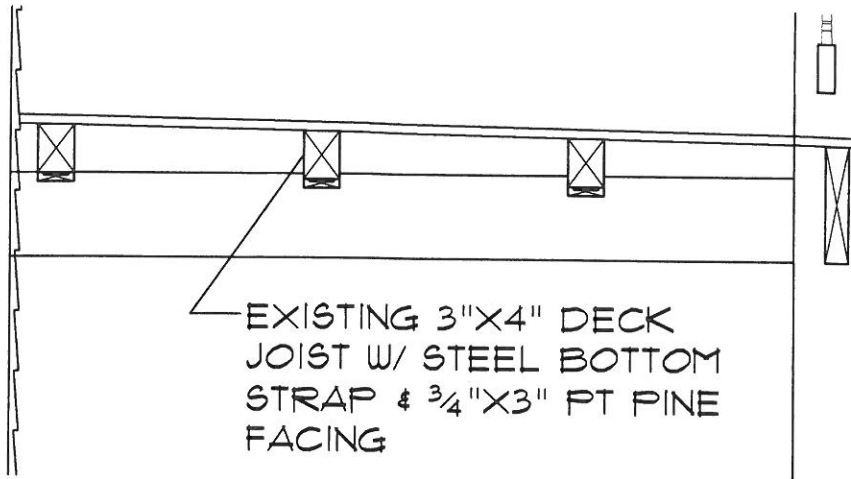




## Joist Detail

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3" = 1" - 0"



## 2nd Floor Porch Detail

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3/4" = 1" - 0"

**GARLAND WILSON PE**  
**4460 Northshore Dr**  
**Port Charlotte, FL 33980**  
**Florida PE No. 41526**

July 25, 2012

Thomas E. Pope PA

Key West, Florida

RE: 730 Southard Street

Front Porch floor joist

Dear Tom,

I have analyzed the existing second floor porch structural system at 730 Southard Street to determine its code compliance and structural integrity. Below is an overview of code requirements and a review with recommendations to bring the structural system into compliance:

**CRITERIA**

Relevant codes are 2010 Florida Building Code – Existing Building and 2010 Florida Building Code – Residential. These codes reference the 2010 Florida Building Code for structural design (see 2010FBC-Exist. 101.5, 304.2.3, 304.3, 304.4506.1 and 2010FBC-Res. R301.1.1 and R301.1.3).

Loading and strength requirements from Florida Building Code 2010:

Deflection requirements: Floor members Live load =  $l/360$  and Total load =  $l/240$  (FBC 1604.3.1)

Dead load = actual weights (FBC 1606.2)

Live load = 40 PSF (FBC 1607.1)

**EXISTING CONDITION**

Existing floor joist = 3"x4" FS (full size) at 2'-0" on center. Joist span 7'-4", 8'-3", 9'-1" and 11'-2".

The shortest span of 7'-4" calculates a Live load deflection of  $l/254$  ( $l/360$  required) and a Total load deflection of  $l/181$  ( $l/240$  required). The existing system, even for the shortest span, deflects too much and exceeds permissible Building Code limitations for deflection. The existing joist in this span use 83% of maximum allowable bending stress which is within the limits of the Code. The existing members of this length will not fail in bending, but fail in deflection which caused the floor to bounce.

The 8'-3" span has a Live load deflection of  $l/178$  ( $l/360$  required) and a Total load deflection of  $l/181$  ( $l/240$  required). The existing system for this span deflects too much and is above the Code limits for deflection. This existing joist in this span use 101% of maximum allowable bending stress which exceeds the Code limits and is subject to structural failure. These existing members of this length will fail both in bending and deflection

The 9'-1" span calculates a Live load deflection of  $l/134$  ( $l/360$  required) and a Total load deflection of  $l/95$  ( $l/240$  required) which above the Code limits The existing system for this span deflects too much and is above the Code requirements for deflection. This existing joist in this span use 128% of allowable bending stress which is above the Code limits and is subject to structural failure. These existing members of this length will fail both in bending and deflection

The maximum joist span of 11'-2" has a Live load deflection of  $l/72$  ( $l/360$  required) and a Total load deflection of  $l/51$  ( $l/240$  required). The existing system for this span deflects too much and is above the Code requirements for deflection. This joist is stressed to 193% of maximum allowable bending stress which is above the Code limits and is subject to structural failure. These existing members of this length will fail both in bending and deflection.

None of these joists, in the four existing spans lengths meet all of the 2010 FBC requirements for this structure.

### **OPTIONS TO MEET 2010 FBC**

Since all span members should be the same size, options shown below will be calculated based on the maximum span of 11'-2" and the other shorter spans will be in compliance. Numbers 1-3 below describe actions that can be utilized with specific joist sizes analyzed.

1. Replace the existing with new members at the same spacing but with different material with same dimensions:

A. 3.5"x3.5" Parallam does not work with Live load deflection of  $l/106$  and Total load deflection of  $l/75$  using 123% of maximum allowable bending stress. This is the smallest Parallam produced and the next size is 3.5x5.25.

B. 2-1.75"x5.5" Microllams that are cut down to 4" deep. This leaves a member that is 3.5"x4" and does not comply with Live load deflection of  $l/168$  and Total load deflection of  $l/119$  at 87% of max. allowable stress. This is the smallest Microllam produced and the next size is 1.75x7.25.

2. Replace the existing with new members at the same spacing but with different material and dimensions that comply with the Code:

A. 3.5"x5.25" Parallam has Live Load deflection of  $l/360$  and Total load Deflection of  $l/252$  using 56% of maximum allowable bending stress.

B. 2-1.75"x5.5" Microllams have Live load deflection of  $l/437$  and Total load deflection of  $l/306$  with 47% of maximum allowable bending stress.

3. Maintain the existing historical joists at same spacing but add additional different material to make the composite member that complies with the Code:

A. Screw a 0.25"x2.5" steel plate to the bottom of existing joists. The plate will butt to existing supporting cross beams. Live load deflection of  $l/366$  and Total load deflection of  $l/244$  with 78% maximum allowable bending stress in the wood will meet all Code requirements. Cover the steel plate with 1x3 pt pine to protect the steel from both the weather and from view.

### CONCLUSION

The best solution which meets the Code requirements with the least change in size and appearance of the historical joists is the composite solution of steel plates on existing joists (3.A). This increases the depth only  $\frac{3}{4}$ " for the 1x3 and maintains the historic fabric of the porch with the least change to member dimensions.

Please contact this office with any questions.



Garland Wilson P.E.

FL PE # 41526



# Noticing

# Public Meeting Notice

The Historic Architectural Review Commission will hold a public hearing at 5:30 p.m., August 15, 2012 at Old City Hall, 510 Greene Street, Key West, Florida. The purpose of the hearing will be to consider a request for:

**INSTALL STEEL PLATE WITH 1" BY 3" PT FACING PIECE TO EXISTING SECOND STORY JOISTS AS PER ENGINEER'S RECOMMENDATION**

**#730 SOUTHARD STREET**

**Applicant- THOMAS E. POPE - Application Number H12-01-1240**

**If you wish to see the application or have any questions, you may visit the Planning Department during regular office hours at 3140 Flagler Avenue call 809-3973 or visit our website at [www.keywestcity.com](http://www.keywestcity.com) .**

**THIS NOTICE CAN NOT BE REMOVED FROM THE SITE UNTIL HARC FINAL DETERMINATION**

# HARC POSTING AFFIDAVIT

STATE OF FLORIDA:  
COUNTY OF MONROE:

BEFORE ME, the undersigned authority, personally appeared Todd Kemp, who, first being duly sworn, on oath, depose and says that the following statements are true and correct to the best of his/her knowledge and belief:

1. That a legal notice for Public Notice of Hearing of the Historic Architectural Review Commission (HARC) was placed on the following address: 130 Southard on the 7 day of August, 20 12.

This legal notice(s) contained an area of at least 8.5"x11".

The property was posted to notice a public hearing before the Key West Historic Architectural Review Commission to be held on August 15, 20 12.

The legal notice(s) is/are clearly visible from the public street adjacent to the property.

The Certificate of Appropriateness number for this legal notice is H12-01-1240

2. A photograph of that legal notice posted in the property is attached hereto.

Signed Name of Affiant:

Todd Kemp  
Date: 8/7/12  
Address: 610 White St.  
City: Key West, FL  
State, Zip: FL 33040

The forgoing instrument was acknowledged before me on this 7 day of August, 20 12.

By (Print name of Affiant) Todd Kemp who is personally known to me or has produced \_\_\_\_\_ as identification and who did take an oath.

## NOTARY PUBLIC

Sign Name: M. Holly Booton  
Print Name: M. Holly Booton

Notary Public - State of Florida (seal)

My Commission Expires: 12/13



M. HOLLY BOOTON  
MY COMMISSION # DD 939156  
EXPIRES: December 26, 2013  
Bonded Thru Budget Notary Services



# **Property Appraiser Information**



**Karl D. Borglum**  
**Property Appraiser**  
**Monroe County, Florida**

Key West (305) 292-3420  
Marathon (305) 289-2550  
Plantation Key (305) 852-7130

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**Property Record Card**

**Alternate Key: 1012009 Parcel ID: 00011690-000000**

Website tested on  
Internet Explorer.  
Requires Adobe Flash  
10.3 or higher

**Ownership Details**

**Mailing Address:**  
730 SOUTHARD TRUST 11/29/2010  
C/O BARLETTA VINCENT F TRUSTEE  
40 SHAWMUT RD  
CANTON, MA 02021-1409

**Property Details**

**PC Code:** 01 - SINGLE FAMILY  
**Millage Group:** 10KW  
**Affordable Housing:** No  
**Section-Township-Range:** 06-68-25  
**Property Location:** 730 SOUTHARD ST KEY WEST  
**Legal Description:** KW PT LOT 2 SQR 59 G61-29/32 G61-33/34 OR177-157 (PROB 44-07-CP-216-K) OR1128-1375/79 OR1241-2122/23 L/E OR1889-442/44 OR2213-353/54 OR2386-1203/04 OR2389-1412/13 OR2408-1682/85 OR2497-1926D/C OR2497-636/37 OR2538-411/13

**Parcel Map (Click to open dynamic parcel map)**



**Land Details**

Land Use Code	Frontage	Depth	Land Area
01SD - RES SMALL LOT DRY	0	0	11,413.27 SF

**Building Summary**

Number of Buildings: 2

Number of Commercial Buildings: 0  
 Total Living Area: 3527  
 Year Built: 1919

### Building 1 Details

Building Type R1  
 Effective Age 71  
 Year Built 1919  
 Functional Obs 0

Condition A  
 Perimeter 352  
 Special Arch 0  
 Economic Obs 0

Quality Grade 550  
 Depreciation % 63  
 Grnd Floor Area 2,774

Inclusions: R1 includes 1 3-fixture bath and 1 kitchen.

Roof Type IRR/CUSTOM  
 Heat 1 NONE  
 Heat Src 1 NONE

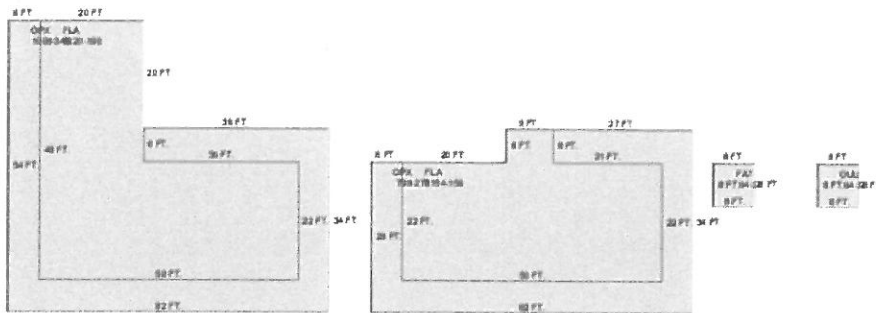
Roof Cover METAL  
 Heat 2 NONE  
 Heat Src 2 NONE

Foundation WD CONC PADS  
 Bedrooms 4

Extra Features:

2 Fix Bath 0  
 3 Fix Bath 1  
 4 Fix Bath 0  
 5 Fix Bath 0  
 6 Fix Bath 0  
 7 Fix Bath 0  
 Extra Fix 0

Vacuum 0  
 Garbage Disposal 0  
 Compactor 0  
 Security 0  
 Intercom 0  
 Fireplaces 1  
 Dishwasher 0



Sections:

Nbr	Type	Ext Wall	# Stories	Year Built	Attic A/C	Basement %	Finished Basement %	Area
1	FLA	12:ABOVE AVERAGE WOOD	1	1993	N N	0.00	0.00	1,620
2	OPX	12:ABOVE AVERAGE WOOD	1	1993	N N	0.00	0.00	1,008
3	FLA	12:ABOVE AVERAGE WOOD	1	1993	N N	0.00	0.00	1,154

4	OPX	12:ABOVE AVERAGE WOOD	1	1993	N	N	0.00	0.00	798
5	FAT	12:ABOVE AVERAGE WOOD	1	1993	N	N	0.00	0.00	64
6	OUU	12:ABOVE AVERAGE WOOD	1	1993	N	N	0.00	0.00	64

### Building 2 Details

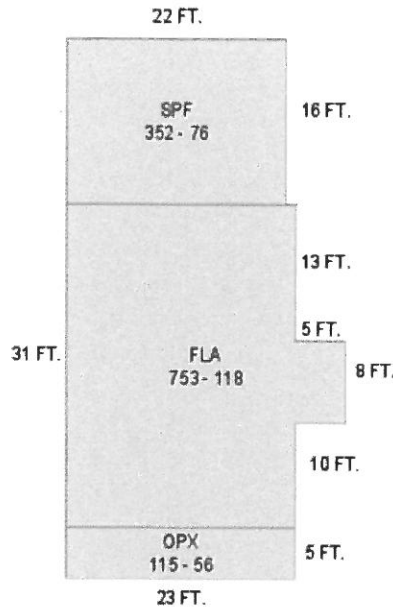
**Building Type** R1  
**Effective Age** 20  
**Year Built** 1938  
**Functional Obs** 0  
**Condition** G  
**Perimeter** 118  
**Special Arch** 0  
**Economic Obs** 0  
**Quality Grade** 450  
**Depreciation %** 27  
**Grnd Floor Area** 753

**Inclusions:** R1 includes 1 3-fixture bath and 1 kitchen.

**Roof Type** IRR/CUSTOM  
**Heat 1** NONE  
**Heat Src 1** NONE  
**Roof Cover** METAL  
**Heat 2**  
**Heat Src 2**  
**Foundation** WD CONC PADS  
**Bedrooms** 2

**Extra Features:**

2 Fix Bath	0	Vacuum	0
3 Fix Bath	0	Garbage Disposal	0
4 Fix Bath	0	Compactor	0
5 Fix Bath	0	Security	0
6 Fix Bath	0	Intercom	0
7 Fix Bath	0	Fireplaces	0
Extra Fix	0	Dishwasher	0



**Sections:**

Nbr	Type	Ext Wall	# Stories	Year Built	Attic A/C	Basement %	Finished Basement %	Area
0	FLA		1	1938	N			753

12:ABOVE AVERAGE  
WOOD

0	OPX	1	1938	115
0	SPF	1	1938	352

### Misc Improvement Details

Nbr	Type	# Units	Length	Width	Year Built	Roll Year	Grade	Life
1	PT2:BRICK PATIO	189 SF	21	9	1984	1985	2	50
2	FN2:FENCES	165 SF	0	0	1984	1985	2	30
3	AC2:WALL AIR COND	1 UT	0	0	1988	1989	2	20
4	AC2:WALL AIR COND	1 UT	0	0	1988	1989	1	20
5	PT2:BRICK PATIO	124 SF	31	4	1984	1985	2	50
6	GR2:GARAGE	200 SF	0	0	1939	1940	2	60

### Appraiser Notes

AK 1012025 (RE 00011710-000000) IS NOW COMBINED WITH THIS PARCEL PER THE OWNER'S REQUEST, DONE FOR THE 2012 TAX ROLL (2/15/2012 SCJ).

UNITY OF TITLE RECORDED (OR2540-2262) RESULTING IN COMBINATION OF AK 1012025 WITH AK 1012009.

### Building Permits

Bldg	Number	Date Issued	Date Completed	Amount	Description	Notes
	9701696	05/01/1997	08/01/1997	1,100		UPGRADE TO 150 AMP

### Parcel Value History

Certified Roll Values.

[View Taxes for this Parcel.](#)

Roll Year	Total Bldg Value	Total Misc Improvement Value	Total Land Value	Total Just (Market) Value	Total Assessed Value	School Exempt Value	School Taxable Value
2011	188,200	3,634	348,383	540,217	540,217	0	540,217
2010	287,055	3,998	437,427	728,480	728,480	0	728,480
2009	315,445	3,998	664,889	984,332	984,332	0	984,332
2008	310,020	3,998	952,567	1,266,585	1,266,585	0	1,266,585
2007	504,032	3,958	1,199,275	1,707,265	324,537	25,000	299,537
2006	638,258	3,958	651,035	1,293,251	316,621	25,000	291,621
2005	565,314	3,958	582,505	1,151,777	307,399	25,000	282,399
2004	410,307	3,958	479,710	893,975	298,446	25,000	273,446
2003	395,110	3,958	239,855	638,923	292,882	25,000	267,882
2002	379,640	3,958	239,855	623,453	286,018	25,000	261,018
2001	300,771	3,958	239,855	544,584	281,514	25,000	256,514

2000	261,337	4,395	130,207	395,940	273,315	25,000	248,315
1999	248,839	4,185	123,697	376,721	266,130	25,000	241,130
1998	210,206	3,535	123,697	337,439	261,939	25,000	236,939
1997	193,163	3,249	110,676	307,087	257,561	25,000	232,561
1996	153,394	2,580	110,676	266,650	250,060	25,000	225,060
1995	147,713	2,227	110,676	260,615	243,961	25,000	218,961
1994	124,987	1,884	110,676	237,548	237,548	25,000	212,548
1993	110,879	161	110,676	221,716	221,716	25,000	196,716
1992	110,879	161	110,676	221,716	221,716	25,000	196,716
1991	110,879	161	110,676	221,716	221,716	25,000	196,716
1990	73,829	161	86,262	160,251	160,251	25,000	135,251
1989	67,117	146	84,635	151,898	151,898	25,000	126,898
1988	56,881	146	71,614	128,641	128,641	25,000	103,641
1987	56,259	146	51,055	107,460	107,460	25,000	82,460
1986	56,559	146	49,342	106,047	106,047	25,000	81,047
1985	54,995	146	28,920	84,061	84,061	25,000	59,061
1984	51,368	146	28,920	80,434	80,434	25,000	55,434
1983	51,368	146	28,920	80,434	80,434	25,000	55,434
1982	52,340	146	28,920	81,406	81,406	25,000	56,406

### Parcel Sales History

NOTE: Sales do not generally show up in our computer system until about two to three months after the date of sale. If a recent sale does not show up in this list, please allow more time for the sale record to be processed. Thank you for your patience and understanding.

Sale Date	Official Records Book/Page	Price	Instrument	Qualification
12/15/2010	2497 / 636	800,000	WD	02

This page has been visited 120,238 times.

Monroe County Property Appraiser  
 Karl D. Borlum  
 P.O. Box 1176  
 Key West, FL 33041-1176