

# Postdiluvian Requirements

Yup...How's That For a Fancy Word!



# Understanding Substantial Damage

**“The 50% Rule”:**

**If damages from ANY source (flood, fire, tornado, alien attack, zombies, etc..) exceed 50%.**

**The structure must be brought into compliance with floodplain regulations (elevated or floodproofed).**



# Substantial Damage

## The formula

$$\frac{\text{Cost of damage}}{\text{Market value of the building}} \geq 50\%$$

$$\frac{\$75,000 \text{ damage}}{\$140,000 \text{ house}} = 54\%$$



# Substantial Damage

Cumulative Substantial damage tracking (example)

2008 - \$20,000 damage / \$100,000 = 20% damage

2011 - \$10,000 damage / \$120,000 = 8% damage

2015 - \$28,600 damage / \$130,000 = 22% damage

50% cumulative damage

Building must be brought up to flood code!

The Illinois state model ordinance tracks CUMULATIVE substantial damage



# Substantial Damage

## Determining Building Value

Building value is the market value of the building prior to the damage

- Tax assessor records
- Professional appraisal

Apply consistent methodology



# Post Flood Responsibilities

- **MOVE FAST! Don't wait for FEMA!**
- **Identify, tag, photograph, and document flooded structures**
- **Post information for the public on permit requirements. Use media sources.**
- **Provide technical information**
- **Contact State or FEMA for assistance and guidance if needed.**

## State of Illinois Flood Damage Assessment Packet



A cooperative effort by:

Illinois Department of Natural Resources  
Office of Water Resources

Illinois Emergency Management Agency

Federal Emergency Management Agency



2008 update

Includes Information On:

Steps to take following a flood  
Substantial damage determinations  
Blank damage assessment worksheets  
FEMA Residential Substantial Damage Estimator (RSDE)  
RSDE Field Worksheet  
Information on state floodway permit requirements  
Sample letter  
Sample Notice  
Information on mitigation programs

# Field Inspections During FloodCrest



# Post Flood – Survey

- Document high water marks
- Digital photos
- Mark locations on map
- Post notices on properties
- Follow up letters



By Ice Skate  
or  
by boat!





# Think about where you place your notices



**15 feet  
above  
ground!**

# Cull the Herd 100% damaged





# Focus on the Tough Ones

## 40% – 60% Damaged



# Some are REALLY tough!



**Ottawa Central School**  
**One inch of flooding.**



**Fall 2008**



# Learn to use the Substantial Damage Estimator (SDE)

- Download the SDE
- Obtain the base cost #s from Marshall Swift or Mean (I can't say that).
- Work with the Tax Assessor.
- Use the “cheat sheet” to enter the percent damage for each component.
- Be fast, uniform, & equitable.
- Get the letters out ASAP.
- Can address challenged estimates later.



## Substantial Damage Estimator (SDE) User Manual and Workbook

Using the SDE Tool to Perform Substantial Damage Determinations

FEMA P-784 / Tool Version 2.2 / September 2015



FEMA



# Learn to use the SDE (cont.)

- On site inspection done for each flooded structure.
- Information recorded on damage inspection worksheets (field sheets).
- Entered into SDE back at the office

## Appendix C: Community Tool Kit

### RSDE DAMAGE INSPECTION WORKSHEET

Single/Multi-Family Site Built Residences

1. Subdivision: \_\_\_\_\_ Parcel # \_\_\_\_\_ Lot # \_\_\_\_\_
2. Elevation of Lowest Floor: \_\_\_\_\_ Datum \_\_\_\_\_
3. NFIP Community Name: \_\_\_\_\_
4. Latitude: \_\_\_\_\_ Longitude: \_\_\_\_\_
5. Owner's First Name: \_\_\_\_\_ Last Name: \_\_\_\_\_
6. Building Address: \_\_\_\_\_ City: \_\_\_\_\_  
State: \_\_\_\_\_ Zip: \_\_\_\_\_ Phone # \_\_\_\_\_
7. County \_\_\_\_\_
8. Mailing Address: \_\_\_\_\_ City: \_\_\_\_\_  
State: \_\_\_\_\_ Zip: \_\_\_\_\_ Phone # \_\_\_\_\_
9. Date of Construction: \_\_\_\_\_ Date Damage Occurred: \_\_\_\_\_
10. Cause of Damage: (A) Fire (B) Flood (C) Fire & Wind (D) Seismic (E) Wind
11. Duration of Flooding: (A) \_\_\_\_\_ hours or (B) \_\_\_\_\_ days
12. Description of Residential Site-Built Modular Structure:  
(A) Quality of Construction:  
(1) Low \_\_\_\_ (2) Fair \_\_\_\_ (3) Average \_\_\_\_ (4) Good \_\_\_\_ (5) Very Good \_\_\_\_ (6) Excellent \_\_\_\_  
(B) 1-story \_\_\_\_ 1½-story \_\_\_\_ 2-story \_\_\_\_ More Than 2 Stories \_\_\_\_ 2-Story B-level \_\_\_\_ Split-Level \_\_\_\_  
(C) Foundation (check one):  
Slab-on-grade \_\_\_\_\_ Basement \_\_\_\_\_ Crawl Space \_\_\_\_\_ Piers \_\_\_\_\_ Footings \_\_\_\_\_  
ft X (W) \_\_\_\_\_ ft



Page—Guidance for State and Local Officials



# Learn to use the SDE Main Menu



1. Main toolbar
2. View search
3. Bulk Editor
4. Enter default data
5. Add property
6. Add Residential property
7. Add non-residential assessment
8. Save mapping
9. Import/Export
10. View reports
11. Generate Geo file
12. User manual





# Learn to use the SDE – Tab 1 - Address

Substantial Damage Estimator - [Residential Assessment]

File Tools Custom Fields Database Functions Help

## Residential Assessment

Address Structure/Damage/NFIP Info Cost Element Percentages Output Summary Files/Photos

### Subdivision / Community

Subdivision:

Parcel Number:

Lot Number:

Elev. of Lowest Floor:

Datum:

NFIP Community ID:

NFIP Community Name:

Latitude:

Longitude:

### Building Address

First Name:

Last Name:

Street Number:

Street Name:

Street Suffix:

City:

State:

County:

Zip:

Phone Number:

Cell Phone:

Check if property has additional owner(s)

### Mailing Address

Check if same as Building Address

First Name:

Last Name:

Street Number:

Street Name:

Street Suffix:

City:

State:

County:

Zip:

Phone Number:

Care of:

[Carry Over Data From Previous Record](#)

### Custom Fields (Maximum of three)

Choose a Field:

[Add Field](#)

Home Residential Assessments

# Learn to use the SDE – Tab 2 – Structure information

Substantial Damage Estimator - [Residential Assessment]

File Tools Custom Fields Database Functions Help

Residential Assessment

Address: Structure/Damage/NFIP Info | Element Percentages | Output Summary | Files/Photos

### Structure Attributes / Information

Residence Type:

Foundation:

Superstructure:

Roof Covering:

Exterior Finish:

HVAC System:

Story:

Year of Construction:

Quality:

Residence Information:


### Inspector / Damage Information

Inspector's Name:

Inspector's Phone:

Date of Inspection:

Date Damage Occurred:

Cause of Damage:  

Damage Undetermined?

Duration of Flood:

Depth of Flood Above Ground:

Depth of Flood Above First Floor:

### NFIP / Community Information

NFIP Community ID:

FIRM Panel Number:

Suffix:

Date of FIRM Panel:

FIRM Zone:

Base Flood Elevation:

Regulatory Floodway:

Space for Community Specific Information:

Home Residential Assessments

# Learn to use the SDE – Tab 3 - Cost

Substantial Damage Estimator - [Residential Assessment]

File Tools Custom Fields Database Functions Help

## Residential Assessment

Address Structure/Damage/NFIP Info **Cost** Element Percentages Output Summary Files/Photos

### Square Footage

Calculate or Enter Square Footage

Base Cost Per Sq Ft:  Total Square Footage:

Geographic Adjustment:  Cost: **\$0.00**

### Computed Actual Cash Value

Total Adjustments: \$0.00  
Total Replacement Cost: \$0.00  
Replacement Cost Per Sq Ft: \$0.00  
Cost Data Reference:   
Cost Data Date:   
Depreciation Rating:   
Depreciation Percentage:   
Computed Actual Cash Value: **\$0.00**

### Cost Adjustments

Adjustments:	Quantity:	Units:	Units Cost:	Item Cost:
<input type="text"/>	<input type="text"/>		<input type="text"/>	0
<input type="text"/>	<input type="text"/>		<input type="text"/>	0
<input type="text"/>	<input type="text"/>		<input type="text"/>	0
<input type="text"/>	<input type="text"/>		<input type="text"/>	0
<input type="text"/>	<input type="text"/>		<input type="text"/>	0
<input type="text"/>	<input type="text"/>		<input type="text"/>	0
<input type="text"/>	<input type="text"/>		<input type="text"/>	0

### Additional Adjustments

Adjustments:	Quantity:	Units Cost:	Item Cost:
<input type="text"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<b>\$0.00</b>
<input type="text"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<b>\$0.00</b>
<input type="text"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<b>\$0.00</b>
<input type="text"/>	<input type="text"/>	<input type="text"/>	0
<input type="text"/>	<input type="text"/>	<input type="text"/>	0

Home Residential Assessments

# Learn to use the SDE – Tab 4 – Element Percent

Substantial Damage Estimator - [Non-Residential Assessment]

File Tools Custom Fields Database Functions Help (Database Name: Database1 - Current Assessment: )

### Non-Residential Assessment

Address Structure/Damage/NFIP Info **Element Percentages** Output Summary Files/Photos

#### Element Percentages

Item:	Percent Damaged:	Element Percentage:	Item Cost:	Damage Values:
Foundation	<input type="text" value="75"/>	3.7	\$2,694.24	<b>\$2,020.68</b>
Superstructure	<input type="text" value="50"/>	30.8	\$22,427.74	<b>\$11,213.87</b>
Roof Covering	<input type="text" value="25"/>	1.9	\$1,383.54	<b>\$345.88</b>
Plumbing	<input type="text" value="75"/>	4.7	\$3,422.41	<b>\$2,566.81</b>
Electrical	<input type="text" value="100"/>	26.2	\$19,078.14	<b>\$19,078.14</b>
Interiors	<input type="text" value="100"/>	21.5	\$15,655.73	<b>\$15,655.73</b>
HVAC	<input type="text" value="50"/>	11.2	\$8,155.54	<b>\$4,077.77</b>
			Total Replacement Cost:	Total Estimated Damages:
			\$72,817.34	<b>\$54,958.88</b>

Home Non-Residential Assessments

# SDE Inspection Elements

- Foundation
- Superstructure (Framing and Masonry)
- Roof
- Insulation and weather stripping
- Exterior Finish
- Interior Finish (Drywall)
- Doors-Windows-Shutters
- Lumber Finished
- Hardware
- Cabinets-Countertops
- Floor Covering
- Plumbing
- Electrical
- Built-in Appliances
- Heating-Cooling (HVAC)
- Painting







WARNING  
DISCONNECT











# Learn to use the SDE – tab 5

Substantial Damage Estimator - [Residential Assessment]

File Tools Custom Fields Database Functions Help

## Residential Assessment

Address Structure/Damage/NFIP Info Cost Element Percentages **Output Summary** Files/Photos

### Percent Damaged

To ensure consistency and equity, local officials responsible for substantial damage determinations are strongly encouraged to select only one method each for determining building values and repair costs and to use the selected methods for the entire community. Computed damages based on element percentages within the software can only be derived from a replacement value. You can't use an appraisal or adjusted tax value which are both market values.

Value of Building (select one...)

Computed Actual Cash Value  
 Professional Market Appraisal  
 Adj. Tax Assessed Value

Cost of Repairs / Improvements (select one...)

Computed Damages  
 Contractor's Estimate  
 Community's Estimate

Percent Damaged:  
**Data Entry Incomplete**  
Data Entry Incomplete

### User Entered Data (Optional)

Market Value Determination

Professional Market Appraisal:

Tax Assessed Value:  
\$0.00

Factor Adjustment:

Adjusted Tax Assessed Value:

Cost of Damage Determination

Contractor's Estimate:

Community's Estimate:

### Damage Summary

Replacement Cost :  
**\$0.00**

Computed Damages:  
**\$0.00**

Depreciation Percentage:  
**0.00%**

Computed Actual Cash Value:  
**\$0.00**

Percent of Existing Improvements and Repairs Pre-Disaster:

Repair / Reconstruction Percentage:  
**TBD**

\* Per FEMA Publication 213, actual cash value may be used as market value

### Reporting

\*Be sure to SAVE assessment record before generating a report

[Print Summary Report for this structure](#)

[Print Detailed Report for this structure](#)

Home Residential Assessments

fppt.com

# Learn to use the SDE – tab 5

Substantial Damage Estimator - [Residential Assessment]

File Tools Custom Fields Database Functions Help

## Residential Assessment

Address Structure/Damage/NFIP Info Cost Element Percentages **Output Summary** Files/Photos

### Percent Damaged

To ensure consistency and equity, local officials responsible for substantial damage determinations are strongly encouraged to select only one method each for determining building values and repair costs and to use the selected methods for the entire community. Computed damages based on element percentages within the software can only be derived from a replacement value. You can't use an appraisal or adjusted tax value which are both market values.

Value of Building (select one...)

Computed Actual Cash Value  
 Professional Market Appraisal  
 Adj. Tax Assessed Value

Cost of Repairs / Improvements (select one...)

Computed Damages  
 Contractor's Estimate  
 Community's Estimate

Percent Damaged:  
**Data Entry Incomplete**

Data Entry Incomplete

### User Entered Data (Optional)

Market Value Determination

Professional Market Appraisal:  
[Text Box]

Tax Assessed Value:  
\$0.00

Factor Adjustment:  
[Text Box]

Adjusted Tax Assessed Value:  
[Text Box]

Cost of Damage Determination

Contractor's Estimate:  
[Text Box]

Community's Estimate:  
[Text Box]

### Damage Summary

Replacement Cost :  
**\$0.00**

Computed Damages:  
**\$0.00**

Depreciation Percentage:  
**0.00%**

Computed Actual Cash Value:  
**\$0.00**

Percent of Existing Improvements and Repairs Pre-Disaster:  
0

Repair / Reconstruction Percentage:  
**TBD**

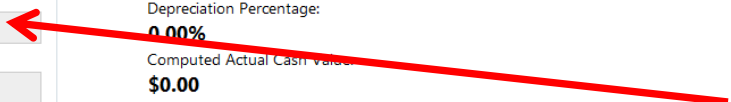
\* Per FEMA Publication 213, actual cash value may be used as market value

### Reporting

\*Be sure to SAVE assessment record before generating a report

[Print Summary Report for this structure](#)

[Print Detailed Report for this structure](#)



# Learn to use the SDE – Error Window

There are Errors in your assessment, please correct.

**1**

The Field	Your Entry	Format
▶ NFIP Community ID		Please enter a valid NFIP Community Name ID, this is a...
Stories	Select One	Please select the number of Stories.
Structure Use	Not Selected	Please select the use for this structure

**2**

The Field	Your Entry	Format
▶ Elev. of Lowest Floor		Please enter numeric values only.
Longitude		Please provide a longitude in decimal format.
Latitude		Please provide a latitude in decimal format.
Year of Construction		Please enter a valid Year

**3**

The Field	Your Entry	Format
▶ Building First Name		Please enter the first name for the building address.
Building Last Name		Please enter the last name for the building address.
Building Street Number		Please enter the address number for the building add...
Building Street Name		Please enter the street (without suffix) for the buildin...
Building Street Suffix	Select a Suffix	Please enter the street suffix for the building address.

Address Errors/Warnings

Close current assessment without saving

# See who can get Increase Cost of Compliance (ICC)??

- Part of the standard Flood Insurance Policy.
- Not a grant.
- Up to \$30,000 to assist with code compliance:
  - **F**loodproof
  - **R**elocate
  - **E**levate
  - **D**emolish



# Shutting the Window of Opportunity

- Intent letters sent to community 1 month
- Pre – application deadline 2 months
- Pre apps received and reviewed 1 month
- Full app request to community 1 month
- Full apps reviewed by community 1 month
- B/C and environmental review 2 months
- Prepare paperwork and send to FEMA 2 months
- FEMA review and approval 3 months
- Grant agreement by state 1-2 months
- Public hearing 1 or 2 months
- Appraisals 2 months
- Review of appraisals 2 months
- Local title search 1 month
- Agreement 1 month
- Close out 1 month
- Demolition 3 to 8 months
- Close out 1 year or more
- Mitigation Plan? add another year!

**3 years if  
Everything  
Goes smoothly!!**

# ICC opens the Window of Opportunity





# How to Qualify for ICC??

Three conditions must be met for an ICC claim to be paid:

- Building must be covered by a Standard Flood Insurance Policy.
- Structure must be substantially damaged or cumulatively substantially damaged by a flood.
- The building has a history of NFIP claim payments that satisfy the definition of “target group repetitive loss structure”.



# How to File a Claim

- **Copy of the substantial damage determination from the community (not the insurance claim).**
- **Bids from licensed contractors to elevate to FPE.**
- **Copy of the ordinance section requiring cumulative substantial damage.**
- **Contact the insurance company or agent who wrote the flood policy to file an ICC claim.**
- **Insurer assigns a claims representative who will process the ICC claim.**



# Damage Assessment Letter

## SAMPLE DAMAGE DETERMINATION LETTER

06/12/2008

John & Jane Q. Public  
1234, Flooded-By-The-River Rd.

Information relates to the address referenced above.

Community Number:	170XXX
Parcel Zone Information:	Zone A
Fair Market Value:	\$31,226 (based on 3.1 x assessed value)
Flood Damage:	
June 2008	<u>\$18,864</u>
Total damages	\$18,864
Percent Damaged:	60.4%
Ordinance Requirement:	Mitigation (elevation, removal)

The determination is that this structure is declared **Substantially Damaged** and must be brought into compliance with the \_\_\_ (insert community name) \_\_\_ Floodplain Ordinance prior to repair and reoccupation. For this structure to be in compliance with the ordinance, the structure must be elevated, moved outside the floodplain or demolished.

For more information on floodplains or to make an appointment to view your upcoming project, or if you have any additional questions, please feel free to give me a call at 800-555-5555.

Sincerely,

Your Name and title



# What if....

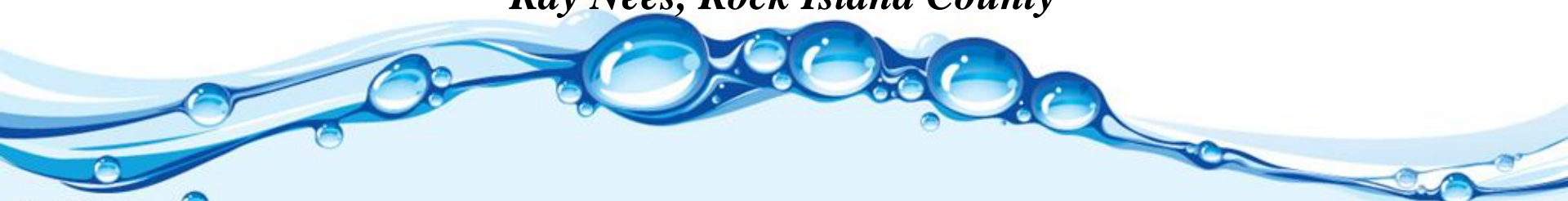
- **The adjusters say:**

- I don't think there is that much damage
- When you deduct the cost of elevation, it is back under 50%
- You don't have the authority to require this structure to be elevated.
- The replacement cost of this house is MUCH higher

- **What they REALLY meant to say is:**

- I have never taken the time to read the NFIP Manual, the ICC Guidebook, or your local ordinance so I don't have the foggiest idea that you, the local official, has TOTAL authority determining substantial damage and I apologize for my ignorance and I hope you will not embarrass me in front of my other insurance adjuster pals. \*

• *\*Ray Nees, Rock Island County*



# When ICC is Approved

- **NFIP will release 1/2 of the estimated amount to begin construction.**
- **NFIP will release the other 1/2 when an elevation certificate and local building permit showing compliance is provided.**







# ONE MONTH AFTER THE FLOOD!!!!!!!





# New Request From Adjusters:

- Elevation cert prior to the date of loss
- Flood zone
- Dollar figure of loss related to flood
- Cost to rebuild (without elevation)



# More tips:

## Home Moving and Elevation Contractors

1 Peters House  
& Building Movers  
R.R. #1 Box 114  
Farmer City, IL 61842  
(309) 928-2532

2. MCE Home Movers  
1637 East 800 North Rd.  
Loda, IL 60948  
[mcemoving@yahoo.com](mailto:mcemoving@yahoo.com)  
217-379-2955 – office  
217- 519-0244 – cell

3. Lyle Hyatt and Company  
House Movers  
612 Green Street  
Sandwich, IL  
815-786-6591

4. Balagna House Moving, Inc.  
21529 E. Illinois Highway 116  
Farmington, IL 61531  
(309) 245-4486

5. Greene County Steel  
Eldred, IL 62027  
(618) 576-9730

6. Louvier's Construction Inc.  
1038 Urna Drive  
St. Louis, MO 63301  
(636) 250-3189  
\*elevation only

7. Expert House Movers  
7144 Pershing Avenue  
St. Louis, MO 63130  
(314) 727-2722  
Or  
(800) 305-8939

8. Goodwin House Moving  
2964 Coppock Road  
Washington, IA 52353  
(319) 653-5644



*This list includes contractors who have done ICC elevation projects in the past. It is not a complete list and does not imply an endorsement by the State of Illinois. Consult your phonebook for local contractors.*

- **Get the Quick Claims data. Call people with policies who you suspect to have been sub dam. (most agents don't inform their clients)**

- **Develop a list of Elevation Contractors (ones who have done prior ICC projects) and provide the list to residents.**

- **Quick response. Call ASAP to get a bid and schedule a contractor.**

- **Not all policies are NFIP. Forced placed may not have ICC provision (or a reduced coverage limit). Example: \$57,419 coverage - \$50,200 claim = \$7,219 left to elevate.**

# ICC Before and After



# Post-Flood Requirements

**State and FEMA  
Assistance –**

**Substantial  
Damage  
Workshops and  
training on the  
SDE**



# Let's Go To Grafton and Red Tag!!! 😊

Our target house



# The “Rulo House”



# Mississippi River carp in my living room....again!



2008 = 39% damaged  
2011 flood damage = ???



# Note the high water line..



Let's call it three feet



# FIRM information

**NATIONAL FLOOD INSURANCE PROGRAM**

**PANEL 0256D**

**FIRM**  
FLOOD INSURANCE RATE MAP  
JERSEY COUNTY,  
ILLINOIS  
AND INCORPORATED AREAS

**PANEL 256 OF 300**  
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
GRAFTON, CITY OF	170314	0256	D
JERSEY COUNTY	170312	0256	D

Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community

**MAP NUMBER**  
17083C0256D

**EFFECTIVE DATE**  
APRIL 2, 2009

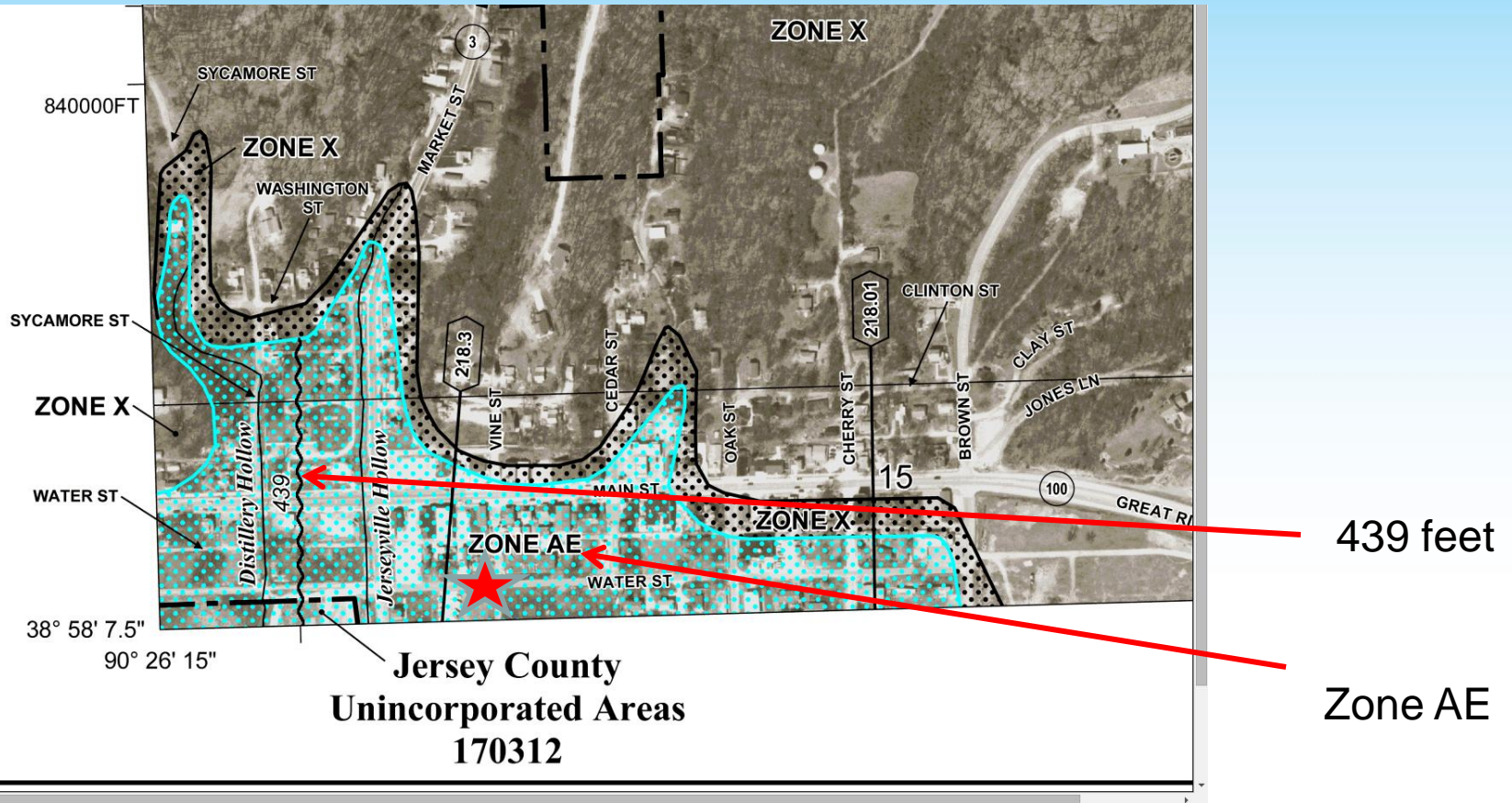
Federal Emergency Management Agency

Panel number

Community Number  
and suffix

Effective Date

# FIRM Zone and BFE



# Use the Assessor's Card

42-08-206-012-00



Parcel Number  
42-08-206-012-00

10 S. Vance St

OWNERSHIP & MORTGAGE ADDRESS

Town: QUILRY

Volume: \_\_\_\_\_ Tax Code: \_\_\_\_\_ Area: \_\_\_\_\_ Sec: \_\_\_\_\_ Block: \_\_\_\_\_ Parcel: \_\_\_\_\_ Unit: \_\_\_\_\_

Property Class: \_\_\_\_\_ Land Use: \_\_\_\_\_ zoning: \_\_\_\_\_ N.H. Code: \_\_\_\_\_ of \_\_\_\_\_ of \_\_\_\_\_ Condo. Comm. \_\_\_\_\_

Record of Ownership

Owner	Date	Deed Stamps	Indicated Price
JOSEPH A & DEBRA R. CHIAPPA	2-6-14	1782/162	62,500.
Joseph A & Debra R. Chiappa	2/8/07	1753/178	40,000
DELOREAN S. RULO	8-23-07	1450/119	100,000.
Joseph L. Rulo	3-17-78	1447/33	000.
Joseph L. Rulo	10/69	A-7-8&7	5,000.

Property Address

Original Town

Lot 12 Block 5

Land Computations

Unit	Units	Depth	Unit Val	D. Rec.	L. Rec.	Full Value
50	90		150			9000



Summary of Assessed Value

Item	Orig. Amt.	Full Value	Asmt. Level	Assessed Value	Rev. By	Full Value	Asmt. Level	Assessed Value	Rev. By
Land				7415	19 77			3000	19 77
Bldgs				1115	19 77			67157	19 77
Total				8160	19 77			70157	19 77



Tax  
assessment  
\$27,157

# Tax Assessors Sq. Footage

1999 - 2000 and 2001

### BUILDING RECORD RESIDENTIAL — RURAL (Property — Type 1)

Occupancy							Interior Finish			Remodeled			Sold Date			Age		Act. Age	
1 Vac. Lot	2 Dwell. Eng.	3 Other	4 Mobile Home	5 A Frame	6 Summer Home	7 Apt.	B	1	2	3	4	5	6	7	8	9	10	11	12
Living Accommodations							Plaster/dry wall			Memo			Amount \$			C.U.U.		Grade	
Total rooms							Fiberboard			1900 5100			1900			Overlying Computations		Sq. Ft.	
Bed rooms							Paneling			1900 5100			1900			Site		Sq. Ft.	
Family room							Features			1900 5100			1900			Corr.		Sq. Ft.	
Foundation							Fl. Ins. 3/4"			1900 5100			1900			Basement		5100	
Mas Wall							Basement			1900 5100			1900			Heating/Central air		Schl. Comb.	
Basement							Fireplace			1900 5100			1900			Plumbing		+ -	
Full							Integral garage			1900 5100			1900			Attic			
Area without burnt							Attached garage			1900 5100			1900			Porches			
Heating							On gas			1900 5100			1900			Attch. garage		+ -	
1 None							2 Central			3 Air condition			4 Other			Total		Grade	
Warm Air							1900 5100			1900			Total		Other features		Fl. insur. walls		
Hot water/Steam							1900 5100			1900			Total		Fireplace		Finished basement		
Floor drains							1900 5100			1900			Total		C x D		Net x AF		
Unit heaters							1900 5100			1900			Total		Replacement cost: new		EPL age		
Other							1900 5100			1900			Total		Age		S 2 M 1		
Plumbing							1900 5100			1900			Total		Full value				
Standard (5)							1900 5100			1900			Total						
Bathroom (3)							1900 5100			1900			Total						
Toilet room (2)							1900 5100			1900			Total						
Sink/Lavatory water closet							1900 5100			1900			Total						
Attic							1900 5100			1900			Total						
1 None							2 Partial			3 Full			4 Full			Replacement cost: new		EPL age	
Walls							1900 5100			1900			Total		Age		S 2 M 1		
Frame/stucco/aluminum siding							1900 5100			1900			Total		Full value				
Concrete block							1900 5100			1900			Total						
Brick/stone							1900 5100			1900			Total						
Other							1900 5100			1900			Total						
Roof							1900 5100			1900			Total						
Shingle asphalt/shakes/wood							1900 5100			1900			Total						
Slate/tile							1900 5100			1900			Total						
Composition							1900 5100			1900			Total						
Other metal							1900 5100			1900			Total						
Floors							1900 5100			1900			Total						
Concrete							1900 5100			1900			Total						
Wood							1900 5100			1900			Total						
Tile							1900 5100			1900			Total						
Carpet							1900 5100			1900			Total						
Listed by							1900 5100			1900			Total full value other buildings		Total full value all buildings				
Date							1900 5100			1900			2000		2000				
FR-2 (R) BR							1900 5100			1900			2000		2000				

20090 - WFD = 20090 x 1.30 = 27157 7000

582 first floor  
111 second floor  
693 - Total

Basement

Built in 1900

# Building Cost Values

Square Foot Costs  
Fair Quality  
(Finished 2nd Floor)

## ONE AND ONE HALF STORY

### RESIDENCE

#### STUD FRAMED

Total Area	Plywood or Hardboard	Metal or Vinyl Siding	Stucco	Wood Siding	Wood Shingles	Synth. Plaster (EIFS)
900	\$69.79	\$69.89	\$70.00	\$70.43	\$71.21	\$72.96
1000	68.65	68.75	69.75	69.26	70.01	71.76
1100	67.63	67.73	68.69	68.23	68.94	70.58
1200	66.72	66.81	67.74	67.29	67.99	69.57
1300	65.89	65.98	66.88	66.44	67.12	68.65
1400	65.13	65.21	66.09	65.67	66.32	67.81
1500	64.43	64.51	65.36	64.95	65.59	67.04
1600	63.78	63.86	64.69	64.29	64.91	66.33
1700	63.18	63.26	64.07	63.68	64.28	65.67
1800	62.62	62.69	63.48	63.10	63.69	65.05
1900	62.09	62.16	62.94	62.56	63.14	64.47
2000	61.59	61.66	62.42	62.06	62.62	63.93
2100	61.12	61.19	61.94	61.58	62.13	63.41
2200	60.68	60.75	61.48	61.13	61.67	62.92
2300	60.26	60.33	61.04	60.70	61.23	62.46
2400	59.86	59.92	60.63	60.29	60.81	62.02
2600	59.11	59.18	59.86	59.53	60.03	61.21
2800	58.43	58.49	59.15	58.83	59.32	60.46
3000	57.80	57.86	58.50	58.19	58.67	59.77

Fair quality home  
One and one half story  
900 sq. ft.

Cost = \$69.89 per sq.ft.

#### STUD FRAMED

#### MASONRY

Total Area	Rustic Log	Masonry Veneer	Concrete Block	Stucco on Block	Common Brick	Poured Concrete (SIP Forming)
900	\$75.59	\$74.91	\$73.07	\$74.74	\$82.80	\$83.16
1000	74.15	73.56	71.78	73.38	81.17	81.39
1100	72.87	72.37	70.63	72.16	79.71	79.83
1200	71.72	71.29	69.59	71.07	78.41	78.42
1300	70.68	70.32	68.65	70.08	77.23	77.16
1400	69.73	69.43	67.80	69.17	76.15	76.00
1500	68.86	68.61	67.01	68.34	75.16	74.94
1600	68.05	67.85	66.28	67.57	74.25	73.96
1700	67.30	67.15	65.60	66.86	73.40	73.05
1800	66.60	66.49	64.97	66.19	72.61	72.21
1900	65.95	65.87	64.38	65.57	71.87	71.42
2000	65.33	65.29	63.82	64.98	71.17	70.67
2100	64.75	64.75	63.30	64.42	70.52	69.97
2200	64.20	64.23	62.80	63.90	69.90	69.31
2300	63.69	63.74	62.33	63.40	69.31	68.69
2400	63.19	63.28	61.88	62.93	68.76	68.10
2600	62.27	62.41	61.05	62.06	67.72	67.00
2800	61.44	61.62	60.28	61.26	66.78	65.99
3000	60.67	60.90	59.58	60.52	65.91	65.07

### SQUARE FOOT ADJUSTMENTS

<b>ROOFING:</b>		<b>ENERGY ADJ: Mod. Climate</b>	(base)
Composition shingle or Built-up, small rock		Mild climate	-\$1.20
Clay tile	+	Extreme climate	+ 1.80
Concrete tile	+	Superinsulated	+ 3.74
Metal, preformed	+	<b>FOUNDATION ADJ: Mod. Climate</b>	(base)
Wood shake	+	Mild climate	-\$2.34
Wood shingle	+	Extreme climate	+ 4.29
Composition roll	-	Hillside, moderate slope	+ 1.93
		Hillside, steep slope	+ 6.22

Add for SEISMIC ZONES (Z) HURRICANE (Wind) ADJ.: See Intro-9; maps, D-12.  
Frame (Z2) +\$1.82, (Z3-4/wind) +\$2.82 Masonry (Z2) +\$1.66, (Z3-4/wind) +\$2.38

See Pages Fair-19—Fair-22 for other Sq. Ft. Adjustments, Basements, Porches, Garages, etc.



# Local Multiplier

## LOCAL MULTIPLIERS

	Frame	Masonry		Frame	Masonry
<b>HAWAII</b> .....	1.70	1.70	<b>INDIANA (Cont'd.)</b>		
Hawaii-Hilo .....	1.70	1.70	Logansport .....	.92	.92
Kauai .....	1.91	1.90	Marion .....	.93	.93
Maui .....	1.54	1.56	Michigan City .....	1.22	1.22
Oahu .....	1.51	1.51	Muncie .....	.97	.97
<b>IDAHO</b> .....	.97	.99	Richmond .....	.94	.93
Boise .....	1.00	1.01	South Bend .....	.99	.99
Caldwell .....	.99	1.00	Terre Haute .....	.98	.98
Coeur d'Alene .....	.98	1.00	<b>IOWA</b> .....	.99	.98
Idaho Falls .....	.99	1.01	Burlington .....	.98	.98
Lewiston .....	.94	.96	Cedar Rapids .....	.99	.98
Moscow .....	.95	.96	Council Bluffs .....	.91	.92
Pocatello .....	.95	.96	Davenport .....	1.07	1.06
Twin Falls .....	.99	1.00	Des Moines .....	.96	.97
<b>ILLINOIS</b> .....	1.14	1.14	Dubuque .....	1.05	1.05
Alton .....	1.07	1.08	Evansville .....	.97	.97
Aurora .....	1.24	1.25	Iowa City .....	1.01	.99
Belleview .....	1.10	1.12	Mason City .....	1.03	1.00
Bloomington .....	1.09	1.09	Sioux City .....	.93	.92
Carbondale .....	1.07	1.09	Waterloo .....	.99	.98
Centralia .....	1.08	1.09	<b>KANSAS</b> .....	.96	.96
Champaign .....	1.09	1.09	Dodge City .....	.90	.92
Chicago .....	1.27	1.27	Fort Scott .....	.95	.93
Danville .....	1.09	1.08	Garden City .....	.87	.88
De Kalb .....	1.22	1.23	Goodland .....	.91	.92
Decatur .....	1.10	1.09	Hays .....	.84	.86
East St. Louis .....	1.10	1.10	Kansas City .....	1.10	1.10
Elgin .....	1.24	1.24	Lawrence .....	1.06	1.06
Evanston .....	1.24	1.25	Liberal .....	.85	.87
Galesburg .....	1.08	1.07	Manhattan .....	.97	.97
Joliet .....	1.24	1.24	Olathe .....	1.10	1.11
Kankakee .....	1.27	1.25	Overland Park .....	1.10	1.11
Marion .....	1.07	1.09	Pittsburg .....	.90	.90
Moline .....	1.04	1.04	Salina .....	.93	.94
Normal .....	1.10	1.10	Topeka .....	.96	.99
Peoria .....	1.10	1.09	Wichita .....	.89	.91
Quincy .....	1.13	1.14	<b>KENTUCKY</b> .....	.96	.96
Rock Island .....	1.08	1.06	Ashtland .....	1.05	1.03
Rockford .....	1.18	1.17	Bowling Green .....	.93	.93
Skokie .....	1.28	1.27	Covington .....	.96	.96
Springfield .....	1.10	1.10	Frankfort .....	.95	.94
Urbana .....	1.09	1.09	Lexington .....	.95	.94
Waukegan .....	1.22	1.24	Louisville .....	.98	.98
<b>INDIANA</b> .....	1.01	1.01	Newport .....	.96	.96
Anderson .....	.96	.96	Owensboro .....	.95	.97
Bloomington .....	.99	.99	Paducah .....	.94	.94
Columbus .....	.97	.97	<b>LOUISIANA</b> .....	.89	.89
Elkhart .....	1.00	.99	Alexandria .....	.88	.89
Evansville .....	.99	.99	Baton Rouge .....	.89	.89
Fort Wayne .....	.97	.98	Lafayette .....	.90	.89
Gary .....	1.23	1.23	Lake Charles .....	.85	.88
Hammond .....	1.23	1.23	Monroe .....	.89	.89
Indianapolis .....	.99	.98	New Orleans .....	.91	.90
Kokomo .....	.98	.97	Shreveport .....	.90	.91
Lafayette .....	.98	.98			

Alton IL = 1.07



# Use the “Cheat Sheet”


## See the State of Illinois Post Flood Packet

May 20, 2013

### State of Illinois Flood Damage Assessment Packet




A cooperative effort by:

Illinois Department of Natural Resources / Office of Water Resources  
Illinois Emergency Management Agency  
Federal Emergency Management Agency



2013 update

Includes Information On:  
Steps to take following a flood  
Substantial damage determinations  
FEMA Substantial Damage Estimator (SDE)  
Damage Assessment Field Worksheet  
Sample letter  
Sample notice  
Sample press release  
Information on mitigation programs



# Final Output Summary

**WHAT % DAMAGE DID YOU GET?**





# Voila! An Elevated Building!

Our work here is done – pop a cold one!

**Grafton's  
assessment  
was:**

**39% damage  
in 2008**

**18% in 2011**

**Total = 57%**



**The Rulo's chose  
to:**

- 1) tear down the  
old damaged  
home**
- 2) Use their  
insurance  
(damage) claim  
and ICC to build a  
new elevated  
structure**
- 3) Enjoy the view  
from their new  
deck overlooking  
the river.**





**Paul Osman, CFM**  
**Floodplain Programs Manager**  
**Illinois Office of Water Resources**  
**One Natural Resources Way**  
**Springfield, IL 62702**

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