

Substantial Improvement and Substantial Damage Estimates

Illinois Department of Natural Resources Webinar

November 21, 2024



Basic NFIP Requirements

- Ensure that all proposed development is reasonably safe from flooding.
- Ensure that the lowest floor of any structure in the SHA is elevated to or above the base flood elevation.
- Ensure that work done in the floodway does not increase the base flood.
- All work done in the floodplain needs a permit before proceeding
- **If a building in a floodplain is determined to be substantially improved or substantially damaged it must be brought into compliance with local floodplain management regulations.**

Resources and Guidance

Flood Smart

- <https://www.floodsmart.gov>

FEMA Map Service Center and National Flood Hazard Layer

- MSC - <https://msc.fema.gov>
- NFHL - <https://msc.fema.gov/nfhl>

FEMA Mapping and Insurance eXchange (FMIX)

- Customer Care Center -- 877-336-2627
- https://floodmaps.fema.gov/fhm/fmx_main.html

Substantial Improvement/Substantial Damage Desk Reference

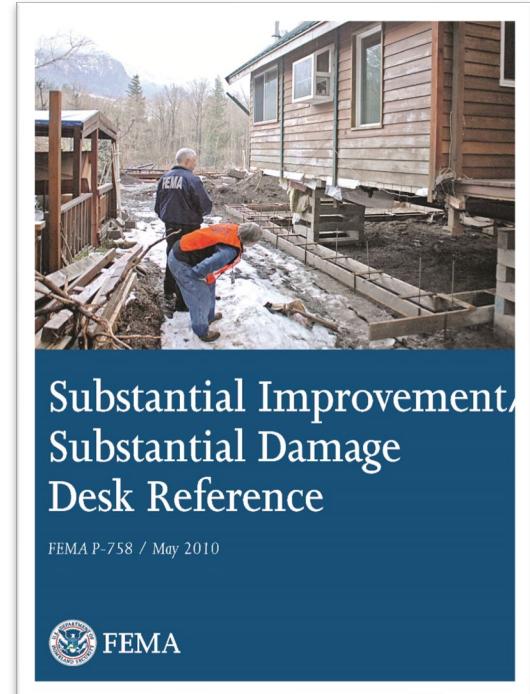
- https://www.fema.gov/media-library-data/20130726-1734-25045-2915/p_758_complete_r3.pdf

Answers to Questions about Substantially Improved/Substantially Damaged

- [Answers to Questions About Substantially Improved/Substantially Damaged Buildings FEMA 213](#)

Answers to Questions about Increased Cost of Compliance

- [Increased Cost of Compliance Coverage | FEMA.gov](#)
- https://www.fema.gov/sites/default/files/2020-08/fema_increased-cost-of-compliance_fact-sheet.pdf



Substantial Improvement Definition

- Any repair, reconstruction, rehabilitation, addition, or other activity to a building in a floodplain (*taking place during a 10-year period*) in which the (*cumulative*) project cost equals or exceeds 50 percent of the market value of the building before the improvement or repair is started.
- Substantial improvement is considered to begin when the first alteration of any wall, ceiling, floor or other structural part of the building commences, regardless if that alteration affects the external dimensions of the building.
- Substantial improvement does not include:
 - The cost of any project to improve a building to comply with existing State or local health, sanitary, or safety code specifications, which are solely necessary to assure safe living conditions; or
 - The cost of any alteration of a historic structure, provided that the alteration will not preclude the structure's continued designation as a historic structure.

How do you determine Substantial Improvement?

- Review your local ordinance
- Use your permit application!
- Your ordinance allows you to ask for cost estimates for work being done to a structure in the floodplain
- [Floodplain Management Resources \(illinois.gov\)](#)

Illinois Sample Floodplain Development Permit Application—All Development¶

This permit application shall be required when any type of “development” is proposed within the “regulatory floodplain.” Development must comply with the specific standards outlined in your community’s floodplain ordinance.¶

- → **Development**—any manmade change to improved or unimproved real estate, including buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations, or storage of equipment or materials.¶
- → **Regulatory Floodplain**—Includes all areas within the floodplain limits identified on the official FEMA Flood Insurance Rate Maps and adjoining areas below the Base Flood elevation, is provided.¶
- → **Regulatory Floodway**—Includes any designated floodway in an AE zone or the entire Zone A floodplain as shown on the official FEMA Flood Insurance Rate Maps.¶
- → **Flood Protection Elevation**—an elevation not less than one foot above the base flood.¶

Applicant Information¶

Property Owner: 00000	Contractor/Agent: 00000
Mailing Address: 00000	Mailing Address: 00000
Phone: 00000	Phone: 00000
Email: 00000	Email: 00000

¶

Site Information¶

Site Address: 00000
Parcel #: 00000

¶

Submittal Requirements¶

- Location and detail of grading, fill, and methods to stabilize soil.¶
- Copies of any other required state or federal permits or approvals (if applicable).¶
- For buildings, please include:
 - Site plan of the property detailing all existing and proposed buildings, structures, service facilities, roads, water bodies, and other pertinent design features. Where applicable, plans shall address:
 - Anchoring¶
 - Flood openings details¶
 - Proposed elevations of lowest floor (including basement or crawlspace)¶
 - Detail of the materials used and flood protection of all facilities servicing the building.¶
 - Engineer/Architect certifications (for floodproofed structures)¶
 - Detail of repairs and improvements, including cost estimate and appraisal, if necessary¶

Brief Description of Project¶

00000

Section Break (Continues)

Calculating Substantial Improvement

- Get a detailed cost estimate or quote from a contractor on their letterhead
- Review the estimate for completeness and true cost of materials/labor
- Look to assessor for market value and establish a policy on the multiplier you will use
- Only use the fair market value of the structure, do not include the value of the land
- Determine percent improvement
- If close to 50% consider recording any letter to property owner with County Recorder

Costs must include:

- Materials and labor
- Demolition and construction debris removal
- Profit and overhead
- Exterior finishes; siding, windows, foundation, etc.
- Interior finishes; flooring, paint, doors, hardware, flooring, etc.
- Plumbing, Electric and HVAC

Substantial Damage

Damage of **any origin** sustained by a building in a floodplain whereby the damage (cumulative percentage of damage during a time period) equals or exceeds 50 percent of the market value of the building before the damage occurred, regardless of actual repair work performed.

The market value of volunteer labor and materials must be included in this determination.

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



March 2020

Includes Information On:

- Steps to Take Following a Flood
- Substantial Damage Determinations
- Damage Assessment Worksheet
- FEMA Substantial Damage Estimator (SDE)
- Sample Building Notice
- Sample Substantial Damage letter
- Sample Press Release
- Information on mitigation programs



Substantial Damage Estimator (SDE) User Manual and Field Workbook

Using the SDE Tool to Perform
Substantial Damage Determinations

FEMA P-784 / Tool Version 3.0 / August 2017



The SDE is a tool to help local officials administer the Substantial Damage requirements of their floodplain management ordinances in keeping with the minimum requirements of the NFIP.



FEMA

SD Tools and Online Training

- Substantial Damage Estimator (SDE) Tool
 - Software
 - https://www.fema.gov/sites/default/files/2020-07/SDE3_04062018.zip
 - User Manual and Field Workbook:
 - https://www.fema.gov/sites/default/files/2020-07/sde_3.0_user_manual_field_workbook_0.pdf
- FEMA's Emergency Management Institute (EMI) Independent Study Courses
 - IS-284.A: Using the Substantial Damage Estimator 3.0 Tool
 - <https://training.fema.gov/is/courseoverview.aspx?code=IS-284.a>
 - IS-285: Substantial Damage Estimation for Floodplain Administrators
 - <https://training.fema.gov/is/courseoverview.aspx?code=IS-285>



Substantial Damage Estimator (SDE) User Manual and Field Workbook

Using the SDE Tool to Perform Substantial Damage Determinations

FEMA P-784 / Tool Version 3.0 / August 2017



SD Tools and Online Training (cont.)

- FEMA YouTube SDE Training Modules (10 modules)
 - https://www.youtube.com/watch?v=5W0CDF1Wods&list=PL720Kw_OojlKaUGLcpIGiC2Gw9-lutGHt
- Example SD Plans
 - Template for a Substantial Damage Management Plan
https://crsresources.org/files/500/sde_credit_template.docx



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Using the SDE Tool to Perform Substantial Damage Determinations

FEMA P-784 / Tool Version 3.0 / August 2017



FEMA



SDE Tool – YouTube Training Series



FEMA

Substantial Damage Estimator (SDE)

Module 1 – Purpose of the SDE Tool

This is the FEMA Substantial Damage Estimator Training Series.



Context

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NFIP Technical Bulletins

- TB-1 - [Requirements for Flood Openings in Foundation Walls and Walls of Enclosures](#)
- TB-2 - [Flood Damage-Resistant Materials Requirements](#)
- TB-3 - [Requirements for the Design and Certification of Dry Floodproofed Non-Residential and Mixed-Use Buildings](#)
- TB-4 - [Elevator Installation for Buildings Located in Special Flood Hazard Areas](#)
- TB-5 - [Free of Obstruction Requirements For Buildings Located in Coastal High Hazard Areas](#)



Openings in Foundation Walls and Walls of Enclosures

Below Elevated Buildings in Special Flood Hazard Areas in accordance with the National Flood Insurance Program

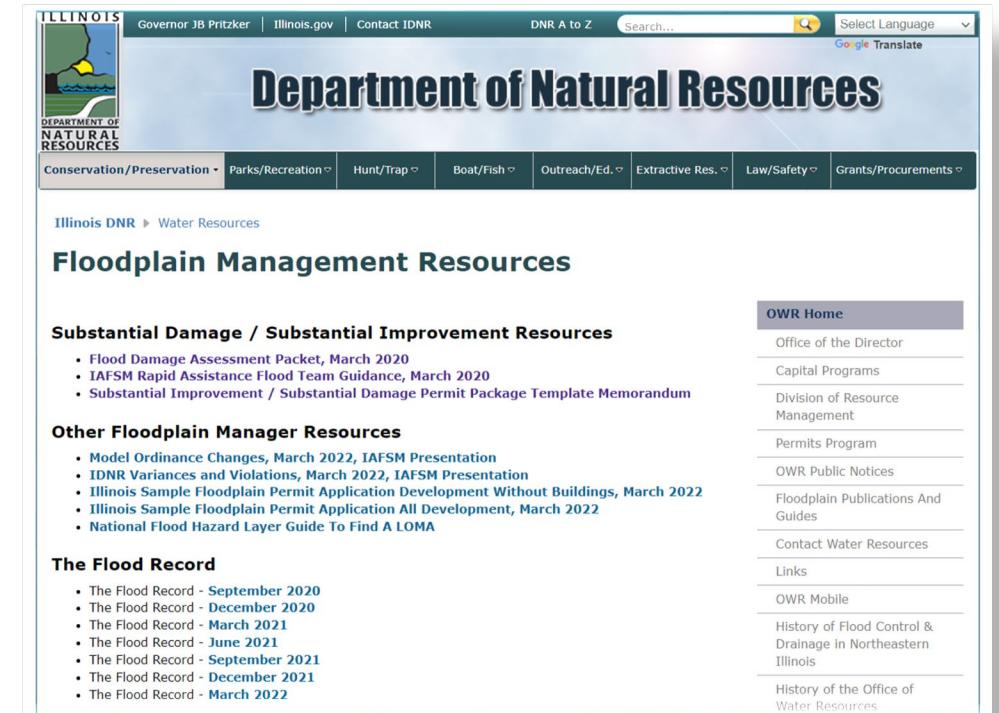
Technical Bulletin 1 / August 2008



FEMA

State Specific Resources

- [Floodplain Management Resources - Water Resources \(illinois.gov\)](#)
- [State of Illinois Flood Damage Assessment Packet \(illinois.gov\)](#)
- [SI/SD Permit Packet Template \(illinois.gov\)](#)
- [Rapid Flood Assessment Team Guidance \(illinois.gov\)](#)
- [Illinois Association for Floodplain and Stormwater Management \(illinoisfloods.org\)](#)



Illinois DNR > Water Resources

Floodplain Management Resources

Substantial Damage / Substantial Improvement Resources

- Flood Damage Assessment Packet, March 2020
- IAFSM Rapid Assistance Flood Team Guidance, March 2020
- Substantial Improvement / Substantial Damage Permit Package Template Memorandum

Other Floodplain Manager Resources

- Model Ordinance Changes, March 2022, IAFSM Presentation
- IDNR Variances and Violations, March 2022, IAFSM Presentation
- Illinois Sample Floodplain Permit Application Development Without Buildings, March 2022
- Illinois Sample Floodplain Permit Application All Development, March 2022
- National Flood Hazard Layer Guide To Find A LOMA

The Flood Record

- The Flood Record - September 2020
- The Flood Record - December 2020
- The Flood Record - March 2021
- The Flood Record - June 2021
- The Flood Record - September 2021
- The Flood Record - December 2021
- The Flood Record - March 2022

OWR Home

Office of the Director

Capital Programs

Division of Resource Management

Permits Program

OWR Public Notices

Floodplain Publications And Guides

Contact Water Resources

Links

OWR Mobile

History of Flood Control & Drainage in Northeastern Illinois

History of the Office of Water Resources



Calculating SD

$$\frac{\text{Cost to Repair to Pre-Damage Condition}}{\text{Market Value of Building}} \geq 50\%$$

The *Cost to Repair* must include all costs necessary to fully repair the structure to its pre-damage condition. Notice that the formula uses “cost to repair,” not “cost of repairs.”

Examples:

$$\frac{\$30,000}{\$100,000} = 0.3 \times 100 = 30\%$$
$$\frac{\$75,000}{\$100,000} = 0.75 \times 100 = 75\%$$

Monitor damaged structures for phased improvements which may lead them to a SD percentage.

Costs That Must be Included in SD determinations

- The term includes the cost of all materials, labor, and other items necessary to perform the proposed work.
- Costs that must be included in SD determinations but not limited to:
 - Structural elements and exterior finishes
 - Interior finish elements
 - Utility and service equipment
 - Contractor's overhead and profit
 - Construction management and supervision
 - Labor and other costs associated with demolishing, moving, or altering building components to accommodate improvements, additions, and making repairs
 - Materials and labor, including the estimated value of donated or discounted materials and owner or volunteer labor

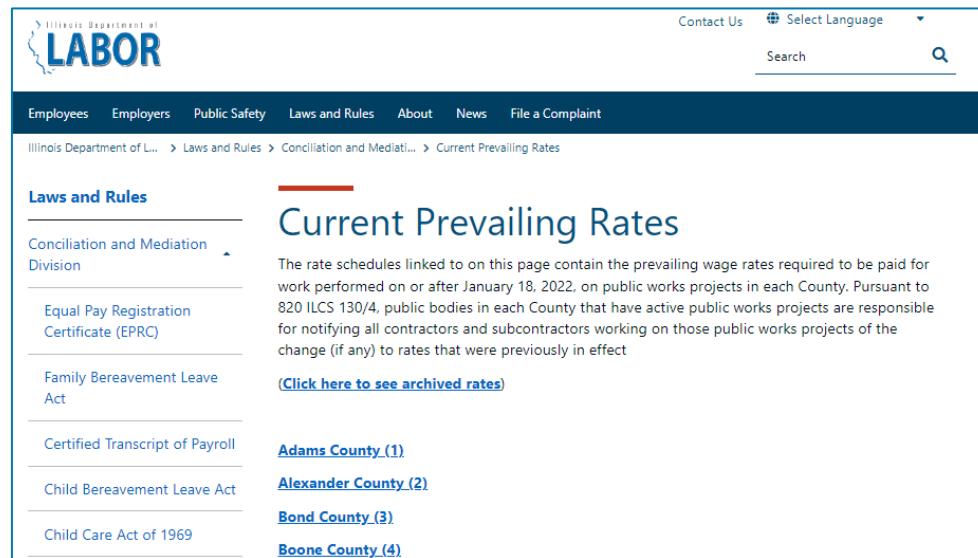


Substantial Improvement/
Substantial Damage
Desk Reference

FEMA P-758 / May 2010

Calculating Wages and Profit

- The Desk Reference has limited guidance.
- Wages (pg. 4-8) are to be the “going rate” says to use minimum-hour wage scales for the skill and type of work being done.



The screenshot shows the Illinois Department of Labor website. The header includes the logo, a search bar, and links for Contact Us, Select Language, and a menu. The main navigation bar has links for Employees, Employers, Public Safety, Laws and Rules, About, News, and File a Complaint. Below this, a breadcrumb trail shows the user is at Illinois Department of L... > Laws and Rules > Conciliation and Mediati... > Current Prevailing Rates. The left sidebar has links for Laws and Rules, Conciliation and Mediation Division, Equal Pay Registration Certificate (EPRC), Family Bereavement Leave Act, Certified Transcript of Payroll, Child Bereavement Leave Act, and Child Care Act of 1969. The main content area is titled 'Current Prevailing Rates' and contains a paragraph about the rate schedules for public works projects in each county. It includes a link to 'Click here to see archived rates'. Below this, there are links for Adams County (1), Alexander County (2), Bond County (3), and Boone County (4).

- Many property owners get a contractors estimate just to estimate the work. If they provide an insurance adjuster's estimate you will see their wages for the various construction skills.
- IL Department of Labor published prevailing wage rate tables for each county: <https://labor.illinois.gov/laws-rules/conmed/current-prevailing-rates.html>

ILLINOIS DAMAGE ASSESSMENT CHEAT SHEET

The SDE requires the inspector to estimate the percent of damage for various building components. The information compiled below can be used with the SDE worksheet for residential buildings, quickly calculating substantial damage. It is intended to be used as a screening tool so that the property owner is notified as soon as possible as to the potential status of his property. Often a more detailed assessment is warranted, and more detailed damage percentages should be determined on an as-needed basis.

	Super-structure	Exterior Finish	Interior Finish	Doors and Windows	Cabinets and Counters	Flooring	Plumbing	Electrical	Built in Appliances	HVAC
FLOOD DEPTH										
1 – 3 Inches	10	0	0	0	0	100	0	0	0	0
0.5 feet	10	5	5	10	20	100	0	0	0	0
1 foot	10	10	10	15	50	100	20	0	50	80
2 foot	10	30	30	40	50	100	30	20	100	80
3 foot	25	40	40	40	50	100	30	30	100	80
4 foot	25	50	50	75	70	100	30	60	100	80
>5 foot	50	50	100	100	100	100	50	80	100	80
Two story =	*	*	*	*		*	**	**		

For two story buildings the percentage for each building element is typically reduced as follows:

*** = Reduce by 40 – 50% for two story home**

**** = Reduce by 25% for two story home**

For split-level buildings use your best judgement for any adjustments to the damage percentages

Foundation

Basement or crawlspace:

10% minor clean up, re-seal, paint, etc.

50% if cracked bowed or fractured on one or more walls

100% if structural damage such as blow out or caved in walls

Slab on Grade

10% damage unless the foundation is undermined

30% if foundation is undermined

75% if foundation is broken or bowed or uplift

ELEMENT PERCENTAGE Tab

Note: The inspector needs only enter the % Damaged data here. The data in the Element %, Item Cost, and Damage Values columns will be populated based on the selected attributes once all the data are entered into the SDE tool.

Residence Type: Single-Family (SF) House Townhouse Manufactured House (MH)

Item	% Damaged	Element %	Item Cost	Damage Values
Foundation (not required for MH)				
Superstructure				
Roof Covering				
Exterior Finish				
Interior Finish				
Doors and Windows				
Cabinets and Countertops				
Flood Finish				
Plumbing				
Electrical				
Appliances				
HVAC				
Skirting / Forms Piers (MH only)				

SDE OUTPUT SUMMARY Tab – Optional User Entered Data

Professional Market Appraisal: _____

Tax Assessed Value: _____ Tax Factor Adjustment: _____

Adjusted Tax Assessed Value: _____

Contractor's Estimate of Damage: _____

Community's Estimate of Damage: _____

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March 2020

Includes Information On:

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Damage Assessment Worksheet

FEMA Substantial Damage Estimator (SDE)

Sample Building Notice

Sample Substantial Damage letter

Sample Press Release

Information on mitigation programs



Residential

SDE DAMAGE INSPECTION WORKSHEET

Single-Family, Town or Row House (Site Built Residences), or Manufactured House

Address: _____

SDE ADDRESS Tab

Subdivision / Community Information

Subdivision: _____ Parcel Number: _____

Lot Number: _____ Elevation of Lowest Floor: _____ Datum: _____

Community Information

NFIP Community ID: _____ NFIP Community Name: _____

Latitude: _____ Longitude: _____

Building Address

Owner First Name: _____ Owner Last Name: _____

Street Number: _____ Street Name: _____ Street Suffix: _____

City: _____ State: _____

County/Parish: _____ Zip: _____

Phone: _____ Cell Phone: _____

Mailing Address Check here if same as building address: _____

First Name: _____

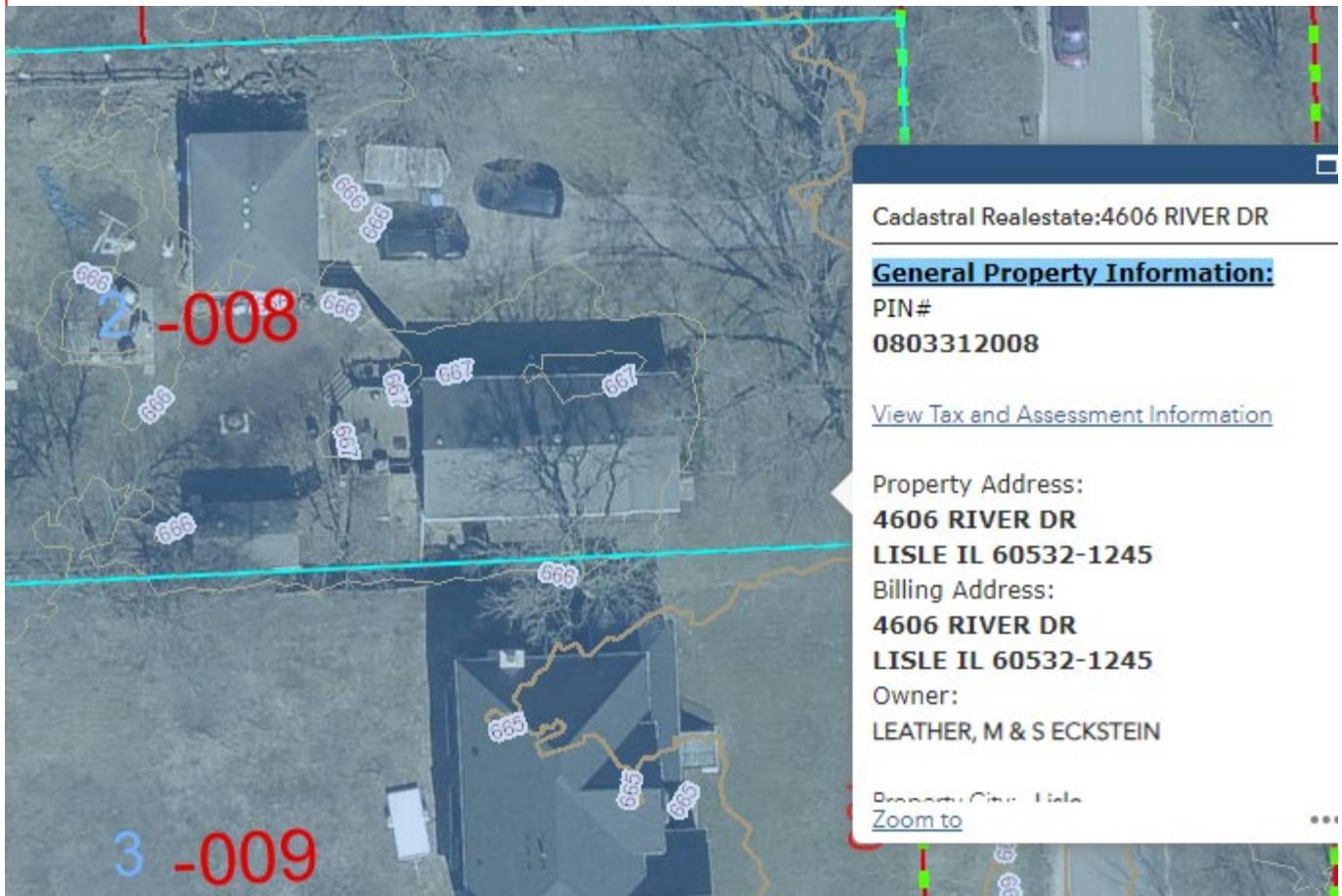
Last Name: _____

Street Number: _____ Street Name: _____ Street Suffix: _____

City: _____ State: _____

County/Parish: _____ Zip: _____

Phone: _____ Cell Phone: _____



ELEMENT PERCENTAGE Tab

Note: The inspector needs only enter the % Damaged. Damage Values columns will be populated based on the SDE tool.

Residence Type: Single-Family (SF) House

Item	% Damaged
Foundation (not required for MH)	
Superstructure	
Roof Covering	
Exterior Finish	
Interior Finish	
Doors and Windows	
Cabinets and Countertops	
Flood Finish	
Plumbing	
Electrical	
Appliances	
HVAC	
Skirting / Forms Piers (MH only)	

Tax

Tax Summary

Tax Payment History

Tax Redemption

Tax Adjustment

Tax Status

Special Assessments

Mobile Home Information

Supervisor of Assessment

Assessed Value Current

Assessed Value History

Property Transfer History

Conveyance History

Exemptions Current

Appeals History

Split/Combine History

PARCEL NUMBER: 08-03-312-008

COUNTY #: 022

NBHD: 08035

ROLL: RP

LEATHER, M & S ECKSTEIN

4606 RIVER DR

Tax Year: 2022 (Taxes Payable in 2023).

LISLE

Assessed Value Summary

Asmt Year	Pay Year	Class	Land AV	Bldg AV	Total AV	Taxable EAV	Reason Code
2021	2022		\$44,090	\$31,540	\$75,630	\$69,630	Conversion

Values Details

Asmt Year:	Roll:	Current Yr Township EQ Factor:	Current Yr New Construction Value:
2022	RP		\$0
2021	RP		\$0

SDE OUTPUT SUMMARY Tab – Optional User Entered Data

Professional Market Appraisal: _____

Tax Assessed Value: _____ Tax Factor Adjustment: _____

Adjusted Tax Assessed Value: _____

Contractor's Estimate of Damage: _____

Community's Estimate of Damage: _____

Assessed Building Value used as Market Value typically in Illinois: 3 x Assessed Value Example use \$94,620

SDE STRUCTURE / DAMAGE / NFIP INFO Tab***Structure Attributes / Information***Residence Type: Single Family Town or Row House Manufactured HouseFoundation: Continuous Wall w/Slab (Standard) Basement Crawlspace
 Piles Slab-on-Grade Piers and PostsSuperstructure: Stud-Framed (Standard) Common Brick ICF MasonryRoof Covering: Shingles – Asphalt, Wood (Standard) Clay Tile Standing Seam (Metal)
 SlateExterior Finish: Siding or Stucco (Standard) Brick Veneer EIFS
 None – common brick, structuralHVAC System: Heating and/or Cooling NoneStory: One Story (Standard) Two or More Stories***Structure Information***

Year of Construction: _____

Quality of Initial Construction: Low Budget Average Good ExcellentResidence Information (if needed): _____

_____***Inspector / Damage Information***

Inspector's Name: _____ Inspector's Phone: _____

Date of Inspection (mm/dd/yyyy): _____ Date Damage Occurred (mm/dd/yyyy): _____

Cause of Damage: Fire Flood Flood and Wind Seismic Wind Other

Cause of Damage (if "Other" is selected): _____

Residential Building Information

Res. Structure		Finish			Plumbing		
Occupancy Description	Single-Family / Owner Occupied	Total Rooms Above#	9	Bed Rooms Above#	4	Full Bath	2
Year Built	1978	Total Rooms Below#	0	Bed Rooms Below#	0	Shower Stall Bath	1
Style	1 Story Frame	Basement Finish #1				Toilet Room/Half-bath	1
Above Grade Total Living Area	2965	Basement Finish #2				Extra Sink/Lavatory	2
Quality	B-10	Basement Finish #3				Wet Bar	1
Basement	Crawl	Foundation	Conc				
Heat	FHA - Gas	Exterior Walls	Vert Wd				
AC	Yes	Roof	Asphalt / Gable				
Attic	None	Interior Finish	Drwl				
Foyer Adjustment	0	Flooring	Carp / Tile / Hdwd				
		Fireplace(s)					
		Masonry w/1 Extra, 1 Story			1		

SDE STRUCTURE / DAMAGE / NFIP INFO Tab

Damage Undetermined: _____ (check here and check the reason below):

No Physical Damage Sustained Vacant / Property Resident Refused Inspection
 Address Does Not Exist Other (Explain) _____

Duration of Flood: _____ Hours _____ Days

Depth of Flood Above Ground (estimated to nearest 0.5 foot): _____

Depth of Flood Above Lowest Floor (estimated to nearest 0.5 foot): _____

Make sure you note if this is depth in basement
or first floor with full basement or full crawlspace

FIRM Panel Number: _____ Suffix: _____ Date of FIRM Panel (mm/dd/yyyy): _____

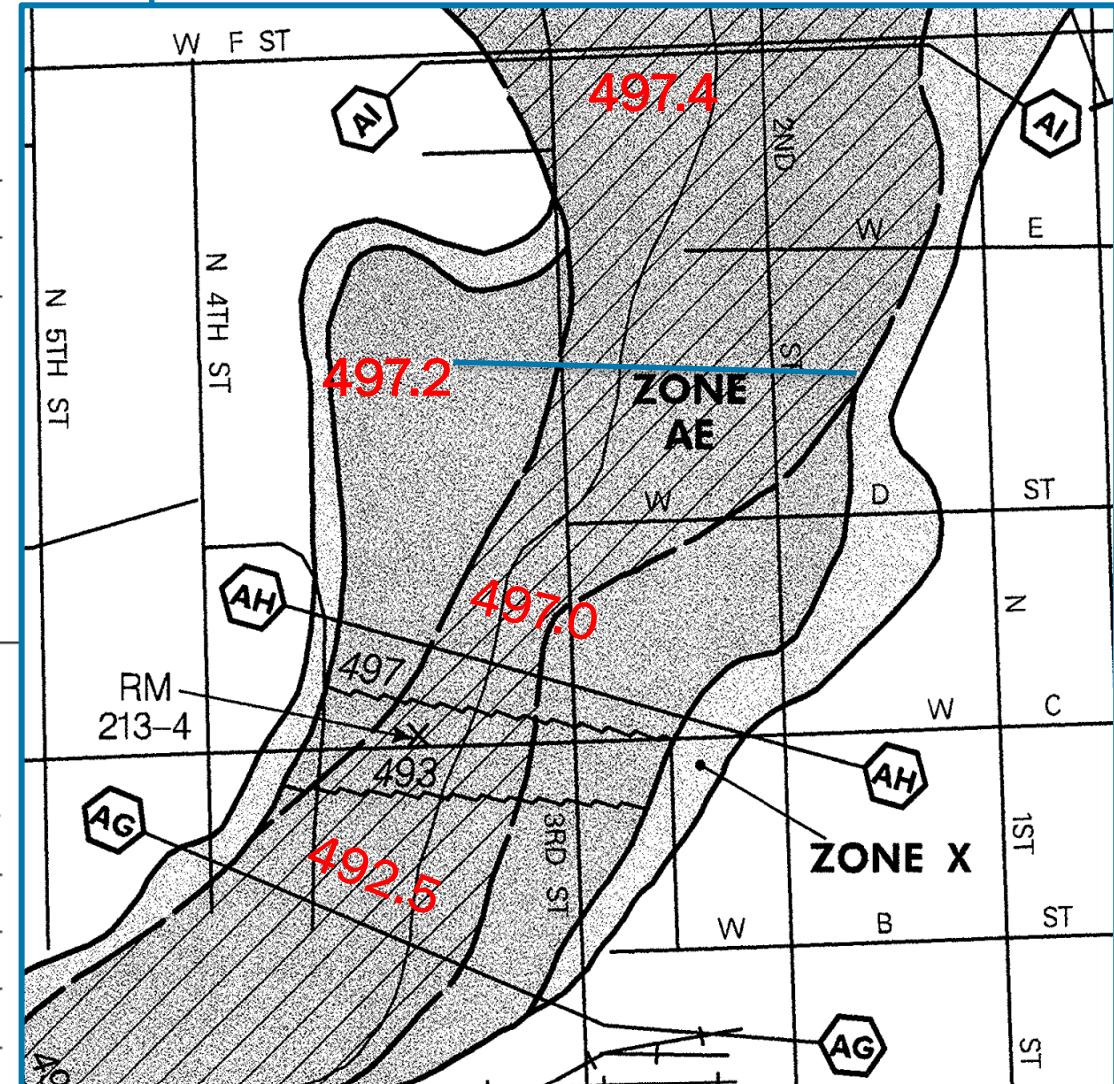
FIRM Zone: _____ Base Flood Elevation: _____

Regulatory Floodway: Yes No Possible

Community Information (if needed): _____

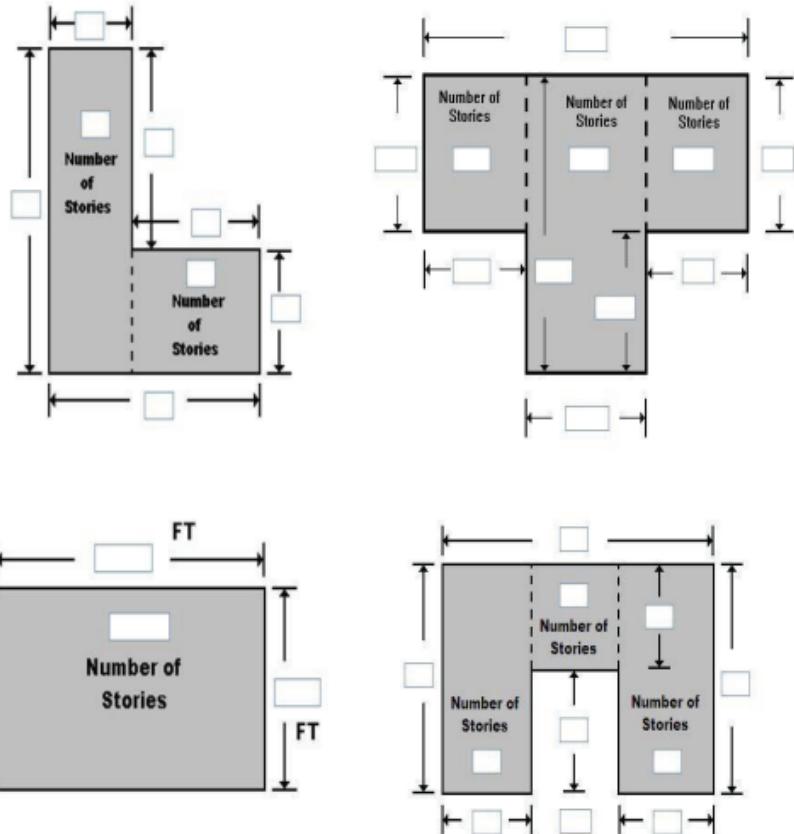
Flood depth
based on
debris lines
or highwater
marks

Take Base
Flood
Elevations
from maps

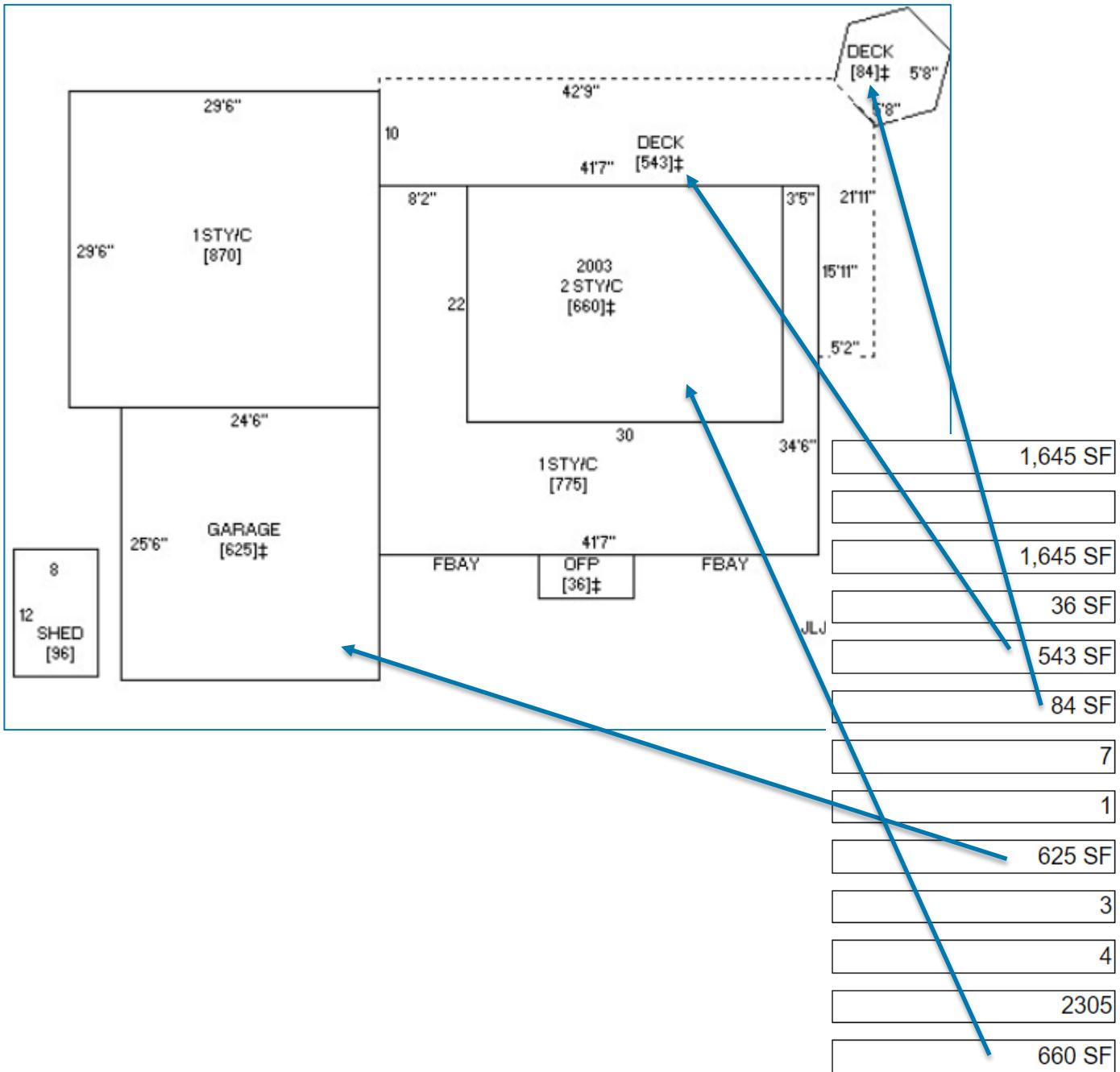


COST Tab

Select appropriate diagram of structure footprint and enter structure dimensions and the number of stories:



Sometimes you can insert area straight from assessor's records otherwise you will need to get in the field



COST Tab**Square Footage**

Base Cost per Sq Ft: _____ Total Square Footage: _____

Geographic Adjustment: _____

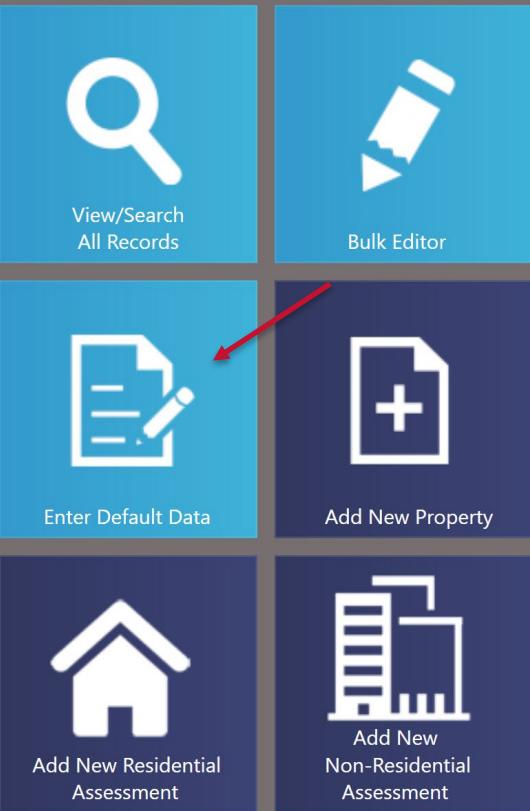
Cost Adjustments

<u>Single-Family House</u>	<u>Quantity</u>	<u>Units</u>	<u>Unit Cost</u>	<u>Item Cost</u>
Roofing		Sq Ft		
Heating / Cooling		Each		
Appliances		Each		
Fireplaces		Each		
Porch / Breezeways		Sq Ft		
Garage		Sq Ft		
<u>Manufactured House</u>	<u>Quantity</u>	<u>Units</u>	<u>Unit Cost</u>	<u>Item Cost</u>
Expando		Sq Ft		
Carport		Sq Ft		
Open Porch		Sq Ft		
Enclosed Porch		Sq Ft		
Decks		Each		
Skirting		Sq Ft		
Fireplaces		Each		

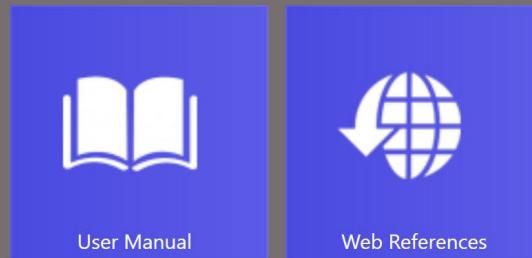


SDE Example – Enter Default Data

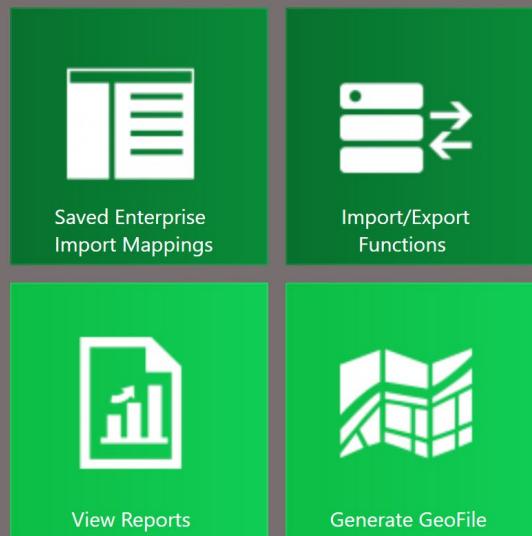
Access Data



Resources



Reports, Imports/Exports, and GeoFiles



Community

State

Zip Code

NFIP Community Number

County

Date of Floodplain Map

 **SDE** Substantial Damage Estimator 3.0**Default Data**[Check Spelling](#)[Clear All Values](#)[Delete](#)[Save](#)**Address / Structure Information**

City:

East St. Louis

State:

Illinois

County/Parish:

St Clair

Zip Code:

Year of Construction:

Datum:

1929

Cost Information

Base Cost:

Inspector / Damage Information

Date Damage Occurred:

7/26/2022

Cause of Damage:

Flood

Duration of Flood:

4.00 Days

Geographic Adjustment:

1.01

Cost Data Date:

8/8/2022

Inspector Name:

Inspector Phone:

Assessment Date:

Cost Data Reference:

RS Means

NFIP / Community Information

NFIP Community Name:

East St. Louis

NFIP Community ID:

170626

FIRM Panel Number:

FIRM Zone:

Make Selection...

Date of FIRM Panel:

11/5/2003

Suffix:

Make Selection...

Base Flood Elevation

Regulatory Floodway:

No

Space for Community Specific Information:



SDE is a tool provided by FEMA to help local officials administer the substantial damage requirements of their floodplain management ordinance in accordance with the minimum requirements of the NFIP.

Total Number of Properties
43Total Number of Assessments
42

SDE Example – Adding Properties



Step 1
Build a list of properties
Using Add New Property

 **SDE** Substantial Damage Estimator 3.0**Property Details**

Load Default Values

Check Spelling

Save

Property Data

Structure Owner First Name

Street Suffix

City

State

County/Parish

Zip Code



Parcel Number

Lot Number

Year of Construction

Latitude

NFIP Information

NFIP Community Name

NFIP Community ID

FIRM Panel Number

FIRM Zone

Date of FIRM Panel

Suffix

Base Flood Elevation

Regulatory Floodway

Custom Fields

Custom Field 1

Custom Field 2

Custom Field 3

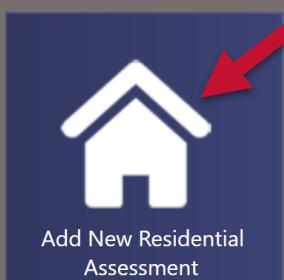
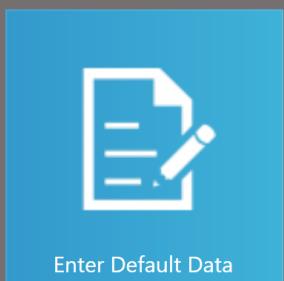
SDE Example – Adding Properties



Step 2

After the properties are entered, you will Add New Residential Assessment or Add New Non-Residential Assessment

Access Data



Please Select a Property

Structure Owner Name	Property Address	County/Parish	Parcel Number	Lot Number	Subdivision	Year of Construction
	712 Terrace Drive	St Clair				1970
	6764 Mary Avenue	St Clair				1951
	6761 Mary Avenue	St Clair				1956
	801 N 70th Street	St Clair	02220414016			1955
	760 Terrace Drive	St Clair				1961
	1 Terrace Court	St Clair				1959
	6765 Mary Avenue	St Clair				1956
	6780 Mary Avenue	St Clair				1951
	728 N 68th Street	St Clair				1951
	6769 Mary Avenue	St Clair				1956
	6779 Mary Avenue	St Clair				1956
	6783 Mary Avenue	St Clair				1956
	6784 Mary Avenue					1951
	6774 Mary Avenue	St Clair				1951
	6770 Mary Avenue	St Clair				1950
	6773 Mary Avenue	St Clair				1956
	3 Terrace Court					1959
	4 Terrace Court	St Clair				1961
	750 N 68th Street	St Clair				1950

Preload using default values.

New Property

Use Selected Property

Residential Assessment

! Be sure to **SAVE** assessment record before generating a report.

Print Summary Report

Print Detailed Report

Check S

No Photo Available



Damage Date:
7/26/2022 10:07 PM

Assessment Date:
8/8/2022

Percent Damaged:
%

Address	Structure/Damage/NFIP	Cost	Element Percentages	Output Summary	Photos										
<p>Structure Type: Residential</p> <p>Story: One Story (Standard)</p> <p>Residence Type: Single Family Residence</p> <p>Foundation: Slab - on - Grade</p> <p>Superstructure: Stud-framed (Standard)</p> <p>Roof Covering: Shingles - Asphalt, Wood (Standard)</p> <p>Exterior Finish: Siding or Stucco (Standard)</p> <p>HVAC System: Heating and/or Cooling</p> <p>Year of Construction: 1970</p> <p>Quality:</p> <p>Inspector Name: IDNR KP</p> <p>Inspector Phone:</p> <p>Assessment Date: 8/8/2022</p> <p>Date Damage Occurred: 7/26/2022</p> <p>Cause of Damage: Flood</p> <p><input type="checkbox"/> Damage Undetermined</p> <p>Duration of Flood: 4.00</p> <p>Est. Depth of Flood Above Ground: 3.00</p> <p>Est. Depth of Flood Above Lowest Floor: 2.50</p> <p>NFIP Community ID: 170626</p> <p>FIRM Panel Number: 180</p> <p>Suffix: Make Selection...</p>															
<table border="1"><thead><tr><th>Element</th><th>Description</th></tr></thead><tbody><tr><td>9. Plumbing</td><td><ul style="list-style-type: none">• Incoming water service (municipal water supply or well service)• Plumbing fixtures• Water heater• Water distribution system• Wastewater collection and removal system</td></tr><tr><td>10. Electrical</td><td><ul style="list-style-type: none">• Electrical wiring systems (junction boxes, circuit breaker panels, distribution wiring, outlets, switches, receptacles)• Lighting• Ceiling and exhaust fans• Electric baseboard heaters</td></tr><tr><td>11. Appliances</td><td><ul style="list-style-type: none">• All built-in, permanent appliances in the structure</td></tr><tr><td>12. HVAC</td><td><ul style="list-style-type: none">• The system with which conditioned air is distributed throughout the structure; a typical system in residential structures involves a forced-air heating system with duct work• Exterior air conditioning units• Heat pumps• Furnaces</td></tr></tbody></table>						Element	Description	9. Plumbing	<ul style="list-style-type: none">• Incoming water service (municipal water supply or well service)• Plumbing fixtures• Water heater• Water distribution system• Wastewater collection and removal system	10. Electrical	<ul style="list-style-type: none">• Electrical wiring systems (junction boxes, circuit breaker panels, distribution wiring, outlets, switches, receptacles)• Lighting• Ceiling and exhaust fans• Electric baseboard heaters	11. Appliances	<ul style="list-style-type: none">• All built-in, permanent appliances in the structure	12. HVAC	<ul style="list-style-type: none">• The system with which conditioned air is distributed throughout the structure; a typical system in residential structures involves a forced-air heating system with duct work• Exterior air conditioning units• Heat pumps• Furnaces
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Address Structure/Damage/NFIP Cost

Square Footage

Click to calculate or enter square footage:



Square Foot Calculator

Select a shape to add it to the structure:



Enter Total Square Footage Manually

Save and Close

Square Foot Breakdown

Shape Type	Total Footage	Edit	Delete
Custom Shape	1248	Edit	Delete

Cost Adjustments

Adjustments:

- Roofing
- Heating / Cooling
- Appliances
- Fireplaces
- Porch / Breezeways
- Garage

Additional Adjustments

Adjustments:

Quantity:	Unit Cost:	Adjustment Cost:
0.00	\$0.00	\$0.00

SDE Example

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

Page 1 of 1 07/29/22 6:16:13

Square Foot:
Click to calculate or enter square footage:

Square Foot Calculator
Select a shape to add it to the structure:

Enter Total Square Footage: 975

Save Close (No Save)

Cost Adjustments

- Adjustments
- Roofing
- Heating / Cooling
- Appliances
- Fireplaces
- Porch / Breezeways
- Garage

Additional Adjustments

Quantity: 0.00 Unit Cost: \$0.00 Adjustment Cost: \$0.00

EAST SAINT LOUIS TERRACE IL 62203 DR

Site Address: 000636

1 story
Fami
frame
masonry

LIV; SLAB(975)

39 25 25

BOOK PERM

DU - P

AREA FLAT EFF% E/AREA ACT% A/AREA EA/AA HEATED NBHD

LIV	975	1.00	975	1.00	975	975	975
SLAB	975	1.00	975	1.00	975	975	975

Appraiser
Appraiser
Use
NBHD

Management Agency 33

SDE Example

Residential Assessment

No Photo Available



East St. Louis
Illinois

Damage Date:
7/26/2022 10:07 PM

Assessment Date:
8/8/2022

Percent Damaged:
%

Be sure to **SAVE** assessment record before closing this window.

Address: Structure/Damage/NFIP Cost Element Percentages Output Summary Photo

Square Footage

Click to calculate or enter square footage:

Base Cost:

Geographic Adjustment:

Cost Adjustments

Adjustments:	Quantity:	Unit:
Roofing	0.00	Sq Ft
Heating / Cooling	0.00	Ea
Appliances	0.00	Ea
Fireplaces	0.00	Ea
Porch / Breezeways	0.00	Sq Ft
Garage	0.00	Sq Ft

Additional Adjustments

Adjustments: Quantity:



Using RS Means

Economy Home has no masonry option

Economy - Wood Siding 800 - \$143.90

975 - \$133.80

1000 - \$132.35

Economy – Brick veneer 800- \$149.45

975 - \$138.9

1000- \$137.40

$$(0.75 \times 133.8) + (0.25 \times 138.9) = \$135$$

Residential Assessment

! Be sure to **SAVE** assessment record before generating a report.

[Print Summary Report](#)[Print Detailed Report](#)[Check Spelling](#)

No Photo Available



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

Element Percentages

Element:	Percent Damaged:	Element Percentage:	Element Cost:	Damage Values:
Foundation:	0.0%	8 %	\$10,635.30	\$0.00
Superstructure:	0.0%	15.9 %	\$21,137.66	\$0.00
Roof Covering:	0.0%	4.3 %	\$5,716.47	\$0.00
Exterior Finish:	30.0%	7 %	\$9,305.89	\$2,791.77
Doors and Windows:	40.0%	15.8 %	\$21,004.72	\$8,401.89
Cabinets and Countertops:	50.0%	4.5 %	\$5,982.36	\$2,991.18
Floor Finish:	100.0%	7.9 %	\$10,502.36	\$10,502.36
Plumbing:	20.0%	8.6 %	\$11,432.95	\$2,286.59
Electrical:	20.0%	4.9 %	\$6,514.12	\$1,302.82
Appliances:	50.0%	4.2 %	\$5,583.53	\$2,791.77
Interior Finish:	50.0%	13.2 %	\$17,548.25	\$8,774.12
HVAC:	80.0%	5.7 %	\$7,577.65	\$6,062.12

Replacement Cost: **Computed Damages:**

\$132,941.25 **\$45,904.61**

Estimated 2 feet over
first floor

Residential Assessment



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

[Print Summary Report](#)[Print Detailed Re](#)

No Photo Available



Damage Date:
7/28/2022 12:27 PM

Assessment Date:
8/8/2022

Percent Damaged:
100.0 %

Address | Structure/Damage/NFIP | Cost | Element Percentages | Output Summary | Photos

Element Percentages

Element:	Percent Damaged:	Element Percentage:	Element Cost:	Damage Values:
Foundation:	0.0%	9 %	\$12,030.26	\$0.00
Superstructure:	0.0%	16.4 %	\$21,921.81	\$0.00
Roof Covering:	0.0%	4.3 %	\$5,747.79	\$0.00
Exterior Finish:	5.0%	6.9 %	\$9,223.20	\$461.16
Doors and Windows:	10.0%	15.5 %	\$20,718.79	\$2,071.88
Cabinets and Countertops:	20.0%	4.4 %	\$5,881.46	\$1,176.29
Floor Finish:	100.0%	7.7 %	\$10,292.56	\$10,292.56
Plumbing:	0.0%	8.4 %	\$11,228.25	\$0.00
Electrical:	0.0%	4.8 %	\$6,416.14	\$0.00
Appliances:	0.0%	4.1 %	\$5,480.45	\$0.00
Interior Finish:	5.0%	13 %	\$17,377.05	\$868.85
HVAC:	0.0%	5.5 %	\$7,351.83	\$0.00

Replacement Cost: **Computed Damages:**

\$133,669.60 **\$14,870.74**

Estimated 0.5 feet over
first floor

SDE Example

Residential Assessment

No Photo Available



Damage Date:
7/26/2022 10:07 PM

Assessment Date:
8/8/2022

Percent Damaged:
100.0 %

! Be sure to **SAVE** assessment record before generating a report.

Address Structure/Damage/NFIP Cost Element Percentages Output Summary 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 structure 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.

Basis for value of Structure (Select One...)

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

Basis for cost of Repairs/Improvements (Select One...)

Computed Damages
 Contractor Estimate
 Community Estimate

Percent Damaged:

User Entered Data (Optional)

Market Value Determination

Professional Market Appraisal: \$0.00

Tax Assessed Value: \$4,640.00

Tax Factor Adjustment: 3.00

Adjusted Tax Assessed Value: **\$13,920.00**

Cost of Damage

Contractor Estimate: \$0.00

Community Estimate: \$0.00

Damage Summary

Replacement Cost: **\$132,941.25**

Computed Damages: **\$45,904.61**

Depreciation Percentage: **24.2 %**

Computed Actual Cash Value: **\$100,769.47**

Percent of Existing Improvements and Repairs Pre-Disaster: 0.00

Repair/Reconstruction Percentage: **45.6 %**

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

SDE Example - Reports

SDE Substantial Damage Estimator 3.0

Main Menu File Tools Custom Fields Database Functions Import/Export Reports Help

SDE Substantial Damage Estimator 3.0

Access Data



View/Search All Records



Bulk Editor



Enter Default Data



Add New Property



Add New Residential Assessment



Add New Non-Residential Assessment

Resources



User Manual



Web References

Reports, Imports/Exports, and GeoFiles



Saved Enterprise Import Mappings



Import/Export Functions



View Reports



Generate GeoFile



Substantial Damage Estimator

Subdivision	Elev. of Lowest Floor ft.	Community
Parcel #	NFIP Community Name	East St. Louis
Lot #	NFIP Community ID #	170626
	Latitude	Longitude
Datum 1929		

Structure Address

Owner's Name	
Street Address	
City	
County/Parish	
State	
Zip	
Phone	

Structure Information

Year of Construction	1951
Residence Type	Single Family Residence
Quality	Budget

Damage Information

Date of Assessment	11/13/2022	Date of Damage	11/13/2022	Residence Information	
Inspector Name	IDNR	Cause of Damage	Flood		
Inspector Phone		Duration of Flood	3 Days		
		Est. Depth of Flood	0.50		
		Above Lowest Floor			

Firm Panel #	Suffix	Date of FIRM Panel	Firm Zone	BFE	Regulatory Floodway
180	D	11/05/2003	AH	418.00	No

Percent Damaged

Basis for Value of Structure	Percent Damaged	Basis for Cost of Repairs
\$13,776.00	100.0 %	\$15,227.44
Adj. Tax Assessed Value	Substantially Damaged	Computed Damages

Damage Summary

Replacement Cost	\$119,197.17	Computed Damages	\$15,227.44
Depreciation %	38.8 %	Percent of Existing Improvements and Repairs Pre-Disaster	0.0 %
Computed Actual Cash Value*	\$72,948.67	Repair/Reconstruction %	19.8 %
		Other Depreciation Explanation	

* Per FEMA Publication 213, Actual Cash Value may be used as Market Value.

Optional User Entered Data		
Professional Market Appraisal	\$0.00	Contractor Estimate
Tax Assessed Value	\$4,592.00	\$0.00
Factor Adjustment	3	Community Estimate
Adjusted Tax Assessed Value	\$13,776.00	\$0.00

Authorized Local Official : _____ Signature _____ Printed Name _____
Wednesday, November 16, 2022 Page 1 of 1

Firm Panel #	Suffix	Date of FIRM Panel	Firm Zone	BFE	Regulatory Floodway
180	D	11/05/2003	AH	418.00	No

Percent Damaged

Basis for Value of Structure	Percent Damaged	Basis for Cost of Repairs
\$13,776.00	100.0 %	\$15,227.44
Adj. Tax Assessed Value	Substantially Damaged	Computed Damages

Damage Summary

Replacement Cost	\$119,197.17	Computed Damages	\$15,227.44
Depreciation %	38.8 %	Percent of Existing Improvements and Repairs Pre-Disaster	0.0 %
Computed Actual Cash Value*	\$72,948.67	Repair/Reconstruction %	19.8 %
		Other Depreciation Explanation	

* Per FEMA Publication 213, Actual Cash Value may be used as Market Value.

Optional User Entered Data

Professional Market Appraisal	\$0.00	Contractor Estimate
Tax Assessed Value	\$4,592.00	\$0.00
Factor Adjustment	3	Community Estimate
Adjusted Tax Assessed Value	\$13,776.00	\$0.00

Authorized Local Official : _____ Signature _____ Printed Name _____
Wednesday, November 16, 2022 Page 1 of 1

Summary Report – Attach to the Substantial Damage/ Damage Assessment Letter

Notification of Property Owner

- Substantial Damage Determination Letters will need to be delivered regardless of damage percentage
- What methods of delivering notices to homeowners?
 - Hand delivery
 - Registered mail
- Provides information on repair and recovery
- Keep record of date sent, this prevents the “I didn’t get a SD letter” scenario

06/12/2000

John & Jane Q. Public
1234 Flooded-By-The-River Rd.
Deepwater IL 61000

RE: Substantial Damage
1234 Flooded-By-The-River Rd.

Dear Mr. And Mrs. Public,

Subsequent to the recent flooding event, a damage assessment has been completed on the property referenced above. This is a part of _____ (insert community name) _____ 's floodplain management responsibilities in order to maintain the availability of flood insurance and disaster assistance to residents. The following information relates to the address referenced above:

Community Number:	170XXX
Parcel Zone Information:	Zone A
Fair Market Value of structure:	\$31,226 (based on 3.3 x assessed value)
Flood Damage:	
June 2008	<u>\$18,864</u>
Total damages	\$18,864
Percent Damaged:	60.4% damage due to flooding
Ordinance Requirement:	Mitigation (elevation, removal)

The determination is that this structure is declared **Substantially Damaged** due to flooding 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.

Building inspections, Building Permits, and an **Elevation Certificate** will be required prior to the issuance of a *Certificate of Occupancy*. This structure may **NOT** be occupied until these corrections are made. Please contact this office at your earliest convenience to make an appointment with me to discuss your upcoming project. If you have any additional questions, you may feel free to give me a call at xxx-xxxx.

Sincerely,

Next Steps

- You have completed your SD determinations, issued your SD determination letters and have worked through any appeals that may have come up. What's next?
 - All work, repairs, and development in the SFHA **MUST** be permitted
 - Follow through with your normal floodplain permitting process, keeping a close eye on any changes that might affect the SD Determination (Higher quality building materials, alteration from original construction plan)
 - Does your Community have a Cumulative Improvement/ damage requirement ?
 - Continue to monitor for unpermitted work while in the SFHA

FLOOD PLAIN DEVELOPMENT APPLICATION/PERMIT

Application # _____ Date _____

TO THE ADMINISTRATOR: The undersigned hereby makes application for a Permit to develop in a flood plain. The work to be performed, including flood protection works, is as described below and in attachments hereto. The undersigned agrees that all such work shall be done in accordance with the requirements of the City of Dubuque Flood Plain Management Ordinance and with all other applicable county/city ordinances and the laws and regulations of the State of Iowa.

(Owner or Agent) _____ (Date) _____ (Builder) _____ (Date) _____

(Address) _____ (Address) _____
Telephone # _____ Telephone# _____

1. Legal Description: _____
Street Address: _____

2. Type of Development
Filling _____ Grading _____ Excavation _____ Routine Maintenance _____
Minor Improvement _____ Substantial Improvement _____ New Construction _____

3. Description of Development: _____

4. Premises: Area of Site: _____ sq. ft./acres Estimated cost: \$ _____
Principal Use: _____
Accessory Uses (Storage, parking, etc.): _____

5. Addition/modification to non-conforming use? Yes _____ No _____
Assessed value of structure \$ _____

6. Is property located in a designated Floodway (FW District)? Yes _____ No _____

IF ANSWERED YES, CERTIFICATION MUST BE PROVIDED PRIOR TO THE ISSUANCE OF A PERMIT TO DEVELOP, THAT THE PROPOSED DEVELOPMENT WILL RESULT IN NO INCREASE IN THE 100 YEAR (BASE) FLOOD ELEVATION.

7. Property located in a designated Floodway Fringe (FF) or General Flood Plain (FP)?
Yes _____ No _____ If yes, indicate which one: _____

Next Steps -Temporary Occupancy Permits



FOR BUILDINGS, ESPECIALLY HOMES, THAT HAVE REACHED SUBSTANTIAL DAMAGE LEVEL



ALLOW MINIMAL REPAIRS FOR LIFE SAFETY SO HOME CAN BE OCCUPIED



ALLOWS TIME FOR MITIGATION –DESIGN OF AN ELEVATION OR A GRANT FOR ACQUISITION



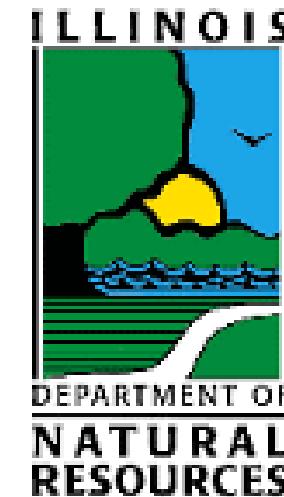
SET TIMELINE WHEN TEMPORARY OCCUPANCY WILL EXPIRE (6 YEARS FOR ICC BUT DON'T WAIT THAT LONG, CAN EXTEND IF DELAYED BY A GRANT)



STATE TEMPLATE AVAILABLE

Questions?

Erin Conley
IDNR Floodplain State Coordinator
(217) 782-4428
erin.c.conley@illinois.gov



Michelle Staff
(202) 704-1098
FEMA Regional Specialist
michelle.staff@fema.dhs.gov



FEMA