Substantial Damage Documentation

How Should Your Permit Files Look After a Disaster?

FEMA Region 6 Floodplain Management Monthly Training

May | 2021

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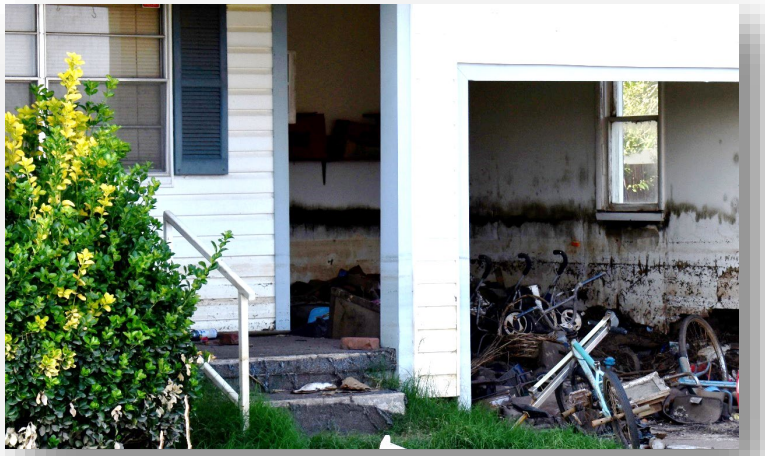
Learning Outcomes

- Review what substantial damage (SD) is
- Learn the key SD documents to include in every permit file
- See what documentation is needed when property owners appeal an SD determination
- Hear from the local perspective

Definitions: Substantial Damage (SD) & Substantial Improvement (SI)

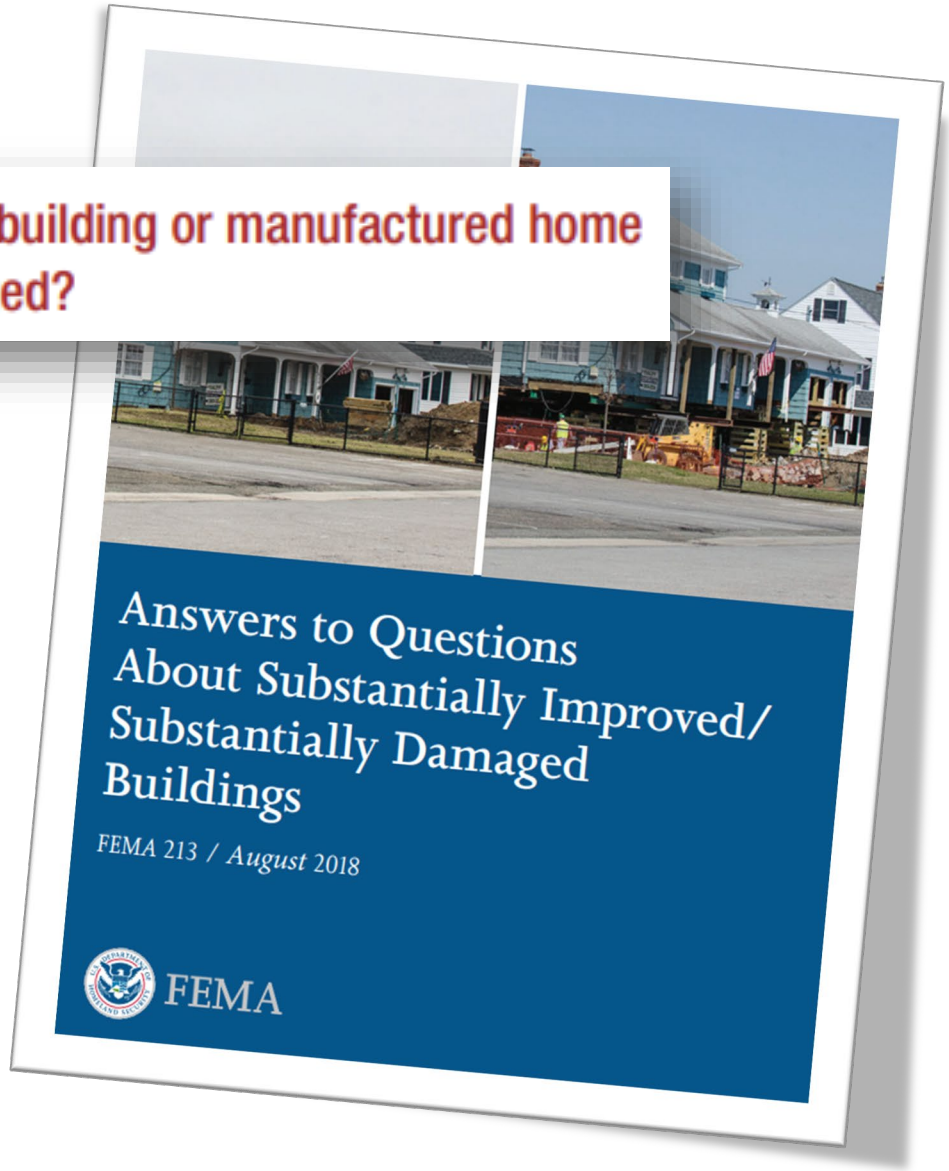
"Damage of any origin sustained by a structure whereby the cost of restoring the structure to its before damaged condition would equal or exceed 50 percent of the market value of the structure before the damage occurred." 44 CFR 59.1



"Any reconstruction, rehabilitation, addition, or other improvement of a structure, the cost of which equals or exceeds 50% of the market value of the structure before the start of construction of the improvement." 44 CFR 59.1

FEMA 213: Answers to Questions About SI/SD

11. What level of accuracy is required when determining whether a building or manufactured home is being substantially improved or has been substantially damaged?



- Local officials are responsible for reviewing the validity of all cost estimates provided by applicants, whether prepared by licensed contractors, engineers, architects, professional cost estimators, or property owners.

- When applicants submit professional appraisals of market value, local officials should examine the documentation to determine whether the appraisals reflect the specific characteristics of the buildings.

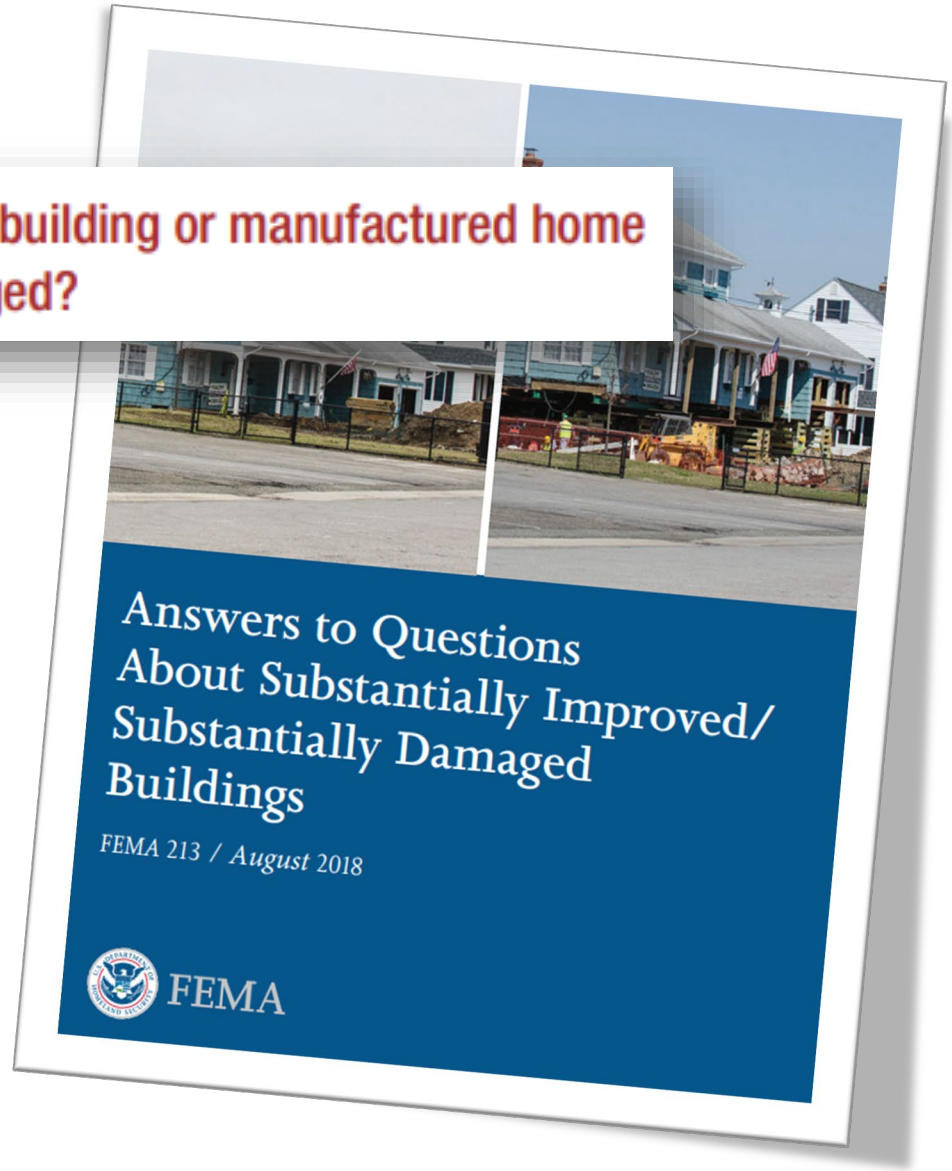
Continued on next slide.

FEMA 213: Answers to Questions About SI/SD, Continued

11. What level of accuracy is required when determining whether a building or manufactured home is being substantially improved or has been substantially damaged?

- Local officials also should inspect damaged buildings and manufactured homes to verify that the proposed costs include all work necessary to restore the structures to pre-damage condition.

- Greater accuracy needed when the result is nearer the applicable threshold to SD.



Key SD Documents: The SD Determination

$$\frac{\text{All costs to repair to pre-damage condition}}{\text{Pre-disaster market value}} \geq 50\%$$

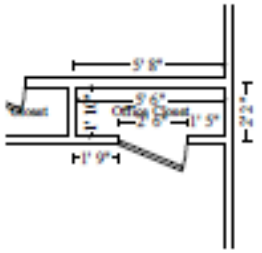
- **Repair costs (including materials & labor)**
  - **Itemized Repair Cost Estimates**
  - Qualified official estimates
    - SDE Tool? This is also a Qualified Estimate
  - RCV & ACV Cost of repair
  - Owner Provided Repair Cost Estimates
- **Market value**
  - **Qualified professional appraisal**
  - Tax Assessed Value (market adjusted) minus land?
  - Detailed Actual Cash Value Estimate
  - ACV & RCV (RCV should adjust to 30% damage threshold)

Key SD Documents: Repair Costs Estimate

- Fully detailed materials costs with quantity takeoff
- Includes cost of work
- Includes tax and overhead & profit (O&P)
- Includes actual cash value (ACV), depreciation (DEPR), and replacement cost value (RCV)
- Room by room estimate

This is ideal.

Materials & Work Example



Office Closet **Height: 8'**

117.33 SF Walls	10.08 SF Ceiling
127.42 SF Walls & Ceiling	10.08 SF Floor
1.12 SY Flooring	14.67 LF Floor Perimeter
14.67 LF Ceil. Perimeter	

DESCRIPTION	QUANTITY	UNIT PRICE	TAX	O&P	RCV	DEPREC.	ACV
196. Muck-out/Flood loss cleanup	10.08 SF	2.08	0.00	0.00	20.97	(0.00)	20.97
197. Apply anti-microbial agent to the floor	10.08 SF	0.35	0.32	0.00	3.85	(0.00)	3.85
198. Clean stud wall - Heavy	58.67 SF	1.13	5.63	0.00	71.93	(0.00)	71.93
199. Apply anti-microbial agent to part of the walls	58.67 SF	0.35	1.90	0.00	22.43	(0.00)	22.43
200. Dryout per 13025 - Method One	10.08 SF	1.69	0.57	0.00	17.61	(0.00)	17.61
201. R&R Baseboard - 2 1/4"	14.67 LF	3.35	1.07	10.06	60.28	(5.65)	54.63
202. Paint baseboard - two coats	14.67 LF	1.41	0.17	4.18	25.03	(3.55)	21.48
203. Clean floor - tile - Heavy clean	10.08 SF	0.88	0.79	0.00	9.66	(1.07)	8.59
204. Regrout tile floor	10.08 SF	2.40	0.22	4.88	29.29	(2.68)	26.61
205. Tear out wet drywall, no bagging	58.67 SF	1.10	0.00	0.00	64.54	(0.00)	64.54
206. 1/2" drywall - hung, taped, floated, ready for paint	58.67 SF	2.84	3.05	33.94	203.61	(22.06)	181.55
207. Seal part of the walls w/PVA primer - one coat	58.67 SF	0.59	0.29	6.98	41.89	(5.94)	35.95
208. Paint the walls - two coats	117.33 SF	1.44	3.48	34.50	206.94	(29.31)	177.63
209. R&R Interior door unit	1.00 EA	212.81	10.74	44.70	268.25	(26.44)	241.81
210. Paint door slab only - 2 coats (per side)	2.00 EA	36.76	1.31	14.96	89.79	(12.72)	77.07
211. Paint door/window trim & jamb - 2 coats (per side)	2.00 EA	30.71	0.79	12.44	74.65	(10.57)	64.08
212. Door lockset - Detach & reset	1.00 EA	23.46	0.00	4.70	28.16	(0.00)	28.16
Totals: Office Closet			**30.33**	**171.34**	**1,238.88**	**119.99**	**1,118.89**

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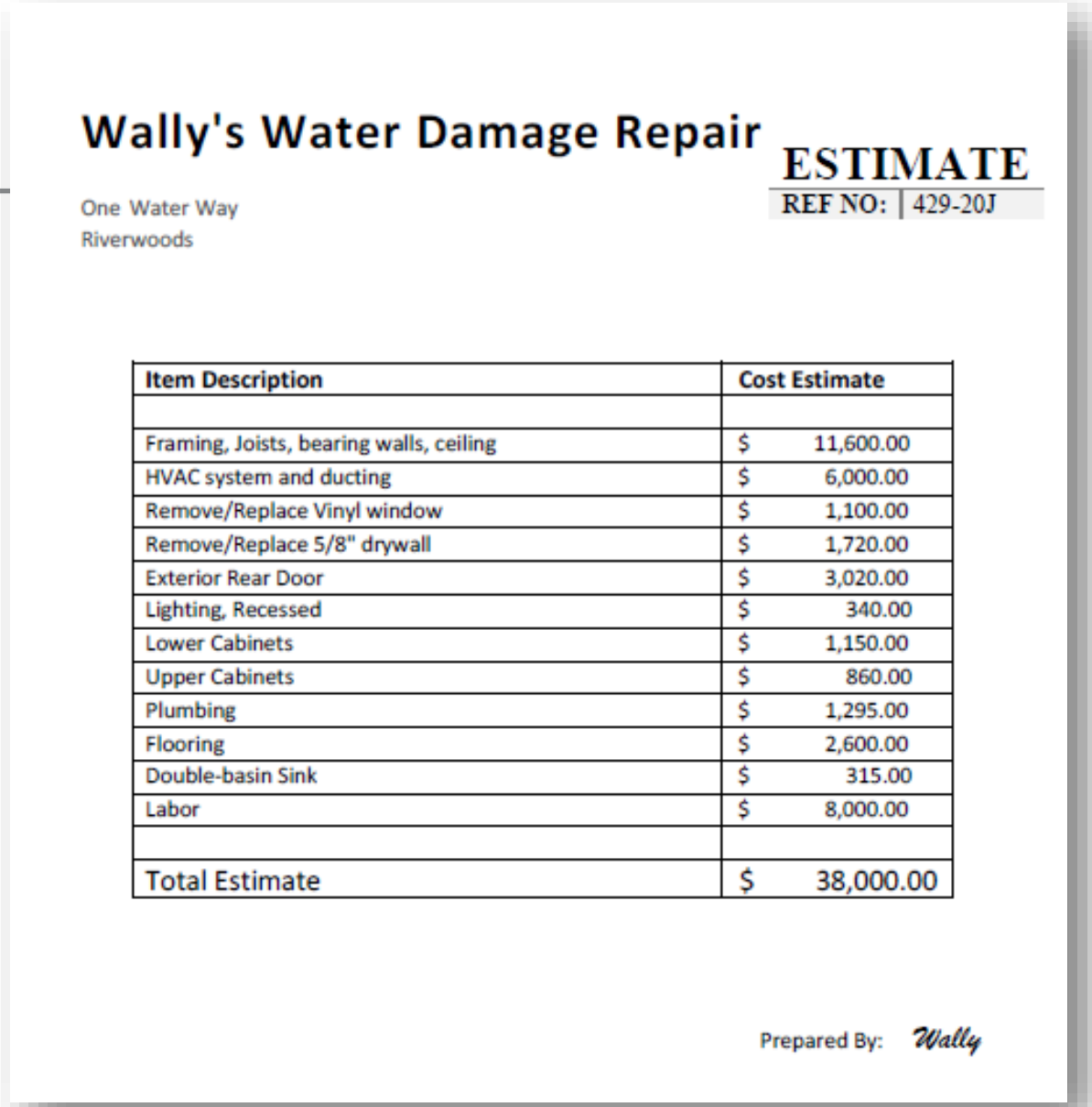
Repair Costs: Materials Example

- Provides item description like FEMA 213, page 13
- No material details
  - Quantity takeoff
  - Item costs
  - Associated work
- Less than ideal
  - Maybe valid
  - Requires inspection to verify



Wally's Water Damage Repair

ESTIMATE

REF NO: 429-20J

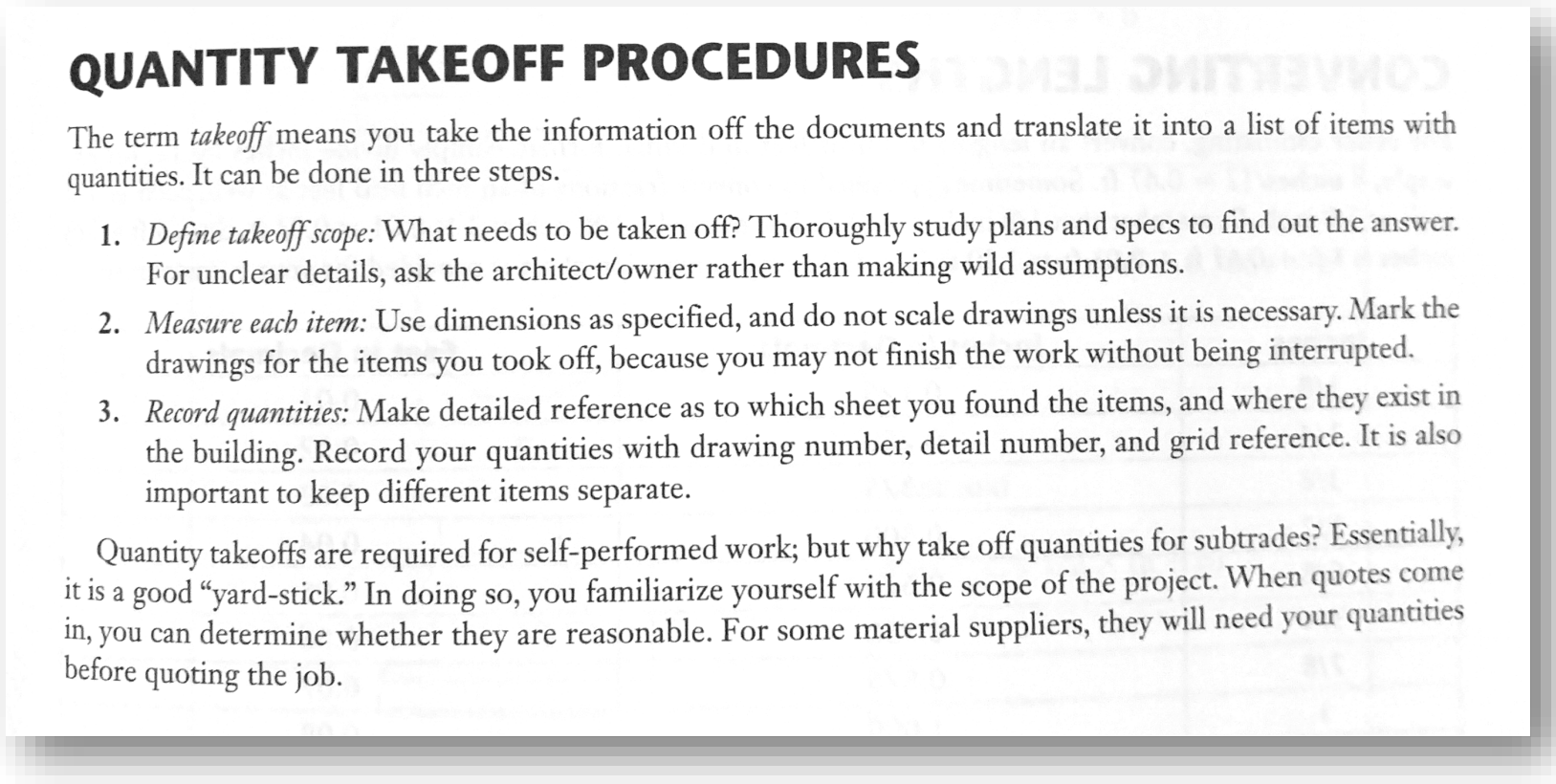
One Water Way
Riverwoods

Item Description	Cost Estimate
Framing, Joists, bearing walls, ceiling	$ 11,600.00
HVAC system and ducting	$ 6,000.00
Remove/Replace Vinyl window	$ 1,100.00
Remove/Replace 5/8" drywall	$ 1,720.00
Exterior Rear Door	$ 3,020.00
Lighting, Recessed	$ 340.00
Lower Cabinets	$ 1,150.00
Upper Cabinets	$ 860.00
Plumbing	$ 1,295.00
Flooring	$ 2,600.00
Double-basin Sink	$ 315.00
Labor	$ 8,000.00
Total Estimate	$ 38,000.00

Prepared By: *Wally*

Repair Costs: Materials, How to Get Quantity

- Quantity takeoff – industry standard handbook.
- Used in estimating material quantities needed to perform work.



QUANTITY TAKEOFF PROCEDURES

The term *takeoff* means you take the information off the documents and translate it into a list of items with quantities. It can be done in three steps.

1. *Define takeoff scope:* What needs to be taken off? Thoroughly study plans and specs to find out the answer. For unclear details, ask the architect/owner rather than making wild assumptions.
2. *Measure each item:* Use dimensions as specified, and do not scale drawings unless it is necessary. Mark the drawings for the items you took off, because you may not finish the work without being interrupted.
3. *Record quantities:* Make detailed reference as to which sheet you found the items, and where they exist in the building. Record your quantities with drawing number, detail number, and grid reference. It is also important to keep different items separate.

Quantity takeoffs are required for self-performed work; but why take off quantities for subtrades? Essentially, it is a good "yard-stick." In doing so, you familiarize yourself with the scope of the project. When quotes come in, you can determine whether they are reasonable. For some material suppliers, they will need your quantities before quoting the job.

Excerpt from DeWalt Construction Estimating Complete Handbook 2nd Edition

Repair Costs: Labor Example

- Repair costs calculations
- Industry standard handbook
- Labor can be calculated from quantity as well i.e. *"It takes ____ time to install ____ amount of ____."*

ABC Contracting
1 Main Street
Anytown, USA 00000
(555) 555-1234

Job Name: ABC School
Date: Jan 1st 20XX

Estimate No. 901
Worksheet Page Number: P2

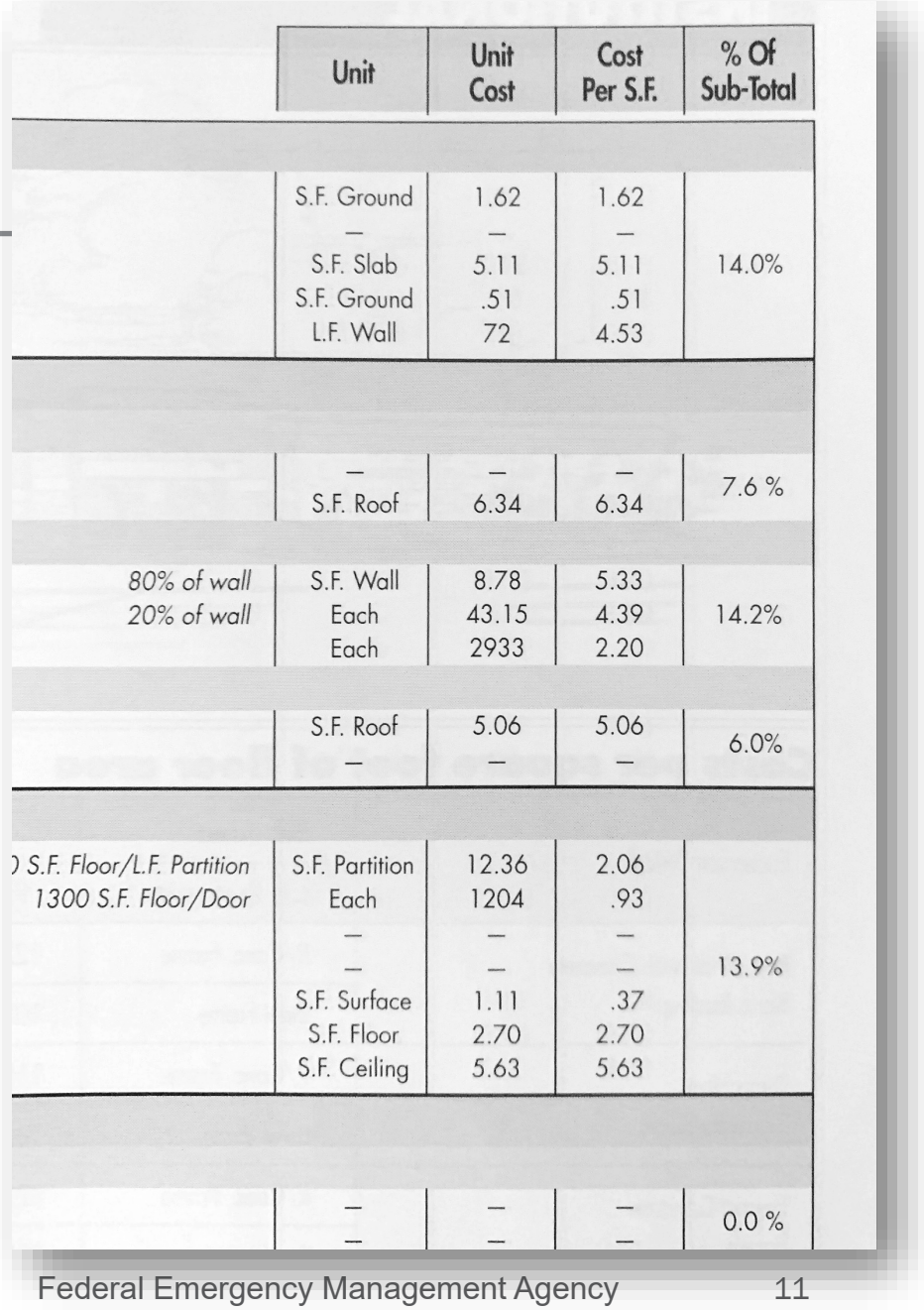
Estimator: AD

Item	Quantity	Unit	Man-hour	Extension
A	6	EA	0.60	3.60
B	2	EA	0.40	0.80
C	4	EA	1.00	4.00
D	15	EA	0.50	7.50
E	3	EA	1.10	3.30
F	1	EA	1.20	1.20
G	3	EA	0.50	1.50
H	3	EA	0.60	1.80
I	2	EA	0.60	1.20
J	1	EA	1.00	1.00
K	1	EA	1.20	1.20
L	1	EA	1.10	1.10
M	1	EA	1.50	1.50
N	2	EA	2.00	4.00
O	3	EA	0.40	1.20
P	2	EA	0.30	0.60
Q	6	EA	0.25	1.50
Total Man-hours				37.00
Crew Hourly Rate				$50.00
Labor Burden				Included
Labor Cost Subtotal				**$1,850.00**

Excerpt from DeWalt Construction Estimating Complete Handbook 2nd Edition

Repair Costs: Square Foot Approach - for Quantity and Cost

- Example of industry standard cost guide
- Comes from RS Means Square Foot Costs Guide
- Convenience store example shown here
- Square Foot Costing Approach includes:
  - Quantity
  - Labor
  - Tax + O&P
- Site preparation considerations not addressed



	Unit	Unit Cost	Cost Per S.F.	% Of Sub-Total
	S.F. Ground	1.62	1.62	
	—	—	—	
	S.F. Slab	5.11	5.11	14.0%
	S.F. Ground	.51	.51	
	L.F. Wall	72	4.53	
	—	—	—	7.6 %
	S.F. Roof	6.34	6.34	
80% of wall	S.F. Wall	8.78	5.33	
20% of wall	Each	43.15	4.39	14.2%
	Each	2933	2.20	
	S.F. Roof	5.06	5.06	6.0%
	—	—	—	
) S.F. Floor/L.F. Partition	S.F. Partition	12.36	2.06	
1300 S.F. Floor/Door	Each	1204	.93	
	—	—	—	
	—	—	—	13.9%
	S.F. Surface	1.11	.37	
	S.F. Floor	2.70	2.70	
	S.F. Ceiling	5.63	5.63	
	—	—	—	0.0 %
	—	—	—	

RS Means Square Foot Costs Guide

Market Value: Tax Assessed Value – Details to Consider

- Tax assessed values
- Assessor's reports – include?
  - Separate land and improvements?
  - Improvement sq. ft.?
  - Improvement values separated?
  - Assessment history?
  - Building condition
- Is location value intrinsic to the assessment?

Riverwoods County Assessor Report

Parcel Number	468C-026538
Site Address	1 Water Way, Riverwoods
Property Use	Single Unit
Tax Code Area	429A
Property Size	3.25 ac
Neighborhood	422R
Owners	Jamie and Rebecca Cupland

Building Style	Ranch/Rambler	Quality	Average
Condition	Good	Year Built	1998
Stories	1	Bedrooms	3
Main Floor	1,714	Upper Floor	2
Additional Area		Full Baths	
3/4 Baths		Half Baths	
Fixtures	12	Basement	
Finished Basement		Attached Garage	
Built in Garage		Wood Deck	
Patio	264	Cover	
Masonry Trim		Roof Type	Gable
Roof Material	Metal	Flooring	Carpet
Exterior Wall	Wood Siding	Foundation	Concrete
Fuel Type	Electric	Heat Type	Heat Pump
Central Air	No	Wood Stove	1
Fireplace		Prefab Fireplace	

Site Information

Property Type	Residential	Zoning	R1
Street Type	Easement	Street Finish	Paved/Asphalt
Traffic	Light	Sidewalk	No
Curbs	No	Location	Interior

Land Record Details

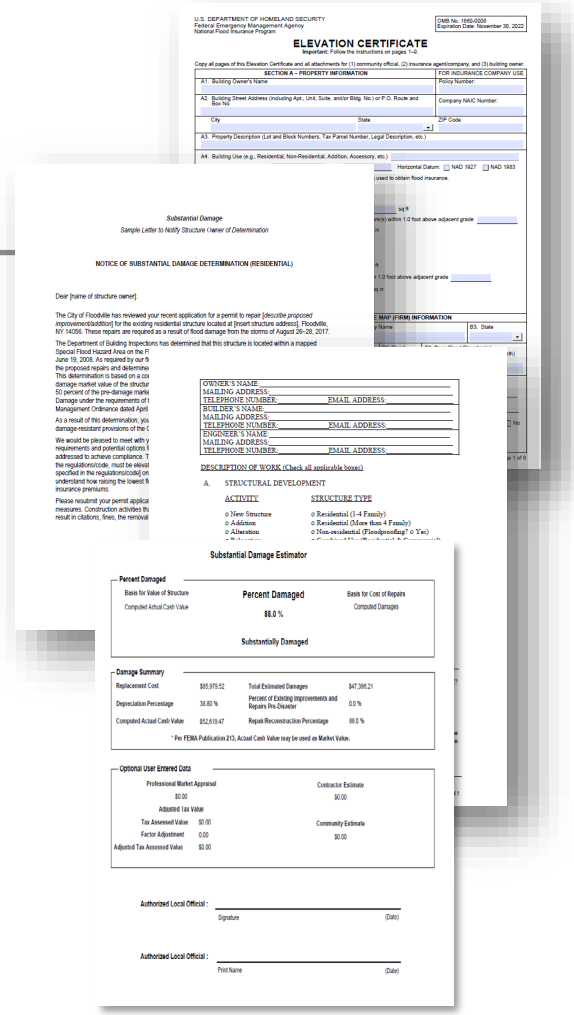
Land Flag	MDL	Soil Class	R1
Sewer Source	Septic	Water Source	Well
Lot Shape	Triangle	Floodplain	Yes
Land View	No view	Topography	Level
Value Method	Square Feet	Landscaping	Average
Square Feet		Acres	3.25

Appraisal Details

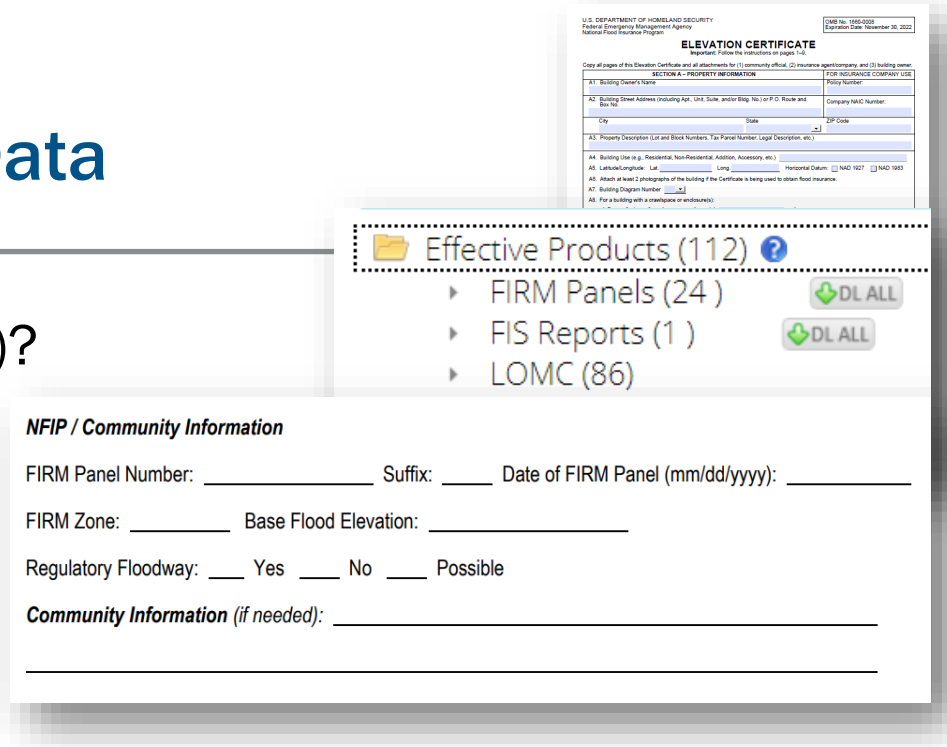
Market Land Value	$175,000
Market Building Value	$57,000
Total Market Value	$232,000

Key Documents: Permit File – Structure Data

- Elevation Certificate (permit related or pre-existing compliance)
  - If you have your SFHA inventory in order this may prequalify compliance
- Substantial damage determination and notice
  - Determination (usually in report form)
  - Notice (usually a letter, but if done at triage maybe a placard at site also)
- Building permit for repair of damage or other development
- Show your work (could be noted on or attached to permit)
  - Notes if determined in a triage stage of observations and rationale
  - Notes on details resulting in standard deviations
  - SDE Reports or similar reports for each file and program level documentation
  - Insurance claim statement of loss reports and other estimates and methods



Key Documentation Information: Elevation Data



- What is the current adopted base flood elevation (BFE)?
- Is a Higher Standard in effect? When?
  - Adoption of a higher standard may affect structure conformance status
- Elevation certificate or other data to show on each structure:
  - Flood zone (minimum standards require SI/SD on structures in the special flood hazard area—Zones A and V)
  - Lowest floor (is the lowest floor below the current adopted BFE or design flood elevation [DFE]?)
  - Utilities/machinery (are the utilities/machinery below the current adopted BFE or DFE?)

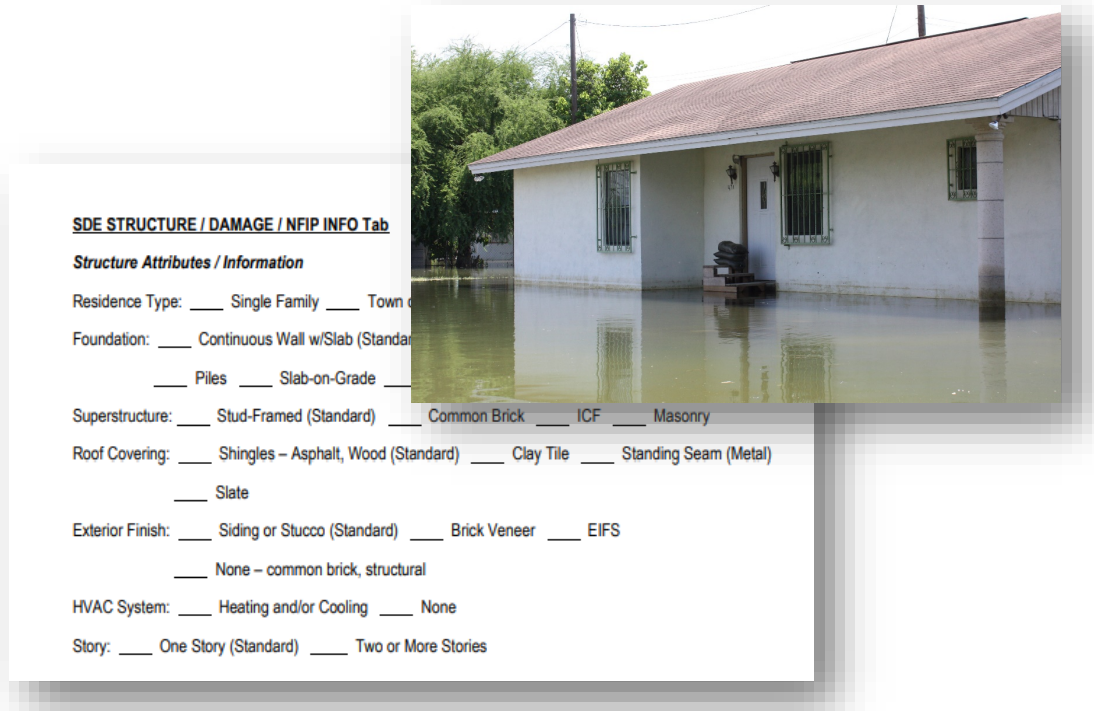
Key SD Documents: Relevant Building Information

The following list of information items would be relevant to structure and triage rationale

- Residential/non-residential
- Duration of flood
- Photos of damage (could be of the street or vicinity when documenting a section)
- Depth of water in structure
- Other perils causing damage
- Construction quality
- Depreciation/condition

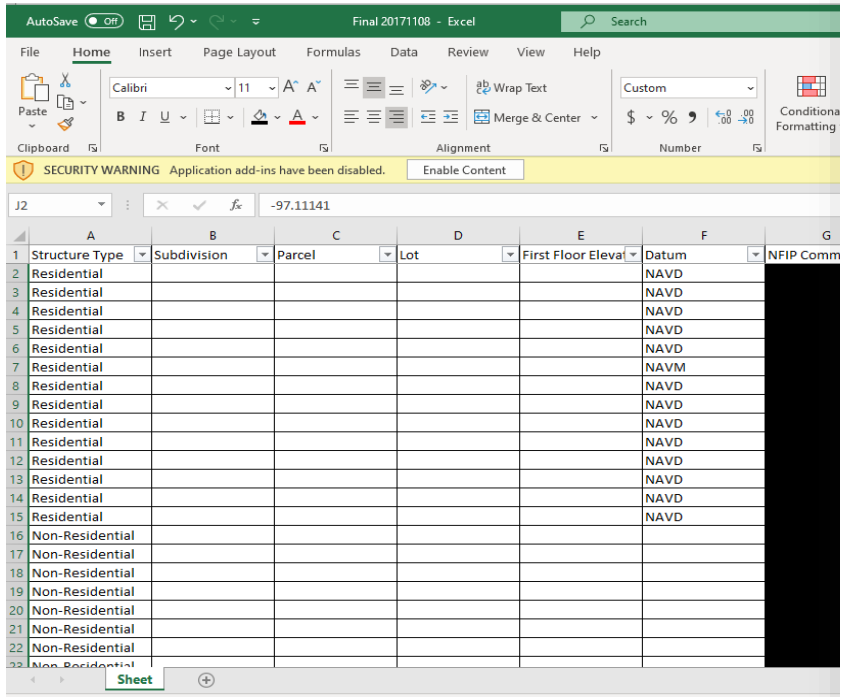
Building specific relevant to inspection – post triage

- Square footage - measurements of buildings
- Attributes one, two, three story – type of structure?
- Notes – anything unique or noteworthy



Key SD Documents: Using Substantial Damage Estimator (SDE 3.0)

- JSON file containing all data
- Excel file of data
- Community Report
- Structure Report



	A	B	C	D	E	F	G
1	Structure Type	Subdivision	Parcel	Lot	First Floor Eleva	Datum	NFIP Comm
2	Residential					NAVD	
3	Residential					NAVD	
4	Residential					NAVD	
5	Residential					NAVD	
6	Residential					NAVD	
7	Residential					NAVM	
8	Residential					NAVD	
9	Residential					NAVD	
10	Residential					NAVD	
11	Residential					NAVD	
12	Residential					NAVD	
13	Residential					NAVD	
14	Residential					NAVD	
15	Residential					NAVD	
16	Non-Residential						
17	Non-Residential						
18	Non-Residential						
19	Non-Residential						
20	Non-Residential						
21	Non-Residential						
22	Non-Residential						

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: _____

SDE Residential Damage Inspection Worksheet *7 of 7*

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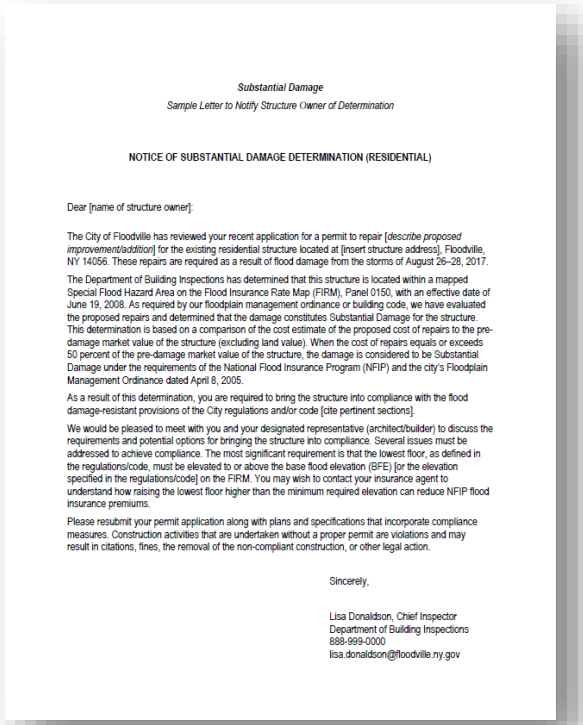
Key SD Documents: Using Substantial Damage Estimator (SDE 3.0)

- Notice Letters
- Field Data Collection Sheet
- Photo on Report Printout



Substantial Damage

Sample Letter to Notify Structure Owner of Determination

NOTICE OF SUBSTANTIAL DAMAGE DETERMINATION (RESIDENTIAL)

Dear [name of structure owner]:

The City of Floodville has reviewed your recent application for a permit to repair [*describe proposed improvement/addition*] for the existing residential structure located at [insert structure address], Floodville, NY 14056. These repairs are required as a result of flood damage from the storms of August 26–28, 2017.

The Department of Building Inspections has determined that this structure is located within a mapped Special Flood Hazard Area on the Flood Insurance Rate Map (FIRM), Panel 0150, with an effective date of June 19, 2008. As required by our floodplain management ordinance or building code, we have evaluated the proposed repairs and determined that the damage constitutes Substantial Damage for the structure. This determination is based on a comparison of the cost estimate of the proposed cost of repairs to the pre-damage market value of the structure (excluding land value). When the cost of repairs equals or exceeds 50 percent of the pre-damage market value of the structure, the damage is considered to be Substantial Damage under the requirements of the National Flood Insurance Program (NFIP) and the city's Floodplain Management Ordinance dated April 8, 2005.

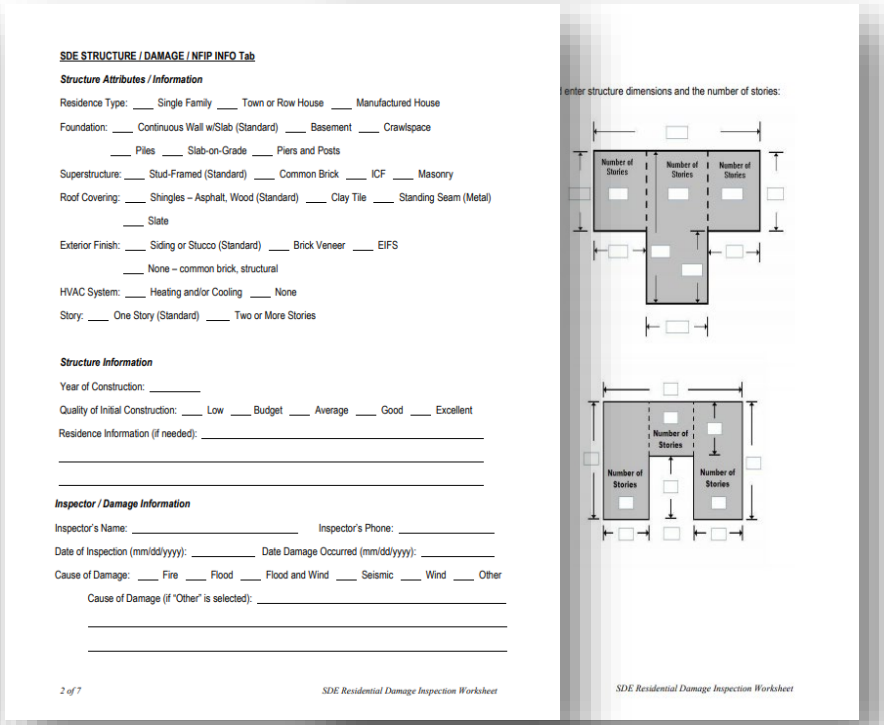
As a result of this determination, you are required to bring the structure into compliance with the flood damage-resistant provisions of the City regulations and/or code [cite pertinent sections].

We would be pleased to meet with you and your designated representative (architect/builder) to discuss the requirements and potential options for bringing the structure into compliance. Several issues must be addressed to achieve compliance. The most significant requirement is that the lowest floor, as defined in the regulations/code, must be elevated to or above the base flood elevation (BFE) [or the elevation specified in the regulations/code] on the FIRM. You may wish to contact your insurance agent to understand how raising the lowest floor higher than the minimum required elevation can reduce NFIP flood insurance premiums.

Please resubmit your permit application along with plans and specifications that incorporate compliance measures. Construction activities that are undertaken without a proper permit are violations and may result in citations, fines, the removal of the non-compliant construction, or other legal action.

Sincerely,

Lisa Donaldson, Chief Inspector
Department of Building Inspections
888-999-0000
lisa.donaldson@floodville.ny.gov



SDE STRUCTURE / DAMAGE / NFIP INFO Tab

Structure Attributes / Information

Residence Type: ___ Single Family ___ Town or Row House ___ Manufactured House

Foundation: ___ Continuous Wall w/Slab (Standard) ___ Basement ___ Crawlspace
___ Piles ___ Slab-on-Grade ___ Piers and Posts

Superstructure: ___ Stud-Framed (Standard) ___ Common Brick ___ ICF ___ Masonry

Roof Covering: ___ Shingles – Asphalt, Wood (Standard) ___ Clay Tile ___ Standing Seam (Metal)
___ Slate

Exterior Finish: ___ Siding or Stucco (Standard) ___ Brick Veneer ___ EIFS
___ None – common brick, structural

HVAC System: ___ Heating and/or Cooling ___ None

Story: ___ One Story (Standard) ___ Two or More Stories

Structure Information

Year of Construction: _____

Quality of Initial Construction: ___ Low ___ Budget ___ Average ___ Good ___ Excellent

Residence 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): _____

2 of 7 *SDE Residential Damage Inspection Worksheet*

enter structure dimensions and the number of stories:

Number of Stories

Number of Stories

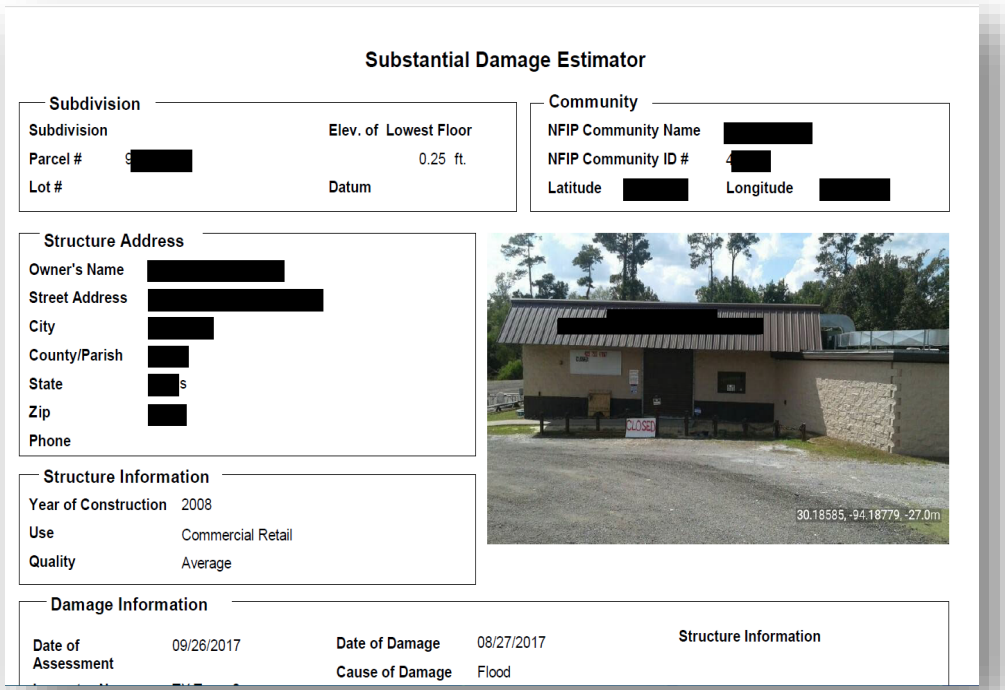
Number of Stories

Number of Stories

Number of Stories

Number of Stories

SDE Residential Damage Inspection Worksheet



Substantial Damage Estimator

Subdivision

Subdivision
Parcel # [redacted]
Lot #

Elev. of Lowest Floor
0.25 ft.
Datum

Community

NFIP Community Name [redacted]
NFIP Community ID # [redacted]
Latitude [redacted] Longitude [redacted]

Structure Address

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

Structure Information

Year of Construction 2008
Use Commercial Retail
Quality Average

Damage Information

Date of Assessment 09/26/2017
Date of Damage 08/27/2017
Cause of Damage Flood

Structure Information

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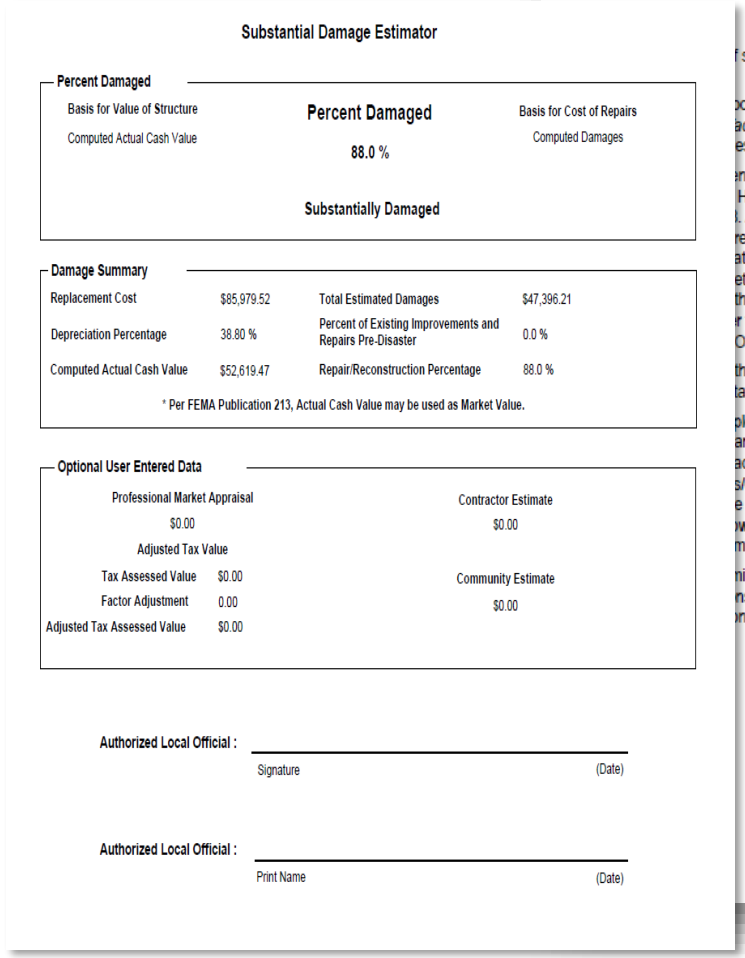
Substantial Damage Letter

- Suggest providing a report with the letter
  - Reduces questions
  - Provides transparency
  - Suggest SDE 3.0 Property Detail



Substantial Damage Estimator

Percent Damaged

Basis for Value of Structure	Percent Damaged	Basis for Cost of Repairs
Computed Actual Cash Value	88.0 %	Computed Damages

Substantially Damaged

Damage Summary

Replacement Cost	$85,979.52	Total Estimated Damages	$47,396.21
Depreciation Percentage	38.80 %	Percent of Existing Improvements and Repairs Pre-Disaster	0.0 %
Computed Actual Cash Value	$52,619.47	Repair/Reconstruction Percentage	88.0 %

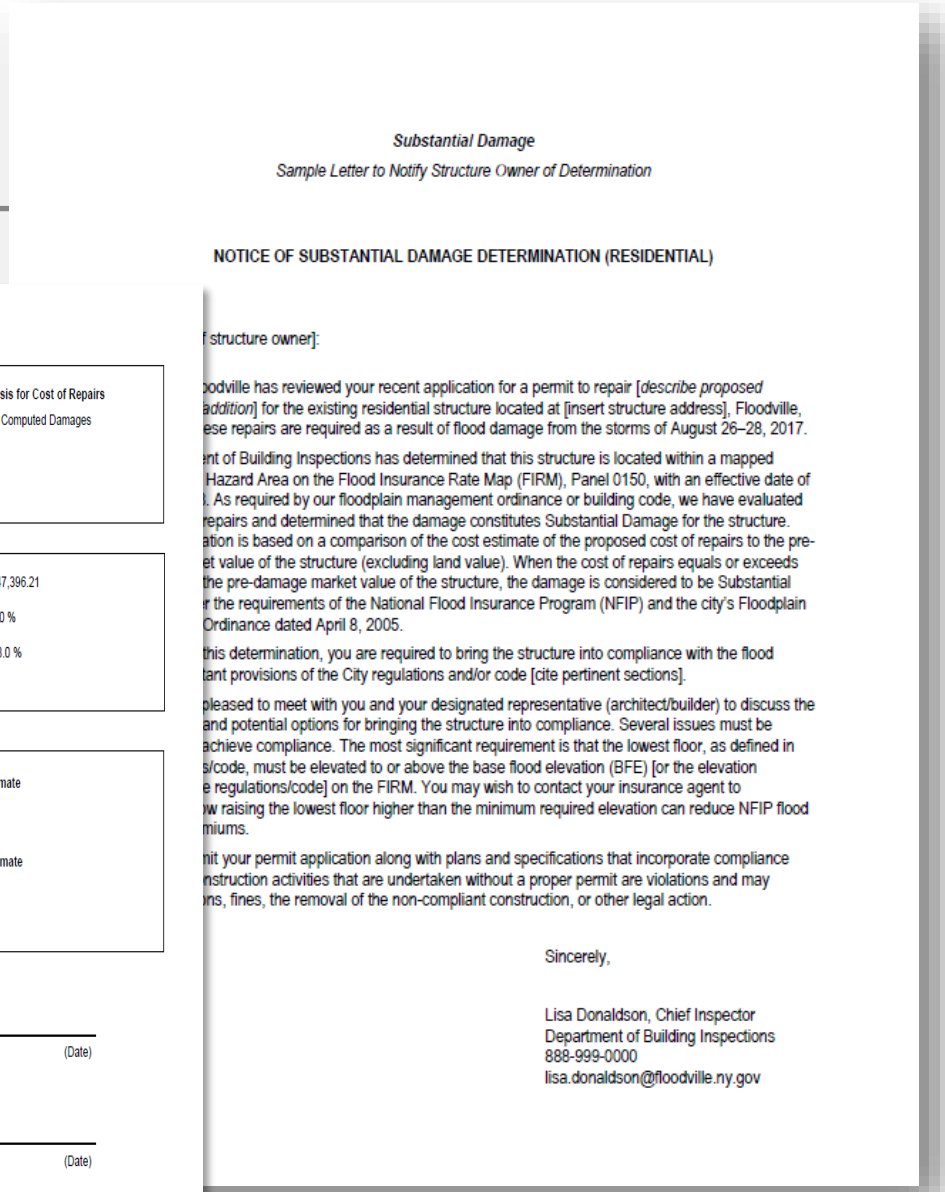
* Per FEMA Publication 213, Actual Cash Value may be used as Market Value.

Optional User Entered Data

Professional Market Appraisal		Contractor Estimate	
$0.00		$0.00	
Adjusted Tax Value			
Tax Assessed Value	$0.00	Community Estimate	
Factor Adjustment	0.00	$0.00	
Adjusted Tax Assessed Value	$0.00		

Authorized Local Official : _____
Signature (Date)

Authorized Local Official : _____
Print Name (Date)



Substantial Damage

Sample Letter to Notify Structure Owner of Determination

NOTICE OF SUBSTANTIAL DAMAGE DETERMINATION (RESIDENTIAL)

structure owner]:

odville has reviewed your recent application for a permit to repair [*describe proposed addition*] for the existing residential structure located at [insert structure address], Floodville, ese repairs are required as a result of flood damage from the storms of August 26–28, 2017.

nt of Building Inspections has determined that this structure is located within a mapped Hazard Area on the Flood Insurance Rate Map (FIRM), Panel 0150, with an effective date of . As required by our floodplain management ordinance or building code, we have evaluated repairs and determined that the damage constitutes Substantial Damage for the structure. ation is based on a comparison of the cost estimate of the proposed cost of repairs to the pre- et value of the structure (excluding land value). When the cost of repairs equals or exceeds the pre-damage market value of the structure, the damage is considered to be Substantial r the requirements of the National Flood Insurance Program (NFIP) and the city's Floodplain Ordinance dated April 8, 2005.

this determination, you are required to bring the structure into compliance with the flood tant provisions of the City regulations and/or code [cite pertinent sections].

pleased to meet with you and your designated representative (architect/builder) to discuss the and potential options for bringing the structure into compliance. Several issues must be achieve compliance. The most significant requirement is that the lowest floor, as defined in s/code, must be elevated to or above the base flood elevation (BFE) [or the elevation e regulations/code] on the FIRM. You may wish to contact your insurance agent to w raising the lowest floor higher than the minimum required elevation can reduce NFIP flood miums.

nit your permit application along with plans and specifications that incorporate compliance nstruction activities that are undertaken without a proper permit are violations and may ns, fines, the removal of the non-compliant construction, or other legal action.

Sincerely,

Lisa Donaldson, Chief Inspector
Department of Building Inspections
888-999-0000
lisa.donaldson@floodville.ny.gov

FEMA

NATIONAL FLOOD INSURANCE PROGRAM

Other Key Documents to Include in Permit File

- Permit itself
- Mitigation actions taken
- Notices given to property owners and discussion notes and dates
- Inspection records and dates
  - Before SI/SD determination
  - During structure recovery and repair

Electronic records are fine, but you need to be aware the NFIP minimum standard is that records are permanent and publicly accessible.

Appeals Documentation

What additional information/documents can the structure owner provide?

- **Market value can be appealed**
  - Qualified Licensed Professional Appraisal
  - Actual purchase price within 6 months of the event
- **Repair costs can be appealed**
  - Detailed Repair Cost Estimate by contractor or design professional
  - Detailed Repair Cost Estimate prepared by owner
  - These must meet standards discussed on slides 6 – 11 to be valid

Unacceptable Documentation for Overturning SD Determination

- Anything less detailed than the determination of substantial damage
- Market value estimates which are purely comparative
- Market value estimates of opinion which include value applicable to location or other market aspects related to the land not the structure
- Summary repair costs that were not verified with an inspection
- Repair costs which lack details listed in FEMA 213, pages 12-13, #16
  - If it does not cover these, hand it back – explain what is lacking.

DRRA Section 1206 FEMA Public Assistance Reimbursement

- Building code and floodplain administration and enforcement, FEMA Public Assistance, permanent work, Categories C-G. 180 days after the disaster declaration date.
- Could reimburse eligible work and costs (not all inclusive):

review and process permits and elevation certificates	enter administrative data	cost for overtime for budgeted employees
hire, train and supervise staff; conduct SD inspections	review and resolve SD appeals	straight and overtime for unbudgeted employees/extra hires
prepare repair cost and market value estimates for SD	cost for supplies and equipment	cost for contracted support or mutual aid/EMAC

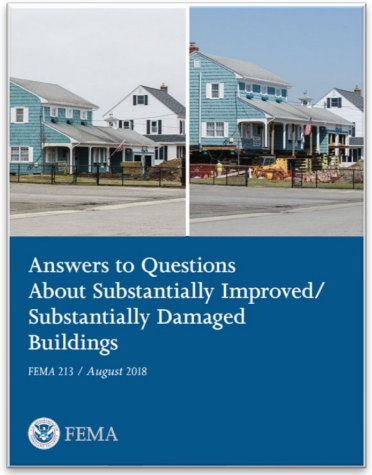
- Floodplain administrators and/or building code officials should begin discussions with their Community PA POC about the policy, have a substantial damage plan in place, have contracts or agreements in place that meet federal procurement guidelines, and familiarize yourself with Emergency Management Assistance Compacts (EMACs).

Key Takeaways

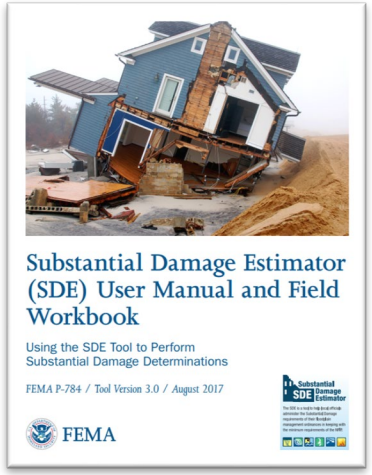
- Document, document, document
- Be consistent
- Conduct annual evaluation of property values
- Identify a team to help with substantial damage estimation before an event
- Hold annual training on SDE software or other methods chosen for making SD/SI determinations
- Inform property owners that live in the SFHA about SD/SI requirements in advance

Resources for Success in SD Response

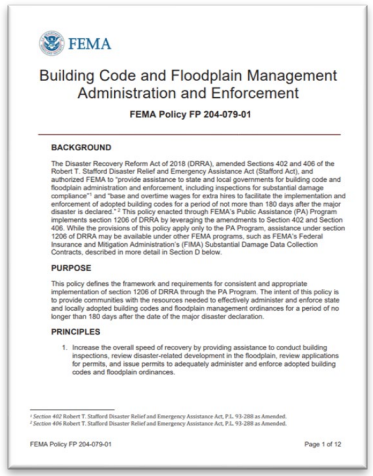
[FEMA 213](#)



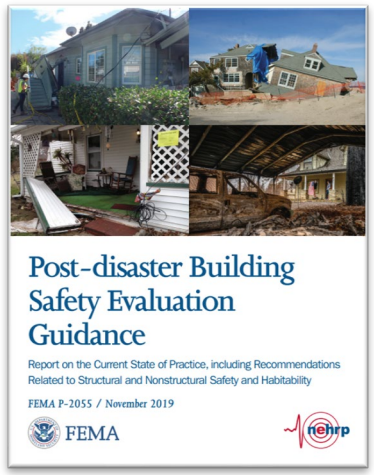
[SDE 3.0](#)



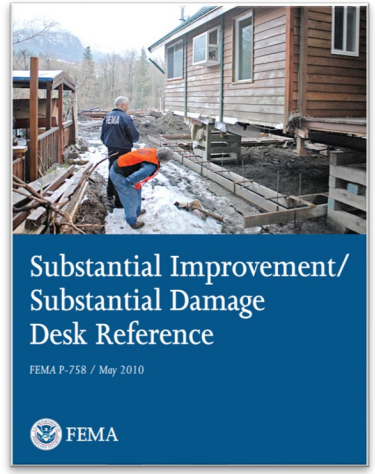
[DRRA 1206](#)



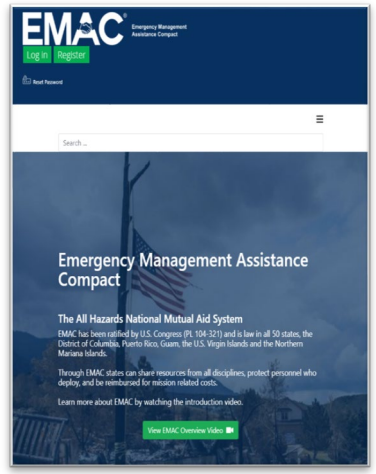
[FEMA 2055](#)



[FEMA P 758](#)



[EMAC®](#)



This set of guides will provide comprehensive resources for building code administration in a disaster response.

Local Perspective

Kara Bonsall, CFM
Coastal Zone Administrator
Cameron Parish Police Jury, Louisiana

Robin Morales, CFM
Permit Secretary
Cameron Parish Police Jury, Louisiana

Please Share:

- Your parish's experience dealing with disasters.
- How do you keep your permit files in order?
- What lessons has your community learned in relation to SI/SD documentation?
- What tips or advice do you have for other communities in relation to substantial damage/substantial improvement documentation?

Resources

- Substantial Improvement/Substantial Damage Desk Reference
- Answers to Questions About Substantially Improved/Substantially Damaged Buildings
- Substantial Damage Estimator (SDE) Tool and Manual
- Disaster Recovery Reform Act of 2018 Provision 1206 – Code Implementation and Enforcement
- FEMA YouTube Playlist on Substantial Damage Estimation

State & FEMA Contacts for Your Assistance

Arkansas

- https://www.anrc.arkansas.gov/divisions/water-resources-management/floodplain-management/
- State NFIP contact: Whit Montague, whitney.montague@arkansas.gov, (501) 682-3969
- FEMA State contact: Pedro Perez, Pedro.Perez@fema.dhs.gov, (940) 383-7365

Louisiana

- http://floods.dotd.la.gov/lafloods/
- State NFIP contact: Cindy O'Neal, Cindy.ONeal@la.gov, (225) 379-3005
- FEMA State Contact: Darrin Dutton, DarrinD.Dutton@fema.dhs.gov, (940) 383-7398; Justin McBride, justin.mcbride@fema.dhs.gov, (202) 664-9962

Oklahoma

- http://www.owrb.ok.gov/floodplain
- State NFIP contact: Aaron Milligan, aaron.milligan@owrb.ok.gov, (405) 530-8800
- Interim FEMA State Contact: Pedro Perez, Pedro.Perez@fema.dhs.gov, (940) 383-7365

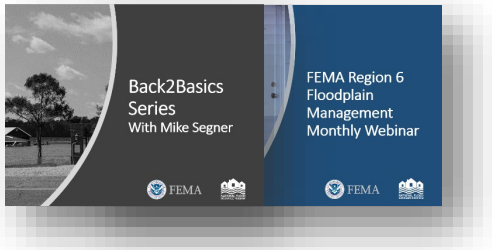
New Mexico

- https://www.nmdhsem.org/preparedness-bureau/mitigation/floodplain/
- State NFIP contact: Loretta Hatch, Loretta.Hatch@state.nm.us, (505) 476-0612
- FEMA state contact: Trey Rozelle, trey.rozelle@fema.dhs.gov, (940) 898-5412

Texas

- http://www.twdb.texas.gov/flood
- State NFIP contact: Yi Chan, Texas Water Development Board, Yi.Chan@twdb.texas.gov, (512) 936-6903
- FEMA state contacts: Brian Bartley, brian.bartley@fema.dhs.gov, (940) 383-7207; Lauren Fulton, lauren.fulton@fema.dhs.gov, (940) 898-5474; Mike Segner, michael.segner@fema.dhs.gov, (940) 383-7267

Free, Online Trainings



- Upcoming FEMA Region 6 Floodplain Management Monthly Webinars: https://fema.connectsolutions.com/admin/show-event-catalog?folder-id=153531281

- Recorded FEMA Region 6 Floodplain Management Monthly Webinars: https://fema.connectsolutions.com/admin/show-event-catalog?folder-id=174650973

- Upcoming FEMA Region 6 Virtual Brown Bag Trainings: https://r6virtualbrownbag.eventbrite.com

Thank you. Any questions?

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