



**SI/SD ADMINISTRATIVE PROCEDURES FOR DEVELOPMENT IN THE SPECIAL FLOOD HAZARD AREA**

**I. Purpose and Use**

The purpose of this document is to outline how Kent County will administer and implement steps to make Substantial Improvement/Substantial Damage (SI/SD) determinations. Communities that participate in the National Flood Insurance Program (NFIP) must adopt and enforce floodplain management regulations that include requirements for SI/SD structures, as defined in 44 CFR 59.1.

Improvements to structures in the regulated floodplain that equal or exceed 50% of the market value, including improvements undertaken after being substantially damaged during a disaster, must comply with local floodplain management regulations. This often means that structures cannot simply be rebuilt to pre-damage conditions. Local officials must ensure that all permits issued for reconstruction comply with local regulations.

This document captures all procedures in one easy, accessible place so the community can be prepared if disaster strikes. This includes plans, procedures, and processes for actions taken pre-disaster (“blue skies”), immediately following a disaster event, and post-disaster. This document serves as a plan to be used in both day-to-day SI/SD operations as well as all disaster events, to include all types of hazards (flooding, wind, fire, etc.), small and large events, and presidential-declared or non-declared events.

This plan was compiled and prepared by Kent County Planning, Housing and Zoning staff, based on model provided and required by FEMA.

**II. Regulations**

SI/SD structures in Kent County are defined and regulated according to the following regulations and legislation. These should be referenced to determine the definition of SI/SD and any legal requirements pertaining to post-disaster permitting.

Code/Ordinance	Title of Regulation(s)	Document location or link	Responsible Department/POC	Effective Date	SI or SD
Building Codes	2018 IBC: 104.2.1 2018 IRC: R105.3.1	Kent County Building Permit and Requirements(hard copy available upon request) <a href="https://www.fema.gov/2018-international-codes-flood-provisions">2018 International Codes Flood Provisions (fema.gov)</a>	Planning and Zoning Department at (410) 778-7423	3/25/2019	Both
Zoning/Land Use Ordinance	Kent County Land Use Ordinance	<a href="https://www.ecode360.com/kent-county-md-floodplain-management">Kent County, MD Floodplain Management (ecode360.com)</a>	Planning and Zoning Floodplain Administrator	6/3/2014	SI

### **III. Appeals/Variances**

Kent County's provisions that regulate the appeals process for development in the floodplain and/or SI/SD are in its regulations. Due to Kent County's adoption of floodplain provisions in the Zoning/Land Use Ordinance as well as its Building Codes there are two appeal boards for these regulations:

1. Board of Appeals
  - Board of Zoning Appeals- appeals based on the Kent County Land Use Ordinance
    - More information (including Appeals Form): [Zoning Appeals Board \(kentCounty.com\)](https://www.kentcountymd.gov/zoning-appeals-board)
  - Board of Building Appeals – appeals based on the flood provisions in the Building Code
    - More Information: [Board of Building Appeals | Kent County Maryland](https://www.kentcountymd.gov/building-appeals)

### **IV. Permit Process - for development in the floodplain (including SI)**

Kent County has a process for all development in the floodplain, including existing structures that must be assessed for substantial improvement. The process is:

1. All development in the floodplain requires a permit to be obtained through Kent County's Department of Planning, Housing and Zoning.
  - See here for [Permit Application and Substantial Improvement Worksheet](#)
2. Kent County's Floodplain Administrator will review the permit and determine if the proposed work constitutes Substantial Improvement.
  - A [Substantial Improvement Worksheet](#) will be done for any building in the floodplain making improvements.
    - Any improvements over 40% of the value of the structure must complete this sheet.
  - If it is determined that the improvement on the structure exceeds the value of the structure by 50% it will be deemed substantially improved and must meet all current floodplain regulations set forth in the Land Use Ordinance and Building Codes.
    - Floodplain Administrator will issue [notice to applicant](#)
      - Applicants will need to resubmit construction plans that meet the current floodplain regulations for a substantial improvement found in the Land Use Ordinance and Building Codes.
      - If the applicant needs additional information or would like to contest the market value (tax value) or improvement value (cost per square foot) they can schedule a meeting with the Floodplain Administrator and/or submit the information following the policy above.
  - If it is determined that the improvement of the structure does NOT exceed the value of the structure by 50% it will be deemed non-substantially improved. The proposed work can proceed as proposed and a permit will be issued. But if the scope, materials, or budget changes then a new or revised permit application must be submitted.
3. When a building permit is required, flood provisions found in the IRC and IBC are reviewed. See here for Building Permit Application: [Kent County Building Permit and Requirements](#)

### **V. Method for Determining Market Value of Structures**

Kent County has a methodology for determining the market value of substantially improved structures. The primary method used for determining market value of substantially improved structures is:

- County will use the most recent "improvements" value on the Maryland Department of Assessment and Taxation website [SDAT: Real Property Data Search< \(maryland.gov\)](https://sdattax.com/)

- For more than one structure on a parcel the Floodplain Administrator will contact the Assessment Office to get a value for a specific structure.
- If the applicant would like to contest the Tax Assessment Value, they may procure their own appraisal.
  - Must be within the last 12 months
  - Appraisal reports should include:
    - Intended users, including the property owner, who can then submit it as part of a permit application.
    - Must reflect the value of the property before any renovation or alterations
    - Separate the market value of a structure from the value of the land
    - Market Approach must be utilized

#### **VI. Method for Determining Cost of Improvement**

Kent County has a methodology for determining the cost of improvement of structures. The primary method used for estimating cost of improvement is:

- Itemized costs estimate from a licensed contractor or design professional.
  - Cost estimate shall include an itemized list of the items found in 4-5 to 4-7 of the [Substantial Improvement/Substantial Damage Desk Reference \(fema.gov\)](https://www.fema.gov)
    - Labor must be included, and CANNOT be volunteered, discounted, or donated.
    - Itemized estimates must be signed by a licensed professional attesting that the information provided is accurate.
    - Electric and Plumbing Permits are obtained through MDIA, but for the purposes of SI, must be included in the cost on a Floodplain Permit Application
- If the Floodplain Administrator doesn't agree with estimate provided, they may at their discretion use the most recently published International Code Council – Building Valuation Data: [Building Valuation Data - ICC \(iccsafe.org\)](https://www.iccsafe.org) to determine a value of work based on building types and square footage impacted by proposed work.
- Phased work and/or multiple permits
  - Multiple Permits: The County issues separate mechanical, electrical, plumbing, and building permits. Therefore, the applicant must provide the combined value of all the proposed work to make a substantial improvement/damage determination, regardless of the number of permits issued.
  - Phased Improvements: The term “phased improvement” refers to a single improvement that is broken into parts. For a number of reasons, an applicant may wish to schedule anticipated improvements over a period of time, and they may request separate permits for each phase. The floodplain administrator, at its discretion, will ensure that phased improvements do not circumvent the substantial improvement requirements.
    - The Floodplain Administrator will consider permits issued in the previous 12 months to determine SI.

#### **VII. Method for Determining Cost of Damage/Repair**

Kent County has a methodology for determining the cost of damage/repair of structures. The primary method used for estimating cost of improvement is:

- Kent County will first use the Preliminary Damage Assessment “destroyed” category – waterline at the roofline or higher or complete failure of two or more major structural

components (e.g., collapse of basement walls, foundation, walls, or roof) to determine structures are substantially damaged.

- For properties not deemed “destroyed” the County will use most recently published International Code Council – Building Valuation Data: [Building Valuation Data – ICC \(iccsafe.org\)](http://iccsafe.org) to determine a value of repair based on building types and square footage of damage.
- If an owner would like to appeal the damage/repair value, then they can provide an itemized cost estimate from a licensed contractor or design professional.
  - Cost estimate shall include an itemized list of the items found in 4-5 to 4-7 of the [Substantial Improvement/Substantial Damage Desk Reference \(fema.gov\)](http://fema.gov)
    - Labor must be included, and CANNOT be volunteered, discounted, or donated.
    - Itemized estimate must be signed by licensed professional attesting that the information provided is accurate.

### VIII. Substantial Damage – Procedures

When a flood disaster strikes there are many damage assessments that occur by a variety of federal, State, local, and other organizations to determine response and recovery needs. However, Substantial Damage Inspections are required by locally adopted regulations, usually found in the building codes, that require the Community’s Building Official to make determination of whether a structure is damaged more than 50% of its market value. These SD inspections are required to occur on all structures in the Special Flood Hazard Area (SFHA) and occur when any damage happens. This could be damage attributed to flood, wind, tornado, earthquake, tree, vehicle, fire, etc. Below are the procedures to follow to implement Substantial Damage Determinations.

#### 1. Roles/Responsibilities

Kent County has a variety of internal staff, but also external (County) staff involved in substantial damage. The Substantial Damage Manger for the County is the Building Official and/or the Floodplain Administrator.

Responsibility	Title(s) of Staff	Office or Department	Before/Immediately After/ After Event
SD Manager	Floodplain Administrator	Department of Planning Housing and Zoning	ALL
Maintaining SD Admin Procedure	Floodplain Administrator	Department of Planning Housing and Zoning	BEFORE
Identifying Impact area(s)	Director or Emergency Planner (OES) Floodplain Administrator Code Enforcement Officer Road Crews (DPW)	Office of Emergency Services Department of Planning Housing and Zoning Department of Public Works Police/Fire	IMMEDIATELY AFTER
Coordinating with community departments, including fire, police, and emergency services, planning, and building	Director and/or Communication/Planner	Office of Emergency Services	IMMEDIATELY AFTER

Responsibility	Title(s) of Staff	Office or Department	Before/Immediately After/ After Event
Organizing and training staff	Floodplain Administrator	Department of Planning, Housing and Zoning	IMMEDIATELY AFTER
Communicating with Public – repair/rebuild permits, SD, and reporting damage	Public Information Officer	Commissioners Office	AFTER (< 2 days)
Conducting Preliminary Damage Assessments (PDA’s)	All staff	Office of Emergency Services	AFTER (< 3 days)
Conducting SD Inspections	Code Enforcement/Floodplain Administrator	Department of Planning, Housing and Zoning	AFTER (< 7 days)
Making SD determinations	Floodplain Administrator/Chief Building Enforcement Officer	Department of Planning, Housing and Zoning	AFTER (< 7 days)
Issuing SD Determinations	Floodplain Administrator/Chief Building Enforcement Officer	Department of Planning, Housing and Zoning	AFTER (< 7 days)
Managing appeals/variances	N/A	Department of Planning, Housing and Zoning	AFTER
Permitting for repairs and rebuilding	N/A	Department of Planning, Housing and Zoning	AFTER
Maintaining SD Data	N/A	Department of Planning, Housing and Zoning	AFTER
Recording Costs & SD Activities	N/A	Department of Planning, Housing and Zoning	AFTER (< 180 days)

**2. Impact Area(s)**

Currently the County has:

**Total in SFHA**  
**614 structures\***

\* There are a total of 1455 structures within the floodplain. Of those 1455 structures, 647 of them have are addressable structures and 808 do not have any addresses associated with them. Also just be sure to let whoever you’re reporting this to, that the data was made in roughly 2005

A process for determining the impact area post-disaster can be found here:

- For flood damage:
  - The Kent County Floodplain Administrator will identify where flood damage has occurred throughout the County’s identified SFHA. There are a variety of distinct post-disaster assessments/inspections other than SD, and other teams should be coordinated as needed. For example, the

Office of Emergency Services will likely conduct Preliminary Disaster Assessments (PDA's) for the purposes of a disaster declaration. These assessments are not substantial damage determinations but can be used by the County to identify damaged areas.

- Other sources:
  - Department of Public Works staff will report damage to the Floodplain Administrator
  - Monitor local news reports and National Weather Service
  - [7-Day Forecast 39.95N 75.3W \(weather.gov\)](#)
  - [FEMA and MDEM updates](#)
- For fire damage:
  - The County Fire Departments respond, and applicants seek permits to rebuild
- For other damage, not limited to wind, vehicles, trees, etc., the Code Enforcement Officer(s) will be notified through a permit application.

### 3. Training/Resources

Providing pre/post-disaster training ensures that staff know what to do after an event. Applicable training can be delivered by the community, State, or FEMA, and include, but are not limited to [Independent Study \(IS\)-284: Using the SDE Tool](#); [IS-285: SDE for Floodplain Administrators](#); E/L/G273: Managing Floodplain Development Through NFIP; E/L/G 284: Advanced Floodplain Management Concepts SI/SD Module; and E/L/G 194: Advanced Floodplain Management Concepts; E/L/G 285: Providing Post-Disaster SD Technical Assistance to Communities. Information on classroom and field courses offered by FEMA can be found here: [FEMA - Emergency Management Institute \(EMI\)](#).

The County will also assure that staff have been trained on these materials:

- Kent County Hazard Mitigation Plan
- Kent County Emergency Response Plan
- FEMA P-758 SI/SD Desk Reference: [Substantial Improvement/Substantial Damage Desk Reference \(fema.gov\)](#)
- Kent County SI/SD Administrative Procedures

### 4. Public Outreach

Kent County has a strategy and associated products for immediate post-disaster public communications. Having these documents prepared prior to an event will avoid confusion and stress immediately following an event.

- Kent County Webpage
- Social Media Post

The following communications methods are used for immediate post-disaster communication to the public:

- County hall meetings
- Community website
- Social media (Facebook)
- Public Service Announcements (PSAs) on radio
- OES – Code Red notification system
- Handouts, newsletters, brochures, mailers, info kiosks available to residents

## 5. Inspections

Kent County’s inspections will be conducted by County Building Code/Inspection staff - when safe - to inspect damaged properties and collect SD data. If needed the County will enter into a contract with its 3rd party engineer to assist in SD inspections. Inspections will be documented on a [SD Worksheet](#)

In some cases, County Emergency Management Staff will have provided the Planning and Zoning Department its preliminary disaster assessment (PDA) information, which will be categorized by:

- Affected – property damage due to floods (no flood waters in structure)
- Minor - less than 18” of water on lowest living floor (below receptacles)
- Major - more than 18” of water on lowest living floor (above receptacles)
- Destroyed – structures completely flooded up to ceiling, moved off foundation, not on site anymore

For the purposes of SD determinations during a wide-scale event, the County will deem any “destroyed” properties as SD. Inspectors shall prioritize any structure categorized as major and minor for SD inspections. But follow-up with other properties as time allows.

- Note that PDA data must follow the categories above and be documented to a specific address and include photographs.

How many days? (For a wide-scale event)				
614 structures	X	0.0625	=	38 days
		(Time to assess each building – 30 mins)		
Note: Calculation doesn’t include travel time and assumes an 8-hour days.				

In order for the County to complete SD Inspections in 7 days we’ll deploy 6 inspectors, currently 2 inspectors on staff.

## 6. SD Determinations

After staff have conducted inspections and collected data, the Building Official will make SI/SD determinations, and document on the [SD Worksheet](#). The methods above (Method to Determine Market Value and Method to Determine Value of Damage/Repair) will be used to determine the market value and value of damage/repair. On the worksheet, the Building Official will calculate the % damaged, and maintain a record in the property file.

## 7. Issuing Determinations

Communicating SI/SD determinations to affected property owners is required by County regulations. Determinations are a necessary step to issuing permits for compliant rebuilding and are a requirement for administering a compliant floodplain management program in Kent County.

In flood events SD Determinations are needed by property owners who maintain flood insurance through the NFIP and would like to access [Increased Cost of Compliance \(ICC\)](#) coverage. The Building Official/Floodplain Administrator is responsible for issuing these determinations.

Kent County's procedure for communicating the results of the SI/SD determinations to structure owners. The following methods are utilized:

- Letter to structure owners/residents
- Paper handed directly to the structure owner/resident
- Post the determination at a physical place on the property

Letter templates and documents used to notify residents of determinations can be found here:

- Notice of Substantial Damage
- Notice of Non-Substantial Damage

Letters will be sent within 2-3 weeks of disaster.

## **8. Appeals/Variances**

Kent County has a process and other supporting materials for receiving, reviewing, and making decisions on appeals or requesting variances. The process and materials can be found here:

1. If a property owner receives a notice of "Substantial Damage" or "Non-Substantial Damage" and disagrees with the market value and/or damage/repair value, you can contact the floodplain administrator to discuss the submission of the following documentation:
  - See above for appeal method for market value and value of damage/repair
  - See above for appeal/variance

## **9. Permitting for Repairs and Rebuilding**

Issuing permits is a regular part of floodplain management but is especially important following a disaster. Repairing and rebuilding substantially damaged structures in compliance with local regulations is critical to maintaining good standing in the NFIP and protecting structure owners from future disasters. Below are the County's permitting procedures during blue skies, applicable to substantial improvement projects, and post-disaster/ emergency permitting procedures.

- See above "Permit Process – for Determining Substantial Improvement" for how to repair and rebuild post disaster.

Kent County will conduct periodic inspections of damaged properties after a disaster to assure permits are being obtained for repair and rebuilding. In the case of properties deemed substantially damaged the County will coordinate with utility companies to assure utilities are not restored until County permits are obtained.

## **10. SD Data**

Kent County's process for documenting and storing SD determination data can be found here:



- At the Department of Planning, Housing, Zoning, the County will maintain this data (SD Worksheets, Letters, etc.) in its property/inspection records, and will be maintained by the Building Official.

### **11. Monitoring**

Finally, once the County returns to blue sky operations, it is important to reflect on what went well and what could be improved. Tracking best practices and evaluating things like response times, staff needs, and more can highlight opportunities to respond faster and stronger next time.

A process for (i.e., implementation plan) for evaluating and continuously improving these substantial damage administrative procedures is maintained by the Floodplain Administrator and was last updated yearly in April (during Maryland Flood Awareness Month) and/or after a disaster.

### **12. Record Costs and Track SD Activities (*only applies to federally declared disasters*)**

Recording costs and tracking SD activities may be necessary to obtain resources or reimbursement for disaster response, such as through FEMA Public Assistance reimbursement for activities made eligible by DRRRA Section 1206 or other grants and funding sources.

- DRRRA Section 1206 funding defines a period of eligibility to be no longer than 180 days after the date of a major disaster declaration. FEMA does not have the authority to extend this deadline. See Section A, Applicability, of the [Building Code and Floodplain Management Administration and Enforcement Policy](#) for more information.
  - To receive reimbursement, communities must submit all supporting documentation necessary to demonstrate the work completed and the location of the work; all documentation associated with work completed through Emergency Mutual Assistance Compact (EMAC) resource request or intrastate/interlocal mutual aid request; and, if work was performed by contract labor, all documentation demonstrating federal procurement rules in 2 Code of Federal Regulations Part 200 were followed.

The SD Manager will be responsible for coordinating and submitting for reimbursement.

### **Appendix**

- Forms:
  - SI Worksheet
  - SD Worksheet
  - Homeowners Application Affidavit Agreement
- Letters:
  - Letter of SD
  - Letter of Non-SD
  - Letter of SI
  - Letter on Non-SI