North Carolina Division of Coastal Management

SUBSTANTIAL IMPROVEMENT AND SUBSTANTIAL DAMAGE FIELD GUIDE

INTRODUCTION

The purpose of this document is to assist Division of Coastal Management (DCM) Representatives, the Local Permit Officer (LPO), and the Authority Having Jurisdiction (AHJ) in determining "repair" and "replacement" of structures within Areas of Environmental Concern (AEC) (i.e., Ocean Erodible AEC). Coastal Resource Commission (CRC) rules pertaining to repair and/or replacement of existing structures are found in: 15A NCAC 07J .0210 Replacement of Existing Structures; 7K .0103 Maintenance and Repair; 7K .0209 Exemption/Accessory Uses/Maintenance/Repair and Replacement; and NCGS 113A-103(5)(b)(5).

For the purpose of managing repair and/or replacement of structures in AECs, two terms will be used: "Substantial Improvement" and "Substantial Damage." This document will cover substantial improvements to structures and how to manage major additions and other improvements to structures in Areas of Environmental Concern; and substantial damage to structures and how to manage reconstruction and repairs to structures that have been severely damaged.

*The basic rule in accordance with **7J .0210** is if the cost of improvements or the cost to repair the damage exceeds 50% of the physical value[1] of the structure, it must meet current CRC rules. That means an existing structure must meet the requirements for new development.*

SUBSTANTIAL IMPROVEMENT

*For the purpose of this document, **"Substantial Improvement"** means any reconstruction, rehabilitation, addition or other improvement to a structure, the total cost of which exceeds 50 percent of the physical value of the structure before the start of construction of improvement.*

All building[2] improvement projects worthy of a permit must be considered. These include:

- Remodeling projects
- Rehabilitation projects
- Building additions
- Repair and reconstruction projects

If the CRC rules or North Carolina General Statutes (NCGS) do not require CAMA permits for a project, for example, customary maintenance or repairs [NCGS 113A-103 (5)(b)(5)] i.e., reroofing a house on the oceanfront, then such projects are not subject to the CAMA permit requirements. However, if there is a larger project that includes reroofing, structural repairs, alterations, etc., then it must include the entire cost of the project.

PERMITTING NOTE: If the maintenance and repair consist of the enlargement of a structure [NCGS 113A-103(5)(a)] i.e., increasing the pitch on a roof, DCM considers this development and may require a CAMA permit, regardless of the cost to repair. Use discretion to determine if maintenance and repair projects, such as putting a pitched roof over an existing flat roof, are enlargement of a structure. In this example, if the new pitch roof creates useable area or has the effect of enlarging the attic area that can reasonably accommodate storage or habitable space, then it is development, requires a CAMA permit, and is not exempt.

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[1] The local building inspection office shall determine the physical value of the structure.

[2] In this document, the term "building" is the same as the term "structure."

DCM does not consider work or any other type of construction taking place within the confines of the space created by the modified design to be "development" [as defined in the NCGS] in making a permit determination. However, the cost to repair, improve, or rehabilitate is considered in the total "cost to repair" when determining substantial improvement. AHJs should consult with the District LPO Coordinator and/or the District Manager when there is potential for enlarging a structure or changing the use of a structure.

Multiple Projects

One problem DCM representatives may face is a property owner or builder trying to sneak through a loophole by applying for a permit for only part of the job and then later applying for another permit to finish the work.

If both applications together are worth more than 50% of the physical value of the building (and the second permit is applied for a relatively short time after the first), the combined project should be considered a substantial improvement and subject to the rules. It is DCM's determination that the entire improvement project be considered as one. *NOTE: If part of a structure is in an AEC, the entire structure is subject to this provision.*

In order to help AHJs to enforce this, AHJs may count all applications submitted over one year as one project. DCM representatives should check with their District Manager and Local Permit Officers should check with their legal counsel on whether their ordinance clearly gives them the authority to do this. This should also be clearly spelled out in the permit papers given to the applicant.

A project is a substantial improvement if:

$$\frac{\textbf{Cost of improvement project}}{\textbf{Physical value of the structure}} > 50\%$$

For example, if a proposed improvement project will cost $30,000 and the value of the structure is $50,000:

$$\frac{\$30{,}000}{\$50{,}000} = 0.6\ (60\%)$$

In this example, the cost of the project exceeds 50% of the physical value of the structure, so it is a substantial improvement. The CRC rules for the project apply and the structure must meet the current CRC rules. The formula is based on the cost of the project and the value of the physical value of the structure as determined by the local building inspection office. The two numbers must be reviewed in detail. Keep good records of the applicant's estimates and the local building inspection office's calculations.

Project Cost

The cost of the project means all structural costs, including:

- All materials
- Built-in appliances
- Overhead
- Profit
- Repairs made to the damaged part of the structure worked on at the same time
- Labor

Labor is the "true" cost of hiring someone to do the job, e.g., the prevailing rates contractors charge. If the owner does it him/herself or has free help, the "true" cost of the labor must be included. To determine substantial improvement, the AHJ will need a detailed cost estimate for the project, prepared by a licensed general contractor, professional construction estimator, or the local building inspections office.

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The AHJ must review the estimate submitted by the permit applicant. To verify it, the AHJs can use their professional judgment and knowledge of local and regional construction costs, or can use building code valuation tables published by the major building code groups. These tables can be used for determining estimates for particular replacement items if the type of structure in question is listed in the tables.

It is strongly suggested to use the forms provided as attachments to this document to substantiate the estimated cost of the project. All forms must be signed, completed in full, and notarized where applicable on the affidavits. Forms that are incomplete, not signed or notarized should not be accepted.

FIGURE 1.

ITEMS TO BE INCLUDED IN THE COST ESTIMATE

- ALL STRUCTURAL ELEMENTS, INCLUDING:
  - ❑ Spread or continuous foundation footings and pilings
  - ❑ Structure jacking, elevating, moving, relocating, and the associated costs & materials
  - ❑ Monolithic or other types of concrete slabs
  - ❑ Bearing walls, tie beams, and trusses
  - ❑ Floors, walls, and ceilings
  - ❑ Attached decks and porches
  - ❑ Interior partition walls
  - ❑ Exterior wall finishes (brick, stucco, siding) including painting, trim, and moldings
  - ❑ Windows and doors
  - ❑ Re-shingling or re-tiling a roof
  - ❑ Hardware
- ALL INTERIOR FINISHING ELEMENTS, INCLUDING:
  - ❑ Tiling, linoleum, stone, or carpet over subflooring
  - ❑ Bathroom tiling and fixtures
  - ❑ Wall finishes (drywall, painting, stucco, plaster, paneling, marble, etc.)
  - ❑ Kitchen, utility and bathroom cabinets
  - ❑ Built-in bookcases, cabinets, and furniture
  - ❑ Hardware
- ALL UTILITY AND SERVICE EQUIPMENT, INCLUDING:
  - ❑ HVAC equipment
  - ❑ Plumbing (down to the sewer drain) and electrical services (to the service entrance conductors)
  - ❑ Light fixtures and ceiling fans
  - ❑ Security systems
  - ❑ Built-in kitchen appliances
  - ❑ Central vacuum systems
  - ❑ Water filtration, conditioning, or recirculation systems
- COST TO DEMOLISH AND HAUL-OFF STORM DAMAGED BUILDING COMPONENTS
- LABOR AND OTHER COSTS ASSOCIATED WITH MOVING OR ALTERING UNDAMAGED BUILDING COMPONENTS TO ACCOMMODATE IMPROVEMENTS OR ADDITIONS
- OVERHEAD AND PROFITS

ITEMS TO BE EXCLUDED

- SEPTIC SYSTEMS (SEPTIC SYSTEMS ARE EVALUATED SEPARATELY)
- PLANS AND SPECIFICATIONS
- ENGINEERING OR ARCHITECTURAL FEES
- SURVEY COSTS
- PERMIT FEES
- POST-STORM DEBRIS REMOVAL AND CLEAN UP
- OUTSIDE IMPROVEMENTS, INCLUDING:
  - LANDSCAPING
  - SIDEWALKS
  - FENCES
  - YARD LIGHTS
  - SWIMMING POOLS (UNLESS THE POOL IS THE STRUCTURE IN QUESTION)
  - SCREENED POOL ENCLOSURES
  - DETACHED OR ACCESSORY STRUCTURES (INCLUDING GARAGES, SHEDS, GAZEBOS UNLESS THESE ARE THE STRUCTURES IN QUESTION)
  - LANDSCAPE IRRIGATION SYSTEMS

PHYSICAL VALUE

In common parlance, "physical value" reflects the structure's subsequent improvements, physical age of building components and current condition and original quality. For the purposes of determining substantial improvement, the physical value pertains only to the structure in question. It does not pertain to the land, landscaping, or detached accessory structures on the property (unless the detached structures are the structures in question). Any value resulting from the location of the property should be attributed to the value of the land, not the building.

Acceptable estimates of physical value can be obtained from these sources:

- An independent appraisal by a certified professional appraiser. The appraisal must exclude the value of the land and not use the "income capitalization approach" which bases the value on the property, not the structure.
- Detailed estimates of the structure's actual cash value - the replacement cost for a structure, minus depreciation percentage based on age and condition. For most situations, the structure's actual cash value should approximate its market value. One may prefer to use actual cash value as a substitute for physical value, especially where there is not sufficient data or enough comparable sales.
- Property appraisals used for tax assessment purposes with an adjustment recommended by the tax appraiser to reflect the adjusted assessed value.
- The value of structures taken from insurance claims (usually the actual cash value).
- Qualified estimates based on sound professional judgment made by the staff of the local building inspection office or the tax assessor's office.

Substantial Damage

*For the purpose of this document, **"Substantial Damage"** means damage of any origin sustained by a structure whereby the cost of restoring the structure to it before damaged condition would exceed 50 percent of the physical value of the structure before the damage occurred.*

Two key points:

1. The damage can be from any cause – flood, fire, hurricane, wind, rain, natural deterioration caused by the elements, or other natural or human-induced hazard.
2. The substantial damage definition and CRC rules applies to all structures in AEC's unless otherwise exempted from the CRC rules.

The formula is essentially the same as for substantial improvements:

$$\frac{\textbf{Cost to repair the structure}}{\textbf{Physical value of the structure}} > 50\%$$

Physical value is calculated in the same way as for substantial improvements. Use the pre-damage physical value.

Cost to Repair

Notice the formula uses "cost *to* repair," not "cost *of* repairs." The cost to repair the structure must be calculated for full repair to the structure's before-damage condition, even if the owner elects to do less. It must also include the cost of any improvements that the owner has opted to include during the repair project.

The total cost to repair includes the same items listed in Figure 1. Properly repairing storm-damaged buildings can be more expensive than people realize. The owner may opt not to pay for all the items needed. The owner may:

- Do some work, such as removing and discarding construction debris
- Obtain some materials free.
- Have a volunteer organization do some of the work.
- Decide not to do some repairs, such as choosing to nail down warped flooring rather than replace it.

However, the basic rule still applies. *Substantial damage is determined regardless of the actual cost to the owner. One must figure the true cost of bringing the structure back to its pre-damage condition using qualified labor and materials obtained at market prices. NOTE: Structures may be reduced in size but enlargement of non-conforming structures cannot be allowed.*

The permit office and the owner may have serious disagreements over the total list of needed repairs and their cost, as the owner has a great incentive to show less damage than actually occurred in order to avoid the cost of bringing the building into compliance. Here are four things that can help:

1. Get the cost to repair from an objective third-party or undeniable source such as
    - A licensed general contractor.
    - A professional construction estimator.
    - Insurance adjustment papers (exclude damage to contents).
    - Damage assessment field surveys conducted by building inspection, emergency management, or tax assessment agencies after a disaster.
    - The local building inspections office.

Authorities need to review the estimate submitted by the permit applicant. One can use their professional judgment and knowledge of local and regional construction costs. Or, one can use building code valuation tables published by the major building code groups.

2. Use an objective system that does not rely on varying estimates of market value or different opinions of what needs to be repaired. The National Flood Insurance Residential Substantial Damage Estimator Program or the Marshall Swift Residential Cost Handbook are examples of such a system.

3. Inform the public about the need for the regulations and the benefits of protecting structures from future hazards. A well-educated public won't argue as much as one that sees no need for the requirement.

4. Help the owner find financial assistance to meet the extra cost of complying with the rules. If there was a disaster declaration, there may be sources of financial assistance.

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APPLICATION FOR DETERMINATION OF

☐ **SUBSTANTIAL IMPROVEMENT**

☐ **SUBSTANTIAL DAMAGE**

Permit No. _____ Tax Map _____ Block _____ Parcel _____ Lot _____

Property Address: _____ Subdivision Name: _____

FIRM Panel: _____ Flood Zone: _____ BFE: _____ AEC: _____

Pre-damage Elevation: _____ MSL Date Damage Sustained: _____

	Property Owner	Co-Owner
Name:	_____	_____
Mailing Address:	_____	_____
City, State, Zip:	_____	_____
Phone Number:	_____	_____

☐ I am attaching a certified appraisal report of my structure, or

Initials: _____

☐ I am not submitting a certified appraisal report of my structure and I accept the Estimated Physical Value from tax assessment.

Initials: _____

☐ I accept the attached estimated cost of construction as a fair cost of repair/improvement for my structure.

Initials: _____

The following documents must accompany the application

The following document(s) is/are attached:

- ☐ Detailed Construction Cost Estimate, Signed by a Licensed General Contractor
- ☐ Contractor's Affidavit, signed, dated, and certified or notarized
- ☐ Copy of the General Contractor's License
- ☐ Owner's Affidavit, signed, dated, and certified or notarized
- ☐ FEMA Elevation Certificate (if applicable or needed)
- ☐ Floor plan drawing (if available)
- ☐ Photos (or other evidence) of structure before and after damage event (if available)

Signatures:

Owner: _____ Date: _____

Co-Owner: _____ Date: _____

Contractor: _____ Date: _____

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ESTIMATED COST OF RECONSTRUCTION

Permit No.: _____ Tax Map: _____ Block:_____ Parcel _____ Lot:_____

Property Address: _____ Subdivision Name: _____

Items	Labor Cost	Materials Cost	Total Cost
Total Relocation Costs (house jacking, moving, relocating, etc)			
Foundations (pilings, piers, etc), Concrete, Forms, etc.			
Carpentry material (rough) including decks & porches			
Carpentry Labor (rough)			
Roofing			
Insulation and weather stripping			
Exterior finish			
Doors, windows, and shutters			
Lumber Finish			
Carpentry Labor (finish)			
Hardware (rough)			
Hardware (finish)			
Cabinets			
Floor covering (tile, carpet, etc.)			
Plumbing			
Shower, tub, toilets, and other plumbing fixtures			
Electrical			
Lighting fixtures			
Built-in appliances			
HVAC			
Paint			
Overhead and Profit			
TOTAL			

NOTE: *You must apply full market value for all donated labor and materials. Contractor attests this information is true and accurate.*

Contractor's Name: _____ License Number: _____

Address: _____ Phone Number: _____

Signature of Contractor: _____ Date: _____

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CONTRACTOR AFFIDAVIT

Permit No.: _____ Tax Map: _____ Block:_____ Parcel _____ Lot:_____

Property Address: _____ Subdivision Name: _____

Contractor's Name: _____ License Number: _____

Owner's Name: _____ Phone Number: _____

I hereby attest to the fact that I, or an employee of my company, personally inspected the above mentioned property and produced the attached list of itemized repairs, additions, rehabilitations, reconstructions, and/or remodeling list which are hereby submitted for review:

(*Check on or both as applicable*)

☐ These damages are all the damages sustained by this structure, and all other additions and improvements or repairs proposed on the subject property are included in this estimate.

☐ These improvements are all of the improvements that will be done to the existing structure, and all other additions, improvements, rehabilitations, or repairs on the subject property are included in this estimate.

I understand that I am subject to enforcement actions, restoration, and/or civil penalties if the information submitted is not true and accurate, or if inspection of the property reveals that I have performed work on the structure not included on the attached list of repairs/modifications to this structure, or that I have included non-conforming or illegal structures or additions to the existing structure without having presented any plans for such additions. I understand that any permit issued by this jurisdiction pursuant to this affidavit does not authorize reconstruction, rehabilitation, repair, or maintenance of any illegal additions, fences, sheds, or non-conforming uses of structures of the subject property.

Total Labor and Materials: $ _____

Overhead and Profit: $ _____

Total Cost: $ _____

State of North Carolina, County of _____.

Before me this day personally appeared _____, who, being duly sworn deposes and says that he or she has read, understands, and agrees to comply with all the aforementioned conditions.

Signature of Contractor:

_____

Sworn to and subscribed before me this _____ day of _____ A.D., 20 _____.

(Seal)

_____
Notary Public State of North Carolina

My Commission expires: _____

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PROPERTY OWNER AFFIDAVIT

Permit No.: _____ Tax Map: _____ Block:_____ Parcel _____ Lot:_____

Property Address: _____ Subdivision Name: _____

Contractor's Name: _____ License Number: _____

Owner's Name: _____ Phone Number: _____

(*Check on or both as applicable*)

☐ I hereby attest to the fact that the information submitted is true and accurate; the repairs/reconstruction, rehabilitation, and /or remodeling list submitted for review by my contractor are all the damages sustained by this structure and that all other additions and improvements, or repairs proposed on the subject property are included in this estimate. **No other person, firm, or corporation, or no other contractor had made repairs, reconstruction, additions, or remodeling not included on the attached list.**

☐ I hereby attest to the fact that the information submitted is true and accurate; the repairs, additions, rehabilitations, reconstructions and/or remodeling list submitted for review by my contractor are all of the improvements that will be done to the existing structure and that all other additions, improvements, or repairs on the subject property are included in this estimate. **No other person, firm, or corporation, or no other contractor had made repairs, reconstruction, additions, or remodeling not included on the attached list.**

I understand that I am subject to enforcement actions, restoration, and/or civil penalties if inspection of the property reveals that the information submitted is not true and accurate, or that I have performed or authorized work on the structure not included on the attached list of repairs/modifications to this structure, or that I have included or authorized non-conforming or illegal structures or additions to the existing structure without having presented any plans for such additions. I understand that any permit issued by this jurisdiction pursuant to this affidavit does not authorize reconstruction, rehabilitation, repair, or maintenance of any illegal additions, fences, sheds, or non-conforming uses of structures of the subject property.

State of North Carolina, County of _____.

Before me this day personally appeared _____, who, being duly sworn deposes and says that he or she has read, understands, and agrees to comply with all the aforementioned conditions.

Signature of Owner: _____

Sworn to and subscribed before me this _____ day of _____ A.D., 20_____.

(Seal)

_____
Notary Public State of North Carolina

My Commission expires:

_____

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Appendix A

Revision/Updates History

1. 10/27/2003 – Final draft approved for use by Charles Jones.
2. 11/07/2003 – General text formatting revisions.
3. 3/25/2004 –
   (A) Page 3, Second paragraph. Added last sentence: "All forms must be signed…"
   (B) Page 3, Figure 1. Revised the "Items to be Included in the Cost Estimate" by adding "Structure jacking, elevating, moving, relocating, and the associated costs and materials."
   (C) Page 4, Items to be excluded. Added "septic systems" which are evaluated separately by DCM.
   (D) Page 8, Items, added item "Total Relocation Costs…".
   (E) Page 8, NOTE:, added second sentence, "Contractor attests this information…".
4. 8/2004 – Document presented to CRC by Ted Tyndall.
5. 12/9/2004 – Page 11, Added Appendix A, Revision/updates history.