



The Road Home

BUILDING A SAFER,
STRONGER, SMARTER LOUISIANA

Protocols for Estimating Replacement Housing Costs v15

27 September 2007



Protocols for Estimating Replacement Housing Costs, v15

THE ROAD HOME *Protocols for Estimating Replacement Housing Costs* Version Control

Version Number	Date Revised	Description of Revisions
9.0	11/02/06	<ol style="list-style-type: none"> 1. <i>Type 1 and Type 2 Evaluations Defined:</i> The concept of Type 1 and 2 Evaluations introduced and defined. Not defined in v8. 2. <i>Square Footage Replacement Cost For Single Family Homes:</i> A single allowance of \$130/square feet for all size of houses replaced a size-based allowance in Version 8. 3. <i>Manufactured House Replacement Allowance:</i> Replacement allowances were developed for single-, double-, and triple-wide manufactured homes. If damage to a manufactured home exceeds \$5,200, the homeowner will receive a replacement allowance. No allowance in v8. 4. <i>Manufactured House Elevation Allowance:</i> An allowance of \$15/square feet will be provided to homeowners that need to elevate. No allowance in v8. 5. <i>Exemption of Housing Components Discovered After the Home Evaluation:</i> Only those damaged housing components disclosed or discovered at the time of the evaluation are eligible to receive compensation. Was not considered in v8. 6. <i>Limit on Complete HVAC Units:</i> One complete HVAC unit will provided per home; the allowance is adequate to compensate homeowner for a variety of configurations based on different house types. No cap in v8. 7. <i>Limit on Hot Water Tanks:</i> A maximum of two hot water heaters per home will be provided. No cap in v8. 8. <i>Addition of Line Drawing That Illustrate Replace/Repair Areas:</i> Appendix B was included to provide illustrations that show how repair/replace and elevation areas are to be determined for Type 1 and Type 2 Evaluations. Appendix B not included in v8.

Version Number	Date Revised	Description of Revisions
10.0	12/12/06	<p>9. <i>Changed title of Section 6.2.3 from “Attached Garages” to “Garages”.</i> Deleted language in this section indicating that detached garages converted into living space are eligible for compensation.</p> <p>10. <i>Inserted new Section 7: Duplex Home Replacement.</i> This section includes a discussion on the protocols for performing Type 1 home evaluations on duplexes.</p> <p>11. <i>Inserted new Section 8: Duplex Home Repair.</i> This section includes a discussion on the protocols for performing Type 2 home evaluations on duplexes.</p> <p>12. <i>v9 Section 6 renamed Section 9 in v10: Manufactured (Mobile) Home Replacement.</i> Modified the table in this section that provided allowances for the replacement of single-, double-, and triple-wide manufactured homes. Modifications to the table include the removal of dimensions from the table (lengths and widths) and square foot ranges. Dimensions and square foot ranges were added to the paragraph that follows the table.</p> <p>13. <i>Type 1 Evaluation of Manufactured Homes:</i> Added a discussion to the Type 1 evaluation of manufactured homes in Section 9 to include an allowance for the replacement of structures added to the manufactured home (e.g., a 10 foot by 10 foot room added to a single-wide, which would result in an additional 100 sf that would receive an allowance of \$35/sf to rebuild). Included an allowance of \$500 for utility connections.</p> <p>14. <i>Deletion of Type 2 Evaluations of Manufactured Homes:</i> Removed Section 7 from v9, which included protocols for conducting Type 2 evaluations on manufactured homes. All manufactured will be evaluated as Type 1’s.</p>
11.0	02/20/07	<p>15. <i>Corrected Reference:</i> On page 2 corrected reference cited as “2006 Gulf Coast Reconstruction Cost Book” to read “2006 Gulf Coast Reconstruction Cost Estimator, published by Craftsman Book Company (ed. by Jonathan Russell).</p> <p>16. <i>Clarification of Compensation Area:</i> On page 5, last paragraph the methodology for determining compensation area in multi-story homes was clarified.</p> <p>17. <i>Added Section 9: Townhome Replacement</i></p> <p>18. <i>Added Section 10: Townhome Repair Allowances</i></p> <p>19. <i>Moved Section 9 (Mobile Home Replacement) in v10 to Section 11 in v11</i></p>
12.0	05/15/07	<p>20. <i>Added Section 5: Ordering of Home Evaluations</i></p> <p>21. <i>Added Section 6: Changing Evaluation Types in the</i></p>



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		<p>Field.</p> <p>22. <i>Elevation Allowances</i>: Section 8.2.1 modified to clarify that all homeowners initially receive an elevation allowance for elevating 0 to 4 feet.</p> <p>23. <i>Added Section 8.6.4</i>: Allowance for Carport</p> <p>24. <i>Appendix B</i>: Made clarifications to illustrations in Appendix B, the most significant of which was clearly equating Spec 8822 to be equivalent to Spec 150.</p>
13.0	07/15/2007	<p>25. <i>Eligible Structure Types</i>: A list of Road Home eligible and ineligible structures provided in Section 1.</p> <p>26. <i>Ordering of Condominium Evaluations</i>: An explanation on the process of ordering condominium evaluations is provided at the end of Section 5.</p> <p>27. <i>Inserted New Section 7: Road Home Override of FEMA Eligibility Requirements</i> (v12 Sections 7, 8, 9, 10, 11, 12, and 13 are changed to 8, 9, 10, 11, 12, 13, and 14 as result of the insertion of new Section 7).</p> <p>28. <i>In Section 14, Manufactured (Mobile) Home Replacement, added explanation on process for handling manufactured homes with apparent minimal damage.</i></p> <p>29. <i>Added Section 15: Condominium Evaluations.</i></p>
14.0	8/15/07	<p>30. <i>Added new Section 7 “Re-Evaluation Guidelines”</i>. All subsequent section numbers increased by one (v13 Section 7, now v14 Section 8, etc.)</p> <p>31. <i>Added new Section 8 “Damage Estimates for Homes with Storm Caused Fire Damage”</i>. V13 Section 7 now v14 Section 9, v13 Section 8 now v14 Section 10, etc.</p> <p>32. <i>Renamed and added some clarification to Section 8, which is now titled “FEMA Eligibility Requirements”</i>.</p> <p>33. <i>Types of Home Evaluations, Section 4</i>: Made language changes to bring this document in concert with Homeowner Program Policies. Changes reflect the policy of conducting Type 1 and Type 2 on all structures (except manufactured homes).</p> <p>34. <i>Ordering Home Evaluations, Section 5</i>: Made minor modifications which reflect that the homeowner indicates their perceived damages during the initial interview, but that both Type 1 and Type 2 evaluations are conducted regardless of the homeowner perceived extent of damage.</p> <p>35. <i>Renamed and made clarifications to Section 6</i>: Formerly Section 6 was named “Changing Evaluation Types in the Field”. Section 6 now named “Special Cases: Type 1 Evaluations Only”. The text in this section was modified to reflect the policy that evaluators must do both Type 1 and Type 2</p>



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		evaluations unless the structure is unsafe to enter or has been demolished.
15	9/27/07	<p>36. <i>Section 4:</i> The text was modified to more clearly explain that Type 2 evaluations are conducted on all structures (except manufactured homes) unless they are unsafe to enter or have been demolished. Text further modified to more clearly explain that when a Type 2 evaluation is conducted data are collected so that a Type 1 replacement allowance can be calculated.</p> <p>37. <i>Section 6:</i> The text was modified to more clearly explain that Type 2 evaluations are conducted on all structures (except manufactured homes) unless they are unsafe to enter or have been demolished.</p> <p>38. <i>Section 7.6, Page 14, 1st Paragraph:</i> Clarified when re-evaluation data many supersede the original evaluation.</p> <p>39. <i>Added new Section 8 (all v14 sections beginning at 8 increased by one in v15): Type 2 to Type 1 Changes Using Weight of Evidence Analysis.</i></p> <p>40. <i>Section 11:</i> Clarified that a Type 1 award includes the replacement allowance, plus \$550 for an elevation survey and approximately 2% of the replacement allowance for builder’s risk insurance.</p> <p>41. <i>Section 12.2.1(v14, Section 11.2.1):</i> Modified Elevation Allowance table to clarify that one allowance will be provided to elevate slab and frame foundations greater than 4 feet.</p>

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1. Introduction

Louisiana’s Road Home Program was created “to provide compensation to Rita and Katrina homeowners through renovation, while providing families with safe, secure and affordable homes.” A fundamental element of the program is home evaluations. Home evaluations are conducted to quantify storm damage and provide an estimate of the cost to replace housing and elevate homes located in flood plains. This document is intended to provide the protocols and general framework for estimating replacement/repair housing cost estimates.

The basic values considered in the development of the protocols include:

- Performance and durability
- Historically sensitive exteriors, where applicable
- Life cycle costs
- Affordable operating costs

1.1 *Applicable Laws and Regulations*

The Road Home program is designed to provide a reasonable standard of living for home owners whose homes were destroyed or damaged by Hurricane Rita and Katrina. The Program is committed to ensuring that homes are replaced or repaired in full compliance with the following statutory and regulatory requirements:

- Building Code: The International Residential Code (IRC)
- Housing Code: The Local Housing Code
- Federal Housing Code: Housing Quality Standards
- Life Safety Code: Life Safety Code
- HAZMAT: HUD CDBG requirements for specific programs
- Energy: The International Energy Code 2003 and EPA’s Energy Star Program¹
- Louisiana Division of Historic Preservation²

The housing developer shall seek guidance and strive to conform to the following codes:

- Accessibility: ANSI standards for handicapped accessibility

¹ *The Road Home* Program will strive to meet applicable standards under EPA’s Energy Star Program

² Properties listed in the National Register of Historic Places will not be modified until Section 106 consultation is completed

- HAZMAT: HUD Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing
- Exceptions: On a case-by-case basis deviations from the minimum requirements of this standard will be permitted with approval of the Office of Community Development (OCD).

1.2 Repair/Replacement Quality

For the purpose of *The Road Home* program, the following repair/replacement classifications are used: low, moderate, and high. These classifications are generally consistent with the classifications defined in the *2006 Gulf Coast Reconstruction Cost Estimator* (the Estimator), published by Craftsman Book Company (ed. by Jonathan Russell). Low, moderate, and high quality as used in this protocol is equivalent with economy, standard, and deluxe, respectively, as defined in the Estimator.

These designations refer to the quality of an item and the need for durability. For example, for the interior replacement of a passage door a moderate standard was used, i.e. hollow core, pressed wood product with brass plated bedroom lockset, jam, and casing. Based on professional judgment, this standard was considered consistent with the overall objective of providing a reasonable standard of living for home owners whose homes were destroyed or damaged. On the other hand, for the exterior replacement of a door a high standard is used, i.e. steel six panel doors may be installed at entrances not visible from the front street. This is again based on professional judgment that an exterior door should meet a higher standard than an interior door.

1.3 Cost Data Sources

The following cost data sources will be used, in the order listed, as the basis for determining structural element allowances:

1. National Gulf Coast Reconstruction Cost Estimator. Standard and economy grade unit prices will be used with an 8% local area modifier (LAM) and a 20% mark-up to account for contractor overhead and profit. If unit prices for a particular element are not included in this document, data source No. 2 will be used.
2. Home Tech Cost Estimating for New Orleans, Louisiana – Zip 70125. If unit prices for a particular element are not included in this document,



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data source No. 3 will be used. Prices obtained from this data source include subcontractor profit.

3. A Road Home provided calculation will be used incorporating local market research when unit prices for an element are not included in data source Nos. 1 or 2.

1.4 Eligible Structures

The following structures types are eligible for a *Road Home* compensation grant providing all other applicable conditions and requirements are met:

- Single-family stick-built and modular homes,
- Duplexes,
- Townhomes,
- Condominiums, and
- Manufactured (mobile) homes.

Non-traditional structures used for permanent residence are not eligible for *Road Home* compensation. Examples of non-traditional structures include, but are limited to, houseboats, recreational vehicles, and hunting cabins or camps.

1.5 Reliance on Owner Supplied Information

The *Road Home* grants program is intended to provide qualified homeowners with an opportunity and incentive to replace or repair their homes to a reasonable pre-Katrina and Rita condition. The program acknowledges that grant programs should take prudent measures to minimize the occurrence of fraud and other forms of deceit. Therefore, this program instituted safeguards to ensure that grant monies are properly dispersed. To help meet that objective, the program will not use owner-supplied receipts, estimates, or proposals as a basis for determining replacement housing costs. The home evaluators will, however, note owner-supplied information, if provided, but it will not be used in the calculation of replacement costs.

The home evaluation process also includes measures to document cases where the home evaluators have reason to suspect the homeowner is providing questionable information. This process entails the home evaluator including a description of the questionable information in the “notes” section of the software used to collect information. For items the home evaluators feel are egregious or tending toward fraud, they are instructed to add a specification referred to as “142”, which is titled “Verify Owners Measurements” on the cost estimate report. A

system of subsequent quality assurance/quality control checks was developed to ascertain whether the homeowner intended to deceive the home evaluators. In addition to specification “142”, specification “143” was developed to identify evaluations that may need a policy interpretation to determine whether an item is eligible or not.

2. Eligible Repairs and Replacements

The Road Home grants program is intended assist homeowners in replacing and/or repairing Katrina or Rita storm damage to an acceptable standard, which is defined elsewhere in this document. Housing rehabilitation experts and consultants working on behalf of *The Road Home* program considered a wide range of typical repair and replacement items associated with storm damage and in consultation with the Louisiana Office of Community Development (OCD) developed a list of items eligible for the grant program. This document includes protocols and standards for the repair or replacement of eligible major elements of a house. Only eligible housing components that are discovered and disclosed prior to or at the home evaluation will be included in the compensation total; therefore, conditions discovered by a homeowner after the evaluation are not eligible.

3. Role of Home Evaluator

The role of the home evaluator is to collect sufficient data from a damaged property to estimate a repair or replace allowance. The home evaluator is not a decision maker. With the exception of basic homeowner information (e.g., name, address, living area, or number of stories), the home evaluator does not have any specific information about the owner’s application. The home evaluator must defer any homeowner questions regarding potential allowances to their assigned housing advisor. The home evaluator should be prepared to collect information from the homeowner, including a room by room description of what was present before the storm, what was damaged during the storm and what work was done to repair or replace the damaged property.

A step-by-step description of each activity the home evaluator should perform is beyond the scope of this document. A summary of the home evaluation process is provided below.

1. Home evaluator receives work order to conduct an evaluation.
2. Home evaluator (or dispatcher) makes an appointment with homeowner.

3. Home evaluator arrives at the home with appropriate “tools” to conduct evaluation, including PC tablet with cost estimating software, measuring tapes, flashlights, and cameras.
4. Home evaluator explains to homeowner that he/she is a representative of *The Road Home* program and that he/she is there to interview and collect information about their damaged property.
5. Home evaluator interviews the homeowner to collect information about the homeowner’s damage. If the homeowner offers receipts, proposals, cost estimates for repairs, the home evaluator may note this in the report, but the home evaluator is not to receive copies of these documents
6. Home evaluator should conduct an overview of the structure and a room by room inspection of the areas subject to storm damage and take measurements, as needed, to document damaged areas.
7. After the home evaluation, the evaluator should remind the homeowner to contact their home advisor if they have questions regarding the home evaluation.
8. To facilitate the completion of scheduled evaluations in a timely manner, the home evaluator and homeowner may share contact information. Home evaluators are trained to report any suspected fraudulent activities with their supervisors who will in turn report this to *The Road Home* program.

4. Types of Home Evaluations

Home evaluators complete a Type 1 when the structure is unsafe to enter and has been demolished or completely destroyed. Type 2 evaluations are conducted on structures that are safe to enter and are not completely destroyed. While doing a Type 2 evaluation, house dimensions and compensation area information is collected by the evaluator so that Type 1 replacement allowance can also be calculated. Type 1 Evaluations consist of obtaining data (house dimensions and compensation area) that allows the computation of a replacement allowance for the home and an elevation allowance. Type 2 Evaluations consist of a component by component assessment of damages to the home, as well as the determination of an elevation allowance.

The Road Home Program makes the determination of what Evaluation Type cost estimate to use in award calculations by approximating the percentage damage to



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the home, which is determined as follows:

$$(Evaluation\ Type\ 2\ Cost\ Estimate / Evaluation\ Type\ 1\ Cost\ Estimate) \times 100 = \% \text{ Damage}^3$$

As mentioned above, to facilitate the calculation shown above, a Type 1 cost estimate is calculated by *The Road Home* for Type 2 Evaluations. If the percentage damage as calculated above for a Type 2 evaluation is equal to or greater than 51%, then the Type 1 cost estimate is used in the award calculation. If the percentage damage is less than 51%, then the Type 2 Evaluation cost estimate is used in the award calculation. If the home has been cleared or demolished or the home evaluator finds it otherwise impossible to complete an Evaluation Type 2, the home evaluator will make a note that Evaluation Type 2 could not be completed and complete Evaluation Type 1. The home in this instance is considered equal to or greater than 51% damaged providing that the homeowner can provide documentation confirming the compensatable area of the home.

5. Ordering of Home Evaluations

A homeowner meets with a Housing Advisor early in *The Road Home* process at an Initial Advisory Meeting. At the Initial Advisory Meeting, the Housing Advisor obtains applicant information, including the extent of damage to home and the structure type (i.e., single-family, duplex, town home, condominium, etc.). The Advisor asks the homeowner to characterize the damage the property sustained into one of the following four categories:

1. Partially damaged
2. Work-in-progress
3. Completed work
4. 100% destroyed

One of the above property categories is captured (along with applicant and property location data) on a Work Order that is completed by the Housing Advisor. The Work Order is used to dispatch home evaluations. The property characterization gives the evaluator a sense of the property's condition. As indicated above Type 2 evaluations are conducted on all homes unless the structure is unsafe to enter or the structure has been completely destroyed. In the

³ This calculation only includes damage to the structure; it does not include elevation allowance.

latter two cases only a Type 1 evaluation can be conducted (see Section 6 for more information).

Work orders for condominium evaluations will be supplemented by information included on a Condominium Supplemental Information Request (CSIR), which will be completed by each applicant. The CSIR will include information about the applicant's unit as well as information on the condominium association (total square footage of the association, number of buildings, etc.) in which the applicant's unit is located. Type 2 evaluations will be conducted on all condominium units and common elements, unless they are unsafe to enter or have been cleared, in which case Type 1 evaluations will be conducted. Section 16 includes details on how condominium evaluations are conducted.

6. Special Cases: Type 1 Evaluations Only

As discussed above, under most conditions Type 2 evaluations are conducted on all structures. There are, however, special cases where only a Type 1 evaluation is conducted. These two cases are discussed below:

- Unsafe Conditions – Unsafe conditions should in most cases be an adequate trigger for only conducting a Type 1 evaluation. Some examples of unsafe conditions include a structure whose load bearing walls, columns, or other support components have been comprised, a structure that has strong industrial or chemical odors or vapors emanating from the home, and a structure that has been marked by the local parish or fire authority as being unsafe to enter. If any of these conditions or similar conditions occurs, the evaluator can, upon consultation with a supervisor, change the evaluation type. Should the evaluator and manager decide to perform only a Type 1 evaluation, the condition of the house should be well-documented with photos and be accompanied with a written description of the condition and reason for the change in evaluation type.
- Demolished structures – If a structure has been demolished or partially demolished, the evaluator can conduct a Type 1 evaluation only. The evaluator will take photos to document the condition and measure the footprint and compensatable area if possible.

In both of the cases above the homeowner must be able to provide documentation on the structure's living area (compensatable area).

7. Re-Evaluation Guidelines

This section describes the guidelines used for the re-evaluations of houses. A re-evaluation is a second evaluation of a previously evaluated house. It is not the same as a quality assurance (QA) evaluation (which is a second evaluation conducted on a random sample of homes for QA purposes). This document includes a brief background discussion of the home evaluation process, a discussion and examples of when it is appropriate to request a re-evaluation and when it is not, a list of individuals who are authorized to request re-evaluations, a description of how re-evaluations are ordered, and a discussion on how the estimated cost of damages (ECD) determined by the re-evaluation is used. The ECD is included in a *Road Home Program* evaluation report called a Compensation Allowance Document (CAD). The terms ECD and CAD are used interchangeably in this document.

Prior to discussing the situations that might trigger a re-evaluation some background is provided to explain the home evaluation process and other mechanisms used by the Home Evaluation Team to resolve homeowner issues.

7.1 Home Evaluations

Home evaluations are conducted by professional insurance adjusters, inspectors, and building experts. Many of these individuals have worked along the East and Gulf Coasts in response to disaster recovery efforts stemming from other hurricanes. Prior to going into the field, these individuals received *Road Home Program*-provided training on how to perform home evaluations consistent with the program-specific protocols, policies, and procedures. The training, which was conducted by a *Road Home Program* subcontractor initially and subsequently by ICF International, included detailed sessions on eligible housing components, how to determine and measure compensatable area, how to use the data acquisition software (Housing Developer Pro, version 3, or HDP), as well as sessions on ethics and fraud control. It should be noted that the protocols and procedures used to perform home evaluations were modified and strengthened, in concert with the client, as the program has been operating. However, since the training was delivered systematically, the home evaluations have been conducted in a consistent, repeatable manner. Subsequent quality assurance (QA) evaluations of previously evaluated homes confirm that evaluations are conducted consistently: to



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date the average difference between the ECDs of the original evaluations and the QA evaluations is approximately 7% (based on a sample size of approximately 6,000).

It is also important to note that a *Road Home Program* evaluation differs from an insurance inspection in several important ways:

- In a *Road Home Program* evaluation, the homeowner is responsible for providing the evaluator with a description of the damages incurred by Katrina or Rita. This is necessary because in many cases the homeowners have either completed repairs or have started the repairs. Applicants are advised of this responsibility during the first interview. Insurance adjusters typically do an independent assessment of damages that does not consider homeowner input.
- *The Road Home Program* provides “allowances” for repairing or replacing housing components that were damaged as a result of hurricane Katrina and Rita. These allowances are based on a model of a modest house with modest amenities. Whereas an insurance company will typically replace items with like items, *The Road Home Program* will provide a standard allowance. For example, an insurance company would typically replace a granite countertop for a granite countertop and *The Road Home Program* will provide a standard allowance for a builders-grade countertop. Certain housing components are limited to one per residence. For example, each home can receive compensation for only one kitchen and one complete HVAC system, regardless of how many of these units a home may have had prior to the storm.
- *The Road Home Program* does not compensate a homeowner for detached structures including garages, carports, mother-in-law quarters, sheds, swimming pools, landscaping, etc. These items are typically covered by insurance claims.

Homeowners will receive a copy of the CAD after the evaluation is completed. The CAD includes a component-by-component description of the damages, the number of damaged components, the allowances for the component, and a subtotal of the damages.

7.2 CAD Review Process

Prior to implementing any changes to a CAD the Home Evaluation Team reviewer checks to determine whether the change would make any difference in the benefit calculation. If the pre-storm value (PSV) is the limiting factor in the benefit calculation and the applicant's requested change is to add damages, no immediate changes are made to the CAD as revisions to the CAD will not impact the award amount. If the ECD is the limiting factor then the CAD would be reviewed and a determination would be made if revisions are warranted. If adjustments are required, a determination would be made to do a re-evaluation or desktop adjustment (see below). If the PSV is greater than the original ECD or is subsequently revised upwards then the CAD is reviewed and a determination is made to perform either a desktop adjustment or re-evaluation (see below for guidelines for determining which is performed). A JIRA issue is entered to note the potential need to review the ECD if the PSV is subsequently increased and the PSV becomes the limiting factor in the benefit calculation.

To determine whether a desktop adjustment or re-evaluation should be conducted the Home Evaluation Team will estimate how much the added SF or items would add to the ECD using the following procedures:

1. If the ECD would increase by less than or equal to 5% AND would not change from a Type 2 to 1 due to the 51% test, no changes are made (i.e., the additional items or SF are not sufficient to trigger either a desktop or field re-evaluation).
2. If the ECD would increase by >5% but less than 10% AND would still not change from a Type 2 to 1 (using the 51% test), then this is considered a significant change and a desktop re-evaluation would be conducted, providing the criteria listed below in Section 4 are met.
3. If the ECD would increase by >10% OR would result in a Type 2 to 1 change due to the 51% test, then this is considered a significant change, and a field re-evaluation would be conducted.

7.3 Resolution Without Re-Evaluation

Upon receipt of a CAD, an applicant may contact *The Road Home* with various concerns. Typically, the applicant will contact his or her *Road Home Program* advisor with these observations. These concerns typically include the following:



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- Certain damaged items were not included
- The quantity of damaged items was incorrect
- Home was evaluated as a Type 2, but should have been evaluated as a Type 1 instead of a Type 2.
- Square footage used for determination of compensatable area is too low
- Square footage used for determination of compensatable area is too high⁴
- Compensation for certain damaged items is too low in comparison to actual replacement cost (e.g. granite countertops)

The Home Evaluation team accepts supporting evidence provided by the applicant related to pre-storm size, structure type, pre and post-storm condition of the house and the surrounding area. The Home Evaluation Team of *The Road Home Program* employs the following to handle these resolution issues:

1. Homeowner Education: Many applicant (homeowner) concerns stem from misconceptions on what is eligible in the *Road Home Program*. Homeowner education is accomplished indirectly through the process of ensuring that the Resolution Team employees understand home evaluation policies (this is done by the HE Team conducting periodic training sessions for Resolution Team managers). This process fosters program understanding and problem resolution communication between HE Team and the Resolution Team. The Resolution Team is the principal point of contact with the homeowner.
2. Desktop Adjustments to CAD: A desktop adjustment means an “in the office” modification to a CAD by a Home Evaluation Team member or by the subcontractor who conducted the original evaluation based on available information and supporting evidence submitted by the applicant. Desktop adjustments can only be made when:
 - a. There is unequivocal and overriding evidence of significant (as defined in Section 3) and inaccurate square footage, structure type, or omitted (Katrina or Rita) damage,
 - b. The addition of such changes to the CAD would significantly alter the damage award (refer to Section 3 methodology),

⁴ In rare cases for Type 2 evaluations, a homeowner may believe that the total SF was too high. This could be a strong indication that a homeowner is fraudulently trying to reduce their SF to the point that their evaluation converts to a much higher Type 1 ECD (because a Type 2 ECD that is 51% or more of what the Type 1 ECD would have been converts to a Type 1 for purposes of award calculation).

- c. The omission of said damages is inconsistent with evaluations conducted on similar homes in the same geographic area.

7.4 Re-Evaluation Triggers

Re-evaluations are primarily used to confirm structure type, square footage, significant damage that may have been omitted, and the correct address. The following will not justify a re-evaluation:

- Homeowner disputes the ECD in a general way, e.g., “I think my damages are too low”.
- Homeowner disputes the SF or structure type, but is not able to provide overriding, substantial and convincing evidence to the HE department.
- Homeowner challenges allotted unit costs on the CAD.
- Homeowner challenges the characterization of their evaluation without providing justification or supporting evidence. For example, the current evaluation is a Type 2, and the homeowner requests that it be changed to a Type 1 (Type I classifications are calculated automatically at the data warehouse).

The Home Evaluation team may order a re-evaluation if one of the following conditions is encountered:

- All practicable means to confirm structure existence, type, or SF have proven not to be conclusive.
- Home evaluator determined that a mobile home was found to have “minimal damage” but FEMA data indicates the mobile home met their threshold (>\$5,200 of damage) and the mobile home requires re-evaluation using a Type 2 checklist (see Section 15).
- In cases where a Spec 142 (potential fraud investigation) or Spec 143 (verify policies/procedures) cannot be resolved by office review and/or inquiry.
- The applicant provides the Home Evaluation Team with legitimate documentation suggesting either that the applicant failed to convey highly significant damages (as defined in Section 3) to the evaluator during the evaluation or that the evaluator otherwise failed to include significant damages in the CAD. If, for example, the applicant provides a detailed

- insurance company breakdown of observed damages and the evaluator did not include compensation for a significant number of *Road Home Program*-eligible items, a re-evaluation may be ordered.
- The applicant states that either the applicant failed to convey the damages to the evaluator during the evaluation or that the evaluator failed to include the damages in the CAD, and the applicant cannot provide detailed documentation but the Home Evaluation Team’s review of similar homes in the neighborhood indicates that the evaluator may not have provided compensation for damages consistent with the level of damage to the neighborhood and that home’s configuration (accounting for elevation, number of stories, construction type, etc.).

In most cases, and especially for Spec 142 and 143 re-evaluations, the original evaluation and the reason(s) for the re-evaluation are conveyed to the evaluator who will be conducting the re-evaluation. This provides the evaluator with a “point of departure” for conducting the new evaluation, and it helps the evaluator to avoid including repaired items rather than only the damaged items that were not present during the earlier date on which the original evaluation was conducted.

7.5 Approvals

The Home Evaluations Team has several members that support the Resolution Team, the Strike Team, and the Constituent Services group. These individuals work on cases where a re-evaluation may be warranted using the guidelines described above. Prior to ordering a re-evaluation a senior Home Evaluation Team member must approve the re-evaluation.

7.6 Use of CAD “Desktop” Adjustment and Re-Evaluation Data

The CAD review process, whether it is a desktop adjustment or re-evaluation, is not an iterative process nor is it intended to be a process whereby homeowners negotiate with the CAD reviewers to achieve a desired outcome. The Home Evaluation Team reviews the CAD once and adjustments are made or a re-evaluation is performed according to the guidelines described in this document. If applicants are not satisfied with the CADs after adjustments or re-evaluations are conducted, the applicant reserves the right to file a formal appeal of the Home Evaluation Team decision with the *Road Home Appeals Office*.

In some cases, such as when the original evaluation has significant or many errors, the re-evaluation data (i.e., the ECD) supersedes the original evaluation, regardless of whether the re-evaluation ECD increases or decreases relative to the original evaluation. In most cases, however, particularly re-evaluations being conducted for a specific reason (such as Spec 142 issues, specific missing items, or policy/procedure issues), or for re-evaluations conducted months after the original if little repair work had begun at the time of the original evaluation (and thus substantial repair work on undamaged items may be present during the re-evaluation), the re-evaluation may be used to adjust the original evaluation. These latter re-evaluations are flagged with Specs 142 or 143 so they are held for further review by the 142 Team rather than being automatically accepted following standard quality control review.

8. Type 2 to Type 1 Changes Using Weight of Evidence Analysis

As discussed in Sections 4 and 6, Type 2 evaluations are conducted on all homes unless they are unsafe to enter or have been cleared. When a Type 2 evaluation is conducted the data necessary to calculate a Type 1 replacement allowance is also collected. *The Road Home Program* performs the calculation described in Section 4 to determine whether the applicant receives a Type 2 or Type 1 allowance. *The Road Home* recognizes that there may be cases where the calculation results in a Type 2 allowance when supporting evidence suggests that that structure should have received a Type 1 allowance. These situations are typically brought to the attention of *The Road Home Program* by the applicant during the resolution process.

To determine whether the applicant should have received a Type 1 allowance a “weight of evidence” approach is used. The weight of evidence approach includes an analysis of the following parameters:

1. Storm surge;
2. Inundation depth;
3. Wind speed;
4. Wind gusts;
5. Locations of levee breaches;
6. Evaluation types of surrounding homes.

The Road Home uses a variety of public and private data sources for conducting the analysis of Parameters 1 – 5 and *Road Home* evaluation data for doing the analysis of Parameter 6. For Katrina-impacted homes, Parameters 1, 2, 5, and 6 are more relevant to the weight of evidence analysis; for Rita-impacted homes, Parameters 3, 4, and 6 are more relevant to the weight of evidence analysis.

An explanation of how these parameters might be used to build weight of evidence is provided in the following example. A single-story home was evaluated as a Type 2. The homeowner indicated five feet of flood water, but the Type 2 ECD was <51% of the calculated Type 1 ECD. Upon receipt of the options letter, the homeowner opined to *Road Home* that the house had to have been $\geq 51\%$ damaged given its location. A review of storm surge and inundation depth confirmed that the single story house had a minimum of five feet of flood water. Wind speed data confirmed that home sustained very high winds speeds that caused roof failure. The home was not located near a levee breach, but, 80% of the surrounding homes evaluated by *Road Home* received Type 1 ECD's. Based on the weight of evidence in this example the Home Evaluation resolution team would support a Type 2 to Type 1 change.

9. Damage Estimates for Homes with Storm Caused Fire Damage

A limited number of applicants may have incurred fire damage subsequent and/or concurrent to Hurricanes Katrina and Rita. The process described below outlines the approach *The Road Home Program* will utilize to verify that the fire damage is due to the storms and for determining the estimated storm damage costs as opposed to the fire damage if the fire damage is not due to the storms. It is important to note that the fire damage must have been caused by a utility problem and that damages caused by arson, acts of nature, or accidents are not eligible for *Road Home* compensation.

To verify that the fire damage is due to the storms the *Road Home* will:

- Determine the date and cause of the fire through third party sources such as:
 - Fire department records
 - Insurance records
 - Energy company records

- Review energy company records to determine if the fire was associated with the company turning the power on or off in accordance with the company's procedures and policies
- If review of the fire, insurance, and/or energy company reports confirm that:
 - Fire occurred after the Hurricanes, AND
 - Utility was turned off and on in accordance with the energy company's procedures and policies, AND
 - Insurance, fire, and/or utility company records indicate the cause of the fire to be related to the storm and turning power off and on.
 - THEN, the damage from the fire is included in the estimated cost of repairs.
- If the information does not provide evidence that the fire was caused by the storm and turning the power off and on:
 - The Home Evaluation team will request documentation of storm damage only and the evaluator will review that storm damage with the homeowner. This review is to determine whether there is sufficient documentation to estimate ONLY storm damage and NOT fire related damage.
 - If a fair determination of storm vs. fire damage cannot be made, the home evaluator will use the damage estimates for similar homes in the neighborhood as the basis for establishing the damage estimates for the fire-damaged home. To the extent feasible, the program will use at least three comparable properties to establish the average estimated cost of repairs for the fire damaged structure.

10. FEMA Eligibility Requirements

The FEMA eligibility requirements are explained in the Homeowner Program policies document. To be eligible for Road Home assistance a home must have suffered major or greater damage. Most properties that applied to the Road Home were inspected by FEMA and FEMA classified the damage as major or greater. However, not all homes were inspected by FEMA and some that were inspected were not clearly classified or were improperly classified. The Road Home property evaluation determines whether a home sustained major or greater damage from



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the storm in situations where the FEMA data are inadequate, not available, or FEMA's damage classification was minor but may have been incorrect.

Road Home Evaluations Using FEMA Criteria

In order to determine if a property sustained losses sufficient to classify the damage as having major or greater damage using FEMA's criteria for those situations where FEMA data was inadequate, not available, or the damage classification was minor, the Road Home translated FEMA's thresholds for major damage to its inspection protocols. Table 1 displays the specific home evaluation criteria that were used to define the thresholds. The table also indicates whether the criterion status is determined via a manual, human review or via an automated, programmatic check.

Road Home Program Threshold of Damage Categories

The following bullets define the categories which allow a home to meet or exceed an appropriate threshold of damage in order to be considered eligible for a *Road Home* grant award:

- If the property received only a Type 1 evaluation⁵ by the *Road Home* it will be considered eligible. (Properties that receive only Type 1 evaluations are those that have been demolished or are so damaged that they are considered by the evaluator to require reconstruction.) OR
- If the property based on the *Road Home*'s home evaluation report sustained more than 600 square feet of roof damage it will be eligible. OR
- If the home was located in an area where the flood maps and/or aerial photography and/or Pictometry® show that the flood waters were one foot or more AND either:
 - the photos of the property taken by the *Road Home* show that it was not elevated OR
 - the photos of the property taken by the *Road Home* show the level of water equal to at least one foot on the first floor living level OR
 - the *Road Home* estimate of damage for electrical systems and drywall confirms a need for replacement of all items on the first floor the property is eligible.

Home Evaluation Criteria

⁵ Much of the language in this document, including the term "Type 1 Evaluation", is specific to the Home Evaluations process. Please see the Home Evaluations Protocol for further definition on these terms.

In order to determine the eligibility for all applicants that were previously deemed ineligible due to FEMA’s declaration of the properties not meeting the major or severe damage level, FEMA’s threshold of damage categories have been translated into *Road Home*-specific criteria. Table 1 displays the specific home evaluation criteria that were used to define the thresholds. The table also indicates whether the criterion status is determined via a manual, human review or via an automated, programmatic check.

Table 1. Home Evaluation Criteria Definitions for FEMA Eligibility Thresholds

Criteria No.	Road Home Criteria Definition	Home Evaluation Criteria	Determination Method
1	If the property received only a Type 1 evaluation by the Road Home it will be considered eligible	All properties receiving Type 1 evaluations are considered eligible. Additionally, properties that were evaluated as Type 2s, but that received enough damage such that their evaluation was changed to a type 1 are considered eligible ⁶ .	Automated
2	If the property, based on the Road Home’s home evaluation report, sustained more than 600 square feet of roof damage it will be eligible	The home evaluation team determines if the sum of the following roofing replacement specifications (specs) is greater than 600SF: Specs 4580 and 4510 ⁷ If this is true, the threshold is considered met.	Automated

⁶ When a property’s type 2 damage subtotal (i.e., the dollar value of damage to the home as calculated by a Road Home evaluator) is greater than or equal to 51% of the property’s type 1 damage subtotal, the type 1 estimated cost of damage is used in the property’s grant calculation.

⁷ Specifications, or “Specs”, are used in Home Evaluations reports to capture damage estimates for individual damage items. Specs and Home Evaluations reports are discussed in detail in the Home Evaluations Protocol.

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Criteria No.	Road Home Criteria Definition	Home Evaluation Criteria	Determination Method
3	If the home was located in an area where the flood maps and/or aerial photography and/or pictometry show that the flood waters were one foot or more	The RH GIS team reviews the property to determine which meet the criteria via flood maps. If GIS did not find the property to be within an area that contained flood waters of one foot or more, the Home Evaluation review team then manually reviews pictures and Pictometry®.	Manual
4	The photos of the property taken by the Road Home show that it was not elevated	The Home Evaluation review team manually reviews pictures to determine that the home was not elevated.	Manual
5	The photos of the property taken by the Road Home show the level of water equal to at least one foot on the first floor living level	The Home Evaluation review team manually reviews pictures to determine that the home received flood waters equal to at least one foot of water on the first floor living level.	Manual



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Criteria No.	Road Home Criteria Definition	Home Evaluation Criteria	Determination Method
6	The Road Home estimate of damage for electrical systems and drywall confirms a need for replacement of all items on the first floor the property is eligible	<p>1. The Home Evaluation team will determine if the sum of the following electrical replacement specifications is greater than 80% of the elevation area, which corresponds to the size of the first floor living area:</p> <p style="padding-left: 20px;">Specs 8121 and 8122</p> <p>2. The home evaluation team will determine if the sum of the following drywall replacement specifications is greater than 80% of the elevation area, which corresponds to the size of the first floor living area:</p> <p style="padding-left: 20px;">Specs 5302, 5303, and 5304</p> <p>If either 1 or 2 above is true, the threshold is considered met.</p>	Automated

Data Flow

A process has been defined and implemented for transferring data to the *Road Home* Data Warehouse team for all the criteria described in Table 1. Benefit calculations and eligibility tests are performed in the data warehouse. The data transfer is accomplished via an automated feed from the Worltrac system, which is used to manage Home Evaluations data, to an Oracle table in the data warehouse. As of July 9, 2007, all of the automated steps described in Table 1 were implemented. The data from these steps have been made available to the Data Warehouse team, which has begun using this data to clear applicants. The manual steps described in Table 1 are currently in the implementation process.

11. Single-Family Home Replacement

In cases where a Type 1 cost estimate is used in the award calculation (see Section 4 for discussion), the homeowner will be eligible to receive \$130/square foot to replace their home. The replacement allowance is based on the “compensation area” of the home, which is generally comparable to living area.

Several line drawings that illustrate typical housing configurations and how replacement area is calculated are provided in Appendix B. In addition to the unit price of \$130/SF the applicant also receives \$550 for an elevation survey and approximately 2% of the replacement allowance for builder's risk insurance. The unit price includes demolition costs, but does not include an elevation allowance⁸.

The unit rate is based on replacing the home with a reasonable standard of living; it is not intended to compensate a homeowner to replace a custom or semi-custom home. For the purposes of the program, compensation area (sometimes referred to as *compensatable area*) is defined as interior, conditioned spaces, and for single-story homes is considered to be equal to the footprint of the house. Exterior spaces such as porches and garages are not considered in the square feet (SF) calculation of compensation area unless they share a common wall and roof with the main structure. The determination of compensation area in destroyed, multi-storied homes is based on summing the compensation area of each story, minus any non-livable space on the second or third, etc. stories.

12. Single-Family Home Repair Allowances

An interior and exterior component by component damage assessment is performed for Type 2 evaluations, i.e., work in progress, partially damaged, and completed repairs. The following section includes a discussion of units of measurement and allowances and caps, where appropriate. Several line drawings that illustrate typical housing configurations and how repair area is calculated are provided in Appendix B.

12.1 Units of Measurements

During the home evaluation process conventional units of measurements and quantities, e.g. square feet and linear feet will generally be used to determine quantities of materials damaged or requiring replacement. It should be noted, however, that a unit of measurement was developed especially for *The Road Home* program to expedite the calculation of materials and associated costs in situations where a whole floor or large area of the house required repair or replacement of certain elements (for example, the entire first floor of a two-story that requires the replacement of all the drywall and baseboard). This unit of

⁸ It should be noted that some homeowners may have received a FEMA grant for demolition. In this case, the built-in demolition allowance should be backed out of the square footage allowance. Many demolished properties will be cleared by FEMA even after intake period. Many may receive demolished services after Road Home Grant awarded.

measurement (and associated unit of cost) is referred to as square feet of house (SH) units in *The Road Home* program. Square feet of house units relate to the living area or footprint of the house (expressed in square feet) to those housing components expressed in linear feet (e.g. baseboard) or in square feet (e.g., drywall). For example, when an evaluator needs to calculate the linear feet of baseboard in a house, the living area of the house is multiplied by a factor of 0.33 to determine SH units of baseboard, likewise, when an evaluator needs to calculate the square feet of baseboard in a house, the living area of the house is multiplied by a factor of 4.0 to determine SH units of drywall.

In addition to the above, a relationship between the foot print of a house and the roof area of a house was developed to expedite the estimation of quantities of roofing materials. To calculate square footage of roofing, the footprint of a house is multiplied by a factor 1.4 to determine square footage of roofing materials. A factor of 1.4 takes into account typical roof pitch and overhangs.

12.2 Site Improvements

12.2.1 Home Elevation

The home elevation repair and replacement standard for single-family homes is indicated below. Issues may arise for duplexes having two owners. If, for example, one owner participates in the grant program and the other owner doesn't, the home elevation process becomes complicated. Duplexes typically share a common foundation and it is not possible to raise only one side of the common foundation. The home elevation repair and replacement policy does not address extenuating circumstances; it is assumed that they will be addressed programmatically.

Estimating the cost to replace a house with a slab, only includes that portion of the house that is a living area. For example, for those homes with garages **attached** to the main living area via a breezeway--the slab area is not included in the cost estimate. Several illustrations provided in Appendix B depict the portions of house that are included in elevation.

The Road Home Program standard for elevation is:

STANDARD:

Homes shall be elevated to a minimum of one foot above the advisory base flood elevation or to the local freeboard requirement with a maximum allowance of \$30,000 per structure.

Homes may be raised to create an eight foot high parking and storage under home with a maximum allowance of \$30,000.

The following categories and elevation-based allowances were established for two common types of new and existing home foundations.

Foundation Type	Elevation Increase (feet)	Unit Rate (\$/square feet)
New Frame	>0	\$15.00
Existing Slab	0 to 4	\$52.27
	>4	\$84.94
Existing Frame	0 to 4	\$26.14
	>4	\$39.20

It should be noted that while the table above includes allowances for elevation increases greater than 4 feet, all homeowner applicants are assigned an elevation allowance for 0 to 4 feet during the home evaluation, based on the type of foundation they have. This is because home evaluators do not know at the time of the home evaluation whether a homeowner is required to elevate or, if they are required to elevate, what the final height requirement will be. Adjustments to the elevation allowance, if necessary, will be made prior to closing.

12.2.2 Paving and Walks

REPAIR ALLOWANCE:

Moderate

All existing driveways, walkways, and paving ramps may be compensated as a loss.

REPLACEMENT ALLOWANCE:

Moderate

Essential walks and drive replaced with concrete.

12.2.3 Garages

REPAIR ALLOWANCE:

Moderate

Attached garages and detached garages connected to main house via a breezeway are eligible for compensation. See Section 12.3.1 for exterior cladding allowance and Sections 12.6.1 and 12.6.2 for roofing allowances.

REPLACEMENT ALLOWANCE:

Moderate

Attached garages and detached garages connected to main house via a breezeway are eligible for compensation using the total house replacement rate based on the square footage of the house.

12.2.4 Trees

Trees that have damaged a house or represent an imminent risk to inhabitants of a dwelling and/or the public are eligible for compensation. Up to \$1,500 may be used to remove trees and perform stump grinding.

12.2.5 Exterior Surfaces

To the extent that eligible properties are located in historical districts, they will be eligible for compensation assuming conformance to the architectural guidelines of that district, up to maximum amount allowed for a particular item.

12.2.6 Exterior Cladding

REPAIR/REPLACEMENT ALLOWANCE:

Moderate

Allowances assume that all siding and trim will be brought to an intact, weather proof and deterioration-free state. Additional assumptions are that exterior wood shall be spot primed and top coated in a lead safe manner and that masonry cladding will be matched as closely as possible. Maximum allowances for various types of exterior cladding are provided below.

Brick Siding:	Maximum allowance of \$21.28/square foot
Shake Siding (wood):	Maximum allowance of \$4.52/square foot
Shake Siding (cement):	Maximum allowance of \$4.77/square foot
Vinyl Siding:	Maximum allowance of \$4.59/square foot
Aluminum Siding:	Maximum allowance of \$5.60/square foot

12.2.7 Exterior Porches

REPAIR ALLOWANCE:

Moderate

Allowances will assume that unsafe or unsightly porches will be repaired to conform to porches in the neighborhood. It is further assumed that porch repairs will be structurally sound, with smooth and even decking surfaces.

REPLACEMENT ALLOWANCE:

Moderate

Allowances will assume that existing porches may be removed and replaced with historically correct structures, as required by the local historic structures commission. Maximum allowances for porch components are provided below.

Porch Post: Maximum allowance of \$265.01 each

Porch Flooring Maximum allowance of \$20.67/square foot

12.2.8 Exterior Railing and Steps

REPAIR ALLOWANCE:

Moderate

Allowances will assume that handrails will be present on one side of all interior and exterior steps or stairways with more than two risers and around porches or platforms over 30" above ground level. It is also assumed that railing repairs will be historically sensitive, and that steps and stairs will be structurally upgraded to current building code requirements; free from all deterioration.

REPLACEMENT ALLOWANCE:

Moderate

Allowances assume that existing railings that do not meet the current code will be removed and replaced with wrought iron or preservative treated lumber that meets requirements of the local historic structures commission. It is also assumed that replacement steps and stairways will be constructed of preservative treated lumber or concrete in conformance with the current required building codes. Maximum allowance for steel frame and railing wood steps with landing is \$914.20. Concrete steps allowance is \$440.64.

12.3 Structure

12.3.1 Structural Walls

REPAIR/REPLACEMENT ALLOWANCE:

Moderate

Allowances assume that all structural members will be free from deterioration, rot and termite damage and be sized in conformance to current building code. It is further assumed that any member considered below current building code will be doubled up and re-supported. The repair allowance for structural walls is \$36.15 per linear foot and for insulation \$1.96/square foot.

12.4 Windows and Doors

12.4.1 Interior (Passage) Doors

REPAIR ALLOWANCE: No Allowance Developed

REPLACEMENT ALLOWANCE:

Moderate

Allowances assume that a hollow core, pressed wood product door with brass plated bedroom lockset, a jam, and casing will be used. Transom grade is assumed to be consistent with door grade. The maximum allowance is \$642.84 per door. The maximum allowance for transom replacement is \$281.23.

12.4.2 Exterior Doors

REPAIR ALLOWANCE: No Allowance Developed

REPLACEMENT ALLOWANCE:

Moderate

Allowances assume that all replacement doors at the front of the property will conform to those typically used in the neighborhood when required in a historic district. It is further assumed that steel six panel doors may be installed at entrances not visible from the front street, and that dead bolt locks will be installed on all doors. Replacement allowance includes all necessary jams, casing, stain or paint, and hardware. Side-lite grade is assumed to be consistent with door grade.

Metal Door & Frame:	Maximum allowance of \$967.78/door
Wood Door & Frame:	Maximum allowance of \$1,656.77/door
French Door & Frame:	Maximum allowance of \$1,163.60/door
2 Door French & Frame:	Maximum allowance of \$1,818.13/door
Side-Lite:	Maximum allowance of \$352.51/panel
Sliding Patio Door:	Maximum allowance of \$1,226.15/door
Storm/Screen Door:	Maximum allowance of \$673.49/door

12.4.3 Windows

REPAIR ALLOWANCE:

Moderate

Allowances assume that windows will be weather tight, include a locking device and will operate freely.

REPLACEMENT ALLOWANCE:

Moderate

Allowances assume that double glazed, glass, wood or aluminum windows that meet minimum Energy Star requirements will be used; historically similar windows will be used when demanded by historic district regulations. The replacement allowance does not include shutters.

36" X 72" dbl hung aluminum: Maximum allowance of \$531.88/window

36" X 72" dbl hung wood: Maximum allowance of \$775.53/window.

12.5 Roofing

12.5.1 Flat and Low Slope Roofing

REPAIR ALLOWANCE:

Moderate

Allowances assume that built-up roofing, flashing and accessories will be repaired when damaged area is less than 250 square feet (when a 5-year leak free warranty is available from a certified roofing company). The maximum allowance is \$574.13.

REPLACEMENT ALLOWANCE:

Moderate

Allowances assume that when damaged area is greater than 250 square feet, roof will be replaced with fully adhered ethylene propylene monomer or modified bitumen over insulation board and structurally sound decking. The maximum allowance is \$2.88/square foot.

12.5.2 Pitched Roofs

REPAIR ALLOWANCE:

Moderate

Allowances assume that missing and leaking shingles and flashing will be repaired on otherwise functional roofs when damaged area is between 35 and 250 square feet (with a minimum repair area of 35 square feet. It is further assumed that slate, concrete, metal, and tile roofs will be repaired when at all possible. Antennae shall be removed. The maximum allowance is \$16.94/square foot.

REPLACEMENT ALLOWANCE:

Moderate

Allowances assume that when damaged area is greater than 250 square feet roof will be replaced with fiberglass, asphalt, 3 tab, class A shingles weighing at least

200 and up to 240 lbs. with a prorated 25 year warranty with a continuous ridge vent. The maximum allowance is \$2.04/square foot.

12.5.3 Gutter, Soffit, and Fascia

REPLACEMENT ALLOWANCE:

Moderate

Allowances assume that aluminum gutters, vinyl soffits, and vinyl fascia will be replaced when extensive damage has occurred. Maximum replacement allowance for aluminum gutters is \$7.89/linear foot, for vinyl soffits \$8.46/linear foot, and 6"-12" wide fascia \$6.51/linear feet.

12.5.4 Carport Cover

REPAIR ALLOWANCE: No Allowance Developed

REPLACEMENT ALLOWANCE:

Moderate

Allowances assume that an existing carport cover that has suffered extensive damage will be replaced with an attached aluminum carport cover. An allowance of \$24.14/square feet for up to 200 square feet (the maximum replacement area) will be granted.

12.6 Insulation and Ventilation

12.6.1 Attic Ventilation

REPAIR ALLOWANCE: No Allowance Developed

REPLACEMENT ALLOWANCE:

Moderate

Allowances assume that attics will be ventilated with 1 square foot of vent for each 300 square feet of roof split between a ridge vent and soffit vents. Flat roofing will have one way vents every 20 feet. Maximum allowance of \$83.98 per vent.

12.6.2 Bath Ventilation

REPAIR ALLOWANCE: No Allowance Developed

REPLACEMENT ALLOWANCE:

Moderate

Allowances assume exterior ducted, 100 CFM, 20 some max, with separate switch in all baths. The maximum allowance is \$258.30 per unit.

12.6.3 Insulation

REPAIR ALLOWANCE:

Moderate

Allowances assume that attic areas and crawl space will be insulated. The assumption for ceiling insulation is R30 blown ceiling insulation (13 inch). The maximum allowance is \$2.99/square foot.

REPLACEMENT ALLOWANCE:

Moderate

Allowances assume that the entire building will conform to the required energy code upon completion. The maximum allowance is \$1.96/square foot for walls and \$8.78/square house for walls and ceiling.

12.6.4 Kitchen Ventilation

REPAIR ALLOWANCE: No Allowance Developed

REPLACEMENT ALLOWANCE:

Moderate

Allowances assume that all kitchen hoods or exhaust fans will be exterior ducted with less than 20 some and at least 120 CFM. The maximum allowance is \$336.31.

12.7 Interior Areas

12.7.1 Eligible Replacement Items

Fireplaces, freezers, trash compactor, double wall oven, oven, gas and electric cook top, built-in microwave, washer and dryer are eligible for replacement compensation at the following allowance levels.

Item	Allowance
Gas cook top	\$781.62
Electric cook top	\$687.66
Gas wall oven	\$1,083.84
Electric wall oven	\$1,022.54
Built in microwave oven	\$455.28

Item	Allowance
Refrigerator	\$1,743.51
Dishwasher	\$999.60
Clothes washer (hook-up only)	\$715.39
Fireplace box and brick face	\$3,126.08

12.7.2 Accessibility Improvements

Compensation for accessibility improvements for wheelchair bound homeowners is available upon request by disabled family member.

REPAIR/REPLACEMENT ALLOWANCE:

Moderate

Allowances assume Repair/Replace to ANSI visitability and Universal Design Center standards. The maximum allowance is \$3,690.06 for handicap accessibility in the home and \$1,899.94 for a wheelchair ramp.

12.7.3 Interior Walls and Ceilings

REPAIR ALLOWANCE:

Moderate

Allowances assume that holes, cracks and deteriorated and unkeyed plaster and drywall will be repaired to match the surrounding surfaces. All visual surfaces shall be stabilized to minimize lead paint hazards using premium vinyl acrylic, primer and topcoat. The maximum allowance to repair up to a 4' by 8' area is \$140.23.

REPLACEMENT ALLOWANCE:

Moderate

Allowances assume that walls will be plumb, ceiling level drywall with a smooth finish on at least 1/2" gypsum on 16" centers or 5/8" on 24" centers. Maximum allowance for replacement of areas greater than 4' by 8' is \$2.63 per square foot. Additional Reference: American Gypsum Association

12.7.4 Flooring

REPAIR ALLOWANCE:

Moderate

Allowances assume that bathroom and kitchen floors will be covered with water resistant vinyl flooring. Damaged wood floor will be repaired up to a maximum of 120 square feet. Ceramic tile flooring will be repaired; wood floors will be sanded and refinished.



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Wood floor:	Maximum allowance of \$4.47/sq. ft.
Re-grouting/ caulking ceramic tile:	Maximum allowance of \$2.68/sq. ft.

REPLACEMENT ALLOWANCE:

Moderate

Allowances assume that baths will receive vinyl sheet goods over plywood underlayment. Kitchens will be vinyl composition tile or sheet goods over plywood underlayment. New slabs will be at least 4" thick and a 6 mil vapor barrier. Other rooms may be carpet, vinyl, or tile with appropriate underlayment or pads.

Carpet:	Maximum allowance of \$5.39/square foot
Vinyl:	Maximum allowance of \$7.30/square foot
Ceramic tile:	Maximum allowance of \$7.14/square foot

12.7.5 Kitchen

REPAIR ALLOWANCE:

Moderate

Allowances assume that damaged kitchen components will not be repaired but will be replaced using the following maximum allowances.

Kitchen Cabinets:	Maximum allowance of \$7,617.84
Double sink/disposal:	Maximum allowance of \$1,311.42
Stove/Oven:	Maximum allowance of \$1,022.54
Range hood and light:	Maximum allowance of \$267.36
Refrigerator/freezer:	Maximum allowance of \$1,743.51
Dishwasher:	Maximum allowance of \$999.60
Built in Microwave:	Maximum allowance of \$455.28

REPLACEMENT ALLOWANCE:

Moderate.

Allowances assume that complete kitchens include a maximum of 22 feet of cabinets (base and upper) of moderate cost wood cabinetry, plastic laminate countertop, vinyl flooring, double sink and garbage disposal, stove/oven, range hood and light, refrigerator, and dishwasher. The maximum allowance is \$12,891.39.

12.7.6 Bathrooms

REPAIR ALLOWANCE:

Moderate

Allowances assume that damaged bathroom components will not be repaired but will be replaced using the following maximum allowances.

24-inch vanity	Maximum allowance of \$1,671.10
Tub	Maximum allowance of \$2,152.79
Shower	Maximum allowance of \$1,920.02
Ceramic Toilets	Maximum allowance of \$1,041.08

REPLACEMENT ALLOWANCE:

Moderate

Allowances assume that every dwelling will have a 3-piece bath. 3 and 4 bedroom units will have an additional 1/2 bath and a compartmentalized main bath. Complete bathrooms include single lever, metal faucets and shower diverters with 15-year drip-free warranty, white ceramic toilets, 24" vanity, fiberglass tub surrounds and steel enameled 5' tubs, exhaust fan with heater, door, full height utility cabinets, surface-mounted medicine cabinet, and all required hardware. The table below indicates the maximum allowance for bathrooms.

Bath Component	Allowance
3 Piece Bath (lavatory, commode, shower)	\$6,346.29
2 Piece Bath (lavatory, commode)	\$4,193.51

12.8 Electric

12.8.1 Specialized Circuit Breakers

REPAIR/REPLACEMENT ALLOWANCE:

Moderate

Allowances assume that non functioning ground fault circuit interrupters (GFCI) will be replaced. Basement and kitchen receptacles within 6 feet of a sink, all bath receptacles and at least one exterior receptacle will be protected by a GFCI. The maximum allowance is \$61.60 per GFCI receptacle (device only).

12.8.2 Passage Lighting

REPLACEMENT ALLOWANCE:



Moderate

Allowances assume that all common halls and stairways between living space will be well lighted with a fixture controlled by 3 way switches at both ends of the hall or stairway. Surface mounted raceway may be assumed in some cases. Maximum allowance of \$177.14 per eligible area.

12.8.3 Smoke Detectors

REPLACEMENT ALLOWANCE:

Moderate

Allowances assume that directly-wired smoke detectors will be installed on each dwelling floor. CO detectors will be installed on all fuel burning furnaces. Maximum allowance for smoke detector (including wiring) is \$88.93 per unit. Maximum allowance for CO detector (including wiring) is \$101.89 per unit.

12.8.4 Interior Electric Distribution

REPAIR ALLOWANCE:

Moderate

Allowances assume that exposed knob and tube will be replaced. Every room will have a minimum of two duplex receptacles, placed on separate walls and one light fixture or receptacle switched at each room entrance. Where the source wiring circuit is accessible (i.e., first floor above basements, in gutted rooms, etc.), receptacles will be grounded. All switch, receptacle, and junction boxes will have appropriate cover plates. Wiring shall be free from hazard and all circuits will be properly protected at the panel. Floor receptacles will be removed and a metal cover plate installed. Exposed conduit is assumed in some cases. It is further assumed that when a room's wall finishes are removed it will be rewired to the latest version of the current required code. The maximum allowance is \$80.74 per receptacle (includes receptacle, box and wire).

REPLACEMENT ALLOWANCE:

Moderate

Allowances assume that all rooms will be rewired to the latest version of the required code using historically correct (when required) or moderately expensive fixtures and devices. It is assumed that a rewire of room or house will include smoke alarms.

Rewire room (includes receptacles):	Maximum allowance of \$927.65
Replace receptacles (one room):	Maximum allowance of \$259.51



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Complete house rewire:

Maximum allowance of \$7.86/SH

12.8.5 Service and Panel

REPLACEMENT ALLOWANCE:

Moderate

Allowances assume that two hundred (200) amp service with a main disconnect panel containing at least 30 circuit breaker positions will be installed. Attached garages may be fed with up to 100 amp sub panels. Maximum allowance of \$1,652.40 per breaker.

12.9 Plumbing System

12.9.1 Water Heaters

REPAIR ALLOWANCE: No Allowance Developed

REPLACEMENT ALLOWANCE:

Moderate

Allowances assume that high efficiency, pilot less, 50-gallon gas fired or dual element electric water heaters with at least R-9 insulation and an 8-year replacement warranty will be installed. The maximum allowance is \$895.67; no more than two water heaters will be allowed per home.

12.9.2 Water Supply

REPLACEMENT ALLOWANCE:

Moderate

Allowances assume that all inoperable or leaky main shut off valves will be replaced. Lead pipe and exposed galvanized pipe will be replaced with copper pipe or PVC. Maximum allowance for shut off valves is \$617.54. The maximum allowance for supply lines is \$132.84/linear foot.

12.10 Heating, Ventilation, and Air Conditioning

12.10.1 Heating and Air Conditioning

REPAIR ALLOWANCE: No Allowance Developed

REPLACEMENT ALLOWANCE:

Moderate

Allowances assume that heating and air conditioning of easily accessible rooms using the most affordable duct (either ceiling or floor), using a unit with a minimum

3 COE, SEER 14. The maximum replacement allowance for a complete heating, venting and air conditioning (HVAC) unit is \$10,988.40 per house. This allowance is adequate for up to two air compressor units. The maximum air conditioning air compressor unit replacement allowance is \$3,786.91 (note: air compressor unit(s) allowance should not be included if an allowance for a complete HVAC system is provided).

12.10.2 Chimneys

REPAIR ALLOWANCE: No Allowance Developed

REPLACEMENT ALLOWANCE:

Moderate

Allowances assume that fireplace flues will not be reconstructed, rather, replacement furnace flues when required will be metal double or triple walled as recommended by the furnace manufacturer.

12.10.3 Distribution System

REPAIR ALLOWANCE: No Allowance Developed

REPLACEMENT ALLOWANCE:

Moderate

Allowances assume that ductwork in unconditioned, non-habitable space shall be insulated to R-6 and sized to maintain 70°F in all serviced rooms. Habitable space will be insulated to R-8 and tested to eliminate leakage. The maximum allowance is \$2.20/square house. This allowance should not be included if an allowance for a complete HVAC unit is provided.

12.10.4 Heating Plant

REPAIR ALLOWANCE: No Allowance Developed

REPLACEMENT ALLOWANCE:

Moderate

Allowances assume that condensing gas furnaces rated over 86 AFUE and heat pumps over 14 SEER with super heaters and air-to-air heat exchangers are eligible for this program. Dual heat pumps are assumed in larger, two story homes. The maximum allowance for a gas furnace and heat pump is \$1,743.77 and \$8,260.19, respectively. This allowance should not be included if an allowance for a complete HVAC unit is provided.

13. Duplex Home Replacement

Homeowner replacement protocols are based upon the ownership structure of the duplex structure. The replacement allowance is \$130/square feet. In the context of *The Road Home* program totally destroyed homes are given a Type 1 Evaluation. The replacement allowance is based on the “compensation area” of the home, which depends on the ownership structure of the home.

The unit rate is based on replacing a total loss home with a reasonable standard of living; it is not intended to compensate a homeowner to replace a custom or semi-custom home. For the purposes of the program compensation area is defined as interior, conditioned spaces. Exterior spaces such as porches and garages are not considered in the square feet (SF) calculation of compensation area unless they share a common wall and roof with the main structure. The determination of compensation area in destroyed, multi-storied homes is based on multiplying the footprint by the number of stories, minus any non-livable space on the second or third, etc. stories.

The following replacement protocols will be used dependent upon the ownership structure:

Single Owner Duplex: In this ownership structure the owner typically lives in one side of the duplex and rents or leases the other side. In this case, the owner of the duplex can receive a maximum award of \$150,000. The home evaluator will obtain the square footage of the entire duplex and will base the replacement allowance on the total footprint of the structure. The elevation allowance will be based on the total footprint of the structure (i.e., includes both sides of the duplex).

Multiple Owner Duplex: In this situation it is assumed that there are two owners of the duplex structure and that each owner submits an application. Each owner can receive a maximum of \$150,000. A Type 1 evaluation will be conducted of each side of duplex. The home evaluation will base the replacement allowance on each side of the duplex. The total square footage will be measured and calculated for the entire duplex excluding utility and garage space. Each living unit will be measured for its pro-rata share of the compensatable square footage. This ratio, expressed as a percentage, shall be used for prorating all common building components that are equally shared, for example, the roof, insulation, foundation, exterior siding, site improvements, utility services, and exterior porches. Each applicant will receive an elevation allowance based on the pro rata share of the total structure footprint.

Mixed-Use Duplex: Homeowners living in duplex structures in which a portion is dedicated to commercial use will be conducted on the portion of the property that the homeowner resides in. The homeowner will receive an elevation allowance based on the pro rata share of the foundation beneath the residential side of the duplex.

14. Duplex Home Repair Allowances

The Road Home will use the repair allowances and units of measures for duplexes that have been developed for single-family homes. There are some differences in how the Type 2 duplex home evaluations will be done based on the type of ownership structure. Examples of three ownership/use scenarios and associated home evaluation protocols are discussed below.

Single Owner Duplex: In this ownership structure the owner typically lives in one side of the duplex and rents or leases the other side. In this case, the owner of the duplex can receive a maximum award of \$150,000. The home evaluation will be conducted as if the home is a single-family residence (i.e., a component by component analysis). The duplex owner under this scenario will also be allowed two each of the following housing components: kitchens, HVAC, smoke detectors, electric service panels, and hot water tanks.

Multiple Owner Duplex: Each side of the duplex will be treated as a separate unit. Each owner submits an application. The home evaluation on each side of the duplex will be performed as if it was a single-family home. The following three protocols will be used to allocate common area components:

1. **Pro-rata Square Footage.** The total square footage of compensatable area will be measured and calculated for the entire duplex excluding utility and garage space. Each living unit will be measured for its pro-rata share of the compensatable square footage. This ratio expressed as a percentage shall be used for prorating all common building components that are equally shared, for example, the roof, insulation, foundation, exterior siding, site improvements, utility services, and exterior porches.
2. **By Ownership and Use Agreement.** Components that can be allocated by use or ownership to a specific unit shall be included in that unit's calculation. For example, if one half of a duplex per a lease agreement has use of the attached garage, then that unit would receive full calculation of the garage, or if the owner of one-half of a duplex uses the entire interior utility room for storage, it should be included in the primary user's calculation. The

evaluators will interview the owners and allocate per the reported ownership.

3. **By Unit.** Individual building components that are clearly associated with the unit, for example, doors and windows, shall be included in the individual unit's count.

Mixed-Use Duplex: Homeowners living in duplex structures in which a portion is dedicated to commercial use will have a Type 2 evaluation conducted on the portion of the property that the homeowner resides in. The homeowner will receive an elevation allowance based on the pro rata share of the foundation beneath the residential side of the duplex. Common areas that are damaged would be allocated using the three protocols above.

15. Townhome Replacement

The typical configuration of a townhome is a row of houses that share at least one common wall. They may be single story, but are typically two stories. The replacement allowance for townhomes is \$130/square feet. In the context of *The Road Home* program totally destroyed homes are given a Type 1 Evaluation. The replacement allowance is based on the "compensation area" of the townhome.

The unit rate is based on replacing a total loss home with a reasonable standard of living; it is not intended to compensate a homeowner to replace a custom or semi-custom home. For the purposes of the program compensation area is defined as interior, conditioned spaces. Exterior spaces such as porches and garages are not considered in the square feet (SF) calculation of compensation area unless they share a common wall and roof with the main structure. The determination of compensation area in destroyed, multi-storied townhomes is based on summing the compensation area of each story, minus any non-livable space on the second or third, etc. stories.

16. Townhome Repair Allowances

The Road Home will use the repair allowances and units of measures for townhomes that have been developed for single-family homes and duplexes. However, there are some important differences in how the Type 2 townhome evaluations will be done, due primarily to roof, wall, and foundation sharing considerations. A discussion of how roofing, wall, and foundation, and other miscellaneous structural components will be apportioned is provided below.

Roofs and Elevation: The recommended protocol will be explained using a 4 unit attached row home example, all of which are individually owned. Facing this hypothetical complex from the street, assume the units are numbered 1 through 4, from right to left. Also assume that the roof is a continuous structure that is equally shared by all 4 units. Lastly, assume that the “footprint” of each unit is identical. In this example, an individual unit (applicant) would receive a pro rata share (1/4) of the total roof area for roof repair/replacement. This is the same basic protocol used for duplexes. For non-standard construction where the roof, foundation, and other structural components are not equally shared, evaluators will be instructed to make their best field estimate to fairly apportion those components.

The apportionment of an elevation allowance for a townhouse applicant would be based on a pro rata share (1/4, in the example presented above) of the total footprint area. This is the also same basic protocol used for duplexes. For non-standard construction where the foundation is not equally shared, evaluators will be instructed to make their best field estimate to fairly apportion those components.

Wall Sharing: Each townhome applicant in *The Road Home* program will receive an allowance to repair/replace all four interior walls of their unit. End units of a townhouse structure will be eligible to receive allowances for repairing or replacing three exterior walls; middle units in a townhouse structure would be eligible to receive allowances for repairing or replacing two exterior walls.

Interior Components: Interior components of a townhome will be evaluated using the protocols and allowances established for single-family detached structures.

The following three protocols will be used to allocate common area components not specifically addressed above:

- 1. Pro-rata Square Footage.** The total square footage of compensatable area will be measured and calculated for the entire townhouse, excluding utility and garage space. Each living unit will be measured for its pro-rata share of the compensatable square footage. This ratio expressed as a percentage shall be used for prorating all common building components that are equally shared, for example, insulation, exterior siding, site improvements, utility services, and exterior porches (if eligible).

2. **By Ownership and Use Agreement.** Components that can be allocated by use or ownership to a specific unit shall be included in that unit's calculation. For example, if a townhouse per a lease agreement has use of an attached garage, then that unit would receive full calculation of the garage, or if the owner of townhouse uses an entire eligible interior utility room for storage, it should be included in the primary user's calculation. The evaluators will interview the owners and allocate per the reported ownership.
3. **By Unit.** Individual building components that are clearly associated with the unit, for example, doors and windows, shall be included in the individual unit's count.

17. Manufactured (Mobile) Home Replacement

17.1 Basic Policy

Manufactured homes that sustained major or greater damage according to FEMA databases are eligible for Road Home assistance. Because it is rarely cost effective to repair manufactured homes with major or greater damage, the Road Home conducts a Type 1 evaluation for manufactured homes.

The Type 1 evaluation for manufactured homes, like the Type 1 inspection for stick-built homes, is based on a cost per square foot calculation. The following unit rates are used to determine total replacement allowances:

Manufactured Home Type (square feet)	Unit Rate Allowance (\$/square foot)**
Single Wide	\$35
Double Wide	\$40
Triple Wide	\$45

**The unit rate allowances include transportation, set-up, and skirting. A separate allowance of \$500 is granted for utility connections. For manufactured homes that require elevation, a \$15/SF allowance is also included.

Older single-wide manufactured homes are generally between 46 and 56 feet long in length and between 10 and 12 feet in width. The living area of older manufactured homes generally ranges between 740 and 960 square, but can be less. Newer single-wide manufactured homes are typically 76 feet long and between 14 and 16 feet wide and have between 1,064 and 1,216 square feet of living area. Double-wide manufactured homes are generally between 24 and 32

feet in width and between 48 and 56 feet in length and have between 1,152 and 1,792 square feet of living area. Triple-wide manufactured homes generally have a minimum of width of 28 feet with a portion of the unit having a width up to 56 feet (this is gained by “stacking two 28 feet wide units). Triple wide manufactured homes have lengths between 48 and 56 feet. Generally a manufactured home having a living area in excess of 1,800 square feet would be a considered a triple.

The home evaluators will determine whether the manufactured home is a single-, double-, or triple-wide and use the corresponding unit rate to determine a replacement allowance. Any additional living space added to the basic structure will receive a square footage allowance based on the unit rate used to determine the replacement allowance. For example, if a 10 foot by 10 foot room was added to a single-wide manufactured home an additional 100 square feet of area would be added to the area of the basic manufactured home. In this example an additional \$3,500 would be added to the replacement allowance.

17.2 Exception to Inspection Protocol for Manufactured Homes

In some cases, owners of manufactured housing did not apply to FEMA or FEMA did not classify the home as having sustained major or greater damage, but the owner nevertheless applied to the Road Home for assistance.

Where a home evaluator believes a manufactured home incurred minimal damage, a log note and Spec 143 flag is included in HDP. The home evaluations for these properties are compared to the information in the FEMA database.

- If the FEMA damage assessment indicates that the property did not suffer major or greater damage *the Road Home* will consider the applicant ineligible for *Road Home* assistance.
- If the FEMA database indicates the applicant’s manufactured home suffered major or greater damage, but the initial Type 1 evaluation indicated the structure suffered minimal damage, *Road Home* will conduct a subsequent Type 2 evaluation to quantify the damage. If the Type 2 damage (which does not include surveys, utility hook-ups, etc.) to the manufactured home is equal to or exceeds \$5,200, *Road Home* will consider the applicant eligible for Road Home assistance.

18. Condominium Evaluations

Owners of condominium parcels that are located in a homeowner’s association as defined in the Louisiana Condominium Act are eligible for *Road Home*

compensation grants. The legal structure and associated responsibilities of a condominium parcel differs significantly from other structures included in *The Road Home Program*. To facilitate the discussion presented later in this section a few commonly used terms associated with condominiums are defined below:

- Condominium – The condominium created by a Condominium Declaration (the whole development).
- Condominium Parcel – A Unit together with an undivided interest in The Common Elements, which is an inseparable component of each Unit.
- Condominium Plan – The Plan sets forth the vertical and horizontal boundaries of each Unit’s floor space.
- Condominium Property – All interests in the land, improvements and structures erected, constructed therein or thereon, including the building of all easements, rights, and appurtenances belonging thereto, and all furniture, fixtures, and equipment intended for the mutual use, benefit, and enjoyment of the Unit Owners.
- Unit – An enclosed space consisting of one or more rooms occupying all or part of a floor or floors in the Building, which enclosed space is not owned in common with the Unit Owners of other Units. The boundaries of a unit are the interior surfaces of its perimeter walls, windows, exterior doors, floors and ceilings.
 - The horizontal Unit plane is that area from the Demising Walls, or interior plane of the Exterior Walls, more commonly referred to as from “Drywall to Drywall”.
 - The vertical Unit plane is that area from “ceiling to sub-flooring”.

Units are traditionally shown on a Condominium Plan, and include any finishing materials applied or affixed to the interior surfaces of the perimeter walls, floors or ceilings (such as, but without limitation, paint, wallpaper, vinyl, wall or floor coverings and carpets); interior walls, and all utility pipes, lines, systems, fixtures, appliances and air-conditioning compressors and blowers servicing only that unit (whether or not within the boundaries of that unit), provided, however, that no pipes, drains, wires, conduits, ducts, flues and shafts contained within that Unit form a part of any system servicing more than one Unit or that Units Common Elements.

The vertical and horizontal planes of each Unit in a condominium development are traditionally set forth on a Condominium Plan which shows the physical portions or Unit Floor Space (spaces of the Condominium) on single floors of each building, except those Structural Elements located within the vertical and horizontal boundaries of the Unit Floor Space.

- Undivided Share – The portion of the Common Area that a Unit Owner is responsible for when computing liability for common expenses, voting rights or rights to a common surplus or servitudes.
 - The Undivided Share is calculated by dividing the Unit's square footage by the sum of the square footage of all the units in that Condominium (development).
 - Example: 1,000 SF (unit size)/12,000 SF (condominium size) = 8.33%
- Common Elements⁹ – That part of the Condominium Property (movable or immovable property) that is not within or part of the individual Units and is desirably or rationally for the common use or benefit or necessary to the existence, maintenance, safety, or security of the Condominium.
 - Common Elements include, but are not limited to, gardens, recreational facilities, foundations, bearing walls, columns, roofs, halls, stairways, entrances and exits and communication ways.
- Building(s) – The physical structures situated on the land, together with all additions made thereto, which buildings constitute a portion of the Condominium Property, as shown on a Plat of Survey and Condominium Plan.
- Demising Walls – Those walls separating one Unit from another.

18.1 Condominium Parcel Replacement

The condominium parcel replacement allowance is comprised of two components: an allowance for replacing the unit and an allowance for replacing the pro rata share of the common elements. The total condominium parcel replacement allowance is \$140/square feet (SF), with the unit allowance being \$74/SF and the pro rata share of common elements being \$66/SF. As with other structures, the unit rates are based on replacing a total loss unit or common elements with a reasonable standard of living; it is not intended to compensate a homeowner to replace a custom or semi-custom condominium unit or common elements.

16.2 Condominium Parcel Repair Allowances

The condominium parcel repair evaluation (Type 2) will consist of an evaluation of the applicant's unit and an evaluation of the common elements. *The Road Home* will use the repair allowances and units of measurement for condominium units

⁹ The definition for Common Elements above is adopted by *Road Home* with one noted exception: features such as gardens, recreational facilities (pool, gyms, etc.), laundry facilities, and similar non-essential ancillary facilities are not included in the Common Element evaluation.

and common elements that are used for other structure types (single-family homes, duplexes, and town homes). The interior of the condominium unit will be evaluated from drywall to drywall, including interior walls. The condominium unit assessment does not include windows, doors, porches, or balconies. The assessment of damages to the unit is added to the pro rata share of damages to the common elements. The derivation of the pro rata share of the common elements is discussed below.

The evaluation of the common elements will include, but is not limited to, an assessment of the damages to roofing, siding, windows, flooring, and other non-unit specific features like HVAC, electrical, and plumbing. Once the estimated cost of damages to the common elements has been determined, the pro rata share of common element damages will be apportioned to each unit using its calculated undivided share. For example, assume a 20 unit condominium with each unit having 1,000 square feet (SF). The total square footage of all condominium's unit is 20,000 SF. The undivided share for each unit (given that all units are equally sized) is 0.05. If the damages to the common elements in this example totaled \$100,000, the pro rata share of common element damage would be \$5,000 ($\$100,000 * 0.05$). The total estimated cost of damages for a unit is the sum of the unit damage and the pro rata share of damages to the common elements.

In some cases the determination of the estimated cost of damages may be based on a combination of Type 1 and Type 2 evaluations. For example, a Type 1 evaluation of the unit and a Type 2 evaluation of the common elements could be used. This situation may arise in larger condominium associations where more exposed individual units in an association building may have suffered extensive damage, while the other structures and buildings within the association may have suffered little damage due to their locations within the condominium development.

Elevation grants will be based on the unit's footprint (SF), type of foundation (frame or slab), and the elevation allowances discussed in Section 8.2.1 will be. It should be noted that the decision to elevate a condominium unit cannot be made by applicant without approval from the condominium association.



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APPENDIX A

Ineligible Repair and Replacement Components

The following repairs and replacements ARE NOT covered under *The Road Home* Program:

Exterior

- Detached garages and outbuildings
- Boat ramps, docks
- BBQ grills
- Landscaping, including tree removal for aesthetic purposes
- Aluminum patio covers, not to include carport covers
- Pools, pool houses, jetted tubs
- Exterior showers
- Decks and patios
- Aluminum or wooden awning
- Solar heating and power systems
- Skylights (not for replacement; skylight repair is eligible)
- Window shutters
- Security bars on windows
- Specialty roofing (minimum allowance only)

Interior

- 2nd kitchens (in single family homes)
- Crown molding, wainscoting
- Entertainment systems (in-wall speakers, wiring, etc.)
- All special construction not found in moderate-cost housing
- Cabinets in excess of 22 linear feet in any room
- Custom shelving in walk-in closets
- Wallpaper
- Countertop appliances
- Jacuzzi-style tubs
- Washers and dryers
- Wood floors (repair only)

Utility Related

- Cable TV and telephone connections, security systems

APPENDIX B

Line Drawings that Illustrate the Calculation of Type 1 and 2 Repair/Replace Allowances

(Note: References to Specification Nos. in the following drawings refer to the nomenclature used in the HDP software that is used to capture data about damages to the home and is included to provide guidance to home evaluators)

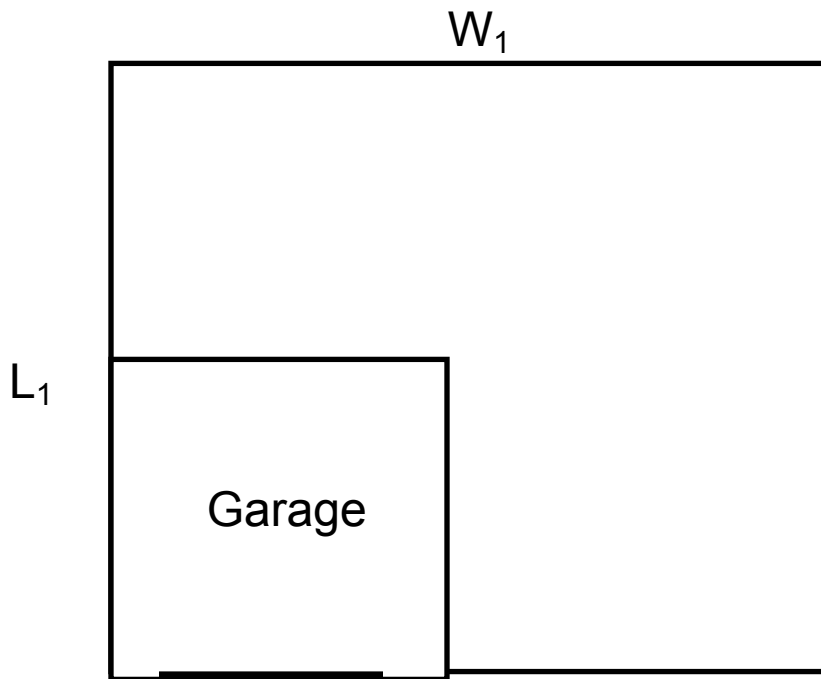
Example 1: House with attached Garage

Type 1 (100% Destroyed)

- Rebuild: Area= $W_1 \times L_1$ (Should be used for Spec 8822 and 150)
- Elevation: Area= $W_1 \times L_1$ (Should be used for Spec 10008)

Type 2 (Work in Progress, Completed Work, Partially Damaged)

- Repair: Area= $W_1 \times L_1$ (All housing components within this area eligible)
- Elevation: Area= $W_1 \times L_1$ (Should be used for Spec 30 – 10001 and 10003)
- General Requirement, Spec 150: Area = $W_1 \times L_1$ (Total Area Under Common Roof)



Discussion:

General Requirement Spec 150 “Total Area Under Common Roof” is used by *The Road Home* to calculate the rebuilding allowance for a house that is evaluated as non-100% destroyed (i.e., work in progress, etc.). It is important to note that this area includes the cumulative area of all stories. Total area under roof refers to that part of a house that is covered by a single gabled, hipped, gambrel, flat, shed, or other roof type which connect structures that share a common wall. With the exception of carport covers, this definition does not include patios or porches with “awning style” coverings, which generally are not structurally integrated with the main structure of a house or detached structures.

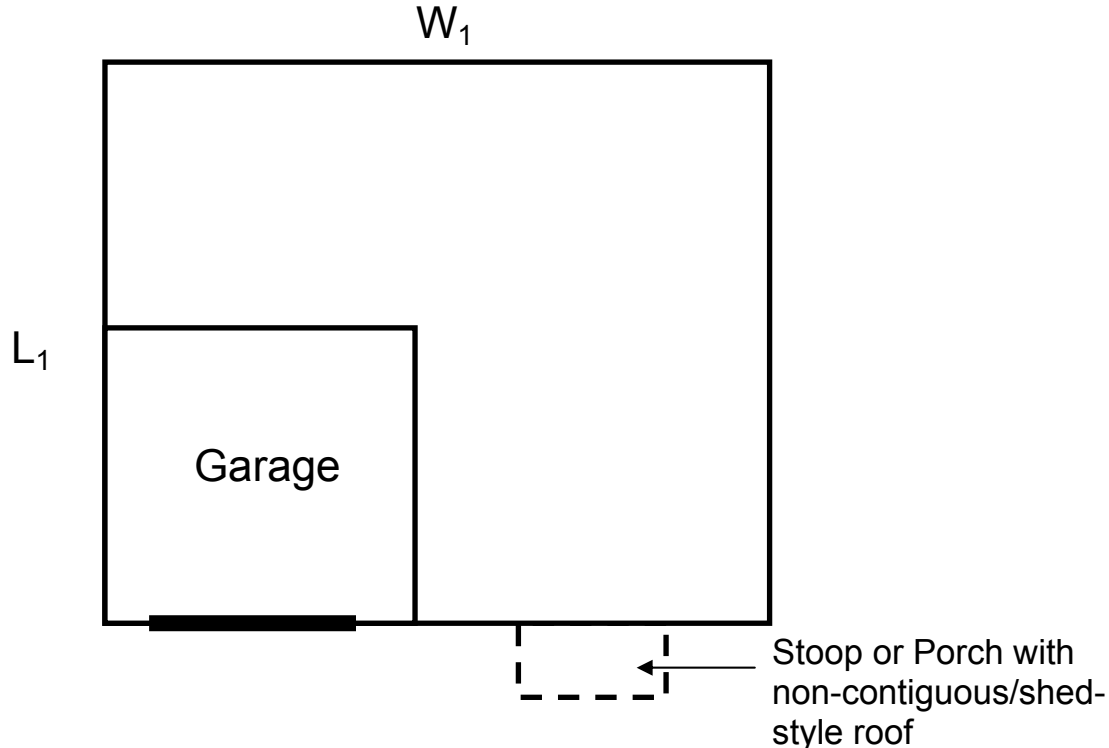
Example 2: House with attached Garage and semi-attached Porch/Stoop under non-contiguous roof

Type 1 (100% Destroyed)

- Rebuild: Area= $W_1 \times L_1$ (Should be used for Spec 8822 and Spec 150)
- Elevation: Area= $W_1 \times L_1$ (Should be used for Spec 10008)

Type 2 (Work in Progress, Completed Work, Partially Damaged)

- Repair: Area= $W_1 \times L_1 + \text{SF of stoop/porch}$
- Elevation: Area= $W_1 \times L_1$ (Should be used for Spec 30 – 10001 and 10003)
- General Requirement, Spec 150: Area = $W_1 \times L_1$ (Total Area Under Common Roof)



Discussion:

General Requirement Spec 150 “Total Area Under Common Roof” is used by *The Road Home* to calculate the rebuilding allowance for a house that is evaluated as non-100% destroyed (i.e., work in progress, etc.). It is important to note that this area includes the cumulative area of all stories. Total area under roof refers to that part of a house that is covered by a single gabled, hipped, gambrel, flat, shed, or other roof type which connect structures that share a common wall. With the exception of carport covers, this definition does not include patios or porches with “awning style” coverings, which generally are not structurally integrated with the main structure of a house or detached structures.

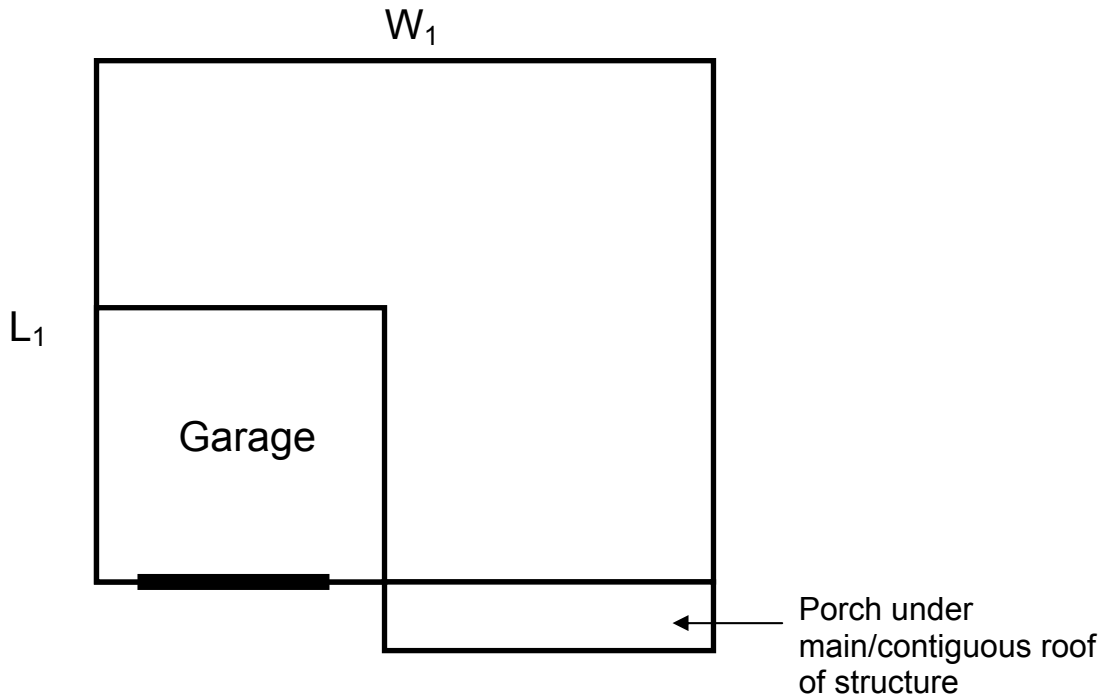
Example 3: House with attached Garage and Porch under contiguous roof:

Type 1 (100% Destroyed)

- Rebuild: Area= $W_1 \times L_1 + \text{SF porch}$ (Should be used for Spec 8822 and Spec 150)
- Elevation: Area= $W_1 \times L_1 + \text{SF porch}$ (Should be used for Spec 10008)

Type 2 (Work in Progress, Completed Work, Partially Damaged)

- Repair: Area= $W_1 \times L_1 + \text{SF porch}$
- Elevation: Area= $W_1 \times L_1 + \text{SF porch}$ (Should be used for Spec 30 – 10001 and 10003)
- General Requirement, Spec 150: Area = $W_1 \times L_1 + \text{SF Porch}$ (Total Area Under Common Roof)



Discussion:

General Requirement Spec 150 “Total Area Under Common Roof” is used by *The Road Home* to calculate the rebuilding allowance for a house that is evaluated as non-100% destroyed (i.e., work in progress, etc.). It is important to note that this area includes the cumulative area of all stories. Total area under roof refers to that part of a house that is covered by a single gabled, hipped, gambrel, flat, shed, or other roof type which connect structures that share a common wall. With the exception of carport covers, this definition does not include patios or porches with “awning style” coverings, which generally are not structurally integrated with the main structure of a house or detached structures.

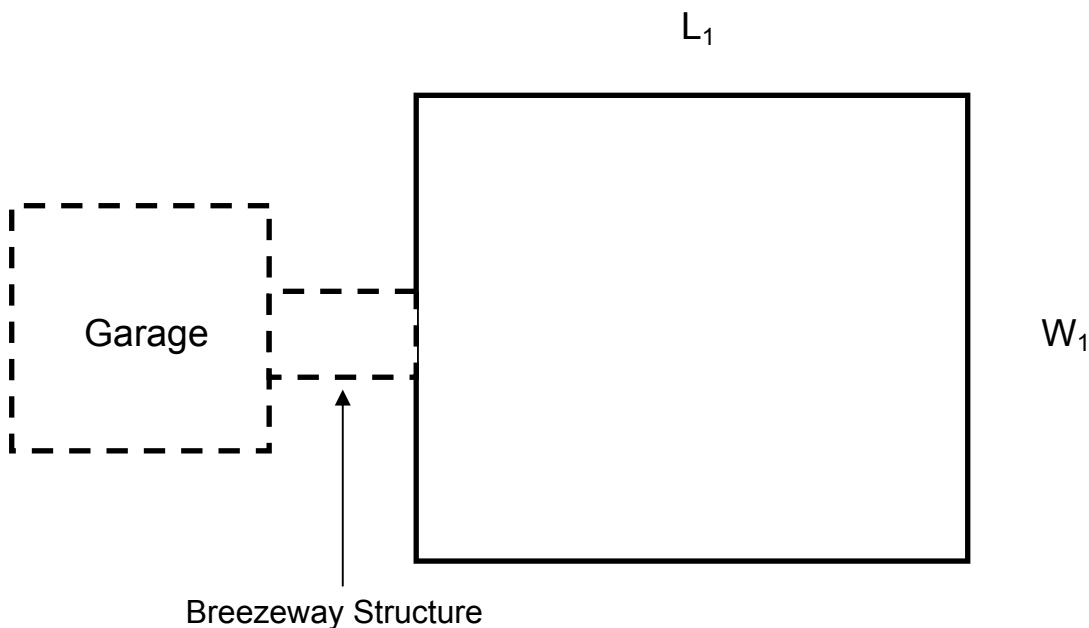
Example 4: House with semi-attached Garage and Breezeway, not sharing a common wall

Type 1 (100% Destroyed)

- Rebuild: Area= $W_1 \times L_1$ + Breezeway and Garage¹⁰ (Should be used for Spec 8822 and Spec 150)
- Elevation: Area= $W_1 \times L_1$ (Should be used for Spec 10008)

Type 2 (Work in Progress, Completed Work, Partially Damaged)

- Repair: Area= $W_1 \times L_1$ + Breezeway and Garage⁵
- Elevation: Area= $W_1 \times L_1$ (Should be used for Spec 30 – 10001 and 10003)
- General Requirement, Spec 150: Area = $W_1 \times L_1$ + Breezeway and Garage⁵



Discussion:

General Requirement Spec 150 “Total Area Under Common Roof” is used by *The Road Home* to calculate the rebuilding allowance for a house that is evaluated as non-100% destroyed (i.e., work in progress, etc.). It is important to note that this area includes the cumulative area of all stories. Total area under roof refers to that part of a house that is covered by a single gabled, hipped, gambrel, flat, shed, or other roof type which connect structures that share a common wall. With the exception of carport covers, this definition does not include patios, breezeways, or porches with “awning style” coverings, which generally are not structurally integrated with the main structure of a house or structures that do not share a common wall with the main structure of the house (e.g., Example 4).

¹⁰ For Type 1 evaluations, garages that are connected to the main structure via a breezeway that are constructed of framed walls or trussed roofs should be included in the calculation of total area for replacement. For Type 2 evaluations they should be included in the exterior component of the assessment.

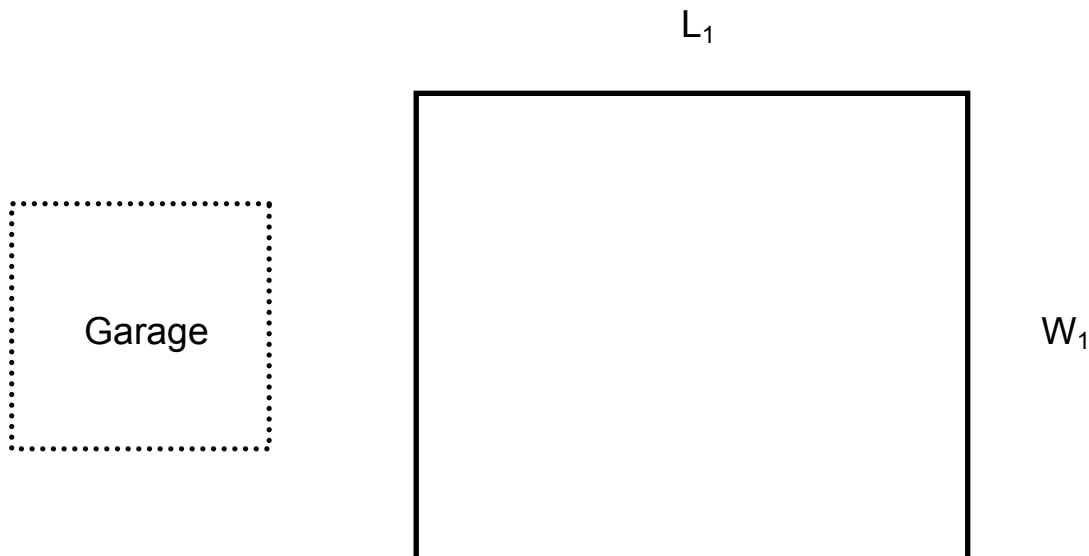
Example 5: House with detached Garage:

Type 1 (100% Destroyed)

- Rebuild: Area= $W_1 \times L_1$ (Should be used for Spec 8822 and Spec 150)
- Elevation: Area= $W_1 \times L_1$ (Should be used for Spec 10008)

Type 2 (Work in Progress, Completed Work, Partially Damaged)

- Repair: Area= $W_1 \times L_1$
- Elevation: Area= $W_1 \times L_1$ (Should be used for Spec 30 – 10001 and 10003)
- General Requirement, Spec 150: Area = $W_1 \times L_1$ (Total Area Under Common Roof)



Discussion:

General Requirement Spec 150 “Total Area Under Common Roof” is used by *The Road Home* to calculate the rebuilding allowance for a house that is evaluated as non-100% destroyed (i.e., work in progress, etc.). It is important to note that this area includes the cumulative area of all stories. Total area under roof refers to that part of a house that is covered by a single gabled, hipped, gambrel, flat, shed, or other roof type which connect structures that share a common wall. With the exception of carport covers, this definition does not include patios or porches with “awning style” coverings, which generally are not structurally integrated with the main structure of a house or detached structures.

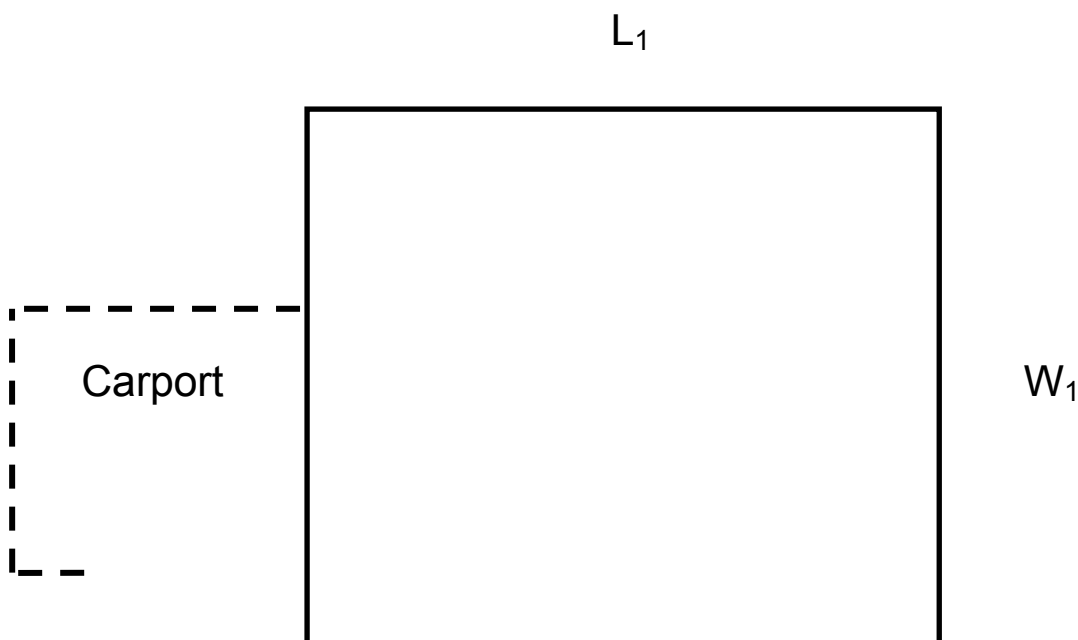
Example 6: House with attached Carport:

Type 1 (100% Destroyed)

- Rebuild: Area= $W_1 \times L_1 + \text{Carport}^{11}$ (Should be used for Spec 8822 and Spec 150)
- Elevation: Area= $W_1 \times L_1$ (Should be used for Spec 10008)

Type 2 (Work in Progress, Completed Work, Partially Damaged)

- Repair: Area= $W_1 \times L_1 + \text{Carport}$
- Elevation: Area= $W_1 \times L_1$ (Should be used for Spec 30 – 10001 or 10003)
- General Requirement, Spec 150: Area = $W_1 \times L_1 + \text{Carport}^6$



Discussion:

General Requirement Spec 150 “Total Area Under Common Roof” is used by *The Road Home* to calculate the rebuilding allowance for a house that is evaluated as non-100% destroyed (i.e., work in progress, etc.). It is important to note that this area includes the cumulative area of all stories. Total area under roof refers to that part of a house that is covered by a single gabled, hipped, gambrel, flat, shed, or other roof type which connect structures that share a common wall. With the exception of carport covers, this definition does not include patios, breezeways, or porches with “awning style” coverings, which generally are not structurally integrated with the main structure of a house or structures that do not share a common wall with the main structure of the house.

¹¹ In this example a rebuild allowance for a carport should only be provided for a framed or block-wall carport structure that has a trussed roof.

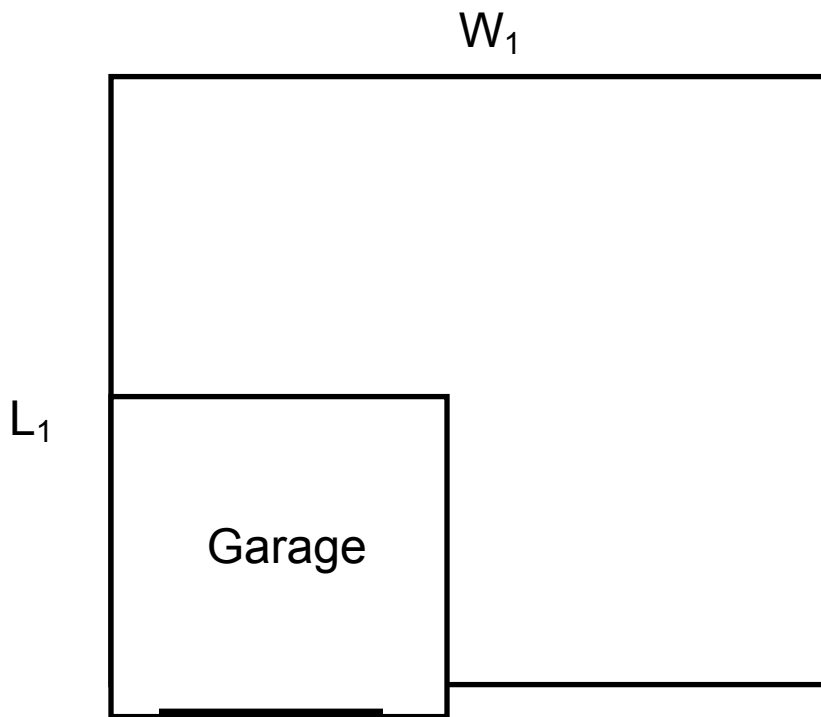
Example 7: 2 Story House with attached Garage (same formula to be used for one and a half story homes with 1.5 substituted for 2):

Type 1 (100% Destroyed)

- Rebuild: Area= 2 ($W_1 \times L_1$) (Should be used for Spec 8822 and Spec 150)
- Elevation: Area= $W_1 \times L_1$ (Should be used for Spec 10008)

Type 2 (Work in Progress, Completed Work, Partially Damaged)

- Repair: Area= 2 ($W_1 \times L_1$)
- Elevation: Area= $W_1 \times L_1$ (Should be used for Spec 30 – 10001 or 10003)
- General Requirement, Spec 150: Area = 2 ($W_1 \times L_1$)



Discussion:

General Requirement Spec 150 “Total Area Under Common Roof” is used by *The Road Home* to calculate the rebuilding allowance for a house that is evaluated as non-100% destroyed (i.e., work in progress, etc.). It is important to note that this area includes the cumulative area of all stories. Total area under roof refers to that part of a house that is covered by a single gabled, hipped, gambrel, flat, shed, or other roof type which connect structures that share a common wall. With the exception of carports, this definition does not include patios or porches with “awning style” coverings, which generally are not structurally integrated with the main structure of a house or detached structures.