



REPAIR and RECONSTRUCTION MODEL ORDINANCE

(Amending the California Building Code)

Prepared by
**California Building Official's (CALBO)
Emergency Preparedness Committee**

Preface

Please note that two versions of this model ordinance have been provided depending on which edition of the California Building Code (2001 or 2007) is in effect in your individual jurisdiction.

Currently, Title 24 does not provide for damaged structures to be repaired or reconstructed to a structurally safe level, accounting for upgrades in wind and seismic standards. The inability to repair structures based upon the most recent industry knowledge, thus preventing or mitigating future unnecessary damage or injury, is not in the best interest of the citizens we are tasked with assisting.

With this in mind, the following model ordinances have been drafted by a consortium of concerned statewide organizations (CALBO, CA OES, CA State Seismic Commission, and other interested stakeholders), to permit jurisdictions to assist building owners in repairing their structures to reasonably safe levels based upon current industry standards, which helps preserve our communities by preventing future losses.

The following excerpts from the Stafford Act have been provided for informational purposes, and to assist the local jurisdiction as local ordinances are drafted and implemented locally.

The Robert T. Stafford Disaster Relief and Emergency Assistance Act, as amended, ("Stafford Act") authorizes the Federal Emergency Management Agency (FEMA) to fund the repair and restoration of eligible government and non-profit facilities damaged in a Presidential declared disaster. Section 406(e) of the Stafford Act requires that the repair and restoration be "on the basis of the design of such facility as it existed immediately prior to the major disaster and in conformity with current applicable codes, specifications and standards."

In 1998, FEMA interpreted the Stafford Act, Federal Regulations in 44 CFR 206.226(d) as follows:

"To the extent a code or standard requires changes to the pre-disaster construction of a facility when it is being repaired or restored, those changes will only be eligible for FEMA funding if the code meets the following five specific criteria:

- (1) Apply to the type of repair or restoration required (standards may be different for new construction and repair work);

- (2) Be appropriate to the pre-disaster use of the facility;
- (3) Be found reasonable, in writing and formally adopted and implemented by the state or local government on or before the disaster declaration date or be a legal federal requirement applicable to the type of restoration;
- (4) Apply uniformly to all similar types of facilities within the jurisdiction of the owner of the facility; and
- (5) For any standard in effect: at the time of a disaster, it must have been enforced during the time it was in effect.”

More recently, FEMA has issued several interpretations of the above regulations paraphrased below:

1) Repair ordinances must apply "uniformly", that is to all occupancies regardless of the funding source, the owner, or the regulator. FEMA intends to play one disaster grant applicant off the other if regulations are not entirely applicable or enforced uniformly. FEMA does not consider Appendix Chapter 34 Division III of the 1997 UBC to be eligible since it applies only to "natural" disasters. So FEMA insists that repair ordinances apply to both natural and man-made damage repairs for funding eligibility.

2) Repair ordinances must also apply both before and after disasters regardless of whether or not it is a Federally declared disaster. At this time, FEMA supports the intent of the International Existing Building Code (IEBC), which, if adopted, applies to all repairs regardless of the cause, or whether or not local or federal declarations of disaster or emergency exist.

3) The reasonableness clause of FEMA's regulations has also been the subject of FEMA's interpretations. FEMA recognizes the IEBC because FEMA has been actively pursuing code change proposals through ICC. If FEMA deems that a local- or state-generated regulation is unreasonable, FEMA reserves the right to initially deny requests for Public Assistance funds on that basis. After recent disasters, some applicants have then been forced to appeal in these cases, creating delays and uncertainty about funding and repairs.

FEMA's most recent (2/07) response to this specific draft of *CALBO's Repair and Reconstruction Model Ordinance*

“The following informal discussion follows up on our previous feedback and summarizes our observations, relative to, CALBO's draft repair model ordinance. The latest “marked up” edition is dated 10-19-06.

In the past, our feedback has generally addressed certain of the five criteria; i.e. does it apply to all buildings and all disasters (this version states it does) or does it apply to renovations and alterations (contrary to the fourth criteria this version doesn't). We have also stated

several times that we are concerned that it appears that the intent of the proposed changes is to meet the requirements of the Stafford Act and thereby enable subgrantees to be eligible for FEMA funding of code triggered upgrades, and NOT to encourage the implementation of predisaster mitigation measures on an across the board basis.

Again, it is not clear that the ordinance, as currently drafted, applies to all voluntary work, including repairs, alterations and additions to damaged and undamaged buildings. Consequently, it still appears that the primary intent of the code changes is to assure access to Federal funds for upgrades in the event of a disaster, as opposed to promoting mitigation.

In addition, we have never addressed the detailed technical provisions of the draft or evaluated them for reasonableness. For instance, this version appears, in some instances, to require mandated upgrades of existing buildings to meet lateral force levels applicable to new construction (which our Interim Polices state is not reasonable) and, in other instances, to only require compliance with reduced lateral force levels; i.e., less than required for new construction (which may be reasonable). The question then would be whether the reduced mandatory upgrades would be considered reasonable. There are factors that would probably have to be considered in order to make that determination that may only come into focus once the ordinance is adopted and its requirements are imposed on the building public. Therefore, a determination at this time, relative to, the reasonableness of the upgrade requirements would be premature.

In conclusion, for the provisions of the ordinance to be accepted by FEMA as the basis for funding of upgrades it must be demonstrated that as written and, in actuality, as enforced, it meets the five criteria and has brought about implementation of predisaster mitigation measures, not just on the part of disaster damaged and/or FEMA eligible facilities, but all facilities and all work, including repairs and renovations.”

It is the Emergency Preparedness Committee's belief that the following ordinances, as currently drafted, are good public policy. If local jurisdictions consistently, and uniformly comply with the five point criteria, compliance with Federal requirements may be met. Nonfeasance on this issue may be a greater risk to local jurisdictions.

REPAIR and RECONSTRUCTION MODEL ORDINANCE
(Amending the 2001 California Building Code [based upon the 1997 UBC])

ORDINANCE NO. _____

AN ORDINANCE OF THE CITY OF (TOWN or COUNTY or CITY AND COUNTY) OF _____ OF THE STATE OF CALIFORNIA, ADDING A NEW CHAPTER ____ TO DIVISION _____ OF THE MUNICIPAL CODE (COUNTY CODE), RELATING TO REPAIR OF DAMAGED STRUCTURES.

The City Council (County Board of Supervisors) of the City (Town or County or City and County) of the _____, State of California, ordains as follows:

Chapter ____ is added to Division __ of Title __ of the City of (County of. City and County of) _____ municipal (county) code, to read:

Section ____ Adoption and Intent

This chapter establishes regulations as amendments to the building code for the expeditious repair of damaged structures. In the event an amendment to the California Building Standards Code results in differences between these building standards and the California Building Standards Code, the text of these building standards shall govern. In accordance with California Health and Safety Code Section 17958.7, express findings that modifications to the California Building Standards Code are reasonably necessary because of local climatic, geological or topographical conditions are either already on file with the California Building Standards Commission, or will be filed prior to the effective date of the ordinance codified in this Article. In accordance with California Government Code Section 50022.6, at least one true copy of the Uniform Building Code has been on file with the _____ Clerk since fifteen (15) days prior to enactment of the ordinance codified in this Article. While this Article is in force, a true copy of this Chapter shall be kept for public inspection in the office of the _____ Clerk. A reasonable supply of this Chapter shall be available in the office of the _____ Clerk for public purchase.

Section ___ Definitions

For the purposes of this chapter, the following definition applies and is hereby added to Section 220-S of the 2001 California Building Code:

Substantial Structural Damage. A condition where:

1. In any story, the vertical elements of the lateral-force-resisting system, have suffered damage such that the lateral load-carrying capacity of the structure in any direction has been reduced by more than 20 percent from its pre-damaged condition, or
2. The capacity of any vertical gravity load-carrying component, or any group of such components, that supports more than 30 percent of the total area of the structure's floor(s) and roof(s) has been reduced more than 20 percent from its pre-damaged condition, and the remaining capacity of such affected elements with respect to all dead and live loads is less than 75 percent of that required by the building code for new buildings of similar structure, purpose, and location.

Section ___ Repairs

For the purposes of this chapter, the following repair requirements are hereby added as a new Subsection 3403.6 to the 2001 California Building Code:

3403.6.1 Repairs. Repairs of structural elements shall comply with this section.

3403.6.1.1 Seismic evaluation and design. Seismic evaluation and design of an existing building and its components shall be based on the following criteria.

3403.6.1.1.1 Evaluation and design procedures. The seismic evaluation and design shall be based on the procedures specified in the building code, ASCE 31 *Seismic Evaluation of Existing Buildings* (for evaluation only) or ASCE 41 *Seismic Rehabilitation of Existing Buildings*. The procedures contained in Appendix A of the *International Existing Building Code* shall be permitted to be used as specified in Section 3403.6.1.1.3.

3403.6.1.1.2 CBC level seismic forces. When seismic forces are required to meet the building code level, they shall be one of the following:

1. 100 percent of the values in the building code. The R factor used for analysis in accordance with Chapter 16 of the building code shall be the R factor specified for structural systems classified as "Ordinary" unless it can be demonstrated that the structural system satisfies the proportioning and detailing requirements for systems classified as "Intermediate" or "Special".

2. Forces corresponding to BSE-1 and BSE-2 Earthquake Hazard Levels defined in ASCE 41. Where ASCE 41 is used, the corresponding performance levels shall be those shown in Table 3403.6.1.1.2.

**TABLE 3403.6.1.1.2
ASCE 41 and ASCE 31 PERFORMANCE LEVELS**

OCCUPANCY CATEGORY (BASED ON IBC TABLE 1604.5)	PERFORMANCE LEVEL FOR USE WITH ASCE 31 AND WITH ASCE 41 BSE-1 EARTHQUAKE HAZARD LEVEL	PERFORMANCE LEVEL FOR USE WITH ASCE 41 BSE-2 EARTHQUAKE HAZARD LEVEL
I	Life Safety (LS)	Collapse Prevention (CP)
II	Life Safety (LS)	Collapse Prevention (CP)
III	Note (a)	Note (a)
IV	Immediate Occupancy (IO)	Life Safety (LS)

a. Performance Levels for Occupancy Category III shall be taken as halfway between the performance levels specified for Occupancy Category II and Occupancy Category IV.

3403.6.1.1.3 Reduced CBC level seismic forces. When seismic forces are permitted to meet reduced building code levels, they shall be one of the following:

1. 75 percent of the forces prescribed in the building code. The R factor used for analysis in accordance with Chapter 16 of the building code shall be the R factor as specified in Section 3403.6.1.1.2.
2. In accordance with the applicable chapters in Appendix A of the *International Existing Building Code* as specified in Items 2.1 through 2.5 below. Structures or portions of structures that comply with the requirements of the applicable chapter in Appendix A shall be deemed to comply with the requirements for reduced building code force levels.
 - 2.1. The seismic evaluation and design of unreinforced masonry bearing wall buildings in Occupancy Category I or II are permitted to be based on the procedures specified in Appendix Chapter A1.
 - 2.2. Seismic evaluation and design of the wall anchorage system in reinforced concrete and reinforced masonry wall buildings with flexible diaphragms in Occupancy Category I or II are permitted to be based on the procedures specified in Appendix Chapter A2.
 - 2.3. Seismic evaluation and design of cripple walls and sill plate anchorage in residential buildings of light-frame wood construction in Occupancy Category I or II are permitted to be based on the procedures specified in Appendix Chapter A3.
 - 2.4. Seismic evaluation and design of soft, weak, or open-front wall conditions in multiunit residential buildings of wood construction in Occupancy Category I or II are permitted to be based on the procedures specified in Appendix Chapter A4.

- 2.5. Seismic evaluation and design of concrete buildings and concrete with masonry infill buildings in all Occupancy Categories are permitted to be based on the procedures specified in Appendix Chapter A5.
3. In accordance with ASCE 31 based on the applicable performance level as shown in Table 3403.6.1.1.2.
4. Those associated with the BSE-1 Earthquake Hazard Level defined in ASCE 41 and the performance level as shown in Table 3403.6.1.1.2. Where ASCE 41 is used, the design spectral response acceleration parameters S_{xs} and S_{x1} shall not be taken less than 75 percent of the respective design seismic coefficients $2.5C_a$ and C_v as defined in Tables 16-Q and 16-R of the *Uniform Building Code*.

3403.6.1.2 Wind Design. Wind design of existing buildings shall be based on the procedures specified in the building code.

3403.6.2 Repairs to damaged buildings. Repairs to damaged buildings shall comply with this section.

3403.6.2.1 Unsafe conditions. Regardless of the extent of structural damage, unsafe conditions shall be eliminated.

3403.6.2.2 Substantial structural damage to vertical elements of the lateral-force-resisting system. A building that has sustained substantial structural damage to the vertical elements of its lateral-force-resisting system shall be evaluated and repaired in accordance with the applicable provisions of Section 3403.6.2.2.1 through 3403.6.2.2.3.

3403.6.2.2.1 Evaluation. The building shall be evaluated by a registered design professional, and the evaluation findings shall be submitted to the code official. The evaluation shall establish whether the damaged building, if repaired to its pre-damage state, would comply with the provisions of the building code. Wind forces for this evaluation shall be those prescribed in the building code. Seismic forces for this evaluation are permitted to be the reduced level seismic forces specified in Code Section 3403.6.1.1.3.

3403.6.2.2.2 Extent of repair for compliant buildings. If the evaluation establishes compliance of the pre-damage building in accordance with Section 3403.6.2.2.1, then repairs shall be permitted that restore the building to its pre-damage state, using materials and strengths that existed prior to the damage.

3403.6.2.2.3 Extent of repair for non-compliant buildings. If the evaluation does not establish compliance of the pre-damage building in accordance with Section 3403.6.2.2.1, then the building shall be rehabilitated to comply with applicable provisions of the building code for load combinations including wind or seismic forces. The wind design level for the repair shall be as required by the building code in effect at the time of original construction unless the damage was

caused by wind, in which case the design level shall be as required by the code in effect at the time of original construction or as required by the building code, whichever is greater. Seismic forces for this rehabilitation design shall be those required for the design of the predamaged building, but not less than the reduced level seismic forces specified in Section 3403.6.1.1.3. New structural members and connections required by this rehabilitation design shall comply with the detailing provisions of the building code for new buildings of similar structure, purpose, and location.

3403.6.2.3 Substantial structural damage to vertical load-carrying components.

Vertical load-carrying components that have sustained substantial structural damage shall be rehabilitated to comply with the applicable provisions for dead and live loads in the building code. Undamaged vertical load-carrying components that receive dead or live loads from rehabilitated components shall also be rehabilitated to carry the design loads of the rehabilitation design. New structural members and connections required by this rehabilitation design shall comply with the detailing provisions of the building code for new buildings of similar structure, purpose, and location.

3403.6.2.3.1 Lateral force-resisting elements. Regardless of the level of damage to vertical elements of the lateral force-resisting system, if substantial structural damage to vertical load-carrying components was caused primarily by wind or seismic effects, then the building shall be evaluated in accordance with Section 3403.6.2.2.1 and, if non-compliant, rehabilitated in accordance with Section 3403.6.2.2.3.

3403.6.2.4 Less than substantial structural damage. For damage less than substantial structural damage, repairs shall be allowed that restore the building to its pre-damage state, using materials and strengths that existed prior to the damage. New structural members and connections used for this repair shall comply with the detailing provisions of the building code for new buildings of similar structure, purpose, and location.

3403.6.3 Referenced Standards

Standard Reference Number	Title	Referenced In Code Section Number
ASCE 31-03	Seismic Evaluation of Existing Buildings	3403.6.1.1.1, TABLE 3403.6.1.1.2, 3403.6.1.1.3
ASCE 41-06	Seismic Rehabilitation of Existing Buildings	3403.6.1.1.1, 3403.6.1.1.2, TABLE 3403.6.1.1.2, 3403.6.1.1.3

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The City Council (County Board of Supervisors) of the City (Town or County or City and County) of the _____, State of California, ordains as follows:

Chapter ____ is added to Division __ of Title __ of the City of (County of. City and County of) _____ municipal (county) code, to read:

Section ____ Adoption and Intent

This chapter establishes regulations as amendments to the building code for the expeditious repair of damaged structures. In the event an amendment to the California Building Standards Code results in differences between these building standards and the California Building Standards Code, the text of these building standards shall govern. In accordance with California Health and Safety Code Section 17958.7, express findings that modifications to the California Building Standards Code are reasonably necessary because of local climatic, geological or topographical conditions are either already on file with the California Building Standards Commission, or will be filed prior to the effective date of the ordinance codified in this Article. In accordance with California Government Code Section 50022.6, at least one true copy of the Uniform Building Code has been on file with the _____ Clerk since fifteen (15) days prior to enactment of the ordinance codified in this Article. While this Article is in force, a true copy of this Chapter shall be kept for public inspection in the office of the _____ Clerk. A reasonable supply of this Chapter shall be available in the office of the _____ Clerk for public purchase.

Section ____ Definitions

For the purposes of this chapter, the following definition applies and is hereby added to Section 3402.1 Definitions of the 2007 California Building Code (CBC):

Substantial Structural Damage. A condition where:

1. In any story, the vertical elements of the lateral-force-resisting system, have suffered damage such that the lateral load-carrying capacity of the structure in any direction has been reduced by more than 20 percent from its pre-damaged condition, or

2. The capacity of any vertical gravity load-carrying component, or any group of such components, that supports more than 30 percent of the total area of the structure's floor(s) and roof(s) has been reduced more than 20 percent from its pre-damaged condition, and the remaining capacity of such affected elements with respect to all dead and live loads is less than 75 percent of that required by the building code for new buildings of similar structure, purpose, and location.

Section ____ Repairs

For the purposes of this chapter, the following repair requirements are hereby added as a new Subsection 3403.5 to Section 3403 Additions, Alterations or Repair in the 2007 California Building Code (CBC):

3403.5.1 Repairs. Repairs of structural elements shall comply with this section.

3403.5.1.1 Seismic evaluation and design. Seismic evaluation and design of an existing building and its components shall be based on the following criteria.

3403.5.1.1.1 Evaluation and design procedures. The seismic evaluation and design shall be based on the procedures specified in the building code, ASCE 31 *Seismic Evaluation of Existing Buildings* (for evaluation only) or ASCE 41 *Seismic Rehabilitation of Existing Buildings*. The procedures contained in Appendix A of the *International Existing Building Code* shall be permitted to be used as specified in Section 3403.5.1.1.3.

3403.5.1.1.2 CBC level seismic forces. When seismic forces are required to meet the building code level, they shall be one of the following:

1. 100 percent of the values in the building code. The R factor used for analysis in accordance with Chapter 16 of the building code shall be the R factor specified for structural systems classified as "Ordinary" unless it can be demonstrated that the structural system satisfies the proportioning and detailing requirements for systems classified as "Intermediate" or "Special".
2. Forces corresponding to BSE-1 and BSE-2 Earthquake Hazard Levels defined in ASCE 41. Where ASCE 41 is used, the corresponding performance levels shall be those shown in Table 3403.5.1.1.2.

**TABLE 3403.5.1.1.2
ASCE 41 and ASCE 31 PERFORMANCE LEVELS**

OCCUPANCY CATEGORY (BASED ON IBC TABLE 1604.5)	PERFORMANCE LEVEL FOR USE WITH ASCE 31 AND WITH ASCE 41 BSE-1 EARTHQUAKE HAZARD LEVEL	PERFORMANCE LEVEL FOR USE WITH ASCE 41 BSE-2 EARTHQUAKE HAZARD LEVEL
I	Life Safety (LS)	Collapse Prevention (CP)
II	Life Safety (LS)	Collapse Prevention (CP)
III	Note (a)	Note (a)
IV	Immediate Occupancy (IO)	Life Safety (LS)

a. Performance Levels for Occupancy Category III shall be taken as halfway between the performance levels specified for Occupancy Category II and Occupancy Category IV.

3403.5.1.1.3 Reduced CBC level seismic forces. When seismic forces are permitted to meet reduced building code levels, they shall be one of the following:

1. 75 percent of the forces prescribed in the building code. The R factor used for analysis in accordance with Chapter 16 of the building code shall be the R factor as specified in Section 3403.5.1.1.2.
2. In accordance with the applicable chapters in Appendix A of the *International Existing Building Code* as specified in Items 2.1 through 2.5 below. Structures or portions of structures that comply with the requirements of the applicable chapter in Appendix A shall be deemed to comply with the requirements for reduced building code force levels.
 - 2.1. The seismic evaluation and design of unreinforced masonry bearing wall buildings in Occupancy Category I or II are permitted to be based on the procedures specified in Appendix Chapter A1.
 - 2.2. Seismic evaluation and design of the wall anchorage system in reinforced concrete and reinforced masonry wall buildings with flexible diaphragms in Occupancy Category I or II are permitted to be based on the procedures specified in Appendix Chapter A2.
 - 2.3. Seismic evaluation and design of cripple walls and sill plate anchorage in residential buildings of light-frame wood construction in Occupancy Category I or II are permitted to be based on the procedures specified in Appendix Chapter A3.
 - 2.4. Seismic evaluation and design of soft, weak, or open-front wall conditions in multiunit residential buildings of wood construction in Occupancy Category I or II are permitted to be based on the procedures specified in Appendix Chapter A4.
 - 2.5. Seismic evaluation and design of concrete buildings and concrete with masonry infill buildings in all Occupancy Categories are permitted to be based on the procedures specified in Appendix Chapter A5.
3. In accordance with ASCE 31 based on the applicable performance level as shown in Table 3403.5.1.1.2.

4. Those associated with the BSE-1 Earthquake Hazard Level defined in ASCE 41 and the performance level as shown in Table 3403.5.1.1.2. Where ASCE 41 is used, the design spectral response acceleration parameters S_{xs} and S_{x1} shall not be taken less than 75 percent of the respective design spectral response acceleration parameters S_{DS} and S_{D1} defined by the *International Building Code* and its reference standards.

3403.5.1.2 Wind Design. Wind design of existing buildings shall be based on the procedures specified in the building code.

3403.5.2 Repairs to damaged buildings. Repairs to damaged buildings shall comply with this section.

3403.5.2.1 Unsafe conditions. Regardless of the extent of structural damage, unsafe conditions shall be eliminated.

3403.5.2.2 Substantial structural damage to vertical elements of the lateral-force-resisting system. A building that has sustained substantial structural damage to the vertical elements of its lateral-force-resisting system shall be evaluated and repaired in accordance with the applicable provisions of Section 3403.5.2.2.1 through 3403.5.2.2.3.

3403.5.2.2.1 Evaluation. The building shall be evaluated by a registered design professional, and the evaluation findings shall be submitted to the code official. The evaluation shall establish whether the damaged building, if repaired to its pre-damage state, would comply with the provisions of the building code. Wind forces for this evaluation shall be those prescribed in the building code. Seismic forces for this evaluation are permitted to be the reduced level seismic forces specified in Code Section 3403.5.1.1.3.

3403.5.2.2.2 Extent of repair for compliant buildings. If the evaluation establishes compliance of the pre-damage building in accordance with Section 3403.5.2.2.1, then repairs shall be permitted that restore the building to its pre-damage state, using materials and strengths that existed prior to the damage.

3403.5.2.2.3 Extent of repair for non-compliant buildings. If the evaluation does not establish compliance of the pre-damage building in accordance with Section 3403.5.2.2.1, then the building shall be rehabilitated to comply with applicable provisions of the building code for load combinations including wind or seismic forces. The wind design level for the repair shall be as required by the building code in effect at the time of original construction unless the damage was caused by wind, in which case the design level shall be as required by the code in effect at the time of original construction or as required by the building code, whichever is greater. Seismic forces for this rehabilitation design shall be those required for the design of the predamaged building, but not less than the reduced level seismic forces specified in Section 3403.5.1.1.3. New structural members

and connections required by this rehabilitation design shall comply with the detailing provisions of the building code for new buildings of similar structure, purpose, and location.

3403.5.2.3 Substantial structural damage to vertical load-carrying components.

Vertical load-carrying components that have sustained substantial structural damage shall be rehabilitated to comply with the applicable provisions for dead and live loads in the building code. Undamaged vertical load-carrying components that receive dead or live loads from rehabilitated components shall also be rehabilitated to carry the design loads of the rehabilitation design. New structural members and connections required by this rehabilitation design shall comply with the detailing provisions of the building code for new buildings of similar structure, purpose, and location.

3403.5.2.3.1 Lateral force-resisting elements. Regardless of the level of damage to vertical elements of the lateral force-resisting system, if substantial structural damage to vertical load-carrying components was caused primarily by wind or seismic effects, then the building shall be evaluated in accordance with Section 3403.5.2.2.1 and, if non-compliant, rehabilitated in accordance with Section 3403.5.2.2.3.

3403.5.2.4 Less than substantial structural damage. For damage less than substantial structural damage, repairs shall be allowed that restore the building to its pre-damage state, using materials and strengths that existed prior to the damage. New structural members and connections used for this repair shall comply with the detailing provisions of the building code for new buildings of similar structure, purpose, and location.

3403.5.3 Referenced Standards

Standard Reference Number	Title	Referenced In Code Section Number
ASCE 31-03	Seismic Evaluation of Existing Buildings	3403.5.1.1.1, TABLE 3403.5.1.1.2, 3403.5.1.1.3
ASCE 41-06	Seismic Rehabilitation of Existing Buildings	3403.5.1.1.1, 3403.5.1.1.2, TABLE 3403.5.1.1.2, 3403.5.1.1.3