



STATE OF WASHINGTON

STATE BUILDING CODE COUNCIL

1500 Jefferson Street SE • P.O. Box 41449 • Olympia, Washington 98501
(360) 407-9277 • fax (360) 586-9088 • e-mail sbcc@des.wa.gov • www.sbcc.wa.gov

Final Cost Benefit Analysis for the 2021 International Existing Building Code

I. Code Adoption and Significant legislative Rules

1. Introduction

The Washington State Building Code Council (SBCC) is required to adopt and maintain the state building code, as provided in chapters 19.27, 19.27A, and 70.92 RCW, and the state legislature. The primary objective of the Council is to encourage consistency in the building code throughout the state of Washington and to maintain the building code consistent with the state's interest as provided in RCW 19.27.020. The statewide code adoption process is defined in WAC 51-04 and the Council by-laws. Since 1985, the Council has been responsible for the adoption to update to new editions of the model codes per RCW 19.27.074, including the International Existing Building Code (IEBC). The IEBC is updated every three years by the International Code Council (ICC). The code development process conducted by the model code organization is open to all interest groups within the design and construction industry and from governmental organizations.

The Council adopts the building codes in accordance with the Administrative Procedures Act (APA). The general procedures for rulemaking are laid out in part III of the Act (RCW 34.05.310 through RCW 34.05.395). Administrative rules governing the procedures for agency rulemaking have been adopted by the Office of the Code Reviser and are found at WAC 1-21-005 through WAC 1-21-180.

2. Adoption of 2021 International Existing Building Code

The Council is filing a proposed rule to adopt the 2021 edition of the International Existing Building Code (IEBC), part of WAC 51-50. The Preproposal Statement of Inquiry (CR 101) to initiate the development of the 2021 IEBC, as adopted through WAC 51-50, was filed as WSR 22-03-033 on January 11, 2022. On February 18, 2022, the Council opened a submittal period for proposals for statewide amendments to the 2021 IEBC. All stakeholders and interested parties could submit proposals to meet the legislative goals. All proposals are submitted in writing on the appropriate form with the indicated supporting documentation. Each proponent is required to identify if the proposed amendment has an economic impact and estimate the costs and savings of the proposal on construction practices, users and/or the public, the enforcement community, and operation and maintenance.

The Council has adopted a definition of cost-effectiveness based on RCW 39.35 as recommended by Department of Commerce. A guide on how to evaluate



STATE OF WASHINGTON

STATE BUILDING CODE COUNCIL

1500 Jefferson Street SE • P.O. Box 41449 • Olympia, Washington 98501
(360) 407-9277 • fax (360) 586-9088 • e-mail sbcc@des.wa.gov • www.sbcc.wa.gov

cost-effectiveness is therefore defined by the Council as a code change that has a net present savings over a 50-year life cycle of a building utilizing the Life Cycle Cost Tool (LCCT) as developed by the Washington State Office of Financial Management (OFM). The methodology of the LCCT is based on the NIST Handbook 135 methodology and utilizes specific inputs as determined by the Council with guidance from the Washington State Department of Commerce. The cost effectiveness analysis uses the average useful life years from Appendix 7 of the BOMA Preventive Maintenance Guidebook for all building components that are evaluated. Each submitted code change proposal that is not editorial or explanatory, is required to include this analysis. The proponents are also allowed to use an alternate cost benefit analysis.

In considering amendments to the model code, the Council established and consulted with a technical advisory group (TAG), including representatives of appropriate state agencies, local governments, general contractors, building owners and managers, design professionals, utilities, and other interested parties. The TAG was tasked with reviewing the proposals, identifying pros and cons and whether it helped achieve the broader goals of ensuring buildings and facilities constructed in the state are safe and healthy for building occupants, accessible to persons with disabilities and the elderly, and energy efficient. The TAG also discussed whether modifications were needed to ensure the provisions were correlated with other requirements, technically feasible, commercially available, and cost-effective to building owners and tenants, or if changes were necessary to mitigate any disproportionate impact on small business.

Eleven proposals were submitted during the submittal period. After hundreds of hours of discussions, the TAG recommended approval of ten proposals as submitted or as modified; one proposal was withdrawn by the proponent. One proposal was identified by the proponent and the TAG as having a cost increase. Three proposals were identified by the proponents and the TAG as having a cost decrease. Seven proposals are editorial or provide consistency or additional clarity to existing rules or model code language.

The proposed rule adopts by reference the 2021 IEBC with new and existing amendments. Many of the existing amendments are modified to incorporate changes to the model codes or to clarify language. There are ten significant changes to the model code with economic impact. However, the model code changes are exempt under RCW 19.85.025(3) and RCW 34.05.310 (4)(c), and are not part of this analysis.

The local enforcement authority having jurisdiction administers the codes through the building and/or fire departments. Administrative procedures for state building code compliance are established and will not be changed by the adoption of the 2021 IEBC. All businesses, including small businesses, will employ the same types of professional



STATE OF WASHINGTON

STATE BUILDING CODE COUNCIL

1500 Jefferson Street SE • P.O. Box 41449 • Olympia, Washington 98501
(360) 407-9277 • fax (360) 586-9088 • e-mail sbcc@des.wa.gov • www.sbcc.wa.gov

services for the design and construction of buildings and systems to comply with the state building code. The proposed rule updates the state building code and does not require additional equipment, supplies, labor, or other services. Services needed to comply with the building code are existing within the construction industry as required by the local authority having jurisdiction.

The proposed rule makes the IEBC consistent with national standards. Businesses with new products or updated test or design standards are recognized in the updated building code. The update will result in some cost outlay for some businesses for specific building projects, for a transition period. Other businesses would see an increase in revenue. The primary intent of the amendments is to improve the safety features in buildings and provide consistency and fairness across the state, for a predictable business environment. The amendments should result in enhanced safety and value in buildings.

II. Code Proposals Identified as Significant.

1. Summary of Probable Benefits vs Probable Costs.

1.1. 2021 IEBC Section 405.1.1 Structural concrete repairs. ([21-GP2-002R](#))

This proposal adds ACI 562: Code Requirements for Assessment, Repair, and Rehabilitation of Existing Concrete Structures, to establish minimum requirements for the evaluation, design, construction, repair, and rehabilitation of concrete structural elements in buildings for various levels of desired performance as deemed appropriate for the project. It is intended as a modification where the code is based on the 2021 IEBC. In addition to improved life safety, the requirements clearly define objectives and anticipated performance for the code official, owners, designers, contractors and installers. The proposed language is not exclusive as Section 104.11 Alternative materials, design and methods of construction and equipment of the 2021 IEBC allows for alternative design and methods of construction. Citing this reference provides the building official a baseline for considering approval of design requirements and methods of construction. Further, the baseline is beneficial for product suppliers, owners, designers, contractors and most importantly, the expectation of a reasonable level of safety for those residing in and working in the State of Washington.

*The amendment is needed to address a critical life/safety need. The use of this referenced standard should, in many cases, **reduce the cost of repair**. Too often in the process of repair, there is insufficient information to determine acceptance criteria that is amicable to both the owner and the building code official. The result is the determination*



STATE OF WASHINGTON

STATE BUILDING CODE COUNCIL

1500 Jefferson Street SE • P.O. Box 41449 • Olympia, Washington 98501
(360) 407-9277 • fax (360) 586-9088 • e-mail sbcc@des.wa.gov • www.sbcc.wa.gov

that the repair must meet the latest building code requirements for new construction. This standard increases the options available for repair and provides the acceptance criteria necessary to permit these options.

1.2. Sections 503.19 & 805.5 Seismic requirements for alteration of URM or hollow clay tile buildings increasing occupant load. ([21-GP2-018R](#))

Buildings with unreinforced masonry and hollow clay in Seismic Design Category C, D, E or F represent an increased risk to life safety, and jurisdictions need to be able to require seismic upgrades where occupant loads are increased during alterations. Currently the seismic retrofits for URM or hollow clay tile buildings are triggered for the following alteration scenarios:

- 1. Level 3 remodel triggers parapet bracing, installation of floor/wall anchors, and wall/partition bracing within alteration area.*
- 2. Roof replacement more than 25% triggers parapet bracing.*
- 3. Substantial structural alteration triggering upgrading the lateral load resisting system with reduced seismic forces.*
- 4. Change in risk category per IBC Table 1604.5.*

This proposal will capture the situations where the alteration is using either the prescriptive requirements of the code or is falling under the Level 2 remodel that is not triggering any roof replacement requirements. Level 3 alterations require compliance with all Level 2 requirements, and thus must meet the large building provisions as required in that section.

Not all occupancies are included in this new proposal as it is capturing moderate to higher risk occupancies that may have more people in the building. In addition, this code proposal incorporates exceptions of small increases to occupant load that reasonably exempts small alterations that may trigger this provision due to having small number of occupants prior to the alteration. Occupant load increases over time are required to be considered in this code proposal; however, jurisdictions may want to consider adding a local amendment requiring more specificity to the timeline of these increases and when seismic retrofits shall be triggered once cumulative occupant load increases in a building exceed the 20 percent.

By requiring seismic upgrades for parapets, wall/floor anchors, and partition walls for buildings below the substantial remodel threshold, this captures opportunities to implement seismic improvements during alterations that may not otherwise trigger any seismic improvements. Also, an additional trigger for large buildings provides an opportunity to require seismic analysis of the whole building system. Allowing for reduced seismic loads provides an opportunity to increase our state's seismic resiliency



STATE OF WASHINGTON

STATE BUILDING CODE COUNCIL

1500 Jefferson Street SE • P.O. Box 41449 • Olympia, Washington 98501
(360) 407-9277 • fax (360) 586-9088 • e-mail sbcc@des.wa.gov • www.sbcc.wa.gov

to preserve life (collapse prevention) in a larger earthquake and minimize red tags for small to medium earthquakes.

*For URM or HCT buildings that trigger the occupant load threshold, **there will be a cost of installing***

***seismic supports** to include parapet bracing, wall/roof ties, and wall/partition bracing for nonstructural*

walls. These costs are estimated at \$40-\$90 per square foot. For large buildings triggering the analysis

of the lateral force resisting system, there may be much larger costs such as putting in a moment frame

or secondary load transfer for seismic loads. It is impossible to estimate the cost since it is very dependent on the design of the specific structure. Nevertheless, the amendment is necessary to address a critical life/safety need.

1.3. Sections 401.2 & 401.4 (NEW) Demolition and replacement (Repairs). ([21-GP2-055](#))

The proposal does three things:

- *Clarifies that the work needed to facilitate repairs should not be considered an alteration (401.2).*

The sentence being added to the end of 401.2 was dropped during the 2018 code cycle when the repair provisions were consolidated in Chapter 4 in the IEBC. This allowance was originally in the 2015 IEBC Prescriptive and Work Area methods sections. It provides clarity to the code official about how to deal with existing undamaged components when repairs on a structure are needed. It is a common situation that should be addressed by the code.

- *Ensures that when a building has been effectively demolished it must be replaced with a new building subject to new code requirements (401.4).*

The IEBC allows the use of “like materials” for repairs, but these provisions should not apply where the building has been destroyed and the repair needed is a total replacement of the building. The same rules should apply whether the damage is caused directly by the destructive event or if the demolition and subsequent replacement of the building is the owner’s choice for correcting the damage. In both cases, owners would have to rebuild using currently adopted codes.

- *Allows for reuse of the existing foundation with approval by the code official.*



STATE OF WASHINGTON

STATE BUILDING CODE COUNCIL

1500 Jefferson Street SE • P.O. Box 41449 • Olympia, Washington 98501
(360) 407-9277 • fax (360) 586-9088 • e-mail sbcc@des.wa.gov • www.sbcc.wa.gov

Note: *This proposal is being heard at the ICC Hearings for the 2024 code cycle in March/April 2022. Further correlation may be needed in the future if the ICC proposal is approved “as is” or with changes.*

*Since the current code is not clear about how to address cases of repairs that are as extensive as building replacement, whether the proposal will increase the cost of construction will vary depending on how a given jurisdiction is enforcing the incomplete code. Restoring the language related to work on non-damaged components should not change the cost of any construction; it merely reflects a common understanding that was in the IEBC until it was inadvertently removed in 2018. The current code is silent on this issue and, if anything, **the proposal could reduce the cost of some repairs** if code officials are interpreting the current code differently.*

The proposed amendments do not add review or inspection time. Both proposals merely delineate a code path, whether it is for buildings being replaced after an event (natural or otherwise) or the treatment of non-damaged components when a building is being repaired.

In addition, the proposals will make it clear to insurance companies when the jurisdiction requires full replacement of a demolished building and should help business owners recover the funds they need to completely rebuild. Not triggering alteration requirements when non-damaged components have to be worked on to repair damaged components will help keep repairs from having scope creep into other areas of the building that are uninvolved with the damage.

1.4. Sections 503.13 & 805.4 Voluntary lateral force-resisting system alterations. **[\(21-GP2-056\)](#)**

Sections 503.13 and 805.4 indicate that voluntary lateral force-resisting system alterations are not required to meet the requirements of Section 1609 or 1613 of the IBC, provided that 4 conditions are met. Condition #2 requires that new structural elements are detailed and connected as required by the IBC for new construction. This has led to some confusion amongst the design and the plan review communities when it comes to selecting the lateral force-resisting systems from ASCE 7 Table 12.2-1. It is unclear what portions of the IBC are not required to be met and what portions shall be met. Very often, existing buildings needing seismic upgrades are older and have lateral force-resisting systems such as ordinary reinforced concrete or masonry walls or unreinforced masonry walls. These systems, typically designed with older codes, are often under-reinforced per today's codes or not reinforced at all. In an earthquake, they will behave very rigidly which can lead to early failure and possibly early collapse. This has been witnessed in past earthquakes, such as the Nisqually Earthquake of 2001 in the Seattle area, where many unreinforced masonry walls cracked and crumbled.



STATE OF WASHINGTON

STATE BUILDING CODE COUNCIL

1500 Jefferson Street SE • P.O. Box 41449 • Olympia, Washington 98501
(360) 407-9277 • fax (360) 586-9088 • e-mail sbcc@des.wa.gov • www.sbcc.wa.gov

When a seismic upgrade is proposed, it is important to provide new systems that will match the existing building's rigidity as much as possible to prevent excessive displacements which can lead to the failure of the more rigid and older systems. If a very flexible system such as a special steel moment frame is proposed, it will be able to deform quite a bit more than the existing older system which can lead to more deformation than the existing building can handle. The purpose of this proposal is to avoid situations like these and help building officials enforce more adequate seismic upgrades by allowing systems that are not normally allowed in new construction. For example, in Seismic Design Category D, if 4-story concentrically braced frames of a height exceeding 35 feet are proposed for a voluntary seismic upgrade in an existing unreinforced masonry wall building and must be detailed and connected for new construction, per condition #2, then an engineer may deduce that only the "Special" type is allowed per ASCE 7 Table 12.2-1.

The code required design and detailing of an "Ordinary" and "Special" concentrically braced frame for new construction are very different. It is agreed that the lateral forces resisting system detailing shall be per current codes for that system, but the term "new construction" is confusing and leads to think that the new system shall meet all the requirements of ASCE 7 Table 12.2-1. With the proposed exception, a more rigid "Ordinary" concentrically braced frame that is not normally allowed in Seismic Design Category D, would be allowed in this example, and would provide better deformation compatibility with the existing building. These "Ordinary" braced frames would be more adequate at providing overall increased seismic resistance because they are a more rigid system than "Special" braced frames, they would "attract" more load and therefore be more efficient at "taking" load away from the existing unreinforced masonry walls. This proposal will make it clear that new lateral systems are permitted to be of any type, even of a type that normally would not be allowed in new construction, based on the seismic design category and height, as long as all the other conditions of sections 503.13 and 805.4 are met. The original intent of this code section remains the same, the proposed design shall not weaken the existing lateral resistance of the building or affect the behavior of the building in a severe way. In addition, this proposal will help with cost reduction and most importantly performance since less ductile "Ordinary" or "Intermediate" systems may be closer to matching an existing building's deformation limits.

This code change proposal could reduce the cost of construction when a voluntary lateral force resistance system alteration is done. The proposal will clarify that a new lateral force-resisting system can be of a type designated as "Ordinary" or "Intermediate" instead of "Intermediate" or "Special" in a voluntary seismic upgrade and will prevent the specification of more expensive systems (i.e. "Special"). A "Special" lateral force-resisting system is more expensive because it requires additional material, additional fabrication (including special welding), additional special inspections and



STATE OF WASHINGTON

STATE BUILDING CODE COUNCIL

1500 Jefferson Street SE • P.O. Box 41449 • Olympia, Washington 98501
(360) 407-9277 • fax (360) 586-9088 • e-mail sbcc@des.wa.gov • www.sbcc.wa.gov

added time and complexity during construction, thus when change is applied, it could decrease construction cost.

2. List of Code Proposals.

Date: 3/1/2022

Log # [21-GP2-002R](#)

Proponent and description: *Kerry Sutton (American Concrete Institute); 2021 IEBC Section 405.1.1 Structural concrete repairs.*

Compliance with RCW 34.05.328 Significant legislative rules, other selected rules

(1)(a) Clearly state in detail the general goals and specific objectives of the statute that the rule implements

[RCW 19.27.020 - Purposes—Objectives—Standards.](#)

The purpose of this chapter is to promote the health, safety and welfare of the occupants or users of buildings and structures and the general public by the provision of building codes throughout the state. Accordingly, this chapter is designed to effectuate the following purposes, objectives, and standards:

- (1) To require minimum performance standards and requirements for construction and construction materials, consistent with accepted standards of engineering, fire and life safety.
- (2) To require standards and requirements in terms of performance and nationally accepted standards.
- (3) To permit the use of modern technical methods, devices and improvements.
- (4) To eliminate restrictive, obsolete, conflicting, duplicating and unnecessary regulations and requirements which could unnecessarily increase construction costs or retard the use of new materials and methods of installation or provide unwarranted preferential treatment to types or classes of materials or products or methods of construction.
- (5) To provide for standards and specifications for making buildings and facilities accessible to and usable by physically disabled persons.
- (6) To consolidate within each authorized enforcement jurisdiction, the administration and enforcement of building codes.



STATE OF WASHINGTON

STATE BUILDING CODE COUNCIL

1500 Jefferson Street SE • P.O. Box 41449 • Olympia, Washington 98501
(360) 407-9277 • fax (360) 586-9088 • e-mail sbcc@des.wa.gov • www.sbcc.wa.gov

(1)(b) Determine that the rule is needed to achieve the general goals and specific objectives stated under (a) of this subsection, and analyze alternatives to rule making and the consequences of not adopting the rule:

The Council is required to adopt and maintain the state building code, as provided in chapters 19.27, 19.27A, and 70.92 RCW, and the state legislature. The primary objective of the Council is to encourage consistency in the building code throughout the state of Washington and to maintain the building code consistent with the state's interest as provided in RCW 19.27.020. The statewide code adoption process is defined in WAC 51-04 and the Council bylaws. All proposals are submitted in writing on the appropriate form with the indicated supporting documentation. Each proponent must identify where a proposed amendment has an economic impact and estimate the costs and savings of the proposal on construction practices, users and/or the public, the enforcement community, and operation and maintenance. There are no alternatives to this procedure. If the rule is not adopted, this will be a violation of the State Law, which will affect the promotion of fire and life safety in buildings consistent with accepted standards.

(1)(d) Determine that the probable benefits of the rule are greater than its probable costs, taking into account both the qualitative and quantitative benefits and costs and the specific directives of the statute being implemented:

This proposal adds ACI 562: Code Requirements for Assessment, Repair, and Rehabilitation of Existing Concrete Structures, to establish minimum requirements for the evaluation, design, construction, repair, and rehabilitation of concrete structural elements in buildings for various levels of desired performance as deemed appropriate for the project. It is intended as a modification where the code is based on the 2021 IEBC. In addition to improved life safety, the requirements clearly define objectives and anticipated performance for the code official, owners, designers, contractors and installers. The proposed language is not exclusive as Section 104.11 Alternative materials, design and methods of construction and equipment of the 2021 IEBC allows for alternative design and methods of construction. Citing this reference provides the building official a baseline for considering approval of design requirements and methods of construction. Further, the baseline is beneficial for product suppliers, owners, designers, contractors and most importantly, the expectation of a reasonable level of safety for those residing in and working in the State of Washington.

The amendment is needed to address a critical life/safety need. The use of this referenced standard should, in many cases, reduce the cost of repair. Too often in the



STATE OF WASHINGTON

STATE BUILDING CODE COUNCIL

1500 Jefferson Street SE • P.O. Box 41449 • Olympia, Washington 98501
(360) 407-9277 • fax (360) 586-9088 • e-mail sbcc@des.wa.gov • www.sbcc.wa.gov

process of repair, there is insufficient information to determine acceptance criteria that is amicable to both the owner and the building code official. The result is the determination that the repair must meet the latest building code requirements for new construction. This standard increases the options available for repair and provides the acceptance criteria necessary to permit these options.

(1)(e) Determine, after considering alternative versions of the rule and the analysis required under (b), (c), and (d) of this subsection, that the rule being adopted is the least burdensome alternative for those required to comply with it that will achieve the general goals and specific objectives stated under (a) of this subsection:

There are no alternatives to this procedure. If the rule is not adopted, this will be a violation of the State Law, which will affect the promotion of fire and life safety in buildings consistent with accepted standards.

(1)(f) Determine that the rule does not require those to whom it applies to take an action that violates requirements of another federal or state law:

The primary objective of the Council is to encourage consistency in the building code throughout the state, and to maintain the building code consistent with the state's interest. The rule does not require those to whom it applies to take an action that violates requirements of another federal or state law.

(1)(g) Determine that the rule does not impose more stringent performance requirements on private entities than on public entities unless required to do so by federal or state law:

The adoption and amendment of the 2021 IEBC do not impose more stringent performance requirements on private entities than on public entities.

(1)(h) Determine if the rule differs from any federal regulation or statute applicable to the same activity or subject matter and, if so, determine that the difference is justified by the following:

This does not differ from any federal regulations or statute applicable to the same activity.

(1)(i) A state statute explicitly allows the agency to differ from federal standards; or

(1)(ii) Substantial evidence that the difference is necessary to achieve the general goals and specific objectives stated under (a) of this subsection; and



STATE OF WASHINGTON

STATE BUILDING CODE COUNCIL

*1500 Jefferson Street SE • P.O. Box 41449 • Olympia, Washington 98501
(360) 407-9277 • fax (360) 586-9088 • e-mail sbcc@des.wa.gov • www.sbcc.wa.gov*

(1)(iii) Coordinate the rule, to the maximum extent practicable, with other federal, state, and local laws applicable to the same activity or subject matter.



STATE OF WASHINGTON

STATE BUILDING CODE COUNCIL

1500 Jefferson Street SE • P.O. Box 41449 • Olympia, Washington 98501
(360) 407-9277 • fax (360) 586-9088 • e-mail sbcc@des.wa.gov • www.sbcc.wa.gov

Date: 3/7/2022

Log # [21-GP2-004R](#)

Proponent and description: Lee Kranz (WABO); 2021 IEBC Section 306.7.8 Platform lifts.

Compliance with RCW 34.05.328 Significant legislative rules, other selected rules

(1)(a) Clearly state in detail the general goals and specific objectives of the statute that the rule implements

[RCW 19.27.020 - Purposes—Objectives—Standards.](#)

The purpose of this chapter is to promote the health, safety and welfare of the occupants or users of buildings and structures and the general public by the provision of building codes throughout the state. Accordingly, this chapter is designed to effectuate the following purposes, objectives, and standards:

- (1) To require minimum performance standards and requirements for construction and construction materials, consistent with accepted standards of engineering, fire and life safety.
- (2) To require standards and requirements in terms of performance and nationally accepted standards.
- (3) To permit the use of modern technical methods, devices and improvements.
- (4) To eliminate restrictive, obsolete, conflicting, duplicating and unnecessary regulations and requirements which could unnecessarily increase construction costs or retard the use of new materials and methods of installation or provide unwarranted preferential treatment to types or classes of materials or products or methods of construction.
- (5) To provide for standards and specifications for making buildings and facilities accessible to and usable by physically disabled persons.
- (6) To consolidate within each authorized enforcement jurisdiction, the administration and enforcement of building codes.

(1)(b) Determine that the rule is needed to achieve the general goals and specific objectives stated under (a) of this subsection, and analyze alternatives to rule making and the consequences of not adopting the rule:



STATE OF WASHINGTON

STATE BUILDING CODE COUNCIL

1500 Jefferson Street SE • P.O. Box 41449 • Olympia, Washington 98501
(360) 407-9277 • fax (360) 586-9088 • e-mail sbcc@des.wa.gov • www.sbcc.wa.gov

The Council is required to adopt and maintain the state building code, as provided in chapters 19.27, 19.27A, and 70.92 RCW, and the state legislature. The primary objective of the Council is to encourage consistency in the building code throughout the state of Washington and to maintain the building code consistent with the state's interest as provided in RCW 19.27.020. The statewide code adoption process is defined in WAC 51-04 and the Council bylaws. All proposals are submitted in writing on the appropriate form with the indicated supporting documentation. Each proponent must identify where a proposed amendment has an economic impact and estimate the costs and savings of the proposal on construction practices, users and/or the public, the enforcement community, and operation and maintenance. There are no alternatives to this procedure. If the rule is not adopted, this will be a violation of the State Law, which will affect the promotion of fire and life safety in buildings consistent with accepted standards.

(1)(d) Determine that the probable benefits of the rule are greater than its probable costs, taking into account both the qualitative and quantitative benefits and costs and the specific directives of the statute being implemented:

The ASME A18.1 Standard, referenced in IEBC Section 306.7.8 recognizes two types of platform lifts: vertical platform lifts and inclined platform lifts. The proposed language in Section 306.7.8 adds clarity for the reader as to what types of conveyances are allowed by ASME A18.1. It also reduces potential confusion resulting from a conflict that the current provision has with IBC Section 1003.3.3 related to horizontal projections into the circulation path. Stating that this provision applies to both vertical and inclined conveyances will eliminate any confusion that it may only apply to vertical conveyances.

*The proposed amendment clarifies the intent of Section 306.7.8 (to allow both vertical and inclined lifts) and **will not affect the cost of construction.***

(1)(e) Determine, after considering alternative versions of the rule and the analysis required under (b), (c), and (d) of this subsection, that the rule being adopted is the least burdensome alternative for those required to comply with it that will achieve the general goals and specific objectives stated under (a) of this subsection:

There are no alternatives to this procedure. If the rule is not adopted, this will be a violation of the State Law, which will affect the promotion of fire and life safety in buildings consistent with accepted standards.

(1)(f) Determine that the rule does not require those to whom it applies to take an action that violates requirements of another federal or state law:



STATE OF WASHINGTON

STATE BUILDING CODE COUNCIL

1500 Jefferson Street SE • P.O. Box 41449 • Olympia, Washington 98501
(360) 407-9277 • fax (360) 586-9088 • e-mail sbcc@des.wa.gov • www.sbcc.wa.gov

The primary objective of the Council is to encourage consistency in the building code throughout the state, and to maintain the building code consistent with the state's interest. The rule does not require those to whom it applies to take an action that violates requirements of another federal or state law.

(1)(g) Determine that the rule does not impose more stringent performance requirements on private entities than on public entities unless required to do so by federal or state law:

The adoption and amendment of the 2021 IEBC do not impose more stringent performance requirements on private entities than on public entities.

(1)(h) Determine if the rule differs from any federal regulation or statute applicable to the same activity or subject matter and, if so, determine that the difference is justified by the following:

This does not differ from any federal regulations or statute applicable to the same activity.

(1)(i) A state statute explicitly allows the agency to differ from federal standards; or

(1)(ii) Substantial evidence that the difference is necessary to achieve the general goals and specific objectives stated under (a) of this subsection; and

(1)(iii) Coordinate the rule, to the maximum extent practicable, with other federal, state, and local laws applicable to the same activity or subject matter.



STATE OF WASHINGTON

STATE BUILDING CODE COUNCIL

1500 Jefferson Street SE • P.O. Box 41449 • Olympia, Washington 98501
(360) 407-9277 • fax (360) 586-9088 • e-mail sbcc@des.wa.gov • www.sbcc.wa.gov

Date: 3/7/2022

Log # [21-GP2-005](#)

Proponent and description: Lee Kranz (WABO); 2021 IEBC Section 306.7.1
Alterations affecting an area containing a primary function.

Compliance with RCW 34.05.328 Significant legislative rules, other selected rules

(1)(a) Clearly state in detail the general goals and specific objectives of the statute that the rule implements

[RCW 19.27.020 - Purposes—Objectives—Standards.](#)

The purpose of this chapter is to promote the health, safety and welfare of the occupants or users of buildings and structures and the general public by the provision of building codes throughout the state. Accordingly, this chapter is designed to effectuate the following purposes, objectives, and standards:

- (1) To require minimum performance standards and requirements for construction and construction materials, consistent with accepted standards of engineering, fire and life safety.
- (2) To require standards and requirements in terms of performance and nationally accepted standards.
- (3) To permit the use of modern technical methods, devices and improvements.
- (4) To eliminate restrictive, obsolete, conflicting, duplicating and unnecessary regulations and requirements which could unnecessarily increase construction costs or retard the use of new materials and methods of installation or provide unwarranted preferential treatment to types or classes of materials or products or methods of construction.
- (5) To provide for standards and specifications for making buildings and facilities accessible to and usable by physically disabled persons.
- (6) To consolidate within each authorized enforcement jurisdiction, the administration and enforcement of building codes.

(1)(b) Determine that the rule is needed to achieve the general goals and specific objectives stated under (a) of this subsection, and analyze alternatives to rule making and the consequences of not adopting the rule:



STATE OF WASHINGTON

STATE BUILDING CODE COUNCIL

1500 Jefferson Street SE • P.O. Box 41449 • Olympia, Washington 98501
(360) 407-9277 • fax (360) 586-9088 • e-mail sbcc@des.wa.gov • www.sbcc.wa.gov

The Council is required to adopt and maintain the state building code, as provided in chapters 19.27, 19.27A, and 70.92 RCW, and the state legislature. The primary objective of the Council is to encourage consistency in the building code throughout the state of Washington and to maintain the building code consistent with the state's interest as provided in RCW 19.27.020. The statewide code adoption process is defined in WAC 51-04 and the Council bylaws. All proposals are submitted in writing on the appropriate form with the indicated supporting documentation. Each proponent must identify where a proposed amendment has an economic impact and estimate the costs and savings of the proposal on construction practices, users and/or the public, the enforcement community, and operation and maintenance. There are no alternatives to this procedure. If the rule is not adopted, this will be a violation of the State Law, which will affect the promotion of fire and life safety in buildings consistent with accepted standards.

(1)(d) Determine that the probable benefits of the rule are greater than its probable costs, taking into account both the qualitative and quantitative benefits and costs and the specific directives of the statute being implemented:

The current language in Section 306.7.1 related to the need to provide an accessible route of travel, accessible toilet facilities and drinking fountains for primary function areas being altered has been the source of confusion for many since it was added to the code. We believe that the current language, which attempts to combine a mandate to improve the accessible route to primary function areas, which is already addressed in the first sentence of this section, with improvements to existing restrooms and drinking fountains, is the source of this confusion. Is the current language intended to require just the path of travel to these facilities or improvements to them as well? This proposal clarifies the language in favor of the latter interpretation. Separating these two distinct aspects of barrier-free access helps the reader to understand the intent of this provision which is: 1) provide an accessible route to the primary function area, and 2) make accessibility improvements to existing restrooms and drinking fountains serving the area of primary function. By removing the current language and replacing it with a separate and distinct sentence addressing the need to update restrooms and drinking fountains we are eliminating the ambiguity of the current code which will improve consistent enforcement. Exception number one has also been modified to make it clear that the cumulative cost of these improvements is not required to exceed 20% of the construction budget. The current language can be interpreted to look at just the cost of the route of travel, which would not include the cost of upgrading toilet facilities or drinking fountains, but ICC trainers teach that all improvements to accessibility are intended to be counted toward the 20% exception.



STATE OF WASHINGTON

STATE BUILDING CODE COUNCIL

1500 Jefferson Street SE • P.O. Box 41449 • Olympia, Washington 98501
(360) 407-9277 • fax (360) 586-9088 • e-mail sbcc@des.wa.gov • www.sbcc.wa.gov

*The proposed amendment clarifies the intent of Section 306.7.1 (to provide an accessible route and facilities) and **will not affect the cost of construction.***

(1)(e) Determine, after considering alternative versions of the rule and the analysis required under (b), (c), and (d) of this subsection, that the rule being adopted is the least burdensome alternative for those required to comply with it that will achieve the general goals and specific objectives stated under (a) of this subsection:

There are no alternatives to this procedure. If the rule is not adopted, this will be a violation of the State Law, which will affect the promotion of fire and life safety in buildings consistent with accepted standards.

(1)(f) Determine that the rule does not require those to whom it applies to take an action that violates requirements of another federal or state law:

The primary objective of the Council is to encourage consistency in the building code throughout the state, and to maintain the building code consistent with the state's interest. The rule does not require those to whom it applies to take an action that violates requirements of another federal or state law.

(1)(g) Determine that the rule does not impose more stringent performance requirements on private entities than on public entities unless required to do so by federal or state law:

The adoption and amendment of the 2021 IEBC do not impose more stringent performance requirements on private entities than on public entities.

(1)(h) Determine if the rule differs from any federal regulation or statute applicable to the same activity or subject matter and, if so, determine that the difference is justified by the following:

This does not differ from any federal regulations or statute applicable to the same activity.

(1)(i) A state statute explicitly allows the agency to differ from federal standards; or

(1)(ii) Substantial evidence that the difference is necessary to achieve the general goals and specific objectives stated under (a) of this subsection; and



STATE OF WASHINGTON

STATE BUILDING CODE COUNCIL

*1500 Jefferson Street SE • P.O. Box 41449 • Olympia, Washington 98501
(360) 407-9277 • fax (360) 586-9088 • e-mail sbcc@des.wa.gov • www.sbcc.wa.gov*

(1)(iii) Coordinate the rule, to the maximum extent practicable, with other federal, state, and local laws applicable to the same activity or subject matter.



STATE OF WASHINGTON

STATE BUILDING CODE COUNCIL

1500 Jefferson Street SE • P.O. Box 41449 • Olympia, Washington 98501
(360) 407-9277 • fax (360) 586-9088 • e-mail sbcc@des.wa.gov • www.sbcc.wa.gov

Date: 3/7/2022

Log # [21-GP2-006](#)

Proponent and description: Lee Kranz (WABO); 2021 IEBC Section 306.7.1
Alterations affecting an area containing a primary function.

Compliance with RCW 34.05.328 Significant legislative rules, other selected rules

(1)(a) Clearly state in detail the general goals and specific objectives of the statute that the rule implements

[RCW 19.27.020 - Purposes—Objectives—Standards.](#)

The purpose of this chapter is to promote the health, safety and welfare of the occupants or users of buildings and structures and the general public by the provision of building codes throughout the state. Accordingly, this chapter is designed to effectuate the following purposes, objectives, and standards:

- (1) To require minimum performance standards and requirements for construction and construction materials, consistent with accepted standards of engineering, fire and life safety.
- (2) To require standards and requirements in terms of performance and nationally accepted standards.
- (3) To permit the use of modern technical methods, devices and improvements.
- (4) To eliminate restrictive, obsolete, conflicting, duplicating and unnecessary regulations and requirements which could unnecessarily increase construction costs or retard the use of new materials and methods of installation or provide unwarranted preferential treatment to types or classes of materials or products or methods of construction.
- (5) To provide for standards and specifications for making buildings and facilities accessible to and usable by physically disabled persons.
- (6) To consolidate within each authorized enforcement jurisdiction, the administration and enforcement of building codes.

(1)(b) Determine that the rule is needed to achieve the general goals and specific objectives stated under (a) of this subsection, and analyze alternatives to rule making and the consequences of not adopting the rule:



STATE OF WASHINGTON

STATE BUILDING CODE COUNCIL

1500 Jefferson Street SE • P.O. Box 41449 • Olympia, Washington 98501
(360) 407-9277 • fax (360) 586-9088 • e-mail sbcc@des.wa.gov • www.sbcc.wa.gov

The Council is required to adopt and maintain the state building code, as provided in chapters 19.27, 19.27A, and 70.92 RCW, and the state legislature. The primary objective of the Council is to encourage consistency in the building code throughout the state of Washington and to maintain the building code consistent with the state's interest as provided in RCW 19.27.020. The statewide code adoption process is defined in WAC 51-04 and the Council bylaws. All proposals are submitted in writing on the appropriate form with the indicated supporting documentation. Each proponent must identify where a proposed amendment has an economic impact and estimate the costs and savings of the proposal on construction practices, users and/or the public, the enforcement community, and operation and maintenance. There are no alternatives to this procedure. If the rule is not adopted, this will be a violation of the State Law, which will affect the promotion of fire and life safety in buildings consistent with accepted standards.

(1)(d) Determine that the probable benefits of the rule are greater than its probable costs, taking into account both the qualitative and quantitative benefits and costs and the specific directives of the statute being implemented:

The provisions of Section 306.7.1 are confusing and are not enforced in a consistent manner. Unless you've had ICC training on the topic, most people are not able to discern what the intent of this section is or how it should be applied. This proposal is intended to provide guidance for building officials and designers to clearly state that the priority shall be given to the improvements affecting the accessible route to the primary function area over making other improvements such as updating restrooms and drinking fountains to become accessible. There is broad consensus that providing an accessible route to the primary function area is the most important aspect of this code section. If approved, this code change will create more consistent enforcement and accomplish the goal of allowing non-ambulatory occupants to access the areas of primary function being altered.

*The proposed amendment clarifies the intent of Section 306.7.1 (to give priority to improvements to the accessible route to the area of primary function over other improvements) and **will not affect the cost of construction**^[BS(1)].*

(1)(e) Determine, after considering alternative versions of the rule and the analysis required under (b), (c), and (d) of this subsection, that the rule being adopted is the least burdensome alternative for those required to comply with it that will achieve the general goals and specific objectives stated under (a) of this subsection:



STATE OF WASHINGTON

STATE BUILDING CODE COUNCIL

1500 Jefferson Street SE • P.O. Box 41449 • Olympia, Washington 98501
(360) 407-9277 • fax (360) 586-9088 • e-mail sbcc@des.wa.gov • www.sbcc.wa.gov

There are no alternatives to this procedure. If the rule is not adopted, this will be a violation of the State Law, which will affect the promotion of fire and life safety in buildings consistent with accepted standards.

(1)(f) Determine that the rule does not require those to whom it applies to take an action that violates requirements of another federal or state law:

The primary objective of the Council is to encourage consistency in the building code throughout the state, and to maintain the building code consistent with the state's interest. The rule does not require those to whom it applies to take an action that violates requirements of another federal or state law.

(1)(g) Determine that the rule does not impose more stringent performance requirements on private entities than on public entities unless required to do so by federal or state law:

The adoption and amendment of the 2021 IEBC do not impose more stringent performance requirements on private entities than on public entities.

(1)(h) Determine if the rule differs from any federal regulation or statute applicable to the same activity or subject matter and, if so, determine that the difference is justified by the following:

This does not differ from any federal regulations or statute applicable to the same activity.

(1)(i) A state statute explicitly allows the agency to differ from federal standards; or

(1)(ii) Substantial evidence that the difference is necessary to achieve the general goals and specific objectives stated under (a) of this subsection; and

(1)(iii) Coordinate the rule, to the maximum extent practicable, with other federal, state, and local laws applicable to the same activity or subject matter.

Date: 4/8/2022

Log # [21-GP2-018R](#)

Proponent and description: *Sue Coffman/Hoyt Jeter (WABO); 2021 IEBC Sections 503.19 & 805.5 Seismic requirements for alteration of URM or hollow clay tile buildings increasing occupant load.*

Compliance with RCW 34.05.328 Significant legislative rules, other selected rules



STATE OF WASHINGTON

STATE BUILDING CODE COUNCIL

1500 Jefferson Street SE • P.O. Box 41449 • Olympia, Washington 98501
(360) 407-9277 • fax (360) 586-9088 • e-mail sbcc@des.wa.gov • www.sbcc.wa.gov

(1)(a) Clearly state in detail the general goals and specific objectives of the statute that the rule implements

RCW 19.27.020 - Purposes—Objectives—Standards.

The purpose of this chapter is to promote the health, safety and welfare of the occupants or users of buildings and structures and the general public by the provision of building codes throughout the state. Accordingly, this chapter is designed to effectuate the following purposes, objectives, and standards:

- (1) To require minimum performance standards and requirements for construction and construction materials, consistent with accepted standards of engineering, fire and life safety.
- (2) To require standards and requirements in terms of performance and nationally accepted standards.
- (3) To permit the use of modern technical methods, devices and improvements.
- (4) To eliminate restrictive, obsolete, conflicting, duplicating and unnecessary regulations and requirements which could unnecessarily increase construction costs or retard the use of new materials and methods of installation or provide unwarranted preferential treatment to types or classes of materials or products or methods of construction.
- (5) To provide for standards and specifications for making buildings and facilities accessible to and usable by physically disabled persons.
- (6) To consolidate within each authorized enforcement jurisdiction, the administration and enforcement of building codes.

(1)(b) Determine that the rule is needed to achieve the general goals and specific objectives stated under (a) of this subsection, and analyze alternatives to rule making and the consequences of not adopting the rule:

The Council is required to adopt and maintain the state building code, as provided in chapters 19.27, 19.27A, and 70.92 RCW, and the state legislature. The primary objective of the Council is to encourage consistency in the building code throughout the state of Washington and to maintain the building code consistent with the state's interest as provided in RCW 19.27.020. The statewide code adoption process is defined in WAC 51-04 and the Council bylaws. All proposals are submitted in writing on the appropriate form with the indicated supporting documentation. Each proponent must identify where a proposed amendment has an economic impact and estimate the costs and savings of



STATE OF WASHINGTON

STATE BUILDING CODE COUNCIL

1500 Jefferson Street SE • P.O. Box 41449 • Olympia, Washington 98501
(360) 407-9277 • fax (360) 586-9088 • e-mail sbcc@des.wa.gov • www.sbcc.wa.gov

the proposal on construction practices, users and/or the public, the enforcement community, and operation and maintenance. There are no alternatives to this procedure. If the rule is not adopted, this will be a violation of the State Law, which will affect the promotion of fire and life safety in buildings consistent with accepted standards.

(1)(d) Determine that the probable benefits of the rule are greater than its probable costs, taking into account both the qualitative and quantitative benefits and costs and the specific directives of the statute being implemented:

Buildings with unreinforced masonry and hollow clay in Seismic Design Category C, D, E or F represent an increased risk to life safety, and jurisdictions need to be able to require seismic upgrades where occupant loads are increased during alterations. Currently the seismic retrofits for URM or hollow clay tile buildings are triggered for the following alteration scenarios:

- 1. Level 3 remodel triggers parapet bracing, installation of floor/wall anchors, and wall/partition bracing within alteration area.*
- 2. Roof replacement more than 25% triggers parapet bracing.*
- 3. Substantial structural alteration triggering upgrading the lateral load resisting system with reduced seismic forces.*
- 4. Change in risk category per IBC Table 1604.5.*

This proposal will capture the situations where the alteration is using either the prescriptive requirements of the code or is falling under the Level 2 remodel that is not triggering any roof replacement requirements. Level 3 alterations require compliance with all Level 2 requirements, and thus must meet the large building provisions as required in that section.

Not all occupancies are included in this new proposal as it is capturing moderate to higher risk occupancies that may have more people in the building. In addition, this code proposal incorporates exceptions of small increases to occupant load that reasonably exempts small alterations that may trigger this provision due to having small number of occupants prior to the alteration. Occupant load increases over time are required to be considered in this code proposal; however, jurisdictions may want to consider adding a local amendment requiring more specificity to the timeline of these increases and when seismic retrofits shall be triggered once cumulative occupant load increases in a building exceed the 20 percent.

By requiring seismic upgrades for parapets, wall/floor anchors, and partition walls for buildings below the substantial remodel threshold, this captures opportunities to implement seismic improvements during alterations that may not otherwise trigger any



STATE OF WASHINGTON

STATE BUILDING CODE COUNCIL

1500 Jefferson Street SE • P.O. Box 41449 • Olympia, Washington 98501
(360) 407-9277 • fax (360) 586-9088 • e-mail sbcc@des.wa.gov • www.sbcc.wa.gov

seismic improvements. Also, an additional trigger for large buildings provides an opportunity to require seismic analysis of the whole building system. Allowing for reduced seismic loads provides an opportunity to increase our state's seismic resiliency to preserve life (collapse prevention) in a larger earthquake and minimize red tags for small to medium earthquakes.

For URM or HCT buildings that trigger the occupant load threshold, there will be a cost of installing seismic supports to include parapet bracing, wall/roof ties, and wall/partition bracing for nonstructural walls. These costs are estimated at \$40-\$90 per square foot. For large buildings triggering the analysis of the lateral force resisting system, there may be much larger costs such as putting in a moment frame or secondary load transfer for seismic loads. It is impossible to estimate the cost since it is very dependent on the design of the specific structure. Nevertheless, the amendment is necessary to address a critical life/safety need.

(1)(e) Determine, after considering alternative versions of the rule and the analysis required under (b), (c), and (d) of this subsection, that the rule being adopted is the least burdensome alternative for those required to comply with it that will achieve the general goals and specific objectives stated under (a) of this subsection:

There are no alternatives to this procedure. If the rule is not adopted, this will be a violation of the State Law, which will affect the promotion of fire and life safety in buildings consistent with accepted standards.

(1)(f) Determine that the rule does not require those to whom it applies to take an action that violates requirements of another federal or state law:

The primary objective of the Council is to encourage consistency in the building code throughout the state, and to maintain the building code consistent with the state's interest. The rule does not require those to whom it applies to take an action that violates requirements of another federal or state law.

(1)(g) Determine that the rule does not impose more stringent performance requirements on private entities than on public entities unless required to do so by federal or state law:

The adoption and amendment of the 2021 IEBC do not impose more stringent performance requirements on private entities than on public entities.



STATE OF WASHINGTON

STATE BUILDING CODE COUNCIL

1500 Jefferson Street SE • P.O. Box 41449 • Olympia, Washington 98501
(360) 407-9277 • fax (360) 586-9088 • e-mail sbcc@des.wa.gov • www.sbcc.wa.gov

(1)(h) Determine if the rule differs from any federal regulation or statute applicable to the same activity or subject matter and, if so, determine that the difference is justified by the following:

This does not differ from any federal regulations or statute applicable to the same activity.

(1)(i) A state statute explicitly allows the agency to differ from federal standards; or

(1)(ii) Substantial evidence that the difference is necessary to achieve the general goals and specific objectives stated under (a) of this subsection; and

(1)(iii) Coordinate the rule, to the maximum extent practicable, with other federal, state, and local laws applicable to the same activity or subject matter.



STATE OF WASHINGTON

STATE BUILDING CODE COUNCIL

1500 Jefferson Street SE • P.O. Box 41449 • Olympia, Washington 98501
(360) 407-9277 • fax (360) 586-9088 • e-mail sbcc@des.wa.gov • www.sbcc.wa.gov

Date: 4/7/2022

Log # [21-GP2-029](#)

Proponent and description: Sue Coffman; 2021 IEBC Chapter 2, Definitions (SUBSTANTIAL DAMAGE & SUBSTANTIAL IMPROVEMENT).

Compliance with RCW 34.05.328 Significant legislative rules, other selected rules

(1)(a) Clearly state in detail the general goals and specific objectives of the statute that the rule implements

[RCW 19.27.020](#) - Purposes—Objectives—Standards.

The purpose of this chapter is to promote the health, safety and welfare of the occupants or users of buildings and structures and the general public by the provision of building codes throughout the state. Accordingly, this chapter is designed to effectuate the following purposes, objectives, and standards:

- (1) To require minimum performance standards and requirements for construction and construction materials, consistent with accepted standards of engineering, fire and life safety.
- (2) To require standards and requirements in terms of performance and nationally accepted standards.
- (3) To permit the use of modern technical methods, devices and improvements.
- (4) To eliminate restrictive, obsolete, conflicting, duplicating and unnecessary regulations and requirements which could unnecessarily increase construction costs or retard the use of new materials and methods of installation or provide unwarranted preferential treatment to types or classes of materials or products or methods of construction.
- (5) To provide for standards and specifications for making buildings and facilities accessible to and usable by physically disabled persons.
- (6) To consolidate within each authorized enforcement jurisdiction, the administration and enforcement of building codes.

(1)(b) Determine that the rule is needed to achieve the general goals and specific objectives stated under (a) of this subsection, and analyze alternatives to rule making and the consequences of not adopting the rule:



STATE OF WASHINGTON

STATE BUILDING CODE COUNCIL

1500 Jefferson Street SE • P.O. Box 41449 • Olympia, Washington 98501
(360) 407-9277 • fax (360) 586-9088 • e-mail sbcc@des.wa.gov • www.sbcc.wa.gov

The Council is required to adopt and maintain the state building code, as provided in chapters 19.27, 19.27A, and 70.92 RCW, and the state legislature. The primary objective of the Council is to encourage consistency in the building code throughout the state of Washington and to maintain the building code consistent with the state's interest as provided in RCW 19.27.020. The statewide code adoption process is defined in WAC 51-04 and the Council bylaws. All proposals are submitted in writing on the appropriate form with the indicated supporting documentation. Each proponent must identify where a proposed amendment has an economic impact and estimate the costs and savings of the proposal on construction practices, users and/or the public, the enforcement community, and operation and maintenance. There are no alternatives to this procedure. If the rule is not adopted, this will be a violation of the State Law, which will affect the promotion of fire and life safety in buildings consistent with accepted standards.

(1)(d) Determine that the probable benefits of the rule are greater than its probable costs, taking into account both the qualitative and quantitative benefits and costs and the specific directives of the statute being implemented:

When a flood occurs that damages a building, there are oftentimes many structures that are damaged. Securing a real estate professional to determine market value can take up valuable time that would be better served getting the building repaired quickly. ICC publishes building valuation data that should represent the cost to rebuild the building as if it was new. While this may potentially over-value an existing building, it offers a way for Building Officials to quickly determine a building value that does not include the land value. As the ICC valuation data is maintained and updated regularly by ICC, there is no need for Building Officials to maintain another way of determining market value. In addition, it is a table available to both public and building departments, so the ability to quickly calculate a value and know if you exceed the substantial threshold is easily determined without the input from a real estate professional.

*The proposed amendment clarifies the intent of the code by providing a different way of calculating substantial damage or substantial improvement. The proposed amendment **will not affect the cost of construction.** [BS(2)]*

(1)(e) Determine, after considering alternative versions of the rule and the analysis required under (b), (c), and (d) of this subsection, that the rule being adopted is the least burdensome alternative for those required to comply with it that will achieve the general goals and specific objectives stated under (a) of this subsection:



STATE OF WASHINGTON

STATE BUILDING CODE COUNCIL

1500 Jefferson Street SE • P.O. Box 41449 • Olympia, Washington 98501
(360) 407-9277 • fax (360) 586-9088 • e-mail sbcc@des.wa.gov • www.sbcc.wa.gov

There are no alternatives to this procedure. If the rule is not adopted, this will be a violation of the State Law, which will affect the promotion of fire and life safety in buildings consistent with accepted standards.

(1)(f) Determine that the rule does not require those to whom it applies to take an action that violates requirements of another federal or state law:

The primary objective of the Council is to encourage consistency in the building code throughout the state, and to maintain the building code consistent with the state's interest. The rule does not require those to whom it applies to take an action that violates requirements of another federal or state law.

(1)(g) Determine that the rule does not impose more stringent performance requirements on private entities than on public entities unless required to do so by federal or state law:

The adoption and amendment of the 2021 IEBC do not impose more stringent performance requirements on private entities than on public entities.

(1)(h) Determine if the rule differs from any federal regulation or statute applicable to the same activity or subject matter and, if so, determine that the difference is justified by the following:

This does not differ from any federal regulations or statute applicable to the same activity.

(1)(i) A state statute explicitly allows the agency to differ from federal standards; or

(1)(ii) Substantial evidence that the difference is necessary to achieve the general goals and specific objectives stated under (a) of this subsection; and

(1)(iii) Coordinate the rule, to the maximum extent practicable, with other federal, state, and local laws applicable to the same activity or subject matter.

Date: 4/7/2022

Log # [21-GP2-030R](#)

Proponent and description: Sue Coffman; 2021 IEBC 603.1, 604.1 Level of Alteration.

Compliance with RCW 34.05.328 Significant legislative rules, other selected rules

(1)(a) Clearly state in detail the general goals and specific objectives of the statute that the rule implements



STATE OF WASHINGTON

STATE BUILDING CODE COUNCIL

1500 Jefferson Street SE • P.O. Box 41449 • Olympia, Washington 98501
(360) 407-9277 • fax (360) 586-9088 • e-mail sbcc@des.wa.gov • www.sbcc.wa.gov

RCW 19.27.020 - Purposes—Objectives—Standards.

The purpose of this chapter is to promote the health, safety and welfare of the occupants or users of buildings and structures and the general public by the provision of building codes throughout the state. Accordingly, this chapter is designed to effectuate the following purposes, objectives, and standards:

- (1) To require minimum performance standards and requirements for construction and construction materials, consistent with accepted standards of engineering, fire and life safety.
- (2) To require standards and requirements in terms of performance and nationally accepted standards.
- (3) To permit the use of modern technical methods, devices and improvements.
- (4) To eliminate restrictive, obsolete, conflicting, duplicating and unnecessary regulations and requirements which could unnecessarily increase construction costs or retard the use of new materials and methods of installation or provide unwarranted preferential treatment to types or classes of materials or products or methods of construction.
- (5) To provide for standards and specifications for making buildings and facilities accessible to and usable by physically disabled persons.
- (6) To consolidate within each authorized enforcement jurisdiction, the administration and enforcement of building codes.

(1)(b) Determine that the rule is needed to achieve the general goals and specific objectives stated under (a) of this subsection, and analyze alternatives to rule making and the consequences of not adopting the rule:

The Council is required to adopt and maintain the state building code, as provided in chapters 19.27, 19.27A, and 70.92 RCW, and the state legislature. The primary objective of the Council is to encourage consistency in the building code throughout the state of Washington and to maintain the building code consistent with the state's interest as provided in RCW 19.27.020. The statewide code adoption process is defined in WAC 51-04 and the Council bylaws. All proposals are submitted in writing on the appropriate form with the indicated supporting documentation. Each proponent must identify where a proposed amendment has an economic impact and estimate the costs and savings of the proposal on construction practices, users and/or the public, the enforcement community, and operation and maintenance. There are no alternatives to this



STATE OF WASHINGTON

STATE BUILDING CODE COUNCIL

1500 Jefferson Street SE • P.O. Box 41449 • Olympia, Washington 98501
(360) 407-9277 • fax (360) 586-9088 • e-mail sbcc@des.wa.gov • www.sbcc.wa.gov

procedure. If the rule is not adopted, this will be a violation of the State Law, which will affect the promotion of fire and life safety in buildings consistent with accepted standards.

(1)(d) Determine that the probable benefits of the rule are greater than its probable costs, taking into account both the qualitative and quantitative benefits and costs and the specific directives of the statute being implemented:

It is oftentimes difficult to determine if 50 percent of the building area is exceeded for a substantial remodel, and using ICC valuation could be an easier way to determine if the amount of work in a building is substantial. ICC building valuations can be easily calculated and compared to the proposed value of the remodel; whereas, it can be very difficult to determine if an alteration is exceeding the 50% threshold when only portions of rooms are altered. This offers an alternative method to determine if an alteration is Level 3 using ICC building valuation and comparing the valuation to the contract value of the proposed work.

*The proposed amendment clarifies the intent of the code by providing an alternative way of using ICC building valuation to determine if an alteration is Level 3. The proposed amendment **will not affect the cost of construction.***

(1)(e) Determine, after considering alternative versions of the rule and the analysis required under (b), (c), and (d) of this subsection, that the rule being adopted is the least burdensome alternative for those required to comply with it that will achieve the general goals and specific objectives stated under (a) of this subsection:

There are no alternatives to this procedure. If the rule is not adopted, this will be a violation of the State Law, which will affect the promotion of fire and life safety in buildings consistent with accepted standards.

(1)(f) Determine that the rule does not require those to whom it applies to take an action that violates requirements of another federal or state law:

The primary objective of the Council is to encourage consistency in the building code throughout the state, and to maintain the building code consistent with the state's interest. The rule does not require those to whom it applies to take an action that violates requirements of another federal or state law.



STATE OF WASHINGTON

STATE BUILDING CODE COUNCIL

1500 Jefferson Street SE • P.O. Box 41449 • Olympia, Washington 98501
(360) 407-9277 • fax (360) 586-9088 • e-mail sbcc@des.wa.gov • www.sbcc.wa.gov

(1)(g) Determine that the rule does not impose more stringent performance requirements on private entities than on public entities unless required to do so by federal or state law:

The adoption and amendment of the 2021 IEBC do not impose more stringent performance requirements on private entities than on public entities.

(1)(h) Determine if the rule differs from any federal regulation or statute applicable to the same activity or subject matter and, if so, determine that the difference is justified by the following:

This does not differ from any federal regulations or statute applicable to the same activity.

(1)(i) A state statute explicitly allows the agency to differ from federal standards; or

(1)(ii) Substantial evidence that the difference is necessary to achieve the general goals and specific objectives stated under (a) of this subsection; and

(1)(iii) Coordinate the rule, to the maximum extent practicable, with other federal, state, and local laws applicable to the same activity or subject matter.



STATE OF WASHINGTON

STATE BUILDING CODE COUNCIL

1500 Jefferson Street SE • P.O. Box 41449 • Olympia, Washington 98501
(360) 407-9277 • fax (360) 586-9088 • e-mail sbcc@des.wa.gov • www.sbcc.wa.gov

Date: 4/8/2022

Log # [21-GP2-054R](#)

Proponent and description: *Ardel Jala (WABO); 2021 IEBC 306.6, 306.7.8 Limited-use/Limited-application Elevators (LULA) in an Additions.*

Compliance with RCW 34.05.328 Significant legislative rules, other selected rules

(1)(a) Clearly state in detail the general goals and specific objectives of the statute that the rule implements

[RCW 19.27.020](#) - Purposes—Objectives—Standards.

The purpose of this chapter is to promote the health, safety and welfare of the occupants or users of buildings and structures and the general public by the provision of building codes throughout the state. Accordingly, this chapter is designed to effectuate the following purposes, objectives, and standards:

- (1) To require minimum performance standards and requirements for construction and construction materials, consistent with accepted standards of engineering, fire and life safety.
- (2) To require standards and requirements in terms of performance and nationally accepted standards.
- (3) To permit the use of modern technical methods, devices and improvements.
- (4) To eliminate restrictive, obsolete, conflicting, duplicating and unnecessary regulations and requirements which could unnecessarily increase construction costs or retard the use of new materials and methods of installation or provide unwarranted preferential treatment to types or classes of materials or products or methods of construction.
- (5) To provide for standards and specifications for making buildings and facilities accessible to and usable by physically disabled persons.
- (6) To consolidate within each authorized enforcement jurisdiction, the administration and enforcement of building codes.

(1)(b) Determine that the rule is needed to achieve the general goals and specific objectives stated under (a) of this subsection, and analyze alternatives to rule making and the consequences of not adopting the rule:



STATE OF WASHINGTON

STATE BUILDING CODE COUNCIL

1500 Jefferson Street SE • P.O. Box 41449 • Olympia, Washington 98501
(360) 407-9277 • fax (360) 586-9088 • e-mail sbcc@des.wa.gov • www.sbcc.wa.gov

The Council is required to adopt and maintain the state building code, as provided in chapters 19.27, 19.27A, and 70.92 RCW, and the state legislature. The primary objective of the Council is to encourage consistency in the building code throughout the state of Washington and to maintain the building code consistent with the state's interest as provided in RCW 19.27.020. The statewide code adoption process is defined in WAC 51-04 and the Council bylaws. All proposals are submitted in writing on the appropriate form with the indicated supporting documentation. Each proponent must identify where a proposed amendment has an economic impact and estimate the costs and savings of the proposal on construction practices, users and/or the public, the enforcement community, and operation and maintenance. There are no alternatives to this procedure. If the rule is not adopted, this will be a violation of the State Law, which will affect the promotion of fire and life safety in buildings consistent with accepted standards.

(1)(d) Determine that the probable benefits of the rule are greater than its probable costs, taking into account both the qualitative and quantitative benefits and costs and the specific directives of the statute being implemented:

A Limited-use/Limited-application (LULA) elevator is a type of elevator often proposed as part of an accessible route in existing buildings. Technical requirements for LULAs can be found in ASME A17.1/CSA B44 Safety Code for Elevators and Escalators. In comparison to a commercial elevator, LULAs have smaller car sizes, smaller capacity, slower speeds, and shorter rise. In comparison to a platform lift, a LULA provides greater capacity and faster speed. A LULA is more expensive than a platform lift but can cost less than a commercial elevator.

IEBC 306.6 requires addition meet the accessibility provisions of new construction. A LULA is not permitted outright as part of an accessible route in new construction. However, if an accessible route is not required to a mezzanine, story or level, then a LULA would be providing greater accessibility than required by code and is permitted as a component of the accessible route. Similarly, if an addition is not required to have any accessible route to it by satisfying one of the exceptions of SBC 1104.4, providing a LULA as a component of the accessible route to is providing greater accessibility and is permitted. That is consistent with the Guide to the ADA Accessibility Standards. Section 206.6 Required Compliance states: "In facilities not required to have an accessible route between stories or to mezzanines, a limited-use/limited-application (LULA) elevator is permitted. LULAs also are allowed as an alternative to platform lifts and private residence elevators." See: <https://www.access-board.gov/ada/guides/chapter-4-elevators-and-platform-lifts/>



STATE OF WASHINGTON

STATE BUILDING CODE COUNCIL

1500 Jefferson Street SE • P.O. Box 41449 • Olympia, Washington 98501
(360) 407-9277 • fax (360) 586-9088 • e-mail sbcc@des.wa.gov • www.sbcc.wa.gov

This code change proposal will allow use of a LULA as part of the accessible route in additions. This is a new provision and provides greater flexibility to designers to provide a level of accessibility to a mezzanine, story or occupied roof. A separate code change proposal will allow a LULA in both a change of occupancy and in alterations. This code change would allow a LULA, and would not allow a platform lift permitted in additions to existing buildings.

*The proposed amendment clarifies the intent of the code by permitting the use a LULA in additions. The proposed amendment **will not affect the cost of construction**.*

(1)(e) Determine, after considering alternative versions of the rule and the analysis required under (b), (c), and (d) of this subsection, that the rule being adopted is the least burdensome alternative for those required to comply with it that will achieve the general goals and specific objectives stated under (a) of this subsection:

There are no alternatives to this procedure. If the rule is not adopted, this will be a violation of the State Law, which will affect the promotion of fire and life safety in buildings consistent with accepted standards.

(1)(f) Determine that the rule does not require those to whom it applies to take an action that violates requirements of another federal or state law:

The primary objective of the Council is to encourage consistency in the building code throughout the state, and to maintain the building code consistent with the state's interest. The rule does not require those to whom it applies to take an action that violates requirements of another federal or state law.

(1)(g) Determine that the rule does not impose more stringent performance requirements on private entities than on public entities unless required to do so by federal or state law:

The adoption and amendment of the 2021 IEBC do not impose more stringent performance requirements on private entities than on public entities.

(1)(h) Determine if the rule differs from any federal regulation or statute applicable to the same activity or subject matter and, if so, determine that the difference is justified by the following:

This does not differ from any federal regulations or statute applicable to the same activity.

(1)(i) A state statute explicitly allows the agency to differ from federal standards; or



STATE OF WASHINGTON

STATE BUILDING CODE COUNCIL

*1500 Jefferson Street SE • P.O. Box 41449 • Olympia, Washington 98501
(360) 407-9277 • fax (360) 586-9088 • e-mail sbcc@des.wa.gov • www.sbcc.wa.gov*

- (1)(ii) Substantial evidence that the difference is necessary to achieve the general goals and specific objectives stated under (a) of this subsection; and
- (1)(iii) Coordinate the rule, to the maximum extent practicable, with other federal, state, and local laws applicable to the same activity or subject matter.



STATE OF WASHINGTON

STATE BUILDING CODE COUNCIL

1500 Jefferson Street SE • P.O. Box 41449 • Olympia, Washington 98501
(360) 407-9277 • fax (360) 586-9088 • e-mail sbcc@des.wa.gov • www.sbcc.wa.gov

Date: 4/8/2022

Log # [21-GP2-055](#)

Proponent and description: *Jenifer Gilliland (WABO); 2021 IEBC Sections 401.2 & 401.4 (NEW) Demolition and replacement (Repairs)*

Compliance with RCW 34.05.328 Significant legislative rules, other selected rules

(1)(a) Clearly state in detail the general goals and specific objectives of the statute that the rule implements

RCW 19.27.020 - Purposes—Objectives—Standards.

The purpose of this chapter is to promote the health, safety and welfare of the occupants or users of buildings and structures and the general public by the provision of building codes throughout the state. Accordingly, this chapter is designed to effectuate the following purposes, objectives, and standards:

- (1) To require minimum performance standards and requirements for construction and construction materials, consistent with accepted standards of engineering, fire and life safety.
- (2) To require standards and requirements in terms of performance and nationally accepted standards.
- (3) To permit the use of modern technical methods, devices and improvements.
- (4) To eliminate restrictive, obsolete, conflicting, duplicating and unnecessary regulations and requirements which could unnecessarily increase construction costs or retard the use of new materials and methods of installation or provide unwarranted preferential treatment to types or classes of materials or products or methods of construction.
- (5) To provide for standards and specifications for making buildings and facilities accessible to and usable by physically disabled persons.
- (6) To consolidate within each authorized enforcement jurisdiction, the administration and enforcement of building codes.

(1)(b) Determine that the rule is needed to achieve the general goals and specific objectives stated under (a) of this subsection, and analyze alternatives to rule making and the consequences of not adopting the rule:



STATE OF WASHINGTON

STATE BUILDING CODE COUNCIL

1500 Jefferson Street SE • P.O. Box 41449 • Olympia, Washington 98501
(360) 407-9277 • fax (360) 586-9088 • e-mail sbcc@des.wa.gov • www.sbcc.wa.gov

The Council is required to adopt and maintain the state building code, as provided in chapters 19.27, 19.27A, and 70.92 RCW, and the state legislature. The primary objective of the Council is to encourage consistency in the building code throughout the state of Washington and to maintain the building code consistent with the state's interest as provided in RCW 19.27.020. The statewide code adoption process is defined in WAC 51-04 and the Council bylaws. All proposals are submitted in writing on the appropriate form with the indicated supporting documentation. Each proponent must identify where a proposed amendment has an economic impact and estimate the costs and savings of the proposal on construction practices, users and/or the public, the enforcement community, and operation and maintenance. There are no alternatives to this procedure. If the rule is not adopted, this will be a violation of the State Law, which will affect the promotion of fire and life safety in buildings consistent with accepted standards.

(1)(d) Determine that the probable benefits of the rule are greater than its probable costs, taking into account both the qualitative and quantitative benefits and costs and the specific directives of the statute being implemented:

The proposal does three things:

- *Clarifies that the work needed to facilitate repairs should not be considered an alteration (401.2).*

The sentence being added to the end of 401.2 was dropped during the 2018 code cycle when the repair provisions were consolidated in Chapter 4 in the IEBC. This allowance was originally in the 2015 IEBC Prescriptive and Work Area methods sections. It provides clarity to the code official about how to deal with existing undamaged components when repairs on a structure are needed. It is a common situation that should be addressed by the code.

- *Ensures that when a building has been effectively demolished it must be replaced with a new building subject to new code requirements (401.4).*

The IEBC allows the use of "like materials" for repairs, but these provisions should not apply where the building has been destroyed and the repair needed is a total replacement of the building. The same rules should apply whether the damage is caused directly by the destructive event or if the demolition and subsequent replacement of the building is the owner's choice for correcting the damage. In both cases, owners would have to rebuild using currently adopted codes.

- *Allows for reuse of the existing foundation with approval by the code official.*



STATE OF WASHINGTON

STATE BUILDING CODE COUNCIL

1500 Jefferson Street SE • P.O. Box 41449 • Olympia, Washington 98501
(360) 407-9277 • fax (360) 586-9088 • e-mail sbcc@des.wa.gov • www.sbcc.wa.gov

Note: *This proposal is being heard at the ICC Hearings for the 2024 code cycle in March/April 2022. Further correlation may be needed in the future if the ICC proposal is approved “as is” or with changes.*

*Since the current code is not clear about how to address cases of repairs that are as extensive as building replacement, whether the proposal will increase the cost of construction will vary depending on how a given jurisdiction is enforcing the incomplete code. Restoring the language related to work on non-damaged components should not change the cost of any construction; it merely reflects a common understanding that was in the IEBC until it was inadvertently removed in 2018. The current code is silent on this issue and, if anything, **the proposal could reduce the cost of some repairs** if code officials are interpreting the current code differently.*

The proposed amendments do not add review or inspection time. Both proposals merely delineate a code path, whether it is for buildings being replaced after an event (natural or otherwise) or the treatment of non-damaged components when a building is being repaired.

In addition, the proposals will make it clear to insurance companies when the jurisdiction requires full replacement of a demolished building and should help business owners recover the funds they need to completely rebuild. Not triggering alteration requirements when non-damaged components have to be worked on to repair damaged components will help keep repairs from having scope creep into other areas of the building that are uninvolved with the damage.

(1)(e) Determine, after considering alternative versions of the rule and the analysis required under (b), (c), and (d) of this subsection, that the rule being adopted is the least burdensome alternative for those required to comply with it that will achieve the general goals and specific objectives stated under (a) of this subsection:

There are no alternatives to this procedure. If the rule is not adopted, this will be a violation of the State Law, which will affect the promotion of fire and life safety in buildings consistent with accepted standards.

(1)(f) Determine that the rule does not require those to whom it applies to take an action that violates requirements of another federal or state law:

The primary objective of the Council is to encourage consistency in the building code throughout the state, and to maintain the building code consistent with the state's interest. The rule does not require those to whom it applies to take an action that violates requirements of another federal or state law.



STATE OF WASHINGTON

STATE BUILDING CODE COUNCIL

1500 Jefferson Street SE • P.O. Box 41449 • Olympia, Washington 98501
(360) 407-9277 • fax (360) 586-9088 • e-mail sbcc@des.wa.gov • www.sbcc.wa.gov

(1)(g) Determine that the rule does not impose more stringent performance requirements on private entities than on public entities unless required to do so by federal or state law:

The adoption and amendment of the 2021 IEBC do not impose more stringent performance requirements on private entities than on public entities.

(1)(h) Determine if the rule differs from any federal regulation or statute applicable to the same activity or subject matter and, if so, determine that the difference is justified by the following:

This does not differ from any federal regulations or statute applicable to the same activity.

(1)(i) A state statute explicitly allows the agency to differ from federal standards; or

(1)(ii) Substantial evidence that the difference is necessary to achieve the general goals and specific objectives stated under (a) of this subsection; and

(1)(iii) Coordinate the rule, to the maximum extent practicable, with other federal, state, and local laws applicable to the same activity or subject matter.



STATE OF WASHINGTON

STATE BUILDING CODE COUNCIL

1500 Jefferson Street SE • P.O. Box 41449 • Olympia, Washington 98501
(360) 407-9277 • fax (360) 586-9088 • e-mail sbcc@des.wa.gov • www.sbcc.wa.gov

Date: 4/8/2022

Log # [21-GP2-056](#)

Proponent and description: *Nathalie Boeholt (WABO); 2021 IEBC Sections 503.13 & 805.4 Voluntary lateral force-resisting system alterations.*

Compliance with RCW 34.05.328 Significant legislative rules, other selected rules

(1)(a) Clearly state in detail the general goals and specific objectives of the statute that the rule implements

[RCW 19.27.020 - Purposes—Objectives—Standards.](#)

The purpose of this chapter is to promote the health, safety and welfare of the occupants or users of buildings and structures and the general public by the provision of building codes throughout the state. Accordingly, this chapter is designed to effectuate the following purposes, objectives, and standards:

- (1) To require minimum performance standards and requirements for construction and construction materials, consistent with accepted standards of engineering, fire and life safety.
- (2) To require standards and requirements in terms of performance and nationally accepted standards.
- (3) To permit the use of modern technical methods, devices and improvements.
- (4) To eliminate restrictive, obsolete, conflicting, duplicating and unnecessary regulations and requirements which could unnecessarily increase construction costs or retard the use of new materials and methods of installation or provide unwarranted preferential treatment to types or classes of materials or products or methods of construction.
- (5) To provide for standards and specifications for making buildings and facilities accessible to and usable by physically disabled persons.
- (6) To consolidate within each authorized enforcement jurisdiction, the administration and enforcement of building codes.

(1)(b) Determine that the rule is needed to achieve the general goals and specific objectives stated under (a) of this subsection, and analyze alternatives to rule making and the consequences of not adopting the rule:



STATE OF WASHINGTON

STATE BUILDING CODE COUNCIL

1500 Jefferson Street SE • P.O. Box 41449 • Olympia, Washington 98501
(360) 407-9277 • fax (360) 586-9088 • e-mail sbcc@des.wa.gov • www.sbcc.wa.gov

The Council is required to adopt and maintain the state building code, as provided in chapters 19.27, 19.27A, and 70.92 RCW, and the state legislature. The primary objective of the Council is to encourage consistency in the building code throughout the state of Washington and to maintain the building code consistent with the state's interest as provided in RCW 19.27.020. The statewide code adoption process is defined in WAC 51-04 and the Council bylaws. All proposals are submitted in writing on the appropriate form with the indicated supporting documentation. Each proponent must identify where a proposed amendment has an economic impact and estimate the costs and savings of the proposal on construction practices, users and/or the public, the enforcement community, and operation and maintenance. There are no alternatives to this procedure. If the rule is not adopted, this will be a violation of the State Law, which will affect the promotion of fire and life safety in buildings consistent with accepted standards.

(1)(d) Determine that the probable benefits of the rule are greater than its probable costs, taking into account both the qualitative and quantitative benefits and costs and the specific directives of the statute being implemented:

Sections 503.13 and 805.4 indicate that voluntary lateral force-resisting system alterations are not required to meet the requirements of Section 1609 or 1613 of the IBC, provided that 4 conditions are met. Condition #2 requires that new structural elements are detailed and connected as required by the IBC for new construction. This has led to some confusion amongst the design and the plan review communities when it comes to selecting the lateral force-resisting systems from ASCE 7 Table 12.2-1. It is unclear what portions of the IBC are not required to be met and what portions shall be met. Very often, existing buildings needing seismic upgrades are older and have lateral force-resisting systems such as ordinary reinforced concrete or masonry walls or unreinforced masonry walls. These systems, typically designed with older codes, are often under-reinforced per today's codes or not reinforced at all. In an earthquake, they will behave very rigidly which can lead to early failure and possibly early collapse. This has been witnessed in past earthquakes, such as the Nisqually Earthquake of 2001 in the Seattle area, where many unreinforced masonry walls cracked and crumbled.

When a seismic upgrade is proposed, it is important to provide new systems that will match the existing building's rigidity as much as possible to prevent excessive displacements which can lead to the failure of the more rigid and older systems. If a very flexible system such as a special steel moment frame is proposed, it will be able to deform quite a bit more than the existing older system which can lead to more deformation than the existing building can handle. The purpose of this proposal is to avoid situations like these and help building officials enforce more adequate seismic upgrades by allowing systems that are not normally allowed in new construction. For



STATE OF WASHINGTON

STATE BUILDING CODE COUNCIL

1500 Jefferson Street SE • P.O. Box 41449 • Olympia, Washington 98501
(360) 407-9277 • fax (360) 586-9088 • e-mail sbcc@des.wa.gov • www.sbcc.wa.gov

example, in Seismic Design Category D, if 4-story concentrically braced frames of a height exceeding 35 feet are proposed for a voluntary seismic upgrade in an existing unreinforced masonry wall building and must be detailed and connected for new construction, per condition #2, then an engineer may deduce that only the "Special" type is allowed per ASCE 7 Table 12.2-1.

The code required design and detailing of an "Ordinary" and "Special" concentrically braced frame for new construction are very different. It is agreed that the lateral forces-resisting system detailing shall be per current codes for that system, but the term "new construction" is confusing and leads to think that the new system shall meet all the requirements of ASCE 7 Table 12.2-1. With the proposed exception, a more rigid "Ordinary" concentrically braced frame that is not normally allowed in Seismic Design Category D, would be allowed in this example, and would provide better deformation compatibility with the existing building. These "Ordinary" braced frames would be more adequate at providing overall increased seismic resistance because they are a more rigid system than "Special" braced frames, they would "attract" more load and therefore be more efficient at "taking" load away from the existing unreinforced masonry walls. This proposal will make it clear that new lateral systems are permitted to be of any type, even of a type that normally would not be allowed in new construction, based on the seismic design category and height, as long as all the other conditions of sections 503.13 and 805.4 are met. The original intent of this code section remains the same, the proposed design shall not weaken the existing lateral resistance of the building or affect the behavior of the building in a severe way. In addition, this proposal will help with cost reduction and most importantly performance since less ductile "Ordinary" or "Intermediate" systems may be closer to matching an existing building's deformation limits.

*This code change proposal could reduce the cost of construction when a voluntary lateral force resistance system alteration is done. The proposal will clarify that a new lateral force-resisting system can be of a type designated as "Ordinary" or "Intermediate" instead of "Intermediate" or "Special" in a voluntary seismic upgrade and will prevent the specification of more expensive systems (i.e. "Special"). A "Special" lateral force-resisting system is more expensive because it requires additional material, additional fabrication (including special welding), additional special inspections and added time and complexity during construction, thus when change is applied, it could **decrease construction cost.***

(1)(e) Determine, after considering alternative versions of the rule and the analysis required under (b), (c), and (d) of this subsection, that the rule being adopted is the least burdensome alternative for those required to comply with it



STATE OF WASHINGTON

STATE BUILDING CODE COUNCIL

1500 Jefferson Street SE • P.O. Box 41449 • Olympia, Washington 98501
(360) 407-9277 • fax (360) 586-9088 • e-mail sbcc@des.wa.gov • www.sbcc.wa.gov

that will achieve the general goals and specific objectives stated under (a) of this subsection:

There are no alternatives to this procedure. If the rule is not adopted, this will be a violation of the State Law, which will affect the promotion of fire and life safety in buildings consistent with accepted standards.

(1)(f) Determine that the rule does not require those to whom it applies to take an action that violates requirements of another federal or state law:

The primary objective of the Council is to encourage consistency in the building code throughout the state, and to maintain the building code consistent with the state's interest. The rule does not require those to whom it applies to take an action that violates requirements of another federal or state law.

(1)(g) Determine that the rule does not impose more stringent performance requirements on private entities than on public entities unless required to do so by federal or state law:

The adoption and amendment of the 2021 IEBC do not impose more stringent performance requirements on private entities than on public entities.

(1)(h) Determine if the rule differs from any federal regulation or statute applicable to the same activity or subject matter and, if so, determine that the difference is justified by the following:

This does not differ from any federal regulations or statute applicable to the same activity.

(1)(i) A state statute explicitly allows the agency to differ from federal standards; or

(1)(ii) Substantial evidence that the difference is necessary to achieve the general goals and specific objectives stated under (a) of this subsection; and

(1)(iii) Coordinate the rule, to the maximum extent practicable, with other federal, state, and local laws applicable to the same activity or subject matter.



STATE OF WASHINGTON

STATE BUILDING CODE COUNCIL

1500 Jefferson Street SE • P.O. Box 41449 • Olympia, Washington 98501
(360) 407-9277 • fax (360) 586-9088 • e-mail sbcc@des.wa.gov • www.sbcc.wa.gov

3. Modifications Made to CR-102

3.1 Modifications Made to Proposals

Log # [21-GP2-005](#)

Proponent and description: Lee Kranz (WABO); 2021 IEBC Section 306.7.1
Alterations affecting an area containing a primary function.

The proposal was modified after the public comment period and the public hearings and adopted by the Council. Two Options for modified language in Section 306.7.1 were initially proposed and filed with the CR-102. The Council voted to combine both options. There is no intended change in regulatory effect; there is no need for modifications to the preliminary cost benefit analysis.

Log # [21-GP2-029](#)

Proponent and description: Sue Coffman; 2021 IEBC Chapter 2, Definitions
(SUBSTANTIAL DAMAGE & SUBSTANTIAL IMPROVEMENT).

The proposal was modified after the public comment period and the public hearings and adopted by the Council. Definitions are revised to provide an option to comply with the latest FEMA guidance or use of the Building Valuation Data. There is no intended change in regulatory effect; there is no need for modifications to the preliminary cost benefit analysis.

Log # [21-GP2-055](#)

Proponent and description: Jenifer Gilliland (WABO); 2021 IEBC Sections 401.2 & 401.4 (NEW) Demolition and replacement (Repairs)

The proposal was modified after the public comment period and the public hearings and adopted by the Council. This modification provides the specific language, so it is clear to the code user on the reuse of existing foundations. There is no intended change in regulatory effect; there is no need for modifications to the preliminary cost benefit analysis.

Log # [21-GP2-056](#)



STATE OF WASHINGTON

STATE BUILDING CODE COUNCIL

1500 Jefferson Street SE • P.O. Box 41449 • Olympia, Washington 98501
(360) 407-9277 • fax (360) 586-9088 • e-mail sbcc@des.wa.gov • www.sbcc.wa.gov

Proponent and description: *Nathalie Boeholt (WABO); 2021 IEBC Sections 503.13 & 805.4 Voluntary lateral force-resisting system alterations.*

The proposal was modified after the public comment period and the public hearings and adopted by the Council. This modification clarifies the applicability of the proposal and overall improves it. There is no intended change in regulatory effect; there is no need for modifications to the preliminary cost benefit analysis.

3.2 Editorial Changes

The following modifications are made to correct minor errors in the code language or to correct incorrect references. Alterations are minor in nature and do not have any intended change in regulatory effect.

1401.2: Modification deletes incorrect references and replaces them with correct ones.