International Code Council
500 New Jersey Avenue, NW
Sixth Floor
Washington, DC 20001
t: 888.ICC.SAFE (422.7233)
t: 202.370.1800
f: 202.783.2348
www.iccsafe.org

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Gabe Maser
Vice President, Federal Relations
International Code Council
202-370-1800, ext. 6237
gmaser@iccsafe.org

Via email:

Federal Emergency Management Agency
Office of Response and Recovery, Recovery Directorate
Federal Center Plaza, 500 C Street, SW
Washington, D.C. 20472

Re: The International Code Council's Comments on FEMA's Draft Individual Assistance Program and Policy Guide

The International Code Council (ICC) is a member-focused association dedicated to helping the building community and the construction industry provide safe, resilient, and sustainable construction through the development and use of model codes and standards used in the design, build, and compliance processes. Most U.S. states and communities, federal agencies, and many global markets choose the International Codes to set the standards for regulating construction, plumbing and sanitation, fire prevention, and energy conservation in the built environment.

ICC appreciates the opportunity to comment on FEMA's Draft Individual Assistance Program and Policy Guide (IAPPG). ICC strongly urges FEMA to adhere to its Public Assistance Required Minimum Standards (Required Standards) where it is providing direct assistance under the individual assistance (IA) program and to encourage individuals seeking repair or replacement financial assistance under the IA program to follow the Required Standards. ICC's proposed additions to the IAPPG are appended to the end of this document. ICC's rationale for those proposed additions, which is included below, describes the Required Standards, the statutory authority underpinning them, FEMA's rationale for the Required Standards, and the structural components of FEMA's public assistance (PA) program, which, collectively, support applying Required Standards for FEMA's IA program.

I. FEMA's Required Standards

For its PA program, FEMA "generally requires the integration and use of the hazard-resistant provisions of the International Code Council's (ICC) International Building Code (IBC), the International Existing Building Code (IEBC), and/or the International Residential Code (IRC) as a minimum design standard for all eligible building restoration projects where the design standard is triggered[,] even if these standards exceed local standards or in instances where communities have not adopted building standards." FEMA Recovery Policy FP-1 04-009-4. FEMA adopted this policy "to promote resiliency and achieve risk reduction under the authority of the Stafford Act §§ 323 and 406(e) (42 U.S.C. §§ 5165a and 5172) and 44 C.F.R. § 206, subpart M." *Id.*

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FEMA viewed the adoption of the policy as "necessary to increase the predictability of authorized FEMA activities [and] enhance feasibility and effectiveness requirements . . . ." FEMA also stated that this policy would "further FEMA's core mission to protect lives and property by increasing the safety and risk reduction capabilities of buildings that receive Public Assistance funding," and "reduce vulnerability to new construction and repaired and retrofitted buildings, thus reducing the need for future Federal disaster recovery grants and other assistance." *Id.*

II. The Legal Underpinning and Rationale for FEMA's Required Standards Apply to FEMA's IA Program

The statutory authority underlying FEMA's Required Standards applies equally to IA repair and construction activities. In support of its Required Standards, FEMA cites 42 U.S.C. § 5165a, which states that as a condition of receipt of a disaster grant, the recipient carry out any repair or construction "in accordance with applicable standards of safety, decency, and sanitation and in conformity with applicable codes, specifications, and standards." This provision applies to all repair or construction utilizing Stafford Act disaster assistance funding. *Id.*; 44 CFR § 206, subpart M. Since FEMA has determined that "applicable standards of safety, decency, and sanitation" and "applicable codes" necessitate adherence to Required Standards, unless FEMA determines that IA programs have different "applicable standards of safety, decency, and sanitation," the Required Standards can and should apply to FEMA's IA program.

Similarly, FEMA's rationale for adopting the Required Standards applies to its IA program. First, a minimum standard for IA projects would increase the predictability, feasibility, and efficacy of FEMA's efforts through standardization. Applying model code minimums would allow FEMA to standardize its approach to repairs or construction, which simplifies grant administration and provides FEMA a consistent baseline from which to evaluate the efficacy of its IA activities. Further, the Required Standards are straightforward to apply as FEMA is already implementing them as part of its PA program.

Second, applying Required Standards to IA projects increases safety and reduces risk in buildings and, relatedly, reduces the need for future IA funding for those buildings. The following sample of studies, several of which FEMA directed or funded, and several of which pertain directly to residential buildings, illustrates these points:

- A FEMA analysis from 2014 estimated approximately $500 million in annualized loss avoided in eight southeastern states due to do the adoption of modern building codes. FEMA, *Phase 3 National Methodology and Phase 2 Regional Study Losses Avoided as a Result of Adopting and Enforcing Hazard-Resistant Building Codes* (2014).
- An Insurance Institute for Business & Home Safety study following Hurricane Charley found that post-Hurricane Andrew code improvements[1] and code enforcement in Florida reduced the frequency of property damage by 60 percent and the severity of damage by 42 percent ***for residences***. Insurance Institute for Business & Home Safety, *Hurricane Charley Nature's Force vs. Structural Strength* (Aug. 13, 2004).

[1] The Florida building codes are based on the ICC family of codes.

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- A Wharton analysis found effective and well-enforced building codes in Missouri reduced hail damage ***to homes*** by 10 to 20 percent on average. Jeffrey Czajkowski & Kevin M. Simmons, *Convective Storm Vulnerability: Quantifying the Role of Effective and Well-Enforced Building Codes in Minimizing Missouri Hail Property Damage and Quantifying the Role of Effective and Well-Enforced Building Codes in Reducing Natural Disaster Property Losses: The Case of Hail Storms in Missouri*, Working Paper # 2013-08, Wharton School, University of Pennsylvania, Risk Management and Decision Processes Center (Nov. 2013).
- A FEMA-co-funded report from December 2017 by the National Institute for Building Sciences (NIBS) determined that adhering to the International Wildland-Urban Interface Code (IWUIC) generated a 4:1 return on investment. A final report due October 2018 will detail the return on meeting the minimum international building code hazard mitigation standards. NIBS, *Natural Hazard Mitigation Saves: 2017 Interim Report* (Dec. 2017).

Applying Required Standards to the IA program is also consistent with FEMA's longer-term strategic plan, where FEMA reemphasized its support for encouraging implementation of the latest building codes for residences. FEMA's very first objective in the Plan seeks to incentivize investment that reduces risk and disaster costs "at All Levels," which includes "advocate[ing] for the adoption and enforcement of modern building and property codes." FEMA continued: "Disaster resilience starts with building codes, because they enhance public safety and property protection." FEMA's 2018-2022 Strategic Plan (Mar. 2018).

FEMA's current IA practices currently run counter to the Plan to the extent FEMA is funding the repair and replacement of facilities to outdated codes that do not adequately protect occupants. Rebuilding to outdated codes also raises significantly the possibility that FEMA may be required to fund repair/replacement for facilities it previously repaired/replaced because the previous FEMA-funded construction lacked the hazard mitigation requirements in the latest model codes.

III. FEMA Should Apply Required Standards to Direct Assistance and Encourage Required Standards for Financial Assistance under its IA Program

Having established that statutory authority permits applying Required Standards to FEMA's IA program and that FEMA's rationale for adopting Required Standards apply to its IA program, this section considers whether and the extent to which FEMA *should* apply Required Standards to its IA program. This analysis reviews structural components of FEMA's PA and IA programs that support application of the Required Standards. ICC concludes that FEMA should apply the Required Standards to direct assistance and encourage individuals seeking financial assistance for repairs or replacements to follow the Required Standards.

A. Public Assistance

FEMA's PA program provides funding to state, tribal, and local governments as well as certain nonprofit organizations to repair and replace public buildings and facilities. Public Assistance Program and Policy Guide (FP 104-009-2). In order for a project to receive funding, the project manager must complete (and FEMA must approve) a detailed project worksheet (PW). Funding is uncapped where a project is restoring a facility to pre-disaster design and function, although there is a 25 percent cost-share.

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A number of these features are important to the applicability of Required Standards. Namely, adhering to standards beyond those required locally may require sophistication on the part of the project manager and the contractor. Additionally, available funding is relevant to the extent following hazard mitigation standards that exceed local requirements increases initial repair or construction costs.

For PA, the project manager is typically a unit of government or a nonprofit, both of which likely have or can acquire the expertise necessary to ensure their project tracks the Require Standards. Similarly, contracting outfits hired to work on the more complex repair and construction necessary for public buildings and facilities likely have or can acquire the expertise necessary to ensure compliance with Required Standards. Finally, PA funding does not have a cap, and the applicant would only be required to contribute 25 percent of any additional costs necessary to adhere to the Required Standards, which should not prove a financial obstacle.

B. Direct Assistance

FEMA implements direct assistance under its multi-family lease and repair (MLR) and permanent housing construction (PHC) programs. Under both programs, FEMA is required to follow local building codes, even where they lack the hazard mitigation provisions present in more current model codes. Awards under both programs are capped, but FEMA determines that cap for each declared disaster. Through its MLR program, FEMA may enter into a lease with a multi-family property owner providing for repair of the facility, which can then provide temporary housing. FEMA may either perform the repairs or hire a third-party contractor, and the repairs must be completed within in 4 months. Through its PHC program, FEMA may, directly or through a contractor, repair (within 90 days) or build new homes. Draft Individual Assistance Program and Policy Guide (Apr. 2018).

The features of the MLR and PHC programs support application of Required Standards. First, in both instances, projects are managed by sophisticated actors, namely FEMA. FEMA also ensures contractor expertise by selecting contractors directly. Although a homeowner may be required to submit a PHC application, the application is simplified, requires only basic information, and does not insist on anywhere near the detail required for the PW. Second, available funding is sufficient to support Required Standards. The MLR program does not have a cost cap and the PHC program cost caps are disaster specific and can be/are set high enough to cover most repairs and/or replacements stemming from a particular disaster. For example, 2017 PHC repair funding for Virgin Islands homes was capped at $75,000. Press Release: FEMA Approves Permanent Housing Construction for U.S. Virgin Islands (Nov. 17, 2017). Where FEMA's repair timelines or repair/construction cost would otherwise prohibit adhering to Required Standards, FEMA's PA guidance permits FEMA the flexibility to waive those standards.

Given the similarities between FEMA's direct assistance programs and its PA program with regard to features relevant to the application of Required Standards, ICC strongly encourages FEMA to apply its Required Standards to its IA direct assistance programs. Additionally, with respect to PHC, the IAPPG draft already states that "[n]ew construction shall be provided using mitigation practices to reduce the risk of damage from future disasters." ICC's recommendation would help implement that requirement.

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C. Financial Assistance

FEMA's IA financial assistance for home repair work is intended to make the damaged home safe, sanitary, or functional. Per FEMA's draft IA guidance, financial assistance is not intended to return the home to its pre-disaster condition unless required by applicable building codes. No other code requirements pertain to home repair and FEMA imposes no code requirements on financial assistance provided for home replacement.

For the reasons outlined above, ICC believes as a matter of policy that Required Standards should apply to federal financial assistance for home repair/replacement. However, ICC appreciates that FEMA has yet to implement Required Standards for any facet of its IA program and that phased implementation of the Required Standards may help FEMA best calibrate their incorporation into the IA program. Starting with FEMA's direct assistance programs is logical given FEMA, as the manager of both the MLR and PHC processes, could develop and refine best practices in real time. While FEMA evaluates incorporating the Required Standards into the IA program, ICC recommends FEMA encourage individuals seeking financial assistance to make smart upfront investments by incorporating Required Standards into home repair/replacement work. Section 408 of the Stafford Act (which authorizes the IA program) explicitly contemplates such investments, stating that financial assistance for home repairs can go towards "hazard mitigation measures that reduce the likelihood of future damage to such residences, utilities, or infrastructure." 42 U.S.C. § 5174(c)(2)(A)(ii).

FEMA could incentivize risk mitigation in home repair/replacement by providing additional funding for individuals whose applications for home repair/replacement demonstrate adherence to the Required Standards. Section 408 gives FEMA broad authority in allocating IA assistance ("The President shall determine appropriate types of housing assistance to be provided") and expressly directs FEMA to consider "cost effectiveness." 42 U.S.C. 5174(b)(2)(A). As described above, the return on investment from repair/replacement to Required Standards clearly satisfies this consideration. FEMA could provide additional funds through the IA program as well as through related mitigation funding streams like the Hazard Mitigation Grant Program (HMGP), under which individuals are eligible sub-applicants. Some funding streams (like HMGP) require a cost-share. Were FEMA to consider leveraging such programs to incentive Required Standards in home repair/replacement, the Agency could utilize a portion of the individual's IA award to satisfy the individual's out-of-pocket cost-share. At minimum, ICC believes that incentive funding should cover any increased costs associated with repairing/replacing the home in a manner consistent with the Required Standards. Repair/replacement applications seeking incentive funding could be certified under the PA guidance verification procedures for Required Standards.

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ICC's Recommended Additions to FEMA's Draft Individual Assistance Program and Policy Guide

Proposed Addition #1--Below 3041, add a new section:

A. FEMA Required Minimum Standards for Direct Assistance

With regard to direct assistance for multi-family housing repair and permanent housing construction, FEMA generally requires incorporation of the natural hazard-resistant codes and standards and related provisions referenced in the most recent published edition of the International Code Council's (ICC) International Building Code (IBC), International Existing Building Code (IEBC), or International Residential Code (IRC) into the building design and construction.[2] This includes natural hazard-resistant provisions, such as tornado, wind, seismic, and flood as identified in the IBC, IEBC, or IRC regardless of the type of incident that caused the damage. In accordance with these codes and standards, the Risk Category of the eligible building determines the applicable tornado, wind, seismic, flood, snow, ice, and rain loads.[3] FEMA provides individual assistance (IA) funding for the eligible increased cost associated with meeting these codes and standards.

The determination of whether a code or standard is triggered may be made by:

- A certified building official or inspector;
- The applicant's registered design professional; or
- Other appropriate and qualified individual.

FEMA will generally accept this determination, but may review the determination to ensure it is consistent with the above codes and standards and other IA policies. FEMA may deviate from this policy in circumstances where utilization of the codes or standards would create an extraordinary burden or would otherwise be inappropriate for the building.

These codes and standards are encouraged and generally required in the design of eligible repair, replacement, or construction of the building even if they exceed local codes or standards or in instances where communities have not adopted a building code or standard. If the IBC, IEBC, or IRC have been adopted under another name, for example the California Building Code, and it meets the natural hazard-resistant provisions in the model codes, then FEMA will consider the adopted code or standard compliant with the minimum codes and standards requirement. FEMA will evaluate the eligibility of locally adopted natural hazard-resistant building codes or standards that exceed those referenced in the IBC, IEBC, or IRC, based on the criteria found in Chapter 2:VII.B.1 of FEMA's Public Assistance Program and Policy Guide (FP 104-009-2/Apr. 2018).

[2] FEMA has determined that these codes represent the minimum adequate standards which are generally necessary to protect the Federal investment of IA funding. Stafford Act §§ 323 and 408, 42 U.S.C. §§ 5165a, 5174.
[3] Risk Category is defined in the IBC as a categorization of buildings and other structures for determination of flood, wind, snow, ice and seismic loads based on the risk associated with unacceptable performance.

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When triggered by the eligible scope of work, natural hazard-specific requirements include, but are not limited to, the following:

- For wind-resistant requirements, incorporate applicable wind-resistant design and construction standards contained in the IBC, IEBC or IRC and its referenced standards [e.g., American Society of Civil Engineers (ASCE)/Structural Engineering Institute (SEI) 7].
- For seismic-resistant requirements, incorporate applicable seismic-resistant design and construction standards contained in the IBC, IEBC or IRC and its referenced standards (e.g., ASCE/SEI 7 and 41).
- For flood-resistant requirements, incorporate applicable flood-resistant design and construction standards contained in the IBC, IEBC or IRC and its referenced standards (e.g., ASCE/SEI 7 and 24).[4]

FEMA also provides IA funding for costs associated with meeting the load requirements in the most recent IBC, IEBC, and IRC for snow, rain, and ice loads. Costs related to conforming to these codes and standards are generally eligible. These codes and standards must apply to the type of restoration required (e.g., repair or construction), be appropriate to the pre-disaster use of the building, and be reasonable. Upon completion of the project, the applicant must provide proof of compliance. Acceptable forms of proof include, but are not limited to:

- A written certification by a registered design professional that the natural hazard-resistant design elements comply with IBC, IEBC, or IRC requirements; or
- A valid certificate of occupancy from the local building department that supports that the project was constructed or repaired as designed.

Proposed Addition #2--Below 2896, add a new section:

3. Incentivizing Required Minimum Standards

To incentivize home repairs that reduce the risk of damage from future disasters, and based on opportunities through the IA program or other mitigation programs that FEMA administers, the Agency will increase Home Repair Assistance funding awards for individuals who, through their Home Repair Assistance applications demonstrate adherence to FEMA's Required Minimum Standards for Direct Assistance (Chapter 3:V.A, proposed). At minimum, such funding will cover any increased costs associated with repairing the home in a manner consistent with the Required Minimum Standards. FEMA may audit compliance utilizing certification procedures described in the Required Minimum Standards, which are detailed in Chapter 3:V.A (proposed).

[4] Eligible projects involving substantial improvement or new construction in the flood hazard area may be required to meet the floodproofing or elevation requirements as described in 44 CFR § 9.11(d), or the IBC, IEBC, or IRC, whichever is higher.

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Proposed Addition #3--Below 3019, add a new section:

4. Incentivizing Required Minimum Standards

To incentivize home replacement that reduces the risk of damage from future disasters, and based on opportunities through the IA program or other mitigation programs that FEMA administers, the Agency will increase Home Replacement Assistance funding awards for individuals who, through their Replacement Assistance applications demonstrate adherence to FEMA's Required Minimum Standards for Direct Assistance (Chapter 3:V.A, proposed). At minimum, such funding will cover any increased costs associated with replacing the home in a manner consistent with the Required Minimum Standards. FEMA may audit compliance utilizing certification procedures described in the Required Minimum Standards, which are detailed in Chapter 3:V.A (proposed).