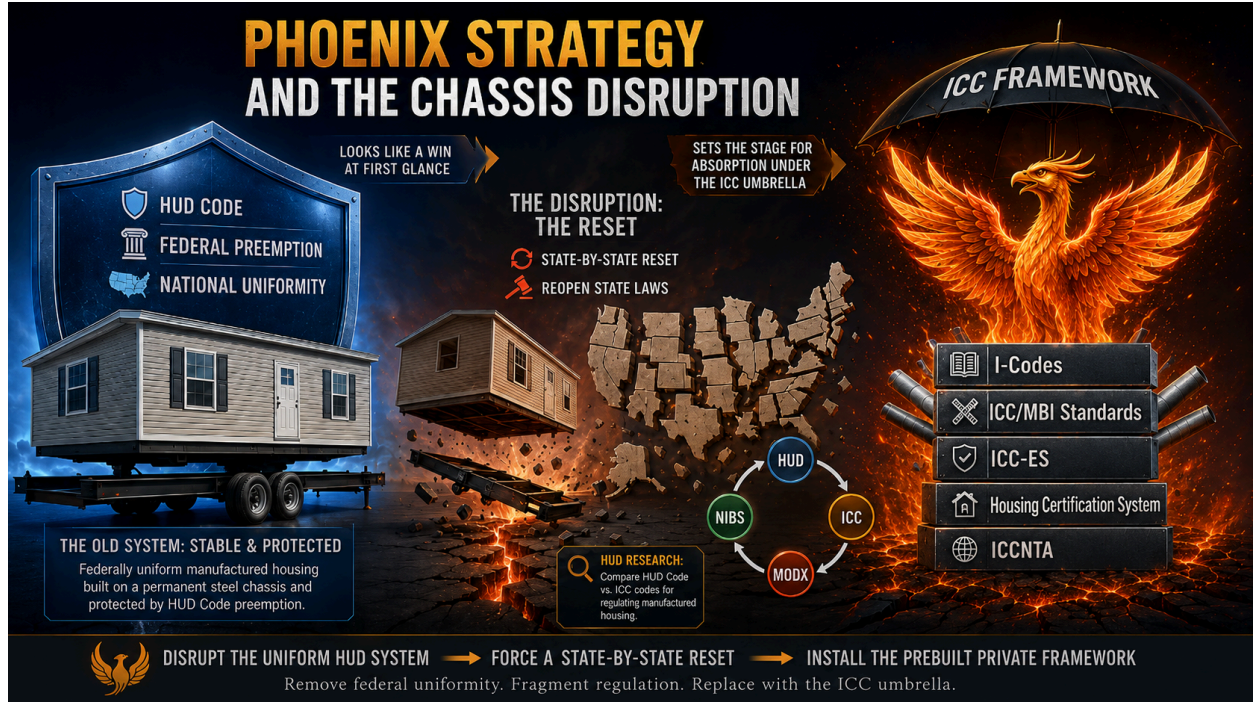


Phoenix Strategy Manufactured Home Chassis In Ashes



How Manufactured Housing Is Being Reset for State-by-State Absorption Under an ICC-Centered Framework

Executive Summary

The 21st Century ROAD to Housing Act makes the permanent steel chassis optional in the federal definition of a manufactured home. On its face, that reads as a modernization: more design flexibility, homes that look more like site-built houses, and potentially better treatment from lenders and appraisers.

This report argues the change has a second, less visible effect. Removing the chassis also removes a defining element of the nationally uniform HUD Code category, which requires every state to reconsider its own laws and certify its treatment of the new chassis-less product to HUD. That reopening is not happening in a vacuum: since at least 2018, ICC, NIBS, MBI, MOD X, ICC-ES and ICC-NTA have been jointly building off-site construction standards, inspection credentials, federally funded research, and a Housing System Certification Program, with pilots already running in several states before the chassis provision became law.

The report traces that timeline through ICC board minutes, HUD-funded research (which explicitly considers regulating manufactured housing under ICC codes instead of the HUD Code), congressional testimony, and federal funding records showing over \$300 million in federal awards to NIBS since FY2008 alongside significant leadership overlap between NIBS and ICC. It also documents a competing, decades-old compliance pathway — ASTM E541, still cited in federal regulation and active in a dozen states — that the newer framework's advocates do not mention.

The evidence for the funding relationships, the leadership overlaps, and the sequencing is drawn from primary sources and is independently verifiable. The interpretive claim built on top of it — that this

sequence reflects a deliberate strategy rather than a set of independently reasonable decisions that happen to point the same direction — is this report's argument, not an established finding, and readers should weigh it as such.

Introduction

At first glance, eliminating the permanent-chassis requirement appears to be a major victory for manufactured housing. It promises greater design flexibility, homes that can look and sit more like site-built houses, and potentially improved treatment by lenders, appraisers, zoning officials and consumers.

Viewed in isolation, it sounds like overdue modernization.

Viewed against the full record, however, it appears to be something much larger: a regulatory reset that weakens the distinct federal identity of manufactured housing, forces every state to reconsider how the new chassis-less product will be recognized, and creates an opening for manufactured housing to be absorbed into a broader ICC-centered off-site construction, certification and regulatory framework.

The significance is not simply that the chassis is becoming optional. The significance is that the change occurs after years of coordinated development involving ICC, NIBS, MBI, MOD X, ICC-ES and ICC-NTA—development that included off-site standards, inspection credentials, federal research, housing-system certification and state-level implementation pilots.

We are not merely predicting that this framework could be built in the future. We are watching the sequence unfold, and the underlying plan has been documented through meeting minutes, federally funded research, congressional testimony, organizational records and implementation announcements.

What Is a Phoenix Strategy?

A Phoenix strategy is the deliberate dismantling or destabilization of an existing system so that a new system can rise from the disruption and replace it.

In this case, the pattern is:

Disrupt the nationally uniform HUD Code framework, force a state-by-state regulatory reset, and position a predeveloped private code, standards, evaluation, inspection and certification system as the solution.

This can fairly be described as a regulatory Phoenix strategy.

The Existing Manufactured Housing System

For decades, mainstream manufactured housing has operated under a distinct federal structure:

- one national HUD Code;
- federal preemption over conflicting state and local construction requirements;
- a permanent chassis as part of the statutory definition;
- HUD-approved design and production inspection agencies;
- and a nationally recognizable regulated housing category.

That structure is fundamentally different from ordinary modular and site-built housing, which generally remains subject to state and local building codes derived largely from ICC's I-Codes.

The HUD Code's national uniformity is one of manufactured housing's defining characteristics. A federally regulated manufactured home is not supposed to become a different construction product each time it crosses a state line.

The permanent chassis was not merely a piece of steel beneath the home. It was part of the statutory line separating federally regulated manufactured housing from other forms of construction.

The Chassis Change Appears to Be a Win At First Glance

The 21st Century ROAD to Housing Act changes the definition of a manufactured home from one constructed "on a permanent chassis" to one constructed "with or without a permanent chassis."

On the surface, that looks beneficial. It could allow:

- greater architectural flexibility;
- less visibly "manufactured" housing;
- permanent-foundation designs;
- broader multifamily or attached configurations;
- and potentially improved real-estate treatment.

That is why the chassis provision is so effective as the public-facing benefit. It appears to release manufactured housing from an old design limitation.

But that is not the full effect of the legislation.

Chassis-less manufactured homes do not simply become uniformly accepted nationwide on the date the law changes. States must determine whether their existing statutes and regulations recognize the new product, make changes where necessary and certify their treatment of chassis-less homes to HUD. States that do not complete the required certification process may be required to prohibit those homes.

Even the favorable Permit Pushers article acknowledges that implementation will vary by state and that chassis-less homes could be blocked in states that fail to certify.

So the actual sequence is:

Remove the defining structural element of the federal category, then require every state to reconsider how the resulting product fits within its laws.

That is a regulatory reset.

The Reset Creates a New State-by-State Adoption Process

The chassis amendment does not simply expand the existing HUD Code category without disruption. It creates a new chassis-less form of manufactured housing and then requires state-by-state legal and administrative action.

States may need to revisit:

- statutory definitions of manufactured homes;
- titling and real-property conversion laws;
- installation requirements;
- foundation standards;
- zoning classifications;

- local enforcement authority;
- financing and appraisal treatment;
- state-plan documents;
- and recognition of third-party certification and inspection systems.

This turns a nationally uniform category into a new implementation question for every state.

The crucial concern is that once states are forced to reopen their laws, they become vulnerable to adopting the private standards and certification framework already prepared by ICC, NIBS and MOD X.

The reset creates the opening.

The predeveloped framework supplies the solution.

The Documented Starting Point: July 27, 2018

The public chronology begins years before the chassis provision became law.

At the July 27, 2018 meeting of the International Code Council Board of Directors, ICC CEO Dominic Sims reported on:

“The U.S. Department of Housing and Urban Development’s (HUD) new rule to eliminate the HUD-inspector list and rely on ICC-certified inspectors to perform HUD inspections.”

Later in the same meeting, the ICC Board unanimously approved a standards project:

“in cooperation with the National Institute of Building Sciences (NIBS) and the Modular Building Institute (MBI) to explore and develop a portfolio of Standards and Guidance tools to support the off-site construction industry.”

These two developments must be viewed together.

During the same ICC Board meeting:

- HUD’s movement toward reliance on ICC-certified inspectors was reported.
- ICC approved joint development of the off-site standards framework with NIBS and MBI.

This is the documented beginning of the replacement infrastructure: inspection credentials on one side and off-site standards development on the other.

The ICC–NIBS–MBI project later produced ICC/MBI Standards 1200 and 1205, which address the off-site construction process from planning, design and fabrication through permitting, plan review, factory inspection, third-party inspection and regulatory compliance.

The standards and the compliance machinery were therefore under construction years before the permanent-chassis requirement was removed.

ICC Expanded Its Inspection and Certification Capacity

ICC later acquired NTA, which became ICC-NTA.

That acquisition placed an established testing, inspection and certification organization inside ICC’s broader conformity-assessment structure. ICC’s ecosystem already included or came to include:

- ICC model codes;
- ICC standards;

- ICC-ES product evaluation;
- IAS accreditation;
- ICC-NTA testing, inspection and certification;
- training and professional certification;
- plan review and engineering services;
- and conformity-assessment operations.

The broader concern is not that any one of these services is inherently improper. It is that they increasingly sit within the same vertically integrated organizational family.

The organization writing or promoting the rules is also positioned to evaluate products against those rules, accredit participants, inspect compliance and certify market entry.

HUD's Pivotal Research Recommendation

HUD's Offsite Construction Research Roadmap later recommended:

"Investigate the relative merits of the HUD Code versus ICC codes for potential regulation of manufactured housing."

This may be the most important sentence in the entire record.

It is not simply a recommendation to update the HUD Code. It places the federal HUD Code in direct comparison with ICC's privately developed codes as a possible means of regulating manufactured housing.

That creates the bridge between manufactured housing and the ICC-centered off-site framework.

The same HUD-funded roadmap also called for research into obstacles within the ICC Evaluation Service process. It did not similarly identify or examine competing product-evaluation agencies. The research therefore elevated ICC-ES specifically rather than examining the broader competitive marketplace for technical evaluation.

The federal research agenda was not asking only:

How should HUD modernize its own manufactured-housing program?

It was also asking:

Should ICC codes potentially regulate manufactured housing?

That is a fundamentally different question.

The HUD-Funded Research Became a Certification Program

HUD funded the 2023 Research Roadmap through NIBS and MOD X.

HUD then funded a second report, the HUD Action Plan, through the same institutional chain.

MOD X's own congressional biography confirms that the work was sequenced:

- the Research Roadmap identified regulatory-framework reform as the highest-priority need;
- the HUD Action Plan converted that finding into a three-action agenda;
- and the Breakthrough Regional Pilot Projects moved the work into state-level implementation.

NIBS and MOD X then launched a Housing System Certification Program.

Regional implementation work was underway in six states or regions before the ROAD to Housing Act was enacted. The work was not waiting for the chassis provision or for a future national mandate. The methodology was already being tested through state-level pilots.

This is why the chassis disruption cannot be treated as a stand-alone reform.

The system positioned to resolve the new state-by-state uncertainty was already being designed and piloted before the disruption was complete.

The Proposed Three-Step Framework

Dr. Ivan Rupnik's congressional testimony presents a three-step agenda.

Source: Written testimony of Dr. Ivan Rupnik (MOD X Advisory / Northeastern University) before the House Select Committee on Small Business, "Building the Future: How Small Home Builders are Closing America's Housing Gap," May 21, 2026.

Step One: Standardize terminology and federal criteria

MOD X-developed terminology would be aligned across federal agencies and programs, including:

- HUD;
- FHFA;
- USDA;
- VA;
- FEMA;
- and other federal bodies.

This is not merely an exercise in language. Whoever defines the terminology shapes the categories used in grants, underwriting, procurement, disaster assistance, insurance, program eligibility and code administration.

Step Two: Direct NIBS to establish housing-system certification

NIBS would certify an entire company's integrated housing-delivery system rather than reviewing each project independently.

That could include:

- design logic;
- manufacturing methods;
- supply-chain controls;
- quality assurance;
- assembly processes;
- performance characteristics;
- and the company's overall delivery model.

Once the "system" is certified, lenders, insurers, code officials and government agencies could rely on that certification.

Step Three: Move toward performance-based code reform using ICC's work

The final step is broader code reform built expressly on the HUD Code precedent and ICC's existing work.

Taken together, the three steps create a continuous pathway from terminology to certification to building regulation.

The pathway then reaches financing and insurance because those institutions would be encouraged to rely on the same certification.

The Proposed Control Chain

The resulting structure extends across nearly every gate a home must pass through:

- MOD X develops terminology, research findings and federal award criteria.
- NIBS develops and potentially administers housing-system certification.
- ICC supplies the code and standards framework.
- ICC-ES evaluates products and systems for compliance.
- ICC-NTA and related entities provide testing, inspection and certification services.
- IAS provides accreditation functions.
- HUD, FHFA, USDA, VA and FEMA may align program requirements and awards with the certification framework.
- Lenders and insurers may rely on the same certification when making underwriting and coverage decisions.

This is not merely vertical integration by a housing manufacturer.

It is vertical integration of regulation and market access itself.

The same interconnected ecosystem becomes positioned to:

- define the product;
- write the rules;
- evaluate the materials;
- certify the system;
- inspect the construction;
- accredit the participants;
- shape federal program criteria;
- influence financing;
- influence insurance;
- and control entry into public and private housing markets.

Why FEMA and the Other Federal Agencies Matter

The proposed reach into FEMA, HUD, FHFA, USDA and VA is especially important.

A certification program can be described as voluntary while still becoming practically mandatory if:

- federal grants favor certified systems;

- disaster-recovery funding requires them;
- lenders rely on the certification;
- insurers provide better terms only to certified systems;
- state programs incorporate the certification;
- or local officials accept it as the preferred approval pathway.

The result would be a de facto national gatekeeping system without an explicit law declaring that every builder must use it.

A small builder could technically remain outside the certification system but lose access to financing, insurance, grants, public projects, rapid approvals and market recognition.

That is how voluntary private standards can become compulsory in practice.

The NIBS–ICC Institutional Overlap

The NIBS and ICC relationship is not merely a collaboration between unrelated organizations.

The record identifies overlapping or sequential leadership involving Dominic Sims, John “JC” Hudgison, Ryan M. Colker, and other individuals holding positions across ICC and NIBS. The table below, drawn from the companion NIBS federal funding report, sets out the specific roles:

Individual	ICC Role	NIBS Role
Dominic Sims	Former ICC CEO (2012–2024, counting predecessor roles from 2003)	NIBS Board of Directors, 2019–2022; 2025–2028 (term began October 1, 2025)
John “JC” Hudgison	Chief Building Official, City of Tampa; Chair, ICC Emerging Leaders Membership Council	NIBS Board of Directors; founding past chair, NIBS Off-Site Construction Council
Ryan M. Colker	VP, Innovation, ICC; Executive Director, Alliance for National & Community Resilience (ANCR)	Former VP at NIBS (Consultative Council, multiple councils); Chair, NIBS Off-Site Construction Council

Ryan Colker’s November 2023 testimony to the NIBS Consultative Council is a useful example, though it needs to be characterized precisely.

The testimony itself discloses Colker’s ICC affiliation fully and prominently — his title, “Vice President, Innovation, International Code Council,” appears on the cover page under his name, alongside the ICC logo and letterhead. In it, he promotes broader adoption of ICC codes, ICC/MBI 1200 and 1205, and ICC-ES as solutions to regulatory fragmentation in off-site construction. There is nothing concealed about ICC testifying to NIBS; that relationship is the letterhead.

What the testimony does not mention is Colker’s own history on the NIBS side: that he previously served as a NIBS vice president and chaired the NIBS Off-Site Construction Council, the body most directly tied to the subject of his testimony. A reader relying on this document alone would have no way to know that the witness recommending ICC’s standards to NIBS had himself helped lead NIBS’s own work in that same area. That omission — not the ICC affiliation itself — is the fair point for a critical reader to weigh.

It is also worth noting the testimony’s date. It was delivered in November 2023, more than two years before Congress enacted the 21st Century ROAD to Housing Act and its chassis provision. At the time, ICC/MBI 1200 and 1205 explicitly excluded “U.S. HUD-regulated manufactured housing” by name

(footnote 8 of the testimony). That carve-out was accurate for the product category as it existed in 2023 — chassis-based, under the pre-amendment HUD Code definition.

The timing cuts toward the report’s broader sequence argument rather than against it: the standards and advocacy infrastructure were being actively promoted to NIBS years before the chassis provision existed, consistent with the claim that this infrastructure was in place before the disruption occurred. And because the 2023 carve-out was written against the old statutory definition of manufactured housing, whether it still cleanly excludes a newly defined chassis-less manufactured home is an open question the redefinition itself raises — not something this document resolves either way.

The Existing ASTM Pathway Was Omitted

The Rupnik testimony presents Operation Breakthrough and a supposedly dormant NIBS authority as though they are the missing historical foundation for housing-system certification.

But that account omits Project LEAP and ASTM E541.

The actual historical pathway for evaluating compliance-assurance agencies was:

NCSBCS → National Bureau of Standards → Project LEAP → ASTM E541

ASTM E541 remains directly relevant because federal regulations continue to reference it for DAPIA and IPIA personnel qualifications. It is also used across multiple state programs and an interstate compact.

That omission matters because ASTM E541 demonstrates that:

- a functioning consensus-based framework already exists;
- it did not originate with NIBS;
- it provides a competing institutional pathway;
- and ICC/NIBS is not the only possible route to uniformity or reciprocity.

The omission creates the appearance of an empty regulatory field waiting for NIBS to fill.

The field is not empty.

A competing framework has existed for decades.

The Parallel With Tiny Houses and the Small Residential Unit Reset

The same structural strategy is visible in ICC/THIA Standard 1215.

Tiny houses are already a widely recognized category with years of state legislation, local ordinances, advocacy, code development and industry practice behind them.

The new “Small Residential Unit,” or SRU, category expands far beyond tiny houses and places tiny houses beneath a new ICC-created umbrella.

The effect is not simply to add a definition.

It resets the category.

Instead of states continuing to recognize tiny houses through the pathways already developed, they are invited to reopen their laws and adopt a broader SRU framework created through ICC 1215.

The pattern is the same:

Redefine the established product → subordinate it beneath a broader private category → disrupt existing state progress → force a new state-by-state adoption process → offer the private standard as the solution.

With tiny houses, the reset is toward the SRU framework.

With manufactured housing, the reset is toward a broader ICC/NIBS/MOD X off-site construction and housing-system-certification framework.

Both involve category capture.

Why the HUD Code Versus ICC Recommendation Is Pivotal

HUD's recommendation to investigate the HUD Code versus ICC codes for regulating manufactured housing connects all the pieces.

It establishes that:

- HUD was moving toward reliance on ICC-certified inspectors as early as 2018.
- ICC, NIBS and MBI jointly began building an off-site standards framework in 2018.
- ICC later expanded its inspection and certification operations through ICC-NTA.
- HUD-funded research placed the HUD Code in direct comparison with ICC codes.
- The same research specifically elevated ICC-ES.
- NIBS and MOD X developed a broader housing-system-certification program.
- The program moved into state-level pilots.
- Congress then removed the permanent chassis and required state-by-state certification and legal action.
- The organizations that developed the private replacement framework are positioned to resolve the fragmentation caused by the change.

That does not require claiming that every person involved signed one secret master plan.

The significance is that the documented actions move consistently in the same direction.

The Phoenix Sequence

The full sequence can now be stated plainly:

First: Build the inspection pathway

HUD moves toward reliance on ICC-certified inspectors.

Second: Build the standards framework

ICC, NIBS and MBI jointly begin developing off-site construction standards and guidance.

Third: Expand the conformity-assessment system

ICC acquires NTA and consolidates testing, inspection, evaluation, accreditation and certification functions.

Fourth: Use federal research to validate the framework

HUD funds research through NIBS and MOD X that considers ICC codes for potential regulation of manufactured housing and specifically elevates ICC-ES.

Fifth: Build the replacement certification system

NIBS and MOD X establish a Housing System Certification Program based on the HUD-funded research.

Sixth: Move into the states

Regional pilot projects bring the methodology into state-level implementation.

Seventh: Disrupt the existing federal category

Congress makes the permanent chassis optional and creates a new chassis-less manufactured-home category.

Eighth: Force the regulatory reset

Every state must reconsider its laws, definitions and acceptance pathway and certify its treatment to HUD.

Ninth: Offer the prebuilt framework

The ICC/NIBS/MOD X standards, certification, evaluation and inspection structure is positioned as the ready-made solution to the state-by-state fragmentation.

That is the regulatory Phoenix strategy.

Findings

The evidence supports the following conclusions:

1. The chassis amendment is not occurring in isolation

It follows eight years of documented ICC, NIBS, MBI, HUD and MOD X activity in off-site standards, inspection, evaluation and certification.

2. The apparent benefit conceals a structural reset

Chassis removal appears to modernize manufactured housing, but the state-certification requirements reopen the legal framework in every state.

3. The replacement system predates the disruption

The standards, certification model and state pilots were already being developed before Congress changed the manufactured-home definition.

4. HUD expressly considered ICC codes for manufactured housing

The federal research record directly raises ICC codes as a potential means of regulating manufactured housing.

5. The framework reaches beyond construction

It extends into federal awards, disaster assistance, financing, insurance, accreditation, product evaluation and enforcement.

6. The structure favors vertically integrated institutions

Both builders and regulatory organizations that control multiple stages of the process are better positioned to participate.

7. Existing alternatives were minimized or omitted

ASTM E541, Project LEAP, competing evaluation agencies and existing interstate reciprocity systems undermine the claim that only the NIBS/ICC pathway can solve the problem.

8. The same reset model is already visible in tiny housing

The SRU category reopens state progress and places tiny houses beneath a broader ICC-created framework.

Conclusion

At first glance, eliminating the permanent-chassis requirement appears to be a win for manufactured housing.

Viewed against the full record, it is setting the stage for the absorption of manufactured housing under the ICC umbrella.

Manufactured housing's existing identity is rooted in a nationally uniform, federally preemptive HUD Code system. By removing a defining element of that category and requiring every state to reconsider and certify its treatment of chassis-less homes, Congress has initiated a regulatory reset.

That reset is occurring after the private replacement infrastructure was already built:

- ICC-certified inspectors;
- ICC/NIBS/MBI off-site standards;
- ICC-ES evaluation;
- ICC-NTA inspection and certification;
- NIBS/MOD X federal research;
- housing-system certification;
- and state-level implementation pilots.

The process is no longer theoretical.

We are watching the documented roadmap unfold: build the private standards, inspection, evaluation and certification infrastructure first; disrupt the nationally uniform federal category; force every state into a new adoption and certification process; and then position the already-developed ICC-centered framework as the solution.

The public is being shown chassis flexibility.

The deeper structural outcome is a state-by-state reset that creates the pathway for mainstream manufactured housing to be absorbed into the same privately controlled off-site construction ecosystem already being built around ICC, NIBS and MOD X.