

A RESPONSE TO THE RUPNIK TESTIMONY

Housing System Certification, NIBS, and Institutional Relationships Not Addressed in the Testimony

Prepared August 2026

1. The Testimony Under Review

On May 21, 2026, Dr. Ivan Rupnik, PhD, testified before the House Select Committee on Small Business at a hearing titled "Building the Future: How Small Home Builders are Closing America's Housing Gap," chaired by Chairman Williams. His written testimony, titled "The Unfinished Breakthrough," made one central recommendation: that Congress direct the National Institute of Building Sciences (NIBS) to begin developing a national housing system certification framework, which he described as "initiatable without new appropriations or new authority" and requiring only, in his words, "direction to exercise authority that has been on the books for fifty-two years."

The full written testimony is available at [congress.gov](https://www.congress.gov).

2. About the Witness

Dr. Rupnik identifies himself as an architect, researcher, and Founding Partner of MOD X (also referred to in his testimony as "MOD X Advisory"), and as Professor of Architecture at Northeastern University. He describes MOD X as a firm that "has directly supported HUD's offsite construction research since 2022 and advises industry and government on topics related to accelerating industrialized housing delivery in the United States." He also discloses, in his testimony's endnotes, that MOD X currently advises JPI, a large multifamily developer whose internal, non-independently-verified operational data — including a projected 58 percent time-savings figure — supplies much of the testimony's most concrete quantitative evidence for certification's benefits.

3. The Two HUD Publications Cited as Primary Evidence

Rupnik's testimony rests almost entirely on two reports he co-authored, both published by HUD's Office of Policy Development and Research:

Publication	Authors	Date
Offsite Construction for Housing: Research Roadmap	Smith, R.E.; Rupnik, I.; Schmetterer, T.; Barry, K.	2023
HUD's Past, Present, and Future Role in Accelerating U.S. Offsite Construction for Housing: A Comparative Study and Action Plan	Smith, R.E.; Rupnik, I.; Schmetterer, T.	Published March 2026 (dated 2024–2025 in some federal records)

What the testimony does not state is how these two reports were funded. A separate federal-funding record compiled from USASpending.gov shows that both publications were produced under a HUD FY2023 Offsite Construction and Land Use Reform Notice of Funding Opportunity (NOFO) totaling \$2,998,999 across ten recipients. Of that, \$499,878 (Award H-21760CA) went to NIBS, which then subcontracted the work to MOD X — Rupnik's own firm — to author both publications. In other words, the two documents Rupnik cites in this testimony as independent evidentiary support for expanding NIBS's role were themselves produced by his firm, under a HUD grant that passed through NIBS.

Disclosure gap

Rupnik's testimony does not disclose to the Committee that MOD X was paid, via a subcontract from NIBS — which received the HUD award and engaged MOD X to conduct the research — to write the two reports his central recommendation relies on.

Additional overlapping relationship

Ivan Rupnik — Founding Partner, MOD X

Co-leads the NIBS Housing System Certification effort and represents MOD X in the NIBS/MOD X initiative.

Ryan E. Smith — Founding Partner, MOD X

Founding past chair and current board member of the NIBS Offsite Construction Council and a MOD X representative in the NIBS/MOD X Housing System Certification initiative.

The relationship therefore extends beyond the HUD-funded research underlying the testimony. The two Founding Partners of MOD X also hold documented roles within the NIBS offsite-construction and housing-system-certification work that the testimony asks Congress to advance.

HUD's own public announcements confirm this funding timeline directly:

- June 21, 2023 — [HUD Announces Research Grant Opportunity to Study Off-site Construction and Land Use Reforms](#) (HUD Archives, pr23-124)
- February 23, 2024 — [HUD Awards Nearly \\$4 Million to Study Innovative Ways to Boost Housing Supply Including Office-to-Residential Conversion](#) (HUD Archives, pr24-036)

4. Background: Who the Organizations Are, and What Actually Happened

The testimony treats NIBS as the natural, ready-made vehicle for housing system certification, and states flatly that "no housing system certification framework currently exists in the United States." That framing skips over roughly fifty years of documented federal, state, and standards-body work on exactly this problem. The fuller record — reconstructed from NBS's own published conference proceedings and project reports — is laid out below.

The historical record used here is documented across three federal publications that should be read together: NBSIR 75-642 (1975), Project Summaries of the Center for Building Technology, which records Operation Breakthrough, the Coordinated Evaluation System (CES), and Project LEAP while the work was underway; NBS Special Publication 473 (1977), which publishes Otis M. Mader's 1976 NIBS progress report and NIBS's proposed national role in performance criteria, evaluation, prequalification, information, and regulatory acceptance; and NBS Special Publication 552 (1979), which preserves Gene A. Rowland's retrospective account of the 1970 NCSBCS request, Project LEAP's January 1971 launch, transfer of the LEAP reports to ASTM, and ASTM E541's 1975 consensus result.

4.1 Timeline

Date	Event
1967	NCSBCS is formed, giving the states a national forum on building-code and regulatory problems.
1968	Congress authorizes HUD to experiment with new housing technologies — the legal foundation for Operation Breakthrough.
1969–1973	HUD conducts Operation Breakthrough, testing system-level evaluation and certification of industrialized housing producers.

Date	Event
1970	NCSBCS asks NBS to develop a laboratory and agency accreditation program — the request that becomes Project LEAP.
January 1971	NBS initiates Project LEAP to develop criteria for evaluating organizations performing analysis, testing, and compliance assurance.
1971–1975	The Coordinated Evaluation System (CES) develops model documents for state use in evaluating, approving, and inspecting manufactured buildings.
1973–1975	LEAP produces its research reports; NBS and NCSBCS transmit them to ASTM for processing as national consensus standards.
1974	Congress creates NIBS under the Housing and Community Development Act — a separate, nongovernmental institution, authorized independently of LEAP.
1975	ASTM E541 reaches consensus, converting LEAP's research into a national standard for agencies engaged in systems analysis and compliance assurance.
April–June 1976	President Ford nominates Otis M. Mader in April; White House nominees are announced in May; Senate confirmation hearings are held in June.
July 9, 1976	The initial NIBS directors are sworn in.
September 8, 1976	NIBS is chartered as a nonprofit corporation in Washington, D.C.
September 21–22, 1976	Mader delivers NIBS's founding keynote address at the first NBS/NCSBCS Joint Conference, laying out NIBS's proposed national mission without naming Project LEAP or ASTM E541, even though the LEAP standards-development work had already produced ASTM E541, which reached consensus in 1975.
June 1977	NBS publishes that keynote in Special Publication 473.
1978	Gene A. Rowland delivers a retrospective account of NCSBCS, LEAP, CES, and ASTM E541 at the Third Annual NBS/NCSBCS Joint Conference.
March 1979	NBS publishes Building Science Series 75, Building Research at the National Bureau of Standards, documenting the Bureau's broader building-research history.
July 1979	NBS publishes Rowland's conference paper in NBS Special Publication 552, documenting the NCSBCS–LEAP–ASTM consensus-standard pathway.
2019	ASTM E541 is temporarily withdrawn from ASTM's active catalog.
2022	ASTM E541 is reinstated and remains active today.
2023–2026	HUD-supported research and congressional testimony — including Rupnik's — revive the NIBS housing-system certification concept, again without naming Project LEAP or ASTM E541.

4.2 The Organizations

Organization	Role
National Bureau of Standards (NBS), now NIST	Federal technical research agency. Conducted building research, supported Operation Breakthrough, developed Project LEAP with NCSBCS, and published the 1977 and 1979 conference proceedings documenting this history.
National Conference of States on Building Codes and Standards (NCSBCS)	State-centered organization that requested the LEAP accreditation program in 1970 and worked with NBS on LEAP, CES, and model legislation.
Project LEAP (Laboratory Evaluation and Accreditation Program)	NBS program, initiated January 1971, that developed criteria for evaluating organizations carrying out systems analysis, testing, and compliance assurance for manufactured buildings.
ASTM Committee E32 / ASTM E541	Converted the LEAP research into a national consensus standard — reached consensus in 1975 — for agencies engaged in systems analysis and compliance assurance for manufactured buildings. Remains an active ASTM standard today (E541-22) and is cited in 24 C.F.R. § 3282.358 and referenced in at least eleven states.
Operation Breakthrough	HUD demonstration program, 1969–1973, that tested industrialized housing systems and system-level certification concepts.
National Institute of Building Sciences (NIBS)	Nongovernmental institution created by the Housing and Community Development Act of 1974 to coordinate building science, performance criteria, standards, evaluation, and regulatory acceptance. A separate statutory pathway from LEAP/E541 — NIBS did not originate either, and its own founding blueprint did not mention them.

4.3 NIBS's Founding Mission, in Its Own Words

Mader's 1976 keynote was not a narrow progress update — it was an institutional design document, describing eight strategies NIBS would pursue. Among them, in the keynote's own language:

“single authoritative nationally recognized institution to provide for the evaluation of new technology and to facilitate introduction of such innovations and their acceptance at the Federal, State and local levels.”

“Develop a system that permits the formulation, promulgation, and maintenance of nationally recognized building performance criteria and standards...”

“Create a national system for the evaluation and prequalification of existing and new building technologies.”

“NIBS will not write codes but will be a vast technological resource for those who do.”

Nowhere in this keynote — delivered a year after ASTM E541 had already reached national consensus — does Mader name Project LEAP or ASTM E541. Mader also made clear, in his own words, that the institution was far from operational in 1976: NIBS had been chartered as a nonprofit only days before the conference, was still searching for its first full-time president and staff, had not finished its detailed mission statement, had not yet organized its Consultative Council, and was running on a temporary \$140,000 HUD grant while pursuing the \$10 million Congress had authorized as seed money.

This matters directly for the present testimony. Rupnik's 2026 recommendation asks Congress to direct NIBS to “initiate development” of a housing system certification framework under the same 1974

authority Mader described in 1976 — fifty years later, using close to the same institutional language, and describing the same kind of gap. It repeats, rather than corrects, the omission that was already present at NIBS's founding: neither the 1976 blueprint nor the 2026 testimony accounts for the agency-qualification framework (LEAP/ASTM E541) that NBS and NCSBCS had already built and that ASTM had already made a national consensus standard.

5. What the Testimony Leaves Out

5.1 A critical agency-qualification framework already exists — and remains active

The testimony states plainly: "No housing system certification framework currently exists in the United States." That statement is accurate only for the specific, broader form of system-level certification Rupnik is proposing. It is not accurate for the agency-qualification layer beneath it. ASTM E541 — the standard that grew directly out of Project LEAP — remains active today, is cited in the current federal manufactured-housing regulation at 24 C.F.R. § 3282.358, and is documented in the statutes or regulations of at least eleven states, including Virginia (which retains E541-10 alongside the newer ICC/MBI 1200 and 1205 standards) and Utah (which recognizes ASTM E541-22 or ICC certification as alternative qualification paths). The testimony does not mention LEAP, ASTM E541, or this existing infrastructure anywhere.

5.2 The testimony repeats a fifty-year-old omission

Operation Breakthrough included Project LEAP and the standards-development work that produced ASTM E541. The federal record shows that Operation Breakthrough was not limited to the evaluation of housing systems themselves. Within the same federal building-regulatory effort, Project LEAP addressed the qualification of the laboratories and agencies responsible for systems analysis, testing, inspection, and compliance assurance. NBS and NCSBCS then transferred the LEAP research to ASTM, where Committee E32 produced ASTM E541 by consensus in 1975. That history matters directly to Rupnik's 2026 statement that no housing system certification framework currently exists: his testimony does not acknowledge this earlier agency-qualification and compliance-assurance infrastructure or ASTM E541.

5.3 The evidentiary base is client and self-supplied, not independently verified

The testimony's most concrete performance claims — a compression of project timelines from twenty-six to eighteen months, and a projected 58 percent time-savings ceiling under full certification — come from JPI, a company MOD X currently advises. Rupnik's own endnote states plainly: "This figure represents JPI's projection... The estimate has not been independently verified and is presented as company analysis." That caveat is accurate and appears in the testimony's footnotes, but it is not reflected in the confident, unqualified way the 58 percent figure is used in the body of the testimony itself.

5.4 The hearing was about small builders; the central evidence source is not one

The hearing itself is titled "Building the Future: How Small Home Builders are Closing America's Housing Gap." The testimony asserts that "the strongest endorsement of housing system certification in our research has come not from the largest players but from small, vertically integrated companies" — and then, in the very next section, presents its most detailed and heavily quantified evidence from JPI, which Rupnik's own testimony describes in plain terms: "JPI is one of the largest multifamily developers in the United States — and also happens to be owned by Sumitomo Forestry," a large Japanese conglomerate. JPI's R&D spending (at least 6 percent of annual return), its large multifamily project timelines, and its 58 percent savings projection are the testimony's most specific and vivid numbers — and they come from one of the largest developers in the country, not a small builder, in a hearing convened specifically to examine the small-builder experience.

6. Overlapping Leadership Between NIBS and the International Code Council (ICC)

A separate federal-funding compilation documents ongoing leadership overlap between NIBS and ICC, the private trade association whose model codes and evaluation-service subsidiary (ICC-ES) are positioned in the two HUD reports as reference points for offsite-construction regulation:

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

Rupnik’s testimony references the International Code Council’s existing work only once, in passing, as a precedent for performance-based code reform. It does not mention this leadership overlap, or that NIBS — the institution his testimony asks Congress to direct and fund — has documented overlapping board, executive, council, and organizational relationships with ICC.

7. Federal Funding to NIBS

According to prime-award records reported to USASpending.gov, NIBS received a combined \$300,182,572 in federal obligations between FY2008 and FY2026 (partial) — \$281,707,144 through contracts and \$18,475,428 through grants — from fourteen federal agencies. The largest funders were the Department of Defense (\$130,633,988) and the Department of State (\$68,229,788); HUD’s own total contribution over the same period was comparatively small, at \$1,541,579.

HUD’s own Offsite Construction Research Roadmap makes this explicit — not as an outside characterization, but in the roadmap’s own two stated research recommendations, reproduced below: comparing the HUD Code against ICC codes as the live regulatory choice for manufactured housing, and treating friction in ICC’s own evaluation-service process as the thing to be fixed.



That HUD's own funded roadmap frames the question this way is a documented fact from HUD's own publication.

Tiny House Alliance USA, a nonprofit advocacy organization, has written that the publications "route market control of off-site construction to ICC" and that HUD "appears to be entertaining ICC's codes to regulate manufactured homes instead of modernizing its own HUD Code." The underlying fact — that HUD's roadmap explicitly proposes regulating manufactured housing through ICC codes as an alternative to the HUD Code — is documented directly in HUD's own materials.

8. A Documented Precedent: Virginia's ICC/MBI Adoption and the ASTM E541 Omission

A separate, previously documented episode in Virginia shows the same institutional pattern the Committee should weigh when considering Rupnik's request to direct new work toward NIBS. Virginia incorporated two co-branded ICC/Modular Building Institute (MBI) standards — ICC/MBI 1200-2021 and ICC/MBI 1205-2021 — into its Industrialized Building Safety Regulations, effective January 18, 2024. The individuals who developed those standards, adopted them into state regulation, and later administered and promoted them held overlapping roles across ICC, MBI, ICC NTA (ICC's conformity-assessment arm), and the Virginia Department of Housing and Community Development (DHCD) — including one Virginia deputy director who simultaneously served as ICC's president.

Virginia's initial implementation memorandum, issued December 5, 2023, directed Compliance Assurance Agencies to obtain ISO-based accreditation under the new ICC/MBI 1205 standard and did not mention ASTM E541 — even though ASTM E541-10 remained, and remains, a legally sufficient accreditation pathway under Virginia's own regulation, 13VAC5-91-200. After Tiny House Alliance USA raised the omission directly with Virginia's State Building Codes Office Director, Virginia issued a second memorandum on July 1, 2024, confirming that ASTM E541-10 "will also be considered" — restoring, rather than introducing, a pathway that had been part of Virginia's regulations all along. MBI subsequently gave Virginia its inaugural award for "Best State Administrative Program for Off-site Construction," citing Virginia's adoption of the ICC/MBI standards. ASTM E541 remains an active, currently referenced standard in at least eleven states — including Virginia itself, where it sits alongside ICC/MBI 1200 and 1205 rather than having been replaced by them.

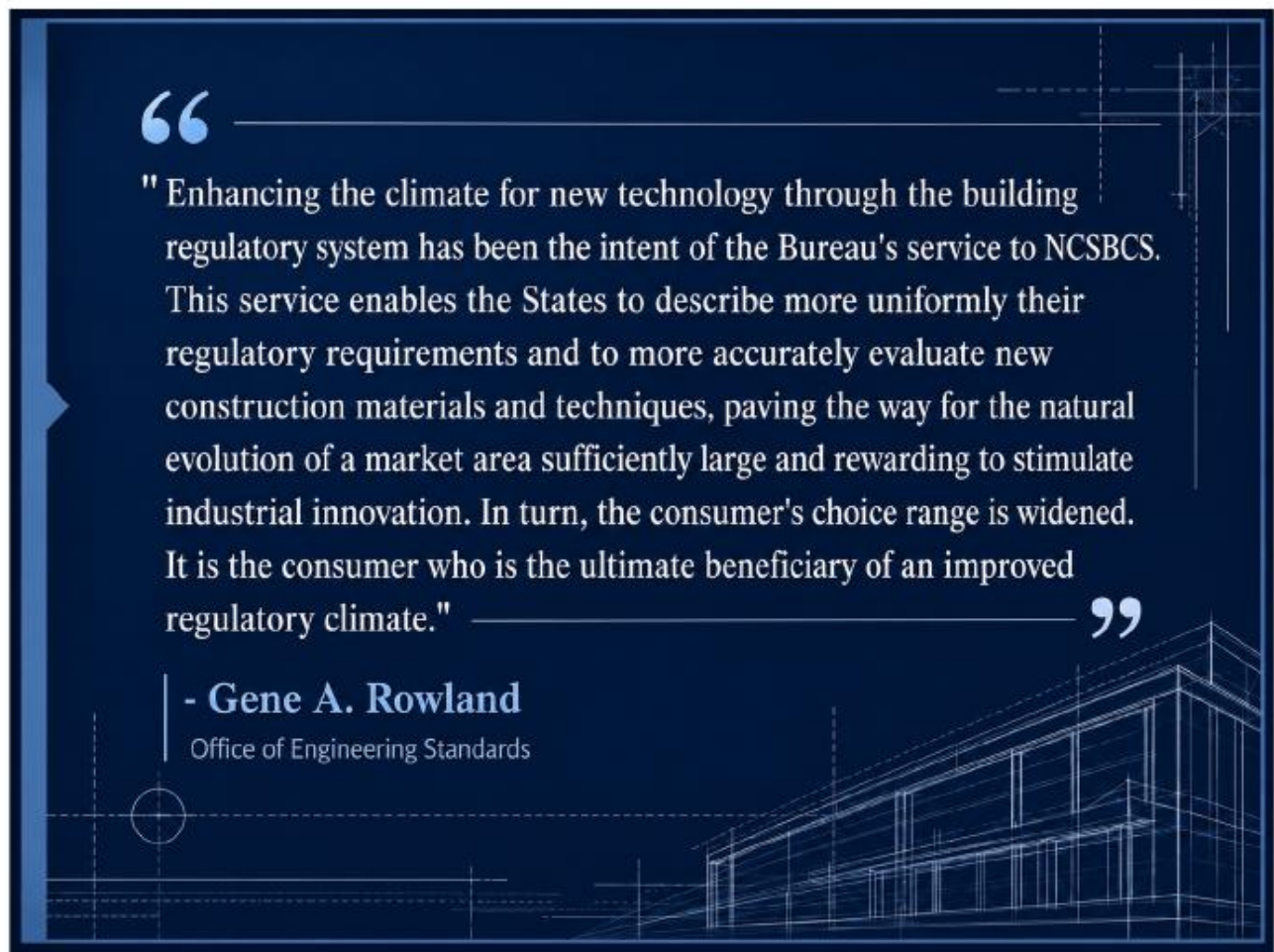
The relevance to this testimony is structural rather than substantive: it is a second, independently documented case in which an ICC-affiliated standard was promoted publicly and administratively while

an existing, already-adopted consensus-standard pathway (ASTM E541) already incorporated into Virginia's own regulations was omitted from official guidance — a pattern the Committee may want to weigh alongside the NIBS/ICC leadership overlap described above.

9. What Is Actually at Stake: Consumer Choice

The common thread running through Sections 6 through 8 — NIBS's overlapping leadership with ICC, the federal funding pattern, and Virginia's ICC/MBI precedent — is a risk the testimony does not address: that concentrating housing certification authority in institutions with this much leadership overlap with a single private trade association narrows, rather than widens, the range of accredited paths open to builders, evaluators, and ultimately consumers. That is precisely the opposite of the stated purpose of the government-built framework this history documents.

The people who actually built the earlier system said so directly. In closing his own account of NBS's work with NCSBCS, Gene A. Rowland — not a private trade association executive, but the NBS official who had overseen this work — described the entire point of the LEAP/CES/E541 framework in these terms:



Rowland's framing is explicit: a coordinated, government-built evaluation and accreditation system was meant to widen the consumer's choice range by letting more evaluated systems and evaluators compete on a common, trusted basis — not to hand that role to a single institution whose leadership overlaps with one private industry association. A certification framework built and administered through the overlapping NIBS/ICC leadership described above risks the opposite outcome: fewer accredited

pathways, fewer competing evaluators, and a narrower, not wider, range of choice for the builders and consumers the Committee is meant to serve.

10. Summary

None of the above establishes that Rupnik's underlying policy argument — that a housing system certification framework could benefit small builders — is wrong. It may well have merit. What the documented record shows is that:

1. The testimony's two primary evidentiary sources were authored by the witness's own firm, under a HUD grant subcontracted through the very institution (NIBS) the testimony asks Congress to direct.
2. The testimony states no housing system certification framework currently exists without acknowledging that ASTM E541 - an active, federally cited agency-qualification standard descended directly from the same 1970s NBS/NCSBCS research the testimony invokes - already occupies a substantial part of the agency-evaluation and compliance-assurance layer.
3. This omission mirrors a gap in NIBS's own founding 1976 blueprint, which also did not mention LEAP or ASTM E541.
4. The testimony's headline performance statistics come from a client of the witness's advisory firm and are, by the witness's own footnote, unverified company projections.
5. In a hearing convened specifically about small home builders, the testimony's most detailed and quantified evidence comes from JPI, which the witness himself describes as "one of the largest multifamily developers in the United States."
6. NIBS and ICC — the two institutions positioned throughout the underlying HUD reports as the implementation path — have documented overlapping board, executive, council, and organizational relationships — including a former ICC CEO who has served on the NIBS board — a set of relationships the testimony does not mention.
7. A separately documented episode in Virginia shows the same pattern on a smaller scale: an ICC-affiliated standard promoted and administered by overlapping personnel, while an existing legally recognized ASTM qualification pathway (ASTM E541) covering the same function was initially omitted from official guidance.
8. The consolidation this testimony proposes runs counter to the stated purpose of the framework it invokes: the officials who built LEAP, CES, and ASTM E541 described the goal as widening consumer choice through multiple competing, commonly-trusted evaluators — not concentrating that role in an institution with substantial leadership overlap with a single private trade association.

These are disclosure and framing gaps, documented from the witness's own testimony and from separately compiled federal funding records. The Committee may reasonably ask the witness to address each of them directly.

Sources

Dr. Ivan Rupnik, [Written Testimony before the House Select Committee on Small Business. "Building the Future: How Small Home Builders are Closing America's Housing Gap"](#) (May 21, 2026).

National Bureau of Standards, Project Summaries of the Center for Building Technology, National Bureau of Standards 1974-75, NBSIR 75-642 (January 1975), including the Operation Breakthrough, Coordinated Evaluation System, and Project LEAP project summaries.

National Bureau of Standards, Research and Innovation in the Building Regulatory Process, NBS Special Publication 473 (June 1977), Otis M. Mader keynote.

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National Institute of Building Sciences, Federal Funding Record, FY2008–FY2026, compiled from USASpending.gov prime award records; Janet Thome, President, Tiny House Alliance USA.

Janet Thome, "How The International Code Council Is Weaponizing Certification" (Tiny House Alliance USA); Virginia DHCD memoranda dated December 5, 2023 and July 1, 2024; ASTM E541 Adoptions by State compilation.

U.S. Department of Housing and Urban Development, "[HUD Announces Research Grant Opportunity to Study Off-site Construction and Land Use Reforms](#)" (June 21, 2023).

U.S. Department of Housing and Urban Development, "[HUD Awards Nearly \\$4 Million to Study Innovative Ways to Boost Housing Supply Including Office-to-Residential Conversion](#)" (February 23, 2024).

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