

May 29, 2025

To: Mayor and Members of City Council
From: Sheryl M.M. Long, City Manager
Subject: **Modular / Manufactured Housing**

202501082

REFERENCE DOCUMENT #202402534

Cincinnati City Council referred the following item for review and report at its session on December 18, 2024:

WE MOVE that the Administration issue a Request for Proposal (RFP) for a modular or manufactured commercial apartment housing development to be piloted on a city-owned surface parking lot in Downtown.

WE FURTHER MOVE that the Administration issue a Request for Proposal (RFP) for a modular or manufactured residential housing development to be piloted on a city-owned lot outside of Downtown.

WE FURTHER MOVE that the Administration provide a report back to Council within 30 days on the feasibility of the RFP's prior to their release, identifying and outlining current suppliers, previous modular/manufactured developments in the region or in peer cities, high-potential site locations, and any other beneficial data to benchmark against.

BACKGROUND

What Is Modular Housing?

Earlier this year, the Department of Community and Economic Development (DCED) visited Volumod, a modular construction company in Indianapolis. DCED staff toured their factory as part of background research for this report. This experience informed the following description of 'modular housing.'

Modular housing construction (referred to interchangeably hereafter as “modular housing” or “modular construction”) uses the same building materials as conventional construction processes and is designed to comply with the applicable construction regulations set by each state. However, unlike conventional construction, where the building is erected on the real estate where it will be located, modular construction is a method in which construction occurs off-site under controlled plant conditions. Once completed, modules are transported to the site, placed on a permanent foundation, and connected to other modules to create a finished residential unit.

In the Volumod factory, a modular housing unit (“module”) moves around the facility as it is completed, similar to a traditional factory assembly line. The process begins with setting the floor for the module, before moving to framing, windows, electric, plumbing (if needed), and then finishing, such as drywall, trim, flooring, fixtures, and paint. Once the modules are complete, they are wrapped in a weather protectant and primed for transportation to the site. Once at the site, they are set and anchored to a previously installed foundation. Finally, the electric, plumbing, and any other additional hookups that may be necessary are installed on-site.

How Is Modular Housing Regulated In The State Of Ohio?

The Ohio Board of Building Standards ("OBBS") regulates modular housing; they classify modular construction as an "industrialized unit," and thus, regulate the state's industry through their Industrialized Unit program. An industrialized unit is defined as: a unit of closed construction manufactured or assembled off-site from the location of its first use.

The following is the extent of what we have gathered on the process of industrial unit regulation in Ohio.

The use of an industrialized unit in constructing a building requires two approvals to ensure compliance with applicable building codes:

- 1) Modular housing suppliers must seek approval from OBBS to confirm the module being constructed in a factory or assembly complies with the Ohio Building Code ("code" hereafter). Suppliers must provide purchasers of the modules with compliance documentation from OBBS. This is because the construction in question is “closed” and not constructed on-site in the jurisdiction the module will be installed in, so the local jurisdiction that usually has the authority to administer and confirm code compliance cannot verify a singular module has been constructed in such a way as would occur in the normal building construction process. Without confirmation that a module for purchase has been authorized as code-compliant by OBBS, purchasers would be at risk of installing a module that does not meet critical legal standards.

2) There are issues of code outside singular module compliance that the local jurisdiction does oversee, which is where the second approval comes in. This happens once modules have been brought on-site, where the industrialized unit will be installed, and the compliance arm of the local jurisdiction (in Cincinnati, this would be the City's Department of Buildings & Inspections) must approve all on-site work necessary to complete the installation of the industrialized unit(s), such as utility installation, foundation installation, and other similar permits. This culminates in an eventual, formalized certificate of occupancy/completion from the local jurisdiction, which allows the owner to use the building for its proposed use.

What Would Be The City's Role In Permitting/Compliance Of Modular Housing Construction?

As explained above, since the modules are constructed in the factory, they are regulated by OBBS. However, once the modules are transported and placed at the site, the work required to finish the project is subject to review and approval from the City's Building & Inspections Department, as is all construction in the City of Cincinnati.

Much of the permitting process for modular homes would be similar to on-site constructed homes. The contractor responsible for finishing the unit would be required to pull the appropriate electrical, plumbing, and mechanical permits needed to finish setting the unit, and must have valid contractor registrations and licenses. Furthermore, modular homes must meet the existing local zoning code.

Just as developers of on-site constructed homes do, modular housing developers could utilize the Coordinated Site Review ("CSR") process to gain various feedback from all the City's departments. The CSR process is designed to help developers identify any regulatory conditions that may affect their project. The goal of CSR is to give developers written feedback from all departments involved in the site plan approval process.

OUTREACH TO MODULAR HOUSING PROVIDERS

Overview Of Administration's Outreach Efforts

In February 2025, DCED released a Request for Information ("RFI") through the Purchasing Division of the City's Office of Procurement with the primary objective of obtaining information to help the City assess key factors that would help determine a potential future Request For Proposals ("RFP") for modular housing development on City-owned property. The city sought input on two main categories: 1) availability of builders/developers of modular housing, and 2) availability of suppliers of modular housing who will supply to the Cincinnati market area.

Examination Of Responses

The RFI closed on February 21, 2025, with five responses received. Two came from modular housing suppliers with proven experience, while the other three submissions did not clearly demonstrate relevant experience in modular housing. A synopsis of the responses from those two firms with proven experience are as follows:



MMY US is a modular construction supplier based in Louisville, KY. As a leader in offsite modular construction, MMY US specializes in high-quality, affordable, and sustainable modular housing solutions that they believe can effectively address Cincinnati's urgent housing needs.



Mod Fab Inc. is an offsite modular fabrication firm based out of Ohio specializing in "cargotecture," which refers to converting shipping containers into sustainable, high-quality, and cost-effective residential and commercial structures. They offer a range of modular housing solutions designed to meet both residential and commercial needs, including single-family units, multi-family dwellings, and mixed-use structures.

Ultimately, further due diligence is required to determine whether any organization currently exists that could bring sufficient private capital for a competitive RFP proposal for the purpose of building modular housing.

Key Takeaways on Availability of Modular Housing Suppliers

Out of the responses to the RFI, both MMY US and Mod Fab Inc. emerged as the only two with the experience to feasibly build modular housing in the Cincinnati area. Determining their capacity for large-scale projects would require further due diligence. While the other RFI responses were informative, they were identified as hobbyists, interested in modular housing rather than modular suppliers or developers bringing investment in private capital or labor capacity.

In addition to the RFI, DCED identified seventeen different modular construction suppliers around the United States and reached out to all of them. Through additional outreach and research, DCED identified a total of seven entities that could potentially supply the Cincinnati area, including MMY US, listed below:

- Volumod modular construction – *Indianapolis, IN*
- RISE modular – *Minneapolis, MN*
- Kinexx modular – *Chicago, IL*
- MMY US – *Louisville, KY*
- Unibilt modular – *Vandalia, OH*
- Heckaman Homes – *Nappanee, IN*
- Clayton Homes – *Various Locations*

DCED was able to connect with all these seven suppliers. From speaking with these firms, staff learned that the general radius for delivery of modular units is 300 to 500 miles. DCED identified an additional four modular construction suppliers within this general radius from Cincinnati that staff were not able to connect with:

- Connect Housing Blocks – *Columbus, OH*
- Impresa Modular Pro – *Martinsburg, WV*
- Champion Homes – *Various Locations*
- Signature Building Systems – *Moosic, PA*

In discussing with each supplier, it was unclear which suppliers had gone through the approval process with OBBS if the supplier was not located in the State of Ohio. Provided that the modules supplied *were* OBBS-authorized, DCED believes there is significant potential for some of these modular housing suppliers to service the Cincinnati area.

Key Takeaways on Availability of Modular Housing Developers/Builders

Through the RFI, DCED received three responses from potential modular housing developers/builders. While it was unclear from the responses if these groups would bring private capital for modular housing development and what projects they presently have under construction, they expressed sites of interest as those with access to utilities, proximity to transit, minimal grading requirements and community amenities. The preferred site size varied from 2,400 sf all the way up to one acre.

DCED met with two developers, Innovalab, a modular housing developer, and Aevolve Green Solutions, a modular housing supplier/developer, to further expand our knowledge on the industry. Currently, Innovalab is in the process of a modular duplex project on Hackberry St in Evanston. Evolve Green Solutions is interested in supplying and developing within the city, and they currently have manufacturing facilities in the Southeast.

The availability pool for experienced developers and builders of modular housing is not as large as the pool of modular construction suppliers. While some respondents

expressed interest in investing in modular housing within Cincinnati, their responses fell short of providing financing details.

SUMMARY OF FINDINGS

Modular housing is an alternative construction method that can be used to meet local housing demand. Multiple suppliers are willing to service the Cincinnati area to fulfill the need for more infill housing, along with a handful of experienced modular developers. However, there are very few modular single-family housing developments that have been completed or are in process; this reflects the limited pool of developers who have chosen modular housing over traditional on-site construction for their local investments.

At this time, DCED is not recommending any changes to existing incentive processes, as modular housing developers are already eligible to participate in programs such as tax abatements and financial assistance for gap funding. As the administration moves forward with issuing an RFP for modular housing, we will require respondents to submit financially viable proposals that incorporate existing city incentives, along with private equity and other reasonable funding sources, to bring new housing units online.

RECOMMENDATION

This report is for information only. No action by the City Council is recommended at this time.

cc: Markiea L. Carter, Director, Department of Community & Economic Development