



Great Lakes Energy Manufactured Home Replacement Research

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INTRODUCTION

Manufactured homes (MH) are a source of affordable housing in Michigan – 193,212 residents live in MH equating to 4.8 percent of Michigan housing (Table 1). This is higher than most Midwest states but lower than the National average (5.20%), according to U.S. census data. HUD code manufactured homes, which may be single- or multi-section, are built in a factory, transported on a permanent steel chassis, and built to meet U.S. Department of Housing and Urban Development (HUD Code).¹ Federal regulation of the manufactured home industry started in 1976 with introduction of the HUD code, which provided construction standards related to durability, transportability, fire resistance, and energy efficiency. A major update was made to the code in 1994. But the HUD code has not kept pace with progressive tightening of local energy codes that govern site-built housing. In 2022 the HUD code was updated to make some improvements for multi-section homes but not for single section homes. Older manufactured homes can be difficult to weatherize, and in some situations, it may be more economical and better for the residents’ health, to replace the home rather than try to repair it.

Great Lakes Energy (GLE) is interested in exploring a manufactured home replacement program. This report shares the results from a literature review, as well as interviews with various manufactured home and housing stakeholders. It will explore the opportunities and challenges for GLE to consider with the implementation of a manufactured home replacement program.

Table 1. Number of Manufactured Homes in the Midwest by units using U.S. Census data²

State	Units	Percent of Total
Michigan	193,212	4.80%
Ohio	151,757	3.10%
Missouri	116,136	4.70%
Illinois	104,275	2.10%
Indiana	102,698	3.80%
Wisconsin	61,671	2.50%
Minnesota	57,628	2.50%
Kansas	38,716	3.30%
Iowa	36,557	2.80%
South Dakota	24,672	6.90%
North Dakota	19,906	6.20%
Nebraska	19,808	2.50%
United States	6,628,556	5.20%

¹ https://www.hud.gov/program_offices/housing/rmra/mhs/faqs
² <https://data.census.gov>



BACKGROUND

GLE has a long history providing energy efficiency solutions for its members. These services have been available to residential members regardless of the type of home for many years. GLE offered a direct install with duct sealing program to MH residents from 2016 to 2021. The direct install program offered a tier of services including traditional direct install measures (light bulbs, faucet aerators, etc.), and deeper energy saving measures such as duct sealing and belly repair. Healthy and safety measures were also included such as fire extinguishers and carbon monoxide detectors. For some homes, we were able to coordinate with the GLE income qualified services program to also offer refrigerator replacement. Program participants in 2018-2021 rated the program an average 9.75 out of 10, demonstrating participants had a positive program experience. GLE's MH direct install program served 403 homes across 21 counties in GLE territory (Figure 1 and

Table 2). According to Department of Homeland Security – Homeland Infrastructure Foundation-Level Data, there are roughly 1,000 MH communities in Michigan (Figure 1).

While the program was being implemented, GLE participated in a geotargeting pilot to learn more about the MH stock in its service territory, which helped target program implementation efforts. Additionally, GLE conducts a member survey to understand who current programs offerings are reaching and opportunities to further serve members. Information from this survey could be used to inform a future program offering.

Figure 1. Manufactured home communities and program participants in Great Lakes Energy territory.

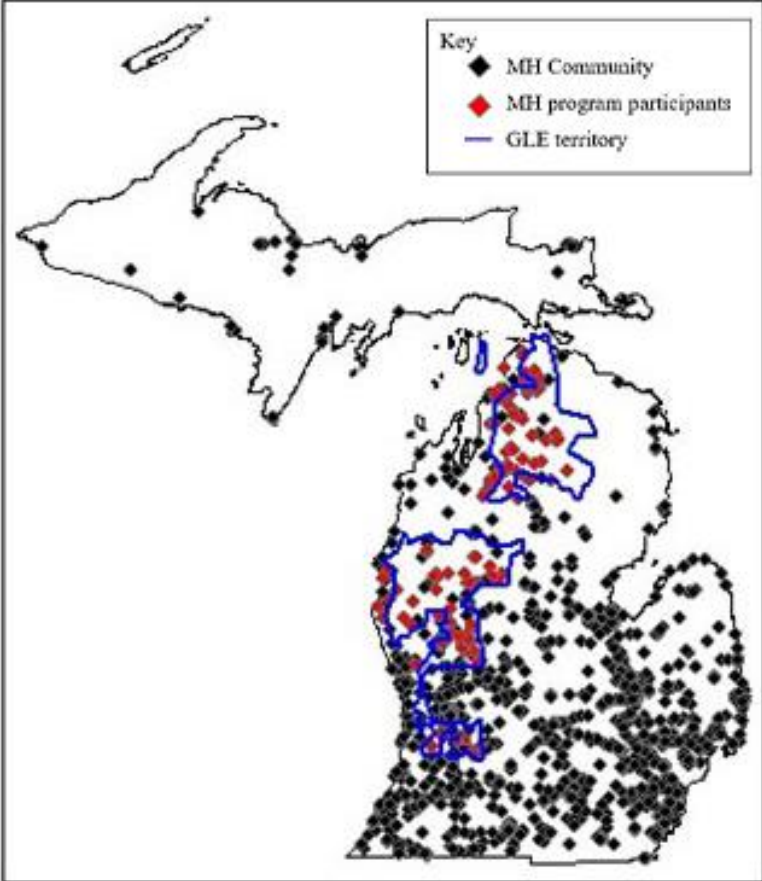


Table 2. Number of GLE Manufactured Home program participants 2016-2021 by county.

County	Number of Program Participants
Newaygo	113
Emmet	51
Montcalm	44
Osceola	38
Oceana	31
Kalkaska	24
Charlevoix	21
Allegan	19
Lake	13
Antrim	12
Crawford	9
Otsego	8
Barry	5
Mecosta	4
Kent	3
Mason	3
Muskegon	2
Kalamazoo	1
Ottawa	1
Roscommon	1
Cheboygan	0
Total	403

Manufactured housing in GLE service territory and throughout the entire state are still an affordable housing solution. Many manufactured homes are in need of energy efficiency, health and safety related improvements, and general repairs. The MH direct install program ended December 31, 2021, due to changes in the regulatory energy efficiency requirements for municipalities and coops in Michigan beginning January 1, 2022.

To further understand the remaining potential for serving MH residents, GLE commissioned this study to understand the opportunities and challenges they would encounter when planning a MH replacement program.

MANUFACTURED HOME REPLACEMENT PROGRAMS

A 2013 United States Government Accounting Office Report on Manufactured Homes reviewed MH replacement pilot programs in three states: Maine, Montana, and Washington. These pilot programs replaced 81 homes over two years and had different requirements for land

ownership, types of financing, and the replacement homes.³ These pilot programs offer different program design options but demonstrate that a pilot can provide occupants with safer, healthier, more efficient manufactured homes. However, energy savings for the pilot replacement programs “did not fully offset the costs of replacing older manufactured homes over a typical loan period.”⁴

Slipstream researched five manufactured housing replacement programs (on-going and past pilots), across five different states. We conducted in depth interviews with program managers from three of the programs: Energy Trust of Oregon, City of Mankato (MN), and Maine State Housing Authority. Through this research we sought to understand current program approaches, determine program best practices, as well as understand the resources and partnerships needed for such a program.

The following section of the report highlights manufactured home replacement pilots and programs found through our research. Figure 2 shows a summary of the programs we found and/or interviewed.

Figure 2. Comparison of Manufactured Home Replacement Programs

	Energy Trust of Oregon*	City of Mankato*	Maine*	Montana	Washington
Target Home for Replacement	Pre-1995	1970s	Pre-1976	Unclear	Unclear
Replacement home type	New	Used	New ENERGY STAR	New and used	New ENERGY STAR
Funding	State, utility	State	State	State and federal	Federal
Financing	Loan, utility incentives	Loan and grant	Loan and grant	Loan	Loan

*denotes the pilots or programs that are currently on-going

ENERGY TRUST OF OREGON

The Energy Trust of Oregon (ETO) has been involved with manufactured home replacement efforts since 2017. This program replaces homes built prior to 1995 with new manufactured homes. ETO is a mission-based organization that collaborates with utilities, nonprofits, and government agencies to deliver clean energy benefits in Oregon.⁵ Before the pilot, they spent at

³ U.S. Government Accountability Office Report to Congressional Requesters. Manufactured Homes: State-Based Replacement Program May Provide Benefits, but Energy Savings Do Not Fully Offset Costs. March 2013. <https://www.gao.gov/assets/gao-13-373.pdf>

⁴ Ibid.

⁵ <https://www.energytrust.org/about/>

least two years doing outreach and creating partnerships with housing, energy, and community development organizations to deliver the pilot. The pilot served about 50 homes over 3 years in 2017-2020 and had a goal to better understand the energy impact, quality of life improvements, project costs, barriers to participation, and key elements of a successful program design.⁶

The pilot shifted to a program in 2021. It has replaced 8 homes and currently has a pipeline of about 30 homes. Home replacements can take one to three years to complete because it is a major life decision for residents and requires a lot of funding coordination to make a home replacement happen. The program now has a program navigator work with customers to confirm program eligibility, consider project costs and funding available, secure grant funding, connect with a lender, plan project including costs of new home, removing old home, transportation, etc., securing financing, and moving into the new home.⁷

The latest program specifications estimate the total project costs per home including home demolition, site preparation, new home, transportation, and home setup work are \$87,112 for a single wide and \$123,973 for a double wide. ETO's MH replacement program pulls together resources and funding from various sources and partners to support the home replacements.

- Oregon Housing Community Services (OHCS) can offer between \$30,000 and \$80,000 to support the project. Funding varies based on the project's cost.
- Energy Trust of Oregon utility incentives: \$10,000-\$16,000
- Craft3⁸, a nonprofit lender, created its own lending product to support a low interest loan of up to \$50,000. Note: Participants do not have to work with Craft3 as their financial lender and can work with a lender of their choice.
- Local nonprofit: support residents with financial literacy and support creating individual development accounts to help residents start saving for a home in the future.

Current program eligibility requirements are the current home must be constructed prior to 1995, primary heating source must be electric or gas and provided by a participating utility, and the home must be in a community with affordability guidelines or household income meets program guidelines. The program promotes the benefits of replacing older manufactured homes, especially those built before 1995, as the new homes provide better year-round comfort, lower monthly energy costs, and healthier indoor air because the new home has more efficient windows and better insulation and heating.

ETO's manufactured home replacement program has also supported income-qualified MH owners who lost their home to a wildfire receive a new energy-efficient manufactured home. As climate change continues to make an impact on weather patterns, it is anticipated that the need for additional affordable housing solutions such as this one, will increase.

⁶ <https://www.aceee.org/sites/default/files/pdf/conferences/eeff/2018/2A-Wyman.pdf>

⁷ https://energytrust.org/wp-content/uploads/2017/08/ManufacturedHome_FS_2017.pdf

⁸ <https://www.craft3.org/>

CITY OF MANKATO, MINNESOTA MOBILE HOME REPLACEMENT PILOT

The City of Mankato Mobile Home Replacement Pilot targeted removing homes built in the 1970s out of manufactured home parks and replacing them with slightly used MH. The replacement homes were in better condition than residents' current homes and it was more cost effective than repairing the existing home. The program would buy an available unit in a MH park, rehabilitate that home, support a family living in the park in an older MH to move into the newly refurbished home, and then remove and destroy the old home. The model worked well with motivated park managers looking to improve housing stock in their park. They were able to improve four or five homes in the first round of this pilot and three in the second round. In the second round, two other participants chose not to participate because they had a difficult time leaving their current home. Working to manage homeowner expectations was a key element of the pilot.

Several partners worked together in this pilot to provide support and funding. This effort cost approximately \$37,500 total per home, with \$15,000 of it going towards home setup.

- Mankato Department of Public Safety referred households to the program through identifying potential candidates when they were asked to address code compliance issues in the community.
- Minnesota Valley Action Council (MNVAC) staff qualified residents and completed home inspections. To qualify for replacement, the home repairs needed to cost more than \$27,000.
- City of Mankato provided Community Development Block Grant (CDBG) funds to support the effort.
- Minnesota Housing Impact Fund grant targeted lowest incomes in the application pool.
- Manufactured home parks paid for home removal and destruction with a commitment of up to \$10,000.

Minnesota Housing made MH replacement part of their Rehabilitation Loan Program. The Rehabilitation Loan Program offers loans to low-income Minnesota homeowners that support the improvement of the safety, habitability, livability, or energy efficiency of the home or replacement of a MH.⁹ According to the program procedural manual, the loan can be used to support the demolition and removal of the existing MH, transportation and installation of a replacement MH, and utility connections for the replacement home. Through this program the loan needs to be attached to the existing home address, requiring the MH replacement to happen at the same address – a change from the pilot design. Requiring the work to happen at the same address to qualify for the loan, makes the approach less resident friendly and is expected to significantly reduce MH program participation. Residents would need to find other housing while their current home is demolished, and the replacement home is being setup. In

⁹ https://www.mnhousing.gov/get/mhfa_011746

addition, this approach requires a low-income family to be able to finance the home with the loan forgiven if the borrower stayed in the home for ten years, a long-term commitment.

MAINE STATE HOUSING AUTHORITY

The Maine State Housing Authority (MaineHousing) was created by the Maine State Legislature as an independent authority to address unsafe, unsuitable, overcrowded, and unaffordable housing.¹⁰ MaineHousing's Pre-1976 Mobile Home Replacement Initiative for income-eligible Maine residents required the replacement home built prior to 1976, was unsuitable for weatherization, and on land owned by the "beneficiary." The initiative was inspired by state legislators because some townships were declaring properties uninhabitable and demanding evictions and Maine Housing wanted to support people in this situation.

Maine conducted a replacement pilot from November 2008 through August 2010, which replaced 35 older manufactured homes with new ENERGY STAR manufactured homes.¹¹ The program was funded with approximately \$2 million in Housing Opportunities for Maine state funds and \$148,000 in mortgage financing from MaineHousing's Home Mortgage Program. The program's intent was for participants to secure a 30-year first mortgage. Only nine participants could afford it, the other 26 participants' home replacement was funded using a Maine HOME deferred mortgage.¹² Pilot participants were selected with input from community action agencies and from Low Income Home Energy Assistance Program (LIHEAP) rolls.

The current Mobile Home Replacement Initiative provides a combination of a MaineHousing mortgage loan and a \$35,000 MaineHousing grant and has provided 65 loans since 2018, approximately 15 per year. This program relies on lenders and dealers to bring participants to the program. The current initiative requires participants to own and occupy a pre-1976 home (pre HUD code), have an annual household income meeting program income limits, be eligible to receive a MaineHousing first-lien mortgage loan which has a 10-year occupancy requirement, and the acquisition cost limit is \$200,000.¹³ Participants are required to escrow taxes and have insurance included in the monthly payment. Replacement homes must be: 1) ENERGY STAR certified manufactured home permanently connected to water, sewer, electric, and other utilities; 2) anchored to a permanent foundation; and 3) located on the site of the removed mobile home and on owned land, private leased land or in a park.¹⁴ Participants do not need to

¹⁰ <https://www.mainehousing.org/about/strategic-plan>

¹¹ United States Government Accountability Office. Manufactured Homes State-Based Replacement Programs May Provide Benefits, but Energy Savings Do Not Fully Offset Costs. March 2013. <https://www.gao.gov/assets/gao-13-373.pdf>

¹² Ibid.

¹³ MaineHousing – Maine State Housing Authority. Mobile Home Replacement Initiative – SUMMARY. <https://www.mainehousing.org/docs/default-source/homeownership/mobile-home-replacement/mobile-home-replacement-program-summary.pdf>

¹⁴ Ibid.

own the land under the home to qualify for this program, but they need to be able to meet mortgage loan terms and have a valid first lien mortgage position.

MONTANA

Montana replaced 19 manufactured homes from December 2008 to September 2010. The pilot was funded with a combination of state (Montana Board of Housing first-time homebuyer assistance) and federal grant (U.S. HUD's HOME Investment Partnerships Program) funds.¹⁵ Participants were selected based on the condition of their home, household income, and the presence of vulnerable occupants. Montana did not require replacement homes be ENERGY STAR rated and about half of the homes were replaced with previously owned manufactured homes.

WASHINGTON

The Washington Department of Commerce's replacement pilot from July 2008 to March 2009 was funded by a two-million-dollar grant from HUD's HOME Program and replaced 27 manufactured homes with new, ENERGY STAR manufactured homes.¹⁶ Participants received a deferred, forgivable 15-year loan requiring no down payment or monthly payments on the loan. Participants were identified with input from community action agencies focused on occupants who are vulnerable and homes needing weatherization services but were deemed beyond repair.

FUNDING SOURCES

We researched three different federal and Michigan state funding sources that could be used to fund a manufactured home replacement program. We interviewed the Michigan State Housing Development Authority to understand the funding available.

MICHIGAN STATE HOUSING DEVELOPMENT AUTHORITY

According to their website, the Michigan State Housing Development Authority (MSHDA) provides financial and technical assistance through public and private partnerships to create and preserve safe and decent affordable housing, engage in community economic development activities, develop vibrant cities, towns, and villages, and to address housing insecurity issues. None of MSHDA's housing programs are specifically targeted to serve manufactured home

¹⁵ United States Government Accountability Office. Manufactured Homes State-Based Replacement Programs May Provide Benefits, but Energy Savings Do Not Fully Offset Costs. March 2013. <https://www.gao.gov/assets/gao-13-373.pdf>

¹⁶ United States Government Accountability Office. Manufactured Homes State-Based Replacement Programs May Provide Benefits, but Energy Savings Do Not Fully Offset Costs. March 2013. <https://www.gao.gov/assets/gao-13-373.pdf>

residents. However, they receive a significant number of inquiries from residents in MH each year and believe there is a large demand for a MH replacement offering in Michigan.

We learned about several housing programs that are relevant to establishing a MH replacement program in GLE service territory:

The **MI Home Loan** program is available to first-time homebuyers across Michigan and repeat homebuyers in targeted areas and includes guidance of a minimum credit score of 660 for multi-section manufactured homes.¹⁷ This program could potentially help support a MH replacement effort.

The **MSHDA Mod** program provides financing for modular homes¹⁸ – built in a factory to local/state codes rather than HUD code. The homes are designed to fit into their neighborhoods with basements, garages, etc. and typically meet a workforce housing need in a community. They are working with 16 grantees that support this program and have supported the sale of 12 homes to date.

The **Michigan Housing Opportunities Promoting Energy Efficiency Program (MI-HOPE)** recently launched and is an extension of the Neighborhood Enhancement Program with federal funding from the U.S. Department of the Treasury American Rescue Plan (ARP) Coronavirus State and Local Fiscal Recovery Funds¹⁹. These funds will support home rehabilitation efforts and is prioritizing older homes, but manufactured homes are not eligible to participate in this program and are not expected to be eligible in the future.

U.S. DEPARTMENT OF AGRICULTURE RURAL ENERGY SAVINGS PROGRAM

The U.S. Department of Agriculture’s Rural Energy Savings Program (RESP) “provides loans to entities who provide energy efficiency services in rural areas that agree to make affordable loans to help consumers implement cost-effective, energy efficiency measures.²⁰” Since fiscal year 2017, RESP has provided loans to 28 entities across the U.S. most of them electric utility associations or coops.²¹

Utility services providers, like Great Lakes Energy, providing retail electric service in rural areas are eligible to apply for this funding. Borrowers are eligible to apply for a loan of up to 20 years at a zero percent interest rate with up to four percent of the loan total to be used for

¹⁷ <https://www.michigan.gov/mshda/homeownership/homebuyers/mi-home-loan>

¹⁸ <https://www.michigan.gov/mshda/neighborhoods/mshda-mod>

¹⁹ <https://www.michigan.gov/mshda/neighborhoods/mi-housing-opportunities-promoting-energy-efficiency-program-mi-hope>

²⁰ https://www.rd.usda.gov/sites/default/files/fact-sheet/508_RD_FS_RUS_RuralEnergySavings.pdf

²¹ https://www.rd.usda.gov/sites/default/files/UEP_RESP_Report.pdf

startup costs.²² In addition, borrowers can charge interest rates of up to five percent to relend to qualified consumers.

U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT HOME INVESTMENT PARTNERSHIPS PROGRAM

The federal U.S. Department of Housing and Urban Development Home Investment Partnerships Program (HOME) provides grants to states and localities to fund building, buying, and rehabilitating affordable housing.²³ The Montana and Washington programs mentioned previously in the report used these funds to support manufactured home replacement.

OUTREACH

The project team reached out to three MH retailers and four community organizations to gauge their interest in a MH replacement program and how they might be able support such a program. We also talked with University of Michigan Assistant Professor of Urban Planning, Noah Durst, who has researched manufactured home communities. We were able to interview two MH retailers and two community organizations, which are summarized below.

MICHIGAN MANUFACTURED HOME RETAILERS

Manufactured home buyers purchase homes from retailers, who may be independent or affiliated with a home manufacturing company. Retailers show buyers display homes from one or various home manufacturers and work with the buyer to order the home, often with customizations. Buyers purchase homes from the retailers and then the retailer purchases the home from the manufacturer.²⁴ Retailers typically arrange for home installation, transportation and delivery, set-up and either complete the HVAC installation themselves or hire an HVAC contractor. Retailer sales staff play a critical role in guiding buyers in their decision-making. Sales staff understand the floor plans and upgrades available for all the homes they sell and support buyers in making tradeoff decisions within the buyers' budget.

Manufactured home retailers would be an important partner to engage for an MH replacement offering because they would support the home buyers in choosing a home and could support the transportation, setup, etc. We talked with two MH retailers: Preferred Homes in Grand Rapids and Little Valley Homes in Cadillac. Most of the new MH shipped to Michigan are built

²² <https://www.rd.usda.gov/programs-services/electric-programs/rural-energy-savings-program>

²³ https://www.hud.gov/program_offices/comm_planning/home

²⁴ Levy, Emanuel, and Jordan Dentz. 2018. "Factory Building Housing Heating and Cooling Distribution Systems Research." Manufactured Housing Research Alliance. www.research-alliance.org/pages/heat_cool_research.pdf.

in Indiana. The retailers sell both HUD code manufactured homes and modular homes. The retailers sell a couple all-electric homes each year – cost is the biggest barrier and people wanting to cook on a gas stove is the second biggest barrier. One of the retailers works with an HVAC contractor who has installed heat pumps on new MH. One of the retailers has worked with Family Promise, an organization who buys used MH, rehabilitates the homes, and supports low-income families in obtaining home ownership through additional support.

MICHIGAN COMMUNITY GROUPS

Community organizations could support a MH replacement program in several ways from supporting first time homebuyers to navigate the process, owning MH parks, offering wrap around services during home transitions, delivering home rehabilitation services, sharing participant referrals, etc. We talked with two community-based organizations to understand their perspective on a MH replacement offering.

TrueNorth Community Services offers programs, mentorship, and services to encourage self-sufficiency through assistance efforts related to hunger and housing insecurity.²⁵ They started providing energy assistance in eleven counties and now serve the entire state of Michigan. They currently do not advertise their home rehabilitation and healthy homes program, as it already has a waitlist. Some of their programs (Consumer’s Energy and DTE) can serve manufactured homes and the MI-HOPE program they support can only serve MH permanently affixed to the foundation. The program provides home repairs however, the cost of the repairs cannot exceed the current value of the home. TrueNorth can identify homes that would be good candidates for a MH replacement program and would be willing to provide referrals to a replacement program. They know of a lot of homes who would benefit from this type of service were built before 1976, when the HUD code went into effect. TrueNorth also offers a limited first-time homebuyer program in one or two counties serving a couple residents a year.

Family Promise of Grand Rapids is an organization dedicated to helping families without housing by providing emergency shelter and by providing services to assist families to find and stay in housing. They purchase and restore manufactured homes and support families with children for a year to help them become homeowners. Family Promise of Grand Rapids has purchased and rehabilitated over 200 homes in 35 parks, including 28 homes in 2022. They have goal to purchase and rehabilitate 40 homes in 2023. Figure 3 shows 17 of the 35 parks where they have worked. Family Promise replaces windows, flooring, roofs, skirting, water heaters, furnaces, and improve insulation, electrical and plumbing as well. It currently costs them \$28,000 to purchase and rehab a home, takes 4-6 weeks to remodel, and takes about nine months for a family to shift from homelessness to homeownership.²⁶

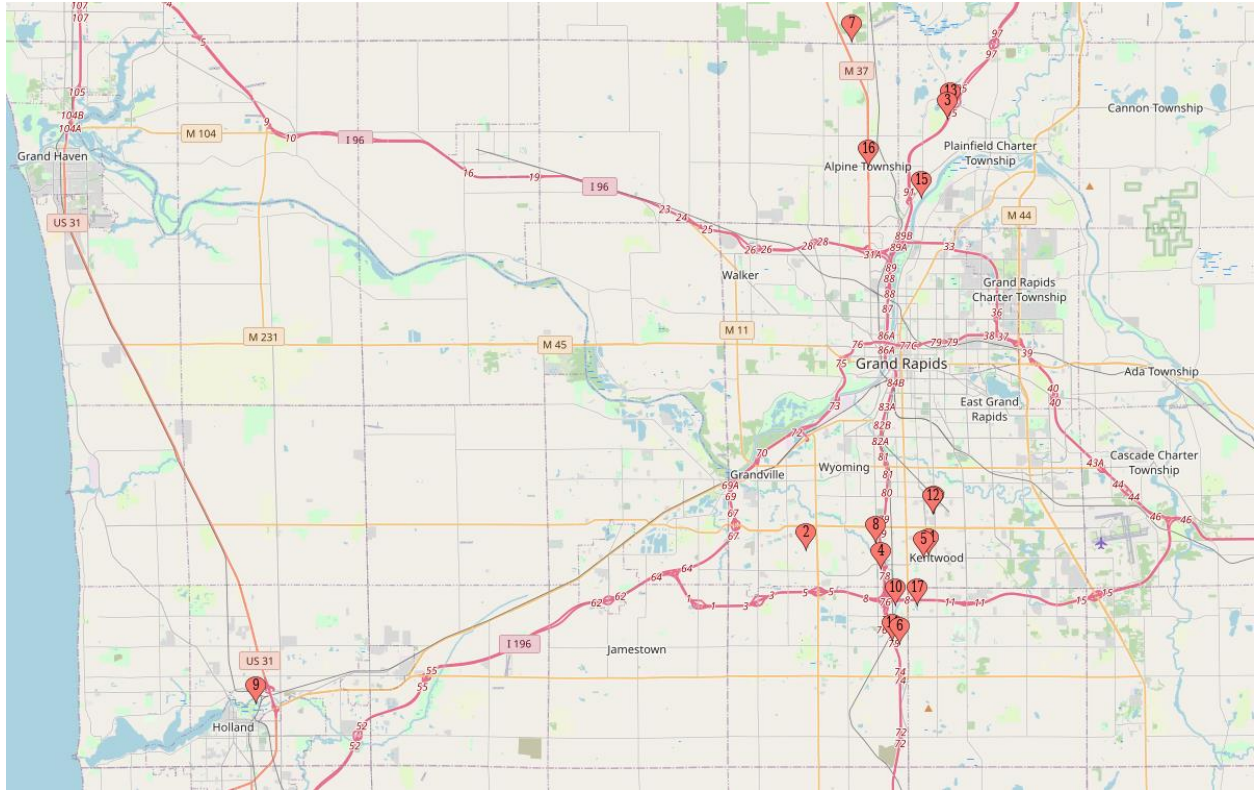
In addition, the organization is exploring buying MH communities with a vision to expand their stabilization services through case management and social work to all park residents. Empty

²⁵ <https://www.truenorthservices.org/>

²⁶ <https://www.familypromisegr.org/what-we-do/housing-services/>

lots in a mobile home park could be filled with a new rehabilitated MH with a goal to increase available affordable housing in the community without significantly increasing lot rents.

Figure 3. Family Promise of Grand Rapids Partial Territory²⁷.



RECOMMENDATIONS

The literature review and stakeholder interviews provided valuable insights on successful MH replacement pilot designs and partners needed to support such an offering. The full process to support a resident in acquiring the financing, finding a new home, decommissioning the old home, and installing a new home can take one to three years to complete. Total project costs per home include home demolition, site preparation, new home, transportation, and home setup work are between roughly \$90,000 and \$125,000 for a new replacement home, depending on the size of the home. Pilot programs can use a combination of state or local grants, utility incentives, and loans to fund the cost of a MH replacement. A MH replacement program in Michigan needs to consider the following:

Partners. A manufactured home replacement program requires a coalition of committed partners. It can take years to build relationships with lenders, retailers, and nonprofits, who are all needed to support residents in replacing old MH with new homes. Participating lenders need to be willing for the process to take longer than other loan

²⁷ Map courtesy of Family Promise of Grand Rapids. Google Maps. January 2023.

products they support. We identified ways the various partner types could support this effort and identified potential partners through our outreach efforts:

- State of Michigan: Provide initial funding to pilot a MH replacement program. MSHDA has made a one-time investment in other efforts to demonstrate how the approach works for one or two homes and then uses funds from when those homes sell to fund future participants. This approach allows investors to make an initial investment to start the endeavor but is not needed for the long term.
- MH Retailers: Support the homebuyer in finding a replacement home and supporting the home transportation and setup process. (Little Valley Homes and Preferred Homes identified with outreach)
- Nonprofit community-based organizations: Support residents in home buying process and provide program referrals. (TrueNorth Community Services)
- Utilities could provide incentives to bring down the cost of the home.
- Lenders could offer a low interest loan product and work with residents to meet financial requirements to qualify for a loan.

Funding. Successful programs had a combination of funding sources to support the program itself and to help the residents pay for their replacement home.

Program eligibility requirements. Program eligibility requirements need to be designed to balance risks and support residents. Residents benefit when the program is easy to access with limited steps and offers support to help residents navigate the process. The program needs to have a clear target audience, a population to serve, and be designed effectively. Pilot programs requiring residents to own the land or have a long-term lease for the land may discourage potential participants who live in manufactured home parks with current short-term leases. Requiring residents to not have any liens on the property like, outstanding property taxes or sewage fees, may help to reduce future risk of foreclosure, but could also discourage potential participants who, with a little help, could resolve these liens. Residents may also need additional support to qualify for financing a loan., Past successful pilots have offered financial literacy services or early on were able to identify potential participants who were ineligible for a loan due to poor credit histories.

Potential program participants hesitant to participate. Residents of MH may not be willing to participate in a pilot program for various reasons. In our past MH retrofit program experience and other MH replacement pilot examples, MH residents can be hesitant to trust the program offer and its legitimacy because it sounds too good to be true. Pilot participants need to be willing to take on debt, willing to move into a new home potentially in a different location and a different size than their current home, and be willing and able to pay increased property taxes due to the increased value of their home.

Logistics. Most new manufactured homes shipped to Michigan are built in Indiana. Potential funding partners expressed concern with additional costs required to transport the replacement home from another state.

CONCLUSION

There is large need and demand for a MH replacement program in Michigan. Multiple stakeholders could identify and refer potential participants for this type of program. While there are a few interesting efforts addressing housing needs in Michigan (MI-HOPE, MHSDA Mod, and services offered by TrueNorth Community Services and Family Promise of Grand Rapids), there are no services currently available to support families with MH replacement.

Building a coalition of partners to support a MH replacement program will take time and would be a critical next step to be able to implement a pilot in Michigan. Great Lakes Energy could fund future efforts to build this coalition of partners to support a MH replacement effort in Michigan. The Energy Trust of Oregon's pilot that transitioned to a program is a good model to consider for implementation in Michigan. The active program is adjusting to meet market needs and supports residents in replacing their homes. Past manufactured home replacement pilots demonstrate how organizations can support residents to occupy safer, healthier, and more efficient manufactured homes.