

## Navajo Manufactured Housing Fact Sheet

### ARPA Overview:

<b>Section 10. Approval of Housing Projects and Manufactured Housing Facilities Expenditure Plan</b>			
<b>Office</b>	<b>Funding</b>	<b>Use</b>	<b>Expenditure Category</b>
CHID	\$50 million	New housing projects, as long-term housing security.	Services for unhoused persons (Expenditure Category 2.15)
NNVA	\$50 million	New housing projects, as long-term housing security.	Services for unhoused persons (Expenditure Category 2.16)
CHID	\$30 million	Design and construction of up to three regional housing manufacturing facilities with locations in Tuba City, Sanders, Chinle, Shiprock, or Gallup areas.	Long-term housing security: Affordable housing (Expenditure Category 2.15)
NHLCO	\$15.55 million	Housing for the Former Bennet Freeze Area and Navajo Partitioned Lands. Purchase modular homes for people within the 23 impacted Chapters; planning of a manufactured housing plant at Nahata Dziil Chapter.	Long-term housing security: Affordable housing (Expenditure Category 2.15)

### Housing Plant Overview:

<b>Requirement</b>	<b>Details</b>
Number of Manufacturing Plants	It is strongly advised that <u>only one manufacturing plant be developed</u> . The greatest challenge in today's market is securing an adequate labor force. Managing a labor force at just one plant is sufficiently challenging.
Cost of Production	Currently, manufactured homes are being produced of 1,500 sf at \$120 per sf "set and delivered." Homes would not have a garage and would not have a foundation so this would be an additional cost. Considering all other factors, the total "installed" price of manufactured homes will be likely \$160 per sf. Depending on additional amenities, this price could go to \$200 per sf.
Land/Acreage	An existing manufacturing plant successfully operates on 24.4 acres. They indicate that they could operate on 20 acres. They do require land to store finished product, especially during the winter when much of the market is inaccessible due to inclement weather and poor driving conditions. In general, they recommend between 20-30 acres.
Plant Size	120,000 sf. This plant size has proven ideal for their operations. A similar size is recommended for Navajo.
Production Capacity	At their peak, Dynamic Homes has produced 230 units per year. Currently, due to market conditions and the challenge of sufficient labor, they produce 150 units per year. On average, their home square footage is 1,500 sf. (This may be larger than the specifications for homes at Navajo).

Labor Requirements	Currently, Dynamic Homes employs 100 individuals. Approximately 50 are laborers “on the floor.” Other requirements related to management, project foreman, and quality control. Typically, the labor requirements have been between 50-80 laborers.
Electrical Power	Three-phased electrical power is recommended. Power is a requirement for their backup generator, air compressor, heating, and air conditioning and other general electrical uses.
Water Requirements	Water requirements are minimal. Water is utilized to mix mud, to offer fire suppression for the plant (including an on-site tank), and for restroom use.
Telecommunications Requirements	Standard telecommunications will suffice; placing wireless routers throughout the plant is sufficient.
Drywall Requirements	The drywall requirements are the most significant factor both in terms of time as well as space. The drywall process has many iterations, and the wet mud must dry before the next phase is able to commence.
Plant Layout	Dynamic Homes recommended basic plant layout considerations such as the location of the raw material on one end of the plant and finish materials on the other end of the plant.
Transportation Requirements	Dynamic Homes works with the state Department of Transportation which approves all routing of homes. This was recommended for Arizona, New Mexico, and Utah as well.
Rail Requirements	Rail is not required for Dynamic Homes. If a rail spur were available, the only benefit would potentially be to access raw lumber.
Building Codes	Dynamic Homes recommended that the building codes for the states of Arizona, New Mexico, and Utah be studied. We should utilize the most rigorous of the three building codes.
Distribution Range	Dynamic Homes can transport homes 6.5 hours. When describing the distance from Nahata Dziil to other locations on the Navajo Nation, for example, Dynamic Homes indicated that this range is “doable.”
Offer of Support	Paul Okeson would share the blueprints for their manufacturing plant and generally provide supportive advice. Alternatively, they could be a paid advisor as a part of one of the respondent teams. We discussed putting information on the project website so that respondents can share information with one another.

# Housing Manufacturing Plant

## Gantt Chart

	2023		2024				2025				2026				2027
	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
Site Selection	█	█	█												
Land Withdrawal			█	█											
Select Plant Contractor			█												
Engage Plant Contractor				█											
Engage Housing Manufacturer			█	█											
<b>Meet ARPA Obligation Deadline</b>				█											
Construct Manufacturing Plant					█	█	█	█							
Potential Off-site Manufactured Home Construction and Delivery						█	█	█							
Production of On-site Homes									█	█	█	█	█	█	█
Planning Long-term Operations					█	█	█	█	█	█	█	█	█	█	
Ownership Transition Period														█	█
<b>Meet ARPA Expenditure Deadline</b>														█	
Transition into Sustainable Manufacturing															█