

Client: Penobscot Indian Nation
 Developer: Penobscot Indian Nation Housing Authority
 Architect of Record: Dan Miller, AIA
 Architecture Firm: WBRC Architects Engineers

Contractor Phase I: DP Porter Contractors, Inc.
 Contractor Phase II: Penobscot Indian Nation Housing Authority



Photo: SNCC

REUNITING HERITAGE

Through collaboration with local lenders and the U.S. government, tribal member home ownership is on the rise. The Penobscot Indian Nation Housing Authority (PINHA) built 12 Leadership in Energy and Environmental Design (LEED) Gold single family homes. The project has helped bring young, low-income families back to the community, reuniting them with a strong cultural and traditional heritage. The project features a nature path, native plants, a boardwalk network connecting to community facilities, sweat lodges and a ceremonial multi-use space.

CORE PROJECT EMPHASES:



LESSONS LEARNED

- Working in a collaborative process helped to identify the power of partnerships and come up with creative solutions beyond providing housing.
- Incorporating cultural elements and natural resources in the site design helped to create a beautiful environment and educate families about the tribe's heritage.

BEST PRACTICES

- Tailored model lending policies that were adopted by the tribe helped families to return and live on tribal trust land.
- Comprehensive site planning met community goals for enhanced green space, outdoor use and an integrated trail system.
- Tribal members led the project, chose the team and helped to determine home designs and cultural features.

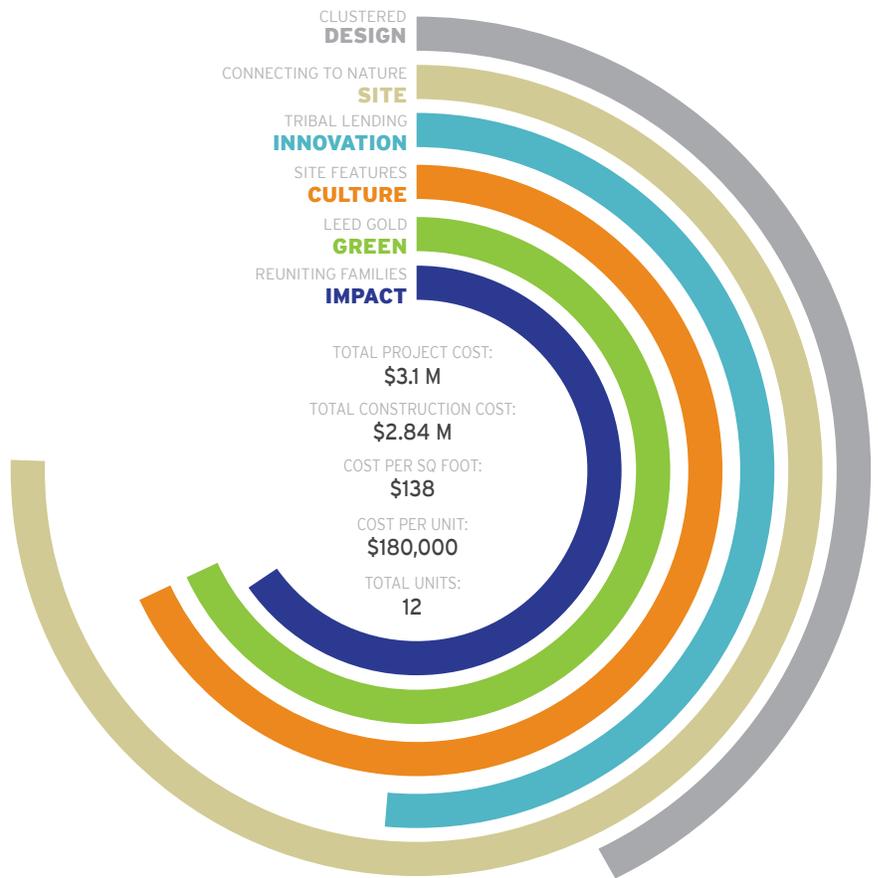


Photo: SNCC



Single Family



Northeast





PENOBSCOT LEED HOMES

CONTEXT

The Penobscot Indian Nation Housing Authority (PINHA) project is located on Indian Island in the Penobscot River. Indian Island is the traditional center of a group of clans who lived along the river, and is connected by a single bridge to Old Town, Maine. The homes are framed by woods, with strong connections to cultural and historic locations, and by the cultural focus of the river, boating, and recreation activities.



Photo: Richard Neill

CULTURE

The homes bridge nature and community, with pathways to ceremonial sites and access to river and woods. Tribal designs are cut into local woodwork on homes of natural and earth tones, while trails link to town, to nature, and to a ceremonial area that is a circle of standing stones and sweat lodges. Tribal artists created stone monuments along trails, and the Tribal Cultural & Natural Resources team worked with the Boys and Girls Club to locate and illustrate indigenous medicinal plants.

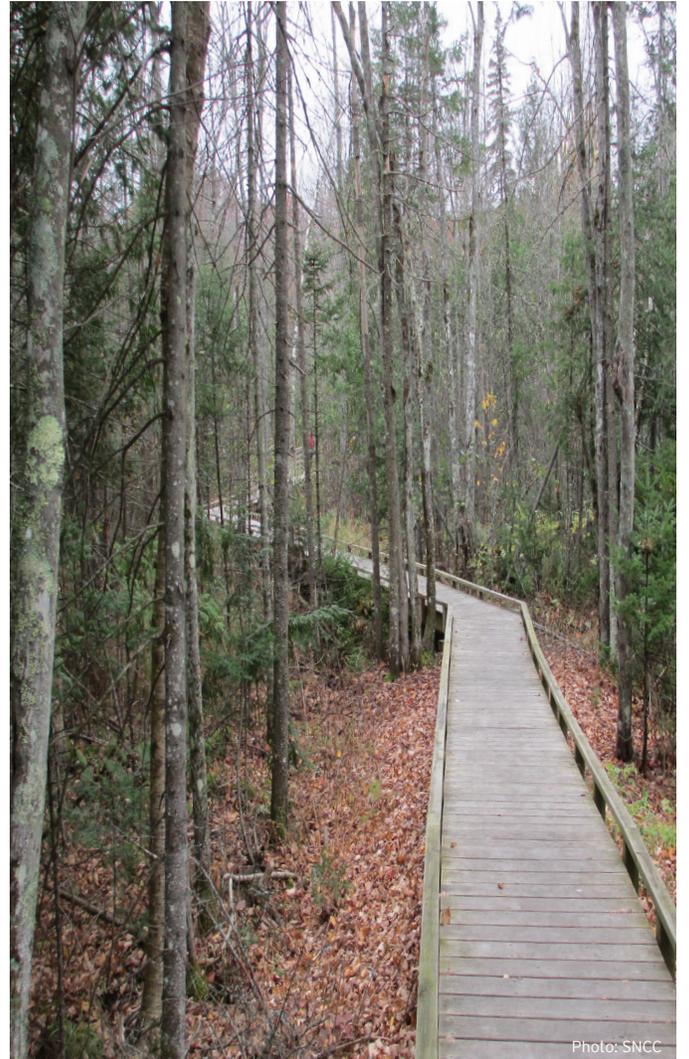


Photo: SNCC

“ ‘The people that own these homes are young families with children, they are people who live alone, there’s one woman that’s in the medical field, there’s an elder who has older children, there are elder couples. You know, it has served the need of quite a variety of families. I think that’s really good ... a lot of families are reunited

-Cynthia LeMay, Penobscot Indian Nation Housing Authority



SITE

The site sits on a rocky ledge forming the heart of the island and is located conveniently between tribal services and community facilities. The 12-acre site exemplifies a tribal conservation strategy to place 12 homes on 1/4 acre lots and leave 75 percent protected as green open space for community use and for cultural education. There is now a short walk to the school, elder center, tribal offices, cultural and ceremonial areas, and water. An accessible, raised boardwalk protects habitat and acts as a nature trail to celebrate and conserve natural resources. It is said that this is a special place, where the diversity of plants live together with areas for ceremonies and gatherings.



Photo: SNCC

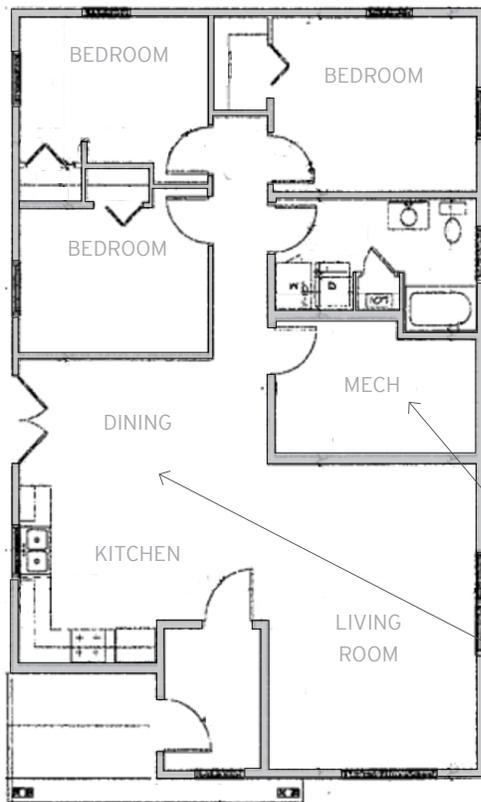


DESIGN

The development consists of 11 three-bedroom homes at 1,265 sf and one four-bedroom home at 1,478 sf. Compact one-story homes line an access road and then transition to a trail network leading to a ceremonial circle. The homes feature inset porches for some relief from the basic rectangular footprint. Their siting amidst the Maine woods and dramatic topography make the setting special.

GREEN

The LEED Gold housing includes radiant hydronic floors, solar hot water systems, blown-in insulation, and efficient framing. The many regional materials (within 500 miles) featured include local wood such as cherry cabinets and maple flooring. Native, ceremonial, useful, and edible plants are cultivated along a "medicine trail" network that supports circulation, education and recreation.



3 Bedrooms | 1 Story | Floor Plan



Compact, insulated and tight envelope emphasizes energy economy.

Solar hot water heaters add to home efficiency

Open plan living and dining allows for gatherings and cultural events.

Eagle symbolized in rafter tail detail.



PROCESS

Tribal members were responsible for the vision of the project, and participatory design was a primary directive. Multiple public hearings and design charrettes included homeowners who met with the design team several times for one-day workshops. According to architect Daniel Miller, the community was focused on LEED certification and on developing an efficient floor plan that was "sustainable and also met the needs of the families."

IMPACT

The original goal was to provide affordable housing in a challenging financial and environmental climate. A small community came together to cooperate and innovate to meet the housing needs. Ultimately, the projects impact went beyond housing to include infrastructure and community service improvements, and cultural and environmental linkages. A growing network of collaborators pulled in unison to achieve meaningful and effective use of the core of the islet.





PENOBSCOT LEED HOMES

VISION

The Penobscot Indian Nation Housing Authority (PINHA), with tribal project lead Craig Sanborn, brought together elders, children, future homeowners, tribal agencies, and banks to create a common vision. A primary focus was bringing young tribal members back to live on Indian Island through the provision of high-quality, affordable homes. A dedicated internal team formed of PINHA staff, a grant writer, and an architect, set a goal to create a credible and attractive vision for the community. Through this committed partnership, they obtained commitments from tribal leadership, departmental directors, and local and federal agencies.

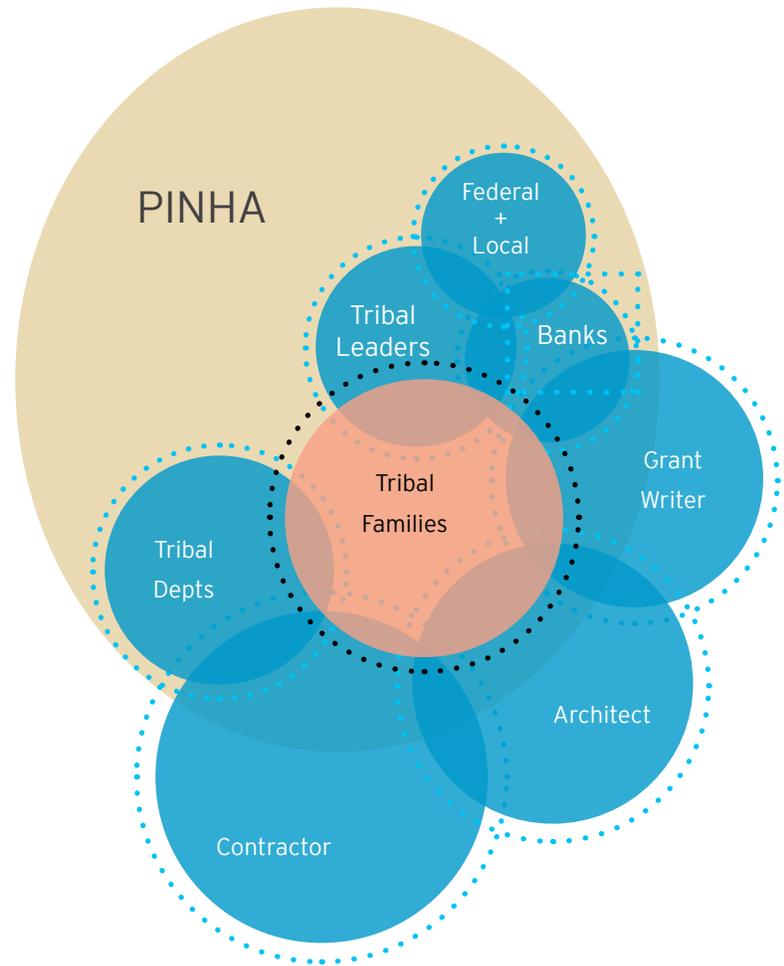
PARTICIPATION

A tribal committee was created to help address the development of more financing choices for tribal members. They worked with leaders in the tribal community to negotiate with federal agencies, resulting in tailored model lending documents that were acceptable and adopted by the Tribe through tribal legislation. The Penobscot Indian Nation Housing Authority (PINHA) worked with lenders to conduct tribal mortgage and home buyer workshops. New financial frameworks were created and cultural pathways were re-established.



No area on the island was available for traditional, tribal ceremony. Our tribe was the center of an inter-tribal alliance, in existence for thousands of years. There are stories about where the community meeting area was. The ceremonial grounds, as a result of initiating the trail, are restored to be a gathering spot. You'll see that there are 23 stones which represent the original clans. Every clan has a presence. It's an area that's available to anyone: the Native American Church, there's a site for women, there's a site for men. Those are being used much more frequently now and continue to grow. That's opened up a whole new aspect of wellness in the community that feeds the whole person.

- Craig Sanborn, Project Leader



LESSONS LEARNED / CONCLUSION

What really stands out on Penobscot Indian Island is that a community was able to take bold and creative steps to ensure their future resilience. Cultural, social, economic, and traditional values were layered over the land with a deep historic reverence for the tribal members of the Penobscot Indian Nation. Persistent collaboration among community members of all ages, from within tribal government and local informal groups, arrived at a shared vision: cultural protocols were valued alongside a range of financial and design efficiencies. Lessons learned include the importance of developing model documents, including construction contracts with consequences for delays. It was also important to phase future developments to allow for flexibility and infrastructure placement. Although for this project, the initial cost of "going green" was more expensive, the integrated design process allowed for incorporation of traditional values and is more attractive to funders and community members.



Photo: Richard Neill

