



Housing Assistance Council

Helping Build Homes and
Communities Across Rural America



HAC

Build Rural

**Housing Assistance Council's
2023 National Rural Housing Conference**

Register Now





Photo: Rory Doyle/There is More Work to be Done

Emerging Construction Techniques





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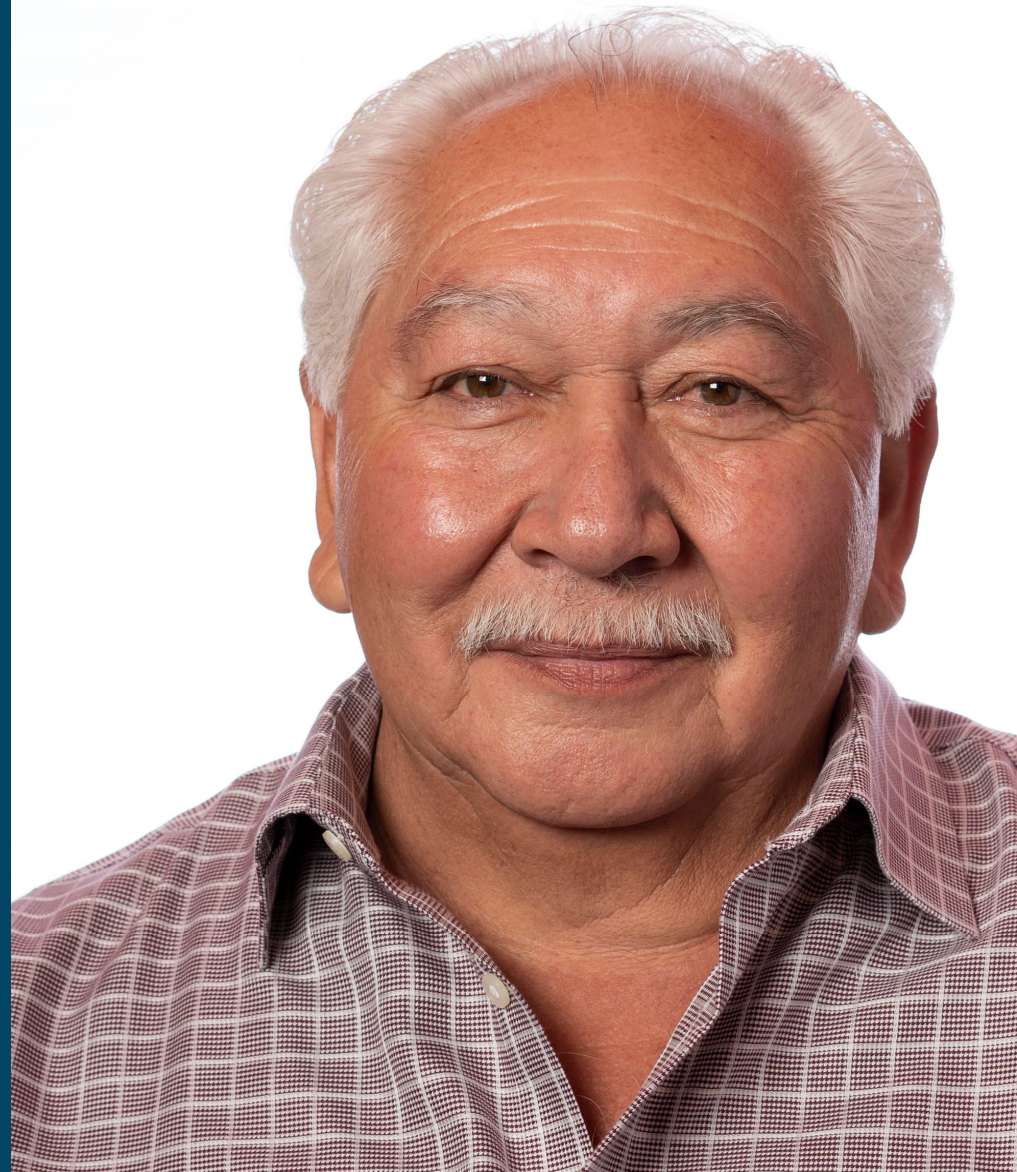


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Delivered July 19, 2023

Eugene Gonzales

Consultant, Housing
Assistance Council



Patrick Diller

Pallet Shelter



John Red Cloud

Red Cloud Renewables





Pallet[™]
The Leader in Rapid-Response
Shelter Villages[™]





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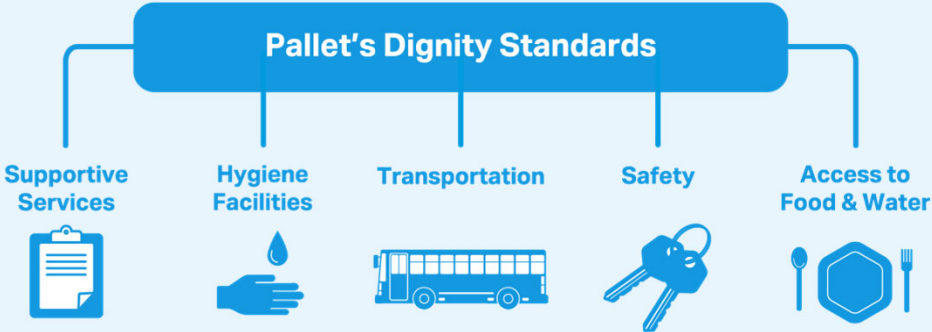


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VILLAGE MODEL



INHERENT AND ABSOLUTE DIGNITY



VILLAGE STATS

3800+

SHELTERS BUILT

111

VILLAGES BUILT

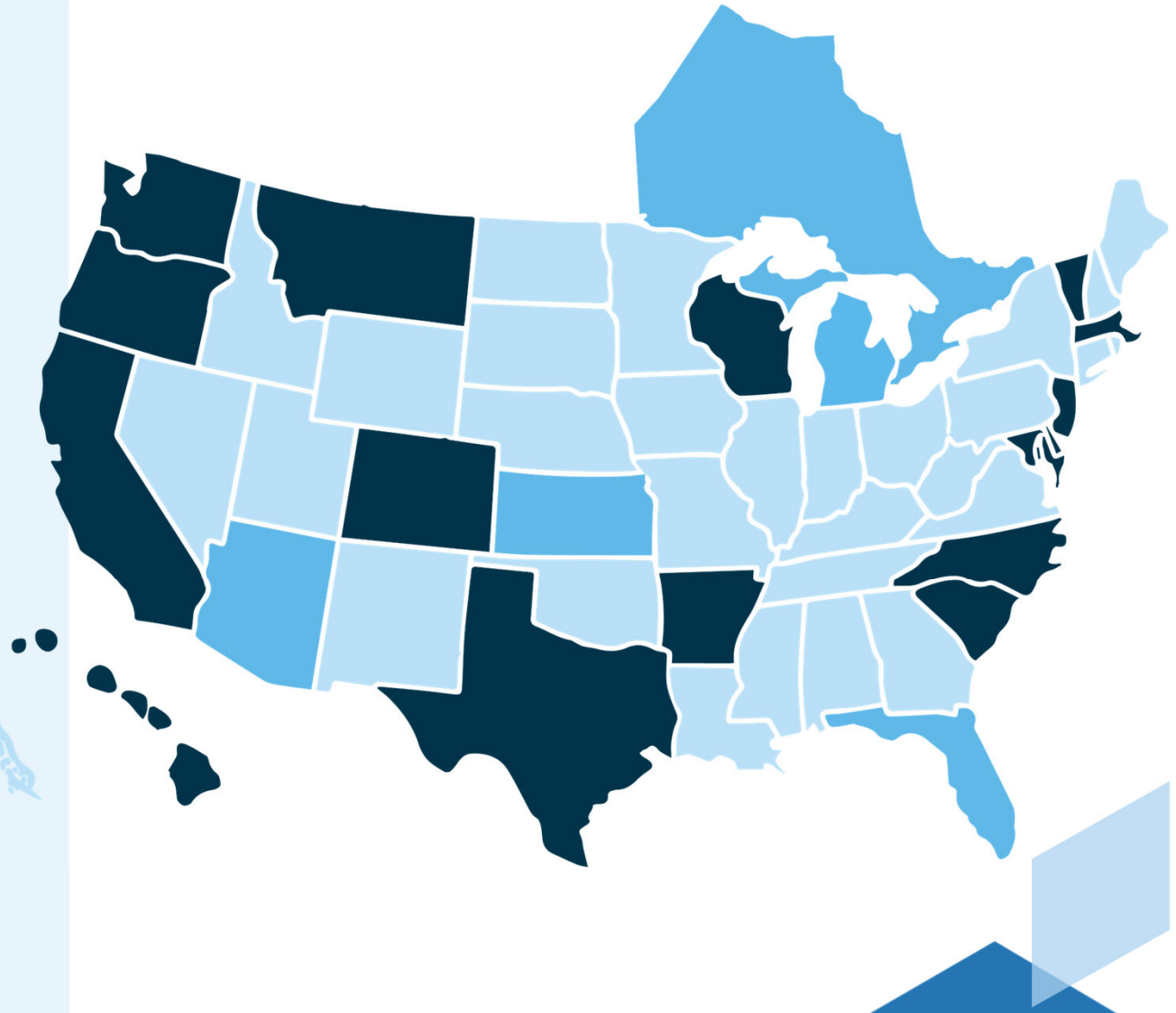
17

VILLAGES IN DEVELOPMENT

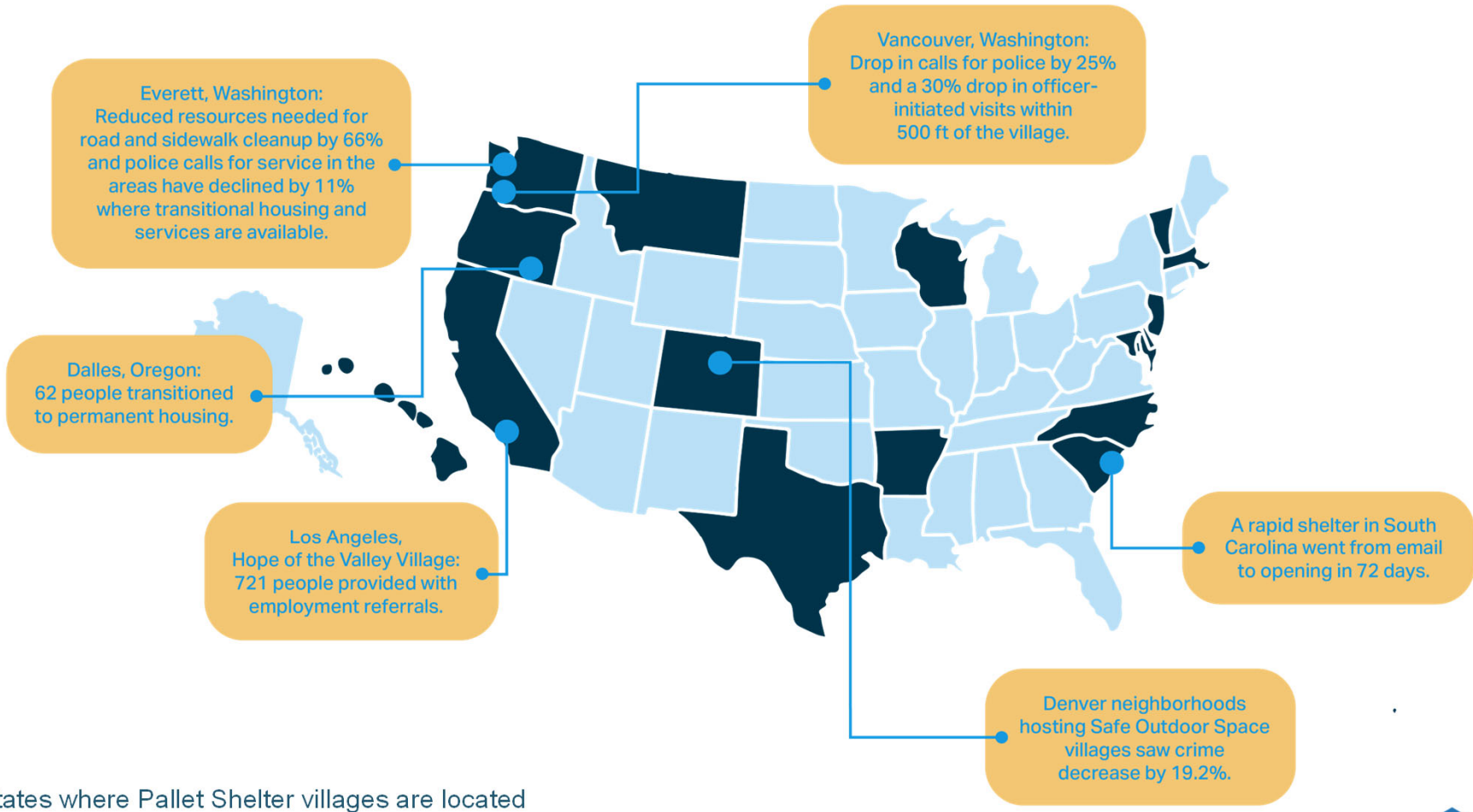
21 / 85 +

STATES CITIES

- States where Pallet Shelter villages are active, and/or constructed and opening soon
- States/Provinces where Pallet Shelter villages are in development



VILLAGE STATS



PALLET PRODUCT



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SHELTER 64



SHELTER 100



STANDARD TWO-STALL BATHROOM



**ACCESSIBLE
BATHROOM**



LAUNDRY UNIT



**COMMUNITY ROOM
400 & 800**



SONOMA COUNTY, CA

Featured Project

SIZE:
60 Shelters

POPULATION SERVED:
Local unhoused neighbors

FUNDING:
City of Los Angeles

IMPACT DATA POINTS:

- Assembled in 10 days
- Pet friendly
- Shuttle service

“ I can’t believe that we were able to basically complete an entire tiny community over the course of two weeks. People are happy to be there.”

LYNDA HOPKINS, SONOMA COUNTY BOARD OF SUPERVISORS



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LOS ANGELES, CA

Featured Project

SIZE:
1,317

POPULATION SERVED:
Local unhoused neighbors

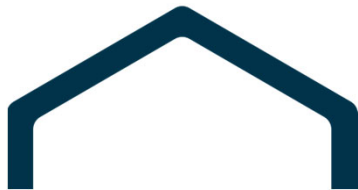
FUNDING:
City of Los Angeles

IMPACT DATA POINTS:

- Supported 465 people through substance abuse
- 599 people with mental health support
- 721 provided with employment referral

“ People in the neighborhood see less homeless, less trash, less crime, fewer drug users, roaming around, I think these villages should spread across the country like Starbucks-be in every community.”

ROWAN VANSLEVE, PRESIDENT OF HOPE AND MISSION



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SAN JOSE, CA Featured Project

SIZE:
25 Shelters

POPULATION SERVED:
Families of 3-4 with children

FUNDING:
County funds

IMPACT DATA POINTS:

- Assembled in 7 days
- Family site
- 100% solar powered with battery and backup propane generators

“Pallet is truly a social purpose company, driven on every level by its mission to house the unsheltered, and this partnership serves as a testament to their willingness to go above and beyond to solve for the pressing needs of the unhoused in our communities”.

DALAN ANGELENO,
SALES AND PARTNERSHIP AT BOXPOWER



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BOSTON, MA

Featured Project

SIZE:
18 Shelters

POPULATION SERVED:
Local unhoused neighbors
struggling with substance abuse

FUNDING:
State funding

IMPACT DATA POINTS:

- 24-hour healthcare provided
- Medication assisted treatment
- 50% of occupants served in the first 3 months transition to permanent housing
- Most residents moving from the Mass and Cass encampment

“City officials say a recent survey of roughly 140 people who were sleeping in the 77 tents near the intersection showed that more than 95 percent said they would be willing to leave their tents for [Pallet] housing, if it were available.”

BOSTON GLOBE



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VANCOUVER, WA

Featured Project

SIZE:
29 Shelters

POPULATION SERVED:
Local unhoused neighbors,
couples and pets

FUNDING:
City funds

IMPACT DATA POINTS:

- 46 people served
 - 14 transitioned to permanent housing
 - 10 currently working to obtain housing
 - Rest have completed housing assessment
- 30% reduction calls and officer related visits since opening
- Fire and EMS related call dropped from 15.6% to 6% of total area

“It’s an opportunity for people to get their lives together. If they were using for whatever reason — for trauma, to stay awake — they have an opportunity to clean up here with support, instead of being kicked out of wherever they were.”

JAMIE SPINELLI, VANCOUVER'S HOMELESS RESOURCES COORDINATOR



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COLUMBIA, SC

Featured Project

SIZE:
50

POPULATION SERVED:
Local unhoused neighbors

FUNDING:
American Rescue Plan Act + allocated funds to manage the existing facility

IMPACT DATA POINTS:

- Opened in 72 days from email to habitation

“ Seeing that one person move into permanent housing shows us that when we collaborate, some really good things can happen for members of our community.”

COLUMBIA AT-LARGE
COUNCIL WOMAN DR. ADITI BUSSELLS



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QUESTIONS?



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RED CLOUD RENEWABLE

Sustainable Building

Lack of housing on the Pine Ridge Indian Reservation has plagued the Oglala Lakota people since the reservation system was imposed.

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Median household incomes on the Pine Ridge Indian Reservation are less than \$10,000

Typical mobile home on the reservation



Home belonging to a tribal elder





Cellular Concrete structure

- Cost to build a dome home is ~\$25K
- Benefits of a dome home:
- Hyper-efficient, carbon neutral in 1 – 2 years
- Mold-proof, fireproof, pest-proof, and tornado-proof
- Affordable mortgage

Single-wide mobile home

- Single-wide mobile home mortgage is ~\$100,000
- Challenges of a mobile home:
- Poor performance in the extreme heat/cold of the Great Plains
- Susceptible to straight-line wind storms and bomb cyclones



Interior of a pilot structure on Chief Henry Red Cloud's property on the Pine Ridge Indian Reservation.

Maintains an 80 to 90-degree difference in apparent temperature inside to out with 800 W of heating.

The interior dimensions of the pilot structure are 250 square feet. The latest iteration has 450 square feet of living space.

The “tiyospaye” is the traditional Lakota extended kinship system honoring the family unit and instilling respect for elders.

A dome community allows multi-generational families to live and thrive in close proximity to one another.

This preferred living arrangement promotes the generational transfer of language, culture, and traditional values.



Rendering of potential 8 home layout housing the Tiospaye



Scale model of 400 square foot production model

Challenges: by the Numbers

Avg. life expectancy: Men: 47 years; Women: 55 years

**Health vs. U.S. averages: Tuberculosis: 800%; Infant Mortality: 300%;
Teen Suicide: 150% Health rates: Alcoholism: 85%; Diabetes: 50%**

Per Capita income: \$7,733.00

**Tribal enrollment: 46,855; Housing stock: just over 1,000; Houses
built annually: 5**

**Employment: 3,131; Unemployment rate: 89% Children raised by
grandparents: 58%**

Utility bills in the winter due to inefficient houses: up to \$1,200

Building Hope on the Pine Ridge Indian Reservation



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