ASU Project Cities
Transitioning Mobile Home/RV Parks

PUP 593: MUEP Professional Project

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Project Outline

- The Issue
- Aim of the Project
- Existing Contexts
- Research & Case Studies
- The Spectrum of Solutions
The Issue:
Deteriorating Park Conditions & Sustenance of this Affordable Housing Stock
• 125 Mobile Home & RV Parks. Identified 1/3rd distressed.
• Lack of designed or planned development on-site.
• Code Violations, on-site trash & dilapidating infrastructure.
Aim of the Project

• Identify & Organize Distressed Parks.

• Creating a hierarchy of distress & typology of solution application.

• Identifying the Solution Spectrum.

• Making the Change a Possibility with Top-Down & Bottom-Up Approaches.
Existing Contexts

Outline

• Apache Junction / Existing Parks
• Low-Income Housing Crisis & Home-Ownership Dream
• Preservation & Protection of Mobile Home/RV Parks
Context: Apache Junction
Severely Cost-burdened households: Majority households paying 35% or more of monthly income in rent.

Low-Residual Income.

Source: 2016 ACS 5-yr. Estimates, US Census Bureau

<table>
<thead>
<tr>
<th>Census Tracts</th>
<th>Median Gross Rent ($)</th>
<th>(%) GRAPI – Occupied units paying rent – 30 to 34.9%</th>
<th>(%) GRAPI – Occupied units paying rent – 35% or more</th>
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<tbody>
<tr>
<td>3.08</td>
<td>681</td>
<td>0</td>
<td>46.5</td>
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<td>3.09</td>
<td>586</td>
<td>0</td>
<td>55.3</td>
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<td>3.12</td>
<td>744</td>
<td>10.8</td>
<td>49.5</td>
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<td>3.13</td>
<td>1029</td>
<td>14.4</td>
<td>51.6</td>
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<td>3.14</td>
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<td>3.17</td>
<td>913</td>
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<tr>
<td>Census Tracts</td>
<td>Median Household Income ($)</td>
<td>Median Age</td>
<td>% families with income below poverty line in the past 12 months</td>
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<td>---------------------------------------------------------------</td>
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<tr>
<td>3.08</td>
<td>32,430</td>
<td>50.2</td>
<td>16.8</td>
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<td>3.09</td>
<td>38,859</td>
<td>56.3</td>
<td>11.4</td>
</tr>
<tr>
<td>3.12</td>
<td>32,222</td>
<td>38.5</td>
<td>24.2</td>
</tr>
<tr>
<td>3.13</td>
<td>32,905</td>
<td>53.6</td>
<td>12.8</td>
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<tr>
<td>3.14</td>
<td>41,449</td>
<td>39.1</td>
<td>15.6</td>
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<tr>
<td>3.17</td>
<td>43,784</td>
<td>66.2</td>
<td>2.4</td>
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</tbody>
</table>

- An ageing population in majority. Limited income sources.
- Average household size: 1-2 members.

* Source: 2016 ACS 5-yr. Estimates, US Census Bureau
Context:
Low-Income Housing Crisis & Home-Ownership Dream
• Low-Income Housing Crisis

• Home-Ownership: the never dying American Dream.

• Source: National Low Income Housing Coalition (NHILC) Report, The GAP, March 2018
• Low-Income Housing Crisis

• Home-Ownership: the never dying American Dream.

Source: National Low Income Housing Coalition (NHILC) Report, The GAP, March 2018
• Age-Restricted Parks: Better planned, funded and maintained.

• Tiny Homes are coming up as an housing option.

• In-state owners vs Out-of-State of owners.
Existing Tiny Home in a DISTRESSED PARK. 30K
Context:
Preservation & Protection of Mobile Home/RV Parks
• Preservation & Protection in the light of recent events.

• Source: National Low Income Housing Coalition (NHILC) Report, The GAP, March 2018

- Possible HUD Funding cuts.
- Closures of Mobile Home Parks in Tempe & Mesa, Arizona.
- Parks in key locations of Re-development & in proximity to Light Rail Paths.
- Difficult process of access to Relocation Fund.
- No known displacement locations.
- “UNFIT” label leading to closure notices.
Respite & Rescue

- Mobile Homes & RVs
- Tiny Homes
- Shipping Container Homes
Respite & Rescue: Mobile Home/RV Parks
1991 Census Bureau: Arizona ranked fourth out of all US states with 15.1% of total dwelling units being mobile homes & was also in the top ten states with highest number of mobile homes.


Pre-HUD Code Homes: Prone to neglect & dilapidated conditions.

HUD FUNDING CUTS WILL AFFECT FUTURE AFFORDABLE HOUSING CONSTRUCTIONS & FINANCIAL ASSISTANCE.
Respite & Rescue: Tiny & Shipping Container Homes
• 1980: Henry David Thoreau’s chronicle of his living experience in a 150 square-foot, self-built home.

• 1987: ‘Tiny Houses: Or How to Get Away From It All’ published by Lester Walker

• 1997: Portland, Oregon amends its Housing Regulations to permit ADUs on properties without a special permit as long as they met the guidelines.

• 1990-2000s: Tiny living gains momentum. Tumbleweed Tiny House Company

• TODAY: Numerous Tiny Home experts and companies exist along with numerous Online sources.

• Average cost of DIY Tiny Home: $4000 to $23,000
DETROIT:
Cass Community Tiny Number of Tiny Houses:

• 25 total (seven complete, five under construction, 13 TBD)
• Number of Residents: Seven
• Average Size of a House: 325 square feet
• Age Range of Residents: 24 to 74 years old
• Cost of Living: $325 a month
LAS VEGAS:

Ferguson’s Downtown by the numbers

• Size of development: One acre

• Number of Units: 15 tiny houses and airstreams, 7 micro apartments

• Number of Residents: 31

• Age Range: 6 to 45

• Cost of Living: $1,200 a month

• Average Size of a Unit: Studios: 500 square feet; tiny houses and Airstreams: 200 to 250 square feet
HOUSTON, TEXAS:

- 3D PRINTED TINY HOME
- 600 to 800 square foot
- Less than 24 hours to print
- Less than $4000
- Nearly zero waste production methods

Today’s Solutions: Tiny & Shipping Container Homes

Source: ICON + New Story
• Shipping container architecture is a form of architecture using steel intermodal containers (shipping containers) as structural element, because of their inherent strength, wide availability and relatively low cost.

• Advantages: Strength & Durability
  
  Modular
  
  Transport
  
  Availability
  
  Cost
  
  Eco-Friendly

• Sizes: 20 feet, 40 feet & 45 feet models
Today’s Solutions: Tiny & Shipping Container Homes

Source: Amazon
Today’s Solutions: Tiny & Shipping Container Homes

- **Rhino Cube’s Zulu Queen**:
  - Size: 160 square feet
  - Cost: $48,400

- **Backcountry Containers**
  - Size: 160 square feet
  - Cost: Starting at $32,999

Source: Curbed Magazine
Source: Container Home Plans
Solution Spectrum: Collaborative, Creative, Multi-Disciplinary, Bottom-Up & Top-Down.
Spectrum of Solutions

Outline

• The Identification & Organization Tool
• Urban Design & Planning Solutions
• Involving the Park Communities
• Making the CHANGE a POSSIBILITY
Spectrum of Solutions:
The Identification & Organization Tool
<table>
<thead>
<tr>
<th>FIRST TIER:</th>
<th>SECOND TIER:</th>
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<tbody>
<tr>
<td>Park size (Acreage)</td>
<td>Typology of mobile homes and RVs on-site</td>
</tr>
<tr>
<td>Number &amp; Size of lots</td>
<td>Informal park elements: internal street nature, landscaping &amp; others.</td>
</tr>
<tr>
<td>Any vacant lots</td>
<td>Missing or dilapidating on-site infrastructure</td>
</tr>
<tr>
<td>Typology of Zoning of the park</td>
<td>Sewage system on site.</td>
</tr>
<tr>
<td>Owner occupied and/or rental lots &amp; units</td>
<td>Possibility of connection to City Sewer System.</td>
</tr>
<tr>
<td>In-State or Out-of-State Ownership</td>
<td>Any health and environmental hazards, on-site</td>
</tr>
<tr>
<td>Any recorded forms of code violation</td>
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Identification and Organization: The Tool / Mechanism for the City.

• Creating a detailed inventory of distress & the nature of solutions applicable.
Identification and Organization: The Tool / Mechanism for the City.

• Creating a detailed inventory of distress & the nature of solutions REQUIRED.
Identification and Organization: The Tool / Mechanism for the City.

• Probable Solutions & the Creation of a new vision for these parks.
Spectrum of Solutions:
Urban Design & Planning Solutions
Primary Solutions for most distressed parks:

- **Clean-Up**
- **Landscape Architecture & Urban Design Initiatives**

**Clean-Up:**
- Weekly & Monthly Schedules
- Drop-off locations within neighborhoods and/or the City.
- INCENTIVIZE cleaning up the park sites, specifically for the out-of-state park owners.

**Landscaping & Urban Design solutions:**
- Collaborating with local Landscape Architects
- INCENTIVE THE CHANGE, FOR ALL STAKEHOLDERS: Park Owners & Community, Landscape Architects & any Developers involved.
Retrofitting & Infill:

- For identified: vacant lots, park sites & City recognized Infill areas
- Suitable solutions for willing & interested lot and/or unit owners, that want change or an upgrade to their living situation.
- Tiny Homes are more suitable for the infill & varying lot sizes.
- On-site construction possible, for smaller square footages.
- Tiny Home & Shipping Container Communities.
- DEVELOPER INCENTIVES & ZONING CHANGES

Advanced Design Solutions:

- Retro-Fitting and Infill with Tiny Homes and Shipping Container Homes
- Incentivizing the Change.
ENSURING THE SUSTENANCE & AFFORDABILITY OF THE CHANGE:

• Educating the Community

• Incentivizing the Change

• Ability to finance to own

INCENTIVIZE THE CHANGE FOR:

• Park Owners & Community

• Developers, Local Architects, Designers & Planners

FINANCING THE CHANGE THROUGH:

• Rent-to-Own Programs: Lots and/or the New Units

• Community Land Trusts: Collective control of development & Individual Ownership

• Grace Town Homes, Philadelphia

• Source: Community Justice Land Trust
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<tbody>
<tr>
<td>• Provide Financial Assistance</td>
<td>• Creation of Park or Neighborhood Park Organizations</td>
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<tr>
<td>• Connect the Professionals to the Community</td>
<td>• Educating the Park Communities about their role to:</td>
</tr>
<tr>
<td>• Code Changes: Introduce Flexible &amp; relevant changes w.r.t. the newer Housing Typologies.</td>
<td>Maintain the lot and/or park conditions &amp;</td>
</tr>
<tr>
<td>• Time-based Code Changes &amp; their Implementation</td>
<td>Document any Code violations &amp; mitigate them.</td>
</tr>
<tr>
<td>• Educate the Community</td>
<td>• Create on-site Community Centers &amp; Gardens</td>
</tr>
<tr>
<td>• Introduce the platform for creation of Park Community Organizations (The Mediators)</td>
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**ENSURING THE SUSTENANCE & AFFORDABILITY OF THE CHANGE:**
- Educating the Community
- Incentivizing the Change
- Ability to finance to own
Making the Change a Possibility.

- Incentivizing Change
- Time-based Code Change & Compliance
- Bottom-Up Approach: Educating the Community as The Guardians and the Mediators.
Thank you!

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