Sustainable Infrastructure and South Mountain Village: Land Use and Transit Oriented Development

COURSE PROJECT PRESENTATION

23 April 2018

Tari Alford
Hanan Alhashmi
Aric Burks
Matt Gomez
Matthew Waldman
Problem Statement/Overview

- Low Connectivity, Biodiversity, and Shade Coverage
- Significant Population of Low Income Minorities
- Urban Heat Island
- Vacant/Underutilized Lots
- Large Industrial Lots
Methods
South Central Light Rail Extension
South Central Light Rail Extension
Study Area Map

- Census Tracts
  - 1154
  - 1158.01
  - 1158.02
  - 1165
- Total Population: 16,507

Sources: City of Phoenix Open Data Mapping Portal
US Census Bureau TIGERLine Shapefile 2017
Demographics
## Demographic Snapshot

<table>
<thead>
<tr>
<th></th>
<th>Census Tract 1154</th>
<th>Census Tract 1158.01</th>
<th>Census Tract 1158.02</th>
<th>Census Tract 1165</th>
<th>Census Tracts Total:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td>2,445</td>
<td>4,539</td>
<td>3,746</td>
<td>5,777</td>
<td>16,507</td>
</tr>
<tr>
<td>Median age (years)</td>
<td>27.5</td>
<td>25</td>
<td>31.7</td>
<td>28.3</td>
<td></td>
</tr>
<tr>
<td>Hispanic or Latino (of any race)</td>
<td>2,067</td>
<td>3,724</td>
<td>2,884</td>
<td>5,296</td>
<td>13,971</td>
</tr>
<tr>
<td>Median household income (dollars)</td>
<td>29,688</td>
<td>25,234</td>
<td>27,075</td>
<td>34,231</td>
<td></td>
</tr>
<tr>
<td>Unemployment Rate</td>
<td>12.2%</td>
<td>12.9%</td>
<td>6.9%</td>
<td>14.8%</td>
<td></td>
</tr>
<tr>
<td>Percent People Whose Income in the past 12 Months is Below the Poverty Level</td>
<td>40.2%</td>
<td>48.2%</td>
<td>38.7%</td>
<td>35.7%</td>
<td></td>
</tr>
</tbody>
</table>
Unemployment Rate Along the South Central Light Rail Extension

<table>
<thead>
<tr>
<th>Census Tract</th>
<th>Percent Unemployed</th>
</tr>
</thead>
<tbody>
<tr>
<td>1154</td>
<td>12.2%</td>
</tr>
<tr>
<td>1158.01</td>
<td>12.9%</td>
</tr>
<tr>
<td>1158.02</td>
<td>6.9%</td>
</tr>
<tr>
<td>1165</td>
<td>14.8%</td>
</tr>
</tbody>
</table>
Industry of Employment Along the South Central Light Rail Extension

Count of Population

Industry

Agriculture, forestry, fishing and hunting
Construction
Manufacturing
Wholesale trade
Retail trade
Transportation and warehousing
Finance and insurance
Information
Professional, scientific, and technical services
Arts, entertainment, and recreation
Other services, except public administration
Public administration

Census Tract 1154
Census Tract 1158.01
Census Tract 1158.02
Census Tract 1165
Site Visit
CITY OF PHOENIX PROPERTY
NO TRESPASSING
CITY ORDINANCE 23-8501-B
Zoning and Land Use
Study Area Zoning Map

South Central Light Rail Extension Walking Radii Zoning Percentages by Acreage

- 29.63%
- 22.30%
- 16.42%

Legend

- Commercial
- Industrial
- Multi-Family Residential
- Single Family Residential

Zoning

- Commercial
- Industrial
- Multi-family Residential
- Single Family Residential

Sources: City of Phoenix Open Data Mapping Portal
US Census Bureau TIGER/Line Shapefile 2017
Total Housing Unit Estimates by Census Tract

- Census Tract 1154: 1477, 30.7%
- Census Tract 1158.01: 1478, 30.8%
- Census Tract 1158.02: 1172, 24.4%
- Census Tract 1165: 678, 14.1%
Infill Development District and Areas

Legend

- Infill Development District
- Housing Infill Development Area
- Single Family Attached Allowable Development Area

Sources: City of Phoenix Open Data Mapping Portal
US Census Bureau TIGER/LINE Shapefiles 2017
Opportunities for Future Development

- Del Rio Landfill RFP
- UMOM Development
  - 90 Units
- Sunland Senior Living
  - 80 Units
Case Studies
Fruitvale Village | Oakland, CA

- $100 Million Mixed Used TOD
- 47 housing units (including 10 affordable)
- Community services for seniors and youth
- Head Start Center, Pediatric Clinic, Union Office, Small Businesses/eateries, Charter High School, and Weekly Farmer’s Market
- Rents still increased but so did home ownership, high school graduates and household incomes
- Future Growth:
  - 94 unit affordable/181 market rate units
HEALU Network | Los Angeles, CA

Created by the Prevention Institute to promote healthy, equitable and active land use and supports initiatives to strategically:

- Increase the percentage of public capital invested in health-promoting infrastructure and resilience factors associated to violence in low-income communities
- Build governmental and community centered organizations for robust community and Civic engagement in land use planning and policy making
- Accelerate land use innovations and pilot projects within low income communities
- Foster cross government collaboration to embed health and equity in all land use decisions
Edison-Eastlake CNI | Phoenix, AZ

- US Department of Housing and Urban Development
  - Choice Neighborhoods Initiative
- 2016 Choice Neighborhoods Planning and Action Grant
  - Transform distressed neighborhoods and public housing into mixed-income neighborhoods linking housing improvements with appropriate services, schools, public assets, transportation, and access to jobs
  - Core Goals:
    - Housing- Quality/mixed income
    - People- Educational outcomes and intergenerational mobility
    - Neighborhood- Public and Private reinvestment
ReinventPHX | Phoenix, AZ

- Collaborative Partnership between City of Phoenix, HUD, Vitalyst Health Foundation, ASU, Valley Metro, and many other organizations for community based vision for improving quality of life along the light rail corridor
- Started in 2012
  - TOD Districts Identified
    - Gateway, Eastlake - Garfield, Midtown, Uptown, Solano
- 2015 City Council adopts Walkable Urban (WU) Code for Downtown Core
  - Increase population and employment through infill development
  - Mix of land uses
  - Provide a walkable, bikeable and transit supportive development environment
Urban Heat Islands for Agricultural Opportunities

Urban regions to experience longer warm seasons and higher temperatures, in comparison to rural areas as a resultant of the material properties of the buildings and the UHI.

- A study in Toronto found potential in growing warmer-climatic crops within an urban region through the combined usage of Green Infrastructure and urban agriculture
- Planners should utilize urban agriculture practices in the form of aquaponics, vegetated roofs, hydroponics and greenhouses in the hottest and most uncomfortable places for food production.
- Urban Agriculture and Green Infrastructure integration in Phoenix has the ability to reduce air pollution, improve food security and allows for run off collection
Recommendations

- Expand Infill Development District down to Baseline Road between 7th Avenue and 7th Street
- Expand Reinvent Phoenix and adopt TOD overlays for the South Central Extension
  - Community based vision for development
- Promote Sustainable development in vacant lots that fulfill gaps in community needs
- Adopt Sustainable Development Design Guidelines
- Utilize GPLET for inclusion of affordable housing
- Leverage City owned parcels for quality TOD in the RFP process
Questions