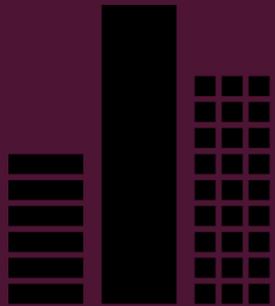# IS ACCESSIBILITY PLANNING FEASIBLE IN U.S. SHRINKING CITIES?

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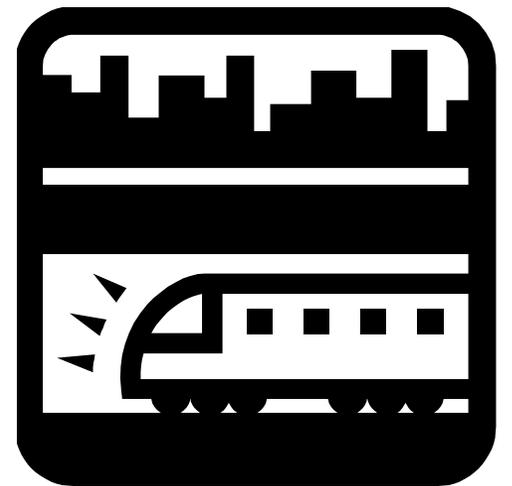ASSISTANT PROFESSOR, DEPARTMENT OF CITY & METROPOLITAN PLANNING

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METROPOLITAN

RESEARCH CENTER

MISSION ACCOMPLISHED……OR NOT?

For fifteen years, scholars have written that the dawn of accessibility-based transportation planning has arrived. Yet according to as many scholars, that proclamation of victory has been premature.

OUTLINE OF PAPER

This paper argues that accessibility is especially needed in shrinking cities, and among those cities, especially among minority populations. However, just as these neighborhoods face especial need for improved accessibility, they also face distinct challenges in implementation.

1. Conceptualizing accessibility

2. Evidence of need in shrinking cities

3. Evaluation of the distinct challenges faced by shrinking cities

4. Recommendations for researchers and practitioners

CONCEPTUALIZING ACCESSIBILITY

Mobility is measured as the generalized cost of travel (time and money) per km, and accessibility is measured as the generalized cost of travel per destination. Thus:

- Accessibility and mobility are related, but not mutually dependent.
- Increased mobility can improve accessibility, but several scholars argue that accessibility does not depend on mobility necessarily, since it can be improved through walking, biking, or other means of movement.
- More recently, Grengs (2010), suggests that accessibility is made up of mobility and proximity. This conceptualization moved mobility beyond "car only".
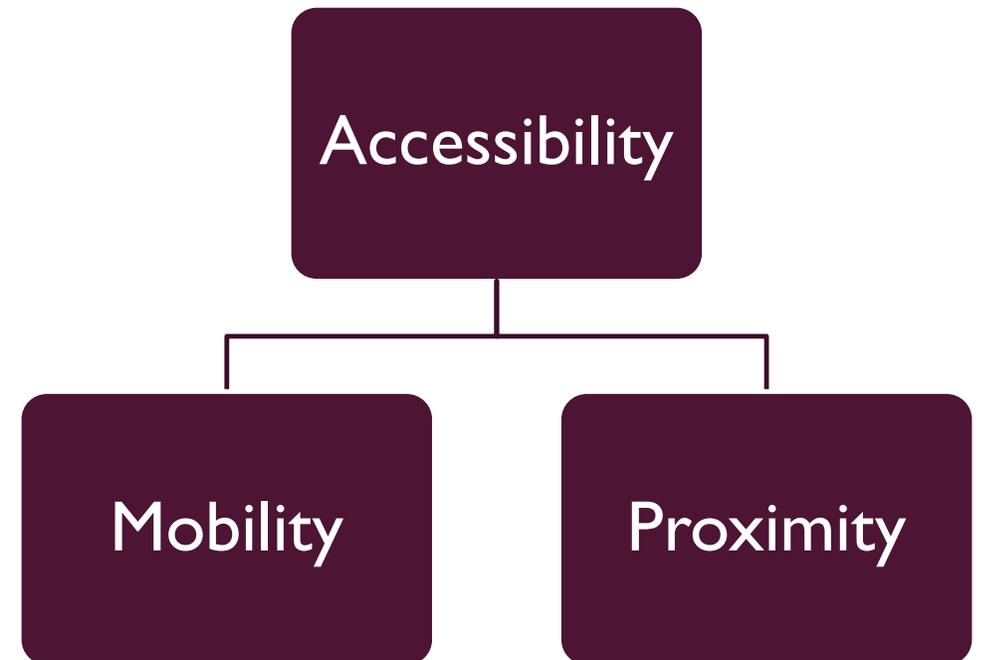
SHRINKING CITIES: EVIDENCE OF NEED

Google Scholar Hits for "Shrinking Cities" by Year

Category 1

■ 2000-2004 ■ 2005-2009 ■ 2010-2014
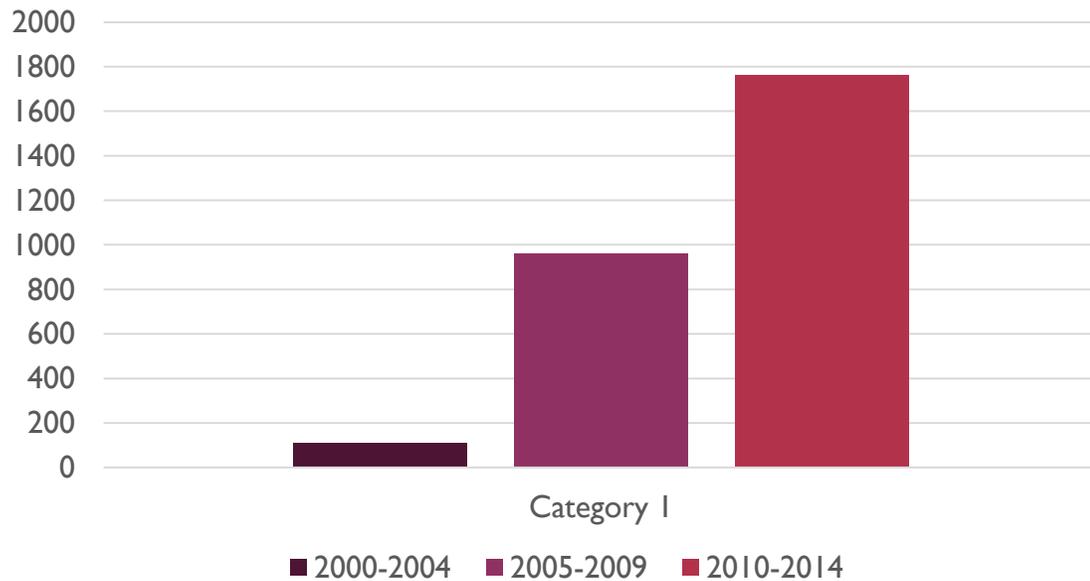
	U.S.	**Buffalo**	**Cincinnati**	**Cleveland**	**Dayton**	**Detroit**	**Flint**	**Pittsburgh**	**Youngstown**
Unemployment Rate	*5.9*	13.6	12.1	19.4	14.6	27.7	24.9	9.3	18.2
Median household income	*$51,371*	$30,422	$30,188	$24,257	$27,033	$23,600	$27,149	$39,884	$23,009
Median household income, black alone householder	*$34,815*	*$23,875*	*$21,320*	*$19,051*	*$23,651*	*$23,819*	*$21,565*	*$27,168*	*$20,085*
% Commuting to work via private vehicle	*76.3*	67.3	71.6	69	70.4	68.1	78.9	56.7	74.1
Median household transportation expenses[2]		$10,906	$10,956	$10,769	$11,381	$11,419	$11,964	$10,538	$12,245
% Population change, 2000-2010	*9.9*	-10.7	-10.4	-17.2	-14.9	-25.2	-18.2	-8.6	-18.5

BENEFITS OF INCREASED ACCESSIBILITY

■ Various scholars claim that increasing accessibility can improve environmental sustainability (Banister, 2008; Bartholomew, 2009; de Sousa Vale, 2007), largely through decreasing vehicle miles traveled (VMT).

Image Source: www.reconnectingamerica.org

CHALLENGES FOR IMPLEMENTATION

Just as shrinking cities demonstrate an especial need for high quality, cost effective transportation solutions, they also provide unique challenges to planning generally, and transportation specifically.

Over-arching challenge: Public mistrust in planning in general
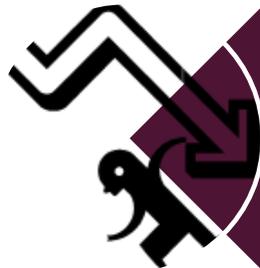
Transit-specific challenge: shrinking cities are, by definition, losing population

CHALLENGE 1: PUBLIC MISTRUST

"We have to reverse the effects of Team Four, when you decide to cut off services to a large segment of the City, diminish services, when you decide to not enforce codes—building codes, housing codes—when you decide to not steer businesses too. It's a tragedy, it's a crime….It became the policy, the official policy of this city for many administrations since the 1970s, since they started talking about it, since it was revealed to the public. Whether it became law or not is irrelevant. The effects of it took effect, took place. It actually happened. This is no fairy tale. This is something that actually occurred and is occurring to this day" (French 2008).

CHALLENGE 1: PUBLIC MISTRUST

Image source: www.roughlydrafted.com

- Success of urban planning projects rely on public buy-in, but the perception of planning in shrinking cities is often a barrier.

  - Highway development in the 1950s and 1960s

  - Racial tensions in the planning process

CHALLENGE 2: SHRINKING CITIES ARE….SHRINKING

Population loss is a defining characteristic of shrinking cities, and public transportation relies on density.

- Between 1950 and 2010, the City of St. Louis lost 63% of its population; Detroit lost 61%.

- Like the shrinking cities challenges of income and private vehicle use, population decline also especially burdens minority neighborhoods.

Detroit | Youngstown | Pittsburgh
Cleveland | Buffalo | Flint
Cincinnati | Dayton

0% - 20%
20.1% - 40%
40.1% - 60%
60.1% - 80%
80.1% - 99.9%

Percent of the Population that was Non-white, 1970

-100% - -75%
-74.9% - -50%
-49.9% - -25%
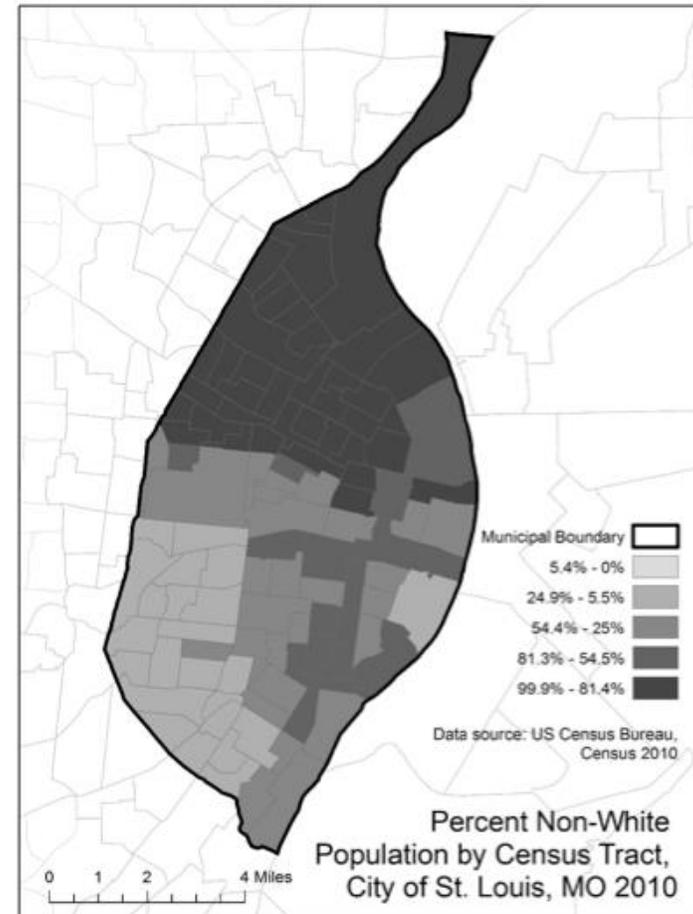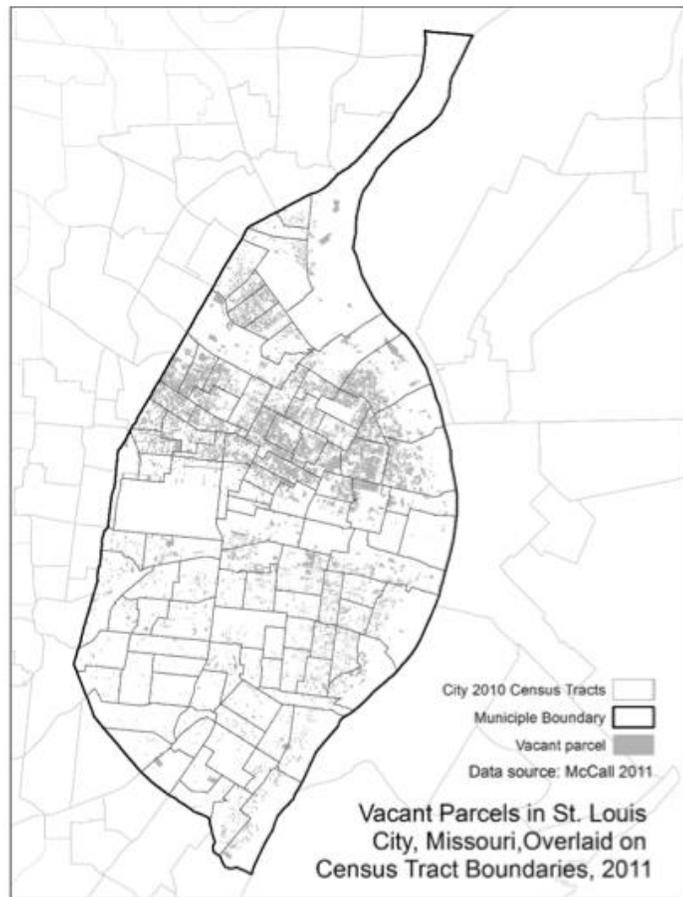-24.9% - 0%
0.1% - 25%
25.1% - 50%
50.1% - 75%
> 75%

Percent population change, 1970-2010

Data source: Minnesota Population Center. National Historical Geographic Information System: Cersion 2.0. Minneapolis, MN: University of Minnesota 2011.

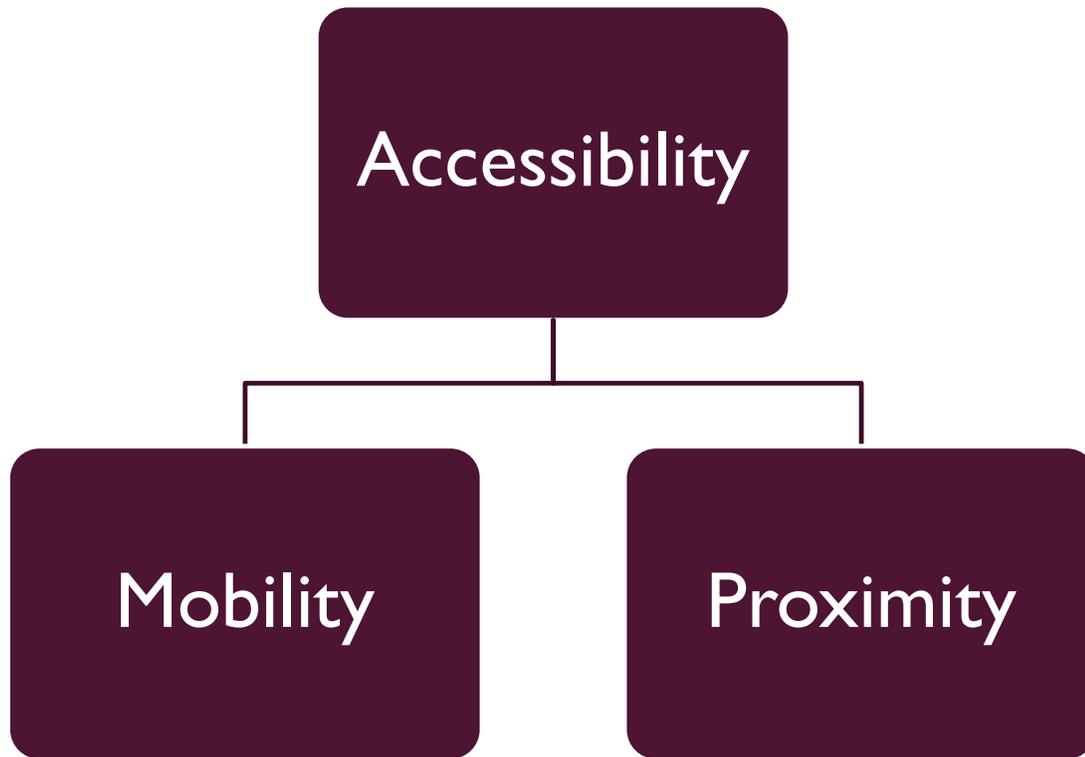- Across the 9 cities identified by Mallach, each 1970 tract lost, on average, 1,259 people between 1970 and 2010.

- Collectively, these cities lost on net 1.68 million residents over that period.

- These losses occurred disproportionately in minority neighborhoods: the correlation coefficient between percent non-white in 1970 and population change to 2010 is -0.36, significant at the 0.001 level.

CHALLENGE 2: SHRINKING CITIES ARE....SHRINKING

Vacant Parcels in St. Louis City, Missouri, Overlaid on Census Tract Boundaries, 2011

Legend:
City 2010 Census Tracts
Municiple Boundary
Vacant parcel
Data source: McCall 2011

Percent Non-White Population by Census Tract, City of St. Louis, MO 2010

Legend:
Municipal Boundary
5.4% - 0%
24.9% - 5.5%
54.4% - 25%
81.3% - 54.5%
99.9% - 81.4%
Data source: US Census Bureau, Census 2010

0   1   2   4 Miles

CHALLENGE 2: POPULATION DECLINE

```
              ┌─────────────────┐
              │                 │
              │  Accessibility  │
              │                 │
              └────────┬────────┘
           ┌───────────┴───────────┐
   ┌───────┴───────┐       ┌───────┴───────┐
   │               │       │               │
   │   Mobility    │       │   Proximity   │
   │               │       │               │
   └───────────────┘       └───────────────┘
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- Vacancy tangibly reflects a real estate market failing to provide sufficient demand for current levels of supply, or vice versa.

- **The notion of increasing proximity relies on the assumption of real estate development**; shrinking cities exist out of the reality of population decline, especially in minority neighborhoods.

- The idea of improving existing neighborhoods assumes a budget capable of servicing those programs, and shrinking cities have a declining tax base.

CHALLENGE 2: SHRINKING CITIES ARE….SHRINKING

- Consider, for example, that 500,000 residents in Detroit live with limited or no access to a grocery store, and residents spend over $200 million on grocery expenditures outside their neighborhoods.
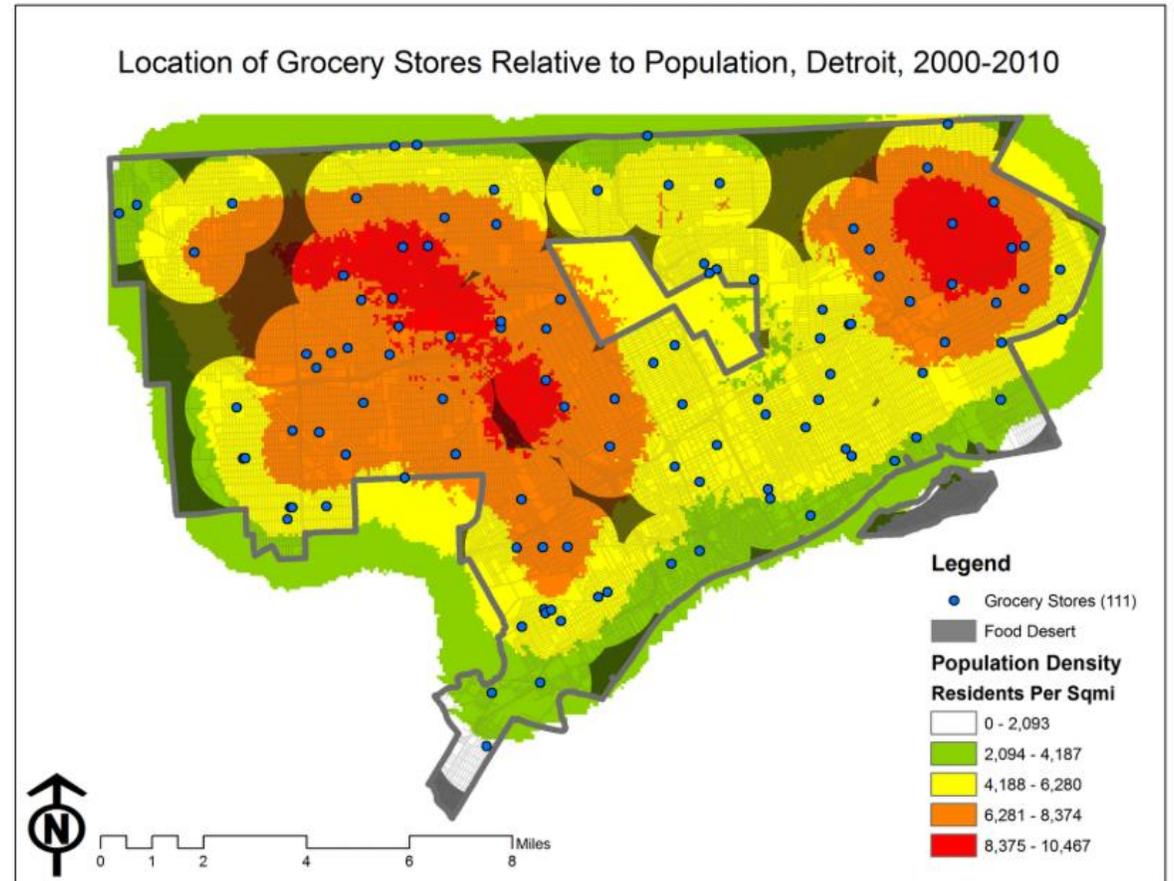

Location of Grocery Stores Relative to Population, Detroit, 2000-2010

Legend
- Grocery Stores (111)
- Food Desert

Population Density
Residents Per Sqmi
- 0 - 2,093
- 2,094 - 4,187
- 4,188 - 6,280
- 6,281 - 8,374
- 8,375 - 10,467

Image Source: mapdetroit.blogspot.com

CONCLUSION: WHAT CAN BE DONE?

For Researchers:

- Completing the computation of accessibility metrics not just for metropolitan regions, but for sub-geographies within them.

- Develop better knowledge regarding affordability in inner-city neighborhoods once transportation is accounted for

- Improve knowledge about how households cope with costs or find alternative transportation solutions

For Practitioners:

- Improve walkability by securing, cleaning up, and policing vacant land and buildings, programming sidewalk upgrades, crosswalk improvements, provision of street trees, etc.

- Seek ways to engage in equity planning, and improve participatory planning methods

OTHER ACTIONS

- Two other contentious programmable areas that could address accessibility in shrinking cities: decommission neighborhoods and support for car ownership programs.

- Decommissioning is a proposed action in Detroit's 10-Year Strategic Renewal Scenario.

- Youngstown, OH has a proposed project called the Eastside Decommission Project.
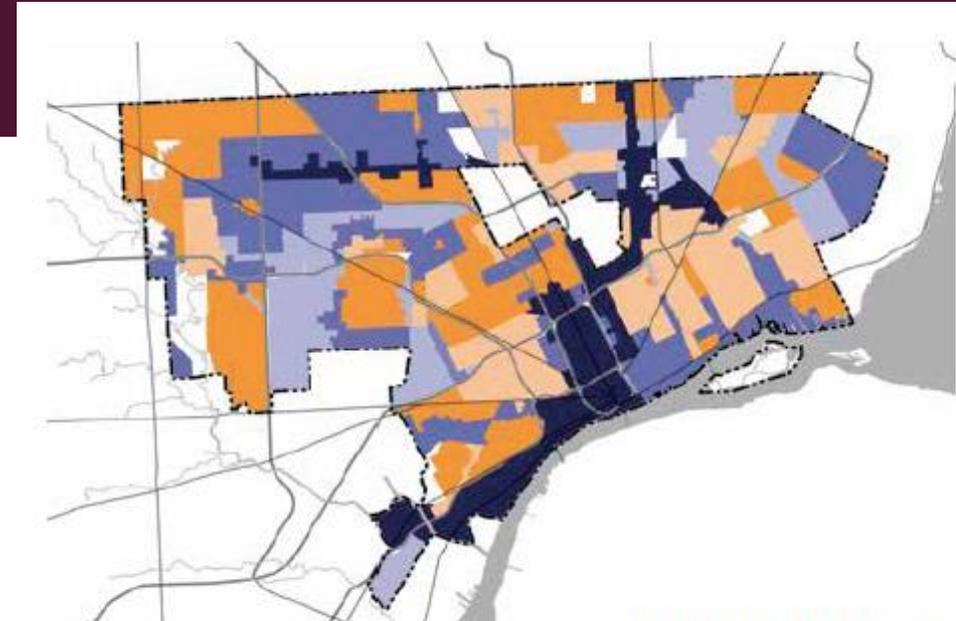
Source: Happold Consulting, Inc.

1 2   4 MILES

10- YEAR STRATEGIC RENEWAL SCENARIO

- REPLACE, REPURPOSE, OR DECOMMISSION
- MAINTAIN ONLY
- REDUCE AND MAINTAIN
- RENEW AND MAINTAIN
- UPGRADE AND MAINTAIN

CONCLUSION

Planning in shrinking cities faces tensions at every turn. Growth is a hegemony in planning; shrinking cities exist in decline. Planning for accessibility presents a special case of this difficulty found in re-tooling planning for decline.

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