GETTING CONNECTED
Improving Access to Opportunity in your Community
DECLINE IN SUBURBIA?
COMMON CHARACTERISTICS OF DECLINING SUBURBS

• Residential separated from all nonresidential uses
• Homes with little aesthetic charm
• Locations remote from employment and from public transportation
• Poor access to public amenities including parks and libraries
• Streets designed to limit through traffic
SUBDIVISION TO SLUM?! 

Common characteristics of declining suburbs:

- Residential separated from all nonresidential uses
- Homes with little aesthetic charm
- Locations remote from employment and public transportation
- Poor access to public amenities including parks and libraries
- Streets designed to limit through traffic

Designed to be inconvenient.
CONVENIENCE + AMENITIES = FINANCIAL HEALTH
EXAMPLE SUBURB FROM THE 1920S
KEY CONCEPT: “ACCESS TO OPPORTUNITY”

How many valued destinations can be reached in a reasonable period of time?
Access to Opportunity: Improvement

Transportation Improvement

Housing Locations
Access to Opportunity: Improvement

Transportation Improvement

Housing Locations

Nearby Destinations
ACROSS THE STATE, PEOPLE WANT TO....

70%  
walk more

58%  
bike more

46%  
take transit more

Source: Utah Statewide Household Travel Survey
ACCESS TO OPPORTUNITY IN A COMMUNITY?
TWO PROVEN INGREDIENTS:

• Connected streets
• Key nearby destinations
STREET NETWORKS ENDURE!
GET THE MOST PERMANENT FEATURES RIGHT!
WHAT IS STREET CONNECTIVITY?
What is Street Connectivity

Hierarchical vs. Connected
OVERVIEW

» What is street connectivity
» Why it matters
» Why we don’t connect our streets
» Utah Street Connectivity Study
» How to improve connectivity

Source: CNU
WHY IMPROVE CONNECTIVITY?
STREET CONNECTIVITY IMPROVES ACCESS TO OPPORTUNITY

» Access more within a travel distance
The street network matters

Hierarchical vs. Connected
• Walk/bike distances longer
• Traffic congestion rougher
• Arterial character meaner
• Access to opportunity worse...
• Walk/bike distances shorter
• Traffic congestion smoother
• Arterial character friendlier
• Access to opportunity better
Case Study: Merced, CA
Merced Alternative’s advantages:

• Fewer Vehicle Trips:
  20% lower

• Shorter Driving Distances:
  30% lower

• Fewer busy streets:
  30% fewer streets above 30,000 average daily trips
SERVICES EFFICIENCIES (SAVE MONEY)

Source: Charlotte Fire Department
WHY WE DON’T CONNECT ALREADY
“BUT WHAT ABOUT THE CHILDREN?”

“I love living on a cul-de sac”

“Who wants cut-through traffic?”
CONNECTIVITY DOESN’T HAVE TO MEAN NO CUL-DE-SACS

Shorter cul-de-sacs

Pedestrian connections through cul-de-sacs
THRU VERSUS SLOW AND LOCAL STREETS
WHAT ABOUT THE CHILDREN REDUX

• 18% of children are obese
Exhibit 3 – Mode of Travel to School by Distance for Children ages 6-12

Source: 2001 NHTS
WHY IMPROVE CONNECTIVITY?

Connected streets led to more walking

88% of students in Daybreak walk to school

17% Of students in similar, less walkable neighborhoods walk to school

Utah Street Connectivity Guide

- The Case for Connectivity
- Tools for Connectivity
- Design Guide and Case Studies
Utah Street Connectivity Guide

**Why is connectivity important?**
A highly-connected street network—one where a dense set of intersections each connect to several streets, that connects a community to its key destinations, and is walkable—provides a multitude of benefits for Utah communities.

- **Regional and community mobility:** Good street connectivity redistributes traffic among different routes in a network, providing more options and better accessibility for local traffic. This in turn frees some of the capacity on the adjacent arterial roads, which are mostly used by the non-local traffic.
- **Transportation choice:** Higher street connectivity provides travelers with greater choice of travel modes. In a well-connected network, active transportation modes and transit become more viable choices. This means that these types of networks are less automobile-dependent.
- **Health:** Street connectivity has been shown to offer indirect benefits related to health, largely stemming from the health effects of increased physical activity.
- **Economic vitality:** Increasing street connectivity has a direct impact on economic vitality. Many of the tasks that residents use daily, such as commuting to work, shopping for groceries, and visiting friends and family, are dependent on street connectivity.
- **Environment:** Street connectivity has major effects on the environment. The more streets that are connected, the more people and vehicles can use public transportation, which reduces pollution and greenhouse gas emissions.
- **Community access:** A regional or community-wide network of streets is necessary to build connected communities. A lack of connectivity means that people are isolated and cannot easily connect with others.
- **Infrastructure and growth management:** Higher street connectivity improves the investment in municipal infrastructure, such as utilities, and services, such as fire and emergency services.

**What is connectivity?**
Street connectivity is a simple idea—providing a network of public streets whose intersections allow for easy movement around it. However, this simple idea is more difficult to define.

The relative level of connection.

The relative level of connection is the degree to which streets are connected to one another at each intersection. In the example below, the Downtown Salt Lake City grid has a higher level of connection because of its consistency 4-way intersections, whereas the eastern Salt Lake City example has mostly 2-way intersections and cul-de-sacs.

**Network density:** The more connected the network, the better. The Downtown Salt Lake City grid has a higher network density than Salt Lake City, with its 600-foot blocks.

**Ability to connect to specific destinations:** This aspect addresses the problem that all destinations along a network are not equally popular and, therefore, are not equally valuable for a network to connect. For example, an elementary school receives more trips along a network than a single family home, so it is important to understand how well a given network connects the community to these specific points along it. Often improving access to key destinations such as schools is the most effective way a built-out community can improve its connectivity.

**Quality of the network for all users—walkability:** Each street offers a different environment for all transportation modes—private vehicles, public transit, freight, bicycling, and walking. Among these, it is particularly important to pay attention to the conditions for walking. Pedestrians are the most vulnerable users of the network, and everyone is a pedestrian at some point during their trip. The pedestrian environment is critical for transit access. How well a street provides infrastructure for walking is a key aspect of street connectivity.
One size does NOT fit all

This guide defines six types of neighborhoods/districts:

**Urban residential neighborhood:** An urban residential neighborhood is a high-density residential area with a mix of civic, commercial, and office uses.

**Downtown district:** A mixed-use center of activity that attracts people from throughout the community and sometimes the region.

**Suburban residential neighborhood:** A lower-density residential area with other types of uses typically found on nearby arterial or collector corridors.

**Campus district:** A large land use such as an educational campus, shopping center, business park, or entertainment/lifestyle center.

**Rural residential neighborhood:** A very low density residential area with agricultural or natural space and few other uses present.

**Industrial district:** An area focused on production or distribution activities.

Neighborhood and district-scale connectivity considers all streets.
Case Studies
HOW TO IMPROVE CONNECTIVITY
HOW TO IMPROVE CONNECTIVITY?

» Assess your city

» Planning and ordinances

» Street & development standards

» Retrofit tools
ASSESS WHERE YOU ARE AT

» Tools in the Utah Street Connectivity Guide
CONNECTING STUB STREETS
RETROFITS

Source: Lehi City

DIVIDING LARGER BLOCKS

Figure 4.4-1 | Sugar House Business District Circulation Plan

Source: Lehi City
CUL DE SAC CONNECTIONS

Source: Lehi City
PEDESTRIAN LINKAGES

Source: FHWA
PEDESTRIAN LINKS BETWEEN DEVELOPMENTS
CONNECT TO WHAT?
ACCESS TO OPPORTUNITY IN A COMMUNITY?
TWO PROVEN INGREDIENTS:

• Connected streets
• Key nearby destinations
Utahan’s spatial mapping: Attributes considered “important” close to an ideal community

<table>
<thead>
<tr>
<th>Feature</th>
<th>TOTAL Important</th>
<th>TOTAL Not Important</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parks and recreational fields</td>
<td>73%</td>
<td>8%</td>
</tr>
<tr>
<td>Hospital</td>
<td>73%</td>
<td>7%</td>
</tr>
<tr>
<td>Open spaces or natural lands</td>
<td>67%</td>
<td>10%</td>
</tr>
<tr>
<td>Has its own elementary, middle and high schools</td>
<td>67%</td>
<td>15%</td>
</tr>
<tr>
<td>Grocery stores/gas stations</td>
<td>65%</td>
<td>9%</td>
</tr>
<tr>
<td>Library</td>
<td>63%</td>
<td>11%</td>
</tr>
<tr>
<td>Doctor/Dentist offices</td>
<td>55%</td>
<td>12%</td>
</tr>
<tr>
<td>Easy Access to highways</td>
<td>52%</td>
<td>18%</td>
</tr>
<tr>
<td>Entertainment and Restaurants</td>
<td>50%</td>
<td>19%</td>
</tr>
<tr>
<td>Your place of work</td>
<td>48%</td>
<td>20%</td>
</tr>
<tr>
<td>Small retail services (cleaners, salons, copy centers, etc.)</td>
<td>44%</td>
<td>21%</td>
</tr>
<tr>
<td>Farm, ranch or other agricultural lands</td>
<td>40%</td>
<td>32%</td>
</tr>
<tr>
<td>Universities/Community or Technical colleges</td>
<td>37%</td>
<td>28%</td>
</tr>
<tr>
<td>Community Center (pool, fitness center, etc.)</td>
<td>36%</td>
<td>33%</td>
</tr>
<tr>
<td>Senior Center</td>
<td>34%</td>
<td>33%</td>
</tr>
<tr>
<td>Performing arts center</td>
<td>33%</td>
<td>34%</td>
</tr>
<tr>
<td>Shopping malls</td>
<td>19%</td>
<td>54%</td>
</tr>
</tbody>
</table>

*Importance assessed, but not ideal distance

Source: Utah Values and Future Growth, Harris Interactive 2007
N=1,262    +/- 3%
How many Utahans want it within biking distance....

- Parks and recreational fields: 74%
- Elementary, middle and high: 76%
- Open spaces or natural lands: 44%
- Entertainment and Restaurants: 50%
- Your place of work: 34%
FLOWING TRANSPORTATION

» Some think it's like a river system or watershed.
FLOWING TRANSPORTATION

» What can happen to single system flows?
FLOWING TRANSPORTATION

”It’s 5’ clock somewhere....” time for the traffic damn

» Redundancy works from regional scale down to neighborhoods
DOWNTOWN SLC CONNECTIVITY RENEWAL

SLC 2006

SLC 2016
LAND-USE FOR CENTERS/T.O.D. – SAME SCALE FOR BOTH PROJECTS

ORENCO STATION, HILLSBORO, OR

STATION PARK, FARMINGTON, UT

TRAIN STATION

TRAIN STATION
LAND-USE FOR CENTERS/T.O.D. —
ACCESS TO OPPORTUNITY IN A COMMUNITY?
TWO PROVEN INGREDIENTS:

- Connected streets
- Key nearby destinations
GET CONNECTED!

» Connectivity provides multiple wins
  » Access to opportunities
  » Walkability
  » Reduce traffic congestion
  » Reduces the burden on municipal services
  » Neighborhood long-term value and stability

» One size doesn’t fit all: explore what works in your community

» The Utah Street Connectivity Guide can help

» Build in nearby destinations -- ask your residents
For more information, contact:

Julie Bjornstad
julieb@wfrc.org

wfrc.org/tlc
GETTING CONNECTED
Improving Access to Opportunity in your Community
POLICY DISCONNECT

Red = UDOT

Blue = local governments