Scenario Workshops #2

Meetings:
• February and March
• 6 meetings in the Ogden – Layton Urbanized Area
• 4 meetings in the Salt Lake City – West Valley City Urbanized Area

Invitees:
• Mayors / Elected Officials
• City Managers
• Planners
• Engineers
• Economic Development Directors
• City Councils and Planning Commissions Members
• UDOT, UTA, and Envision Utah

Purpose:
• Review Three Scenarios and provide input on Land use and Transportation
Application of access-to-opportunity in decision-making

Regional Growth Committee

March 16, 2017
Wasatch Choice 2050 Goals

- Livable and healthy communities
- Access to economic and educational opportunities
- Manageable and reliable traffic conditions
- Quality transportation choices
- Safe, user friendly streets
- Clean air
- Housing choices and affordable living expenses
- Fiscally responsible communities and infrastructure
- Sustainable environment, including water, agricultural, and other natural resources
- Ample parks, open spaces, and recreational opportunities
Improving access to opportunity

<table>
<thead>
<tr>
<th>Transportation Improvement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infill Development</td>
</tr>
</tbody>
</table>

Diagram showing a grid with houses and a central building, illustrating the concept of transportation improvement and infill development.
Analyzing Access

>760,000 jobs within 30 minutes

130,000 jobs within 30 minutes

>760,000 jobs within 30 minutes

Job Accessibility via Auto:
- 0
- 1 - 150,000
- 150,000 - 300,000
- 300,000 - 450,000
- 450,000 - 600,000
- 600,000 - 750,000
- 750,000 - 900,000
Analyzing Access: by Transit

>160,000 jobs within 30 minutes

< 15,000 jobs within 30 minutes

Job Accessibility via Transit
- 0 jobs
- 1 - 15,000
- 15,000 - 45,000
- 45,000 - 95,000
- 95,000 - 150,000
- 150,000 - 235,000
Access to Opportunity helps answer “Where?”

Transportation:
*Where would another lane help people get to more jobs?*

Housing:
*Which TODs are the most effective?*

Business recruitment:
*Where should we recruit firms in order to improve access to labor?*
## Initiatives relevant to Access to Opportunity

<table>
<thead>
<tr>
<th>Scale</th>
<th>Initiative</th>
<th>Participants</th>
<th>Primary Issue</th>
<th>Secondary</th>
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<tbody>
<tr>
<td>State</td>
<td>Transportation Governance and Funding Task Force</td>
<td>Legislature, public private</td>
<td>Transportation</td>
<td>Land use, ED</td>
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<td>State</td>
<td>Utah's Unified Transportation Plan</td>
<td>WFRC/MPOs, UDOT, UTA</td>
<td>Transportation</td>
<td>Land use, ED</td>
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<tr>
<td>Region</td>
<td>Regional Transportation Plan, Wasatch Choice 2050</td>
<td>WFRC, UDOT, UTA, Cities and Counties</td>
<td>Transportation</td>
<td>Land use, ED</td>
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<tr>
<td>County</td>
<td>Partnership for a Greater Salt Lake</td>
<td>Salt Lake County, public &amp; private</td>
<td>ED, transportation, land use</td>
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<tr>
<td>County</td>
<td>Weber County TLC Template</td>
<td>Weber County and Cities</td>
<td>ED, transportation, land use</td>
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<tr>
<td>Local</td>
<td>Local planning, TLC</td>
<td>Cities &amp; Counties</td>
<td>Land use, transportation, ED</td>
<td></td>
</tr>
</tbody>
</table>
Regional Development

Example Outcomes

• **Outcome 2:** *Local jurisdictions adopt a balanced approach to mixed-use development -- supporting access to public transportation and employment opportunities.*
  
  **Indicators:**
  
  – # of compact housing, commercial, retail & services development in centers or near transit

• **Outcome 8:** *Region-wide transportation planning efforts contribute to households having access to jobs and housing options.*
  
  **Indicators:**
  
  – Proximity of jobs, housing, & services within 30 minutes of travel time* by mode
  
  *Review indicator on regional & sub-regional level
Industry Clusters

- Aerospace and Defense
- Natural Resources and Energy
- Financial Services
- IT and Software
- Life Sciences
- Outdoor Recreation
AEROSPACE AND DEFENSE CLUSTER

Total firm count: 34 | Total employees: 3776

Most firm clustering:
- Clinton City
- Ogden City
- West Valley City

City with most firms:
- Salt Lake City: 8 firms
- Ogden City: 6 firms
- West Valley City: 3 firms

City with most employees:
- Salt Lake City: 1665 employees
- West Valley City: 886 employees
- Ogden City: 732 employees

INDUSTRY RELATIONSHIP WITH WASATCH FRONT RAIL SYSTEM

Rail stops serving firms

Light Rail = Commuter stations with 5 firms located within 1/2 mile (16 percent of firms)
Application of access-to-opportunity in decision-making

Regional Growth Committee

March 16, 2017
What is Street Connectivity?

Connectivity is...**multiple routes** and connections serving the same origins and destinations
What Utahns Want

- 23% Improving how convenient it is to get around without a car
- 22% Limiting traffic congestion
- 18% Making sure daily services and amenities are close to where people live

Source: Envision Utah
What Utahns Want

A top transportation priority should be to improve the connectivity of streets and sidewalks for shorter distance trips

Source: Utah Statewide Household Travel Survey
Project Background

» Define benefits of street connectivity
» Inform decision makers
» Provide guidelines for implementation
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.

Safety
In recent years, many studies have focused on how built environment factors such as street connectivity and community affect health-related outcomes.

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.

Look at the two images below. The images show two street networks, and they are clearly different. But why are they different?

Network density: To consider network density, take the very connected network in downtown Salt Lake City and compare it to Salt Lake City’s Avenues neighborhood. Because both are nearly perfect grids, they have the same relative level of connection. However, the network in the Avenues is noticeably different, and more connected. This is due to their network density. With its 330-foot blocks, the Avenues has a much 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 to. An elementary school receives more trips along a network than a single family home, for example. 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 the 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.
Why Improve Connectivity?

Connectivity Improves Mobility:
- Each 1% increase of connectivity yields the same travel time benefits as 1 lane mile of roadway.

Connectivity Creates Transportation Choice:
- High intersection density is the best predictor for use of active transportation.

Connectivity Improves Emergency Service:
- Adding 300 feet of roadway between two subdivisions in Charlotte, N.C., increased the fire station service area by 17 percent.

Connectivity Improves Safety:
- The highest risks of fatal or severe crashes tend to occur in areas with low intersection densities.

Connectivity Improves the Economy:
- Compact, connected, walkable neighborhoods can command a price premium of 40 to 100 percent compared to nearby less-connected neighborhoods.

WASATCH FRONT REGIONAL COUNCIL
Utah Street Connectivity Guide

3.1.1 Regional-scale connectivity

Regional scale connectivity is street connectivity for travelers making trips across the region. Trips across the region are usually those that cross city borders. The most typical type of regional trip is the work commute, but these trips can be for social visits, recreation, and shopping.

Areas in which to analyze regional scale connectivity are groups of different cities or communities that contain regional-level trips. An example of this is an area that could be the entire Wasatch Front but could also be a sub-area such as Salt Lake County or the area covered by one of the Metropolitan Planning Organizations (MPOs) such as the Okie MPO.

Regional scale connectivity considers only those streets typically used by regional travelers — for this guide, these are defined as arterial and above level streets and freeways.

3.1.2 Neighborhood and district connectivity

Neighborhood and district scale connectivity is street connectivity within a neighborhood or district of common identity. These areas can range in size as small as a single subdivision to as large as a several square mile sub-division of a city.

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 single, 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 combiners.
- Rural residential neighborhood: a very low-density residential area with agricultural or natural space and few other uses present.
- Campus District: an area focused on production or distribution activities.
- Industrial District: an area focused on production or distribution activities.

The following table provides a summary of how each metric applies to each street connectivity context type:
3.3 Street Connectivity Design Guide and Case Study Results

This section illustrates how, you, the user, can put together the information in this guide to improve street connectivity in your community. The guidance in this section is based on the different community contexts. Each context type contains a section that provides a set of considerations that may apply in your type of environment and the set of standards for each of the four metrics to measure street connectivity.

Meanwhile, each case study results page contains an explanation of the area, the evaluation of the area’s connectivity according to the Utah Street Connectivity Guide metrics in Section 2.1, suggested potential strategies according to the four types of strategies identified in Section 2.2; a map showing how the suggested strategies might look; and a re-evaluation of the metrics with the strategies incorporated. For the three community-scale case studies a summary of the benefits modeling is included. An example is below:

- **Name of the context type**
- **Connectivity guidelines and considerations for the context type**
- **Description of the case study area and existing connectivity evaluation**
- **Suggested connectivity improvements**
- **Evaluation of improvements on metrics**
- **Map of what suggested improvements might look like. **
  **NOTE: This is not a plan, only hypothetical.**

Standards for the four metrics for the context type.
Case Studies
Case Studies

» Reduction in network travel times & delay in urban & suburban communities

» Shorter travel distances in all cases

» More balanced distribution of traffic throughout networks

» Lower delay & increased network capacity with greater connectivity vs. widening

» Increased rates in bicycling and walking

» Significant savings/benefits due to increase in active transportation
Guide

UTAH STREET CONNECTIVITY GUIDE

A resource for what street connectivity is, why it is important - and how to increase it in our communities

MARCH 2017
CONNECTIVITY

Quarter Mile
CONNECTIVITY IN LEHI

- Lehi City Council Adopted Street Connectivity Standards - April 2016
  - Concerns
  - Solutions
  - Determine Metrics
  - Lehi Connectivity Standards
  - New Development Example
CONCERNS

- City Staff → Maintenance/cost
- Appointed/Elected Officials → Maintenance/traffic
- Public → Traffic/privacy
- Development → Cost/decreased developable area
LEHI SOLUTIONS

- Standard Lehi Cul-de-sac
Cul-de-sac Stub Example
LEHI SOLUTIONS

- Cul-de-sac Connection
LEHI SOLUTIONS

- Potential infrastructure cost savings
LEHI SOLUTIONS

- New development solutions
  - Lot size flexibility
  - Potential density bonus
“WHAT IF” SOLUTION

- Detriments of existing layout
  - Maintenance
  - Emergency access
  - Delivery
  - Walkability
DETERMINE METRICS

- Lehi Ordinance
  - Connectivity index
  - Maximum block/cul-de-sac length
  - Credit for trail/pedestrian connections and street frontage along open space

Connectivity Index of 3
LEHI CONNECTIVITY STANDARDS

- Required Connectivity Index

<table>
<thead>
<tr>
<th>Density</th>
<th>Minimum Index Score</th>
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<tbody>
<tr>
<td>0-2.5 DU/AC</td>
<td>1.5</td>
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<tr>
<td>2.6-4 DU/AC</td>
<td>1.6</td>
</tr>
<tr>
<td>4.1+ DU/AC</td>
<td>1.75</td>
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</tbody>
</table>
LEHI CONNECTIVITY STANDARDS

- External Connectivity Requirements
LEHI CONNECTIVITY STANDARDS

- Maximum block/cul-de-sac lengths

<table>
<thead>
<tr>
<th>Density</th>
<th>Maximum Block Length</th>
</tr>
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<tbody>
<tr>
<td>0-2.5 DU/AC</td>
<td>1,000 ft.</td>
</tr>
<tr>
<td>2.6-4 DU/AC</td>
<td>800 ft.</td>
</tr>
<tr>
<td>4.1+ DU/AC</td>
<td>600 ft.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Density</th>
<th>Maximum Cul-de-sac Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-2.5 DU/AC</td>
<td>400 ft.</td>
</tr>
<tr>
<td>2.6+ DU/AC</td>
<td>250 ft.</td>
</tr>
<tr>
<td>R-2, R-2.5, R-3</td>
<td>No Cul-de-sacs</td>
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</tbody>
</table>
Exceptions

- Topography;
- Natural features including lakes, rivers, designated wetlands;
- Existing adjacent development;
- Rail corridors;
- Limited access roadways.
NEW DEVELOPMENT EXAMPLE

CI = 1.55
Required = 1.75
NEW DEVELOPMENT EXAMPLE

CI = 1.48
Required = 1.75
NEW DEVELOPMENT EXAMPLE

CI = 1.61
Required = 1.75
NEW DEVELOPMENT EXAMPLE

CI = 1.88
Required = 1.75
CONTACT INFO

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153 North 100 East, Lehi, UT 84043 | Lehi City, Pioneering Utah’s Future | lehi-ut.gov
Active Transportation Goals - 2017

1. Update shared Regional Priority Bicycle Routes Plan/Map

2. Cities and counties adopt Local Active Transportation Plans [that align with Regional Priority Plan/Map]

3. Fund and construct priority projects

4. Build support for AT through effective engagement and outreach