STREET CONNECTIVITY: WHAT IT IS, WHY IT MATTERS, & HOW TO INCREASE IT IN OUR COMMUNITIES
STREET CONNECTIVITY

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
Street connectivity

• What is it?
• Why is it important?
• How do we improve it in our communities?
STREET CONNECTIVITY: WHAT IT IS

- Grids: Downtown, historic neighborhoods
STREET CONNECTIVITY: WHAT IT IS

- Blocks become longer and bigger
STREET CONNECTIVITY: WHAT IT IS

- Streets become more disconnected, major streets become wider
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STREET CONNECTIVITY: WHAT IT IS
• What is important to people about their neighborhoods?
  - Mobility
  - Accessing destinations
  - Safety
  - Security
STREET CONNECTIVITY: WHY IT MATTERS

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- Transportation choice
- Emergency service
- Community health
- Economic vitality
Connectivity Improves Mobility

Within this guide’s case studies, each 1% increase of connectivity yields the same travel time benefits as 1 lane mile of roadway.
CONNECTIVITY IMPROVES SAFETY

The highest risks of fatal or severe crashes tend to occur in areas with low intersection densities.
STREET CONNECTIVITY – WHY IT MATTERS

• Security
  - Connection between street connectivity and crime has not been very well studied.
  - One study found that the risk of crime is less in a well-connected network with more activity.
  - Study also found that dwellings on cul-de-sacs had twice as many burglaries than those on connected streets.
STREET CONNECTIVITY – WHY IT MATTERS

• Destination access
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For every degree street connectivity improves, Access to destinations improves two degrees.

For example - a neighborhood street network whose connectivity improves by 25 percent on average makes its community destinations accessible to 50 percent more of the neighborhood.
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.
• Health
  - One study: Residential neighborhoods with street connectivity reported **70 minutes more physical activity** within a week than other neighborhoods
  - Our case study modeling projected that a set of street improvements improving connectivity by approximately 30 percent in three communities would on average lead to a **doubling of physical activity** and a **quadrupling of long-term health care cost savings**.
Compact, connected, walkable neighborhoods can command a price premium of 40 to 100 percent compared to nearby less-connected neighborhoods.
• We developed ways to measure and improve street connectivity.
STREET CONNECTIVITY – HOW TO IMPROVE IT

• Not one-size fits all: Depends on the type of community
• Different strategies for different communities.
• Many of the different environments in our region can have their own type of street connectivity.
STREET CONNECTIVITY – HOW TO IMPROVE IT

Downtown
STREET CONNECTIVITY – HOW TO IMPROVE IT

Suburban neighborhood
Rural neighborhood
• Strategies for new development and retrofit
STREET CONNECTIVITY – HOW TO IMPROVE IT

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STREET CONNECTIVITY – HOW TO IMPROVE IT

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• The cul-de-sac flashpoint
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However 73% supported connecting cul-de-sacs for pedestrians and cyclists only – only 11% against
• An increasingly important aspect of planning our communities
• Provides benefits for many aspects of our communities
• Strategies for increasing connectivity for all types of communities
Utah Street Connectivity Guide available at:
http://www.mountainland.org/transportation, under “Transportation Studies”