Link Spokane: Integrating Transportation & Utility Infrastructure Planning
Overview

- What is Link Spokane?
- How Spokane Got Here
- Review of Draft Evaluation Criteria
- Implementing Link Spokane
- Best Practices in Transportation
- Discussion
What is Link Spokane?

• Update of the Transportation Chapter of the Spokane Comprehensive Plan including portions of the Capital Facilities Chapter.

• Address the current and future needs of all modes of transportation including cars, freight, transit, pedestrians and bicyclists.

• Designed to be fully integrated with other City investments in utilities and infrastructure.
Cities are an invention to maximize exchange (goods, culture, friendship, knowledge) and to minimize travel.

The role of transport is to maximize exchange.

...David Engwicht
Streetcar History - 1923
What’s different about Link Spokane?

LINK SPOKANE
INTEGRATING TRANSPORTATION & CITY UTILITY INFRASTRUCTURE PLANNING

LINK SPOKANE: A River Runs Through It

The Spokane River is one of our most treasured natural assets. To improve and protect the health of the river, the City of Spokane will spend about $300 million over the next decade. This endeavor represents the largest infrastructure investment in the City’s history.

The City is developing what is called the Integrated Clean Water Plan to manage stormwater and wastewater that affects the Spokane River. The Integrated Plan will prioritize projects based on their positive environmental impact to the river and help us achieve Clean Water Act requirements.

In particular, the plan will include work to improve treatment at the City’s Riverside Park Water Reclamation Facility and reduce the amount of stormwater and wastewater entering the river without treatment. Today, some 54 million gallons of combined wastewater and stormwater enters the river through 20 discharge points from our combined sewer system annually. Another 1.1 billion gallons of untreated stormwater enters the river through separated storm drains, primarily located on the North Side.

Projects to reduce untreated discharges to the river from both separated storm sewers and combined sanitary and stormwater sewers are a big part of this effort. The work will include new green technologies for managing stormwater on site as well as more traditional “gray” storage tanks.

The Integrated Clean Water Plan includes three primary goals:

- We want a cleaner river. Faster. Prioritize work with the greatest potential to reduce phosphorus, PCBs, heavy metals, bacteria from sewage, and other pollution going into the River.
- We want to implement cost-effective and innovative approaches. Spend dollars wisely and include “green” technologies like rain gardens, pervious pavement, and street trees as they make sense.
- We want holistic integration with the City’s other critical infrastructure. The City is working to solve multiple problems when possible, leveraging the dollars spent to give citizens additional benefits, like improved streets, new water mains, and park improvements.

Before considering an integrated strategy, the City had expected to spend about $300 million on improvements at the Water Reclamation Plant and to reduce combined sewer overflows. Under this scenario, other sources of pollution to the river, including stormwater, wouldn’t have been addressed.

The City was able to reduce the size of the program, in part, with a commitment to manage stormwater on site when reconstructing streets or making other infrastructure improvements—one of the ways that we will benefit from joint transportation and utility planning efforts. The stormwater can be managed using new cost-effective, green technologies. The storm gardens on South Lincoln Street and the stormwater gardens and pervious pavement on West Broadway Avenue are some examples of these strategies. Strategies that integrate transportation improvements and stormwater management technologies are being incorporated into Link Spokane.

AN INTEGRATED APPROACH TO OUR TRANSPORTATION FUTURE
Relationship to Existing Transportation Chapter

TR 2.8 Sidewalk Repair and Replacement

Repair and replace broken and uneven sidewalks to improve safety and to encourage use by pedestrians.

Discussion: Traditionally, the repair of sidewalks has been the responsibility of the adjacent property owner. Within some Community Development neighborhoods, some federal

funding has been allocated towards sidewalks. One potential way to accomplish this policy on a citywide basis is to secure a commitment to conduct a systematic assessment of the current conditions of existing sidewalks. A list of neighborhoods with potential sidewalks for replacement should be prepared. A study to identify the need should be undertaken. (See policy TR 2.9, "Pedestrian Bicycle Corridors").

TR 2.9 Crosswalks

Design and install crosswalks at key locations and by pedestrians

Discussion: Key locations for crosswalks include heavily traveled areas, schools, shopping centers, parks, and so on. Crosswalks may be included in the pedestrian network. The design may vary depending on the location, with signalized crosswalks at intersections and un-signalized crosswalks at other locations.

TR 2.10 Pedestrian and Bicycle Linkages Across Barriers

Provide pedestrian and bicycle linkages between adjacent street areas where barriers, such as barriers, present obstacles.

Discussion: To link to pedestrian and bicycle networks, barriers may be needed to provide safe and convenient access. Examples of such barriers include sidewalks and bicycle access. Zoning examples of such barriers include the intersection with the bicycle network, the pedestrian network, and the barrier block. (See policy TR 2.10, "Pedestrian Bicycle Corridors")

Pedestrian and bicycle linkages should be developed where pedestrian and bicycle networks can be safely accommodated at the ground level.
Existing Transportation Chapter Goals

TR 1: Overall Transportation
TR 2: Transportation Options
TR 3: Transportation and Land Use
TR 4: Efficient + Safe Mobility
TR 5: Neighborhood Protection
TR 6: Environmental Protection
TR 7: Sense of Place
TR 8: Regional Planning
TR 9: Equitable Funding
TR 10: The Future

2013 Audit found weak correlation between goals and built environment
Policies by Goals

Overall Transportation
Efficient + Safe Mobility
Sense of Place
The Future
Transportation Options
Neighborhood Protection
Regional Planning
Transportation + Land Use
Environmental Protection
Equitable Funding
Transportation Vision Statement

“Citizens of Spokane will have a variety of transportation choices that allow easy access and mobility throughout the region and that respect property and the environment”
Link Spokane Draft Evaluation Criteria

• Provide transportation choices.
• Accommodate access to daily needs & regional destinations.
• Promote economic opportunity & fiscal responsibility.
• Respect natural and neighborhood assets.
• Enhance public health and safety.
• Maximize public benefits with integrated public investments.
Provide Transportation Choices
1: Overall Transportation
2: Transportation Options
3: Transportation and Land Use
4: Efficient + Safe Mobility
5: Neighborhood Protection
6: Environmental Protection
7: Sense of Place
8: Regional Planning
9: Equitable Funding
10: The Future

- Transportation choices
- Economic opportunity
- Public health and safety
- Neighborhood assets
- Natural assets
- Access to regional destinations
- Fiscal responsibility
- Integrated investments
6’8” parking lane – drivers park on the sidewalk. Location: Sprague Ave
On-street parking allowed but unutilized adds to driver speed. Location: Bernard St
Five Mile Road

A 4.5’ bike lane and a 14’ travel lane.
Location: SE Boulevard
A bus rider runs across five lanes of traffic after alighting from the bus. Closest signalized crossing 0.25 miles away. Location: Francis & Belt
• Current Design Standard (DS)
  – Through lanes: 12’
  – Center turn lane – 14’
  – Parking lane – 8’
• Current Standard (Comp Plan)
  – Principal/Minor Arterials: 12’ outer, 11’ inner
  – Collectors 12’ outer, 10’ inner
  – Parking lane – 7’ residential, 8’ collectors/arterials
Research and Data - Travel Lane Width

Safety
• No indication, expect in limited cases, that narrower lanes increase crash frequencies. (Potts, Petritsch)

• Wider lanes linked to higher speeds. Higher speeds increase likelihood and severity of crashes.

Capacity Research
• Capacity is not degraded until lane width is reduced to less than 10’ (Petritsch)

– Texas Transportation Institute. “Design Factors that affect driver speed on suburban arterials.”
Massive snowfalls like the one that hit the US east coast this week usually spell trouble for traffic. But critics of America’s car-centric transport network are using the snow - and Twitter - to demonstrate how roads should be redesigned to make them safer for pedestrians.

Fast-falling snow can lead to unsafe driving conditions, massive pile-ups, delayed trains, cancelled flights and slippery sidewalks.

- Snow-ploughing creates **narrowed roads**, illustrating possible space for parking, pedestrians or bike lanes.
- **Curved snowbanks** create wider pavements and indicate how much road space cars need when turning.
- Cleared snow on pavements shows **pedestrian patterns**.
Conventional Approach

More Lanes
More Roads
System Management
ITS
More Pavement
More Efficiency
More Cars

Conventional Approach
Balanced Approach

- More Pavement
- More Efficiency
- Move People, Not Cars
- Improve Quality of Travel
- Move Less People, Fewer Miles
- Manage, Not “Solve”

Conventional Approach

- More Lanes
- More Roads
- System Management
- ITS

Lateral Approach

- Transit
- Bicycling
- Walking
- HOV/HOT Lanes

User View and Comfort

- Context-Sensitive Design
- Traffic Calming
- Personal Security

Mix of Uses
- Mix of Uses
- Road Network
- Pedestrian-Oriented Environment
- Compact Development

Lane Limits
- Lane Limits
- Change Standards
Updating the Transportation Policy Framework

- Develop direct evaluation criteria and align policies to make them more clear, objective and implementable.

- Evaluate, prioritize, fund and build transportation projects based on performance metrics.

- Refine transportation Level of Service (LOS) standards to reflect goals and policies.

- Update Street Design Standards for future roads and street rehabilitation projects.
Overview of Project Screening Process

- Universe of Projects
- Project-Level Screening
- Tiered List of Projects
- Develop Plan Scenarios
- Package-Level Screening
- Recommended Future Network
Level of Service (LOS) Standards: Implementing Link Spokane
Multi-modal Quality of Service

Balance and prioritize design to meet street’s purpose
Resulting Multi-modal Impact Fee Projects

- New traffic signals
- Additional lanes at intersections
- New arterial connections

- Sidewalk infill
- Right-sizing
- Bike lanes
- Crosswalk improvements
Best Practices:

Implementing Link Spokane
20-Minute Neighborhoods

Best Practice

Neighborhood serving retail within walkable/bikeable distances in Denver

Local Application

Garland neighborhood as a local blueprint

Draft Evaluation Criteria

- Accommodates access to daily needs and regional destinations
- Promote economic opportunity and fiscal responsibility
- Promote public health and safety
Transit Innovations

Best Practice

Draft Evaluation Criteria

- Provide transportation choices
- Accommodate access to daily needs and regional destinations
- Promote public health and safety
- Respect natural and neighborhood assets
Multi-modal Safety

Best Practice

Improving arterial crossings including crosswalk markings, raised crosswalks, lighting, and signage

Draft Evaluation Criteria

- Provide transportation choices
- Accommodate access to daily needs and regional destinations
- Promote economic opportunity and fiscal responsibility
- Promote public health and safety
- Respect natural and neighborhood assets
- Maximize benefits through integrated public investments
Right Sizing

Best Practice

Draft Evaluation Criteria

- Provide transportation choices
- Promote economic opportunity and fiscal responsibility
- Promote public health and safety
- Maximize benefits through integrated public investments
Integrating Stormwater Management

Best Practices

- Promote economic opportunity and fiscal responsibility
- Promote public health and safety
- Respect natural and neighborhood assets
- Maximize benefits through integrated public investments
Neighborhood Greenways

Best Practice

Draft Evaluation Criteria

- Provide transportation choices
- Accommodate access to daily needs and regional destinations
- Promote economic opportunity and fiscal responsibility
- Promote public health and safety
- Respect natural and neighborhood assets
- Maximize benefits through integrated public investments
Catalytic Streetscape Investments

Draft Evaluation Criteria

- Provide transportation choices
- Accommodate access to daily needs and regional destinations
- Promote economic opportunity and fiscal responsibility
- Promote public health and safety
- Respect natural and neighborhood assets
- Maximize benefits through integrated public investments
Discussion

Project website
www.spokaneplanning.org/link.html

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Follow us on Twitter
@SpokaneCity
Making Spokane a City of Transportation Choices

- Provide viable transportation options for all users
- Reduce city capital and maintenance costs
- Promote health through active transportation
- Attract creative industries
- Reduce household transportation costs
Integration

• “3D view” of streets (above and below grade)

• Leverage transportation investments to meet multiple objectives:
  - stormwater/combined sewer overflow (CSO)
  - economic development/land use
  - transportation

• Limit disruption to residents and businesses
Fixing it First

• Maintain and enhance our existing transportation assets

• $150 million backlog

• $40 million annually to maintain system, but only $5 million is funded

• Leverage internal and external resources
Health & Safety

- Leverage investments to enhance traffic safety and promote positive public health outcomes
- “Right-sizing” on appropriate streets can increase safety and reduce maintenance costs
- Build active transportation back into our daily lives
Livable Streets

- Match street design to the function for Spokane districts and neighborhoods
- Livable streets can be:
  - Safe and convenient for all users
  - Economically vibrant in centers and along corridors
  - Multi-purpose and multi-functional
  - Supportive of neighborhood quality of life