




Spokane  
Central City Transit Alternatives Analysis

# History of the Project

## Spokane Central City Transit Alternatives Analysis

Project Meeting #3  
March 29, 2010





Spokane  
Central City Transit Alternatives Analysis

## Why watch this presentation?

Consider watching this if you are not familiar with the project's progress.

This presentation provides a history of the project to date – including the alternatives and modes considered.





## Spokane Central City Transit Alternatives Analysis

# Purpose and Need Statement

The Purpose of project is to:

1. **Increase transit ridership** to, from, and between existing and emerging activity areas within downtown
2. **Directly connect residential areas** with major employment centers
3. **Help stimulate new development** in downtown that is in support of local and regional land use goals, objectives and plans
4. **Maximize regional support** of and investment in the transportation system
5. **Being environmentally sensitive** and garnering broad **public support**

The Need for this project arises from:

1. Opportunity to **focus infrastructure investments** to encourage new development downtown
2. Opportunity to **improve transit accessibility, efficiency, and competitiveness**
3. Opportunity to **increase regional transit access** to activity and employment centers
4. Demand for convenient downtown **transit service outside of peak periods**
5. Need to **overcome existing barriers**
6. Challenges encountered by **new riders**



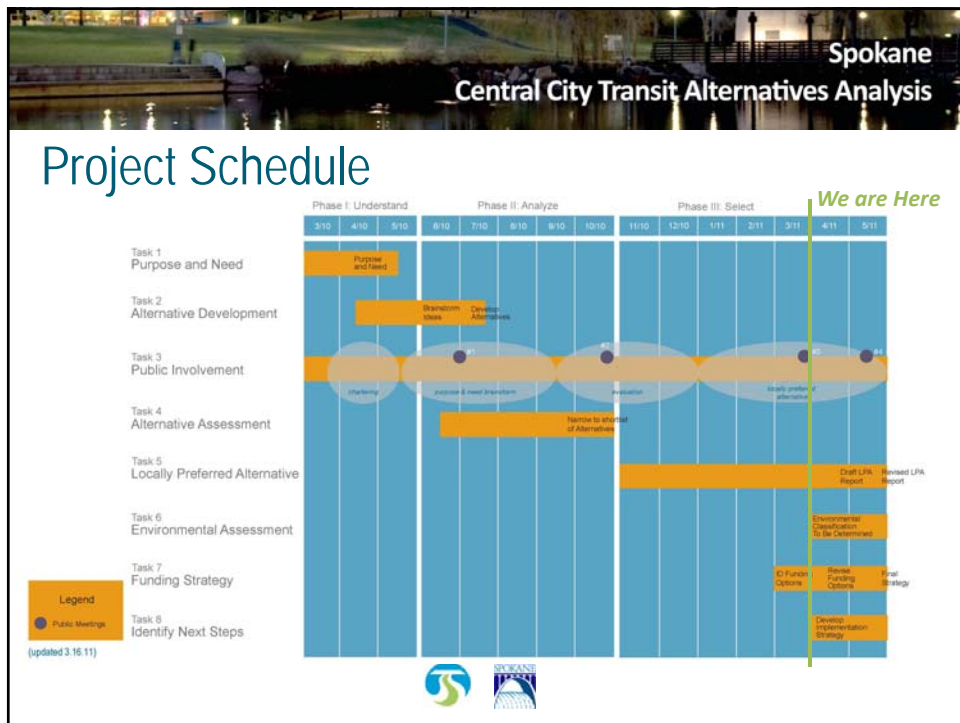



## Spokane Central City Transit Alternatives Analysis

# Project Objectives

- Increase the effectiveness and efficiency of transit within central city Spokane
- Provide improved transit connections to, from, and between central city activity areas
- Support and help stimulate central city development and redevelopment
- Comply with and support local and regional adopted goals, objectives, and plans
- Optimize fiscal investments in central city infrastructure and service
- Optimize the engineering design and environmental sensitivity of the project



Spokane  
Central City Transit Alternatives Analysis

## Project Study Area

The project study area is outlined in Yellow, and activity centers considered by the project are shown in Blue.

The three principle activity areas for the study are circled.

The map displays the Spokane Central City Transit Alternatives Analysis project study area. A yellow outline defines the study area, which includes several activity centers shown in blue. Three activity centers are circled in purple: University District, Downtown Core, and Medical West. Other activity centers shown include West Central, County Campus, North Bank, Kendall Yards Commercial, Kendall Yards Residential, West Downtown, East Downtown, South University, Browne's Addition, Cannon, and Medical East. The map also shows major roads and the Spokane River.

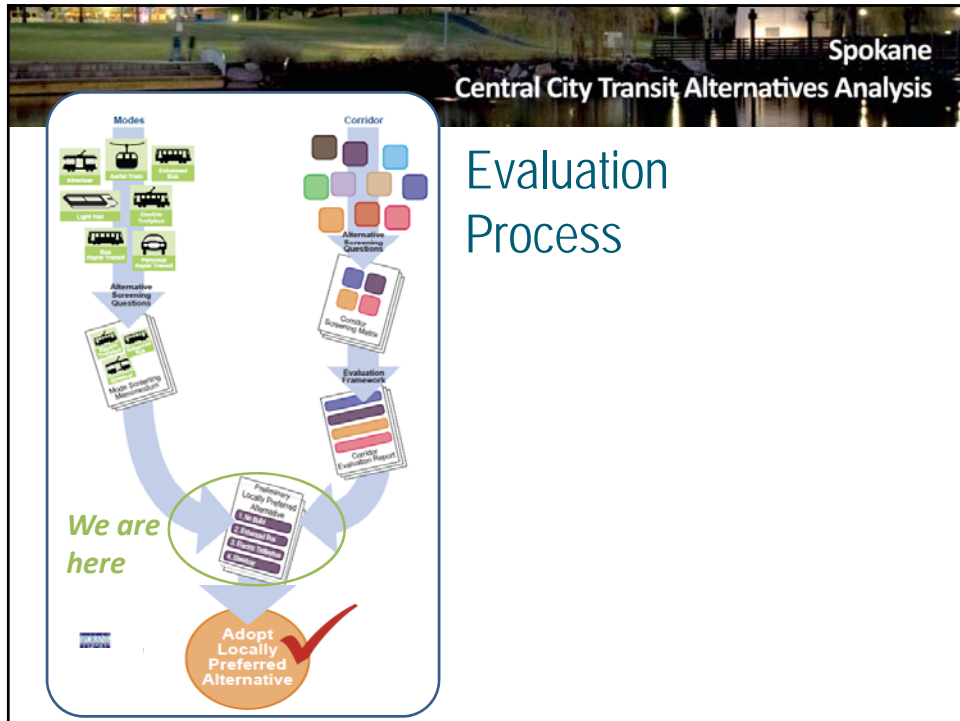
Logos for the Spokane Transit Authority and the University of Idaho are located at the bottom of the slide.

Spokane  
Central City Transit Alternatives Analysis

## Evaluation and Selection Process

The following graphic depicts the overall screening and evaluation process used for both corridors and modes.


Logos for the Spokane Transit Authority and the University of Idaho are located at the bottom of the slide.

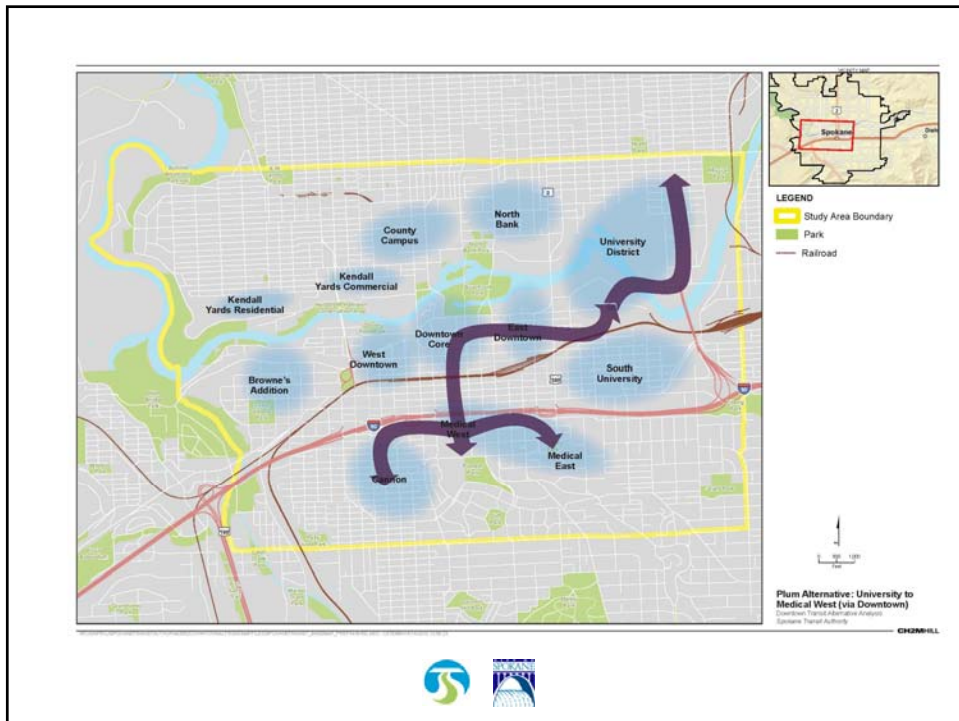
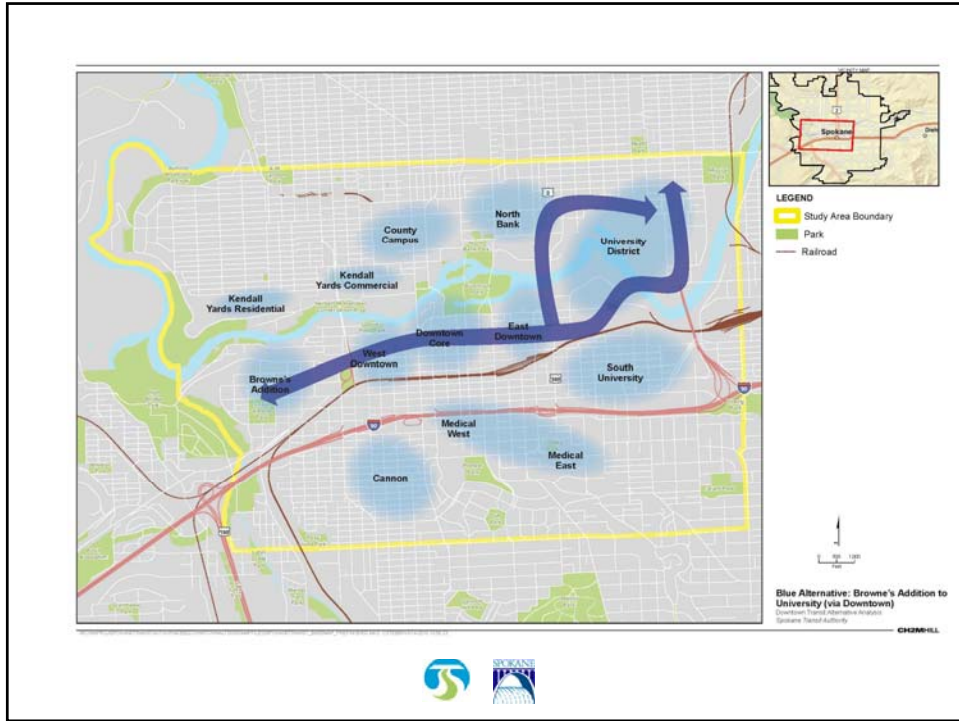


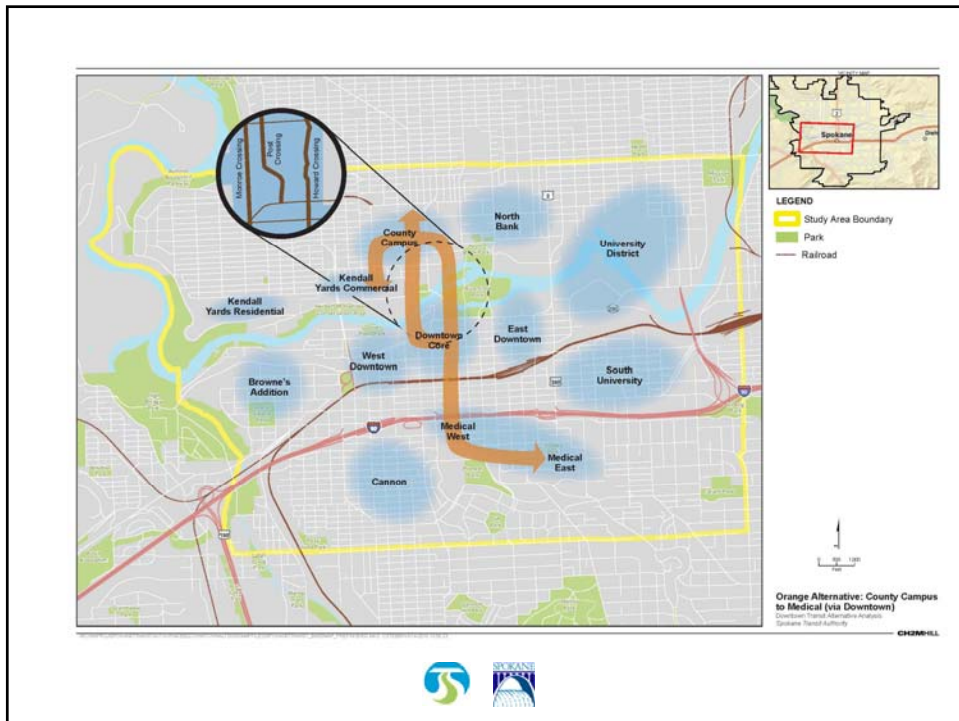
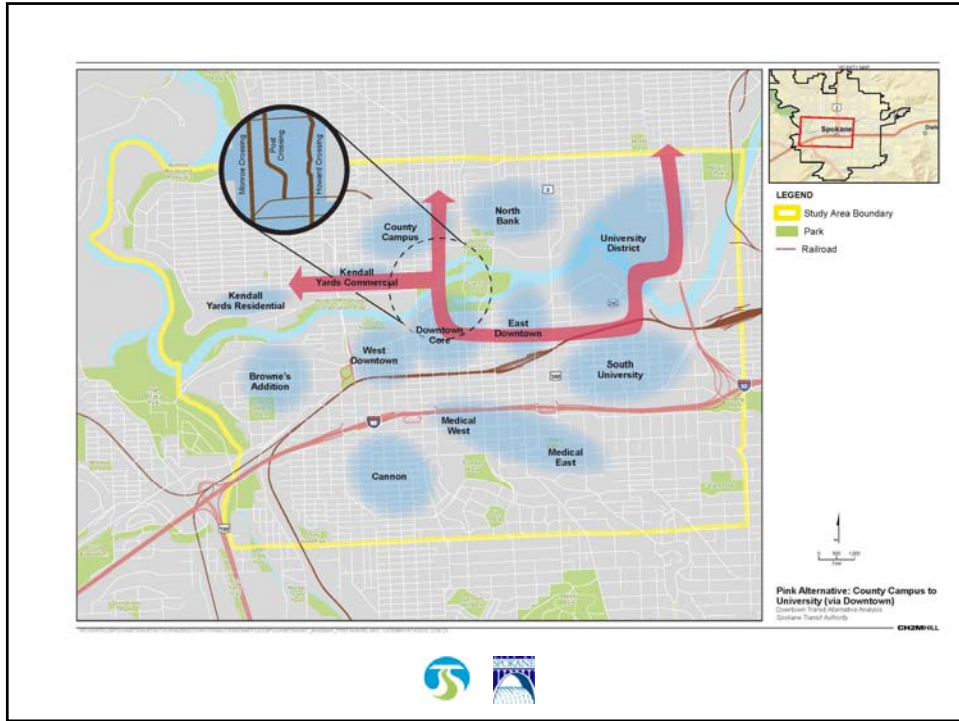
Spokane  
Central City Transit Alternatives Analysis

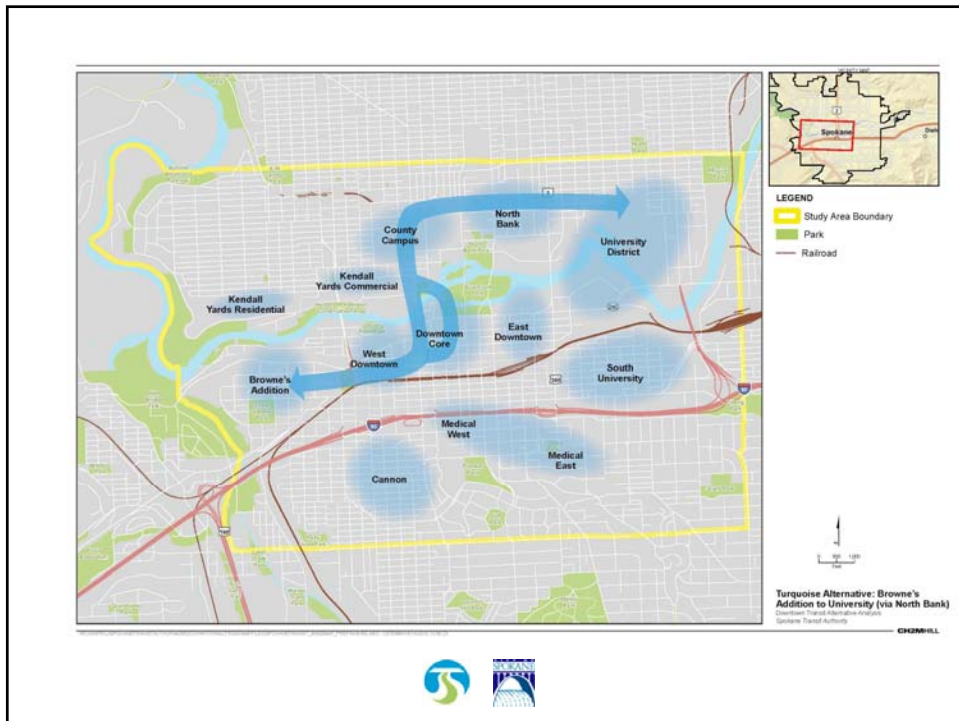
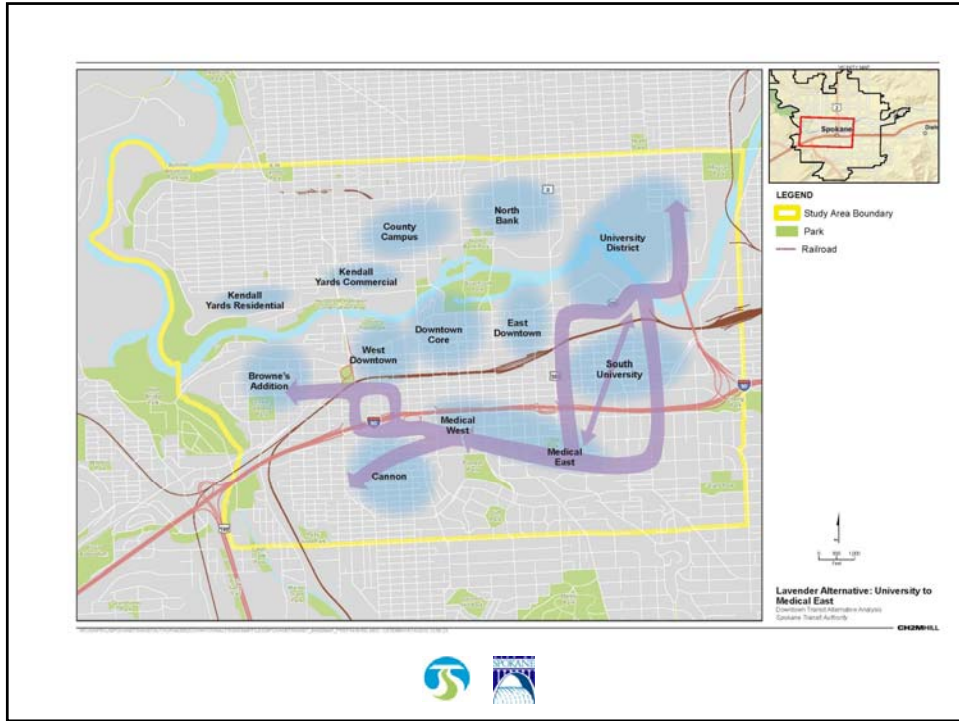
## Long List of Alternatives

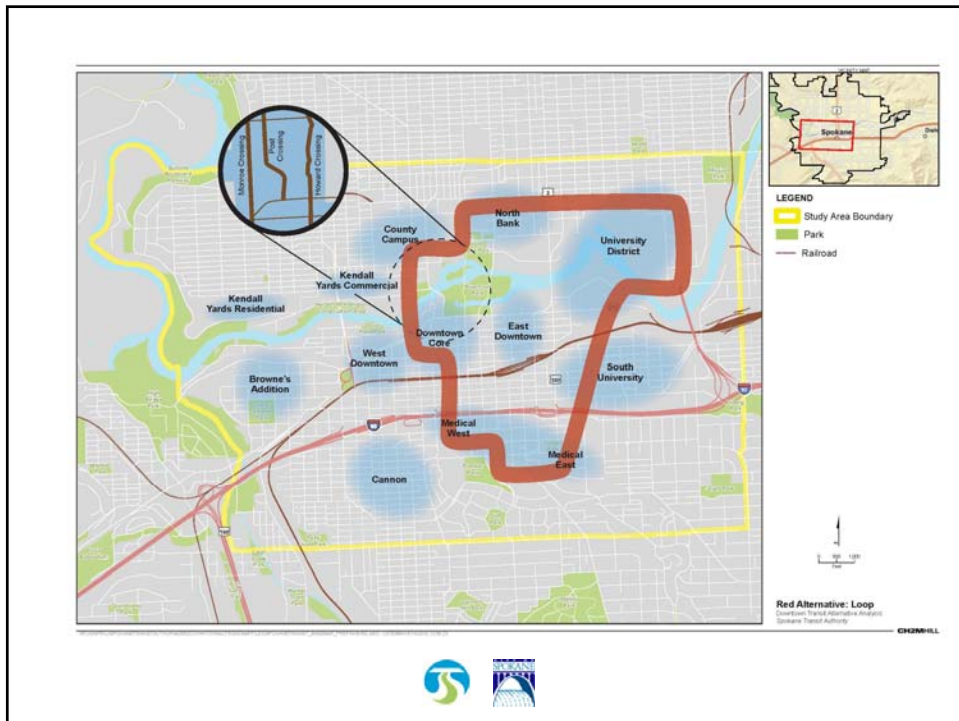
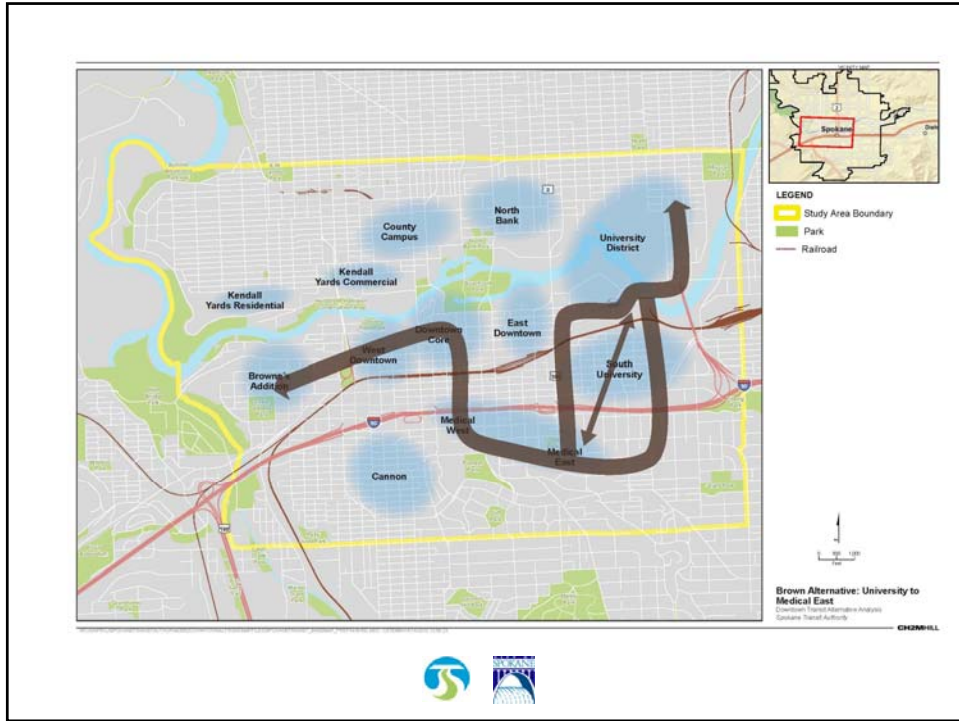
The process began by identifying a universe of potential corridors for the project. The following 11 maps represent all of the corridors that were considered. These were developed through a design workshop with the project team and feedback from the June 29, 2010 open house.

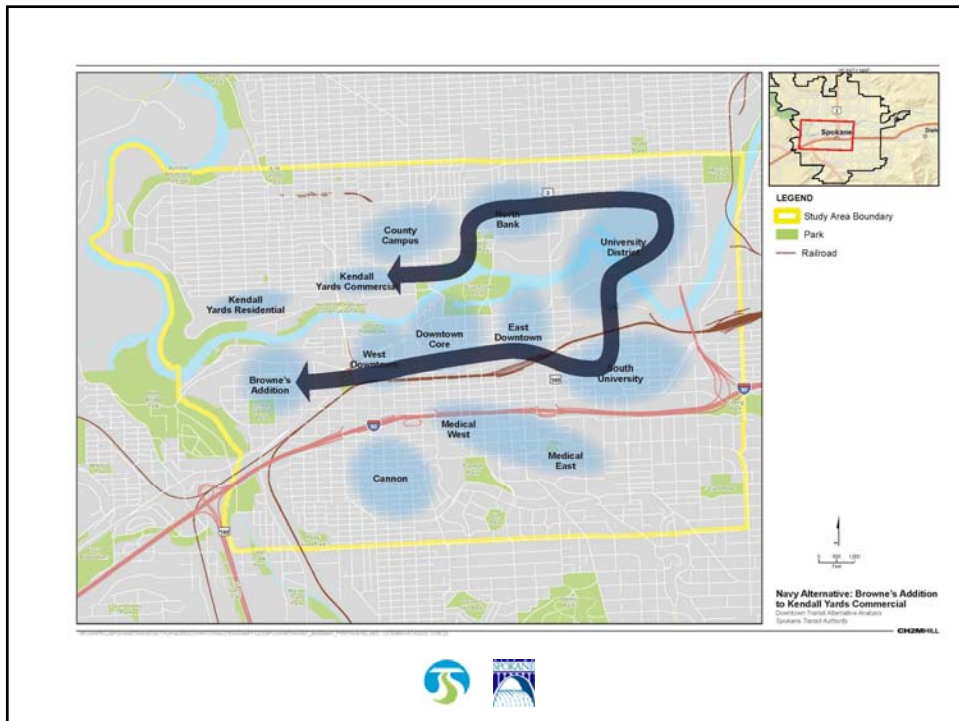
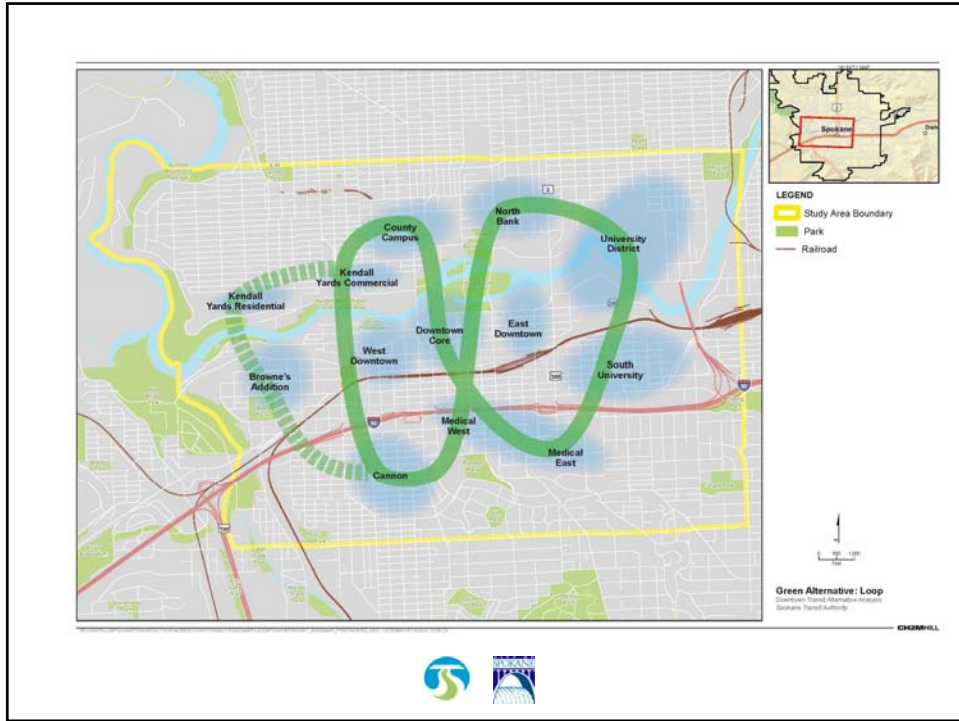


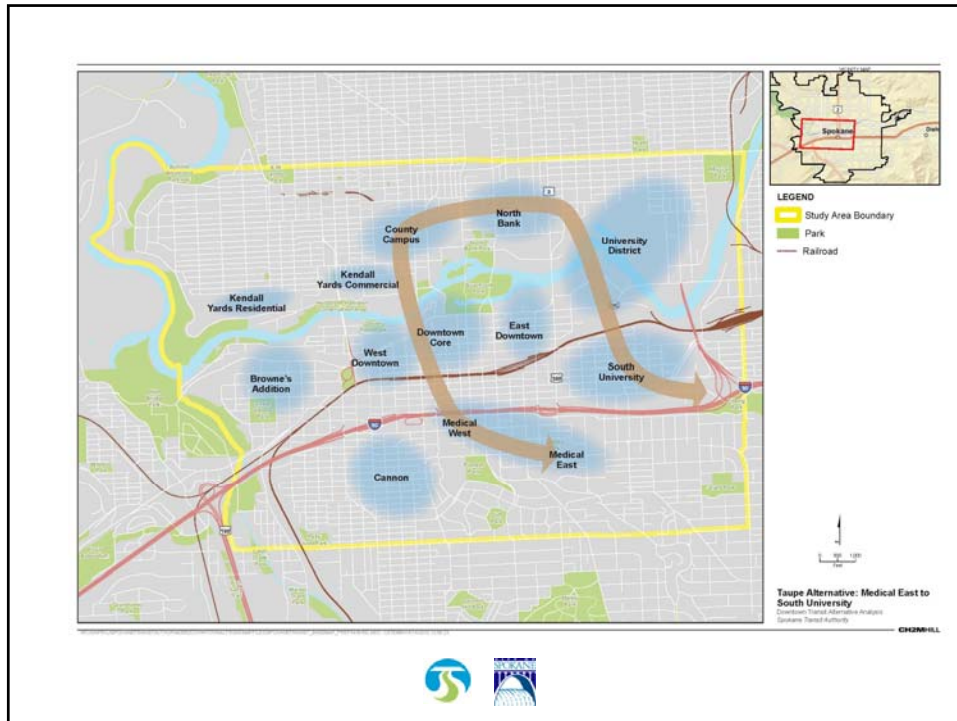












## Spokane Central City Transit Alternatives Analysis

### Screening Questions

The following questions helped narrow the initial list of alternatives.

For each question is the answer yes or no?

- Would the alternative decrease travel times from what they are today?
- Would this alternative perform similarly or better than other alternatives that serve the same activity centers?
- Is this alternative configured in an efficient and logical way? If not, could parts of the alternative be combined with parts of another alternative to make it more efficient or logical?
- Would the alternative serve the Downtown Core and University or Medical districts?
- Would the alternative create a more direct transit connection than what exists today?
- Would the alternative serve at least one Targeted Area Development district?
- Would the alternative improve and extend pedestrian mobility in the downtown area?
- Would the alternative avoid major physical or geographic constraints (significant expense to build)?
- Could the alternative be developed in logical and cost-effective phases?
- Is the alternative feasible to build?

If each answer was yes = more evaluation

Spokane  
Central City Transit Alternatives Analysis


# Short List of Alternatives

The list of 11 alternatives were narrowed to the following four based on the screening questions. These were presented to the public at an open house on October 26, 2010.



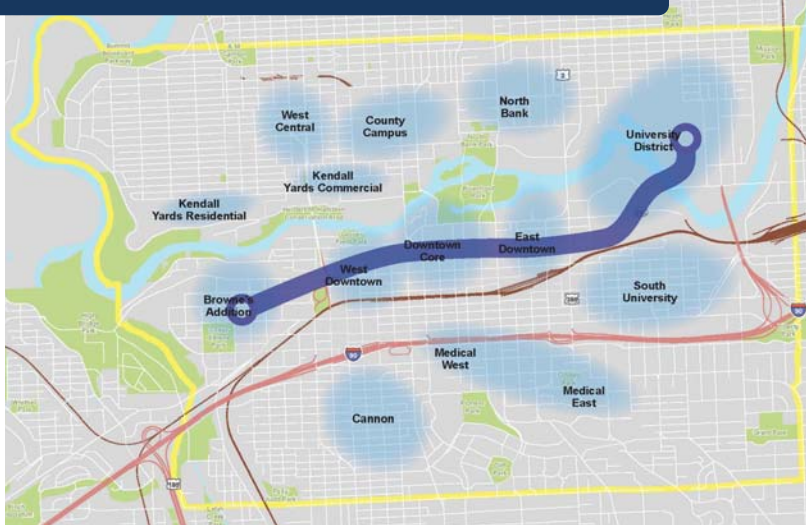
Spokane  
Central City Transit Alternatives Analysis

## Short Listed Alternatives – Orange Alternative

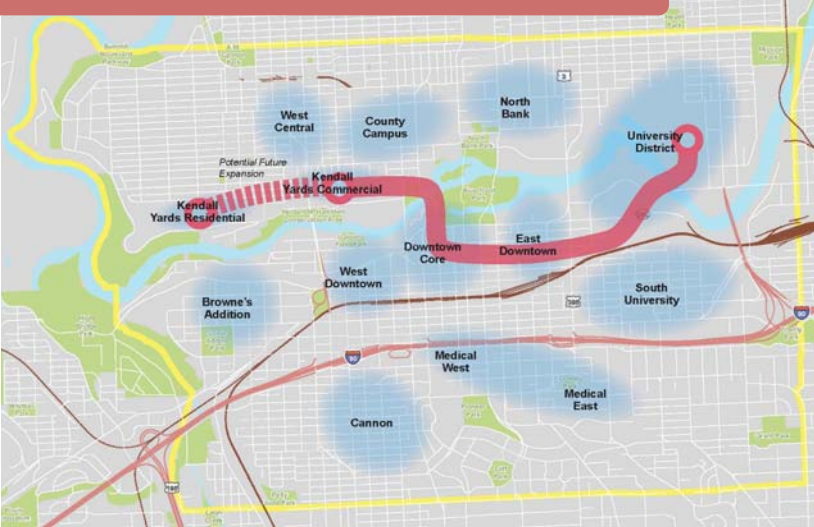


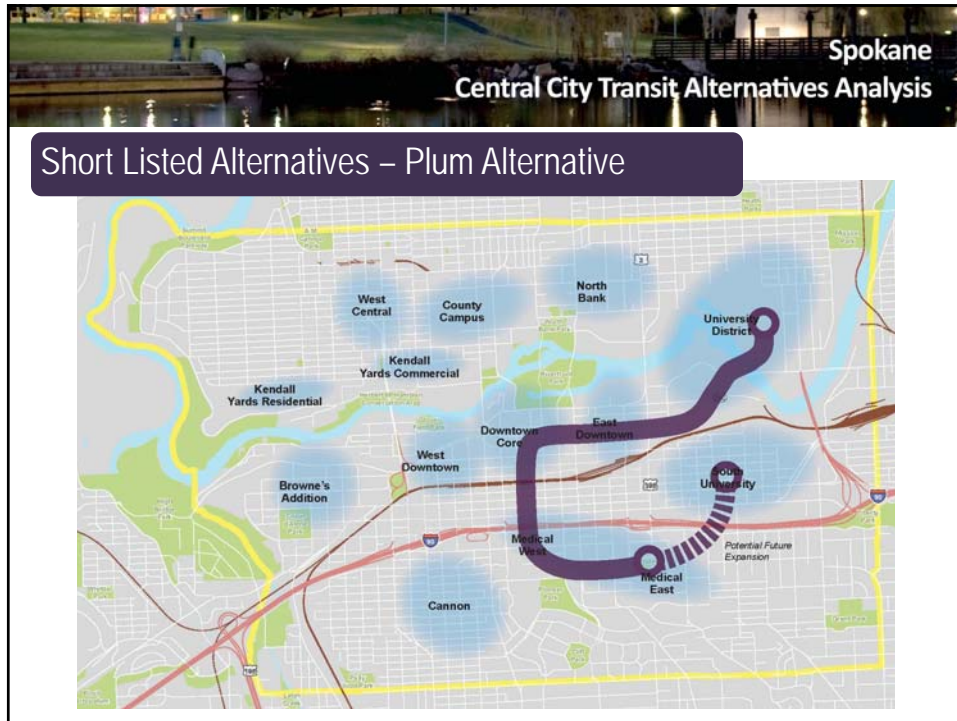


Short Listed Alternatives – Blue Alternative



Short Listed Alternatives – Pink Alternative





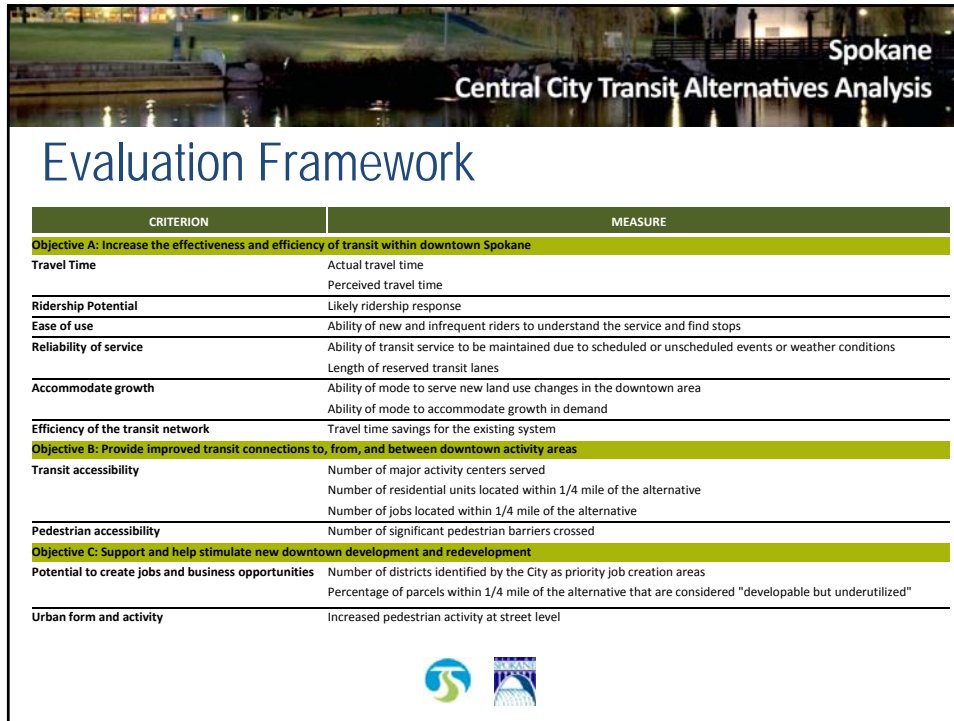
Spokane  
Central City Transit Alternatives Analysis

## Where are we now?

The four corridors were evaluated in detail using the following evaluation framework and narrowed to one corridor recommendation.

**Tonight's open house is presenting that recommendation.**


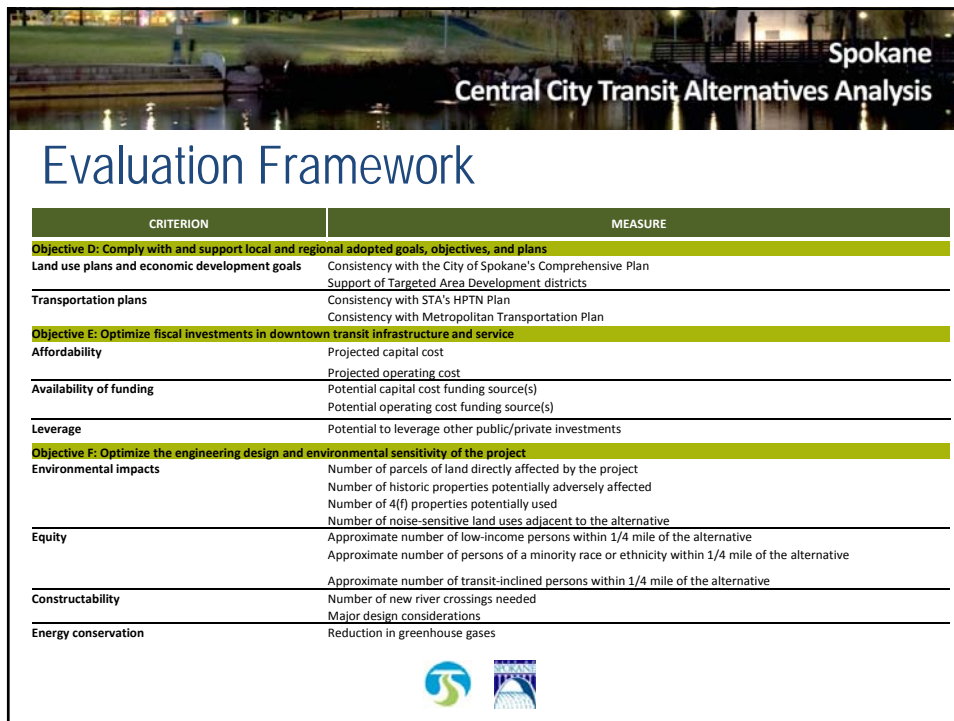
The Spokane Transit Authority logo (a stylized 'S' with a green and blue swirl) and the University of Idaho logo (a blue shield with a white building and a tree) are positioned at the bottom center of the slide.



**Spokane**  
**Central City Transit Alternatives Analysis**

## Evaluation Framework


CRITERION	MEASURE
<b>Objective A: Increase the effectiveness and efficiency of transit within downtown Spokane</b>	
Travel Time	Actual travel time
	Perceived travel time
Ridership Potential	Likely ridership response
Ease of use	Ability of new and infrequent riders to understand the service and find stops
Reliability of service	Ability of transit service to be maintained due to scheduled or unscheduled events or weather conditions
	Length of reserved transit lanes
Accommodate growth	Ability of mode to serve new land use changes in the downtown area
	Ability of mode to accommodate growth in demand
Efficiency of the transit network	Travel time savings for the existing system
<b>Objective B: Provide improved transit connections to, from, and between downtown activity areas</b>	
Transit accessibility	Number of major activity centers served
	Number of residential units located within 1/4 mile of the alternative
	Number of jobs located within 1/4 mile of the alternative
Pedestrian accessibility	Number of significant pedestrian barriers crossed
<b>Objective C: Support and help stimulate new downtown development and redevelopment</b>	
Potential to create jobs and business opportunities	Number of districts identified by the City as priority job creation areas
	Percentage of parcels within 1/4 mile of the alternative that are considered "developable but underutilized"
Urban form and activity	Increased pedestrian activity at street level





**Spokane**  
**Central City Transit Alternatives Analysis**

## Evaluation Framework

CRITERION	MEASURE
<b>Objective D: Comply with and support local and regional adopted goals, objectives, and plans</b>	
Land use plans and economic development goals	Consistency with the City of Spokane's Comprehensive Plan
	Support of Targeted Area Development districts
Transportation plans	Consistency with STA's HPTN Plan
	Consistency with Metropolitan Transportation Plan
<b>Objective E: Optimize fiscal investments in downtown transit infrastructure and service</b>	
Affordability	Projected capital cost
	Projected operating cost
Availability of funding	Potential capital cost funding source(s)
	Potential operating cost funding source(s)
Leverage	Potential to leverage other public/private investments
<b>Objective F: Optimize the engineering design and environmental sensitivity of the project</b>	
Environmental impacts	Number of parcels of land directly affected by the project
	Number of historic properties potentially adversely affected
	Number of 4(f) properties potentially used
	Number of noise-sensitive land uses adjacent to the alternative
Equity	Approximate number of low-income persons within 1/4 mile of the alternative
	Approximate number of persons of a minority race or ethnicity within 1/4 mile of the alternative
	Approximate number of transit-inclined persons within 1/4 mile of the alternative
Constructability	Number of new river crossings needed
Energy conservation	Major design considerations
	Reduction in greenhouse gases







## Summary of Corridor Evaluation

### Blue Corridor

Pros:	Cons:
<ul style="list-style-type: none"> <li>Serves a high number of activity areas and residences</li> <li>Highly compatible with existing land use plans</li> <li>Few engineering constraints</li> </ul>	<ul style="list-style-type: none"> <li>Smaller reduction in existing transit travel time than Pink or Plum</li> </ul>

31






## Summary of Corridor Evaluation

### Orange Corridor

Pros:	Cons:
<ul style="list-style-type: none"> <li>Highest presence of pedestrian-friendly features along alignment</li> </ul>	<ul style="list-style-type: none"> <li>Not as reliable during inclement weather due to the steep grades on South Hill</li> <li>Less of a reduction in transit travel time than the Pink or Plum</li> <li>More engineering constraints than Blue and Plum</li> </ul>

32







## Spokane Central City Transit Alternatives Analysis

### Summary of Corridor Evaluation

#### Pink Corridor

Pros:	Cons:
<ul style="list-style-type: none"> <li>• High reduction in transit travel time</li> <li>• Serves most # of TAD and TIF districts, and has the most vacant parcels</li> <li>• Highly compatible with existing land use plans</li> <li>• Serves highest % of low-income and minority residents</li> </ul>	<ul style="list-style-type: none"> <li>• Serves fewer activity areas than Blue and Plum</li> <li>• More engineering constraints than Blue and Plum</li> </ul>

33


## Spokane Central City Transit Alternatives Analysis


### Summary of Corridor Evaluation

#### Plum Corridor

Pros:	Cons:
<ul style="list-style-type: none"> <li>• High reduction in transit travel time</li> <li>• Serves a high number of activity areas and existing residences</li> <li>• Bisects the most number of pedestrian barriers</li> <li>• Serves a high number of existing and forecasted jobs</li> </ul>	<ul style="list-style-type: none"> <li>• Less reliable in inclement weather due to steep grades on South Hill</li> <li>• Travel time between University and Medical District still drastically higher than driving</li> <li>• Engineering challenges (especially for streetcar) associated with reaching medical district</li> </ul>

34







Spokane  
Central City Transit Alternatives Analysis

## Analysis of Modes


Similar to the analysis and screening of corridors, the analysis of modes began with a long list and was narrowed to a short list.



Spokane  
Central City Transit Alternatives Analysis












## Long List of Alternatives – Modes


- Based on feedback from the public at the first open house, elected officials and other stakeholders, ten modes were considered to meet the needs of central Spokane.
- The results of the analysis of these ten modes are depicted on the next two slides.



**Spokane**  
**Central City Transit Alternatives Analysis**

## Modes 1 - 5

Image	Typical Speed	Vehicle Capacity	Stop Spacing	Density	Cost
 Regular Bus			 Typically 1/4 to 1/2 mile	 low density needed	\$ capital costs \$ operating costs
 Electric Trolley Bus			 Typically 1/4 to 1/2 mile	 medium density needed	\$ capital costs \$ operating costs
 Streetcar			 Typically 1/4 mile	 medium density needed	\$\$\$ capital costs \$\$\$ operating costs
 Bus Rapid Transit (own right-of-way)			 Typically 3/4 to 5 miles	 medium density needed	\$\$\$ capital costs \$ operating costs
 Bus Rapid Transit (in street)			 Typically 1/4 to 1/2 mile	 medium density needed	\$ capital costs \$ operating costs



**Spokane**  
**Central City Transit Alternatives Analysis**

## Modes 6 -10

Image	Typical Speed	Vehicle Capacity	Stop Spacing	Density	Cost
 Rubber Tire Streetcar			 Typically 1/4 to 1/2 mile	 low density needed	\$ capital costs \$ operating costs
 Light Rail Transit (LRT)			 Typically 1/2 mile	 high density needed	\$\$\$\$ capital costs \$\$\$ operating costs
 Aerial Tram			 Typically 3/4 to 5 miles		\$\$\$\$ capital costs \$ operating costs
 Personal Rapid Transit			 Typically 1-2 miles	 high density needed	\$\$\$\$ capital costs \$\$\$ operating costs
 Monorail			 Typically 1/4 mile	 high density needed	\$\$\$\$ capital costs \$\$\$ operating costs



Spokane  
Central City Transit Alternatives Analysis



## Short List – Modes

Three modes have been shortlisted for the full evaluation process

Enhanced Bus

Modern Streetcar


Electric Trolleybus




Spokane  
Central City Transit Alternatives Analysis

## Where are we now?

Tonight's open house presents more information on the 3 short-listed modes, and seeks your input on the desired characteristics of the mode.






Spokane  
Central City Transit Alternatives Analysis

## Feedback from Past Public Meetings

- Support for each short-listed alternative
- Desire for an overall system that provides more than one short-listed alternative
- Support for both electric trolleybuses and streetcars; concern about cost implications of streetcar



Spokane  
Central City Transit Alternatives Analysis

Please explore the rest of the display boards tonight to view the recommended corridor and information on the three modes still under consideration.

