

# Open House #2

Nov. 29- Dec. 1, 2011



JACKSON COUNTY **COMMUTER CORRIDORS** ALTERNATIVES ANALYSIS



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# Project Information

## What is an Alternatives Analysis?

According to the Federal Transit Administration, an Alternatives Analysis, or AA, is the local forum for evaluating costs, benefits, and effects of a range of transportation alternatives. The alternatives are designed to address mobility problems and other locally-identified objectives in a defined transportation corridor. The process also determines which particular investment strategy should be advanced for more focused study and development.

## Schedule

### Phase 1: Discovery

June-September 2011

- Review Previous Work- Gap Analysis
- Develop Purpose & Need
- Identify & Develop Initial Alternatives
- Environmental Overview
- Land Use & Economic Development

### Phase 2: Exploring

October-November 2011

- Initial Screening
- Detailed Alternatives Discussion
- Environmental Overview
- Land Use & Economic Development

### Phase 3: Refining

December 2011-February 2012

- Detailed Alternatives Workshop
- Capital Costs
- Operations & Maintenance Costs
- Level 2 Evaluation & Identification of Locally Preferred Alternative
- Environmental Overview
- Land Use & Economic Development

### Phase 4: Finalizing

February-May 2012

- Locally Preferred Alternative
- Next Steps

## Project Partners





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# Project Purpose

The proposed project will improve transit system performance and usage by addressing the identified transportation needs in the two selected corridors. The project should provide an alternative to operating transit vehicles on congested roadways to improve system reliability, increase the competitiveness of transit for commuting and other purposes and provide added mobility options for the region. This project should also catalyze redevelopment in and near (emerging and future) transit centric activity centers and increase the regional transit mode share.





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# Needs

## Transportation

- 1 Current transit services are insufficient for meeting the current and future mobility needs within the corridor(s).
- 2 Travel times of the current transit system are not time competitive as an alternative to the automobile.
- 3 Reliability of the current transit system will suffer with additional congestion.
- 4 The reverse commute market from the inner core of Kansas City, Missouri to outer suburban employment areas is largely underserved and underused because the existing systems do not make reverse commuting easy for those who are transit-dependent.

## Economic Development and Land Use

- 5 Local planning initiatives and land use strategies seek to leverage improved public transportation services to strengthen communities and foster economic development.
- 6 Regional planning initiatives aimed at development or redevelopment of activity centers and corridors, using transit-oriented development strategies, required enhanced transit to catalyze future economic growth and maximize public investment.

## Sustainability/Livability

- 7 The promotion and enhancement of regional transit is needed as a method for improving the region's air quality and fostering environmentally sensitive travel alternatives.
- 8 Improved regional transit service, linked with local bike and pedestrian systems is critical for fostering vibrant walkable communities and improving public health.

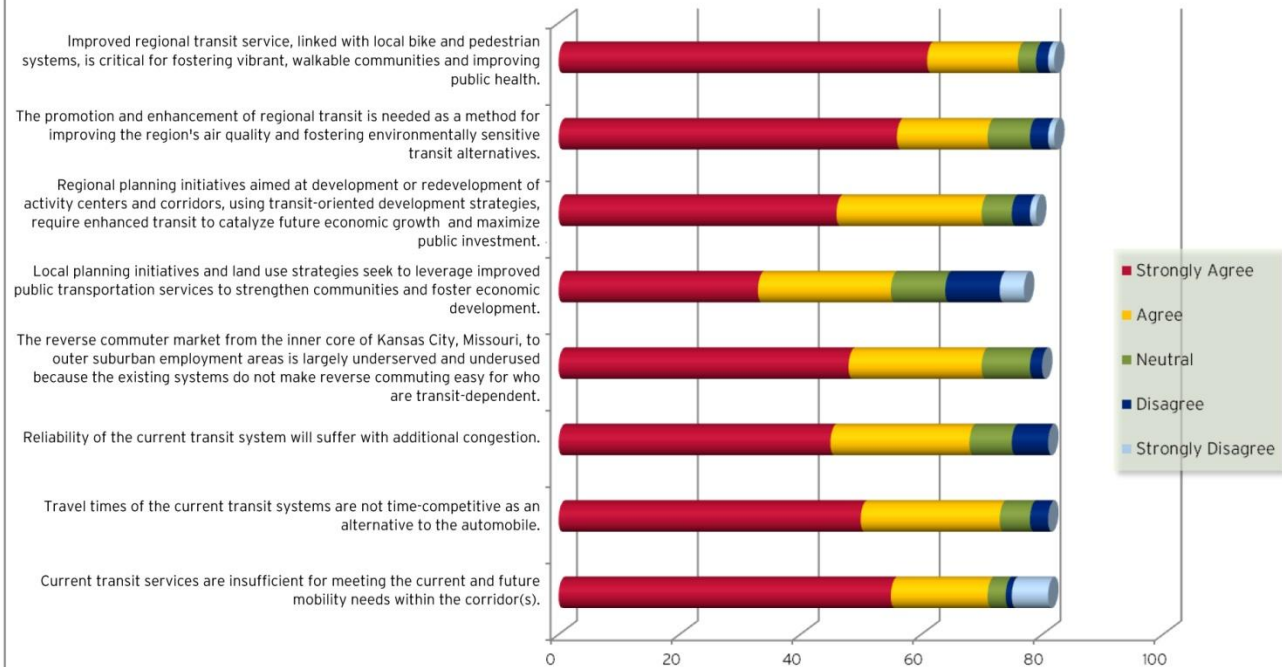


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# Needs- Level of Agreement

You agreed with the identified needs for enhanced transit in Jackson County!

What is your level of agreement with the following statements about enhanced transit in Jackson County?



Source:  
Open House #1  
Participant Responses  
(Sept. 27-29, 2011)

# Transit-Oriented Development

## What is Transit-Oriented Development?

Transit-oriented development (TOD) encourages development patterns designed to maximize access to public transportation. This is generally characterized by:

- Mixed uses (residential, commercial, and office).
- Higher density development.
- Pedestrian-scale street network.
- Reduced parking standards.

The following boards will show potential station types. Station types are a framework to help distinguish the important differences among places and destinations within regions, and frame expectations about function, performance and benchmarks.



# Transit-Oriented Development: Town Center Station

A Town Center station can be defined by:

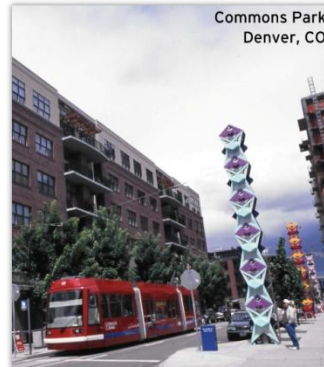
- A land use mix of office, retail, entertainment and civic uses.
- Includes townhomes/apartments, retail and office in mixed-used buildings.
- Buildings between 2-5 stories.
- A community destination incorporating local distribution transit connections and some park-and-ride opportunities.



# Transit-Oriented Development: Urban Core Station

An Urban Core station can be defined as having:

- A land use mix of office, retail, residential, entertainment and civic uses.
- Multifamily and loft residential types with a wide range of price points.
- Incorporation of primary office locations and shopping destinations.
- Buildings greater than 5 stories.
- A sub-regional destination incorporating intermodal transit connections.





# Transit-Oriented Development: Employment Center Station

An Employment Center station can be defined by:

- Employment-centric land use with some community serving retail.
- Mixed-use development that includes retail on the ground level of buildings with office uses on higher floors.
- Buildings between 2 and 8 stories.
- Parking lots of structures that are shared among buildings and serve as park-and-ride lots.
- Lot or structures are adjacent to the transit station.





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# Tier 1 Screening

Because the study area encompasses two separate travel corridors with distinct characteristics, several potential alignments within each corridor, and multiple transit technologies, the following elements were evaluated:

- Corridor segments;
- Initial alignments within each segment; and
- Initial technology alternatives.



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# Corridor Segments & Initial Alternatives

## Common Segment

Runs between the urban core and the I-435/I-70 interchange area

- Knoche Yard
- Truman Road
- Trench Embankment
- Linwood/31st Street
- I-70

## East Segment

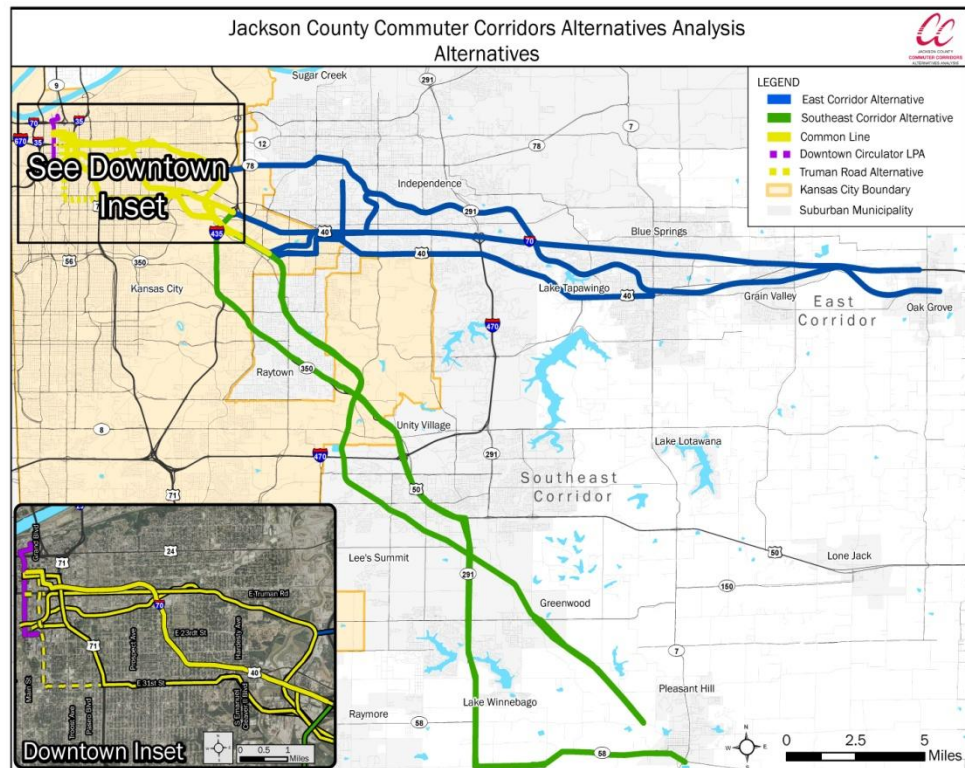
Generally from the I-435/I-70 interchange east and parallel to I-70

- Kansas City Southern Right-of-Way
- U.S. 40
- I-70

## Southeast Segment

Generally from the I-435/I-70 interchange area southeast toward Lee's Summit

- Rock Island Railroad
- U.S. 50- Rock Island
- Missouri Route 350



# Initial Technology Alternatives

The purpose and need would be addressed if these technologies were applied in all three segments

## Bus Rapid Transit



## Express Bus- Over-the-Road Coach/Bus (included for the Transportation System Management alternative)



## Light Rail Transit/Streetcar Hybrid



## Diesel Multiple Unit (Federal Railroad Administration-Compliant)





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# Tier 1 Summary

Key: ● - Best; ◐ - Good; ○ - Less Good

Alignment Technology/Mode	Common Corridor							East Corridor				Southeast Corridor										
	Knoche Yard	Truman Road		Trench Embankment	Linwood/31st		I-70 Express Bus	KCS	40 Hwy		I-70 Express Bus	Rock Island		M-350/Rock Island		M-350/I-435/I-70						
	DMU	DMU	BRT	LRT/SC	DMU	BRT	LRT/SC	Express Bus	DMU	BRT	LRT/SC	Express Bus	DMU	BRT	LRT/SC	BRT	LRT/SC	Express Bus	BRT	LRT/SC		
<b>Effectiveness (Purpose and Need)</b>	Directness of Route	○	◐	◐	◐	●	◐	◐	●	●	○	○	◐	●	●	●	○	○	○	○	○	
	Average Transit Travel Speed	○	◐	◐	◐	●	◐	◐	●	●	○	○	◐	●	●	●	○	○	○	○	○	
	Population & Employment Concentrations within 1/4 Mile of Alignment	○	◐	◐	◐	○	◐	◐	○	●	●	○	○	●	●	●	○	○	○	○	○	
	Ability of Alternative to Meet Expected Demand	●	●	●	●	○	◐	◐	○	●	●	○	○	●	●	●	○	○	○	○	○	
	Number of Targeted Activity Center	○	◐	◐	◐	○	◐	◐	○	●	●	○	○	●	●	●	○	○	○	○	○	
	Sustainability benefits of modal alternatives	◐	◐	◐	◐	◐	◐	◐	◐	◐	◐	◐	◐	◐	◐	◐	◐	◐	◐	◐	◐	◐
	Number of Redevelopment Sites Served	◐	◐	◐	◐	◐	◐	◐	◐	◐	◐	◐	◐	◐	◐	◐	◐	◐	◐	◐	◐	◐
<b>Relation to Other Planning</b>	Compatibility with Smart Moves	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
	Compatibility with KCA TA Comprehensive Service Analysis Key Corridor Network	○	●	●	●	●	●	○	◐	◐	◐	◐	◐	◐	◐	◐	◐	◐	◐	◐	◐	
<b>Cost Effectiveness</b>	Capital Costs	○	○	●	◐	○	◐	◐	●	●	○	○	○	◐	◐	◐	◐	◐	●	◐	◐	
	Operations & Maintenance Costs	○	◐	◐	◐	◐	◐	◐	◐	◐	◐	◐	◐	◐	◐	◐	◐	◐	◐	◐	◐	
	Cost Effectiveness	○	○	●	◐	○	◐	◐	●	●	○	○	○	◐	◐	◐	◐	◐	●	◐	◐	
<b>Feasibility</b>	Technical Feasibility / Constructability	◐	◐	●	◐	◐	◐	◐	◐	◐	○	◐	●	●	●	◐	◐	◐	◐	○	○	
	Affordability	○	◐	◐	◐	◐	◐	◐	◐	◐	◐	◐	◐	◐	◐	◐	◐	◐	◐	◐	○	○
<b>Impacts</b>	Subjective Assessment of Environmental Fatal Flaws	●	○	●	◐	○	◐	◐	○	◐	○	○	●	●	●	◐	◐	◐	○	○	○	
	Parkland and Historical Impacts	●	○	●	◐	○	◐	◐	○	◐	○	○	●	●	●	◐	◐	◐	◐	◐	◐	
	Traffic Impacts	●	○	◐	◐	◐	◐	◐	◐	◐	○	○	◐	●	●	●	◐	◐	◐	○	○	
<b>Equity</b>	Transit Dependent Populations within 1/4 mile of Alignment	○	◐	◐	◐	◐	◐	○	◐	◐	◐	◐	◐	◐	◐	◐	◐	◐	◐	◐	◐	
	Environmental Justice Impacts	●	○	●	◐	○	◐	◐	○	◐	◐	◐	◐	◐	◐	◐	◐	◐	◐	◐	◐	
	Concentrations of Service Sector Jobs within 1/4 mile of Alignment	○	◐	◐	◐	○	◐	◐	○	◐	◐	◐	◐	◐	◐	◐	◐	◐	◐	◐	◐	

Tier 1 Recommendations





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# Tier 1 Recommendations

Alternative	Description
No Build	"No Action"- Alternative includes all highway and transit projects identified in the fiscally constrained Mid-America Regional Council's Transportation Outlook 2040 and recommendations from the KCATA Comprehensive Service Analysis Key Corridor Network.
Transportation System Management	Relatively low cost improvements that represent the best that can be done to improve transit service short of a major capital investment. Alternative includes express bus on existing highways (I-70 in the East and Common corridors and M-350/I-435 in the Southeast corridor), possibly operating on the shoulder, and other improvements such as park-and-ride lots.
Full Regional Rail	Alternative includes Diesel Multiple Units (Federal Railroad Administration-Compliant) via Truman Road or Trench Embankment to Union Station on Common corridor, Kansas City Southern rail corridor in East corridor, and Rock Island rail corridor in Southeast corridor.
Regional Rail & Light Rail Transit/Streetcar Hybrid	Alternative combines Diesel Multiple Units and light rail transit/streetcar hybrid modes. Diesel Multiple Unit along Kansas City Southern rail corridor in East corridor connecting to Multimodal Transfer Center at Truman Sports Complex. Light rail transit/streetcar hybrid on Rock Island connecting to Truman Sports Complex, serving as the Common line into downtown via either Linwood/31st or Truman. Once in downtown, the light rail transit/streetcar hybrid could use the Downtown Circulator tracks.
Light Rail Transit/Streetcar Hybrid & Bus Rapid Transit	Alternative combines light rail transit/streetcar hybrid and bus rapid transit modes. Light rail transit/streetcar hybrid and bus rapid transit along U.S. 40 in the East corridor. Light rail transit/streetcar hybrid on Rock Island connecting to Truman Sports Complex, serving as the Common line into downtown via either Linwood/31st or Truman. Once in downtown, the light rail transit/streetcar hybrid could use the Downtown Circulator tracks.

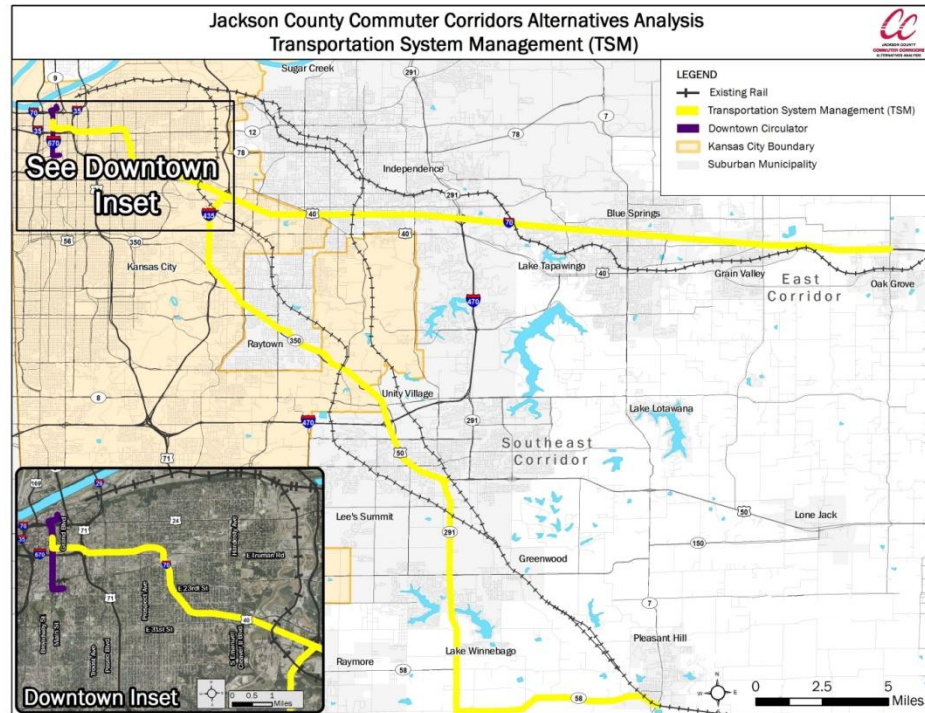


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# Alternative 2

## Transportation System Management

Relatively low cost improvements that represent the best that can be done to improve transit service short of a major capital investment. Alternative includes express bus on existing highway (I-70 in the East and Common corridors and M-350/I-435 in the Southeast corridor), possibly operating on the shoulder, and other improvements such as park-and-ride lots.



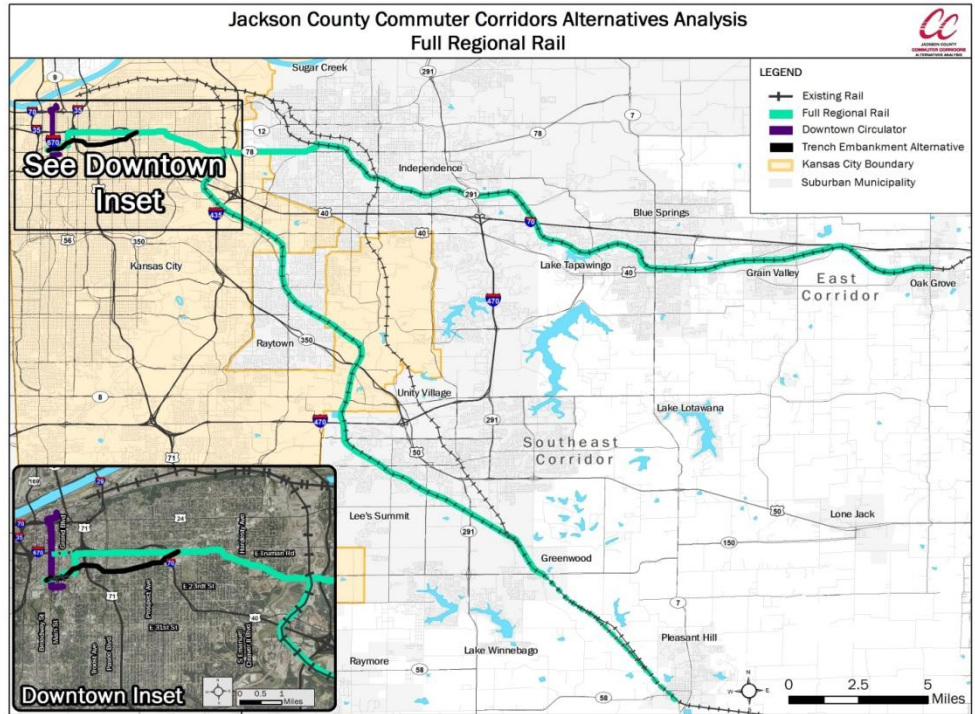


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# Alternative 3

## Full Regional Rail

Alternative includes Diesel Multiple Units (Federal Railroad Administration-Compliant) via Truman Road or Trench Embankment to Union Station on Common corridor, Kansas City Southern rail corridor in East corridor, and Rock Island rail corridor in Southeast corridor.





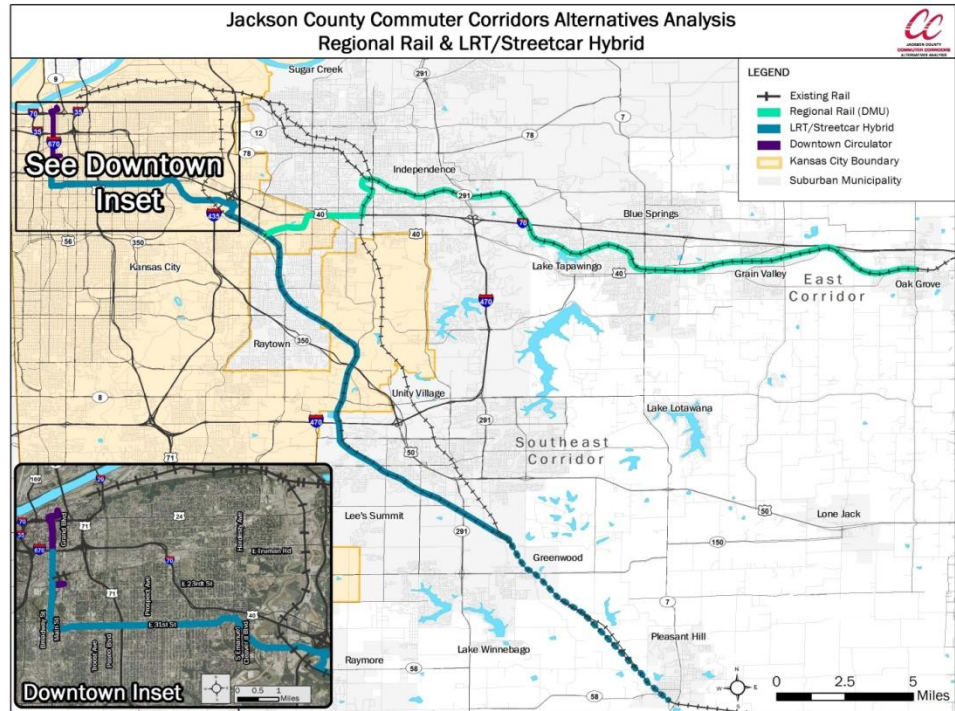


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# Alternative 4

## Regional Rail and Light Rail Transit/Streetcar Hybrid

Alternative combines Diesel Multiple Units and light rail transit/streetcar hybrid modes. Diesel Multiple Unit along Kansas City Southern rail corridor in East corridor connecting to Multimodal Transfer Center at Truman Sports Complex. Light rail transit/streetcar hybrid on Rock Island line connecting to Truman Sports Complex, serving as the common line into downtown via either Linwood or Truman. Once in downtown, the light rail transit/streetcar hybrid could use the Downtown Circulator tracks.



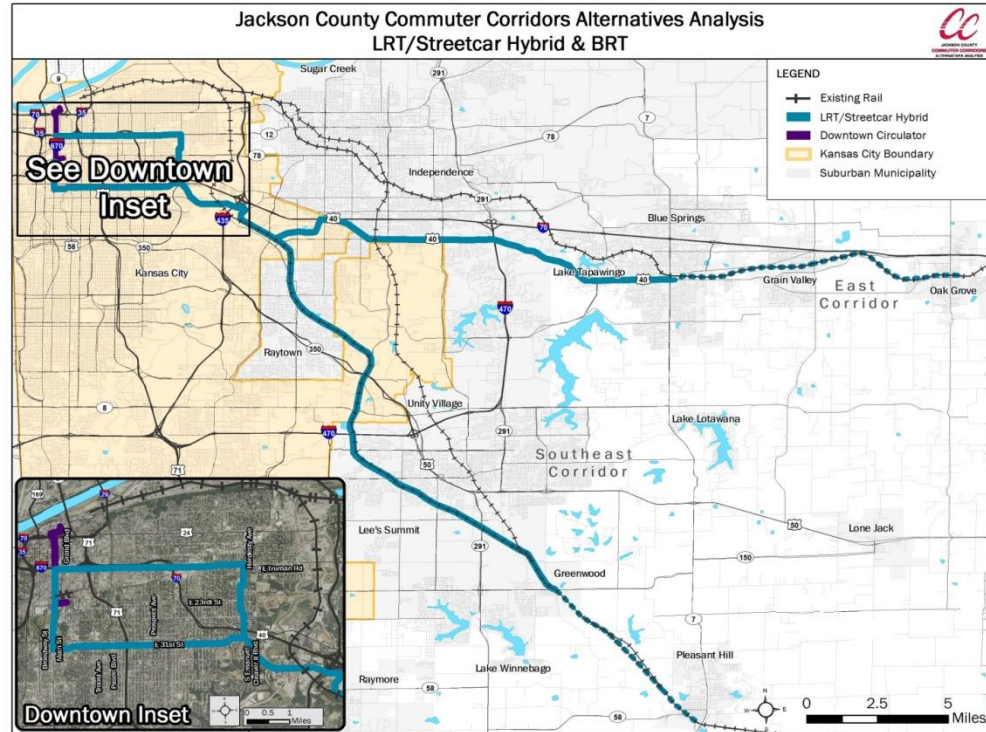


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# Alternative 5

## Light Rail Transit/Streetcar Hybrid and Bus Rapid Transit

Alternative combines light rail transit/streetcar hybrid and bus rapid transit modes. Light rail transit/streetcar hybrid and bus rapid transit along U.S 40 in the East corridor. Light rail transit/streetcar hybrid on Rock Island connecting to Truman Sports Complex, serving as the common line into downtown via either Linwood or Truman. Once in downtown, the light rail transit/streetcar hybrid could use the Downtown Circulator tracks.





# What's important?

Let us know which of these objectives are most important.

- Most Important
- Second Most Important
- Third Most Important

Effectiveness is one of the criterion used to evaluate transit alternatives. Eight objectives have been established to gauge how effective an alternative might be.

Improve transit travel times and speeds within the study area.

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Attract new transit riders.

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Increase accessibility to transit.

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Provide transit capacity to meet current and future travel demand

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Improve on-time performance.

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Provide transit service that can support desired land use growth patterns.

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Provide convenient and accessible transit service to existing and planned activity centers.

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Reduce air pollutant emissions, fuel consumption and vehicle miles traveled/vehicle hours traveled and delay.

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# Next Steps

## What You Can Do

- **Fill out the comment card** to tell us what you think about the transit alternatives displayed.
- **Keep informed** through our website at: [www.kcsmartmoves.org/projects/jacksoncounty.aspx](http://www.kcsmartmoves.org/projects/jacksoncounty.aspx)
- Tell your friends, families and colleagues who weren't able to come to **view the meeting materials on the website** and provide comments.
- **Schedule a presentation** for your stakeholder group by contacting Patty Gentrup at [Patty@shockeyconsulting.com](mailto:Patty@shockeyconsulting.com) or (816) 217-9397.

## What's Next?

The alternatives presented here will now be evaluated as part of a Tier 2 screening. That screening will consider operating plans, ridership, capital and operating costs, and the effects on people and the environment. The study team will identify the locations for transit-oriented development throughout the study area and also continue discussions with citizens, city officials, local railroad officials and developers. The next opportunity for public input will be in February 2012 at the third round of open houses.