



Recommended Preferred Alternative

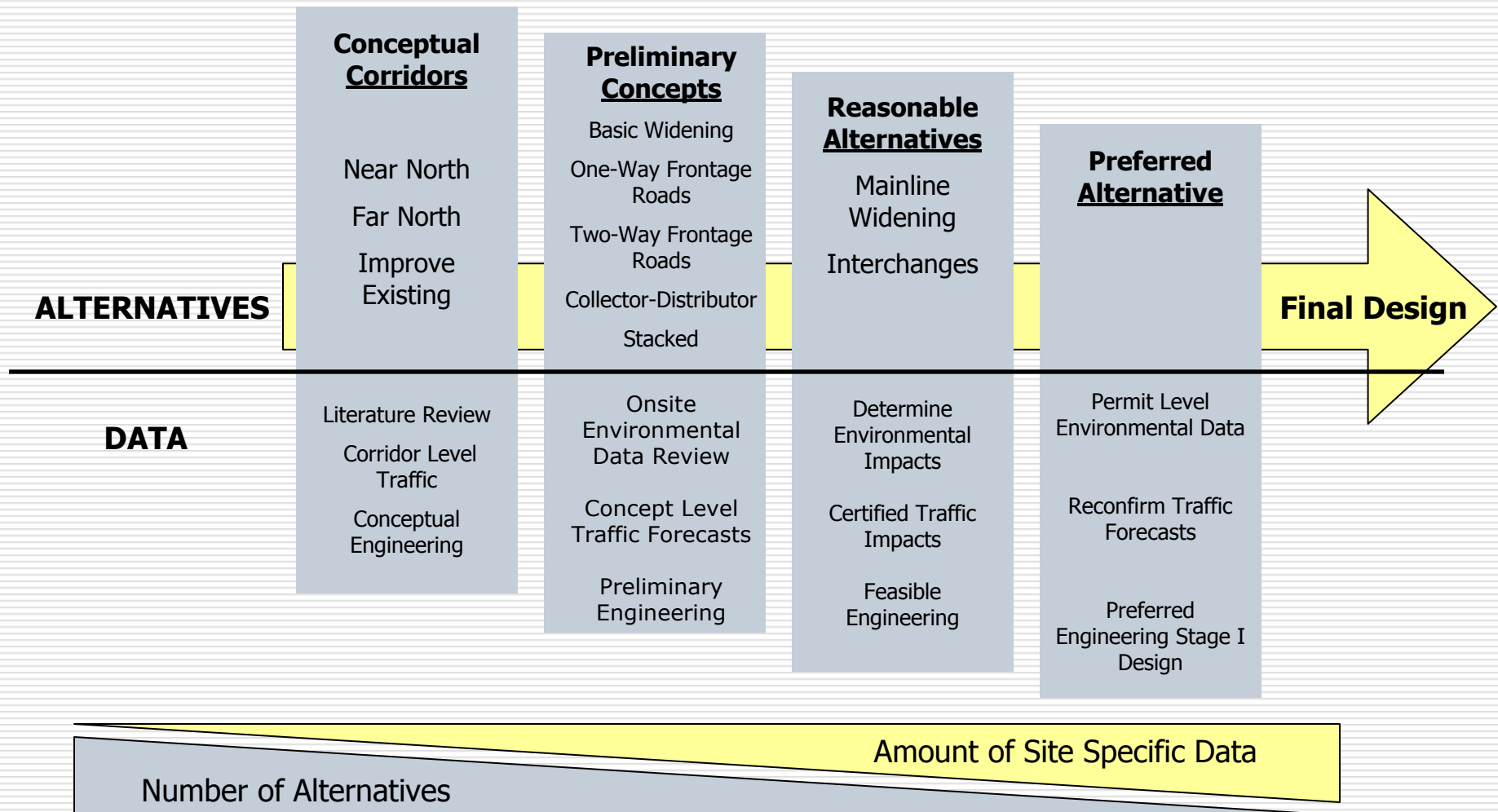
How and Why We Arrived Here

SIU 4

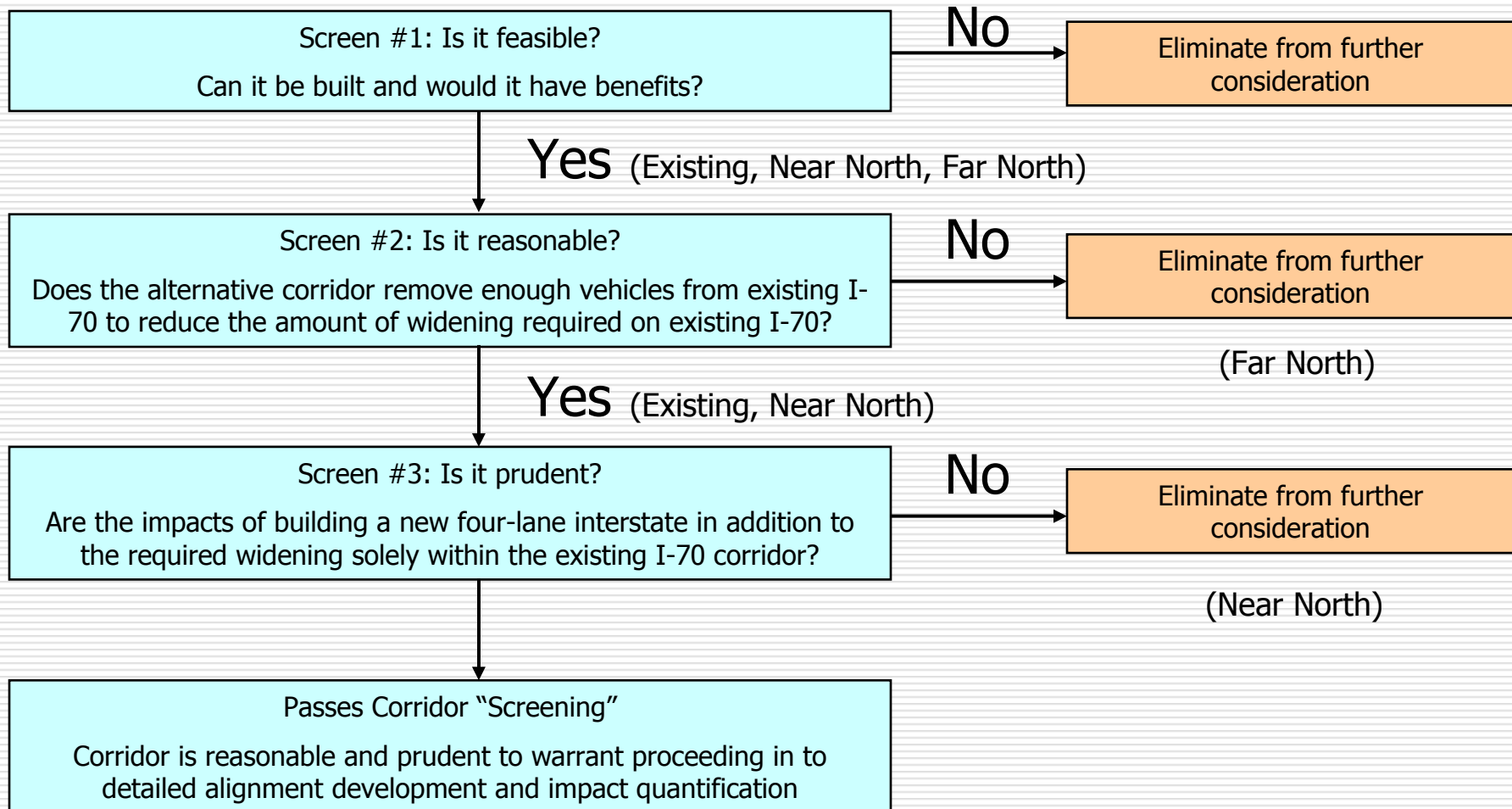
March 18, 2004



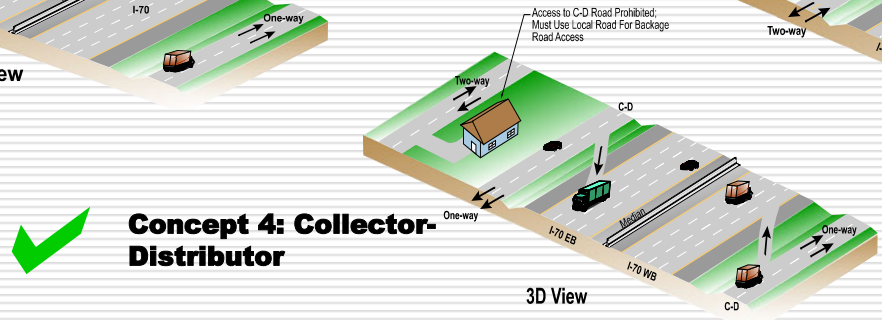
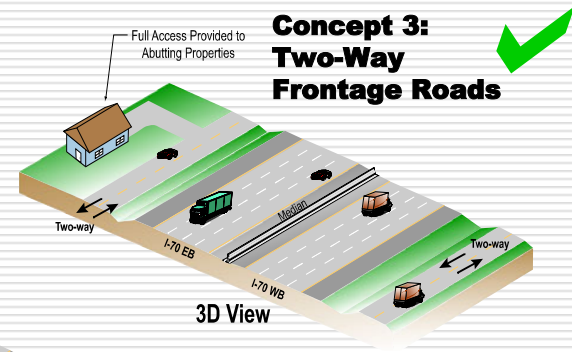
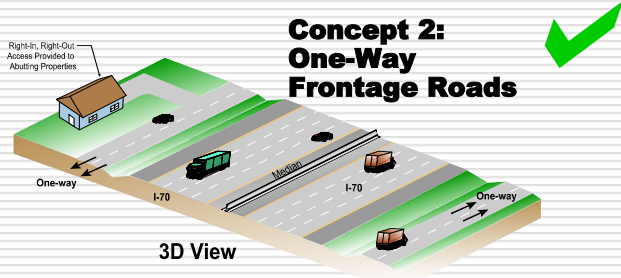
Overall Process



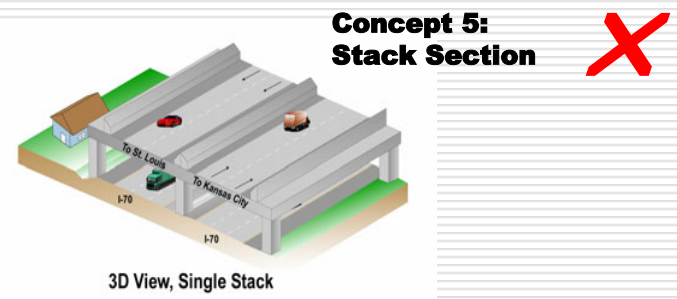
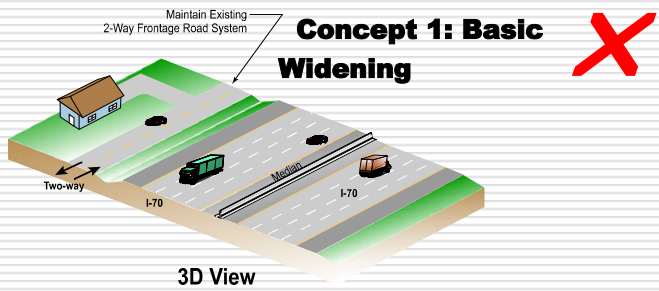
Conceptual Corridor Screening



Preliminary Concepts



Concepts No Longer Under Consideration



Preliminary Concepts - *Impacts Considered*

- Travel/Access Patterns
- Local Connections
- Access to Properties
- Local Road Capacity Parallel to I-70
- Freeway Access
- Local versus Through Traffic
- Weaving
- R/W
- Maintenance

Hybrid Alternatives Developed

- “Mixed and matched” to apply most appropriate concept at each location along the 18-mile corridor

- Two-Way Frontage Roads applied outside of urban area
 - Route J/0 to Stadium Blvd
 - US 63 to Route Z

- Analyzed One-Way Frontage Road and Collector-Distributor (CD) System between Stadium Blvd and US 63

Public Input Shaped Decisions

- 19 public events
 - 2 Open House Public Meetings - April 2003, December 2003
 - Open Workshop - August 2003
 - Drop in Center - November 2003
 - 11 Advisory Group Meetings - September 2002 through March 2004
 - 4 Neighborhood Meetings - September 2002 through March 2004

- Considered
 - Community values
 - Travel Desires
 - Environmental concerns

Reasonable Alternatives Developed

- Mainline Widening
- Western Columbia
 - Route J/O Interchange
 - U.S. 40 Interchange
- Central Columbia
 - New “Western” or Scott Boulevard Interchange
 - Stadium Blvd
 - I-70 Business Loop West
 - Routes 163/763/Business Loop East – “The Triplets”
 - U.S. 63 / Business 63
- Eastern Columbia
 - Lake of the Woods
 - Route Z

Mainline Widening

Western Columbia – Route BB to Stadium Blvd

Reasonable Alternative	Recommended Preferred Alternative	Key Factors
<p><u>Route BB to U.S. 40</u></p> <ul style="list-style-type: none"> <input type="checkbox"/> Six Lanes <input type="checkbox"/> Rural Median <input type="checkbox"/> Widen to the South 	<ul style="list-style-type: none"> <input type="checkbox"/> Six Lanes <input type="checkbox"/> Rural Median <input type="checkbox"/> Widen to the South 	<ul style="list-style-type: none"> <input type="checkbox"/> Generally less impacts than symmetric or north widening <input type="checkbox"/> Matches widening direction for Missouri River crossing in SIU 3 <input type="checkbox"/> Saves \$\$ by reconstructing one direction of traffic
<p><u>Route U.S. 40 to Stadium Blvd</u></p> <ul style="list-style-type: none"> <input type="checkbox"/> Eight Lanes <input type="checkbox"/> Urban Median <input type="checkbox"/> Widen Slightly to the South 	<ul style="list-style-type: none"> <input type="checkbox"/> Eight Lanes <input type="checkbox"/> Urban Median <input type="checkbox"/> Widen Slightly to the South 	<ul style="list-style-type: none"> <input type="checkbox"/> Minimizes impacts

Mainline Widening

Central Columbia – Stadium Blvd to U.S. 63

Reasonable Alternatives	Recommended Preferred Alternative	Key Factors
<ul style="list-style-type: none"> <input type="checkbox"/> Eight Lanes <input type="checkbox"/> Urban Median <input type="checkbox"/> Widen Symmetrically 	<ul style="list-style-type: none"> <input type="checkbox"/> Eight Lanes <input type="checkbox"/> Urban Median <input type="checkbox"/> Widen to the North from Stadium Blvd to I-70 Business Loop West <input type="checkbox"/> Widen to the South from the Business Loop to Garth <input type="checkbox"/> Widen Symmetrically East of Garth 	<ul style="list-style-type: none"> <input type="checkbox"/> Urban median reduces impacts <input type="checkbox"/> Reduced impacts to south frontage road businesses by north shift <input type="checkbox"/> Reduced impacts to Parkade area by south shift <input type="checkbox"/> Symmetric widening through “Triplets” reduces construction cost and travel delays

Mainline Widening

Eastern Columbia – U.S. 63 to Route Z

Reasonable Alternatives	Recommended Preferred Alternative	Key Factors
<ul style="list-style-type: none"> <input type="checkbox"/> Eight Lanes <input type="checkbox"/> Urban Median <input type="checkbox"/> Widen Symmetrically 	<ul style="list-style-type: none"> <input type="checkbox"/> Eight Lanes <input type="checkbox"/> Urban Median <input type="checkbox"/> Widen Symmetrically 	<ul style="list-style-type: none"> <input type="checkbox"/> Urban median reduces impacts <input type="checkbox"/> Symmetric widening reduces construction cost and travel delays

Western Columbia Interchanges

Route J/O

Reasonable Alternatives	Recommended Preferred Alternative	Key Factors
<input type="checkbox"/> Diamond Interchange	<input type="checkbox"/> Diamond Interchange	<input type="checkbox"/> Simple design <input type="checkbox"/> Meets access management guidelines <input type="checkbox"/> Few impacts

U.S. 40 (Midway)

Reasonable Alternatives	Recommended Preferred Alternative	Key Factors
<input type="checkbox"/> Diamond Interchange <input type="checkbox"/> Diamond Interchange with SW Loop Ramp	<input type="checkbox"/> Diamond Interchange	<input type="checkbox"/> Simple design <input type="checkbox"/> Meets access management guidelines <input type="checkbox"/> Fewer right of way, environmental, community and displacement impacts <input type="checkbox"/> Lower cost

Central Columbia Interchanges

New “Western” or Scott Blvd Interchange

Key Information

- Is a “Placeholder” in CATSO Long Range Plan
- Study Team Evaluated as part of Alternatives Development for Stadium Blvd
 - Any solution must divert traffic from Stadium Blvd Interchange
 - Controlling intersection is Bernadette/Stadium Blvd
 - Traffic analysis based on existing City of Columbia land use and traffic information
 - Looked at five combinations of improvements at Stadium Blvd with or without a new western interchange
- Study Team Concluded that
 - A new interchange would draw some traffic away from Stadium Blvd but not enough to solve the problems at Stadium Blvd
 - Ramps to and from the east or a full interchange at Fairview must be part of the solution
 - A new interchange would provide regional benefits outside the I-70 Corridor
 - Congestion relief on Broadway west of Stadium Blvd, and on Stadium Blvd JUST north of Broadway
 - Eliminates the need for CATSO’s planned Broadway Extension

Central Columbia Interchanges

Stadium Blvd Traffic Diversion

Options	Impacts	Issues
<ul style="list-style-type: none"> <input type="checkbox"/> Ramps to and From the East at Fairview 	<ul style="list-style-type: none"> <input type="checkbox"/> Provides relief to Bernadette/Stadium Blvd intersection and ramp terminals with I-70 	<ul style="list-style-type: none"> <input type="checkbox"/> Traffic will increase on Fairview for either option <input type="checkbox"/> The I-70 Study will examine the impacts of widening Fairview to four lanes from I-70 to Worley, and realigning the Worley offset
<ul style="list-style-type: none"> <input type="checkbox"/> Full Interchange at Fairview 	<ul style="list-style-type: none"> <input type="checkbox"/> Provides MORE relief to Bernadette/Stadium Blvd intersection and ramp terminals with I-70 	

Central Columbia Interchanges

Stadium Blvd

Reasonable Alternatives	Recommended Preferred Alternative	Key Factors
<ul style="list-style-type: none"> <input type="checkbox"/> Ramps to and From the East at Fairview <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Diamond Interchange with NW Loop <input checked="" type="checkbox"/> Tight Diamond Interchange <input checked="" type="checkbox"/> Single Point Urban Interchange <input type="checkbox"/> "Full" Fairview (access in both directions) <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Split Diamond 	<ul style="list-style-type: none"> <input type="checkbox"/> Tight Diamond Interchange with ramps to and from the east at Fairview 	<ul style="list-style-type: none"> <input type="checkbox"/> Fewer right of way, environmental, community and displacement impacts <input type="checkbox"/> Lower cost <input type="checkbox"/> Split diamond has better traffic operations but higher impacts than tight diamond <input type="checkbox"/> City remains concerned about increased traffic volumes on Fairview

Central Columbia Interchanges

I-70 Business Loop West

Reasonable Alternatives	Recommended Preferred Alternative	Key Factors
<ul style="list-style-type: none"> <input type="checkbox"/> Two-Point Diamond Interchange <input type="checkbox"/> More alternatives being developed based on citizen and MoDOT Management concerns <ul style="list-style-type: none"> <input type="checkbox"/> Number and length of bridges <input type="checkbox"/> S. frontage road connection close to ramp termini <input type="checkbox"/> Potential Creasy Springs Road connection to West Boulevard <input type="checkbox"/> Cost and constructibility 	<ul style="list-style-type: none"> <input type="checkbox"/> TENTATIVE Two-Point Diamond Interchange 	<ul style="list-style-type: none"> <input type="checkbox"/> Resolution of this issue could affect the recommended preferred alternative in this area

Central Columbia Interchanges

Routes 163/763/Business Loop East (“Triplets”)

Reasonable Alternatives	Recommended Preferred Alternative	Key Factors
<ul style="list-style-type: none"> <input type="checkbox"/> One-Way Frontage Road System <input type="checkbox"/> Collector-Distributor System 	<ul style="list-style-type: none"> <input type="checkbox"/> One-Way Frontage Road System 	<ul style="list-style-type: none"> <input type="checkbox"/> Impacts are nearly the same for both and could be further reduced through use of extensive retaining walls <input type="checkbox"/> One-way frontage roads preferred by the public, city and MoDOT Management <input type="checkbox"/> Traffic Operations: <ul style="list-style-type: none"> <input type="checkbox"/> C-D has better operations <input type="checkbox"/> C-D has more potential to absorb future growth <input type="checkbox"/> Level of service at intersections on OWFR could be reduced by access points between interchanges <input type="checkbox"/> OWFR intersection size is maximized with little opportunity for expansion <input type="checkbox"/> Without influence of access points, OWFR intersections operate at an acceptable level of service

Central Columbia Interchanges

Routes 163/763/Business Loop East (“Triplets”)

Reasonable Alternatives	Recommended Preferred Alternative	Key Factors (continued)
<ul style="list-style-type: none"> <input type="checkbox"/> One-Way Frontage Road System <input type="checkbox"/> Collector-Distributor System 	<ul style="list-style-type: none"> <input type="checkbox"/> One-Way Frontage Road System 	<ul style="list-style-type: none"> <input type="checkbox"/> Access <ul style="list-style-type: none"> <input type="checkbox"/> OWFR allows right-in/right-out access <input type="checkbox"/> City sees economic opportunity to surrounding area by providing access points <input type="checkbox"/> Number of access points is constrained by topography <input type="checkbox"/> Steps Forward <ul style="list-style-type: none"> <input type="checkbox"/> C-D has more flexibility and capacity per investment \$ <input type="checkbox"/> Given a OWFR with access points, a certain level of development will be possible in the area before being constrained by the transportation network <input type="checkbox"/> C-D has more capacity and would allow for development to occur above what can be handled by the OWFR <input type="checkbox"/> The study team suggests that the city conduct a more detailed economic analysis to identify the most beneficial alternative <input type="checkbox"/> The recommended preferred alternative could be changed

Central Columbia Interchanges

- Business Loop East
 - Bowling Mansion Property
 - Found to be eligible for the National Register of Historic Places (NRHP)
 - Interchange Impacts the Property
 - Section 4(f) prohibits impacts to Historic Resources unless there are no “Feasible and Prudent Alternatives”
 - Resolution of this issue could affect the Recommended Preferred Alternative for the Triplets

Central Columbia Interchanges

U.S. 63 and Business 63

Reasonable Alternative	Recommended Preferred Alternative	Key Factors
<u>U.S. 63</u> <input type="checkbox"/> Tight Right of Way Interchange	<input type="checkbox"/> Tight Right of Way Interchange	<input type="checkbox"/> Impacts minimized <input type="checkbox"/> Improves Business 63 interchange options substantially
<u>Business 63</u> <input type="checkbox"/> Diamond Interchange	<input type="checkbox"/> Diamond Interchange	<input type="checkbox"/> U.S. 63 improvements allow existing configuration to remain essentially the same with some improvement

Eastern Columbia Interchanges

Lake of the Woods

Reasonable Alternatives	Recommended Preferred Alternative	Key Factors
<ul style="list-style-type: none"> <input type="checkbox"/> Tight Diamond Interchange <input type="checkbox"/> Modified Diamond Interchange 	<ul style="list-style-type: none"> <input type="checkbox"/> Tight Diamond Interchange (changed from previous recommendation) 	<ul style="list-style-type: none"> <input type="checkbox"/> Simple design <input type="checkbox"/> Land will be developed south of the interchange, so fewer future impacts than modified diamond

Route Z

Reasonable Alternatives	Recommended Preferred Alternative	Key Factors
<ul style="list-style-type: none"> <input type="checkbox"/> Diamond Interchange <input type="checkbox"/> Diamond Interchange with NW Loop Ramp 	<ul style="list-style-type: none"> <input type="checkbox"/> Diamond Interchange 	<ul style="list-style-type: none"> <input type="checkbox"/> Simple design <input type="checkbox"/> Meets access management guidelines <input type="checkbox"/> Few impacts