



## I-70 & Kipling Interchange PEL Study

Community Focus Group Meetings  
November 2012



## Purpose of the Project

- The purpose of the I-70 and Kipling Street interchange project is to reduce congestion, optimize operations, improve safety, and accommodate multimodal connections at the I-70 and Kipling Street interchange.



## Definition of the Problem

- Improvements are needed to:
  - Meet current and future traffic demands
  - Improve operational efficiency of the interchange
  - Improve traveler safety through the interchange
  - Accommodate multimodal connections



## Planning and Environmental Linkage (PEL) Process



## What is a PEL Study?

- An approach to transportation decision-making that considers environmental, community, and economic goals early in the planning stage



## What is a PEL Study?

- Documentation and public and stakeholder outreach will be carried through project development, design, and construction
- Elements carried forward into NEPA:
  - Purpose and Need
  - Alternatives Evaluation
  - Early Community and Resource Agency Involvement
  - Public Outreach



## Why do a PEL Study?

- This approach:
  - Minimizes duplication of effort
  - Promotes efficient and cost-effective solutions and environmental stewardship
  - Reduces delays in project implementation



## Study Key Elements

- Identify the long-term interchange vision
  - Purpose and Need – May 2012
- Narrow range of alternatives before NEPA
  - Level 1 Screening – July 2012
  - Level 2 Screening – November 2012
- Complete community and resource agency involvement
  - Resource agencies – April 2012
  - Community Focus Groups – August & November 2012
- Conduct public outreach
  - Public Meeting #1 – April 2012
  - Public Meeting #2 – December 2012



## Alternatives Evaluation



## Alternatives Evaluation Process

- Level 1 screening (June - July 2012)
  - Evaluate each alternative against Purpose & Need
- Level 2 screening (Aug. – Nov. 2012)
  - Comparative evaluation based on how well each alternative addresses detailed criteria
- Level 3 screening (Nov. 2012 – Jan. 2013)
  - Refine remaining alternatives to make study recommendations





## Level I Screening

- 6 alternatives eliminated
- 12 alternatives carried forward (including No Action)
- 15 options carried forward as elements of alternatives



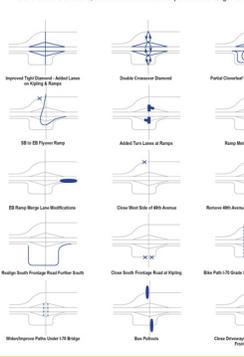


## Level I Screening

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**Alternatives Eliminated as a Stand-Alone Alternative**

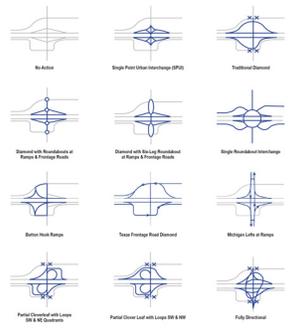
The following alternatives do not meet the purpose and need of the project stand-alone alternative, but could be included as part of other larger alternatives.



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**Alternatives Carried Forward**

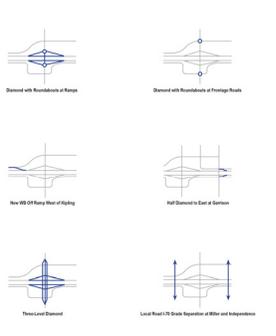
The following alternatives will be further defined and carried forward for further evaluation in Level 2 screening.



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**Alternatives Eliminated**

The following alternatives do not meet the purpose and need of the project and will not be carried forward for further evaluation.





## Level 2 Screening

- 16 alternatives evaluated (including No Action)
- 11 alternatives eliminated



## Level 2 Screening - Eliminated

- Diamond with Roundabouts at Ramps & Frontage Roads
- Diamond with Six-Leg Roundabout at Ramps & Frontage Roads
- Fully Directional Interchange
- Partial Cloverleaf with Loops SW & NW Quadrants
- Texas Frontage Road Diamond



## Level 2 Screening - Eliminated

- Michigan Lefts for Ramps
- Single Roundabout Interchange
- Loop SW Quadrant & Improved WB Ramps
- Improved Tight Diamond with SB to EB Flyover
- Double Crossover Diamond Interchange
- Button Hook Ramps South & Improved WB Ramps



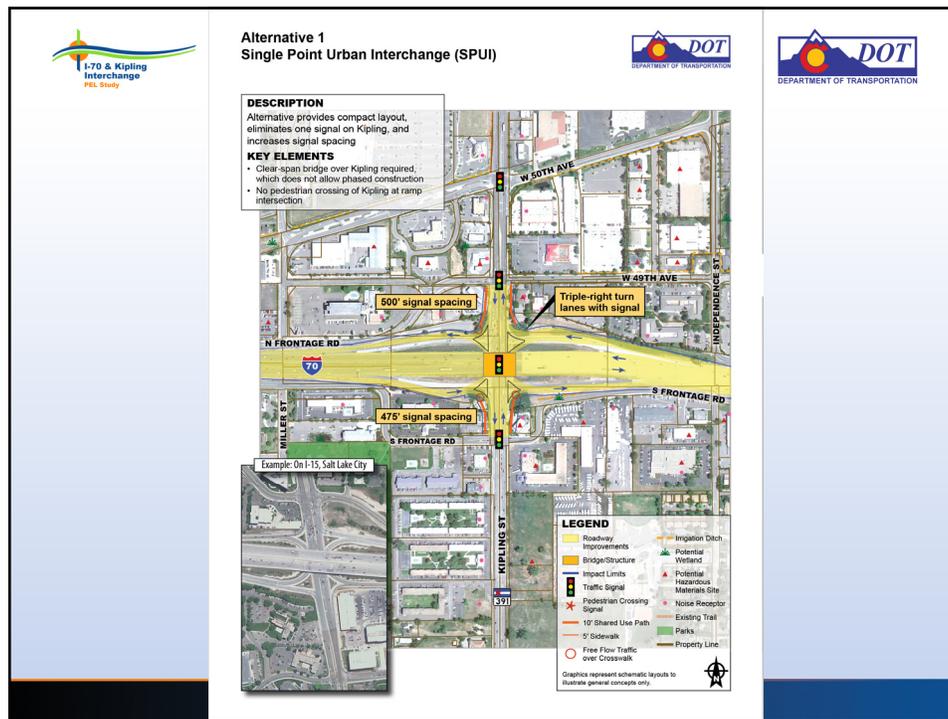
## Level 2 Screening – Carried Forward

- No Action
  - Poor traffic operations and increasing safety issues due to additional congestion by 2035
  - Minimal accommodation of multimodal connections
  - Further analysis required for comparison



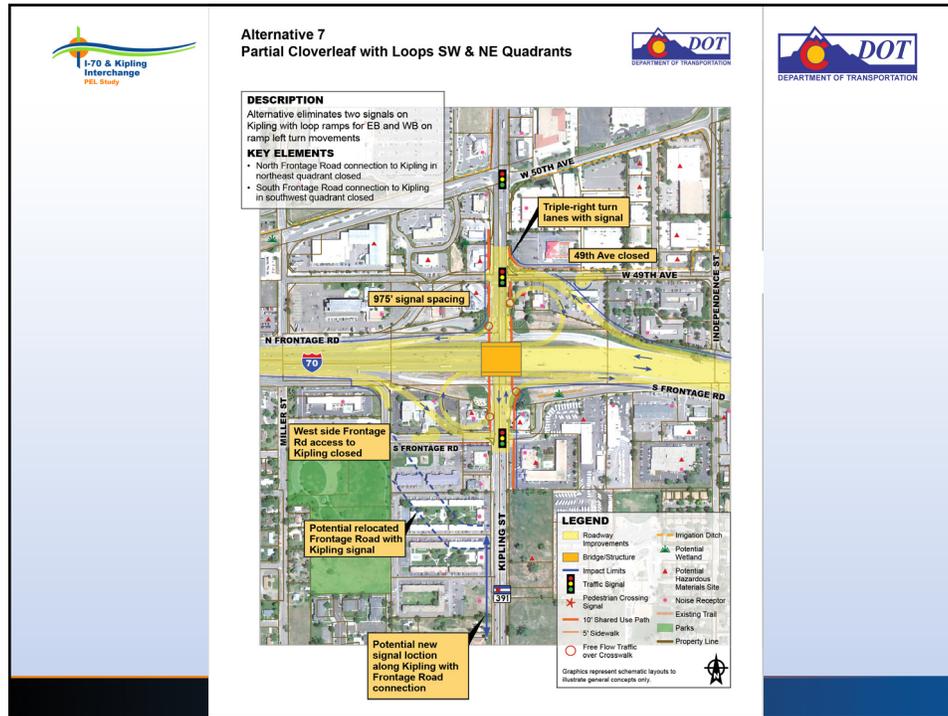
**Level 2 Screening – Carried Forward**

- Single Point Urban Interchange (SPUI)
  - Improved vehicular operations with minor community and ROW impacts and direct multimodal connections through the interchange
  - Typical urban interchange layout with no change to current frontage road access
  - Difficult construction impacts and limited opportunities to construct in phases



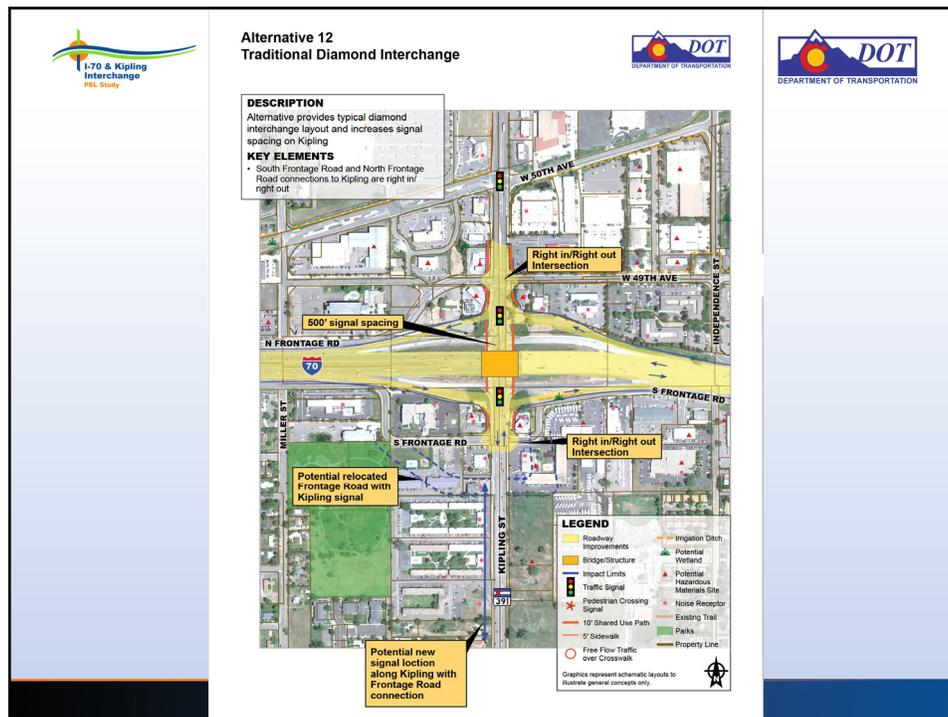
**Level 2 Screening – Carried Forward**

- Partial Cloverleaf with Loops SW & NE Quadrants
  - Improved vehicular operations and safety with direct multimodal connections through interchange area, although free flow ramp crossings for pedestrians and bicyclists
  - Moderate community and ROW impacts, but limited to two quadrants of the interchange
  - Moderate cost and opportunities to construct in phases



**Level 2 Screening – Carried Forward**

- **Traditional Diamond Interchange**
  - Improved vehicular operations and safety with typical urban interchange layout and direct multimodal connections through the interchange
  - Potential impacts to area business access with limited frontage road access
  - Opportunities to construct in phases with minor ROW impacts



**Level 2 Screening – Carried Forward**

- **Button Hook Ramps**
  - Improved vehicular operations with full access between ramps and frontage road
  - Moderate community and ROW impacts, but limited to two quadrants of the interchange
  - Moderate cost and opportunities to construct in phases



**Alternative 17  
Button Hook Ramps**

**DESCRIPTION**  
Alternative eliminates two signals on Kipling and provides access between I-70 and frontage roads.

**KEY ELEMENTS**

- All frontage road movements to/from Kipling maintained.
- Roundabout intersection for ramp and frontage road intersections.



**LEGEND**

	Roadway Improvements		Irrigation Ditch
	Bridge/Structure		Potential Wetland
	Impact Limits		Potential Hazardous Materials Site
	Traffic Signal		Noise Receptor
	Pedestrian Crossing Signal		Existing Trail
	10' Shared Use Path		Parks
	5' Sidewalk		Property Line
	Free Flow Traffic over Crosswalk		

Graphics represent schematic layouts to illustrate general concepts only.



**Project Schedule and  
Next Steps**



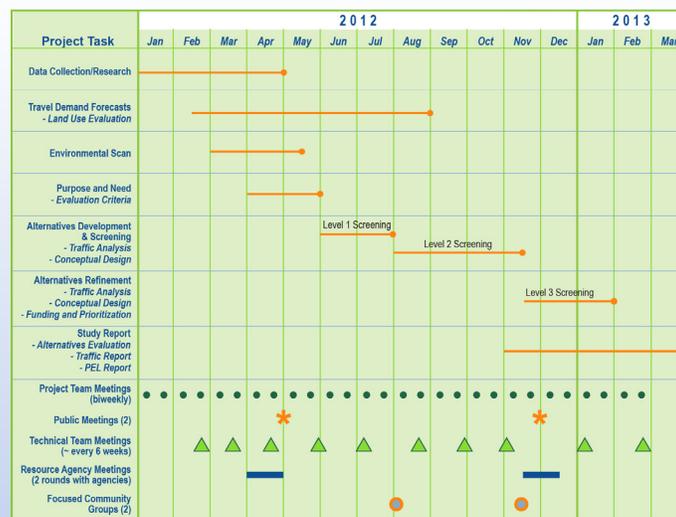


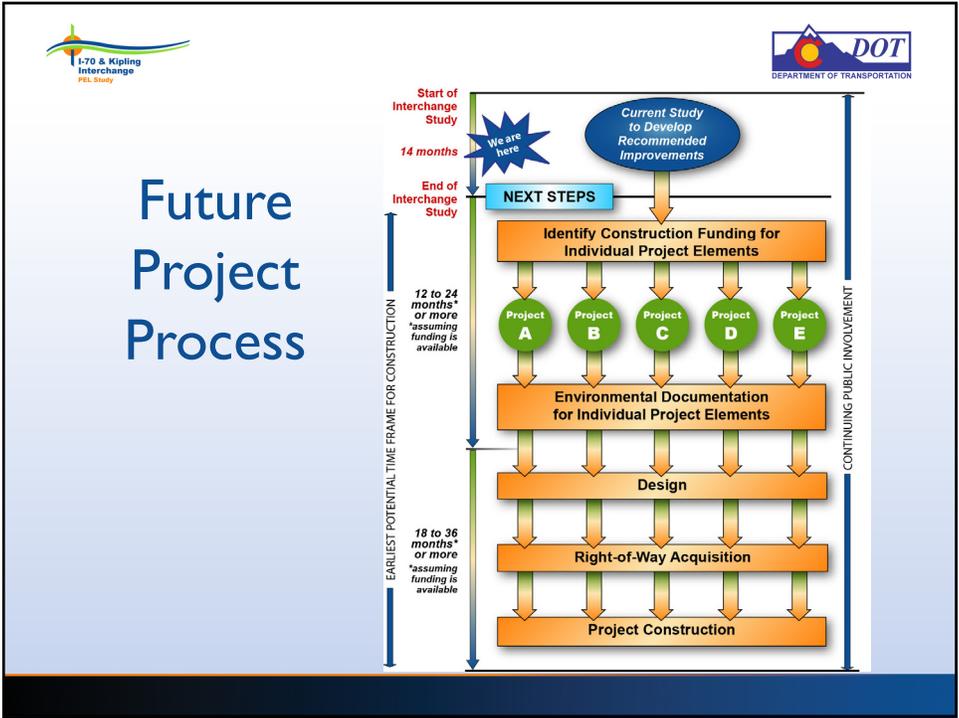
## Next Steps

- Community Focus Group meetings (mid Nov.)
  - Homeowners, business and multimodal group representatives
- Public Meeting #2 (Dec. 4<sup>th</sup>)
  - Obtain feedback on alternatives screening results
- Preliminary recommendations (Jan. 2013)
  - Alternatives refinement
- Study Report/recommendations (Mar. 2013)



## PEL Study Schedule





**I-70 & Kipling Interchange  
PEL Study**

Community Focus Group Meetings  
November 2012

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DOT DEPARTMENT OF TRANSPORTATION