



Open House #3 Summary Report

APPENDIX F

Open House #3 Handouts



Open House #3 Summary Report

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Welcome to the US 6 and Wadsworth Boulevard Environmental Assessment Public Open House #3

**Tuesday, April 29, 2008
Lakewood Cultural Center, Lakewood, Colorado**

Tonight's Purpose

The purpose of tonight's meeting is to present the results of the Level 2 evaluation of the interchange and Wadsworth Boulevard design concepts; discuss the preliminary estimates of environmental, transportation, and property impacts that would result from the design concepts; and explain the decision process leading to preferred alternative recommendations for the interchange and Wadsworth Boulevard.

Display boards located in the lobby near the main entrance provide general information about the study, and information about traffic conditions, potential historic resources, and water quality features that will be considered for the project.

Display boards located in the lobby near the theater provide information about design concepts for the interchange and Wadsworth Boulevard. You will find handouts explaining the Level 2 evaluation results adjacent to the display boards. In the center of the lobby, CDOT Right-of-Way representatives are available to discuss right-of-way questions; and a Reference table contains handouts and reference materials related to the study.

Tonight's Agenda

4:00 p.m. to 8:00 p.m. – Sign-In and Public Open House

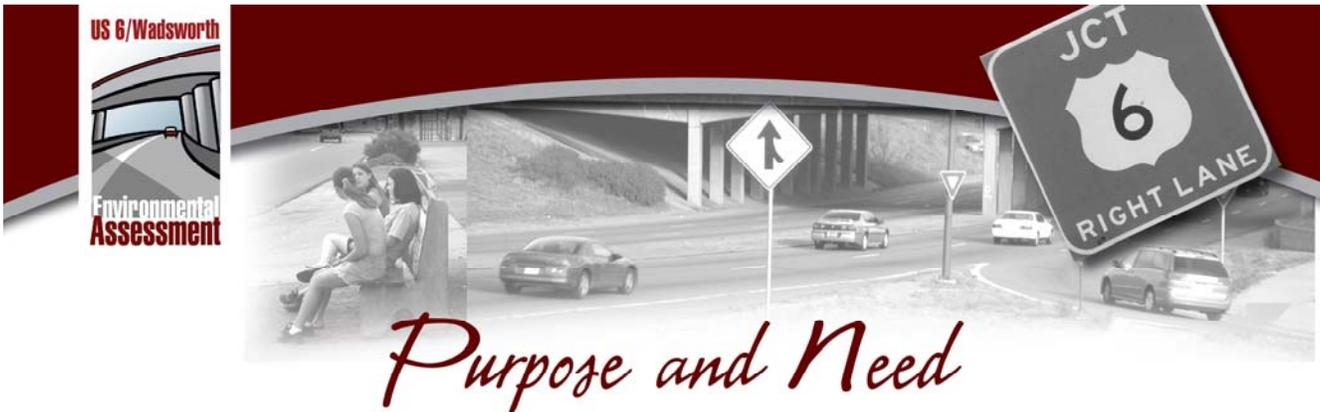
Please view display boards in the lobby and talk with staff about the study and design concepts. We encourage you to talk with staff about design features and impacts, ask questions, and share your comments.

5:00 p.m. – Informational Presentation

An informational presentation will be held in the Community Room or theater, depending on the number of people present. Please take a seat to listen to information about the Level 2 evaluation process and preferred alternative recommendations. The presentation will last approximately 30 minutes.

Ways to Provide Input

- Talk to one of the project team members at the various stations.
- Fill out an Open House Comment Form and place it in a comment box (available at the Reference Materials and Sign-In tables) on your way out.
- Mail your Comment Form to: US 6 / Wadsworth EA, c/o Colleen Kirby Roberts, CH2M HILL, 535 16th Street, Suite 800, Denver, CO, 80202. Comments received within the next two weeks would be most helpful.
- Submit comments via the project website at www.US6Wadsworth.com.



The project purpose and need identifies the transportation problems and other needs that the project is intended to address. It is defined through information gathered during scoping meetings and data collection activities.

Purpose of the Proposed Action

The purpose of the US 6 and Wadsworth Boulevard project is to improve traffic flow and safety, accommodate high traffic volumes, and increase multi-modal travel options and connections at the US 6 and Wadsworth Boulevard interchange and along Wadsworth Boulevard between 4th Avenue and 14th Avenue.

The project area includes US 6 (also designated as 6th Avenue) and Wadsworth Boulevard (also designated as State Highway 121). The east-west limits along US 6 are from the eastern interchange ramps with Wadsworth Boulevard west to Garrison Street. On Wadsworth Boulevard, the project limits are 4th Avenue to 14th Avenue. This area is a vital regional hub of the western Denver metropolitan area and the heart of the City of Lakewood.

The Colorado Department of Transportation (CDOT), Federal Highway Administration (FHWA), City of Lakewood (City), area residents, businesses, and commuters have prioritized making improvements to fix the transportation problems in the project area through previous planning efforts. CDOT's goal is to identify a proposed action that meets transportation needs, is compatible with local and regional plans, avoids or minimizes environmental harm, and can be implemented within cost constraints.

Need for the Proposed Action

The existing design and configuration of the interchange and roadway within the project limits have not kept pace with traffic and multi-modal travel demands. Improvements are needed to:

- Improve safety for motorists, pedestrians, and bicyclists
- Correct design deficiencies that contribute to safety concerns and operational inefficiencies
- Increase infrastructure capacity to meet current and future traffic volumes
- Support multi-modal connections



For federally-funded transportation projects, the National Environmental Policy Act (NEPA) requires that the environmental impacts of the proposed action be analyzed. This type of study is required before federal funds can be committed to the project. The Federal Highway Administration (FHWA) is the lead federal agency on the US 6 and Wadsworth Boulevard Interchange Environmental Assessment.

Essential Elements of NEPA:

- **Public & Agency Scoping**
- **Purpose & Need**
- **Alternatives Development**
- **Assess Impacts**
- **Determine Mitigation**
- **Prepare Environmental Assessment**
- **Public & Agency Review**
- **Decision Document**

Public & Agency Scoping: This is a public process used to identify environmental issues that need to be studied and to help define the purpose and need for the project.

Purpose & Need: The project purpose and need identifies the transportation problems and other needs that the project is intended to address. It is defined through information gathered during scoping meetings and data collection activities.

Alternatives Development: A range of alternatives will be developed for the design of the US 6 and Wadsworth Boulevard interchange and Wadsworth Boulevard from approximately 4th Avenue to 14th Avenue. A "No Action" Alternative – which would not provide any transportation improvements – will also be considered. The range of alternatives will then be screened to eliminate alternatives that aren't reasonable, feasible, or that don't meet the project purpose and need.

Assess Impacts: Transportation, social, and environmental impacts of the remaining alternatives are studied and documented in the Environmental Assessment.

Determine Mitigation: Mitigation measures are developed to avoid or minimize adverse impacts.

Prepare Environmental Assessment: Once impacts are analyzed and mitigation measures are identified, the Environmental Assessment is written and published for review by the public and agencies.

Public & Agency Review: The project team takes comments from the public and agencies during the review period. A public hearing is held to present the information and take formal comments on the document.

Decision Document: After receiving public and agency comments on the Environmental Assessment, FHWA issues a decision document. This document records the decision made by FHWA on the project and, if a construction project is identified, commits to mitigation of impacts.



CDOT follows FHWA regulations and guidelines, and the *CDOT Noise Analysis and Abatement Guidelines* for assessing traffic-related noise. These guidelines establish “noise abatement criteria,” that is, noise level standards above which noise-reducing actions should be considered. These standards are used for determining the noise impacts of a project as well as assessing potential mitigation for impacted areas. Noise abatement criteria vary depending on the activity that occurs on a property. The noise abatement criteria for different activity categories are shown in the table below.

CDOT noise abatement criteria are expressed in A-weighted decibels (dBA). An A-weighted decibel is a unit of measure corresponding to the way the human ear perceives the magnitude of sounds at different frequencies.

According to CDOT guidelines, a traffic noise impact at a location occurs when (1) predicted noise levels at that location exceed the noise abatement criteria, shown in the table below or (2) predicted noise levels exceed the current noise level by 10 dBA or more (even though the predicted levels may not exceed noise abatement criteria). This definition reflects the FHWA position that traffic noise impacts can occur under either of two separate conditions: (1) when noise levels are unacceptably high (absolute level); or (2) when a proposed highway project will substantially increase the existing noise environment (substantial increase).

CDOT’s guidelines state that noise mitigation should be considered for any property, typically called a receptor in noise studies, where traffic noise impacts will occur according to the criteria explained above. Information about mitigation measures is provided on the back of this page.

CDOT Traffic Noise Abatement Criteria

Activity Category	$L_{eq}^{(1)}$ (dBA)	Description of Activity Category
A	56 (Exterior)	Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose.
B	66 (Exterior)	Picnic areas, recreation areas, playgrounds, active sports areas, parks, residences, motels, hotels, schools, churches, libraries, and hospitals.
C	71 (Exterior)	Developed lands, properties, or activities not included in Categories A or B above.
D	--	Undeveloped lands.
E	51 (Interior)	Residences, motels, hotels, public meeting rooms, schools, churches, libraries, hospitals, and auditoriums.

⁽¹⁾ Road noise changes from moment to moment, but one can describe the noise energy over time in terms of its “equivalent level” (abbreviated L_{eq}). The L_{eq} is a single level that has the same sound energy as the fluctuating level over a stated time period. The L_{eq} used for the noise abatement criteria is the hourly A-weighted equivalent level for the “noisiest hour” of the day in the design year.

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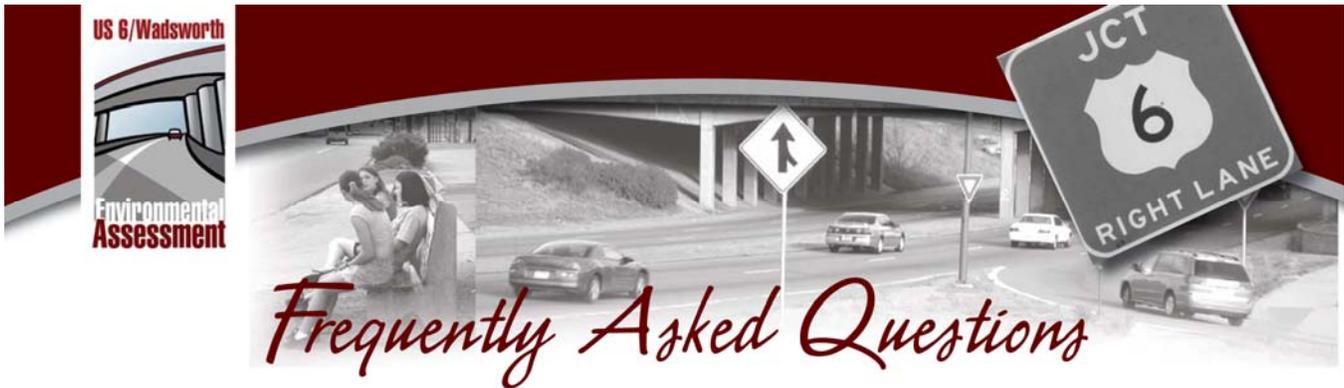


To be included in a project, a proposed noise mitigation measure must first be found to be feasible. A summary of the feasibility criteria is as follows:

- The proposed mitigation measure must be predicted to achieve at least 5 dBA of noise reduction at front row receptors (that is, the row of properties closest to the road).
- The proposed mitigation measure must not create any “fatal flaw” safety or maintenance issues such as reduced sight distances, shadowing of ice-prone areas, interference with snow/debris removal, or crash hazards.
- If the mitigation measure is to be a barrier, such as a wall, it must be possible to construct it in a continuous manner. Gaps in noise barriers, e.g. for driveways, significantly degrade their performance.

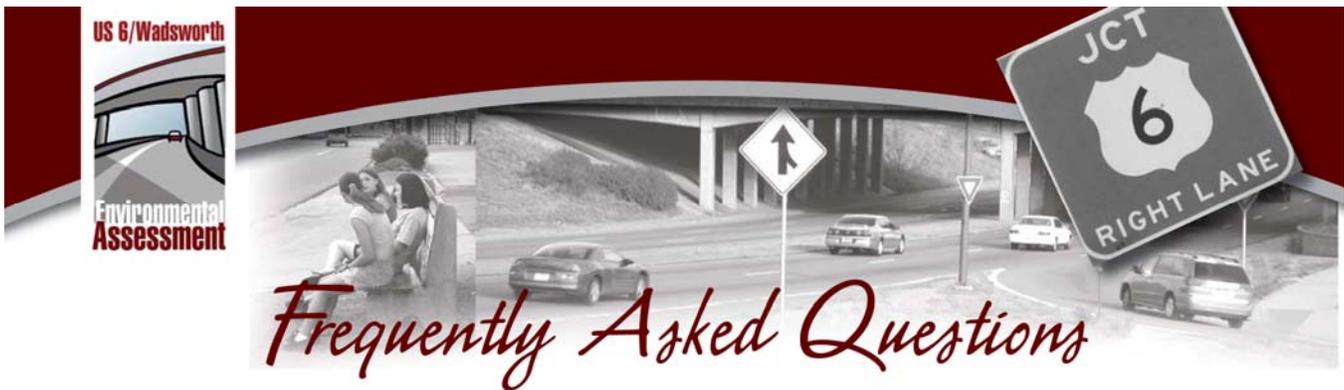
If a mitigation measure is found to be feasible, it is then analyzed for its “reasonableness.” A summary of the reasonableness criteria is as follows:

- The cost/benefit index of the proposed measure should not exceed \$4,000 per dB of reduction per benefited receptor.
- The predicted design year noise levels should equal or exceed the Noise Abatement Criteria shown in the table on the front of this sheet.
- At least 50% of the affected properties should approve of the proposed measure.
- Land use in the affected area should be at least 50% Category B (refer to the Noise Abatement Criteria table on the front of this sheet).



Index

- Q-1 Why is CDOT conducting this study?
- Q-2 What is an Environmental Assessment (EA)?
- Q-3 Why does this project require an EA?
- Q-4 How long will the study take?
- Q-5 What is the role of the public in this study?
- Q-6 What is the role of the City of Lakewood in the study?
- Q-7 How does CDOT's project relate to Lakewood's Station Area Plan and rezoning for the West Corridor Light Rail Station?
- Q-8 What is the role of RTD and the West Corridor project in the study?
- Q-9 Is CDOT involved in the property acquisitions for the West Corridor (east side of Wadsworth between 13th and 14th Avenues)?
- Q-10 What are the options for improvements?
- Q-11 Who makes the final decision about project improvements?
- Q-12 How will my property be affected? Are you going to acquire my property?
- Q-13 When can I see details on property acquisition, access changes, or other property impacts?
- Q-14 Will the project construct noise walls along 6th Avenue west of Wadsworth?
- Q-15 How will the project affect traffic in neighborhoods?
- Q-16 Will this study take into account traffic impacts of the light rail station and increased development along the light rail line?
- Q-17 When will the project be constructed?
- Q-18 Will the project be constructed at the same time as other major construction projects in the area?
- Q-19 What is quiet pavement, and are you considering using it for US 6 and/or Wadsworth Boulevard improvements?
- Q-20 Why did CDOT raise the speed limit on US 6 from 55 mph to 65 mph, and will you consider as part of this study reducing the speed limit back to 55 mph?
- Q-21 Will this study consider future transit along Wadsworth?



Q-1: Why is CDOT conducting this study?

A-1: Transportation improvements in the study area have been identified as a high priority for CDOT, the City of Lakewood, and area residents, businesses, and commuters. Roadway improvements in the region's West Corridor have been identified in Lakewood's Comprehensive Plan, the Denver Regional Council of Government's (DRCOG's) Regional Transportation Plan, and the 1997 West Corridor Major Investment Study prepared by the Regional Transportation District (RTD). Improvements in the West Corridor, including improvements to the US 6 and Wadsworth interchange, were identified as one of the set of 28 high-priority projects across the state that, in 1996, CDOT committed to completing over the next approximately 25 years. In 1999, Colorado voters approved bonding on CDOT's 28 high-priority projects against future gas tax revenues to complete the projects on an accelerated schedule. CDOT has completed nearly half of the projects of its Strategic Transportation Investment Program, also known as the 7th Pot Program. The US 6 and Wadsworth improvements have been identified as one of the roadway projects needed for the West Corridor, and as such, improvements could be eligible for priority funding.

Q-2: What is an Environmental Assessment (EA)?

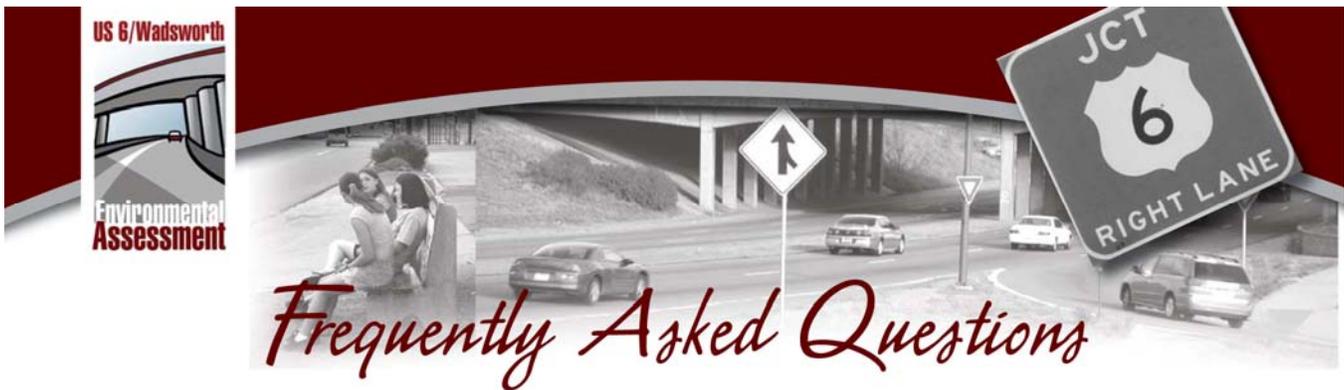
A-2: An EA is a document that describes the effects that a federal action would have on the environment. It also describes the impacts of alternatives to the Proposed Actions and identifies ways to avoid, minimize, or mitigate adverse impacts. The National Environmental Policy Act (NEPA), signed into law on January 1, 1970, established a national policy to protect the environment. Federal agencies are required to integrate the NEPA process into other planning processes to ensure that planning and decisions consider environmental values. Regulations for implementing NEPA established by the President's Council on Environmental Quality (CEQ) require that federal agencies document their consideration of environmental values and provide opportunity for public involvement. The potential for both beneficial and adverse impacts must be considered. EAs are normally prepared for those Proposed Actions whose environmental impacts are unknown. An EA will result in either a Finding of No Significant Impact (FONSI) or a finding of significant impact and a Notice of Intent to prepare an Environmental Impact Statement (EIS) to further study these impacts.

Q-3: Why does this project require an EA?

A-3: An EA is required because the proposed implementation of transportation improvements to US 6 and Wadsworth Boulevard is likely to have environmental impacts, and the extent of these impacts is unknown.

Q-4: How long will the study take?

A-4: The study was initiated in spring 2007 and will be completed in December 2008. If a construction project is identified at the end of the study, the project would then proceed into final design and construction. Final design typically takes 6 to 12 months to complete, and construction typically takes one to two years. The US 6 / Wadsworth study has been identified by CDOT and the Federal Highway Administration (FHWA) as a pilot NEPA streamlining project. It is also a priority project for CDOT and the City of Lakewood. The study is following an accelerated schedule due to the streamlining efforts.



Q-5: What is the role of the public in this study?

A-5: The public has been involved in developing the scope of the study and providing input on the development and screening of preliminary design concepts for the interchange and Wadsworth Boulevard.

CDOT is now asking for input on refined design concepts for the interchange and the proposed action for improvements to Wadsworth Boulevard. Once alternative(s) have been selected for evaluation in the EA, the public will also be involved in developing and selecting mitigation measures used to avoid or minimize impacts of the alternative(s). The public will then be able to review the EA document and provide formal comments at a public hearing. FHWA will consider these comments when writing its decision document on the project.

Q-6: What is the role of the City of Lakewood in the study?

A-6: The City of Lakewood is a partnering agency on the study. The City is working with CDOT and FHWA to provide a vision for improvements and necessary information and coordination among city departments and staff.

Q-7: How does CDOT's project relate to Lakewood's Station Area Plan and rezoning for the West Corridor Light Rail Station?

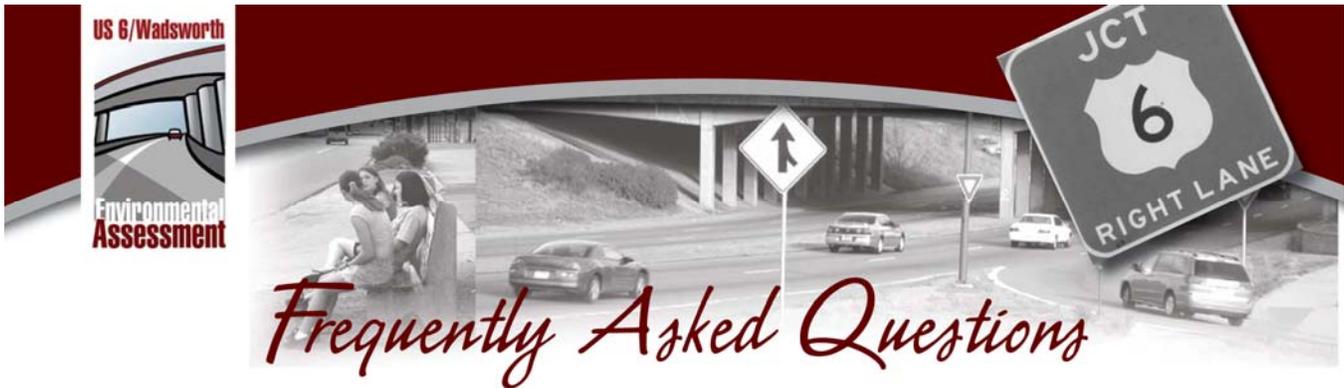
A-7: CDOT has reviewed Lakewood's Station Area Plan to determine whether proposed improvements on Wadsworth Boulevard would conflict with the Plan. Implementation of the Station Area Plan, however, is beyond the scope of this study. The City of Lakewood is a partner with CDOT on the EA.

Q-8: What is the role of RTD and the West Corridor project in the study?

A-8: RTD is a cooperating agency on the study. RTD has jurisdiction over the West Corridor light rail line and station, which are located in the US 6 / Wadsworth study area. RTD is working with CDOT and FHWA to provide necessary information on the West Corridor project and coordinate between the West Corridor and US 6 / Wadsworth projects.

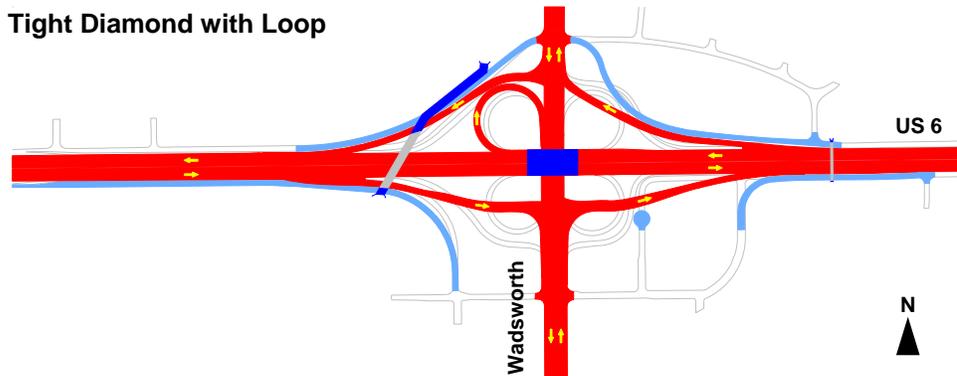
Q-9: Is CDOT involved in the property acquisitions for the West Corridor (east side of Wadsworth between 13th and 14th Avenues)?

A-9: No. The property acquisitions currently occurring along Wadsworth Boulevard between 13th and 14th Avenues are not related to the US 6 / Wadsworth EA.



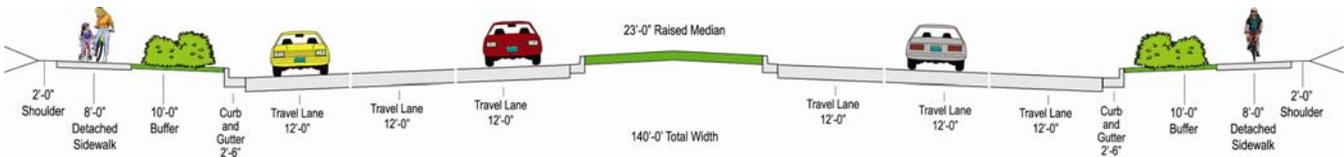
Q-10: What are the options for improvements?

A-10: Preferred alternatives been identified for the US 6 and Wadsworth interchange and for Wadsworth Boulevard between 4th and 14th Avenues. Four refined interchange designs were evaluated during the Level 2 evaluation process to determine which design should be carried forward for evaluation in the EA. CDOT has identified the Tight Diamond with Loop as the Preferred Alternative for the interchange. The basic elements of the Tight Diamond with Loop alternative are shown below.



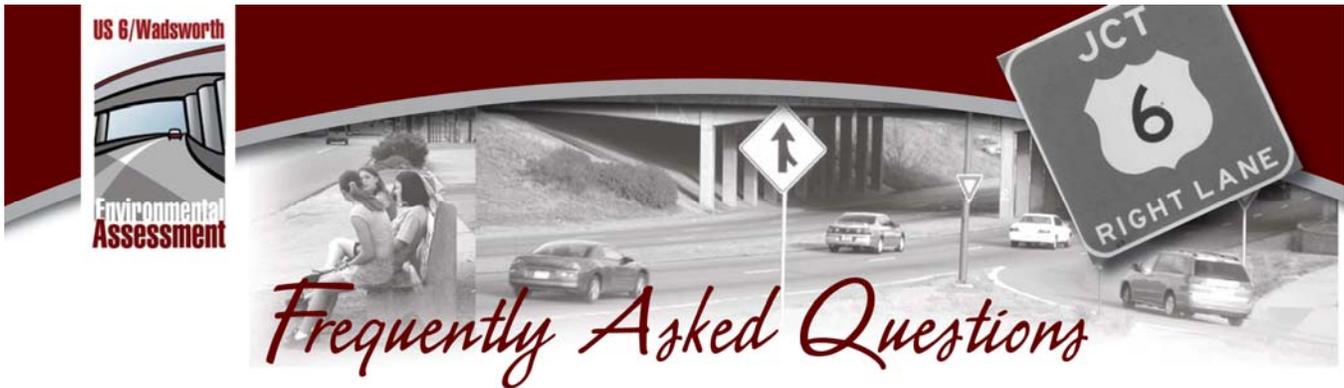
CDOT has identified six travel lanes with a raised median and sidewalks as the Preferred Alternative for Wadsworth Boulevard between 4th and 14th Avenues. The basic elements of the Preferred Alternative are shown below. Options that vary the width of elements at the side of the road – primarily, the buffer between curb and sidewalk – will be implemented to minimize property impacts in areas of limited right-of-way, and maximize landscaping opportunities in areas with greater right-of-way. Narrower lane widths, a narrower median, and shifted alignment along Wadsworth are other options which may be implemented to further minimize property impacts.

Wadsworth Boulevard Typical Section



Q-11: Who makes the final decision about project improvements?

A-11: FHWA and CDOT will evaluate the environmental impacts of reconstruction of Wadsworth Boulevard and the interchange and determine which, if any, option should be funded.



Q-12: How will my property be affected? Are you going to acquire my property?

A-12: Preliminary estimates of property impacts were developed for each of the four interchange design concepts carried forward into the Level 2 evaluation. Preliminary estimates of property impacts were also developed for the widest footprint of the Wadsworth Boulevard preferred alternative, that is, six 12-foot travel lanes, a 23-foot raised median, and a detached 8-foot sidewalk with a 10-foot tree lawn.

Impact estimates can be viewed on display boards presented at the April 29, 2008 public open house. Estimates are considered preliminary because they do not take into account a) additional property impacts that may occur from noise walls or water quality treatment features, or b) impacts that may be lessened due to mitigation efforts such as retaining walls, shifts in alignment, or minimizing the width of elements such as tree lawns.

In the coming months, CDOT will individually evaluate each potential property acquisition to determine if the acquisitions can be minimized or avoided. If your property is one identified as a potential acquisition, we will schedule a meeting with you to discuss mitigation options. If you have additional questions about property impacts or the right-of-way acquisition process, please contact Colleen Kirby Roberts, CH2M HILL public involvement manager, at 303-573-5385, ext. 205.

Q-13: When can I see details on property acquisition, access changes, or other property impacts?

A-13: Preliminary details on property impacts can be viewed on display boards presented at the April 29, 2008 public open house. In the coming months, CDOT will be meeting with potentially affected property owners to determine if impacts can be minimized or avoided. (Also, see Q-12.).

Q-14: Will the project construct noise walls along 6th Avenue west of Wadsworth?

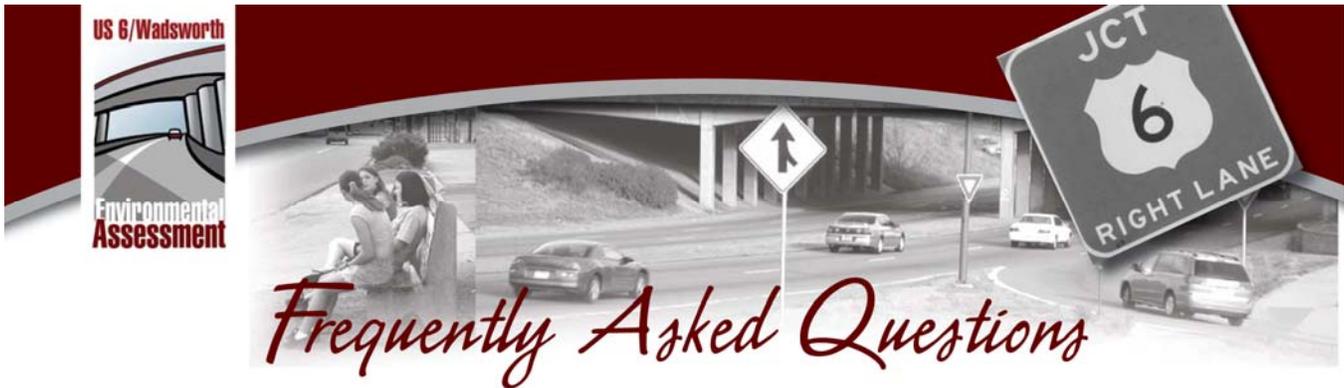
A-14: If a project is recommended for construction, noise mitigation will be provided for locations where highway noise is higher than acceptable thresholds (66 dBA), and where analysis shows that it is reasonable and feasible to do so. Additionally, any noise walls that are demolished to allow for interchange reconstruction will be replaced to continue to provide appropriate noise mitigation.

Q-15: How will the project affect traffic in neighborhoods?

A-15: Specific impacts to neighborhood traffic have not been assessed at this stage of the study. When the alternatives for the interchange and Wadsworth Boulevard are evaluated in detail in the EA, the impacts to neighborhood traffic will be studied, along with transportation, social, and environmental impacts.

Q-16: Will this study take into account traffic impacts of the light rail station and increased development along the light rail line?

A-16: The study will use DRCOG's approved 2035 travel forecasting model to determine future corridor traffic conditions, as required by NEPA. The DRCOG model incorporates the entire RTD FasTracks program as well as the most current land use forecasts surrounding the Wadsworth Boulevard corridor



and the proposed West Corridor Light Rail Transit station. To date, a number of planning efforts have been completed to evaluate the implementation of light rail transit, the transit station, and the potential for changes in land use surrounding the station such as transit-oriented development (TOD). These planning efforts are described below.

Title	Agency	Date	Status
West Corridor Major Investment Study	RTD	1997	Adopted
Final West Corridor Environmental Impact Statement	RTD	2003	Completed
Wadsworth Boulevard Station Area Plan	City of Lakewood	2006	Adopted
Article 22: Mixed Use Zone District Zoning Ordinance	City of Lakewood	2007	Adopted
Wadsworth Boulevard Station Area Implementation Plan	City of Lakewood	2007	Adopted
West Corridor Supplemental Environmental Assessment	RTD	2007	Completed

Q-17: When will the project be constructed?

A-17: The EA must be completed before CDOT can apply for federal funding to construct a project. A typical schedule would include 18 to 24 months for completion of an EA, 6 to 12 months for final design, and one to two years for construction. Because the project is a high priority, construction could start as early as 2010.

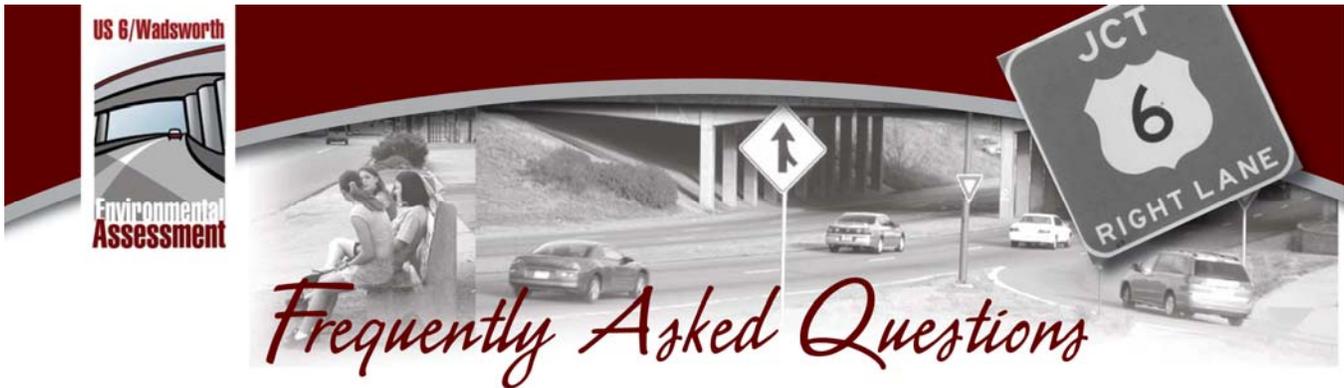
Q-18: Will the project be constructed at the same time as other major construction projects in the area?

A-18: If a construction project is identified, the construction timing will be coordinated with other major construction projects in the area. CDOT will work closely with other entities to coordinate construction schedules to minimize disruptions to area residents, businesses, and commuters to the greatest extent possible.

Q-19: What is quiet pavement, and are you considering using it for US 6 and/or Wadsworth Boulevard improvements?

A-19: At this point, the two main factors that influence CDOT's selection of pavement types are safety and durability. The selection of either asphalt or concrete pavement is based on a life-cycle cost analysis, which includes the cost of initially constructing the pavement and the future inflation-adjusted costs for maintaining the pavement over its useful life. Noise, while not a major factor in this analysis, can be used as one of several secondary factors in cases where the life cycle analysis indicates little to no pavement preference. CDOT is currently conducting a long-term research study to measure the noise effects of the age and type of pavements (both concrete and asphalt) used on Colorado's highways. This research project should provide insight into types of pavements and surface treatments that have potential for providing long-term noise benefits.

Stone Matrix Asphalt (SMA) is a gap-graded asphalt that maximizes rutting resistance and durability with a stable stone-on-stone skeleton held together by a mixture of asphalt, filler, and stabilizing agents. Typically, SMA is used on higher traffic roadways like freeways and expressways. A project using SMA was recently (2006) completed on US 6 between Simms and Indiana Avenues. While the evidence that



SMA is quieter over the long term is mainly anecdotal, response to SMA, including in the project area, has been positive.

Although FHWA has supported studies and several pilot programs to evaluate the effect of pavement types on roadway noise (including the research being conducted presently in Colorado), pavement type in and of itself is not recognized as a noise mitigation measure. The most effective and commonly used measures of mitigating highway noise are noise barriers (walls or earthen berms), which will be evaluated for this project.

Q-20: Why did CDOT raise the speed limit on US 6 from 55 mph to 65 mph? Will you consider as part of this study reducing the speed limit back to 55 mph?

A-20: In 2000, CDOT conducted an investigation of speed limits on US 6 between Sheridan and I-70. This study concluded that appropriate limits for US 6 were 55 mph east of Sheridan and 65 mph west of Sheridan. In 2001, a follow-up investigation was completed after the new signs were posted, and the prevailing speed was found to be the same as before the signs went up.

Prevailing speeds are an important factor in setting speed limits and one of the considerations in the speed investigations conducted for US 6. These studies found that the prevailing speed (in the 85th percentile) along US 6 supports a speed limit of 65 mph west of Sheridan.

Traffic investigations have shown that most people will drive at a speed that they perceive is safe with the given roadway conditions and will ignore a speed limit that is unrealistically too low or too high. A realistic speed limit is voluntarily obeyed by the reasonable majority and more enforcement effort can be applied to the unreasonable few who drive too fast or too slow. When reasonably set, speed limits establish a middle ground for all drivers encouraging some to speed up while influencing others to slow down. This middle ground reduces turbulence within the traffic stream and limits conflict points and reduces accidents.

Q-21: Will this study consider future transit along Wadsworth Boulevard?

A-21: Transit along Wadsworth Boulevard is included in DRCOG's long-range plan. However, it is not included in the fiscally constrained plan, that is, the list of projects likely to be implemented within the next 25 years. The City of Lakewood and some metro-area residents would like to see transit along Wadsworth Boulevard in the shorter term. The implementation of transit along Wadsworth Boulevard is not part of the US 6/Wadsworth study; however, the ability of the interchange to accommodate transit along Wadsworth Boulevard is a high-priority consideration in the evaluation of alternatives for the interchange. The most important feature in accommodating future transit is a sufficiently long bridge on US 6 to allow additional travel or transit lanes on Wadsworth Boulevard.



Four interchange design concepts were studied in a second level of evaluation, to assist in the selection of a preferred alternative for the US 6 and Wadsworth Boulevard interchange. The design concepts were rated as “good,” “fair,” or “poor” on 20 criteria related to design and safety features, mobility and traffic operations, local impacts, environmental impacts, costs, and implementation elements.

Some of the criteria weighed more heavily in the selection of a preferred alternative than others. For example, improving safety is a high priority, and criteria related to safety were therefore considered high priority. The four interchange concepts performed similarly on many of the criteria, including some of the highest priority criteria. The comparable performance of the concepts did not immediately indicate a clear preferred alternative for the interchange.

To better differentiate the design concepts from one other, the project team determined which criteria were the primary means of differentiating the concepts, and of those, which were the highest priority, based on the purpose and need of the project and the opinions voiced by the public at the February 2008 public meeting. The highest priority distinguishing criteria were, in order of importance: interchange capacity, pedestrian and bicycle crossings, corridor travel time, and cost. For these criteria, the concepts were compared to one another, with a rank of 1st through 4th place assigned to the concepts.

After detailed evaluation of the 20 criteria, including the distinguishing criteria, the Tight Diamond with Loop was determined to best balance transportation needs with environmental and community impacts. For example, the Tight Diamond with Loop performs second best on the highest priority criterion, interchange capacity, while requiring significantly fewer relocations than the Partial Cloverleaf concept, which ranked best on interchange capacity.

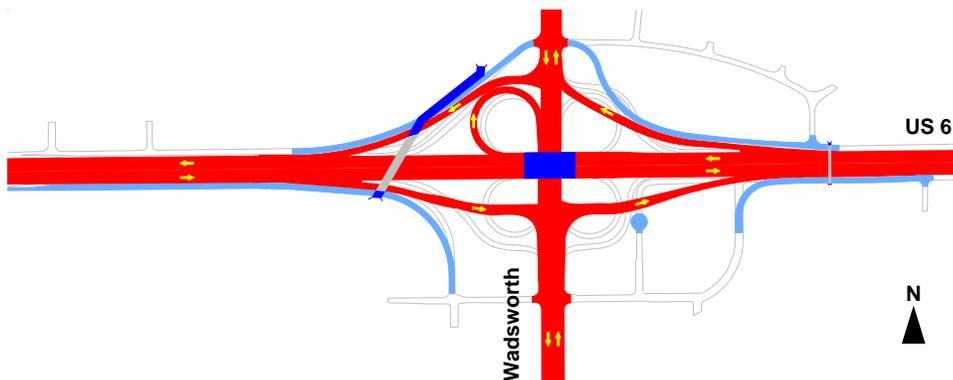
The results of the Level 2 evaluation led to the selection of the Tight Diamond with Loop as the preferred alternative for improvements to the US 6 and Wadsworth Boulevard interchange.

The detailed Level 2 evaluation matrix, showing the ratings of each interchange design concept in all 20 evaluation categories, is available for reference upon request. The following pages provide general information on the features of each of the four interchange design concepts considered.

Distinguishing Criteria	Alternative Ranking			
	<i>Tight Diamond</i>	<i>Tight Diamond with Loop</i>	<i>Single Point Urban Interchange (SPUI)</i>	<i>Partial Cloverleaf</i>
Interchange Capacity	4th	2nd	3rd	1st
Pedestrian and Bicycle Crossings	1st	3rd	2nd	4th
Corridor Travel Time	4th	2nd	1st	3rd
Project Cost	1st	2nd	3rd	4th



Tight Diamond with Loop – Preferred Alternative



Description

The Tight Diamond with Loop concept would provide a loop ramp for the highest volume left-turn movement from westbound US 6 to southbound Wadsworth Boulevard. Traffic making this movement would exit US 6 onto a loop ramp, as it does today. Placing the highest volume left-turn movement on a loop ramp would increase traffic capacity at other left-turn movements at the interchange, improving the operation of the entire interchange when compared to the Tight Diamond and SPUI concepts.

The eastbound ramps (on the south side of US 6) would be the same as the Tight Diamond, and would intersect Wadsworth at a traffic signal. The westbound ramp intersection (on the north side of US 6) would be shifted farther north than in the Tight Diamond, to allow for the placement of the loop ramp. The westbound ramp intersection would require a signal for southbound Wadsworth Boulevard traffic only; northbound traffic at this location would not require a signal.

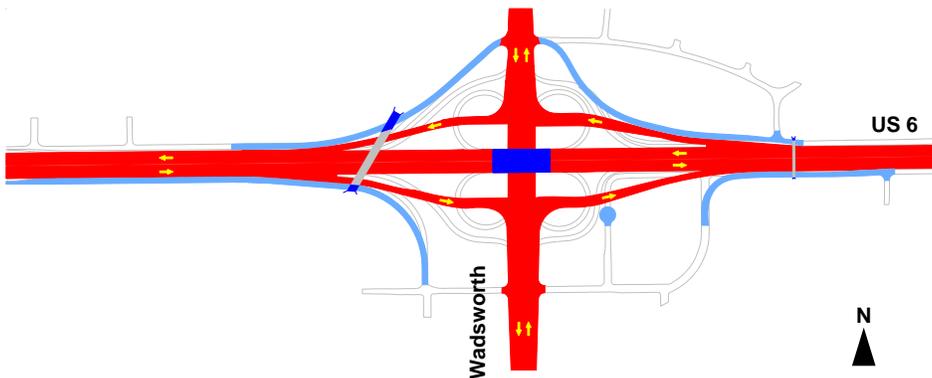
The Tight Diamond with Loop would require fairly simple construction staging. It would cost more than the Tight Diamond concept due to the additional right-of-way acquisition required in the northwest quadrant of the interchange, but would cost less than the SPUI or Partial Cloverleaf.

Pedestrians and bicycles crossing through the interchange would cross the terminal of the loop ramp and two free-flow right-turn movements without the benefit of traffic signals. Loop ramp crossings present a greater safety concern than right-turn movements, because of the speed and sight lines of the vehicles on the loop ramp. Pedestrians and bicycles could cross Wadsworth Boulevard at the south ramp intersection, but not at the north ramp intersection.

The Tight Diamond with Loop would not easily accommodate expansion of Wadsworth Boulevard or US 6 in the future without reconstruction of the loop ramp and westbound entrance ramp. Constructing a loop ramp that would allow future expansion on Wadsworth Boulevard and US 6 would increase the already-large right-of-way impacts in the northwest quadrant of the interchange.



Tight Diamond



Description

The Tight Diamond interchange concept would provide four standard ramps between Wadsworth Boulevard and US 6. Two traffic signals would be added on Wadsworth Boulevard to allow left turns at the ramps. Right turns at the entrance ramps would be free movements; right turns at the exit ramps would be signalized.

The Tight Diamond concept would address the highest volume left-turn movement from westbound US 6 to southbound Wadsworth Boulevard by providing three left-turn lanes on the westbound exit ramp. To address the limited vehicle storage area within the interchange, queuing of vehicles would be provided outside of the interchange. This would allow vehicles to wait for left turns outside of the ramp intersections on Wadsworth Boulevard.

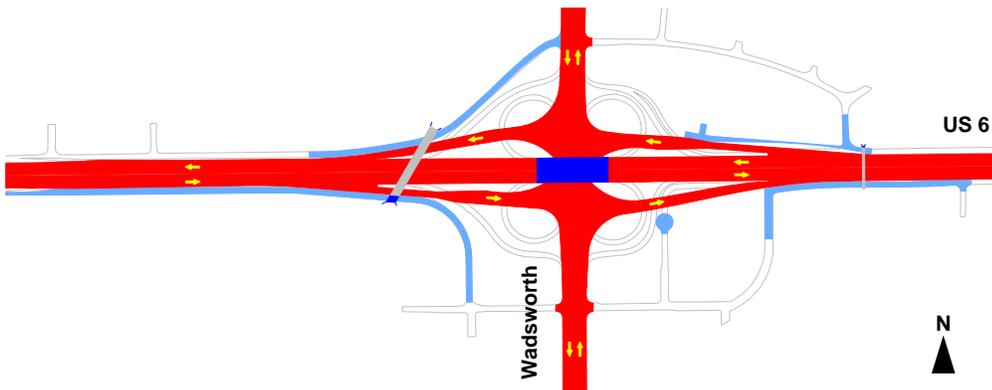
The Tight Diamond would require more complex construction staging than the Tight Diamond with Loop and Partial Cloverleaf concepts, but would be easier to build than the Single Point Urban Interchange (SPUI) concept. The Tight Diamond would cost less than the other interchange concepts. It would minimize right-of-way acquisition compared to the Tight Diamond with Loop and Partial Cloverleaf concepts.

Most of the pedestrian and bicycle crossings at the interchange would occur at signalized intersections, except at two free-flow right-turn movements. Additionally, pedestrians and bicyclists could cross Wadsworth Boulevard at either or both intersections in the interchange.

The Tight Diamond would allow easier future expansion of Wadsworth Boulevard and US 6 than the Tight Diamond with Loop and Partial Cloverleaf concepts, because the entrance and exit ramps would not require major reconstruction to accommodate additional lanes on Wadsworth Boulevard or US 6. Reconstruction would be limited to the ramp intersections with Wadsworth Boulevard and the entrance/exit tapers on US 6.



Single Point Urban Interchange (SPUI)



Description

A Single Point Urban Interchange (SPUI) would provide four standard ramps that converge to a single intersection. The left-turn movements at all four ramps would be controlled by a single traffic signal. SPUIs typically operate as well as tight diamond interchanges because there is only one traffic signal for vehicles to negotiate. However, the intersection is very large due to the geometry of the ramp movements.

The SPUI concept would address the highest volume left-turn movement from westbound US 6 to southbound Wadsworth Boulevard by providing three left-turn lanes on the westbound exit ramp. Right turns at the ramps would be free-flow movements except in the southwest quadrant of the interchange. The right-turn movement in this quadrant would be signalized, allowing vehicles to travel across Wadsworth Boulevard to turn left onto 5th Avenue.

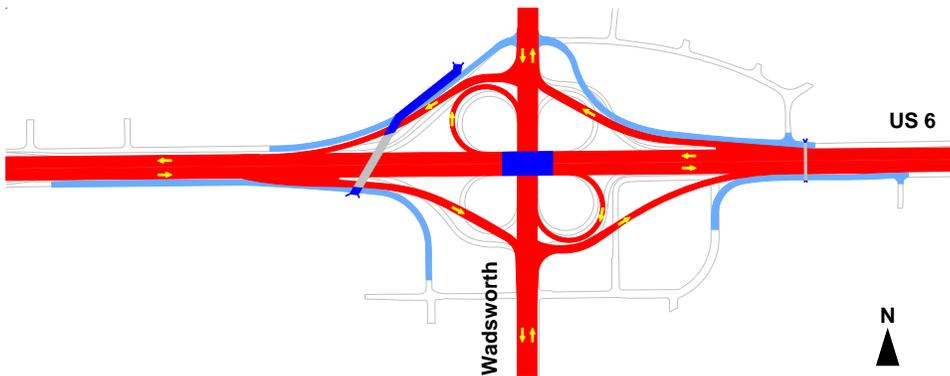
The SPUI concept would require the most difficult construction staging of the four interchange concepts, and would create significant disruption to traffic on US 6 and Wadsworth Boulevard for a longer period of time than the other concepts. The SPUI concept would cost more than the Tight Diamond and Tight Diamond with Loop concepts, due to the type of bridge required on US 6.

Most of the pedestrian and bicycle crossings at the interchange would occur at signalized intersections, except at free-flow right-turn movements. Pedestrians and bicyclists could not cross Wadsworth Boulevard at the interchange; they would travel south to the 5th Avenue intersection or north to the 10th Avenue intersection.

The SPUI would allow easier future expansion of Wadsworth Boulevard and US 6 than the Tight Diamond with Loop and Partial Cloverleaf concepts, because the entrance and exit ramps would not require major reconstruction to accommodate additional lanes on Wadsworth Boulevard or US 6. Reconstruction would be limited to the ramp intersections with Wadsworth Boulevard and the entrance/exit tapers on US 6.



Partial Cloverleaf



Description

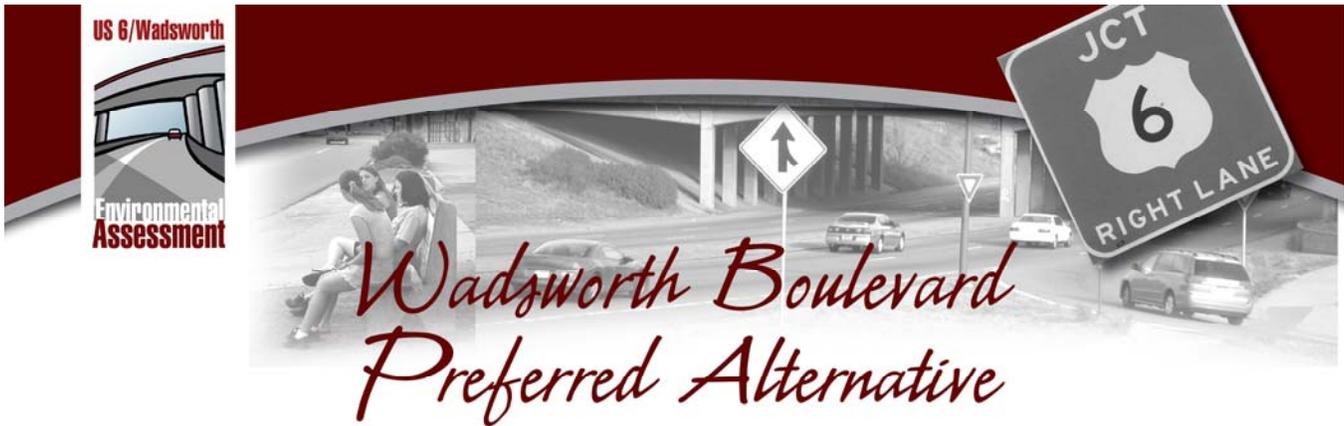
The Partial Cloverleaf concept would provide loop ramps for two travel movements. The loop ramp in the northwest quadrant of the interchange would carry traffic at the highest volume left-turn movement from westbound US 6 to southbound Wadsworth Boulevard. The loop ramp in the southeast quadrant of the interchange would carry traffic from eastbound US 6 to northbound Wadsworth Boulevard. Traffic making these movements would exit US 6 onto loop ramps, as it does today. Placing two left-turn movements onto loop ramps would increase traffic capacity at other left-turn movements at the interchange, improving the operation of the entire interchange when compared to the Tight Diamond and SPUI concepts.

The remaining ramps would be shifted farther away from US 6, to allow for placement of the loop ramps, increasing impacts to properties around the interchange. Two traffic signals would be added on Wadsworth Boulevard, one at each ramp intersection.

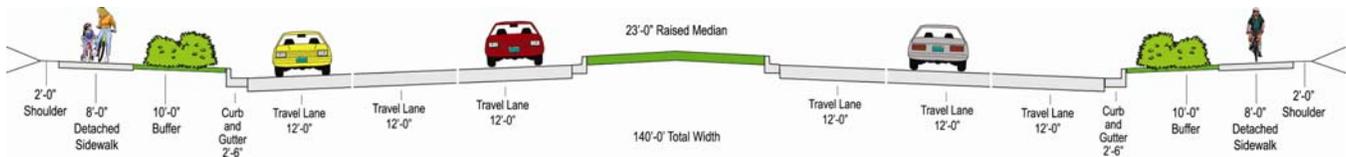
The Partial Cloverleaf would require the simplest construction staging of the four interchange concepts, causing the least disruption to the traveling public. The Partial Cloverleaf would cost more than the other interchange concepts, both because of the additional infrastructure required and the additional right-of-way acquisition required in the northwest and southeast quadrants of the interchange.

Pedestrians and bicycles crossing through the interchange would cross the terminals of the two loop ramps and two free-flow right-turn movements without the benefit of traffic signals. Loop ramp crossings present a greater safety concern than right-turn movements, because of the speed and sight lines of the vehicles on the loop ramp. Pedestrians and bicyclists could not cross Wadsworth Boulevard at the interchange; they would travel south to the 5th Avenue intersection or north to the 10th Avenue intersection.

The Partial Cloverleaf would not easily accommodate expansion of Wadsworth Boulevard or US 6 in the future without reconstruction of the loop ramps and entrance ramps. Constructing loop ramps that would allow future expansion on Wadsworth Boulevard and US 6 would increase the already-large right-of-way impacts in the northwest and southeast quadrants of the interchange.



The Wadsworth Boulevard preferred alternative consists of six travel lanes, a raised median, and sidewalks. This preferred alternative was identified during the Level 1 fatal flaw screening as the only concept that met project purpose and need. The alternative was, therefore, not compared against other design concepts in the Level 2 evaluation. The basic cross-section of the preferred alternative is illustrated below.



Left-turn lanes would be provided in the space available for the median. The median would prevent left turns at mid-block locations and would channel left turns to intersections with cross streets. At most intersections, U-turns would be allowed. No additional traffic signals would be added on Wadsworth Boulevard, except those required at the interchange. Traffic signals would remain at 5th, 10th, and 14th Avenues. Other intersections with cross streets would remain unsignalized. Cross street access to Wadsworth Boulevard at Highland Drive, 8th Place, 9th Avenue, and 13th Avenue would be limited to further improve safety and traffic capacity in the corridor.

Elements of the preferred alternative may be varied during design refinement to minimize impacts to properties along Wadsworth Boulevard. Options that vary the width of elements at the side of the road – primarily, the buffer between curb and sidewalk – will be implemented to minimize property impacts in areas of limited right-of-way, and maximize landscaping opportunities in areas with greater right-of-way. Narrower lane widths, a narrower median, and shifted alignment along Wadsworth are other options which may be implemented to further minimize property impacts.



First Name: _____ Last Name: _____

Address: _____ City: _____ Zip Code: _____

Email Address: _____ Yes, add me to the US 6/Wadsworth mailing list

Do you support the identification of the Tight Diamond with Loop as the Preferred Alternative for the US 6 and Wadsworth Boulevard interchange? Yes No

Comments?

Do you support the identification of six lanes with a raised median and sidewalks as the Preferred Alternative on Wadsworth Boulevard? Yes No

Comments?

Please provide any additional comments here.

Please leave this comment form in one of the comment boxes on your way out. Comment boxes are located at the Sign-In table near the entrance and at the Reference Materials table in the center of the lobby. You may also fold this form into thirds, tape or staple it, and mail it to the address printed below. Please affix a stamp before mailing the form. For additional project information, please visit the project website, www.US6Wadsworth.com, or call Colleen Kirby Roberts, public involvement manager, at 303-573-5385, ext. 205.

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