



Agenda

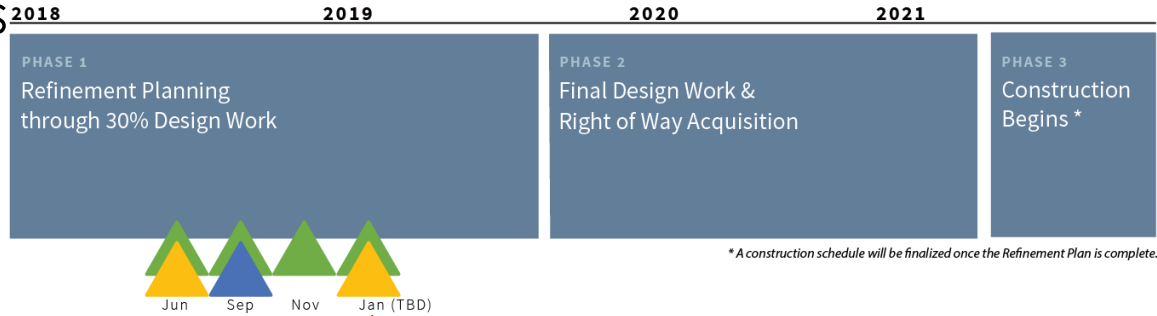
Introductions	<i>Bob Townsend</i>
Progress Report & Project Schedule Review	<i>Marc Butorac</i>
Concept Development Workshop Overview	<i>Marc Butorac</i>
Review Alternative Analysis Memorandum #6	<i>Marc Butorac</i>
Review of Project Advisory Committee Feedback and Potential Refinement Options	<i>Group</i>
Promising Alternatives Evaluation Exercise	<i>Group</i>
Discussion	<i>Group</i>
Closing Remarks	<i>Marc Butorac</i>

Progress Report

- Tech Memo #1-5 Previously Completed
- Concept Development Workshop
- Neighborhood Alliance Meeting
- Tech Memo #6: *Alternatives Analysis* Draft Completed
- Advisory Committee Meeting #3 – Reviewed Tech Memo #6

Schedule – Next Steps

- Public Open House
 - January 9th
 - Reviewing Preferred Alternatives



SCHEDULED MEETINGS

- ▲ Advisory Committee Meeting
- ▲ Concept Development Workshop
- ▲ Public Meeting



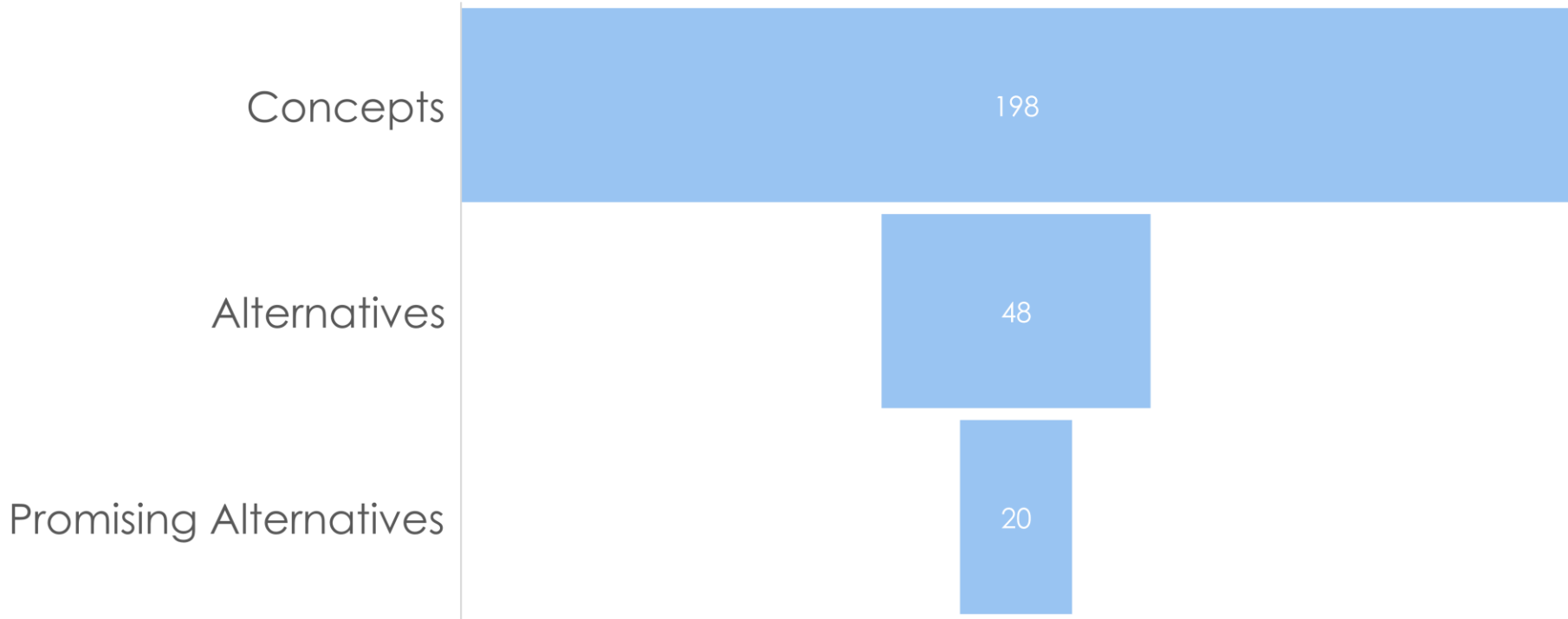
Next Steps

Concept Development Workshop Review

- Three Day Workshop
September 11th-13th
- Over 130 participants
- Concepts Developed
 - 64 Corridor Alignments
 - 102 Intersections
 - 32 Transitions



Concept Development Workshop Review



Findings From Tech Memo #6

Promising Alternative Evaluation

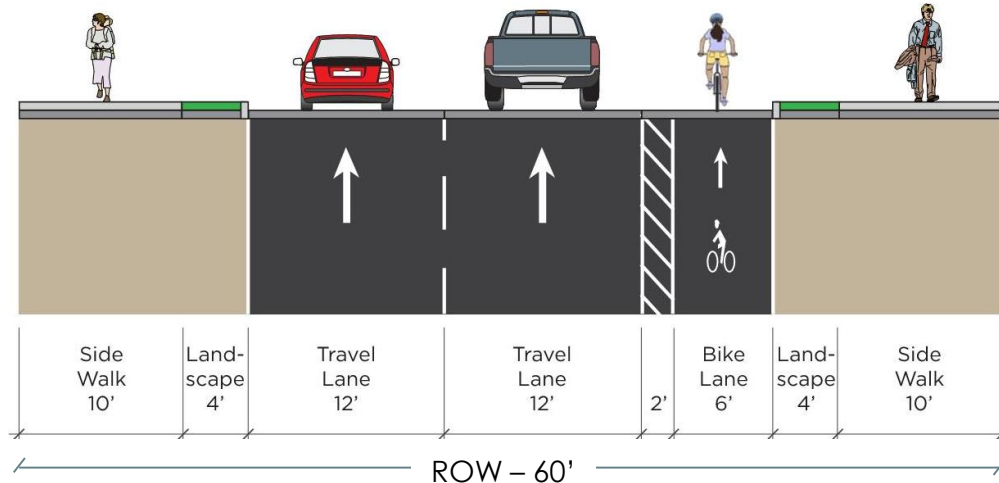
- Consolidation of concepts from CDW
- Evaluation
 - Cost, Operations, Safety, Constructability, ROW Impact, Accessibility
- **Promising Alternatives**
 - **Couplet**
 - **Five-Lane**

Goal	Objective	Evaluation Criteria	Intersection Evaluation					
			Baseline No Build	South			North	
				5 Lane (w/ Signal @ B Ave)	One-Way Couplet	Fly Under (5-Lane)	Fly Under (Couplet)	R CUT
Community & Livability: provide for a high quality of life by balancing US 97 mobility needs with community values and interests.	<ul style="list-style-type: none"> • Increase transportation choices on US 97 by adding or improving bicycle and pedestrian routes, crossing, and connections to transit, including a crossing at US 97 & B Street which serves as a school crossing and scenic bike route crossing. • Link regional and local routes to key attractors on US 97, such as shopping, schools, residential areas, and other community destinations. • Provide a transportation network that accommodates local, commuter, and region traffic, including freight movements along US 97. 	<ul style="list-style-type: none"> • Does the proposed project element serve people that live in, work in, and/or visit Terrebonne? 	○	●	●	●	●	●
		<ul style="list-style-type: none"> • Are there any significant barriers to or impacts that would result from the proposed project element, such as the presence of significant natural resources or require acquisition of property contaminated by Haz Mat? 	●	◐	●	◐	◐	◐
		<ul style="list-style-type: none"> • What are the right of way impacts of the proposed project element - # of businesses relocated, # of residential properties impacted, impacts to public facilities, etc. 	●	◐	◐	○	◐	○
Mobility: Provide a safe and efficient transportation system for all modes of travel, including local trips, through trips on the highway, emergency services, and freight.	<ul style="list-style-type: none"> • Evaluate all potential US 97 alternatives, such as maintaining the existing US 97 alignment, creating a highway couplet with 11th Street or constructing a bypass east or west of the existing alignment. • Identify and evaluate all potential at-grade and grade separated 	<ul style="list-style-type: none"> • Does the proposed project element meet mobility targets on US97 through 2040? 	○	○	◐	●	●	○
		<ul style="list-style-type: none"> • Does the proposed project element represent an investment that works toward the long-term solution for the corridor? 	○	●	●	◐	◐	◐
		<ul style="list-style-type: none"> • Does the proposed project element maintain or enhance the carrying and dimensional capacity for statewide freight movement? 	◐	●	●	●	●	●

Evaluation Criteria Matrix

Promising Alternative – Couplet

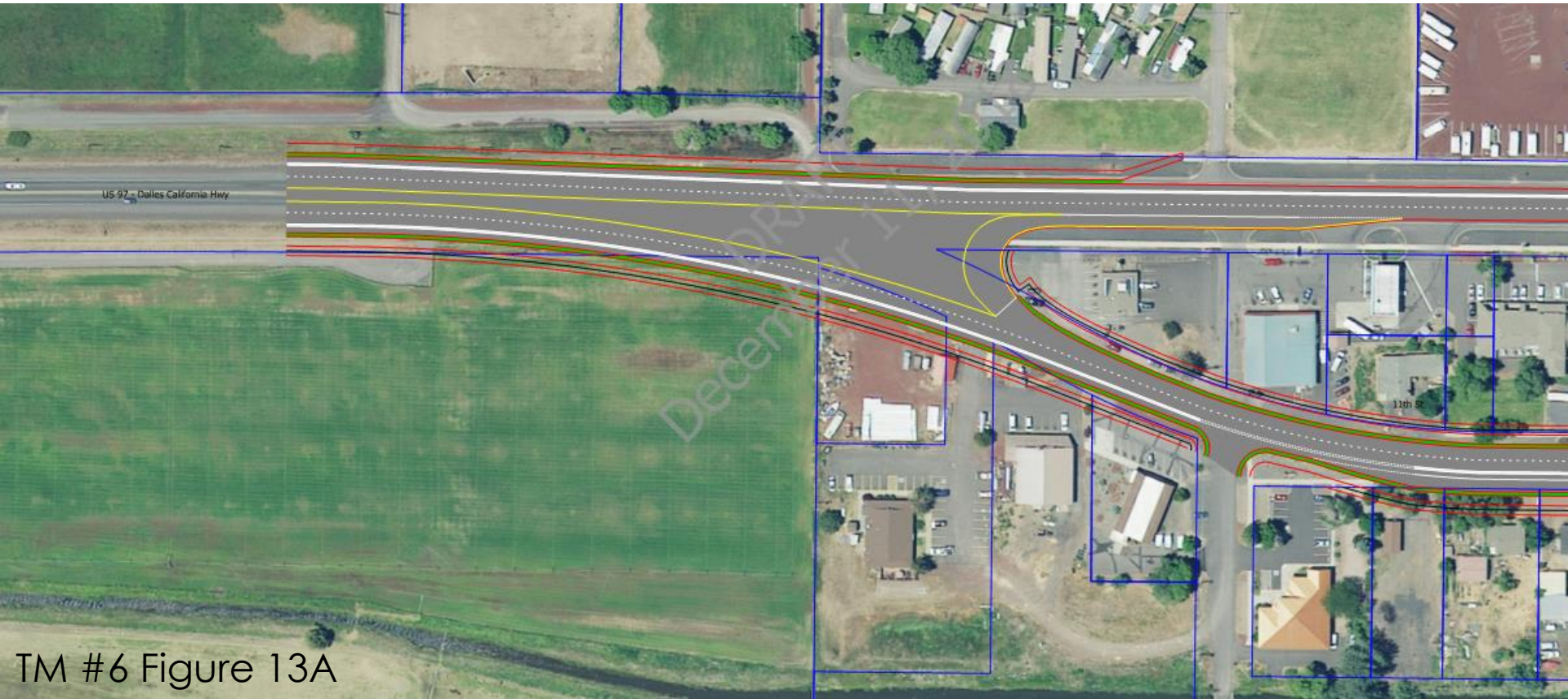
- Two, one-way roads
 - US 97 southbound
 - 11th Street northbound
- 11th Street upgraded within existing right-of-way



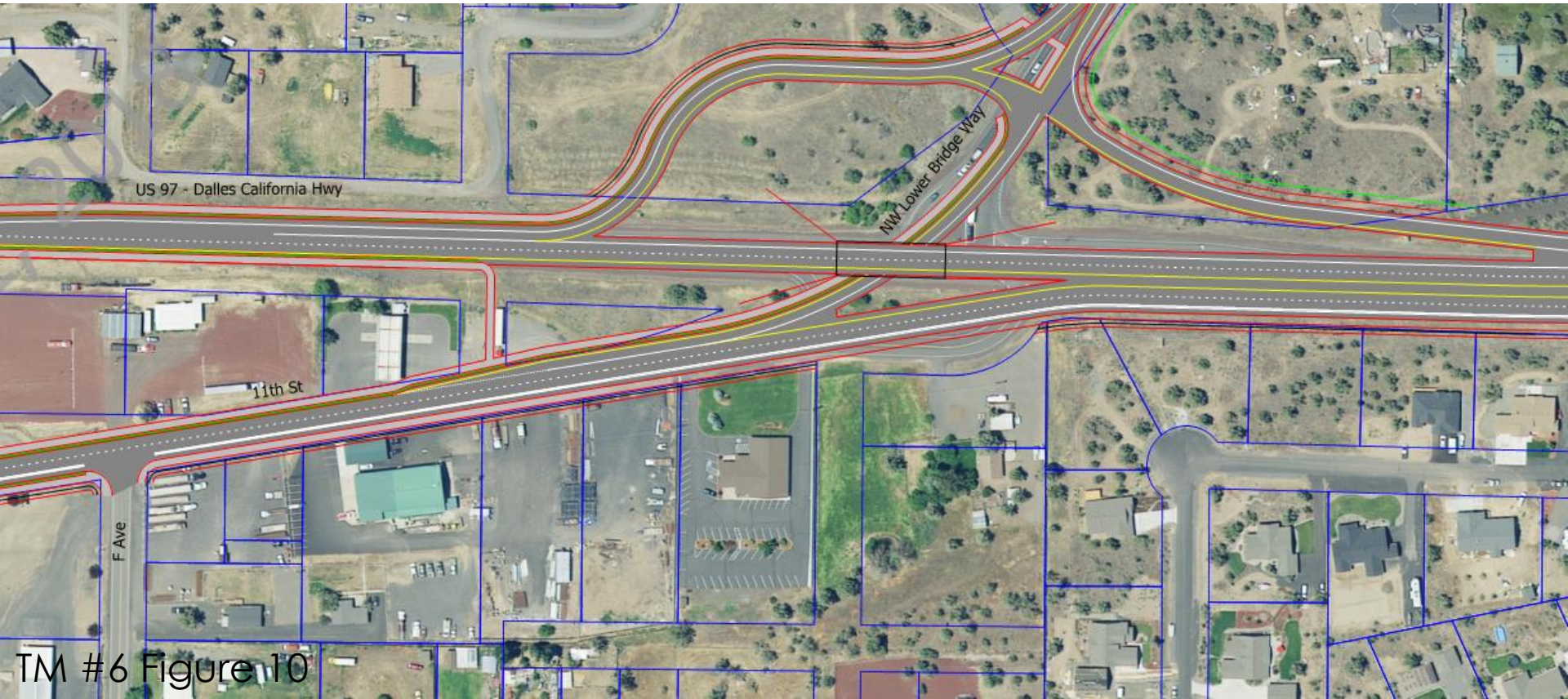
Promising Alternative – Couplet



Couplet – South

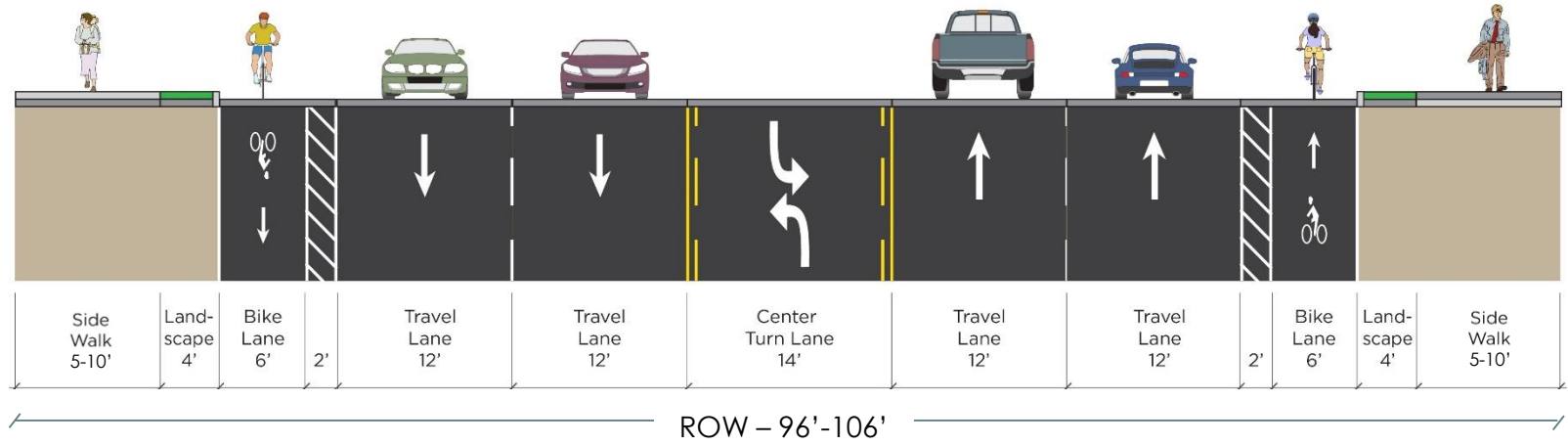


Couplet – North



Promising Alternative – Five Lane

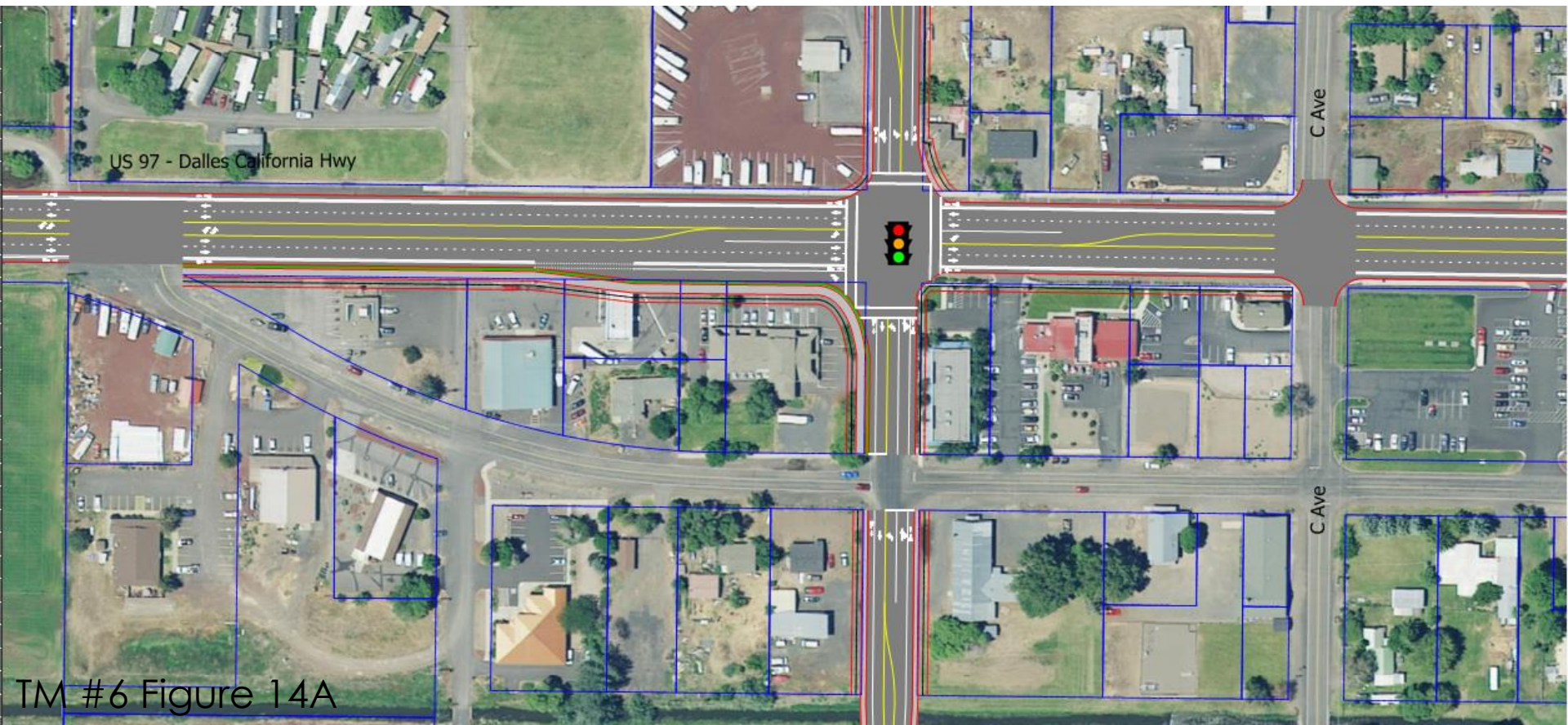
- Redevelop existing US 97 alignment
 - Two northbound lanes
 - Two southbound lanes
 - Center Turn Lane



Promising Alternative – Five Lane



Five-Lane South



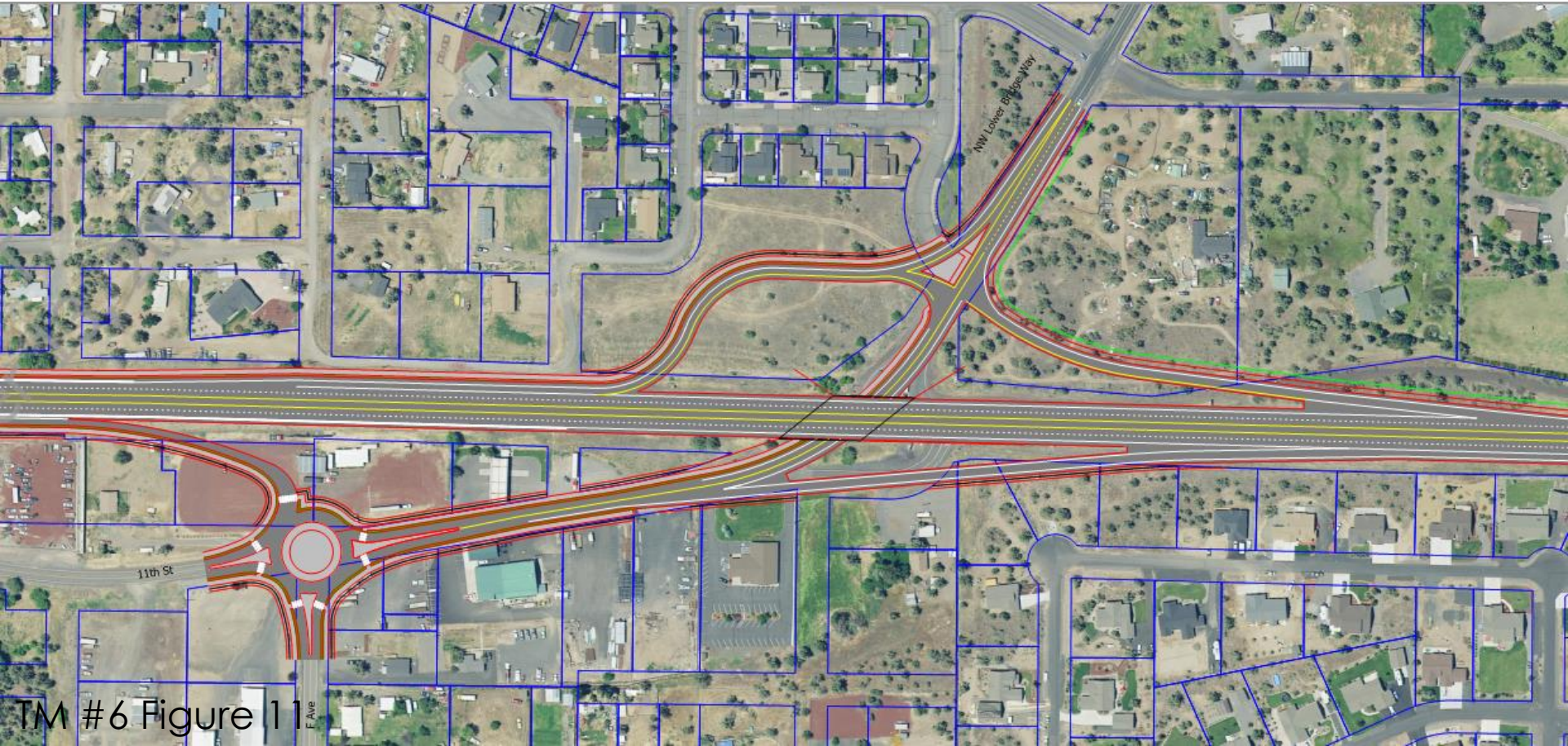
US 97 - Dalles California Hwy

C Ave

C Ave

TM #6 Figure 14A

Five-Lane North



Promising Alternative Cost Estimate

Couplet and 5-Lane

Intersection Elements	Preliminary Cost Estimate
Couplet South of Central Avenue (B Avenue Configuration) North of Central Avenue (Fly-under)	\$21.4M \$6.3M \$15.1M
Five-Lane South of Central Avenue (Traffic Signal) North of Central Avenue (Fly-under)	\$25.7M \$5.4M \$20.3M

Corridor Needs

- Highway demand will necessitate some form of 2 NB and 2 SB lanes
- Provide connectivity and access for all users in Terrebonne
- Address US 97/Lower Bridge Way Capacity/Safety
- Address US 97 / B Avenue Capacity
- US 97 is a key freight corridor

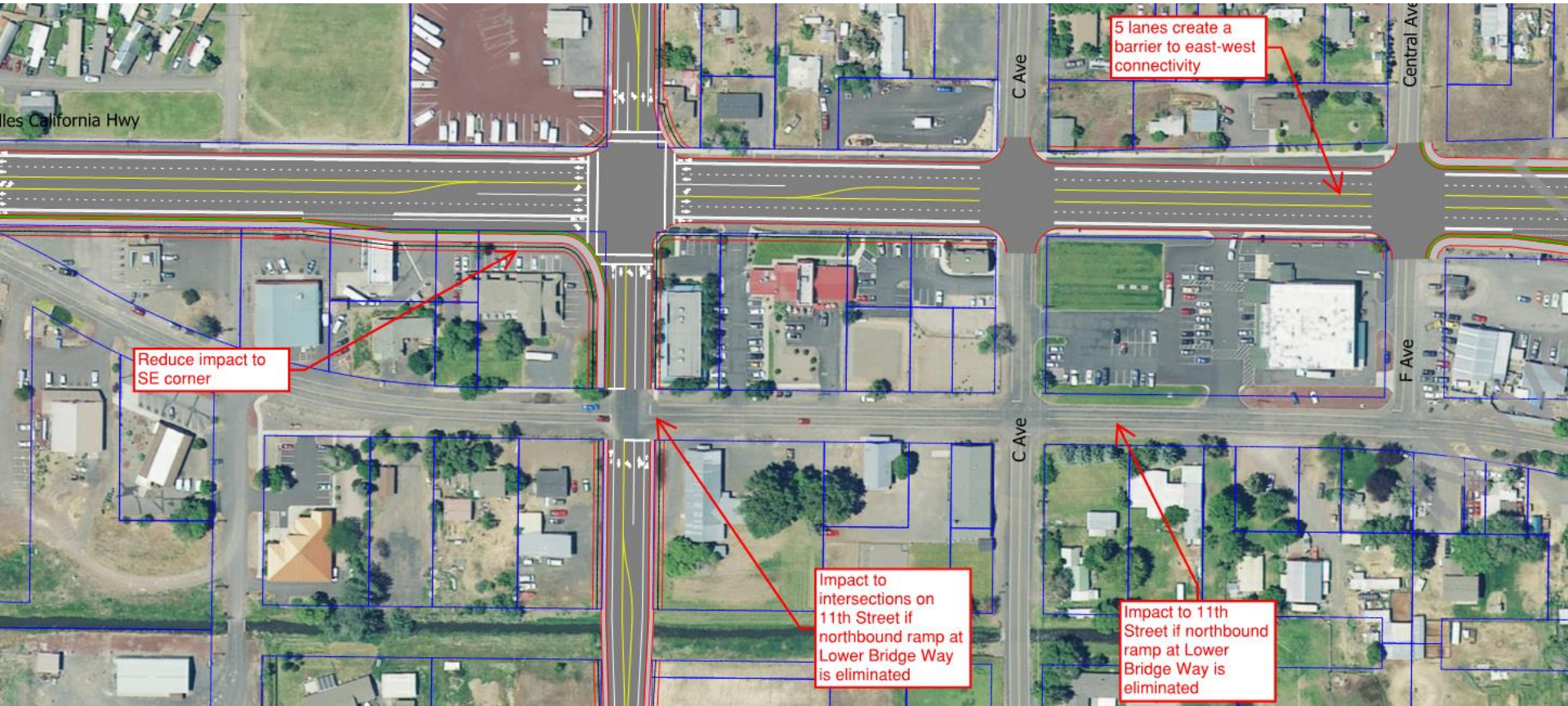


Feedback & Questions from Advisory Committee and Community

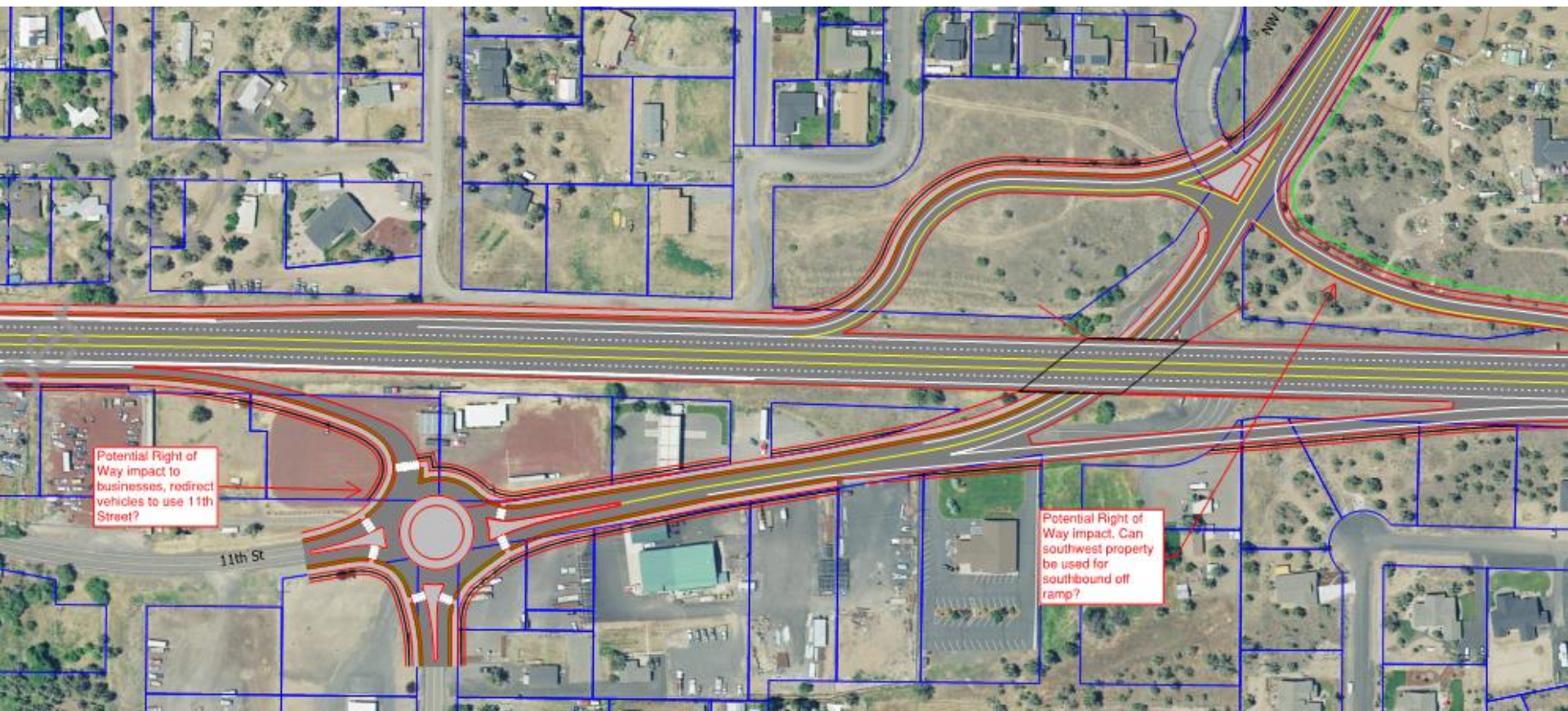
Couplet Feedback



Five-Lane Feedback



Five-Lane Feedback



Potential Right of Way impact to businesses, redirect vehicles to use 11th Street?

11th St

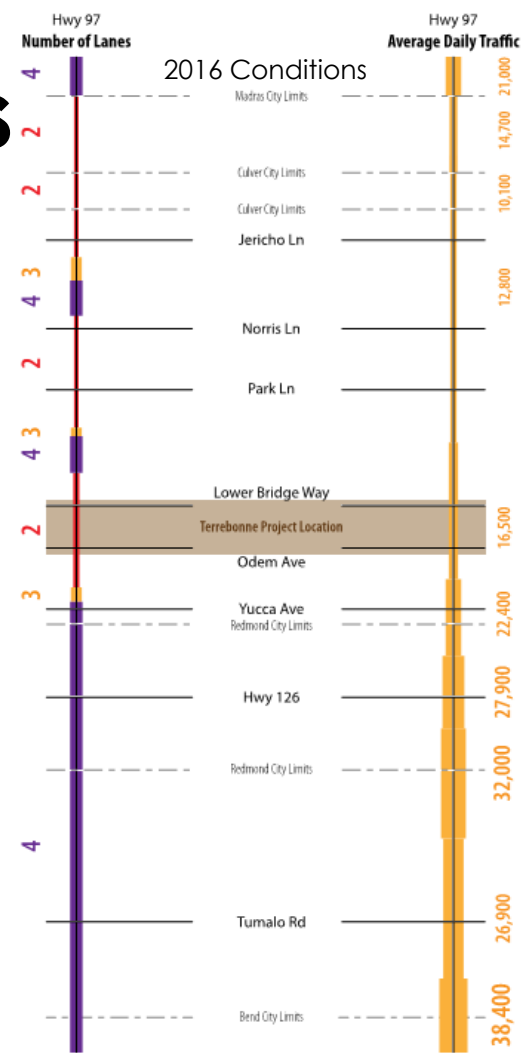
Potential Right of Way impact. Can southwest property be used for southbound off ramp?

Other Potential Alternatives

- Five-lane alignment with diversions
 - Remove NB off-ramp at 11th
 - Reroute LBW and Smith Rock traffic to 11th
 - Potential Elimination of “B” Avenue Signal
- Three-lane alignment with add lanes
- Three-lane alignment with diversions

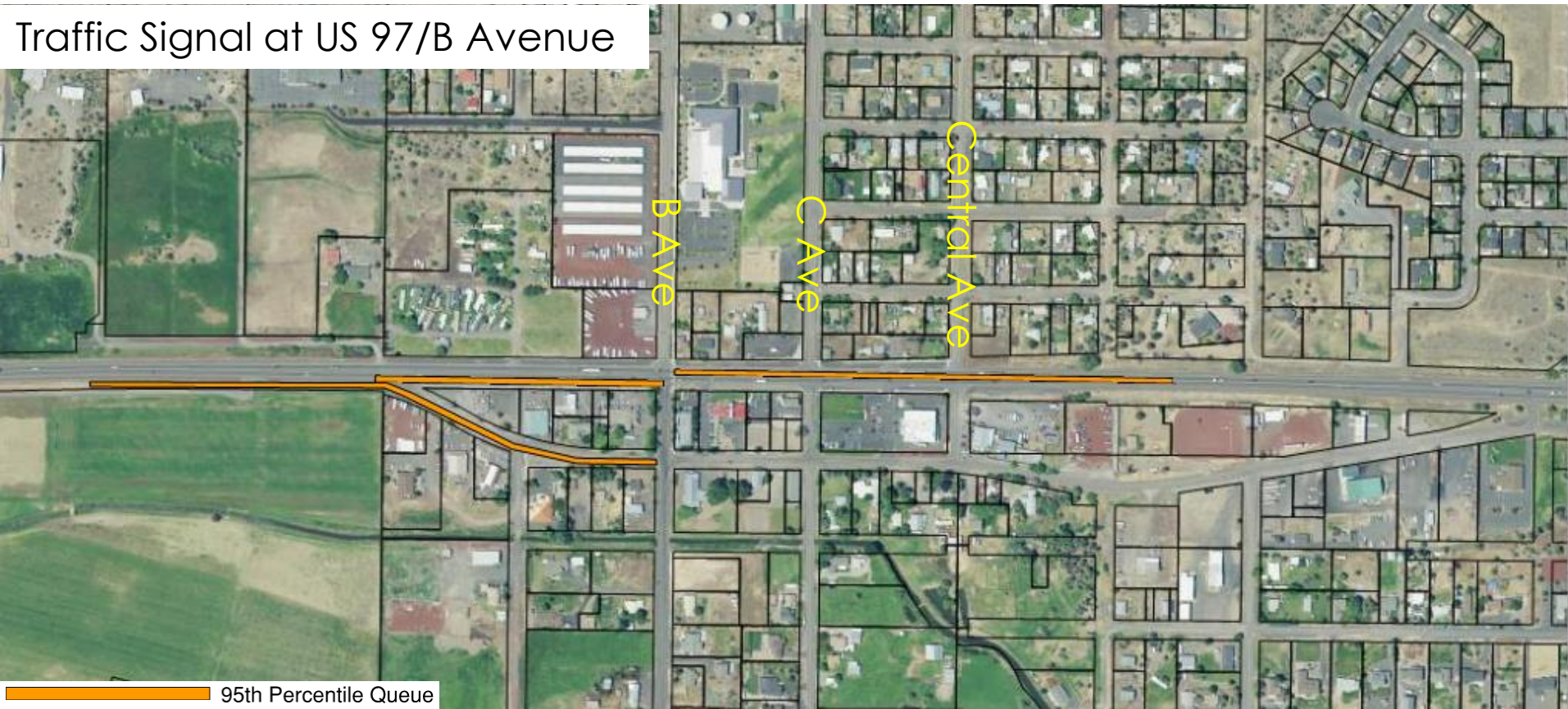
Context of Highway Volumes

- Average Daily Traffic (ADT) on US 97 through Terrebonne is anticipated to grow to 32,000 by 2040.
- This will meet or exceed the two-lane capacity of US 97 within Terrebonne.
- Truck traffic is also expected to remain high along the US 97 corridor.



Three-Lane Alignment

Traffic Signal at US 97/B Avenue



Other Potential Alternatives

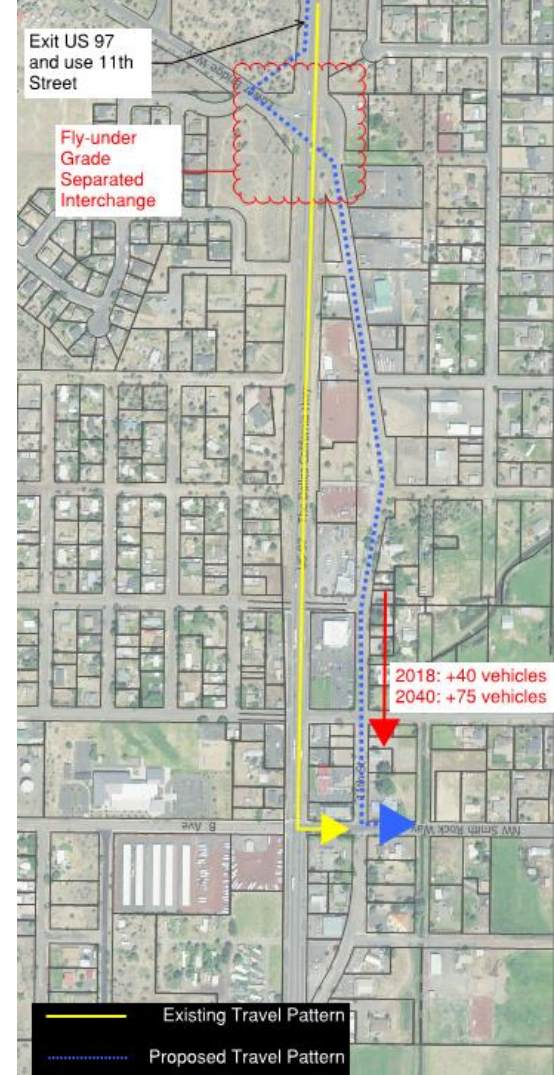
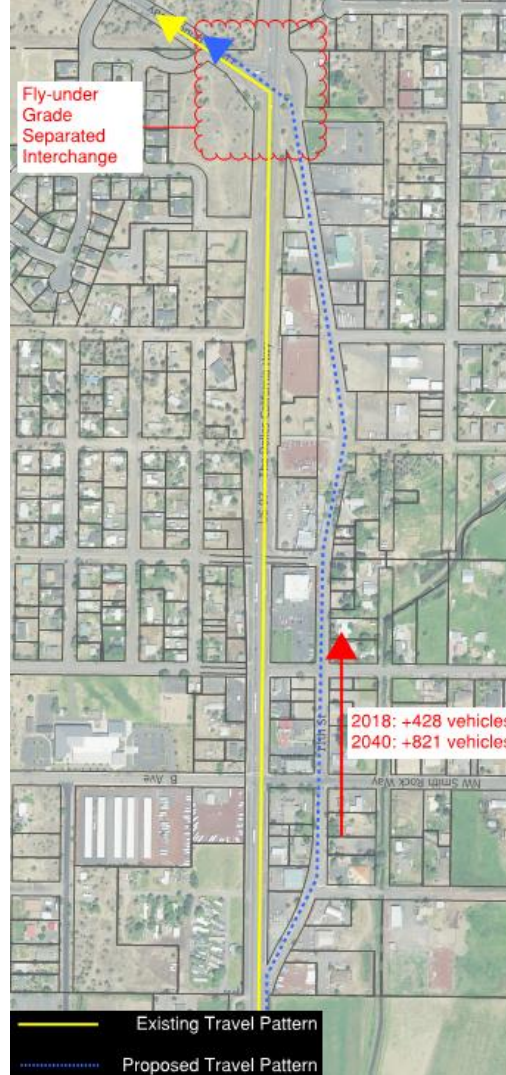
- Five-lane alignment with diversions
- ~~Three-lane alignment with add lanes~~
- ~~Three-lane alignment with diversions~~

Understanding 11th Street

- All suggested alternatives to date with the exception of the dismissed bypass alternatives and the promising five-lane alternative with a full interchange at Lower Bridge Way require upgrading 11th Street, including:
 - Couplet
 - 5-lane with Diversion (i.e., no NB off-ramp at LBW)
 - *Added cost above \$22.6M*

Five-Lane with Diversions

- Divert northbound left @ Lower Bridge Way to exit at 11th Street (left)
- Divert southbound left @ B Avenue to exit at Lower Bridge Way (right)



Five-Lane with Diversions

- 11th Street Impacts during the PM Peak Hour
 - Existing Volumes ~225 vehicles
 - Future 2040 Volumes with Five-Lane Alignment ~ 425 vehicles



- Existing Volumes with Diversion ~ 675 vehicles
- Future 2040 Volumes with Five-Lane Alignment and Diversion ~ 1,300 vehicles

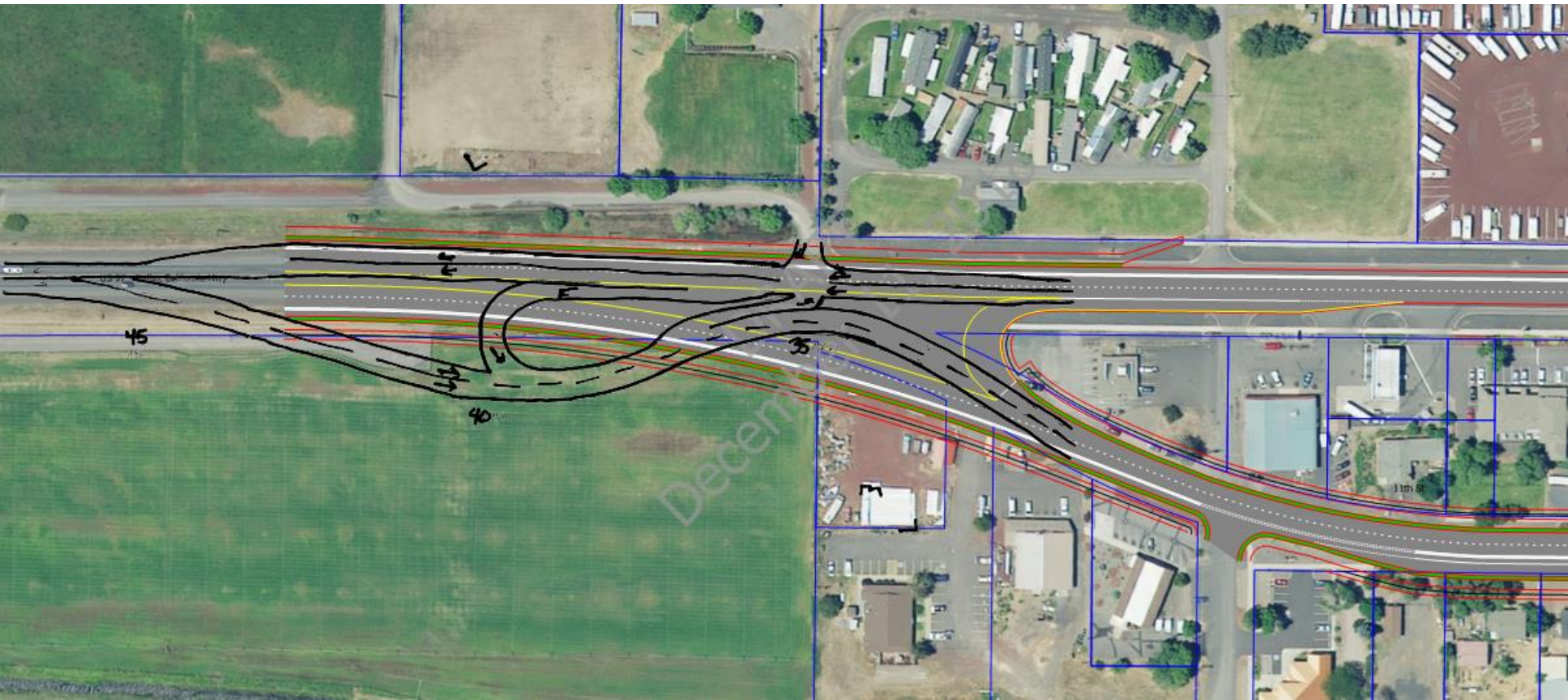


Refinements to Alternatives

South End Refinement Benefits

- Southern U-turn Shift
- Local street enhancements

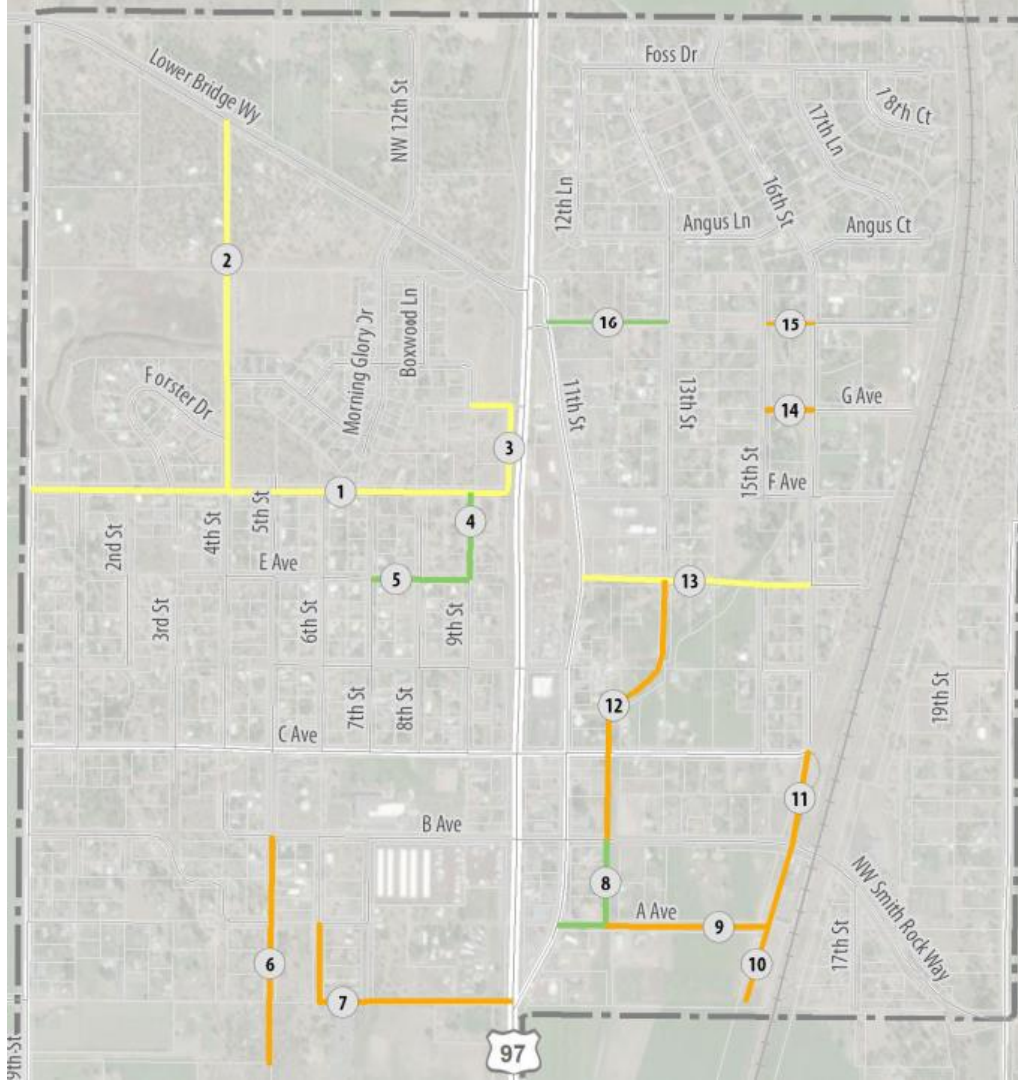
Southern U-turn Shift (Couplet)



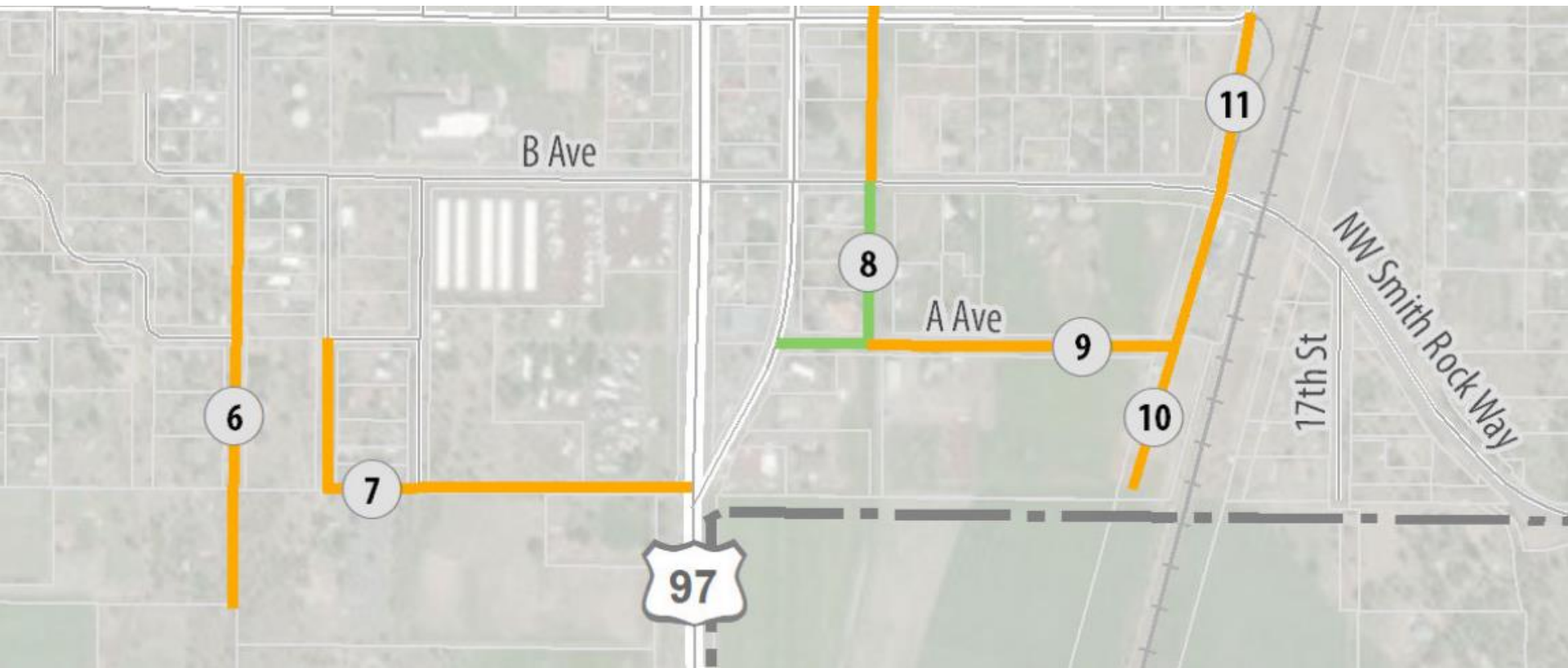
Local Street Enhancements

Local Connection Priority

- High
- Low
- Medium



Local Street Enhancements – South



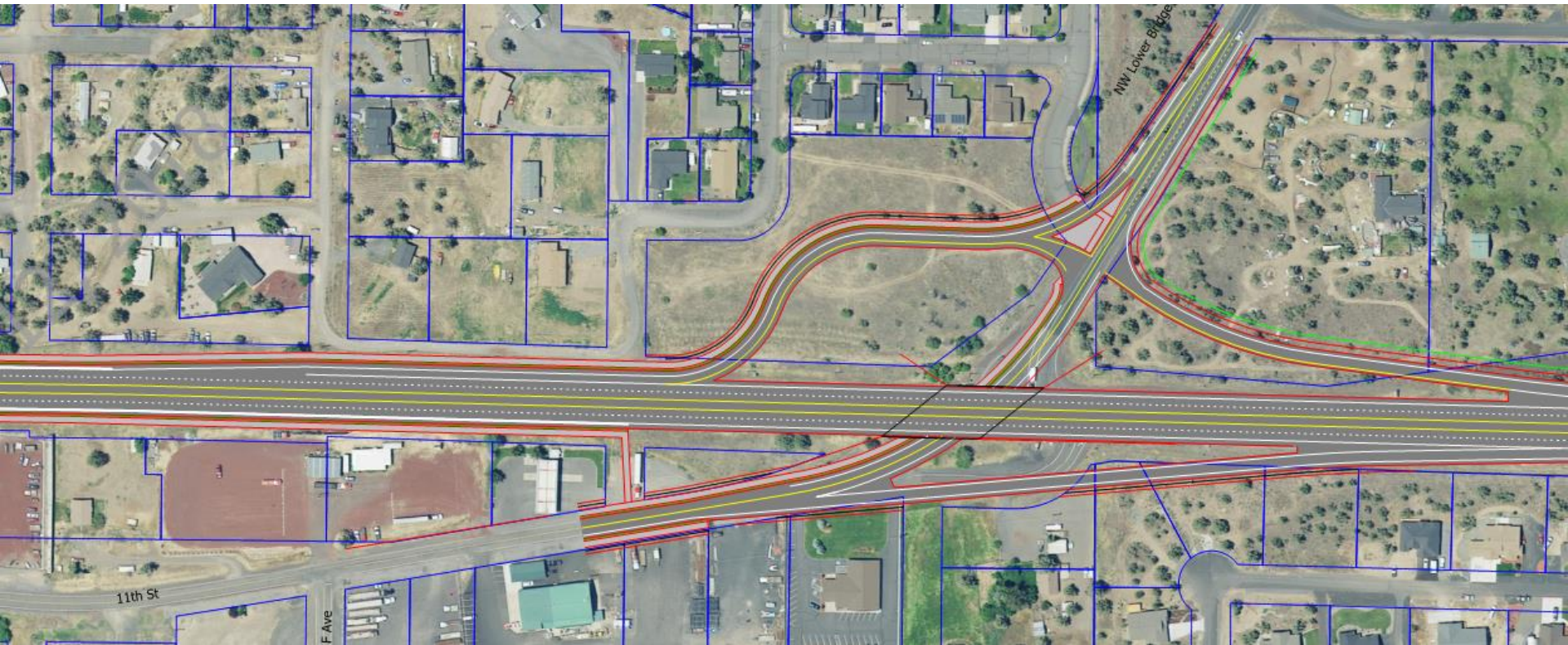
South End Refinement Benefits

- Southern U-turn Shift
 - Improved accessibility
 - Speed reduction
 - Reduced right-of-way impacts
- Local street enhancements
 - Improved accessibility
 - Provision of potential 12th/13th north-south local parallel route

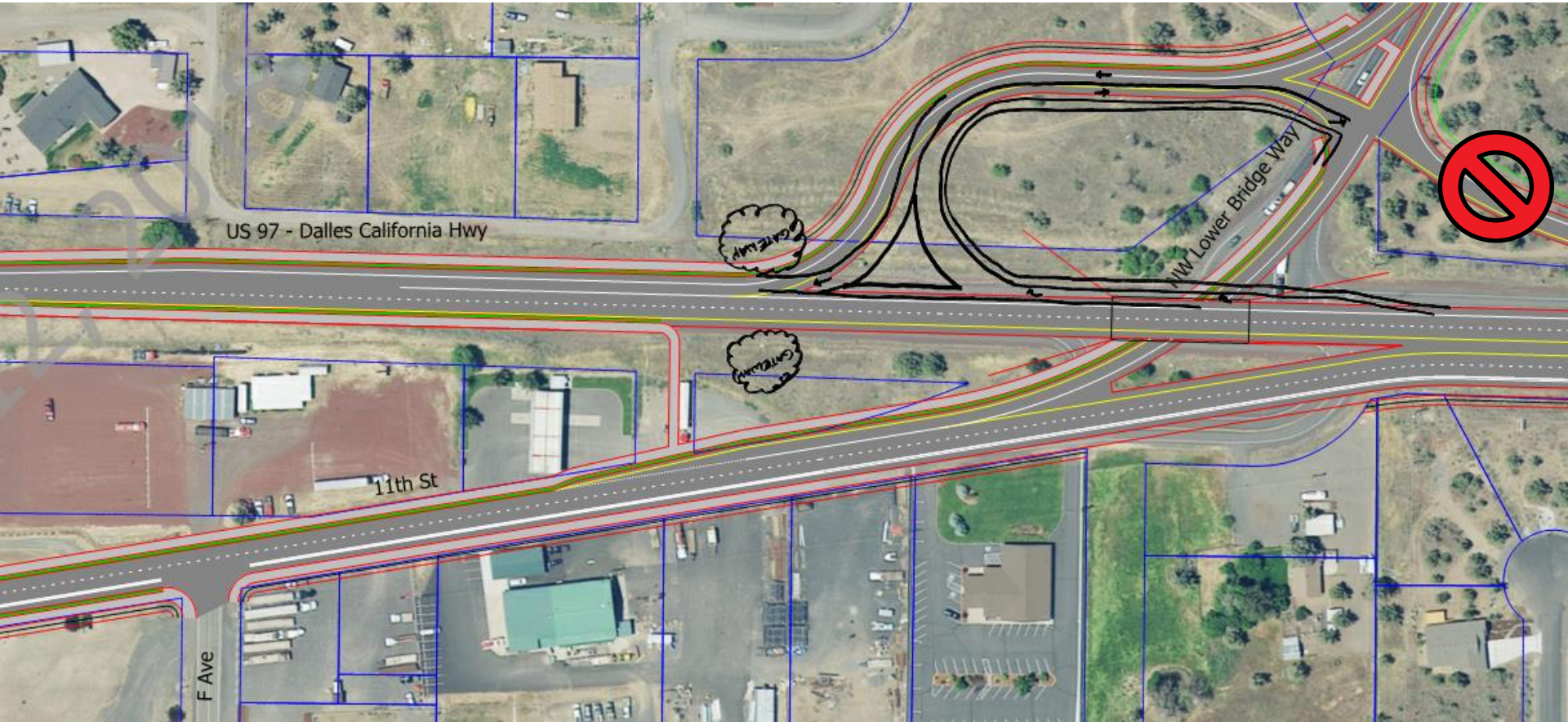
North End Refinements

- Eliminate Northbound Off-ramp at Lower Bridge Way
- SB Diamond to Parclo “B” Ramp Conversion
- Local Street Enhancements

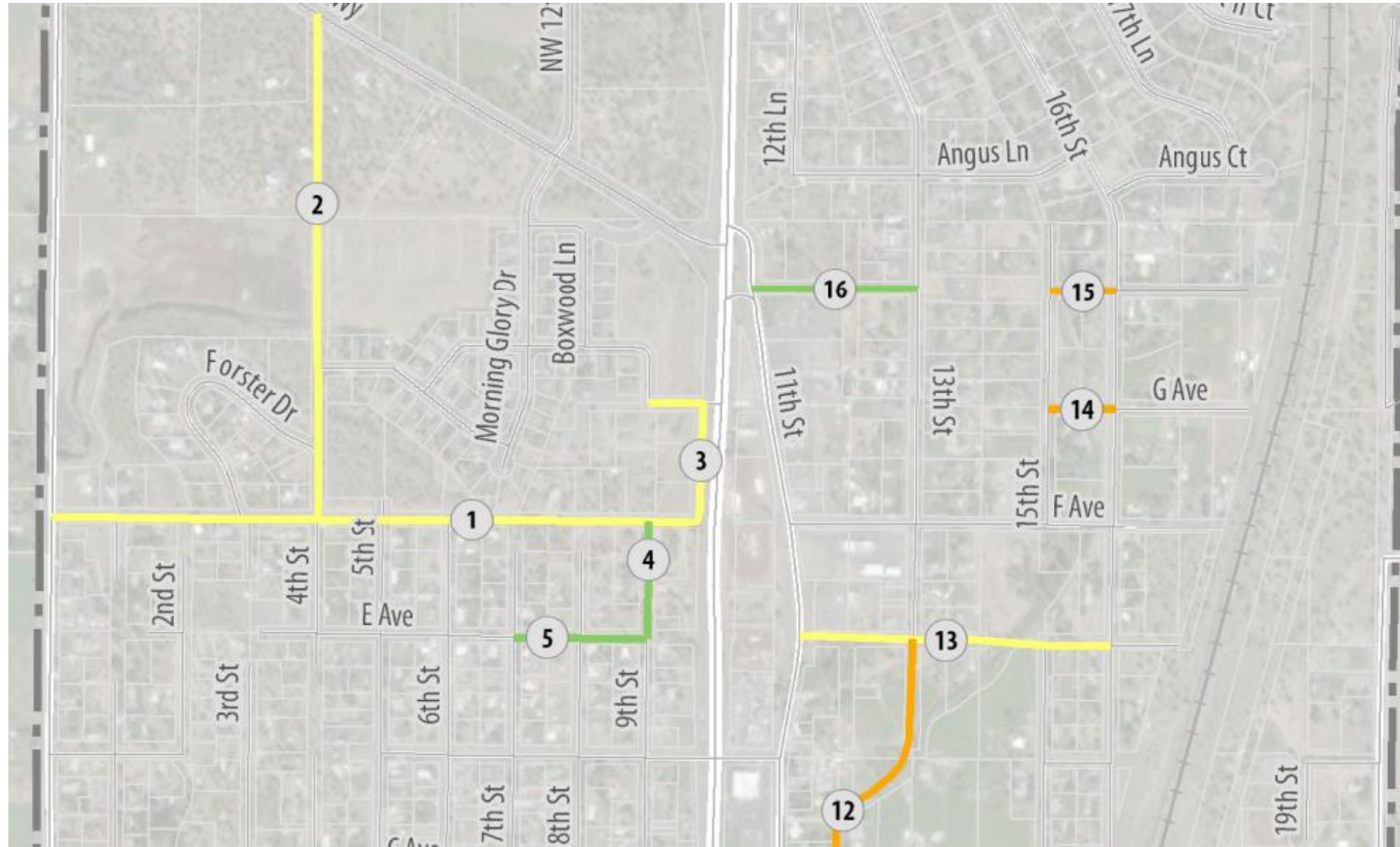
Eliminate Northbound Off-ramp at Lower Bridge Way



SB Diamond to Parclo "B" Ramp Conversion



Local Street Enhancements – North



North End Refinement Benefits

- Eliminate Northbound Off-ramp at Lower Bridge Way
 - Reduce right-of-way Impacts
 - Slow drivers by changing the high speed perspective
 - *Increased demand and improvements on 11th Street*
- SB Diamond to Parclo “B” Ramp Conversion
 - Reduce right-of-way Impacts (*Reduced Cost*)
 - Slow drivers by changing the high speed perspective
- Local Street Enhancements
 - Provision of potential 12th/13th north-south local parallel route

Gateway Treatments



Curbed Roadway with
Bike Lane and Sidewalk



Chicane (South End)



Partial Cloverleaf "B" Interchange



Colored Shoulder

Gateway Treatments



Speed Feedback Sign



Welcome Signs



Street Lighting (with Pole Banners)



Landscaping

Pedestrian Crossing Treatments

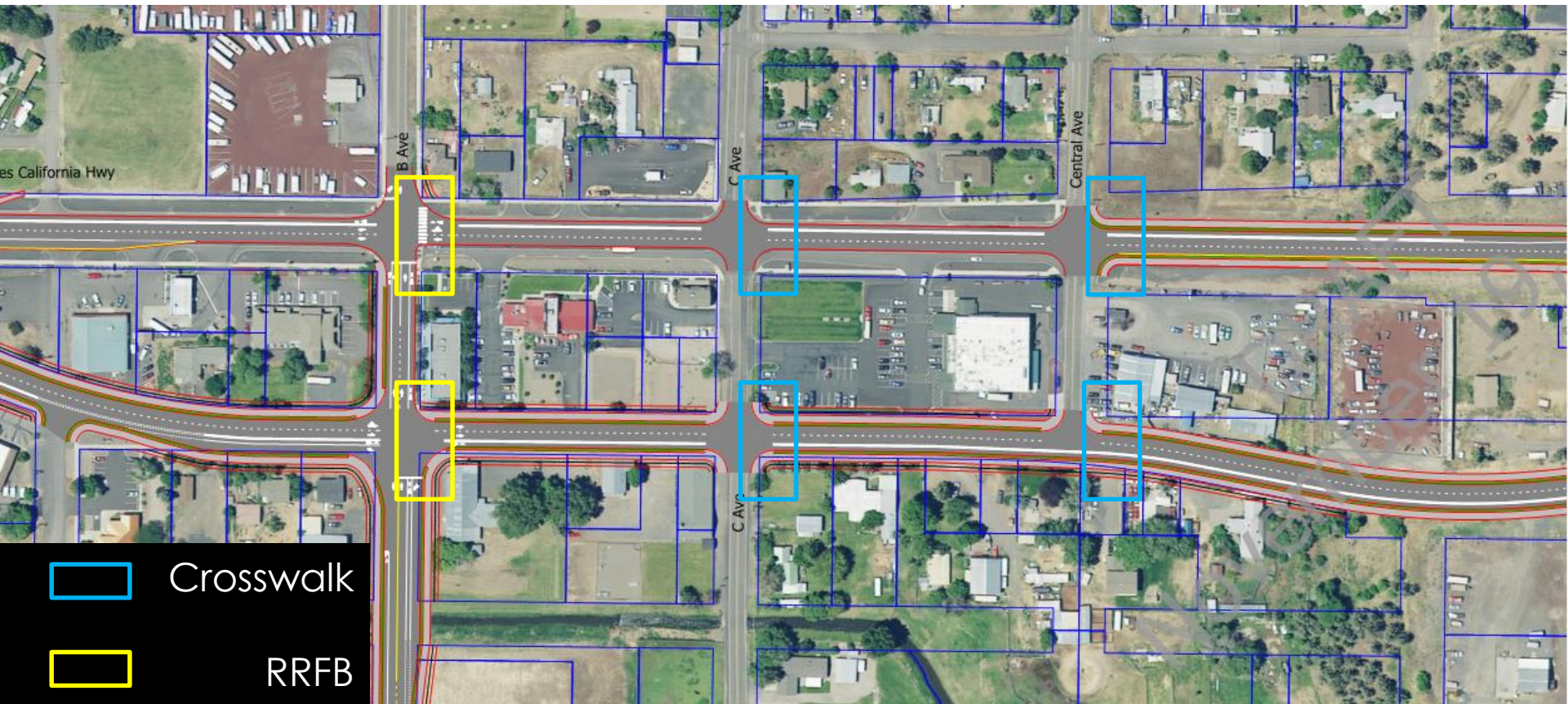


Marked Pedestrian Crossing

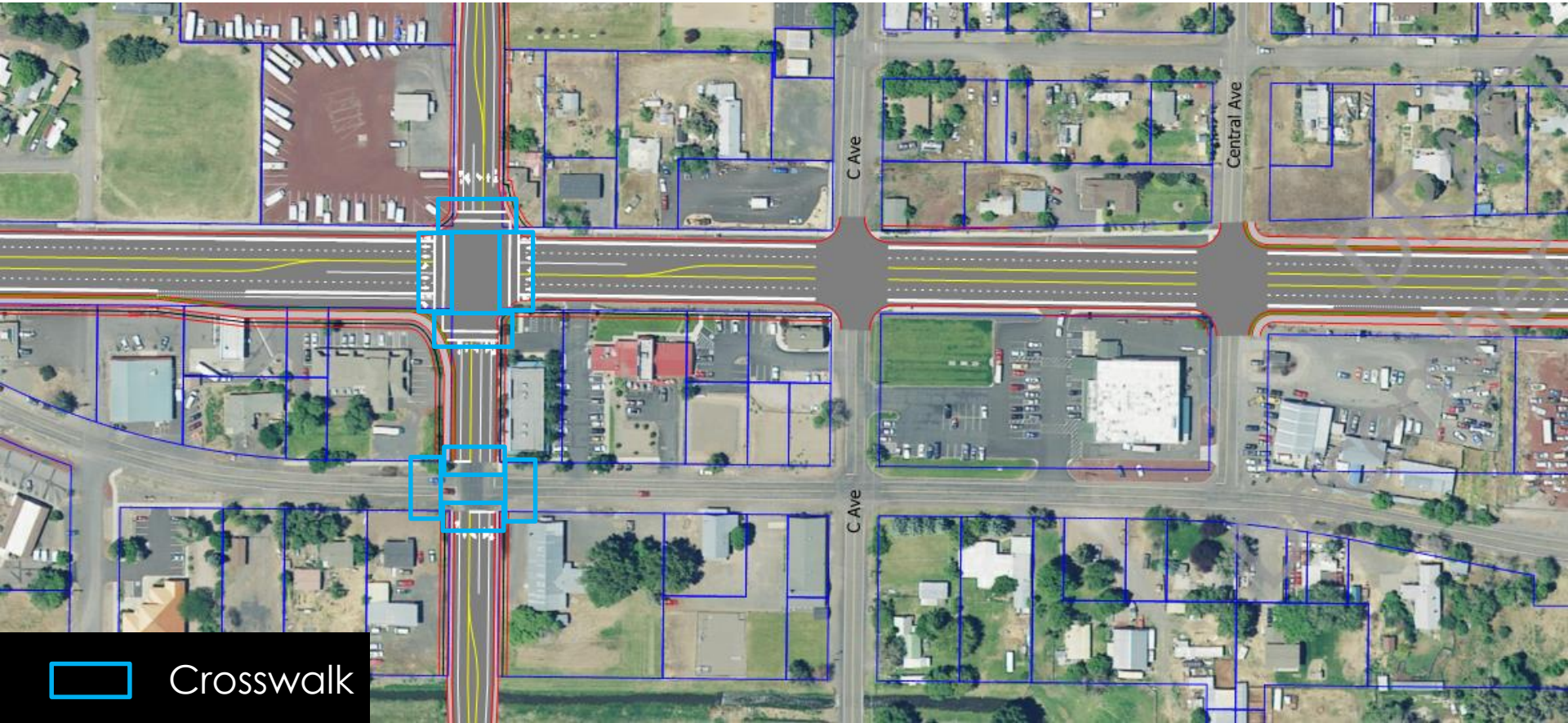


Enhanced Pedestrian Crossings (RRFB)

Couplet – Pedestrian Crossing Locations & Treatments



Pedestrian Crossing Locations & Treatments



Workshop Session

- Identify potential enhancements to promising alternatives
- Identify high, medium, and low priority local street enhancements
- Identify pedestrian crossing locations
- Suggest other gateway treatments
- Pedestrian crossing exercise

Handout

- Please return at the end of the evening

Comparing the Goals, Objectives, & Evaluation Criteria to Future Alternatives

Goal	Objective	Evaluation Criteria	Intersection Evaluation			
			5-Lane		Couplet	
			Scoring	Comments	Scoring	Comments
Community & Livability: provide for a high quality of life by balancing US 97 mobility needs with community values and interests	<ul style="list-style-type: none"> • Increase transportation choices on US 97 by adding or improving bicycle and pedestrian routes, crossing, and connections to transit, including a crossing at US 97 & B Street which serves as a school crossing and scenic bike route crossing. • Link regional and local routes to key attractors on US 97, such as shopping, schools, residential areas, and other community destinations. • Provide a transportation network that accommodates local, commuter, and region traffic, including freight movements along US 97. 	Does the proposed project element serve people that live in, work in, and/or visit Terrebonne?				
		Are there any significant barriers to or impacts that would result from the proposed project element, such as the presence of significant natural resources or require acquisition of property contaminated by Haz Mat?				
		What are the right of way impacts of the proposed project element - # of businesses relocated, # of residential properties impacted, impacts to public facilities, etc.				
Mobility: Provide a safe and efficient transportation system for all modes of travel, including local trips, through trips on the highway, emergency services, and freight.	<ul style="list-style-type: none"> • Evaluate all potential US 97 alternatives, such as maintaining the existing US 97 alignment, creating a highway couplet with 11th Street or constructing a bypass east or west of the existing alignment. • Identify and evaluate all potential at-grade and grade separated solutions for the Lower Bridge Way/US 97 intersection in concert with the development of the alternative alignments for US 97. • Maintain the carrying and dimensional capacity for statewide freight movement on US 97. 	Does the proposed project element meet mobility targets on US97 through 2040?				
		Does the proposed project element represent an investment that works toward the long-term solution for the corridor?				
		Does the proposed project element maintain or enhance the carrying and dimensional capacity for statewide freight movement?				
Safety and Health: enable people to safely and comfortably drive, walk, run or cycle in and through the Community, including along and across US 97, for all types of trips.	<ul style="list-style-type: none"> • Address safety, comfort, and security of people driving, walking, and biking along and across US 97. • Use transitional and traffic calming techniques to slow traffic to posted speeds 	Does the proposed project element address an area with a crash history or risk factor? Is it expected to improve safety or slow speeds?				
		Does the proposed project element reduce the level of stress experienced by pedestrians and/or cyclists?				
Accessibility: provide infrastructure that supports accessible transportation options for all users.	<ul style="list-style-type: none"> • Address the identified existing and future year 2040 gaps and deficiencies (needs) within the study area. • Provide well-designed, visible, safe, and convenient infrastructure and crossings for all users (e.g., agricultural equipment). 	Does the proposed project element address existing gap or deficiency in the vehicular, transit, bicycle and/or pedestrian network?				
		Does the proposed project element address mobility and serviceability for local and regional freight activity?				
Financial Responsibility: use resources efficiently and invest in infrastructure that will serve the Community and statewide highway for years to come	<ul style="list-style-type: none"> • Achieve maximum return on the \$20 million allocated for improvements in the Terrebonne community 	What is the planning-level cost estimate of the proposed project element?				
		Can the preferred plan be implemented with the money allocated?				
		Does the benefit exceed the cost over a 20-year horizon?				
Economic Vitality: encourage visitors and investment in the recreational, agricultural, business areas nearby and served by US 97.	<ul style="list-style-type: none"> • Provide connections to businesses and natural areas within and near the Terrebonne community. • Attract tourist and investment dollars to the greater Terrebonne community 	Does the proposed project element support business activity in and around the community (e.g., the Smith Rock State Park)?				
		Does the proposed project element improve pedestrian and/or bicycle access to businesses and natural areas in and around the community?				

Please use the scoring symbology below to score and comment on each alternative based on the evaluation criteria.

Scoring - Blank=0, Half=1, Full=3



Meets



Somewhat Meets



Does Not Meet

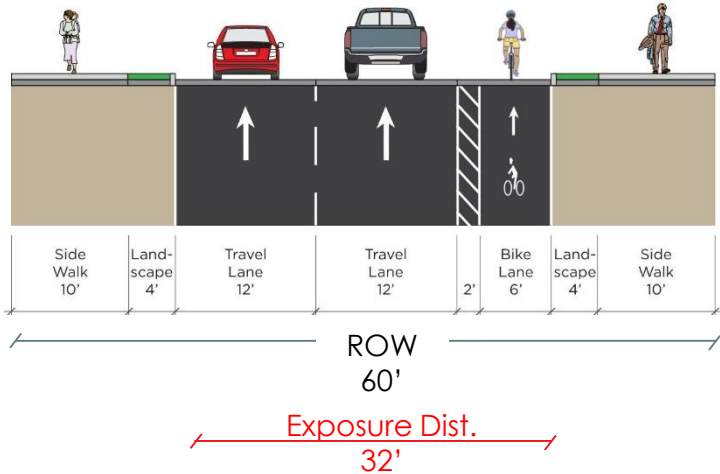
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Floor Maps

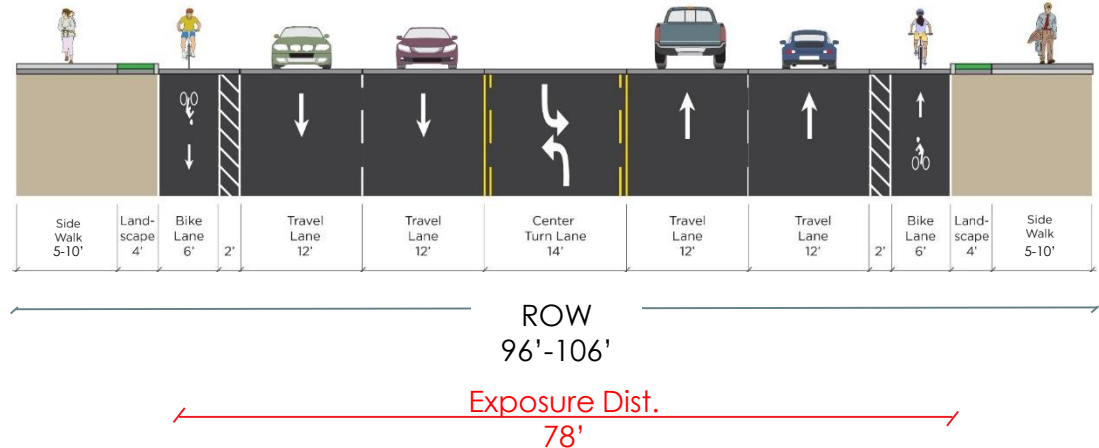


Cross Sections

Couplet



Five-Lane



Break Out Session – Floor Mat Exercise

Questions



Concerns



**Desired Pedestrian
Crossing Locations**



Next Steps

- Public Open House January 9th, 2019, 6:00-8:00pm
 - Location: Terrebonne School
 - Topic: Review of Preferred Alternatives for the Terrebonne Refinement Plan
- Advisory Committee Recommendation to Project Management Team
- Project Management Team Recommendation to Deschutes County and Oregon Transportation Commission

THANK YOU!