



***US101: SE 16<sup>th</sup> – SE 36<sup>th</sup> Street  
(Lincoln City) Project***

Community Advisory Committee

July 11, 2007 Meeting





## ***Q & A from June CAC Meeting***

- The following slides contain the questions held over from our June meeting.
- Our Region Traffic Engineer, Traffic Analysts and our Roadway Designer have reviewed the questions and provided the answers.



## ***Question 1:***

- Question:
  - Have we considered a signal, at 29<sup>th</sup> Street instead of 32<sup>nd</sup> Street? Could 32<sup>nd</sup> Street be blocked off and a signal installed at 29<sup>th</sup> or 35<sup>th</sup>?
- Answer:
  - A signal at 32<sup>nd</sup> Street would serve neighborhoods on both sides of the highway.
  - Because 29<sup>th</sup> and 35<sup>th</sup> Streets only connect to streets on the west side of the highway, these locations would not serve nearly as many drivers.
  - 32<sup>nd</sup> Street was listed as a major collector in the last version of the Lincoln City Transportation Plan. The 2001 traffic study conducted by PacWest Engineering for the City of Lincoln City identified 32<sup>nd</sup> Street as the optimal location.



## ***Question 2:***

- Question:
  - Why do the conceptual designs show five lanes if a signal is installed at the intersection of US101 and S. 32nd Street?
- Answer:
  - A signal at this location would need to have a highway “cross section” of 5 lanes in order for the signal to work efficiently and serve all vehicles without excessive backups forming.
  - Without the five lanes, some people would have to wait through several signal cycles to get through the intersection and long backups could develop quickly during busier traffic times.



## ***Question 3:***

- Question:
  - Is there a way to avoid 5 lanes?
- Answer:
  - If a signal goes in, no we cannot avoid a 5-lane cross-section. We would have to have 5 lanes to provide adequate room for vehicle stacking, which is the area the vehicles occupy when the light turns red.
  - At a non-signalized intersection it would depend. Our design standards require us to look at future traffic volumes.
  - We have to make sure this section meets mobility standards. This will be done as a part of the traffic study for the project.



## ***Question 4:***

- Question:
  - Can the parking in front of the Nelscott stores be expanded? Does this area help facilitate the flow of traffic?
- Answer:
  - We understand the community would like to preserve this area.
  - Parallel parking is allowed on state highways and can help provide traffic calming effects as it introduces additional friction on the highway.
  - This type of area is generally not permitted on state highways and would have to be reviewed by the State Traffic and Roadway Engineer.



## ***Question 5:***

- Question:
  - Can we have a signal at an offset intersection? Do we need to realign 32<sup>nd</sup> Street and what is the benefit?
- Answer:
  - An intersection that is *slightly* offset can be signalized, but is not the preferred method.
  - A design like this can cause conflicts with either right or left turn moves depending on the direction of the offset legs.
  - It may require separate green times for the side streets in order to reduce the conflict points which greatly increases delay during peak travel times.
  - The benefit of realigning one of the legs is to avoid the separate green times on the side streets, minimize conflict points to provide safe turning movements, provide safe pedestrian crossings and minimize delay.



## ***Question 6:***

- Question:
  - Is it a given that the signal has to be green, yellow and red? Could the signal head facing US101 traffic be green, yellow and red and the signal facing S 32<sup>nd</sup> Street be a flashing red beacon?
- Answer:
  - It is required that all signals on a state highway system have green, yellow, red for all approaches. This is important for driver and pedestrian expectancies and safety.
  - Detector loops are also installed as part of the traffic signal to sense vehicle presence. Then, based on timing parameters that account for safety, mobility and efficiency, the signal will serve the highway and side streets.
  - Flashing beacons are used as a warning. They are not used for facilitating traffic or pedestrian movements.



## ***Question 7:***

- Question:
  - Can we put in two signals, one at 36<sup>th</sup> and one at 32<sup>nd</sup> Street that are timed to facilitate pedestrian movement across US101?
- Answer
  - Two signals are not being considered here due to preferred signal spacing standards of ½ mile.
  - Most traffic signals do provide a “walk” cycle for pedestrians to cross at the crosswalk.
  - Building median islands at any non-signalized crossings would be the best way to help pedestrians get across the highway safely. The islands allow pedestrians to make a two-stage crossing, only having to look for gaps in one direction of traffic at a time.



## ***Question 8:***

- Question:
  - Can we put in a pedestrian overpass instead of a signal? Would this help eliminate the need for 5 lanes?
- Answer:
  - The main purpose for installing a signal is to facilitate traffic movements from side streets onto or across the highway. A pedestrian overpass will not eliminate the need for 5 lanes because the need is based on traffic volumes.



## ***Question 9:***

- Question:
  - Do we take local development into consideration when we do a traffic study?
- Answer:
  - Yes, but we can't modify most analyses based on details of an individual property; one property doesn't have enough impact to change the results unless it is something significant. For example, if a vacant lot was soon to be developed for a major retail facility, we would consider the impact of that property.



## ***Question 10:***

- Question:
  - Can we examine the possibility of design exceptions for lane widths to minimize impacts to the adjacent property owners if we reduce our design speeds?
- Answer:
  - This project is designated as a modernization project. Modernization projects are designed to meet state and federal standards.
  - This route is an annual 14 foot wide route for over-width loads. Additionally, some RV's are as wide as 10 ½ feet from mirror to mirror. Our designers must take these vehicles into consideration.
  - There are other traffic calming measures that could be explored first before we consider a design exception.



## ***ODOT Design Standards Discussion***

- Our designers have a variety of guiding documents they use that determine ODOT's standards and policies. Some of the requirements can also be found in Oregon Administrative Rule.
- Many of the design requirements in the Q&A section came from the Highway Design Manual, the Traffic Manual and the Oregon Highway Plan.
- We'll provide a brief overview of each standard that we have referred to today.
- To view these documents you can visit:  
<http://www.oregon.gov/ODOT/HWY/TECHSERV/>



## ***Modernization Projects***

- Modernization projects improve safety and operations by adding capacity to the highway system to ease traffic congestion or to accommodate projected traffic growth.
- Since road construction is very expensive and funding is limited, it is unlikely many new highways will be built in the future. Instead the emphasis will be on maintaining the current system and improving the efficiency of the current highway inventory.
- We plan for twenty years because construction is expensive, funds are limited and it is our responsibility to use those to improve traffic operations, not just for today, but for future.



## ***Signal Requirements***

- There must be a clear need for the signal.
- The location has to meet signal warrants.
- We must comply with Oregon Administrative Rule guidelines for signal spacing and engineering investigation which are based on National Standards.



## ***Mobility Standards***

- Mobility Standards are outlined in the HDM.
- “Modernization projects generally add capacity to the highway system to facilitate existing and/or accommodate projected traffic growth...Modernization projects must achieve a 20 year service life” (2003 Highway Design Manual pg 2-6).



# HDM Mobility Standards

Table 10-1  
20 Year Design-Mobility Standards (Volume/Capacity [V/C]) Ratio

Highway Category	Land Use Type/Speed Limits					
	Inside Urban Growth Boundary				Outside Urban Growth Boundary	
	STAs	MPO	Non-MPO outside of STAs where non-freeway speed limit <45 mph	Non-MPO where non-freeway speed limit >= 45 mph	Unincorporated Communities	Rural Lands
Interstate Highways and Statewide (NHS) Expressways	N/A	0.75	0.70	0.65	0.60	0.60
Statewide (NHS) Freight Routes	0.85	0.75	0.70	0.70	0.60	0.60
Statewide (NHS) Non-Freight Routes and Regional or District Expressways	0.90	0.80	0.75	0.70	0.60	0.60
Regional Highways	0.95	0.85	0.75	0.75	0.70	0.65
District/Local Interest Roads	0.95	0.85	0.80	0.75	0.75	0.70

Notes:

- Interstates and Expressways shall not be identified as Special Transportation Areas (STAs).
- The peak hour is the 30<sup>th</sup> highest annual hour. This approximates weekday peak hour traffic in larger urban areas.
- MPO category includes areas within the planning boundaries of the Portland, Eugene/Springfield, Medford and Salem/Keizer Metropolitan Planning Organizations, and any other MPO areas that are designated after the adoption of this plan.



## ***Projected 2025 Average Annual Daily (AADT) Traffic Volumes***

### Lincoln City

- Logan Road--35,000
- D River Wayside: 32,200
- East Devil's Lake Road: 31,700
- 0.01 miles south of S 23rd. Av: 31,900
- 0.01 miles north of High School Drive: 30,300

Projected future volumes are above capacity for the current alignment. We will need to consider the future volumes in our design. These numbers are for 2025, our project will need to consider the traffic volumes for 2030 – 20 years after construction.



## ***Design Exceptions***

- On modernization projects we build to standards.
- If the team encounters a problem and alternative solutions are not easily identified, we then explore the possibility of a design exception.



## ***How it all comes together...***

- Our designers will take the information from the survey and create a design based on state and federal standards.
- Our goal is to provide a safe and efficient transportation system. In addition, we strive to provide a transportation system that supports economic opportunities and livable communities for all Oregonians.
- The project team will review design alternatives and we will share those with this committee. The feedback from the committee will be shared with the design team for consideration.



## ***Next Steps***

- We should be receiving survey information in September.
- The Environmental Baseline Reports are also due by September.
- The design team will have information once those two tasks are complete to begin to create a conceptual design, which as we progress will be shared with this group.



***The End***

