County of Los Alamos

Council Meeting Staff Report

December 11, 2012

Agenda No.:	A.
Indexes (Council Goals):	Quality of Life - Diversity, Equity, and Inclusivity
Presenters:	Philo Shelton; Kyle Zimmerman
Legislative File:	4909-12

Title

Phasing of NM502 Improvements Project.

Suggested Motion

I move that Council direct staff to proceed with phasing the NM502 Improvement project as described in the attached Proposed Revised Project Limits and Design.

Administrator's Recommendation

The County Administrator recommends that Council approve the Proposed Revised Project Limits and Design as presented.

Board, Commission or Committee Recommendation

The Transportation Board met on December 6, 2012. Results from that meeting will be presented at the Council meeting.

Body

On February 7, 2012, staff gave Council a presentation on the NM502 design option for the section of DP Road to Airport Road. At the February 7 meeting, Council passed a motion that directed staff to relay to the New Mexico Department of Transportation (NMDOT) the County's preference for Option 1. A copy of the February 7 Council Meeting Minutes is provided for reference (Attachment A).

In subsequent meetings with NMDOT, they expressed concerns about the traffic Level of Service (LOS) for the side streets Arroyo Lane and Sombrillo Court and asked for the LOS to be checked. The County's Traffic Engineer calculated the LOS at the intersection of NM502 with Arroyo Lane and Sombrillo Court. LOS for a STOP controlled intersection is based on the average amount of time/delay a driver has to wait before an adequate gap in the conflicting traffic occurs, allowing the driver to proceed. The following lists the LOS for a two way STOP controlled intersection:

LOS A - Average Delay (Seconds/Vehicle) 0-10
LOS B - Average Delay (Seconds/Vehicle) >10-15
LOS C - Average Delay (Seconds/Vehicle) >15-25
LOS D - Average Delay (Seconds/Vehicle) >25-35
LOS E - Average Delay (Seconds/Vehicle) >35-50
LOS F - Average Delay (Seconds/Vehicle) >50

In meetings with Council Leadership, County Administration, and the Transportation Board Chair, the NMDOT and FHWA have stated that for the County to receive federal funding for a road construction project on NM502 the LOS needs to be a "D" or better to improve safety. When the LOS goes below a "D," drivers become impatient and start to take risks by reducing the size of gap they would normally accept. This type of behavior creates an unsafe condition as motorists attempt to enter a stream of traffic without an adequate gap.

The County received a letter on November 30, 2012 from NMDOT expressing the need for the project limits to remain within the boundaries of the 2007 environmental document, and raising the

intersection LOS to “D” or better to be eligible for federal funds. A copy of the letter is attached for reference (Attachment B). The project limits in the 2007 environmental document are from Knecht Street to Tewa Loop. In order to keep the project on schedule, a decision regarding the project scope of work is necessary so the update to the environmental document can start before February 2013.

The Option 1 scope of work preferred by Council on February 7, 2012 (Attachment C) will need to be modified and/or phased to fit the LOS requirements, environmental document limits, and available funding. The County’s Department of Public Utilities had expressed the need for replacing the existing water line starting at Knecht Street. In addition, access to the Trinity Site is going to change with development. Therefore, County staff recommends modifying the starting point of the NM502 project from DP Road to Knecht Street; and, changing the ending point from Airport Road to a point between Canyon Road and the driveways to Crossroads Bible Church and the Christian Church. A map of the proposed revised project limits, including the revised Trinity Site access, is attached for reference (Attachment D).

The existing Arroyo Lane intersection LOS with NM502 having one lane of through traffic in each direction for current PM peak traffic (March 8, 2012 traffic count) is calculated to be an “E” and future traffic (2032 with 0.5% growth per year) is an “E.” If NM502 is changed to have two east bound lanes, the LOS for both current and future traffic becomes a LOS of “C” for the NM502 and Arroyo Lane intersection. The LOS for Sombrillo Court for the AM Peak on NM502 is “E” for both the current and future traffic with the current configuration of one lane in each direction. Improving the level of service for Sombrillo Court intersection is proposed to be addressed in a future phase of construction on NM502.

Staff recommends the installation of a “HAWK” crossing by East Park and Fire Station #6, near the Canyon Rim Trail. However, because the merge for east bound traffic from two lanes to one lane will be between Arroyo Lane and the Crossroads Bible Church driveway, staff does not recommended that a “HAWK” crossing be installed with this phase of the project due to the vehicle lane merging in that section of road. For a “HAWK” crossing at this location see Alternative section below for more detail. The remaining scope of work of the February 7, 2012 Option 1 will need to be part of a future project when funding is available and include extending the environmental study limits to include the segment of NM502 from Tewa Loop to just east of Airport Road

On a related topic, staff has been working with NMDOT District 5 to have the NM502 speed limits changed. NMDOT has performed a speed study and has presented moving the 35 mph speed limit further east to Airport Road. The 40 mph and 50 mph limits would also be moved to the east adjacent to the airport. NMDOT will move the speed limit signs once they receive approval to do so from their headquarter office. The sound levels in the Eastern Area will be reduced if the revised speed limits are obeyed. Once the speed limit changes have been in place, staff will check the sound levels to determine appropriate sound mitigation measures.

Alternatives

An alternative that might maintain the “HAWK” crossing near Crossroads Bible Church and would also increase the LOS for the Arroyo Lane intersection would be to restrict turning movements from Arroyo Lane onto NM502 to only right turns. This would require residents wanting to go west/left to turn east/right and then turn around at one of the parking lots or other intersections. A possible solution to avoid the need to turn around would be to provide a secondary access off the end of the Verde Ridge cul-de-sac south to DP Road (Attachment E). The concept of a secondary access off Verde Ridge should be considered in a future phase.

Fiscal and Staff Impact/Planned Item

The NM502 project is funded in the FY2014 NMDOT District 5 State Transportation Improvement Program (STIP) in the amount of $3.8 million. The County CIP has $1.125 million funded for the

powered by Legistar™

project. The total funding available for the project is $4.925 million. The revised first phase of the project as defined in Attachment D (Knecht to approximately Crossroads Bible Church) has been estimated at $4.850 million.

Attachments

A. February 7, 2012 Council Meeting Minutes;
B. November 30, 2012 Letter from NMDOT;
C. February 7, 2012 - Option 1;
D. Proposed Revised Project Limits and Design; and,
E. Alternative Verde Ridge Access to DP Road.

powered by Legistar™