

ORIGINAL  
MEMORANDUM



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Arizona Corporation Commission  
DOCKETED

To: THE COMMISSION

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From: Steven M. Olea  
Interim Director  
Safety Division

2011 OCT -1 P 12: 36

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Date: October 7, 2011

AZ CORP COMMISSION  
DOCKET CONTROL

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RE: IN THE MATTER OF THE APPLICATION OF THE ARIZONA DEPARTMENT OF TRANSPORTATION TO REMOVE AN EXISTING AT-GRADE CROSSING OF THE BURLINGTON NORHTERN SANTA FE RAILWAY AT STATE ROUTE 303 NORTH OF OLIVE AVENUE AND TO REPLACE IT WITH A NEW GRADE SEPARATED CROSSING, IN MARICOPA COUNTY, ARIZONA, USDOT NO. 025-650-C.

DOCKET NO. RR-02635B-11-0282

**Background**

On July 18, 2011, the Arizona Department of Transportation ("ADOT") filed with the Arizona Corporation Commission ("Commission") an application for approval for the removal of State Route 303 ("SR303") an existing at-grade crossing of the Burlington Northern Santa Fe Railway ("Railroad") in Maricopa County ("County"), Arizona, at USDOT No. 025-650-C and replace it with a new grade separated crossing. Additionally, the application requests the construction of a temporary at-grade crossing of the Railroad's tracks approximately 198 feet east of the existing crossing.

**Geographical Information**

The crossing is located on the Ennis Spur and is part of the Railroad's Phoenix Subdivision. The project is located at SR303 just north of Olive Avenue. The entire project is located within the County, with portions located in the City of Glendale. (See Appendix "A")

**SR303**

SR303 is a two lane north/south paved roadway at the railroad crossing along with left turn lanes in both directions. ADOT is the road authority at the crossing. The crossing is protected with flashing lights and gates northbound, and flashing lights, gates and a cantilever for southbound traffic. The new project consists of building a 6 to 8 lane roadway from Glendale Avenue to Peoria Avenue on the existing SR303 Freeway, and will also provide a grade separated crossing of the Railroad's tracks. The ultimate project entails expanding the roadway to 14 lanes, including ramps to and from Northern Parkway. The project also will remove the existing SR303 at-grade crossing as well as remove the existing irrigation pipes that lay under the crossing and install a new box culvert for a storm drainage channel. A temporary at-grade crossing consisting of two southbound lanes and one northbound lane will be constructed approximately 198 feet to the east of the existing at-grade crossing to allow for a traffic detour during the construction of the new grade separation. The temporary crossing will have new

flashing lights, gates, and a cantilever as well as a concrete surface. This crossing will be removed when the grade separated crossing is completed.

The project is being done in three phases. The first construction phase is expected to start in the spring of 2012, and consists of constructing the temporary crossing as well as the roadway to the temporary crossing. The second phase is expected to take 20 months and will entail closing down the existing at-grade crossing and provide access to the temporary crossing while the overpass is constructed. The existing at-grade crossing will be removed along with the existing irrigation pipes underneath the railroad, and the box culvert will be installed. The third phase is expected to start in the spring of 2014. The overpass will be opened and the at-grade temporary crossing detour will be removed.

This project is being funded by the Federal Highway Administration ("FHWA"), with the exception of some traffic and landscaping costs to be covered by the Cities of Glendale and Peoria. The railroad cost is 100% State funded thru Proposition 400. The cost of the project broken down is as follows: total ADOT cost of the project is \$124,855,714.00, cost of the grade separation is \$11,237,164.00, railroad costs are; signal \$310,165.00, surface \$246,341.00, flagging \$155,660.00, inspections \$59,994.00, and right of way is \$85,914.00. Total railroad costs are \$858,074.50.

According to a 2008 Design Concept Report, the Average daily Traffic ("ADT") for 2006 was 20,100 vehicles per day ("vpd") for both directions. The projected ADT for 2030 is 128,000 vpd. According to ADOT, there is no current Level of Service ("LOS") available. However, the predicted LOS for 2030 north of Northern Avenue is LOS C.

Note: The American Association of State Highway and Transportation Officials (AASHTO) Geometric Design of Highways and Streets, 2004, states that the Level of Service characterizes the operating conditions on a facility in terms of traffic performance measures related to speed and travel time, freedom to maneuver, traffic interruptions, and comfort and convenience. This is a measure of roadway congestion ranging from LOS A--least congested--to LOS F--most congested. LOS is one of the most common terms used to describe how "good" or how "bad" traffic is projected to be.

The posted speed limit on SR303 is 50 MPH. Commission Rail Safety Section ("Staff") records, as well as Federal Railroad Administration ("FRA") accident/incident records indicate no incidents at this crossing.

Alternative routes from this crossing are as follows: Sarival Road is an at-grade crossing .5 miles to the east and Cotton Lane Road is .5 miles to the west and is also an at-grade crossing.

### **Train Data**

Data provided by the Railroad to ADOT regarding train movements through this crossing are as follows:

**Train Count:** 1 train per day – No passenger trains

**Train Speed:** 10 mph freight

**Thru Freight/Switching Moves:** All moves through this crossing are thru freight.

### Schools and Bus Routes

There are several schools within the Dysart Unified School District near this crossing. They are:

- ✓ Shadow Ridge High School – 10909 N. Perryville Road, 3.6 miles away
- ✓ Mountain View Elementary School – 18302 W. Burton Avenue, 2.1 miles away
- ✓ Sonoran Heights Elementary School – 11405 N Greer Ranch Parkway, 3.4 miles away

According to Tracy Keily, Bus Router for the Dysart Unified School District, this crossing is used by school busses year round. Twenty-four buses use this crossing daily from August until the first of June and 7 buses use the crossing daily during the summer months of June and July.

### Hospitals

The nearest hospital to the SR303 crossing is Boswell Memorial Hospital, 11 miles away.

### Hazardous Materials

ADOT gave the following response when asked about hazardous materials crossing this crossing:

*No factual data is available. However, due to the nature of SR303, numerous vehicles carrying hazardous material use this crossing as a link to the US60 and to I10.*

### Zoning

Staff requested that ADOT provide information regarding the type of zoning in adjacent areas from the crossing. The following was their response:

*The surrounding areas are zoned for agriculture with future plans for the northeast, northwest, and southwest quadrants to be zoned for residential RU-43 while the southeast quadrant will be zoned for planned area development (PAD).*

### Spur Lines

ADOT gave the following answer regarding spur lines located in the area:

*The Web Spur from BNSF that travels into the Luke Air Force Base was removed in 2004.*

### Staff Conclusions

Having reviewed all applicable data, Staff supports ADOT's application. Staff believes the grade separation and the elimination of the at-grade crossing is in the public's interest and is reasonable. Staff believes that the measures proposed by ADOT are consistent with other similar

grade-separated crossings in the State and will provide for the public's safety. Therefore, Staff recommends approval of ADOT's application.

A handwritten signature in black ink, appearing to read "Brian H. Lehman". The signature is written in a cursive style with a large initial "B".

Brian H. Lehman  
Railroad Safety Supervisor  
Safety Division

Originator: BHL

COPIES of the foregoing mailed  
This 7th day of October, 2011 to:

Docket No. RR-02635B-11-0282

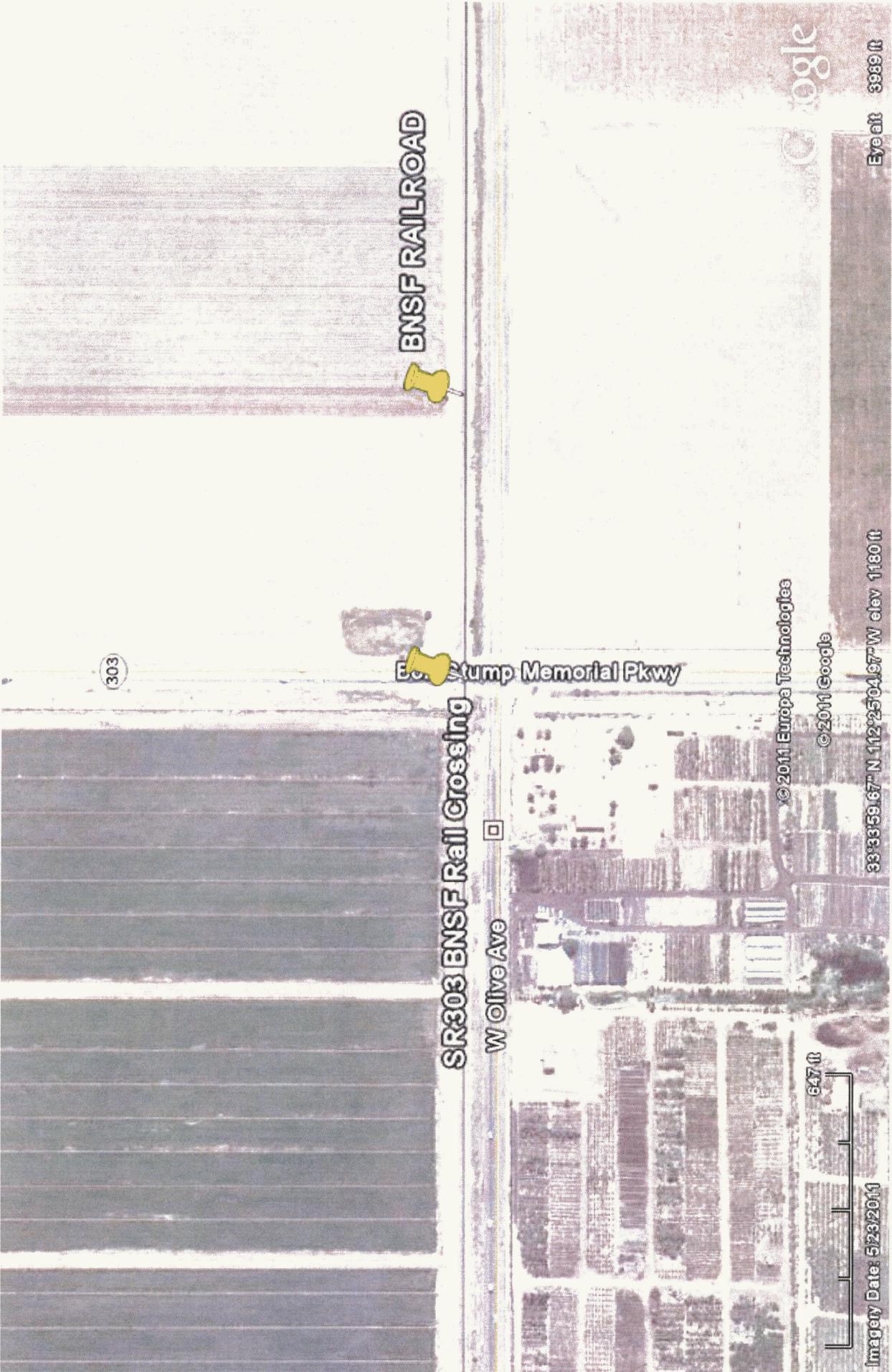
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BNSF RAILROAD

Edna Lump Memorial Pkwy

SR303 BNSF Rail Crossing

W Olive Ave

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33°33'59.67" N 112°25'04.97" W elev 1180 ft

Eye alt 3989 ft

Google

647 ft

Imagery Date: 5/23/2011



SR303 BNSF Rail Crossing

OLOME AVE.

Google

107 ft

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33°33'59.04"N 112°25'04.63"W elev 1179 ft

Eye alt 1668 ft

Imagery Date: 5/23/2011