

**ORIGINAL**

OPEN MEETING ITEM



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**COMMISSIONERS**  
KRISTIN K. MAYES – Chairman  
GARY PIERCE  
PAUL NEWMAN  
SANDRA D. KENNEDY  
BOB STUMP



**MICHAEL P. KEARNS**  
Interim Executive Director

**ARIZONA CORPORATION COMMISSION**

DATE: FEBRUARY 3, 2009

Arizona Corporation Commission  
**DOCKETED**

DOCKET NO.: RR-03639A-08-0054

FEB 03 2009

TO ALL PARTIES:

DOCKETED BY

Enclosed please find the recommendation of Administrative Law Judge Teena Wolfe. The recommendation has been filed in the form of an Opinion and Order on:

**UNION PACIFIC RAILROAD  
(ALTER CROSSING)**

Pursuant to A.A.C. R14-3-110(B), you may file exceptions to the recommendation of the Administrative Law Judge by filing an original and thirteen (13) copies of the exceptions with the Commission's Docket Control at the address listed below by **4:00** p.m. on or before:

FEBRUARY 12, 2009

The enclosed is NOT an order of the Commission, but a recommendation of the Administrative Law Judge to the Commissioners. Consideration of this matter has tentatively been scheduled for the Commission's Open Meeting to be held on:

FEBRUARY 19, 2009

For more information, you may contact Docket Control at (602) 542-3477 or the Hearing Division at (602)542-4250. For information about the Open Meeting, contact the Executive Director's Office at (602) 542-3931.

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1 **BEFORE THE ARIZONA CORPORATION COMMISSION**

2 COMMISSIONERS

3 KRISTIN K. MAYES, Chairman  
4 GARY PIERCE  
5 PAUL NEWMAN  
6 SANDRA D. KENNEDY  
7 BOB STUMP

8 IN THE MATTER OF THE APPLICATION OF  
9 THE UNION PACIFIC RAILROAD TO ALTER  
10 ONE CROSSING OF THE UNION PACIFIC  
11 RAILROAD AT RUTHRAUFF ROAD.

DOCKET NO. RR-03639A-08-0054  
DECISION NO. \_\_\_\_\_

OPINION AND ORDER

12 DATE OF HEARING: July 17, 2008 (Procedural Conference); November 25,  
13 2008

14 PLACE OF HEARING: Phoenix, Arizona

15 ADMINISTRATIVE LAW JUDGE: Marc Stern<sup>1</sup>

16 APPEARANCES: Mr. Anthony J. Hancock and Mr. Terrance L. Sims,  
17 BEAUGUREAU, HANCOCK, STOLL &  
18 SCHWARTZ, P.C., on behalf of the Union Pacific  
19 Railroad Company; and

20 Mr. Charles Hains, Staff Attorney, Legal Division, on  
21 behalf of the Safety Division of the Arizona Corporation  
22 Commission.

23 **BY THE COMMISSION:**

24 On June 9, 2008 Union Pacific Railroad Company ("Railroad") filed with the Arizona  
25 Corporation Commission ("Commission") an application for authority to construct a second mainline  
26 track at the existing public at-grade crossing of the Railroad in Pima County, Arizona at Ruthrauff  
27 Road, AAR/DOT No. 741-104-C ("Application"). The Ruthrauff Road crossing is located in the City  
28 of Tucson.

A hearing on the Application was held on November 25, 2008, before a duly authorized  
Administrative Law Judge of the Commission at the Commission's offices in Phoenix, Arizona. The  
Railroad and the Railroad Safety Section of the Commission's Safety Division ("Staff") appeared

<sup>1</sup> Administrative Law Judge Marc Stern presided over the procedural conference and hearing in this matter, and  
Administrative Law Judge Teena Wolfe prepared the Recommended Opinion and Order.

1 through counsel, presented evidence, and cross-examined witnesses. Following the hearing, the  
2 matter was taken under advisement.

3 \* \* \* \* \*

4 Having considered the entire record herein and being fully advised in the premises, the  
5 Commission finds, concludes, and orders that:

6 **FINDINGS OF FACT**

7 1. On January 28, 2008, the Railroad filed the Application with the Commission. The  
8 Application requests approval to alter a public at-grade crossing of the Railroad in Pima County,  
9 Arizona ("County") by adding a second mainline track 20 feet to the south of the existing mainline  
10 track. The Application is part of the Railroad's double track effort for the "Sunset Route" across  
11 Arizona.

12 2. The crossing affected by the Application is located in the City of Tucson ("City") and  
13 is identified as Ruthrauff Road, AAR/DOT No. 741-104-C. The rail line in this area runs in a  
14 southeast to northwest direction, parallel to I-10 and the I-10 Frontage Road. The County is the  
15 controlling roadway authority for the crossing.

16 3. On March 12, 2008, at a procedural conference in another docket involving the  
17 Railroad's double track project, the Railroad agreed to request a procedural conference for future  
18 scheduling on the Application as related cases were heard and Decisions issued by the Commission.<sup>2</sup>

19 4. On June 9, 2008, the Railroad filed a request for a procedural conference to discuss  
20 scheduling issues in this docket.

21 5. On June 25, 2008, a Procedural Order was issued scheduling a procedural conference  
22 in this matter for July 17, 2008, to establish possible hearing dates.

23 6. On July 25, 2008, following the procedural conference attended by Staff and the  
24 Railroad on July 17, 2008, a Procedural Order was issued scheduling a hearing in this matter for  
25 November 25, 2008, and establishing other procedural requirements and deadlines.

26 7. Pursuant to the Procedural Order dated July 25, 2008, the Railroad provided a copy of  
27

28 <sup>2</sup> The procedural conference was held in Docket No. RR-03639A-07-0520.

1 the Application and of the Procedural Order by certified mail to the City, the County, and the Arizona  
2 Department of Transportation ("ADOT"). The Railroad also caused notice of the Application and  
3 hearing to be published in the *Arizona Daily Star*, a daily newspaper of general circulation in the City  
4 and County, and in the *Tucson Citizen*, a daily newspaper of general circulation in the City and  
5 County, on August 1, 8, 15 and 22, 2008.

6 8. On September 9, 2008, the Railroad filed a Certification of Notice Pursuant to the  
7 Procedural Order dated July 25, 2008.

8 9. On October 17, 2008, the Railroad filed its Response to Staff's Second Set of Data  
9 Requests.

10 10. On November 7, 2008, Staff filed a Staff Report recommending approval of the  
11 application.

12 11. On November 25, 2008, a full evidentiary hearing was held before a duly authorized  
13 Administrative Law Judge of the Commission at the Commission's offices in Phoenix, Arizona. The  
14 Railroad and Staff appeared through counsel and presented testimony. Staff also presented  
15 documentary evidence in the form of the Staff Report.

16 12. On November 26, 2008, the Pima Association of Governments ("PAG") filed a letter  
17 in the docket stating that it would be filing comments related to the Staff Report.

18 13. On December 11, 2008, the PAG filed a formal comment letter on the Application.  
19 The formal comment letter filed by the PAG expressed disagreement with the Staff Report's lack of  
20 support for a grade separation at the Ruthrauff Road crossing at this time. The letter requested that  
21 the Railroad be required to provide a financial contribution to the Ruthrauff Road grade separation.

22 14. Staff, the Railroad, the County, and the City participated in a diagnostic review of the  
23 proposed improvements at Ruthrauff Road on February 28, 2007. According to Staff, all parties  
24 present at the diagnostic review were in agreement at that time with the proposed improvements at  
25 the crossing.

26 15. According to Staff, the improvements recommended for the Ruthrauff Road crossing  
27 are consistent with safety measures employed at other crossings throughout the State and are in  
28 compliance with Commission rules.

1           16.     According to Staff, the cost estimates for the improvements provided by the Railroad  
2 are reasonable.

3 **Ruthrauff Road**

4           17.     The Ruthrauff Road crossing is located within the City limits. Ruthrauff Road is an  
5 east-to-west main arterial with an interchange at I-10. The general area surrounding the Ruthrauff  
6 Road crossing is a mix of commercial and industrial businesses.

7           18.     The Application proposes adding a second mainline track at this crossing, to the south  
8 of the existing mainline track. The Railroad plans to re-profile a portion of the four-lane asphalt road  
9 to meet the new tracks and to replace the existing incandescent flashing lights, gate mechanisms,  
10 bells, and detection circuitry with the latest industry standard equipment, including 12-inch LED  
11 flashing lights, a cantilever with 12-inch LED flashing lights for westbound traffic, gates, bells, and  
12 constant warning time circuitry.<sup>3</sup> The Railroad also will add a new concrete crossing surface and will  
13 replace any impacted pavement markings.

14           19.     The existing automatic gates, flashing lights, and bells at the Ruthrauff Road crossing  
15 are shown in inventory records as early as 1974.

16           20.     Based on traffic data provided to the Railroad by Tom Cooney, of the PAG, and  
17 Jennifer Crumbliss of HDR, a Railroad contractor, the average daily traffic ("ADT") for Ruthrauff  
18 Road in 2006 was 22,400 vehicles per day ("VPD"). Data provided indicated the estimated ADT for  
19 the year 2030 to be 41,600 VPD. In October 2008, Staff received updated traffic counts from PAG  
20 for current and projected data, and according to PAG, the ADT in the year 2007 was 24,195 and the  
21 PAG's estimated ADT for the year 2030 is 44,000 VPD. The current Level of Service ("LOS") for  
22 Ruthrauff Road, based on the standards of the American Association of State Highway and  
23 Transportation Officials ("AASHTO") is LOS A,<sup>4</sup> or least congested, for eastbound AM peak hour  
24

25 <sup>3</sup> Constant warning time circuitry sends a signal to the at-grade crossing to activate its functioning at the instant it detects  
26 a train's distance and measures the speed of the train to adjust the length of time that the crossing gates have to be closed,  
27 so that the crossing gates are closed only for the amount of time necessary for the train to move through safely, thereby  
28 avoiding motorist frustration and possible noncompliance caused by unnecessarily lengthy crossing gate closure.

<sup>4</sup> According to the Staff Report, the AASHTO Geometric Design of Highways and Roads, 2004, uses LOS to  
characterize the operating conditions on a roadway in terms of traffic performance measures related to speed and travel  
time, freedom to maneuver, traffic interruptions, and comfort and convenience. LOS ranges from LOS A, least  
congested, to LOS F, most congested.

1 traffic and LOS B for eastbound PM peak hour traffic. For westbound traffic, the LOS for AM peak  
2 hour traffic is LOS D and for PM peak hour traffic is LOS C. The existing AM peak hour volume for  
3 eastbound traffic on Ruthrauff Road is 978 vehicles per hour and for westbound traffic is 1,018  
4 vehicles per hour. The existing PM peak hour volume for eastbound traffic is 1,059 vehicles per hour  
5 and for westbound traffic is 1,017 vehicles per hour. The posted speed limit on Ruthrauff Road is 45  
6 MPH.

7 21. Staff and Federal Railroad Administration ("FRA") records indicate that three  
8 accidents have occurred at the Ruthrauff Road crossing, resulting in one fatality. Records indicate  
9 that the warning devices were reported to be working as intended in all three accidents.

10 22. Alternative routes from the Ruthrauff Road crossing are to the west 2.15 miles at  
11 Joiner Road, an at-grade crossing, and to the east 1.81 miles at Prince Road, also an at-grade  
12 crossing.

13 23. The estimated costs of the crossing improvements in the Application total \$392,640  
14 and break down to \$300,000 for signal work and \$92,640 for the crossing surface. The Railroad will  
15 pay the entire cost of these crossing improvements.

#### 16 **Train Volume and Crossing Usage**

17 24. According to the Staff Report, data from the Railroad establish that an average of 48  
18 trains per day travel through the crossing presently, 46 freight trains and 2 passenger trains, at a speed  
19 of 70 MPH for the freight trains and 79 MPH for the passenger trains. The number of freight trains is  
20 projected to increase to an average of 84 trains per day by the year 2016. (Tr. at 38.)

21 25. There are four schools located near the Ruthrauff Road crossing. They include three  
22 elementary schools and one high school. According to Staff, Lewis Carloss, Transportation Director  
23 for the Flowing Wells Unified School District, informed Staff that school buses cross the Ruthrauff  
24 Road crossing eight times per day, with additional crossings for special field trips, because part of the  
25 school district is west of the tracks at Ruthrauff Road. Mr. Carloss expressed concern regarding the  
26 construction period for the second mainline track, and how the closure of Ruthrauff Road would  
27 affect the school district. Mr. Carloss also informed Staff that the Flowing Wells School District has  
28 had Operation Lifesaver presentations in the past, but would welcome an updated presentation.

1           26.     The nearest hospital to the crossings is Northwest Medical Center in Marana, which is  
2 approximately three miles northeast of Ruthrauff Road. There is no evidence that the improvements  
3 and upgrades to be made to the Ruthrauff Road crossing will adversely impact motorists' ability to  
4 reach the hospital.

5 **Grade Separation/Crossing Elimination**

6           27.     Staff analyzed whether grade separation is warranted at the crossing using the Federal  
7 Highway Administration ("FHWA") *Railroad-Highway Grade Crossing Handbook* ("FHWA  
8 Handbook").<sup>5</sup> The FHWA Handbook indicates that grade separation or crossing elimination should  
9 be considered when one or more of nine criteria are met. Staff created a chart, attached hereto and  
10 incorporated herein as Exhibit A, showing the results of Staff's analysis of the criteria for the  
11 Ruthrauff Road crossing.

12           28.     Exhibit A shows that the Ruthrauff Road crossing currently meets one of the nine  
13 criteria in the FHWA Handbook, the criterion for crossing exposure, and is projected to meet two  
14 additional criteria by the year 2030. The two criteria which the crossing currently does not meet, but  
15 that projections show it may meet by 2030, are the criterion for average annual gross tonnage of 300  
16 million or more<sup>6</sup> and the criterion for vehicular delay exceeding 40 vehicle hours per day.

17           29.     Staff testified that the criteria in the FHWA Handbook are only a screening tool and  
18 guideline and not necessarily determinative of whether a grade separation is necessary, so meeting  
19 one or more of the criteria does not automatically mean that grade separation is required. (Tr. at 38,  
20 49.)

21           30.     The Staff Report indicated that according to an October 7, 2008, Staff discussion with  
22 Paul Casertano, Transportation Systems Senior Planner with PAG, plans exist for a future grade  
23 separation at the Ruthrauff Road crossing, at an estimated 2008 cost of approximately \$60 million.  
24 The Staff Report stated that the Regional Transportation Authority ("RTA") oversees projects funded  
25 by a County excise tax imposed beginning in July 2006 to fund specific transportation projects and

26 \_\_\_\_\_  
27 <sup>5</sup> Staff used the revised 2<sup>nd</sup> edition, August 2007.

28 <sup>6</sup> This projection for the year 2030 is based on the current annual gross tonnage in excess of 217 million with volume of 46 freight trains per day and projected volume of 84 freight trains per day by 2016, with the trains also expected to be longer (8,000 feet long instead of the current length of 6,000 feet).

1 that the County will construct a new grade separation using RTA funds, but will not likely commence  
2 the project before fiscal year 2017.

3 31. The Staff Report stated that while Staff understands that the decision to grade separate  
4 is a complex one involving multiple parties, a number of years of time for planning and construction,  
5 and substantial monetary resources, Staff believes the upgrades proposed in the Application are in the  
6 public interest and are reasonable and recommends approval of the Application. Based on its  
7 analysis of the FHWA guidelines, Staff does not recommend grade separation at the Ruthrauff Road  
8 crossing and testified that the crossing, with the proposed improvements, will be safe without grade  
9 separation. (Tr. at 43-44, 51.)

10 32. The Railroad's expert witness, Dean Carlson,<sup>7</sup> agrees with Staff's determination that  
11 there is currently no need for grade separation at the Ruthrauff Road crossing and that the work that  
12 the Railroad proposes will be adequate to provide increased safety at the crossing. (Tr. at 7, 12.)

13 33. Railroad witness Aziz Aman testified that detour plans between the Railroad and the  
14 County call for the Ruthrauff Road crossing to be closed only on weekends, from midnight Friday to  
15 6:00 a.m. Monday, so as to have minimum impact to the general public during weekdays. (Tr. at 26.)

16 34. Mr. Aman testified that the Railroad is willing to make a financial contribution to the  
17 planned Ruthrauff Road crossing grade separation in conformance with Code of Federal Regulations  
18 ("CFR") guidelines. (Tr. at 28-30.)

19 35. Staff also analyzed whether the Ruthrauff Road crossing should be eliminated, using  
20 criteria from FHWA and the FRA. Staff stated in the Staff Report that the area surrounding this  
21 crossing is highly developed with commercial and industrial businesses and that Staff believes  
22 closing the crossing would have a negative effect on many of the local businesses. Staff therefore  
23 does not recommend closure of the crossing at this time.

#### 24 **Staff's Recommendations**

25 36. Staff recommends that the Application be approved. Based on its review of all  
26 applicable data, Staff believes that the proposed crossing upgrades are reasonable and in the public

27 <sup>7</sup> Mr. Carlson retired from the FHWA, after 36 years of service, as its Executive Director. (Tr. at 5-6.) During his  
28 tenure at the FHWA, Mr. Carlson also served as the Director of Engineering and the Director of the Office of Highway  
Safety. (*Id.*) Mr. Carlson also served as the Secretary of Transportation for the State of Kansas for eight years. (*Id.*)

1 interest.

2 37. Staff's recommendations are reasonable and appropriate and should be followed.

3 **CONCLUSIONS OF LAW**

4 1. The Commission has jurisdiction over the Railroad and over the subject matter of the  
5 Application pursuant to Article XV of the Arizona Constitution and A.R.S. §§ 40-336, 40-337, and  
6 40-337.01.

7 2. Notice of the Application was provided in accordance with the law.

8 3. Alteration of the crossing as proposed in the Application is necessary for the public's  
9 convenience and safety.

10 4. Pursuant to A.R.S. §§ 40-336 and 40-337, the Application should be approved as  
11 recommended by Staff.

12 5. After alteration of the crossing, the Railroad should maintain the crossing in  
13 accordance with A.A.C. R14-5-104.

14 **ORDER**

15 IT IS THEREFORE ORDERED that the Union Pacific Railroad Company's Application is  
16 hereby approved.

17 IT IS FURTHER ORDERED that the Union Pacific Railroad Company shall notify the  
18 Commission, in writing, within ten days of both the commencement and the completion of the  
19 crossing alterations, pursuant to A.A.C. R14-5-104.

20 IT IS FURTHER ORDERED that the Union Pacific Railroad Company shall maintain the  
21 crossing at Ruthrauff Road, in Pima County, Arizona in compliance with A.A.C. R14-5-104.

22 ...  
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1 IT IS FURTHER ORDERED that the Union Pacific Railroad Company shall file, every five  
2 years from the effective date of this Decision, with the Commission's Docket Control, as a  
3 compliance item in this docket, an update on the average daily traffic count at the crossing described  
4 in the Application. The updated average daily traffic count shall be obtained from the road authority  
5 or a contractor hired by the Railroad.

6 IT IS FURTHER ORDERED that this Decision shall become effective immediately.

7 BY ORDER OF THE ARIZONA CORPORATION COMMISSION.  
8  
9

10 CHAIRMAN \_\_\_\_\_ COMMISSIONER

11  
12 COMMISSIONER \_\_\_\_\_ COMMISSIONER \_\_\_\_\_ COMMISSIONER

13  
14 IN WITNESS WHEREOF, I, MICHAEL P. KEARNS, Interim  
15 Executive Director of the Arizona Corporation Commission,  
16 have hereunto set my hand and caused the official seal of the  
17 Commission to be affixed at the Capitol, in the City of Phoenix,  
18 this \_\_\_\_ day of \_\_\_\_\_, 2009.

19  
20 \_\_\_\_\_  
21 MICHAEL P. KEARNS  
22 INTERIM EXECUTIVE DIRECTOR

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1 SERVICE LIST FOR: UNION PACIFIC RAILROAD COMPANY

2 DOCKET NO.: RR-03639A-08-0054

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## EXHIBIT A

		Ruthrauff Road
The highway is a part of the designated Interstate Highway System	Crossing Currently meets the criteria	No
	Crossing meets the criteria by 2030	No
The highway is otherwise designed to have full controlled access	Crossing Currently meets the criteria	No
	Crossing meets the criteria by 2030	No
The posted highway speed equals or exceeds 70 mph	Crossing Currently meets the criteria	No
	Crossing meets the criteria by 2030	No
AADT exceeds 100,000 in urban areas or 50,000 in rural areas	Crossing Currently meets the criteria	No
	Crossing meets the criteria by 2030	No
Maximum authorized train speed exceeds 110 mph	Crossing Currently meets the criteria	No
	Crossing meets the criteria by 2030	No
An average of 150 or more trains per day or 300 million gross tons/year	Crossing Currently meets the criteria	No
	Crossing meets the criteria by 2030 <sup>1</sup>	Yes
Crossing exposure (trains/day x AADT) exceeds 1M in urban or 250k in rural; or passenger train crossing exposure exceeds 800k in urban or 200k in rural	Crossing Currently meets the criteria <sup>2</sup>	Yes
	Crossing meets the criteria by 2030 <sup>3</sup>	Yes
Expected accident frequency for active devices with gates, as calculated by the US DOT Accident Prediction Formula including five-year accident history, exceeds 0.5	Crossing Currently meets the criteria	No
	Crossing meets the criteria by 2030	N/A
Vehicle delay exceeds 40 vehicle hours per day	Crossing Currently meets the criteria	No
	Crossing meets the criteria by 2030 <sup>4</sup>	Yes

N/A = Information was not available.

This table utilizes the most recent projected ADT data for Ruthrauff Road – 44,000 vpd for the year 2030.

<sup>1</sup>The Railroad is projected to exceed 300 million gross tons as of 2016. This projection is based on the fact that the Railroad is currently exceeding 217 million gross tons with 46 trains per day and is projected to run twice the number of trains (at lengths of up to 8,000 feet instead of the current length of 6,000 feet) by 2016.

<sup>2</sup>The current crossing exposure for Ruthrauff Road is 1.2 million

<sup>3</sup>The projected crossing exposure utilizing the most recent projected VPD data for Ruthrauff Road is 3.7 million

<sup>4</sup>Projected vehicle delay hours per day utilizing the most recent projected VPD data for Ruthrauff Road are 102.2 hours.