

ORIGINAL

STAFF MEMORANDUM



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To: THE COMMISSION

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Arizona Corporation Commission  
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From: Steven M. Olea  
Interim Director  
Safety Division

2010 SEP -3 P 2: 13

SEP 3 2010

Date: September 3, 2010

ARIZONA CORPORATION COMMISSION  
DOCKET CONTROL

DOCKETED BY	<i>RJK</i>
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RE: IN THE MATTER OF THE APPLICATION OF THE CITY OF CASA GRANDE AND THE CENTRAL ARIZONA COMMERCE PARK, LLC TO ESTABLISH A NEW PUBLIC RAILROAD CROSSING ON PETERS ROAD IN THE CITY OF CASA GRANDE, PINAL COUTNY, ARIZONA, USDOT NO. 935-873-F.

DOCKET NO. RR-20747A-10-0206

**Background**

On May 19, 2010, the City of Casa Grande ("City") and the Central Arizona Commerce Park, LLC ("CAZCP") filed with the Arizona Corporation Commission ("Commission") an application for the establishment of a new public railroad crossing on Peters Road between Burris Road and Thornton Road in Casa Grande, Pinal County, Arizona at USDOT No. 935-873-F.

The following is a break down of the proposed new crossing in this application, including information about the crossing that was provided to the Safety Division, Railroad Safety Section ("Staff") by the City and the CAZCP.

**Geographical Information**

The proposed new at grade crossing of Peters Road will be located in an area zoned for industrial development east of Burris Road, which is located between State Route 84 and the Selma Highway, approximately 2.25 miles southwest of the City's downtown. This area is known as the Industrial Area Improvement District ("IAID"). The first expected development within the IAID is the CAZCP site which is approximately 580 acres located on the north side of Peters Road; 600 feet east of Burris Road (see Exhibit A). The new railroad spur will cross Peters Road at-grade in a north-south direction.

**CAZCP**

The CAZCP is a 580 acre site, zoned for light/heavy industrial use that will offer rail service through an industrial track agreement with Union Pacific Railroad ("UP"). The CAZCP is strategically located with easy access to Interstate's 8 and 10, along with the freight interchange with UP (see Exhibit A). The CAZCP through its contractor will extend approximately 600 feet of track from existing industry owned tracks crossing Peters Road in order to serve the new development (see Exhibit B).

The CAZCP has entered into an agreement with the San Pedro Railroad Operating Company, L.L.C. ("SPROC") to perform the needed industrial park switching operations. The SPROC will provide services on an "as needed basis", with the nature and frequency of such services to be determined by SPROC's arrangements with each individual customer. The CAZCP will construct

and provide the initial track, interchange track, right-of-way, structures and other rail support systems in accordance with the industrial railroad standards mutually agreed upon between the CAZCP and UP. The UP will deliver freight cars to the CAZCP interchange tracks and the SPROC will operate the rail equipment/locomotive used to distribute the cars to the appropriate customer. SPROC will perform all of the track maintenance within the CAZCP.

### **Peters Road**

Peters Road, a two lane east-west roadway will be improved to a four lane roadway with raised medians as part of the proposed new rail/highway grade crossing. The crossing project will include installing flashing lights, bells, curb-side automatic gates with raised medians complete with automatic gates, and a concrete surface. As of Staff's last inquiry, the type of detection circuitry has not been selected. The proposed measures are consistent with safety measures employed at similar at-grade crossings in the state. The estimated cost of the proposed new railroad crossing is \$350,000. This project will be funded entirely by the CAZCP. The SPROC or its contractor will maintain the warning devices.

Traffic data for Peters Road was provided by the CAZCP and by the City in the form of a Technical Memorandum, done by SouthWest Traffic Engineering, LLC, dated March 29<sup>th</sup> 2010. The data shows the Average Daily Traffic ("ADT") for 2010 to be 2,424 vehicles per day ("vpd"). The projected ADT's for 2030 are 31,272 vpd. No current or projected Level of Service ("LOS") for Peters Road was provided.

The American Association of State Highway and Transportation Officials Geometric Design of Highways and Streets, 2004, states that the LOS 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 Peters Road is 35mph.

Alternative routes from this crossing are as follows; to the north approximately one mile is State Route 84, and to the south approximately one mile is Selma Highway. Neither of these roadways is grade separated.

### **Train Data**

Data provided by the CAZCP regarding train movements through this crossing are as follows:

Train Count: 1-2 trains per day on average (all freight trains/no passenger trains)

Train Speed: 10 mph

Thru Freight/Switching Moves: There will be thru freight as well as switching movements through the crossing.

### **Schools and Bus Routes**

There are several schools located within the area of the crossing, they are;

#### **Elementary Schools:**

- ✓ Palo Verde Elementary School – 40 N. Roosevelt Avenue

- ✓ Saguaro Elementary School – 1801 N. Center Street
- ✓ Evergreen Elementary School – 1000 N. Amarillo Street
- ✓ Ocotillo Elementary School – 501 S. Florence Street

Middle Schools:

- ✓ Casa Grande Middle School – 300 W. McMurray

High Schools:

- ✓ Desert Winds High School – 1362 N. Casa Grande Avenue

On August 19, 2010, Staff confirmed with Ms. Sandy Brown, Assistant Transportation Supervisor for Casa Grande, that there are four school buses and one van that use this roadway twice daily for a total of 10 crossings per day.

**Hospitals**

The nearest hospital or health facility to the Peters Road crossing is as follows;

Hospitals:

- ✓ Casa Grande Regional Medical Center, - 1800 E. Florence Blvd.

**Hazardous Materials**

The CAZCP gave the following response when asked about hazardous materials using the proposed crossing:

*None known.*

**Zoning**

Staff requested the CAZCP provide information regarding the type of zoning in areas adjacent to the proposed crossing. The following was the CAZCP's response:

*The surrounding area is zoned for light and heavy industrial.*

**Spur Lines**

The City and the CAZCP gave the following answer regarding spur lines that have been removed in the area:

*None.*

**FHWA Guidelines Regarding Grade Separation**

The Federal Highway Administration ("FHWA") Railroad-Highway Grade Crossing Handbook (Revised Second Edition August 2007) provides nine criteria for determining whether highway-rail crossings should be considered for grade separation or otherwise eliminated across the railroad right of way. The Crossing Handbook indicates that grade separation or crossing elimination

should be considered whenever one or more of the nine conditions are met. The nine criteria are applied to this crossing application as follows:

		Peters 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	No
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	No
	Crossing meets the criteria by 2030	No
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 <sup>1</sup>
Vehicle delay exceeds 40 vehicle hours per day	Crossing Currently meets the criteria	No
	Crossing meets the criteria by 2030	No

<sup>1</sup> N/A = Not Applicable

### **Vehicular Delays at Crossings**

Based on the proposed single track configuration, the CAZCP gave the following response about delay time for vehicles at the crossing in this application. The delay time is measured from the point that the warning devices are activated at the crossing to the time after the train has cleared the crossing and the warning devices are reset.

*Considering the low traffic volumes on Peters Road and the low number of projected trains on the proposed private rail line, traffic operations are expected to experience a minimal delay from the new rail crossing in the near term. (From the Technical Memorandum provided by SouthWest Traffic Engineering, LLC dated March 29, 2010).*

While vehicle delays were not calculated by SouthWest Traffic Engineering, given the current (2,424) and future (31,272) vpd and a minimal amount of train movements per day (2), Staff believes the current and future delays fall well below the FHWA recommended threshold of 40 vehicle hours delay per day.

Another commonly used measure outlined in the FHWA Guidelines; the so-called Crossing Exposure Index (which is simply the product of the number of trains per day multiplied by the number of vehicles crossing daily) is not currently met at this crossing. The current crossing exposure index of 4,848 and the projected 2030 crossing exposure index of 62,544 are well below the threshold of 250,000 for a rural area. It should be noted that the criteria identified in the FHWA material are not mandates, but guidelines established by the FHWA, which serve to alert those having jurisdiction that potential problems may arise.

### **Grade Separation**

With regard to a grade separation for this crossing, the City and the CAZCP gave the following response:

*Both vehicular and train traffic are to low. No comparative studies have been done.*

Staff has utilized the FHWA Guidelines to determine the potential need for grade separation at this crossing. Based on existing conditions, the crossing in this application meets none of the nine criteria for consideration of grade separation.

### **Staff Conclusions**

Having reviewed all applicable data, Staff supports the CAZCP and the City's application. Staff believes that the proposed active warning devices for the crossing are in the public interest and are reasonable. Staff believes that the measures proposed are consistent with other similar at-grade crossings in the State and will provide for the public's safety. Therefore, Staff recommends approval of the application.



Brian H. Lehman  
Railroad Safety Supervisor  
Safety Division

Originator: BHL

COPIES of the foregoing mailed  
this 3rd day of September, 2010 to:

Docket No. RR-20747A-10-0206

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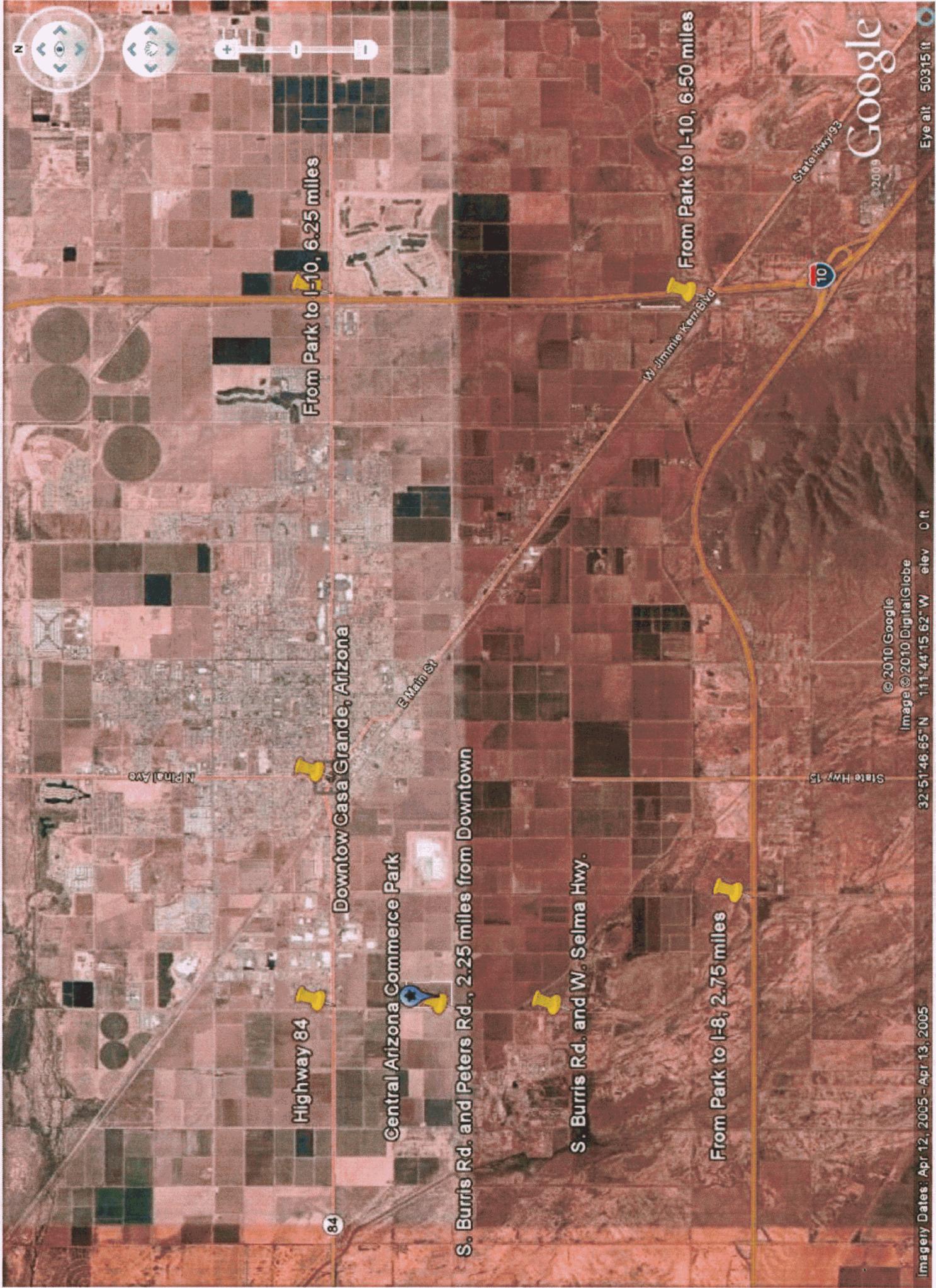
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# Exhibit A



Google

From Park to I-10, 6.25 miles

From Park to I-10, 6.50 miles

Highway 84

84

Downtown Casa Grande, Arizona

Central Arizona Commerce Park

S. Burriss Rd. and Peters Rd., 2.25 miles from Downtown

S. Burriss Rd. and W. Selma Hwy.

From Park to I-8, 2.75 miles

State Hwy 93

10

State Hwy 15

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32°51'46.65"N 111°44'15.62"W elev 0 ft

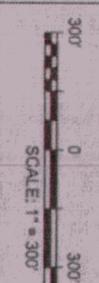
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Eye alt 503.15 ft

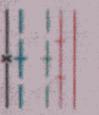
# Exhibit B

**MOUNTAIN STATES CONTRACTING**  
 4615 W. Pine Drive  
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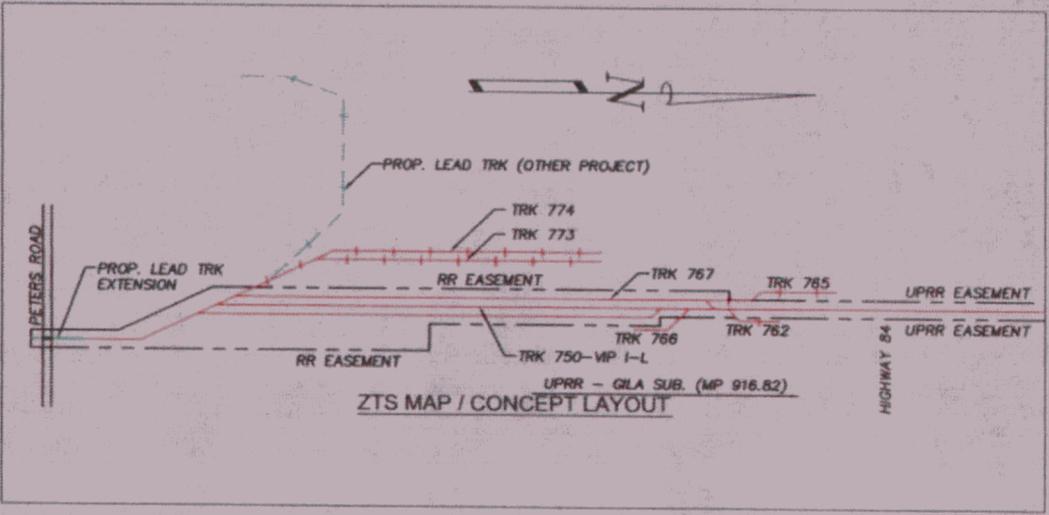
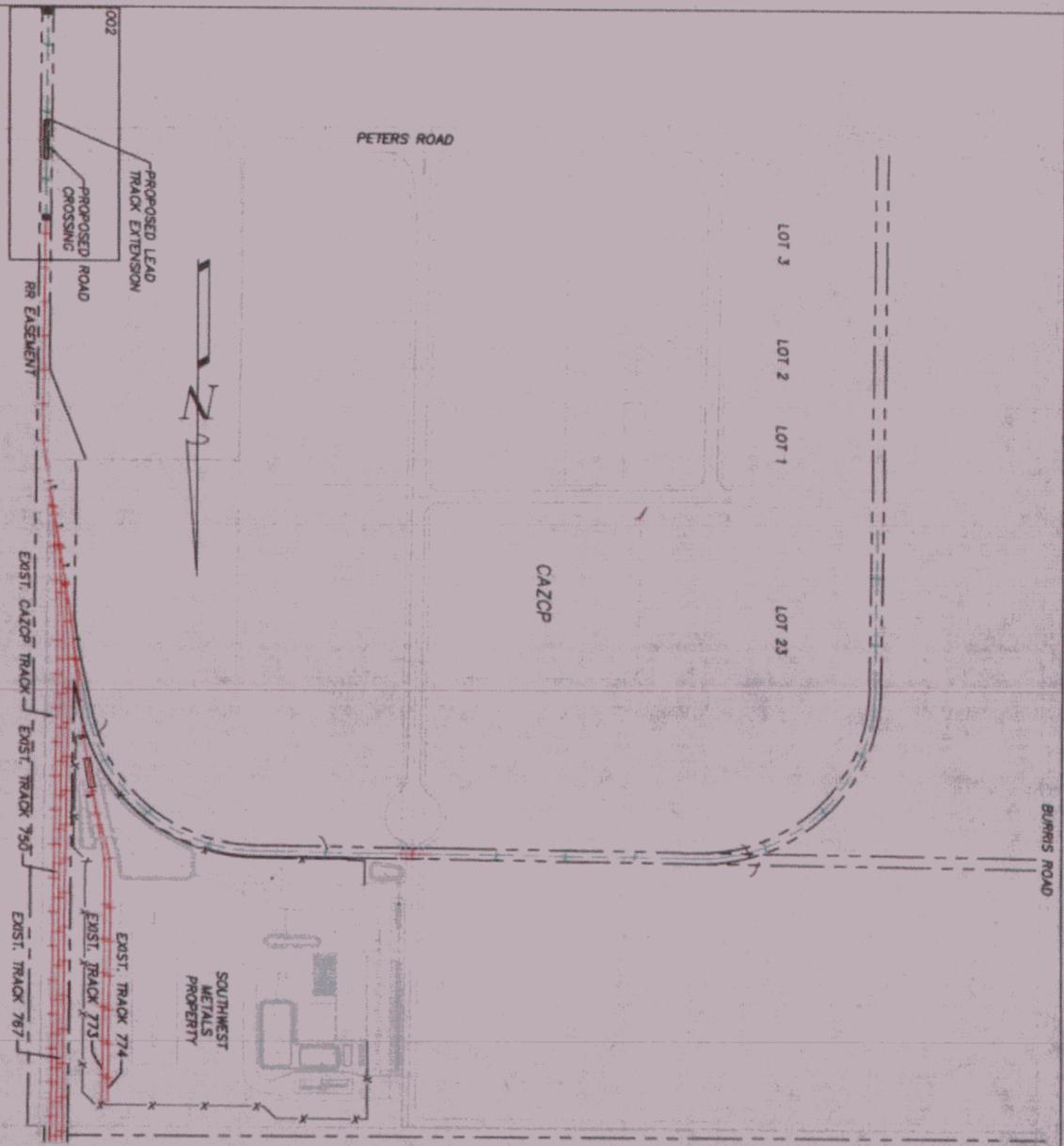
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150' R/W  
 Existing Railroad Over Trackage  
 Existing Right-of-Way Trackage  
 Utility/Service Building Trackage  
 Other Project Trackage  
 Easement



001  
 002 TRACKAGE TO SERVE:  
 Central AZ Commerce Park  
 Tucson Service Unit  
 Millport, 916 82, Gila Subdivision  
 Casa Grande, Maricopa Co., AZ  
 Central AZ Commerce Park



10% Design