



BEFORE THE ARIZONA POWER PLANT AND TRANSMISSION LINE SITING COMMITTEE

IN THE MATTER OF THE APPLICATION OF SALT RIVER PROJECT AGRICULTURAL IMPROVEMENT AND POWER DISTRICT ON BEHALF OF ITSELF AND ARIZONA PUBLIC SERVICE COMPANY, SANTA CRUZ WATER AND POWER DISTRICTS ASSOCIATION, SOUTHWEST TRANSMISSION COOPERATIVE, INC. AND TUCSON ELECTRIC POWER IN CONFORMANCE WITH THE REQUIREMENTS OF ARIZONA REVISED STATUTES SECTION 40-360, et. seq., FOR A CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY AUTHORIZING CONSTRUCTION OF THE PINAL WEST TO SOUTHEAST VALLEY/BROWNING PROJECT INCLUDING THE CONSTRUCTION OF TRANSMISSION LINES FROM PINAL WEST TO THE BROWNING SUBSTATION AND OTHER INTERCONNECTION COMPONENTS IN PINAL AND MARICOPA COUNTIES, ARIZONA.

Docket No. L00000B-04-0126

Case No. 126

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NOTICE OF FILING

NOTICE IS HEREBY GIVEN that Applicant, Salt River Project Agricultural Improvement and Power District is filing its Phase III Witness Summaries of the Witness Panel consisting of Dan Hawkins, Kenda Pollio, Cherie Walth, Pat Golden, and Rob Kondziolka.

Dated this 3rd day of January, 2005.

JENNINGS, STROUSS & SALMON, P.L.C.

By [Signature]

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4 ORIGINAL and 37 copies of the  
5 foregoing filed on this ~~9<sup>th</sup>~~ day of  
6 ~~December, 2004~~ with  
7 *January 2005*  
8 Docket Control  
9 Arizona Corporation Commission  
10 1200 W. Washington  
11 Phoenix, AZ 85007

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By \_\_\_\_\_

# **Phase Three Testimony Summary**

## **Witness Panel**

*The witness panel will consist of Dan Hawkins, Kenda Pollio, and Rob Kondziolka. The panel will begin with Dan Hawkins, Kenda Pollio and Rob Kondziolka discussing the details of the route selection for Area B. The panel will then continue with Dan Hawkins and Kenda Pollio providing a virtual route tour.*

### **Route Selection for Area B**

*The witness panel will consist of Dan Hawkins, Kenda Pollio and Rob Kondziolka*

#### ***Introduction to Area B***

Area B is generally located east of the Santa Rosa substation and encompasses the various west-east alternatives from Santa Rosa to the Curry/Tweedy Road area. This area includes the City of Casa Grande, with the Gila River Indian Community (GRIC) to the north and the Tohono O'Odham Indian Community to the south.

#### ***The Development of Specific Routes in Area B***

As discussed in previous phases of testimony, Greystone was given a blank slate in Project study area. The first step for Greystone was overlaying the opportunities that existed within the Project study area. As discussed in Area A, Greystone used a list of opportunities that had been used on similar projects. These included all of the following that fell within Area B:

1. Agency Designated Utility Corridors
2. Transmission Lines
3. Pipelines
4. Large Canals and Developed Drainage Features
5. Interstates
6. Primary Roads
7. Railroads
8. Small Canals
9. Section Lines

The next step was overlaying the sensitivities that existed within the Project study area. Greystone initially used a list of sensitivities that had been used on similar projects. These included all of the following that fell within Area B:

1. Jurisdictions and municipal boundaries
2. Day Care Centers
3. Schools
4. Church
5. Golf Courses
6. Cemeteries
7. Landing Strips
8. Airports
9. Sensitive Species Potential/Occupied Habitat
10. T&E Species Potential Habitat
11. Open Space/Parks
12. Dairy Farms
13. Center Pivot Irrigation
14. Landfill
15. Existing Residential Areas/Established Rural Communities
16. Planned Residential Developments
17. State Lands/Federal Lands/Indian Lands
18. Mine/Quarries
19. Cultural/Historic sites

As discussed in the Phase I testimony, the opportunities were categorized into primary and secondary with a color difference of dark green representing the primary or stronger opportunities and the light green representing the lesser opportunities. The sensitivities were categorized into high, medium and low represented by orange, gold and light yellow.

#### *Narrowing of Route Possibilities*

The general goal was to go west-east from Santa Rosa to the planned Southeast Valley Substation. Area B is very rich with opportunities that would facilitate this goal. There are many strong linear features that traverse the entire area that include high voltage transmission lines, pipelines, interstates, railroads and canals.

With this wealth of possible routes within Area B, the Project team recognized that the Project did not need to go too far out of the way. The boundaries of the GRIC to the North and Interstate 8 to the south formed the boundary.

Greystone then removed opportunities in the following manner:

1. Routes on or connecting within Indian lands
2. Routes traversing a city core
3. Routes blocked by mountains
4. Routes traversing center pivot irrigation area
5. Routes through FAA FAR Part 77 airport zones
6. Routes through mining areas

## 7. Routes that do not provide an west-east route or a connector

Following this exercise Greystone moved into a more analytic mode. The first thing was to identify the obvious strong linear features traversing Area B from west-east. The most obvious, the Natural Gas Pipeline (pipeline), which forms almost a straight line east from Santa Rosa. Greystone also identified the GRIC boundary and Interstate 8 (I-8) as strong west-east features. Greystone also identified possible connectors to the west-east features.

### *The Pipeline Route*

Greystone then began to analyze these features. In regards to the pipeline, it had few sensitivities with a larger existing ROW traversing large expanses of open land. This route also had strong connectors in the form of the railroad and transmission lines.

As the participants wanted two alternatives on each major route, Greystone looked to McCartney Road to the north of the pipeline. This alignment provided a natural alternative to the pipeline. It is a paved road, but one with little current development.

### *The GRIC Boundary Route*

The GRIC southern boundary offers a straight feature. There are some issues with construction because of the Sacaton Mountains. Also there were areas on this alignment where the homes backed up to the GRIC boundary. Nonetheless, as there was public support for using the GRIC or its boundary, Greystone continued to consider this alignment.

### *The Interstate 8 Route*

Originally the thought was to minimize route miles and cost by taking a relatively straight line through the Project study area. Public comment and meetings with jurisdictions suggested an interest in considering an Interstate 8 alignment. Clearly this was a strong west-east linear feature, with few existing homes or businesses. Additionally, the Interstate provides a natural buffer between the lines and development. It does have the clear disadvantage of adding more route miles and cost.

In order to get to the Interstate 8 area, Greystone looked at potential connectors. There were four obvious linear features that could provide this connection from Santa Rosa:

- Existing Transmission Line South out of Santa Rosa
- Santa Rosa Wash/Flood Control Channel
- ED3 Canal
- Transmission Line east and south to the Santa Cruz Wash

Cornman Road was the natural alternative to Interstate 8. It also was a relatively undeveloped area and took advantage of the linear feature of the freeway. But, as it was approximately one half mile from the freeway, Greystone felt that the visual impact to

motorists on the freeway would be much less and the environmental impact fairly insignificant.

Once across Interstate 10 there were multiple opportunities that were west-east. The canals and developed roads formed the linear features formed the alternatives.

### ***Possible Alignment South of Casa Grande Mountain***

During this time the Mayor of Casa Grande and others had asked if the participants would look at an option around the Casa Grande Mountain. Greystone completed an extensive analysis and presented it to the City. Specifically, Greystone looked at traveling down the existing transmission lines to the Santa Rosa canal and back to the north around the mountain.

This alternative would be an additional approximately 5 to 6 miles in addition to the extra miles added by the Interstate 8 route, and would have impacted a significantly greater number of people. Specifically, it would take the line on the southern boundary of the mountain and northern boundary of Arizona City. There were large existing residential areas and this option would form a fence around the mountain, placing lines on three sides of the mountain instead of just along an existing major Interstate in front of the mountain. The conclusion was that this route added a greater distance and greater impact without a purpose, as there were strong alternatives with fewer impacts to the north.

### ***Possible Alignment on the GRIC***

During that time the Mayor of Casa Grande and others asked about going on the GRIC. The idea was certainly not a novel one. The participants had considered an alignment on tribal lands from the conception of the Project. However, from past experience the participants were predisposed to avoid the Indian reservations where possible.

There are several reasons for this preference to avoid Indian lands:

- First, a GRIC alternative does not provide a good opportunity for future interconnections.
- Second, the participants have no power of eminent domain on the reservation. If the participants receive a permit that contemplates a reservation segment, then the participants have no assurance that the tribe will grant the right of way, and no assurance of the cost and terms.
- Third, the tribes seldom grant perpetual easements. As these facilities are expected to have a very long life, the need for a perpetual easement is important.
- Fourth, going on to the reservation would trigger an expensive federal NEPA process through BIA jurisdiction for the entire Project, a process which the participants wanted to avoid, if possible.

- Fifth, the timing is often difficult as the process of locating on tribal lands is typically very time consuming.

Nonetheless, the participants did revisit the GRIC alternative. The logical alignment or linear feature would have been to parallel the Western Area Power Administration's (Western) Liberty-Coolidge 230 kV line through the GRIC. SRP met with Western representatives about issues of paralleling their existing line. In a subsequent meeting with the GRIC, the GRIC indicated that any consideration of a GRIC alternative would require using Western's existing easement and a single set of structures. This meant the participants would have to build a double circuit 500/230 kV line in order to incorporate Western's line into a single set of structures. Also, the existing Western easement was only 100 feet wide and restricted to a voltage of 230 or 345 kV. A 500 kV line or double circuit 500/230 kV line requires 160 feet wide easement. Western was concerned about opening the existing ROW agreement for renegotiation. Western had recently renewed their easement for the 230 kV line and had successfully obtained a perpetual easement. If Western were to go back to the tribe, the tribe had indicated that something different than a perpetual easement would be negotiated.

Also, Western had no need to change the relatively new line on the GRIC and was reluctant to commit to pay for any consolidation into a single set of structures. The participants would have to pay to remove and double circuit the Western line. Not only would this be costly, it would eliminate possible flexibility of the Project to locate a new 230 kV line in the open position. This basically eliminated the idea of co-locating with Western.

The participants also considered the possibility of paralleling the Western line on new ROW, and discussed this possibility with tribal representatives on several occasions during 2003 and 2004, but the tribe was not in favor of this option. Eventually the parties reached what appeared to be a stalemate. Because of all these obstacles the participants discontinued any pursuit of a GRIC alternative.

Additionally, the participants did not favor the GRIC alignment for electrical reasons. At several of the participant meetings, it became clear that at least some of the participants were against this alignment, mainly because it limits the ability to locate a 230 kV/69 kV substation along the route. To locate a 230/69 kV station on GRIC lands would require future negotiations with the tribe and a NEPA process. Each future 230 kV line that may need to be interconnected at this station would require negotiations with the tribe and NEPA process. From a planning perspective the 230/69 kV station would be on the very northern edge of the load requiring 230 kV line to traverse the area to interconnect to station to the south. This means that the ability of the Electrical Districts and APS to serve local load in the area is limited.

It was the participants' decision given all of the considerations, that the northern alignment along the existing pipeline and McCartney Road was the far better choice for a northern alternative.

### *Additional Route Refinements*

Following the Phase 3 open houses additional routes were removed and refined. Greystone compared the Santa Rosa Wash/Flood Control Channel, ED 3 Canal, Santa Cruz Wash and Western transmission line. The ED 3 Canal was rejected as it had more houses close to the ROW. It was also close to center pivot irrigation areas and had a number of sharp turns.

Along the Santa Cruz Wash Greystone had two alternatives, the transmission line and Santa Cruz Wash itself. The Santa Cruz Wash in its northern portion was undefined, with a number of turns. The Western line was chosen as it was a straight shot.

In the area of the Francisco Grande Resort, Greystone made some modifications to avoid existing houses and minimize impacts to the resort.

From Santa Rosa, Greystone added a second alternative where there was only one. Greystone also added a second alternative for a crossing location of I-10.

Greystone also eliminated two alternatives from GRIC boundary route, which had the largest number of houses in close proximity.

### *Calls From Developers*

There were a lot of PADs and proposed development occurring in Pinal County during this time. Greystone had received a lot of calls from developers about the Project. A number of meetings and discussions were held with people representing Westpac and Vistoso. Greystone made refinements out of the Santa Rosa substation to the west-east connectors.

The Project team also met with numerous developers in the area west of Interstate 10. The team talked to developers and Pinal County about the plans for major entrance roads in areas west of Interstate 10. Conversations with developers and the County identified Florence Boulevard as a planned major road. While Cornman Road west of Interstate 10 is fairly open and presents a good route, Cornman Road east of Interstate 10 is different, and is no longer a designated developed through road because of the PAD. The developers and the County also identified Selma Road as an entrance road. Greystone then added Early Road as an alternative since it did not seem to be planned for a major entrance into the PADs in the area.

Because there were the two good alternatives, the stairstep segment was eliminated.

Finally Greystone refined the alignment along GRIC because portions of the route near Central Arizona Community College ROW were too narrow and the north-south segment went on a mid-section on State lands. The team talked to State Lands and added an alternative on either side so as not to be on a mid-section.

These were the routes that were taken to the July 2004 open houses.

### *Selection of a Preferred Alignment*

As with the rest of the Project, the original intent was to not select a preferred alignment. But, because of public pressure, the Project team moved forward to select a primary route for both the north and south sets of route options.

Looking at the alternatives in the north, Greystone identified the pipeline as the primary alternative. This was a relatively straight line with little development. It followed the feature of the pipeline, which would not be developed. Greystone felt that future development in the area could plan around this second feature in the existing corridor.

Regarding the southern alternatives, meetings with the City of Casa Grande, the Pinal County Alliance and public comments and discussions kept reaffirming a theme to use Interstate 8. Because of the public comment, the Project team chose Interstate 8 as the primary alignment in the South. This is in spite of the fact that the Project team felt that Cornman Road presented a better alternative.

### *The Cornman Road Alternative*

The Interstate 8 route presented some clear challenges. In order to parallel the freeway ROW, construction must deal with existing and planned freeway interchanges. Typically ADOT plans on interchanges at every other mile. At each of these crossings it is necessary to construct three to four turning structures. Each of these sets of structures adds approximately \$500,000 to \$800,000 to the Project costs. SRP estimates that there will be four to six of them required. Also, the visual impact of these turning structures is considerable more.

We also felt that Cornman Road presented a better option visually. There is an argument that offsetting the lines from the freeway reduces visual impacts for those traveling on the freeway. Also, it is compatible with the commercial development along the freeway, basically taking the far side rather than the near side of the development. You can see this planning concept on Interstate 10 in the Ahwatukee area. Using this approach the impact of the lines from the perspective of development is about the same, yet the visual impact from the freeway is considerably less. Although the Applicant will not change its Preferred Alignment after filing, it is the Applicants position that Cornman Road is the better route.

### *Additional Route Changes*

As a result of the July 2004 Open Houses there was one change in the area of the GRIC and Interstate 10 due to public comment. The Interstate 10 alignment from the GRIC south area was refined.

### ***The Pinal South Substation***

A "Pinal South" substation was never part of the original concept for the Project because the participants did not originally envision an alignment as far south as Interstate 8. As shown by the CATS map, the Southeast Valley substation was intended to serve all the current and future CATS needs. The original intention of SRP and at least some of the participants was to build a relatively straight route, and to use the single substation for the 500 kV/230 kV needs, or perhaps build a future substation when needed.

But, as the siting and public process played out, the participants saw some public preference for including a southern alignment among the alternatives. Thus the participants took the opportunistic approach of including a site for a second substation. Since much of the money needed to locate in this southern location was already being spent if the southern alignment were chosen, the participants decided to include the substation site. Basically, Pinal South is the "Carpas" option of CATS Phase II, as discussed by Mr. Kondziolka in his prior testimony.

But, the needs and benefits of this Project can be met at a significantly reduced cost by using the gas pipeline route. It is estimated that the southern alignment will add between \$24 and \$30 million to the Project costs. To the extent that Pinal South provides benefits, these are based on assumptions used in the CATS planning and will occur, if at all, in the long term. These potential long term benefits include encouraging new generation to be located in the area south and east of the Pinal South site, and encouraging an interconnection at Winchester. But, Pinal South only gains about four miles to the south, at a significant total cost to the Project.

With respect to reliability, the Applicant believes that there is only a slight difference by adding Pinal South. The participants can clearly address reliability needs by future design of new substations or expanded additional substations as the need presents itself.

In summary, locating Pinal South was opportunistic given the public preference for taking the southern alignment. Without this public preference, the Applicant would not have proposed Pinal South.

### **Virtual Tour**

*At this time the panel will consist of Dan Hawkins and Kenda Pollio. The Panel will then proceed with the virtual tour of the Preferred Alignment and the alternatives and segment options. The panel will use the GIS maps as well as the sensitivities table, Exhibit A-12.*





MARICOPA

Gila River Indian Community

AK-Chin Indian Reservation

Santa Rosa

Stanfield

84

238

8

Desert Basin

CASA GRANDE

10

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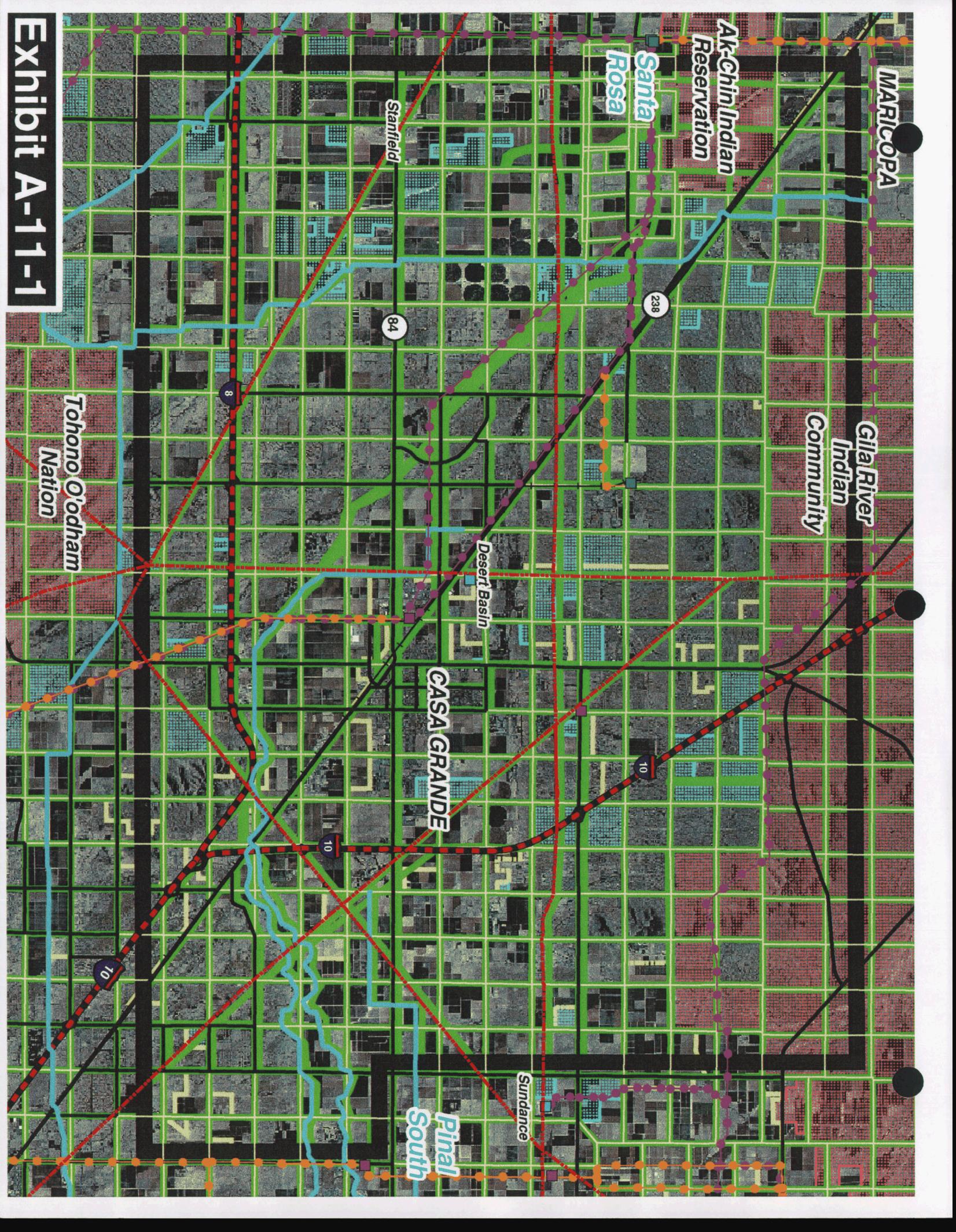
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Sundance

Pinal South

Tohono O'odham Nation

Exhibit A-11-1



MARICOPA

Ak-Chin Indian  
Reservation

Santa  
Rosa

Stanfield

Gila River  
Indian  
Community

Desert Basin

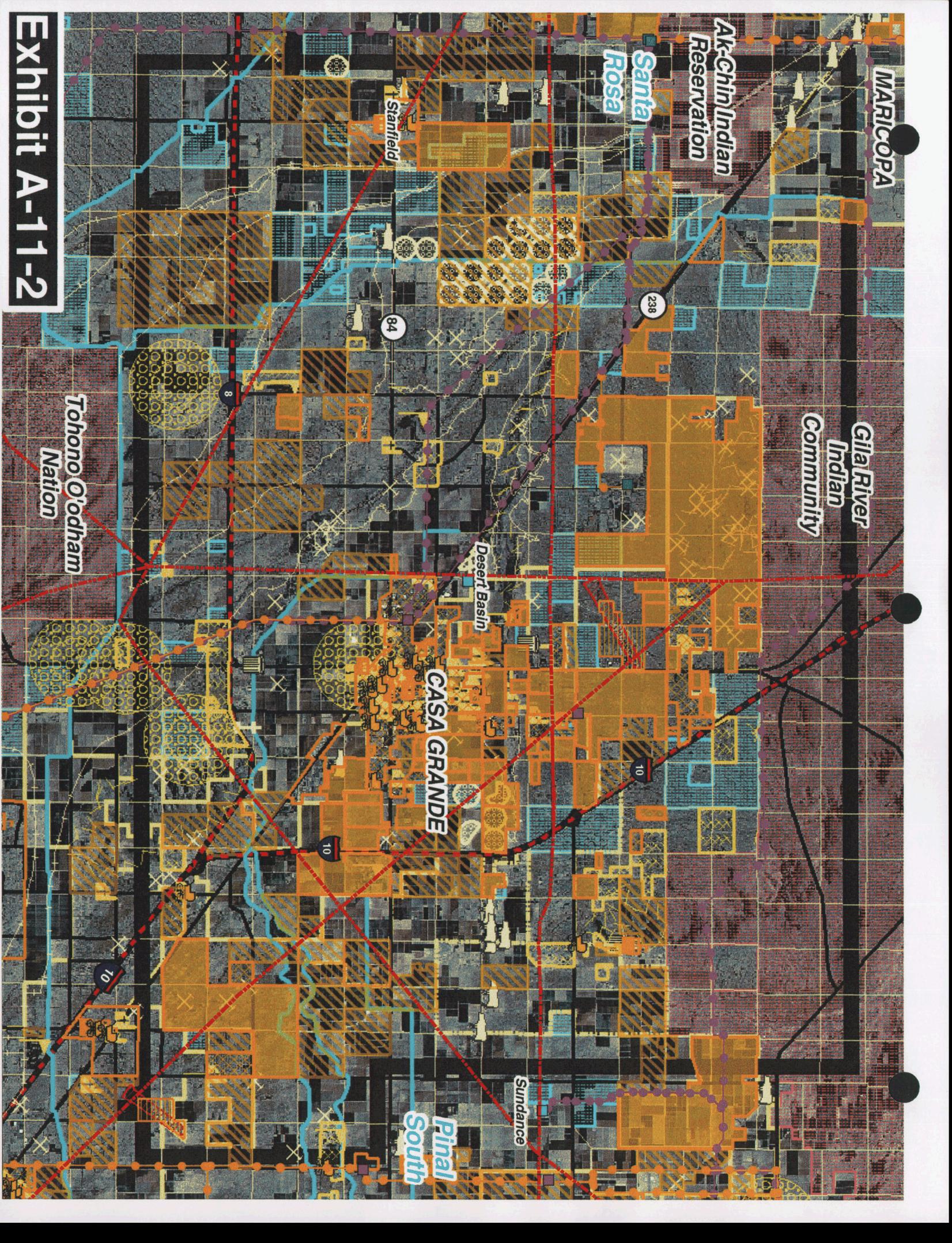
CASA GRANDE

Pinal  
South

Sundance

Tohono O'odham  
Nation

Exhibit A-11-2



MARICOPA

Ak-Chin Indian  
Reservation

Santa  
Rosa

Gila River  
Indian  
Community

84

238

8

Desert Basin

CASA GRANDE

10

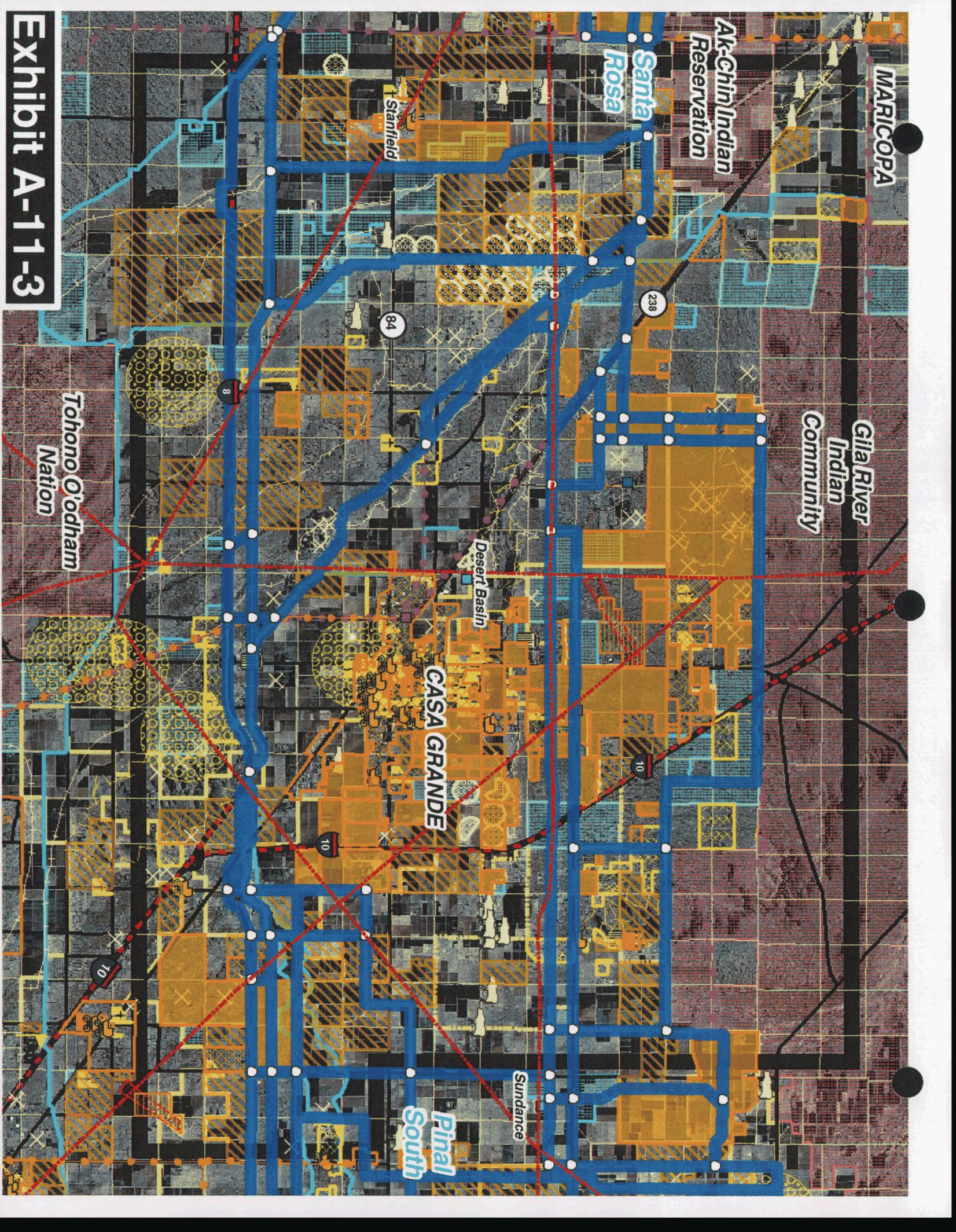
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Sundance

Pinal  
South

Tohono O'odham  
Nation

Exhibit A-11-3



MARICOPA

Ak-Chin Indian  
Reservation

Santa  
Rosa

Stanfield

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Gila River  
Indian  
Community

Desert Basin

CASA GRANDE

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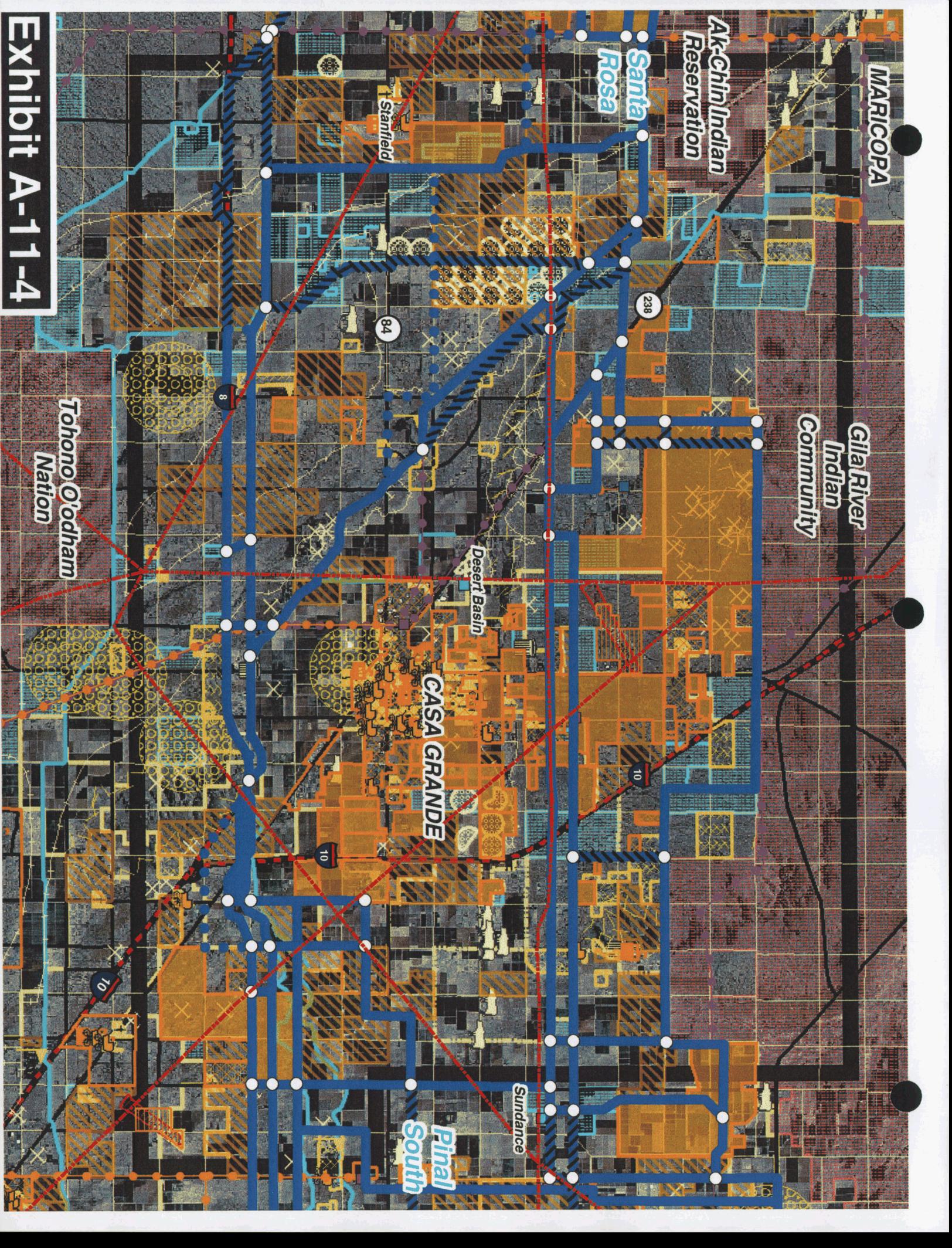
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Sundance

Pinal  
South

Tohono O'odham  
Nation

Exhibit A-11-4



MARICOPA

Ak-Chin Indian  
Reservation

Santa  
Rosa

Gila River  
Indian  
Community

Desert Basin

CASA GRANDE

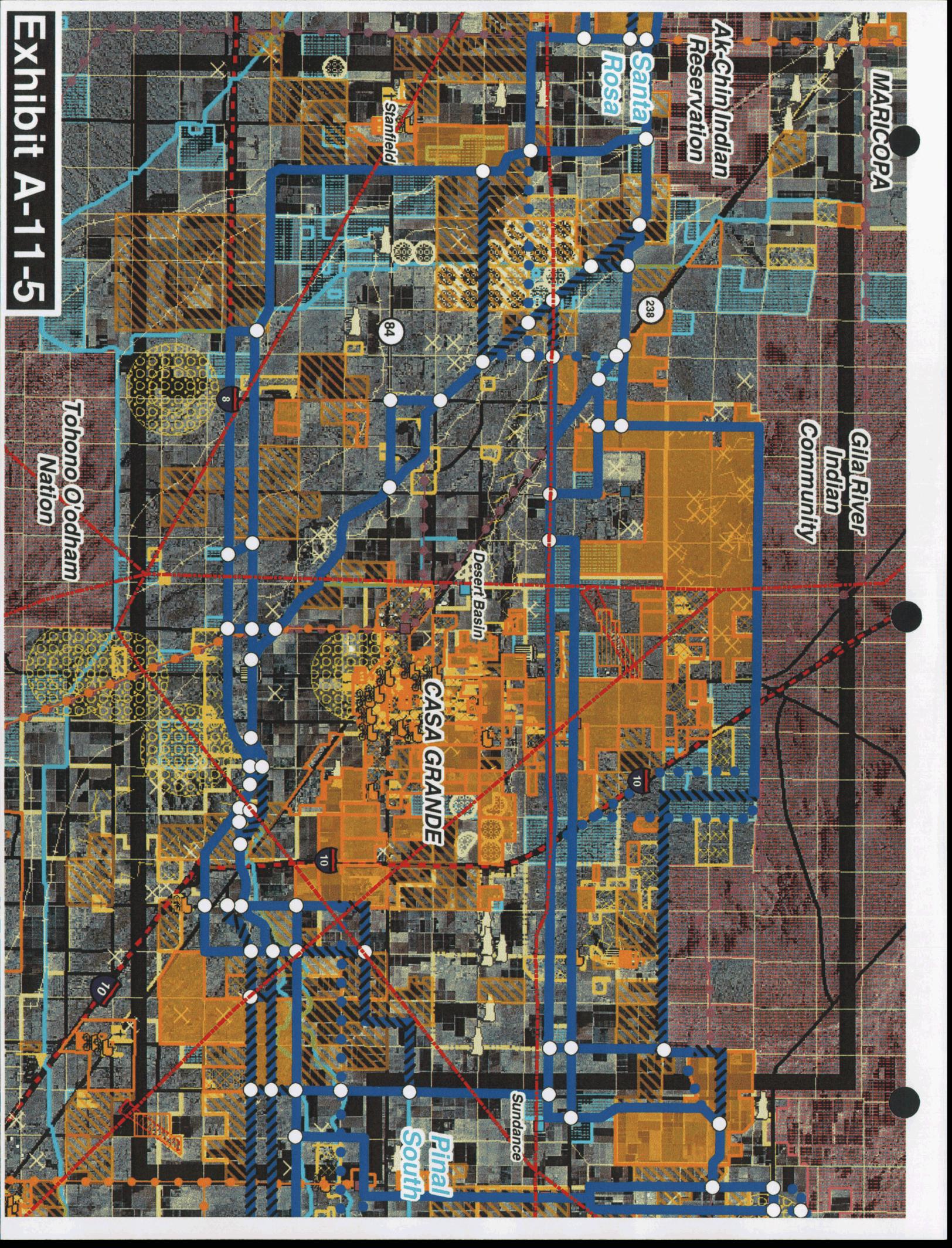
Sundance

Pinal  
South

Stanfield

Tohono O'odham  
Nation

Exhibit A-11-5



MARICOPA

Ak-Chin Indian  
Reservation

Santa  
Rosa

Stanfield

Gila River  
Indian  
Community

Desert Basin

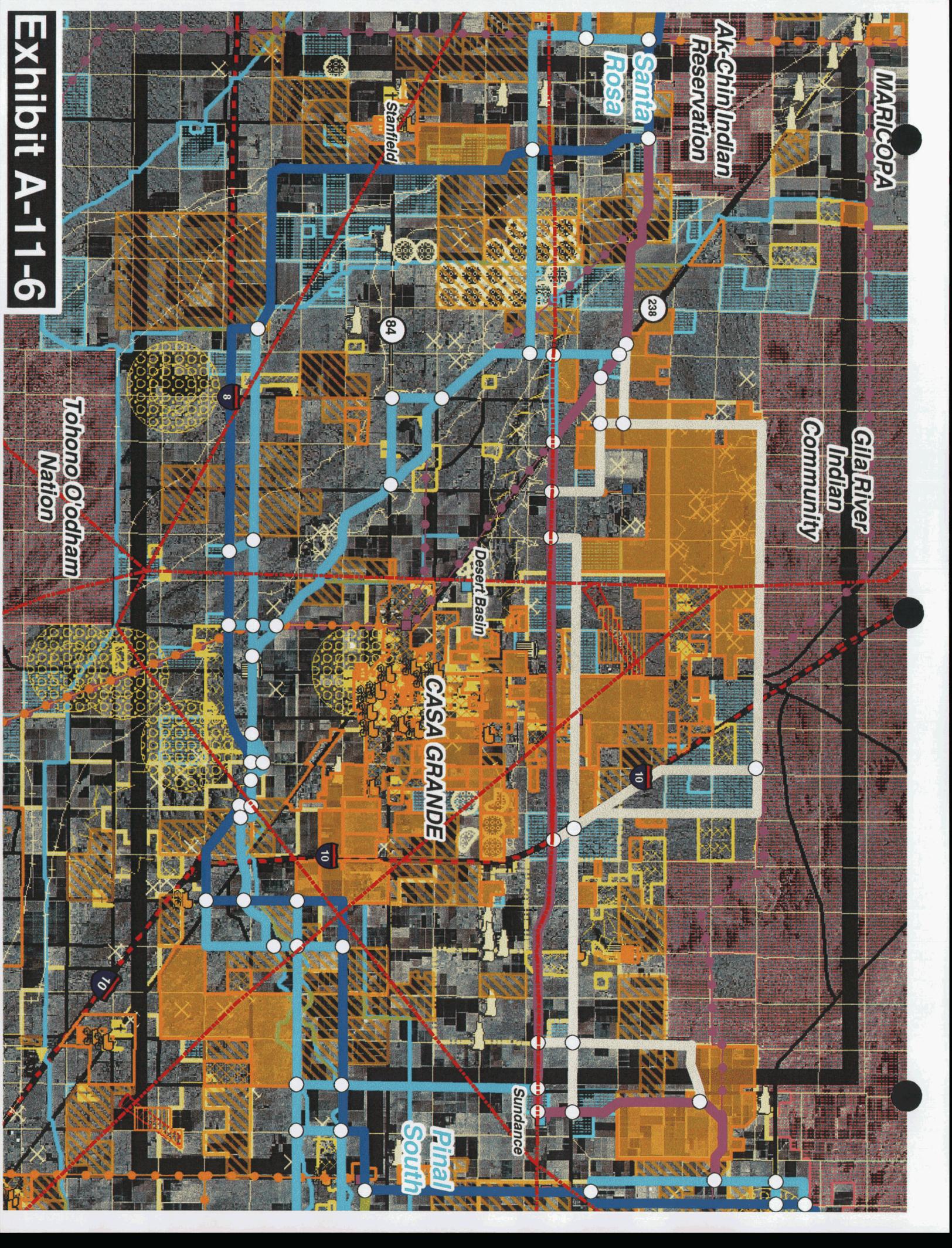
CASA GRANDE

Tohono O'odham  
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Sundance

Pinal  
South

Exhibit A-11-6





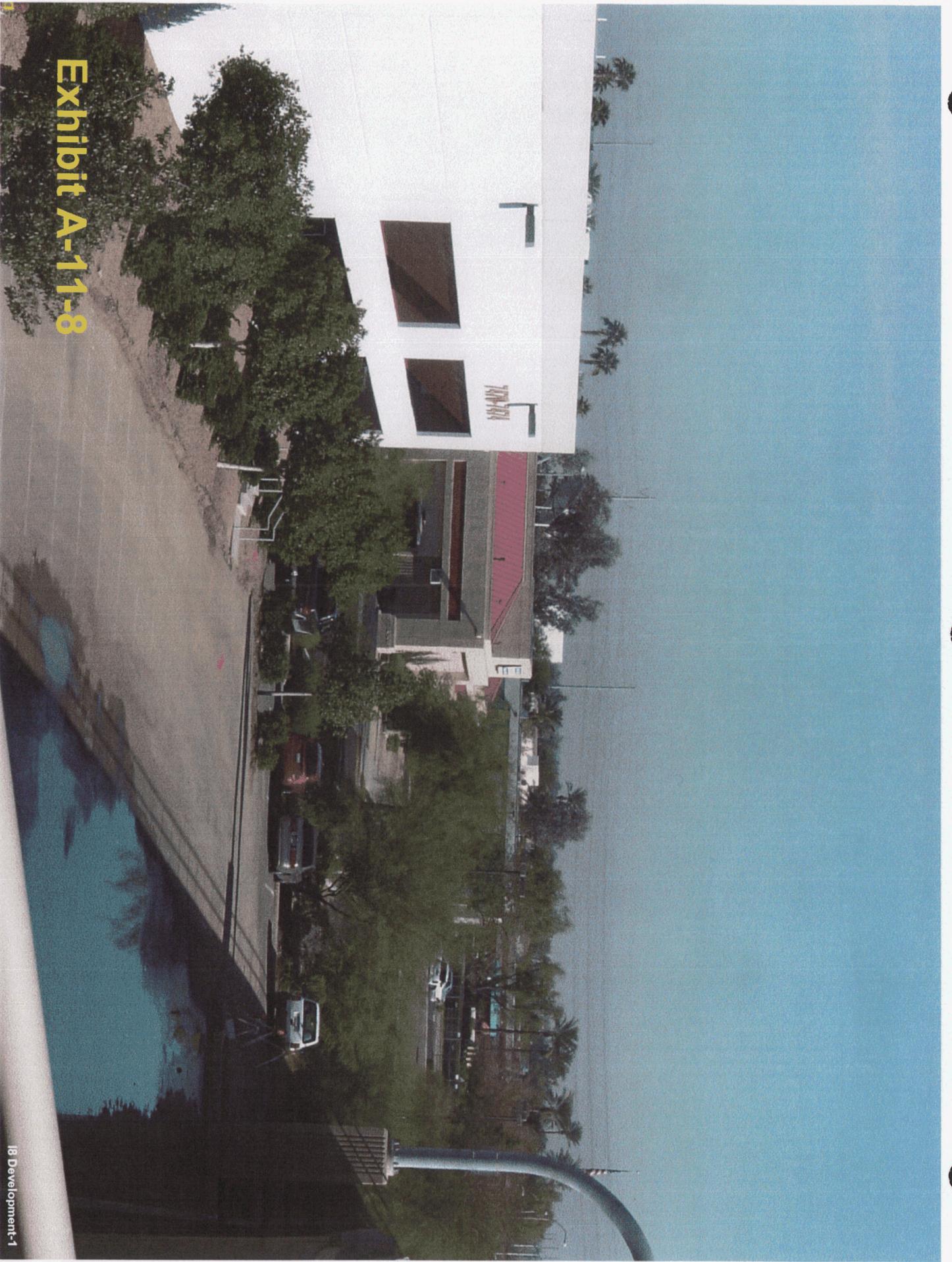
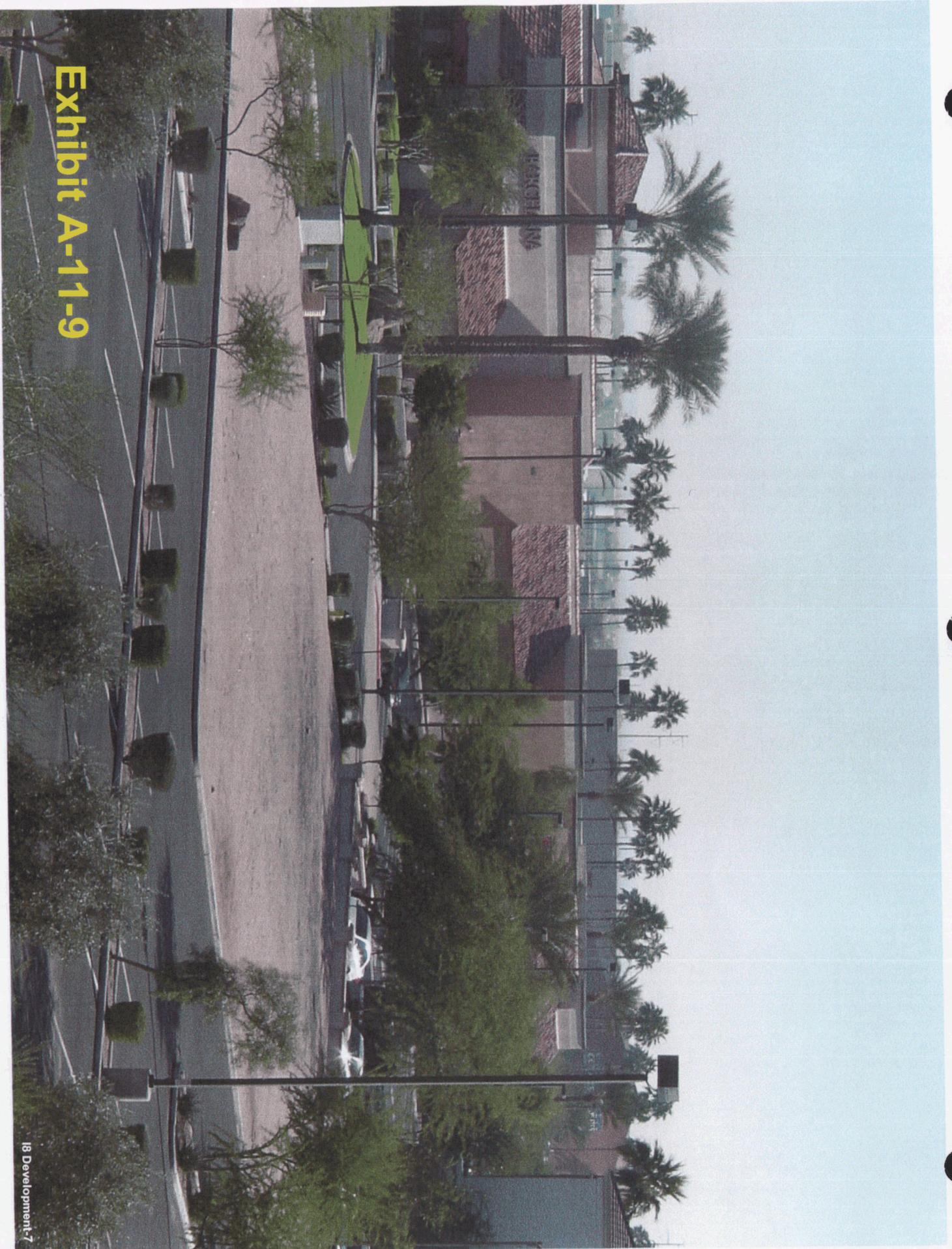


Exhibit A-11-8



**Exhibit A-11-9**

TABLE AREA B-1  
 PINAL WEST TO SOUTHEAST VALLEY / BUILD OUT BROWNING PROJECT  
 GENERAL CORRIDOR STUDY  
 NODE TO NODE COMPARISON WITH 1/8 MILE BUFFER

CORRIDOR SEGMENTS															
CORRIDOR	NODE ID	LENGTH Miles	CORRIDOR AREA Acres Traversed	OPPORTUNITY	EXISTING RESIDENTIAL Acres Traversed	PLANNED RESIDENTIAL Acres Traversed	CHURCH	GOLF COURSE #	LOW DENSITY RESIDENTIAL Acres Traversed	THREATENED / ENDANGERED SPECIES POTENTIAL HABITAT Acres Traversed	ANIMAL FEEDING OPERATION / DAIRY FARM #	CEMETERY #	WELLS #	DWELLING UNITS #	CULTURAL SITES Acres Traversed
	1/8 Mile Buffer	N104-N122	2.2	230 KV transmission line	0.0	13.8	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	8.1
	1/8 Mile Buffer	N122-N159	2.6	Santa Rosa Wash	0.0	41.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.7
	1/8 Mile Buffer	N159-N144	9.6	Santa Rosa Wash / Carranza Road / section line / mid-section line	0.0	704.5	0.0	0.0	0.0	0.0	0.0	0.0	14	6	1.0
	1/8 Mile Buffer	N144-N52	5.5	Mid-section line / Interstate 8	0.0	44.4	0.0	0.0	0.0	0.0	0.0	0.0	1	0	1.6
	1/8 Mile Buffer	N52-N53	1.6	Interstate 8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0	8.4
	<b>Total:</b>		<b>16.7</b>	<b>2672.0</b>	<b>0.0</b>	<b>748.9</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>15.0</b>	<b>6.0</b>	<b>11.0</b>
	1/8 Mile Buffer	N104-N158	1.4	230 KV transmission line	0.0	8.3	0.0	0.0	0.0	0.0	0.0	0.0	2	4	0.2
	1/8 Mile Buffer	N158-N159	3.7	231 KV transmission line / section line	0.0	175.8	0.0	0.0	0.0	0.0	1.0	0.0	7	5	0.0
	1/8 Mile Buffer	N159-N197	4.4	Barnes Road	42.4	0.0	0.0	0.0	42.4	0.0	0.0	0.0	11	18	2.7
	1/8 Mile Buffer	N197-N162	2.3	Midway Road / section line / 230 KV transmission line	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8	0	12.8
	1/8 Mile Buffer	N162-N163	2.4	230 KV transmission line, Santa Cruz Wash	38.2	0.0	0.0	1.0	38.2	0.0	0.0	0.0	0	12	23.4
	1/8 Mile Buffer	N163-N95	4.2	Santa Cruz Wash	0.0	102.5	0.0	0.0	0.0	0.0	0.0	0.0	15	20	61.3
	1/8 Mile Buffer	N95-N54	0.5	Thornton Road / 115 KV transmission line / 230 KV transmission line	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0	15.5
	1/8 Mile Buffer	N54-N53	0.5	Thornton Road	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0	47.8
	<b>Total:</b>		<b>14.3</b>	<b>2288.0</b>	<b>80.5</b>	<b>286.6</b>	<b>0.0</b>	<b>1.0</b>	<b>80.5</b>	<b>0.0</b>	<b>1.0</b>	<b>0.0</b>	<b>43.0</b>	<b>59.0</b>	<b>163.7</b>
	1/8 Mile Buffer	N95-N27	0.9	Santa Cruz Wash	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1	1	30.7
	1/8 Mile Buffer	N27-N141	1.7	Carman Road	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0.0
	1/8 Mile Buffer	N162-N194-N163	3.0	Highway 84	0.0	0.0	1.0	1.0	0.0	0.0	0.0	0.0	0	3	0.0
	1/8 Mile Buffer	N51-N52	0.6	Santa Cruz River	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0.0
	1/8 Mile Buffer	N54-N27	0.7	Carman Road / section line	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0	22.1
	1/8 Mile Buffer	N197-N196		Midway Road / section line	0.0	0.0	0.0	0.0	0.0	6.6	0.0	0.0	0	0	0.0
	<b>Total:</b>														

\*\* No occurrence of the following sensitivities: Airport, Daycare Center, Hospital, Scenic Byway / Historic Trail, School, Threatened / Endangered Species Occupied Habitat, Fissure, Sensitive Species Occupied Habitat, Sensitive Species Potential Habitat, Park / Open Space, Wildlife Refuge, Landing Strip, Nursing Home / Retirement / Assisted Living Home, Landfill

TABLE AREA B-2  
 PINAL WEST TO SOUTHEAST VALLEY / BUILD OUT BROWNING PROJECT  
 GENERAL CORRIDOR STUDY  
 NODE TO NODE COMPARISON WITH 1/8 MILE BUFFER

CORRIDOR SEGMENTS														
CORRIDOR	NODE ID	LENGTH Miles	CORRIDOR AREA Acres Traversed	OPPORTUNITY	EXISTING RESIDENTIAL Acres Traversed	PLANNED RESIDENTIAL Acres Traversed	LOW DENSITY RESIDENTIAL Acres Traversed	SENSITIVE SPECIES OCCUPIED HABITAT Acres Traversed	SENSITIVE SPECIES POTENTIAL HABITAT Acres Traversed	PARK / OPEN SPACE Acres Traversed	CEMETERY #	WELLS #	DWELLING UNITS #	CULTURAL SITES Acres Traversed
Preferred Alignment:	1/8 Mile Buffer	N144-N52	5.5	890.0	0.0	44.4	0.0	0.0	0.0	0.0	0.0	1.0	0.0	1.8
	1/8 Mile Buffer	N52-N53	1.6	259.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.4
	1/8 Mile Buffer	N53-N28	3.5	560.0	0.0	207.0	207.0	12.4	25.3	0.0	0.0	7.0	4.0	55.6
	1/8 Mile Buffer	N28-N164	0.6	99.90	0.0	1.9	0.0	0.0	6.3	0.0	0.0	0.0	1.0	13.7
	1/8 Mile Buffer	N164-N195	2.3	322.8	0.0	198.9	0.0	0.0	18.5	0.0	0.0	0.0	0.0	2.8
<b>Total:</b>			<b>13.6</b>	<b>2164.4</b>	<b>0.0</b>	<b>456.2</b>	<b>207.0</b>	<b>12.4</b>	<b>48.1</b>	<b>0.0</b>	<b>8.0</b>	<b>8.0</b>	<b>5.0</b>	<b>82.0</b>
Command Rd:	1/8 Mile Buffer	N144-N51	4.6	736.0	50.5	0.0	51.6	0.0	0.0	0.0	0.0	3	28	0.0
	1/8 Mile Buffer	N51-N54	1.9	304.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0	2.2
	1/8 Mile Buffer	N54-N27	0.7	112.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1	0	22.1
	1/8 Mile Buffer	N27-N141	1.7	272.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	7	0	54.5
	1/8 Mile Buffer	N141-N171	0.6	96.0	0.1	0.0	0.1	0.0	0.0	0.0	1.0	0	0	9.1
Preferred Alignment going across Earley Rd:	1/8 Mile Buffer	N171-N28	0.4	84.0	0.0	0.0	0.0	0.0	16.4	0.0	0.0	0	0	5.5
	1/8 Mile Buffer	N28-N99	0.6	96.0	0.0	10.5	0.0	0.0	3.4	0.0	0.0	0	1	19.8
	1/8 Mile Buffer	N99-N200	0.5	80.0	0.0	72.8	0.0	0.0	0.0	0.0	0.0	0	0	8.6
	1/8 Mile Buffer	N200-N73	1.8	288.0	0.0	124.0	0.0	0.0	0.0	0.0	0.0	2	0	29.8
	<b>Total:</b>			<b>9.3</b>	<b>1684.0</b>	<b>50.8</b>	<b>207.3</b>	<b>51.6</b>	<b>0.0</b>	<b>21.0</b>	<b>0.0</b>	<b>2.0</b>	<b>13.0</b>	<b>27.0</b>
Preferred Alignment going across Selma Highway:	1/8 Mile Buffer	N165-N73	0.8	128.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	1.0	4.5
	1/8 Mile Buffer	N73-N179	1.2	192.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	13.6
	1/8 Mile Buffer	N179-N180	2.0	320.0	0.0	92.4	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0
	1/8 Mile Buffer	N180-N181	3.0	480.0	0.0	436.2	0.0	0.0	0.0	0.0	0.0	6.0	7.0	11.4
	1/8 Mile Buffer	N181-N182	1.2	197.4	0.0	3.2	0.0	0.0	0.0	0.0	0.0	1.0	0.0	29.2
<b>Total:</b>			<b>10.8</b>	<b>1725.9</b>	<b>43.2</b>	<b>531.8</b>	<b>21.3</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>21.0</b>	<b>11.0</b>	<b>72.2</b>	
Overfield and Earley Rd:	1/8 Mile Buffer	N165-N74	2.4	384.0	0.0	84.8	0.0	0.0	0.0	0.0	0.0	10	4	6.0
	1/8 Mile Buffer	N74-N142	0.6	96.0	0.0	48.1	0.0	0.0	0.0	0.0	0.0	2	0	17.1
	1/8 Mile Buffer	N142-N180	1.0	160.0	0.0	106.7	0.0	0.0	0.0	0.0	0.0	1	0	0.0
	1/8 Mile Buffer	N180-N181	3.0	480.0	0.0	436.2	0.0	0.0	0.0	0.0	0.0	6	6	11.7
	<b>Total:</b>			<b>7.0</b>	<b>1120.0</b>	<b>0.0</b>	<b>678.7</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>19.0</b>	<b>16.0</b>	<b>34.7</b>
Overfield and Selma Highway:	1/8 Mile Buffer	N165-N74	2.4	384.0	0.0	84.8	0.0	0.0	0.0	0.0	0.0	10	4	6.0
	1/8 Mile Buffer	N74-N142	0.6	96.0	0.0	46.1	0.0	0.0	0.0	0.0	0.0	2	0	13.9
	1/8 Mile Buffer	N142-N115	3.0	480.0	0.0	433.5	0.0	0.0	0.0	0.0	0.0	6	5	58.3
	1/8 Mile Buffer	N115-N181	1.0	160.0	0.0	74.6	0.0	0.0	0.0	0.0	0.0	4	7	17.6
	<b>Total:</b>			<b>7.0</b>	<b>1120.0</b>	<b>0.0</b>	<b>638.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>22.0</b>	<b>16.0</b>	<b>95.8</b>
Segment Options:	1/8 Mile Buffer	N73-N74	1.3	208.0	0.0	10.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	40.0
	1/8 Mile Buffer	N51-N52	0.6	96.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0.0
	1/8 Mile Buffer	N54-N53	0.5	80.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0	47.8
	1/8 Mile Buffer	N141-N172 if going to N171	0.7	112.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1	0	23.3
	1/8 Mile Buffer	N141-N172 if going to N28	0.7	112.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1	0	22.2
Segment Options:	1/8 Mile Buffer	N172-N171	0.3	48.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0	1	2.8
	1/8 Mile Buffer	N172-N28	0.5	76.8	0.0	0.0	0.0	0.0	3.3	0.0	0.0	0	1	15.1
	1/8 Mile Buffer	N115-N145 if going to N182	0.0	0.0	42.6	0.8	42.6	0.0	0.0	0.0	0.0	6	2	24.5

\*\* No occurrence of the following sensitivities: Airport, Daycare Center, Hospital, Scenic Byway / Historic Trail, School, Threatened / Endangered Species Occupied Habitat, Threatened / Endangered Species Potential Habitat, Fissure, Wildlife Refuge, Church, Golf Course, Landing Strip, Nursing Home / Retirement / Assisted Living Home, Animal Feeding Operation, Landfill

Exhibit A-12

TABLE AREA B-3  
 PINAL WEST TO SOUTHEAST VALLEY / BUILD OUT BROWNING PROJECT  
 GENERAL CORRIDOR STUDY  
 NODE TO NODE COMPARISON WITH 1/8 MILE BUFFER

CORRIDOR SEGMENTS														
CORRIDOR	NODE ID	LENGTH Miles	CORRIDOR AREA Acres Traversed	OPPORTUNITY	EXISTING RESIDENTIAL Acres Traversed	PLANNED RESIDENTIAL Acres Traversed	SCHOOL #	FISSURE Miles Traversed	LOW DENSITY RESIDENTIAL Acres Traversed	PARK / OPEN SPACE Acres Traversed	THREATENED / ENDANGERED SPECIES POTENTIAL HABITAT Acres Traversed	WELLS #	DWELLING UNITS #	CULTURAL SITES Acres Traversed
Northern Alignment:	1/8 Mile Buffer	N104-N122	2.2	352.0	0.0	13.8	0.0	0.0	0.0	0.0	0.0	1.0	0.0	8.1
	1/8 Mile Buffer	N122-N108	4.7	752.0	0.0	282.9	0.0	0.0	0.0	0.0	0.0	2	0	8.9
	1/8 Mile Buffer	N108-N195	0.3	48.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0.0
	1/8 Mile Buffer	N195-N131	0.6	96.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0.0
	1/8 Mile Buffer	N131-N206	1.7	272.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0.0
	1/8 Mile Buffer	N206-N126	1.1	176.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0.0
	1/8 Mile Buffer	N126-N127	1.0	160.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0.0
	1/8 Mile Buffer	N127-N201	6.7	1072.0	133.7	275.9	1.0	0.0	0.0	56.2	0.0	1	> 500	1.4
	1/8 Mile Buffer	N201-N137	4.4	704.0	76.6	0.0	0.0	0.0	76.6	0.0	0.0	6	35	1.8
	1/8 Mile Buffer	N137-N177	0.8	128.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2	20	0.0
1/8 Mile Buffer	N177-N131	4.0	640.0	0.0	205.4	0.0	0.0	0.0	0.0	0.0	7	9	51.9	
<b>Total:</b>		<b>27.5</b>	<b>4400.0</b>	<b>0.0</b>	<b>210.3</b>	<b>771.9</b>	<b>1.0</b>	<b>0.0</b>	<b>76.6</b>	<b>56.2</b>	<b>0.0</b>	<b>19.0</b>	<b>&gt; 500</b>	<b>72.1</b>
McCartney Rd:	1/8 Mile Buffer	N104-N122	2.2	352.0	0.0	13.8	0.0	0.0	0.0	0.0	0.0	1.0	0.0	8.1
	1/8 Mile Buffer	N122-N108	4.7	752.0	0.0	282.9	0.0	0.0	0.0	0.0	0.0	2	0	8.9
	1/8 Mile Buffer	N108-N195	0.3	48.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0.0
	1/8 Mile Buffer	N195-N131	0.6	96.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0.0
	1/8 Mile Buffer	N131-N206	1.7	272.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0.0
	1/8 Mile Buffer	N206-N126	1.1	176.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0.0
	1/8 Mile Buffer	N126-N127	1.0	160.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0.0
	1/8 Mile Buffer	N127-N186	6.9	1104.0	0.0	498.4	1.0	0.0	0.0	5.7	0.0	6	0	1.4
	1/8 Mile Buffer	N186-N177	4.7	752.0	45.8	0.0	0.0	0.5	45.8	0.0	0.0	9	34	0.0
	1/8 Mile Buffer	N177-N131	4.0	640.0	0.0	205.4	0.0	0.0	0.0	0.0	0.0	7	9	51.9
<b>Total:</b>		<b>27.2</b>	<b>4352.0</b>	<b>0.0</b>	<b>45.8</b>	<b>1000.4</b>	<b>1.0</b>	<b>0.5</b>	<b>45.8</b>	<b>5.7</b>	<b>0.0</b>	<b>25.0</b>	<b>43.0</b>	<b>76.3</b>
GRIC Boundary:	1/8 Mile Buffer	N104-N122	2.2	352.0	0.0	13.8	0.0	0.0	0.0	0.0	0.0	1.0	0.0	8.1
	1/8 Mile Buffer	N122-N108	4.7	752.0	0.0	282.9	0.0	0.0	0.0	0.0	0.0	2	0	8.9
	1/8 Mile Buffer	N108-N123	1.7	272.0	0.0	79.4	0.0	0.0	0.0	0.0	0.0	0	0	0.0
	1/8 Mile Buffer	N123-N186 across GRIC boundary	13.4	2144.0	110.0	803.8	0.0	0.0	104.2	174.8	0.0	5	7.0	0.0
	1/8 Mile Buffer	N186-N177	4.7	752.0	45.8	0.0	0.0	0.0	45.8	0.0	0.0	9	34	0.0
	1/8 Mile Buffer	N177-N131	4.0	640.0	0.0	205.4	0.0	0.0	0.0	0.0	0.0	7	9	51.9
	1/8 Mile Buffer	N104-N122	2.2	352.0	0.0	13.8	0.0	0.0	0.0	0.0	0.0	1.0	0.0	8.1
	1/8 Mile Buffer	N122-N108	4.7	752.0	0.0	282.9	0.0	0.0	0.0	0.0	0.0	2	0	8.9
	1/8 Mile Buffer	N108-N123	1.7	272.0	0.0	79.4	0.0	0.0	0.0	0.0	0.0	0	0	0.0
	1/8 Mile Buffer	N123-N186 across GRIC boundary	13.4	2144.0	110.0	803.8	0.0	0.0	104.2	174.8	0.0	5	7.0	0.0
1/8 Mile Buffer	N186-N177	4.7	752.0	45.8	0.0	0.0	0.0	45.8	0.0	0.0	9	34	0.0	
1/8 Mile Buffer	N177-N131	4.0	640.0	0.0	205.4	0.0	0.0	0.0	0.0	0.0	7	9	51.9	
<b>Total:</b>		<b>30.7</b>	<b>4912.0</b>	<b>0.0</b>	<b>155.8</b>	<b>1385.2</b>	<b>1.0</b>	<b>0.0</b>	<b>149.9</b>	<b>174.8</b>	<b>0.0</b>	<b>24.0</b>	<b>50.0</b>	<b>62.9</b>
Segment Options:	1/8 Mile Buffer	N108-N123 if going on to N107	1.7	272.0	0.0	79.4	0.0	0.0	0.0	0.0	0.0	0	0	0.0
	1/8 Mile Buffer	N196-N201	0.5	80.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0	1.4
	1/8 Mile Buffer	N195-N196 if going on to N206	1.4	224.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2	0	0.0
	1/8 Mile Buffer	N195-N196 if going on to N197	1.4	224.0	0.0	0.0	0.0	0.0	0.0	0.0	9.6	2	0	0.0
	1/8 Mile Buffer	N196-N206	1.9	304.0	0.0	0.0	0.0	0.0	0.0	0.0	21.8	1	0	0.0
	1/8 Mile Buffer	N123-N107	0.5	80.0	0.0	72.1	0.0	0.0	0.0	0.0	0.0	0	0	0.0
	1/8 Mile Buffer	N131-N107	1.0	160.0	0.0	41.0	0.0	0.0	0.0	0.0	0.0	0	0	0.0
	1/8 Mile Buffer	N107-N126	2.5	400.0	0.0	126.1	0.0	0.0	0.0	0.0	0.0	6	0	0.0
	1/8 Mile Buffer	(186) N177-N178	1.5	240.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	2.0	0.0
	1/8 Mile Buffer	(137) N177-N178	1.5	240.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	4.0	0.0
1/8 Mile Buffer	N137-N125	1.0	160.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	

\* No occurrence of the following sensitivities: Airport, Daycare Center, Hospital, Scenic Byway / Historic Trail, Threatened / Endangered Species Occupied Habitat, Sensitive Species Potential Habitat, Wildlife Refuge, Church, Golf Course, Landing Strip, Low Density Residential, Nursing Home / Retirement / Assisted Living Home, Animal Feeding Operation, Landfill



**Arizona Department of Transportation**  
**Intermodal Transportation Division**  
206 South Seventeenth Avenue Phoenix, Arizona 85007-3213

Janet Napolitano  
Governor

Victor M. Mendez  
Director

Michael J. Ortega  
State Engineer

November 29, 2004

Salt River Project  
Dan Hawkins POB100  
P.O. Box 2025  
Phoenix, Az 85072 - 2025

Re: PW - SEV/BRG Transmission Project

Mr. Hawkins:

The Arizona Department of Transportation (ADOT) has been asked to comment on the above referenced project. As you know SRP currently owns and operates numerous transmission lines that cross State highways and ADOT will work with SRP to establish future crossings. ADOT would prefer that all such crossings be kept to a minimum for public safety reasons. We will also require that all poles or structures be steel and cable clearance to ground be as specified by State and Federal regulations. Roadway closures for construction purposes will not be permitted for Interstate Highways but may include other restrictions as specified on the permit at time of application. Closures for State highways will include restrictions as specified on the permit at time of application. We invite you to present your alternative routing plans to us so we may help choose a route with the least impact to State facilities.

Sincerely,

A handwritten signature in black ink, appearing to read "Bruce Vana", written over a white background.

Bruce D. Vana P.E.  
Engineer - Manager  
Utility & Railroad Engineering Section  
205 South 17<sup>th</sup> Avenue Mail Drop 618E Phoenix, Arizona 85007  
Phone 602 712-7541 Fax 602 712-3229

cc: file

