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4/22/94

## Initial Alternatives Development Report

# SR 85 Corridor Study

Contract No. 93-55  
TRACS No. 085 MA 120 H 3225 01 L  
Federal Reference No. F-023-1-420  
Gila Bend to I-10  
Phoenix - Yuma Highway

APRIL 1994

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**ARIZONA DEPARTMENT OF TRANSPORTATION**

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PLANNING    TRANSPORTATION    ENGINEERING    URBAN DESIGN  
BRW, INC. 2700 NORTH CENTRAL AVENUE, SUITE 1000, PHOENIX, AZ 85004



LOGAN, SIMPSON & DYE

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GILA BEND TO I-10  
PHOENIX - YUMA HIGHWAY

April, 1994

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# 1.0 Introduction

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## 1.1 Corridor Description

This report presents the initial alternatives developed for the SR 85 Corridor Study from Gila Bend to I-10 which is located in south-central Arizona as shown in Figure 1, *Project Location*. The entire corridor lies within Maricopa County and includes the following roadways:

- SB-8, MP 122.83 – MP 120.34
- SR 85, MP 120.32 – MP 150.48
- Spur 85, MP 150.48 – MP 154.52

The total length of these roadways within the study corridor measures 36.69 miles. Portions of SR 85 and SB-8 lie within the corporate boundaries of the Town of Gila Bend.

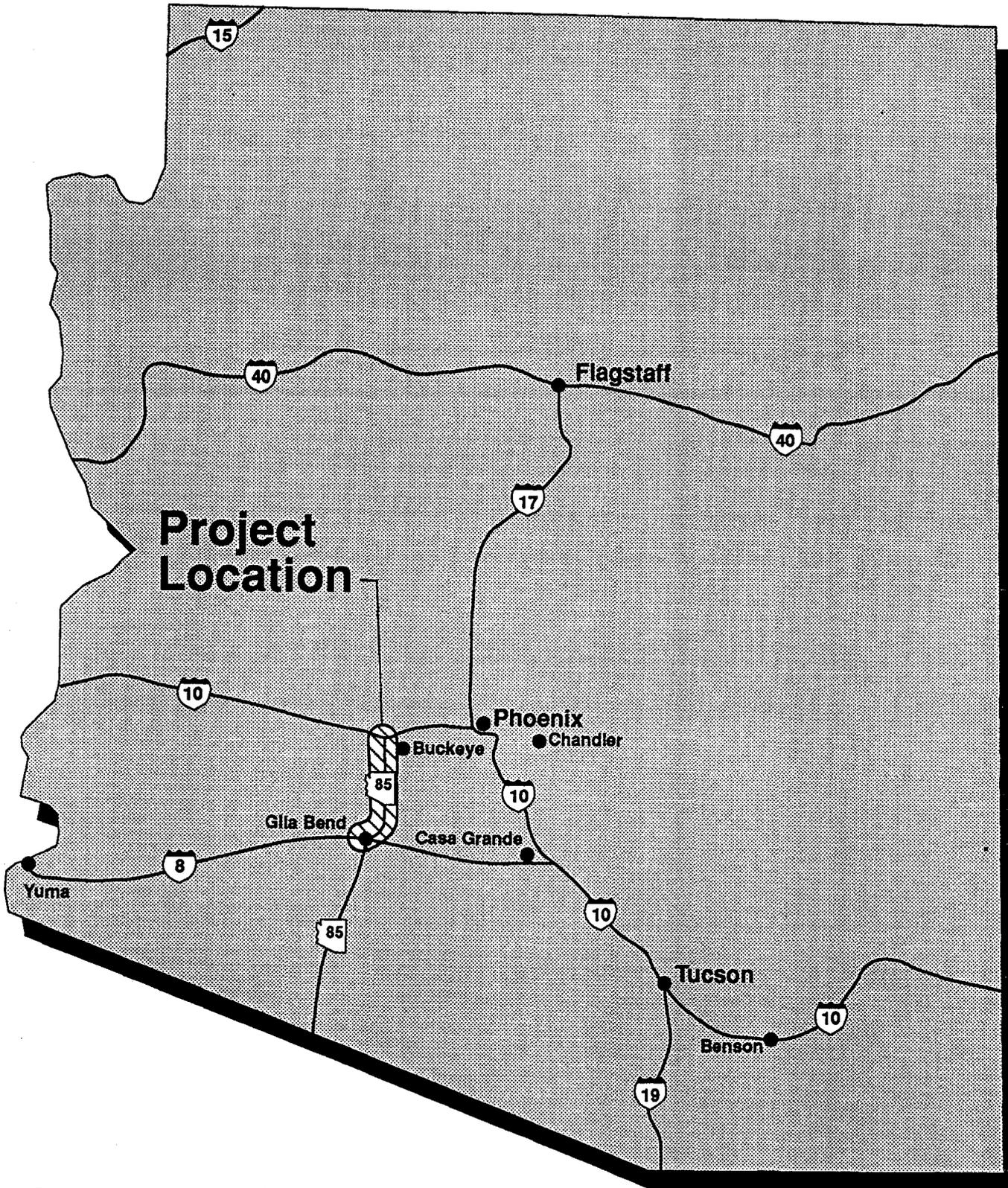
## 1.2 Problem Statement

SB-8, SR 85 and Spur 85 form a critical link between Interstate 8 and Interstate 10 in south-central Arizona. The SR 85 corridor is the only non-Interstate portion of the principal route linking Phoenix with the Towns of Buckeye, Gila Bend and Yuma. The SR 85 corridor is heavily used by both commercial and non-commercial vehicles traveling between Phoenix and San Diego. Intercity trucks also use SR 85 to bypass the Phoenix area on route to Tucson. The designation of SB-8, SR 85 and Spur 85 as Principal Arterials reflects the statewide importance of the corridor.

Since SR 85 is already one of the most heavily traveled two-lane rural highways in Arizona, and traffic between Buckeye and Gila Bend is projected to nearly double over the next twenty years (1993-2013), ADOT has undertaken this corridor study as the first step toward ensuring safe and efficient traffic movement into the twenty-first century.

## 1.3 Study Purpose

The purpose of the SR 85 corridor study is to identify existing and future operational and capacity problems, develop alternative strategies to address these problems, and recommend an appropriate course of action. This *Initial Alternatives Development Report* focuses on the development and evaluation of a variety of alternatives to meet existing and future needs and will recommend which alternatives are to be evaluated in more detail. The study will lead to a Location Design Concept Report (L/DCR) for the preferred alternative. Implementation of study recommendations will depend on funding availability and statewide prioritization of roadway projects.



**SR 85** Corridor Study  
 Gila Bend to I-10

Figure 1  
 Project Location



## 2.0 Existing Conditions

---

### 2.1 Roadway Characteristics

Each of the three highways within the study corridor (SB-8, SR 85 and Spur 85) are asphalt surfaced roadways. SB-8, SR 85 and Spur 85 are functionally classified as Principal Arterials (other). Interstate Highway interchanges within the study area include the I-8/East Gila Bend TI and I-10/Spur 85 (Oglesby) TI. In addition, a grade-separated interchange, known as the Gila Bend TI, is located at the junction of SB-8 and SR 85 on the northeast side of Gila Bend.

Within the corridor SB-8 is comprised of 0.39 miles of four-lane divided roadway, consisting of two 12-foot lanes with a 3-foot inside and outside shoulders and 2.1 miles of two-lane roadway, consisting of two 12-foot lanes with 8-foot shoulders. SR 85 and Spur 85 consist of two 12-foot travel lanes with 8-foot shoulders.

Posted speed limits in the corridor range from 35 to 55 miles per hour. Lower speed limits (35 to 45 mph) are posted on SB-8 in Gila Bend; on SR 85 just north of the Gila Bend interchange, just south of the MC 85 intersection and on Spur 85 just north of the MC 85 intersection.

Traffic at intersections are controlled by STOP signs on the minor approaches, with the exception of the SR 85/MC 85 intersection, which is controlled by four-way STOP signs with flashing red lights for the northbound, southbound, and westbound approaches. The intersection of SR 85 and SB-8 at the northeast end of Gila Bend is grade separated, with westbound SB-8 crossing over SR 85 via an overpass to form the Gila Bend TI. No signalized intersections exist in the study corridor.

Currently a new Gila River bridge is under construction on SR 85 between MP 146.8 and MP 149.25. This structure will be built to the west of the existing bridge and ultimately will be the southbound roadway portion of a four lane divided highway.

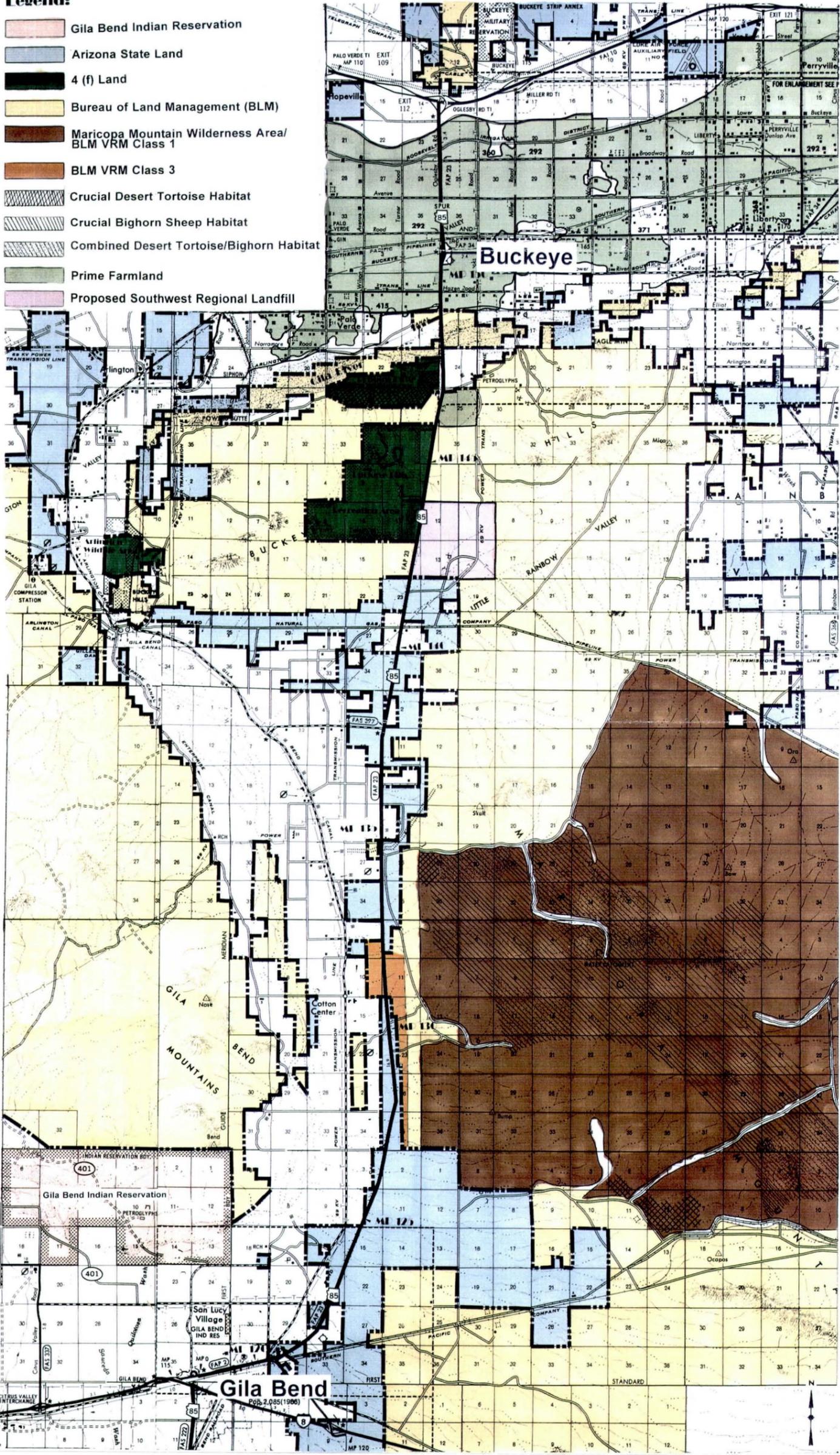
The *AASHTO Controlling Design Criteria Report* prepared for this project lists current gradients, vertical curves, horizontal curves, vertical clearances and structural elements that fail to meet current AASHTO design standards.

### 2.2 Land Use

With the exception of SB-8 in Gila Bend, the study corridor is located in a rural area. Other land uses include agricultural and range land. The Robbins Butte Wildlife Area and the Buckeye Hills Recreation Area are located west of SR 85 between MP 143 and MP 148. In addition, some roadside businesses are scattered along SR 85. SB-8 within the corridor serves as one of the major streets for Gila Bend with land uses typical of a small urban area, including a restaurant, motel, convenience store and service station. SR 85 becomes Pima Street within the jurisdiction of Gila Bend, having mostly commercial land uses. Figure 2 shows the Environmental Considerations and Jurisdictional Boundaries along the study corridor.

**Legend:**

- Gila Bend Indian Reservation
- Arizona State Land
- 4 (f) Land
- Bureau of Land Management (BLM)
- Maricopa Mountain Wilderness Area/  
BLM VRM Class 1
- BLM VRM Class 3
- Crucial Desert Tortoise Habitat
- Crucial Bighorn Sheep Habitat
- Combined Desert Tortoise/Bighorn Habitat
- Prime Farmland
- Proposed Southwest Regional Landfill



**Figure 2**  
**Environmental Considerations**  
**and**  
**Jurisdictional Boundaries**

Logan Simpson & Dye



09-21-93

**Arizona Department of Transportation**

Contract No. 93-55  
Project 085 MA 120 H 3225 OIL  
Federal Project No. F-023-1-420

### 2.3 Traffic

Existing traffic conditions in the study corridor are documented in the *Traffic Operational Analysis Report*. Existing (1993) average daily traffic (ADT) volumes are 3,200 on SB-8; 8,000 on SR 85; and 4,100 on Spur 85. Current capacity on mainline roadways, ramps and intersection approaches are adequate to accommodate existing peak hour traffic volumes at a level of service of "C" or better.

### 2.4 Utilities and Railroads

The existing utilities and railroads within the corridor include the Buckeye Irrigation District, Roosevelt Irrigation District, Arlington Canal Company, Gila Bend Canal, Arizona Public Service, Salt River Project, El Paso Natural Gas, US West, MCI, Southwest Gas, Santa Fe Pacific Pipeline, All American Pipeline and the Southern Pacific Railroad.

### 2.5 Drainage

Two types of off-site flow characteristics, divided by the Gila River, exist along SR 85. South of the Gila River, braided washes originating in the mountains cross the road at a perpendicular angle, and north of the Gila River, sheet flow from the north-northwest flows over irrigated land toward the roadway.

South of the Gila River, most of the flow occurs in wide shallow sheet flow patterns with numerous small braided stable washes and one major wash. This flow is conveyed under the road by box culverts, pipes and a bridge at Rainbow Wash. Dikes and ditches have been constructed at some locations to collect and direct both the sheet and the smaller wash flows to the appropriate drainage structure. Except for a short roadway segment, off-site flow originates in the mountain range to the east.

North of the Gila River, pre-agriculture drainage consisted of a wide shallow sheet flow pattern with numerous small braided transitory washes flowing south to the Gila River. Remnants of this pattern still exist in non-irrigated areas, such as southwest of the I-10/SR 85 interchange. Previous to constructing the White Tanks Flood Retarding Structure along the north side of I-10, large runoff from the White Tank Mountains also flowed south over this land.

The development of agriculture has resulted in the replacement of these small braided washes with flat farm fields surrounded by irrigation ditches. Three delivery irrigation canals, the Arlington, the Buckeye and the Roosevelt, flow east to west through these fields. Dikes along the north sides of these canals create a ponding situation by preventing water flow to the south. Earthen irrigation ditches exist along the west side of SR 85 and well-maintained concrete irrigation delivery ditches exist along the east side of SR 85. During large storm events, runoff will fill the irrigation ditches and flow toward the roadway from the north-northwest. Currently there is no defined outfall south past the canals to the Gila River. Therefore, rare storm events produce large runoffs that break through the canal north dikes, flow into the canals, overtop the canal south banks, and flow to the Gila River.

Several localized drainage problems associated with the existing roadway include erosion at upstream wingwalls, scouring at the bridges and culvert outlets, sedimentation at several culverts, and debris accumulation at a few structures.

Flood Insurance Rate Maps (FIRM) have been prepared and published by the Federal Emergency Management Agency (FEMA) for the length of the SR 85 Corridor. Current FIRMS, in general, delineate the majority of the land along SR 85 to be in Zone B outside the 100-year floodplain with localized areas of Zone A, 100-year floodplain. The 100-year floodplain areas occur near and through Gila Bend, along the Gila River and north of both the Buckeye and the Roosevelt Canals.

The ADOT Policy and Implementation Memorandum No. 91-10 issued March 22, 1991 has established a drainage design level for each highway on the State Highway System of Arizona. State Route 85 has been classified as level 1, which requires sizing drainage structures for the 50-year event for both new and reconstruction highway projects.

## 2.6 Right-of-Way

The existing right-of-way throughout the corridor varies from a minimum of 115 feet to a maximum of 1150 feet. The general right-of-way widths are tabulated below in Table 1, *Existing Right-of-Way Widths*.

**TABLE 1**  
**Existing Right-of-Way Widths**

Roadway	Location	Right-of-Way Width
SB-8	MP 122.83 to MP 120.34	Varies 200' to 260'
SR 85	MP 120.32 to MP 146.00	200'
SR 85	MP 146.00 to MP 150.48	Varies 115' - 785'
Spur 85	MP 150.48 to MP 154.52	Varies 400' - 1150'

Source: Arizona Department of Transportation Right-of-Way Plans and Maricopa County Assessor Maps.

## 3.0 Future Conditions

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### 3.1 Land Use

Discussions with the local communities of Buckeye and Gila Bend, as well as Maricopa County have taken place regarding future development. Buckeye has long-term commercial/retail development planned along the I-10/Spur 85 area. There will likely be future commercial/retail and light industrial development along SR 85 through Buckeye. Gila Bend has long-term industrial development planned from the Gila Bend Municipal Airport south and along SB-8. Maricopa County is planning for the Southwest Regional Landfill which is tentatively proposed to be on the east side of SR 85 between MP 142 and 144.

### 3.2 Traffic

Traffic conditions have been estimated for the years 1998 and 2018 (the program and design years) on the basis of traffic forecasts provided by ADOT. Projected growth will cause an increase in congestion and delay beginning in 1998 when it is estimated that the Level of Service on SR 85 from MP 120.32 to MP 150.48 will decline from "C" to "D". In addition, if no improvements are made to SR 85 the level of service is predicted to decline to "E" by year 2018.

The Highway Capacity Software analysis also reveals that this two-lane segment of SR 85 would operate at a peak hour LOS, of "A" in the design year (2018) if widened to four-lane divided highway. The same is true of the other two-lane portions of SB-8 and Spur 85. The *Traffic Operational Analysis Report* prepared for this project provides further details and documentation.

### 3.3 Design Criteria

The following design criteria are recommended to assure compliance with the Arizona Department of Transportation requirements.

#### a. Mainline Roadways (SB-8, SR 85 & Spur 85)

Design Year	2018
Design Speed	70 mph min
Superelevation	D-56.30
Slope Standards	C-02.20
Minimum Vertical Curve Length	Length based on stopping sight distance. 1000 feet desirable min.
Travel Lane Width	12 Feet
Inside Shoulder Width	4 Feet
Outside Shoulder Width	10 Feet
Left Turn lane Width	12 Feet
Maximum Degree of Curve	3°30'
Maximum Gradient	3 Percent Desirable
Pavement Design	20 Years
Cross-Slope	2 Percent

#### b. Ramps

Design Year	2018
Design Speed	
• At Nose	60 mph
• On Ramp Proper	50 mph min
• Near the Crossroad	35 mph min
Superelevation	D-56.30
Slope Standards	C-02.20, 4:1 max.
Minimum Vertical Curve Length	Length based on stopping sight distance. 200 feet min., 400 feet desirable
Minimum Pavement Width (One Lane)	Shall conform with AASHTO Case II-C
Travel Lane Width	12 feet
Minimum Left Shoulder Width	2 feet
Minimum Right Shoulder Width	8 feet
Maximum Degree of Curve (ramp proper)	6°
Maximum Gradient	6 Percent
Maximum Grade Break at Crossroad	4 Percent
Pavement Design	20 Years
Cross-Slope	2 Percent

## 4.0 Alternative Concepts

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Based upon traffic volumes and patterns, existing right-of-way widths and a current on-going construction project, four roadway segments have been identified for evaluation purposes. These roadway segments do not necessarily represent specific portions of the corridor that will be programmed for construction, they are for evaluation purposes within this document. The corridor implementation report that will be prepared for this project as a part of this contract will define logical portions of the SR 85 corridor to be programmed for construction.

A four lane undivided roadway was also examined and it was determined that due to the existing and projected high traffic volumes along this route a four lane undivided roadway may create a safety problem and therefore, was also eliminated from further consideration.

In addition, since no alternate roadways exist outside the existing corridor that are convenient to use, meet AASHTO criteria for a 70 mph design speed, and would minimize impacts to prime farmland, parks and wilderness areas, no alternatives will be identified for evaluation outside the existing corridor with the exception of three alternatives near Gila Bend.

Each of the four roadway segments identified are described below.

### 4.1 Segment A (SB-8; MP 122.83 to MP 120.34) and (SR 85; MP 120.32 to MP 124.0)

Segment A begins at the I-8/SB-8 intersection of the East Gila Bend TI (MP 122.83) and traverses northwest through Gila Bend and intersects with SR 85 at the Gila Bend TI (SB-8 MP 120.34 = SR 85 MP 120.32). From the Gila Bend TI the roadway heads in the northeast direction and terminates at MP 124.0. This segment has the following existing roadway sections:

- SB-8; MP 122.83 to MP 120.99 – is a two lane undivided roadway consisting of two 12-foot travel lanes with 8-foot shoulders.
- SB-8; MP 120.99 to MP 120.34 – is a four lane divided roadway consisting of two 12-foot travel lanes with 3-foot inside and outside shoulders in each direction.
- SR 85; MP 120.32 to MP 124.00 – is a two lane undivided roadway consisting of two 12-foot travel lanes with 8-foot shoulders.

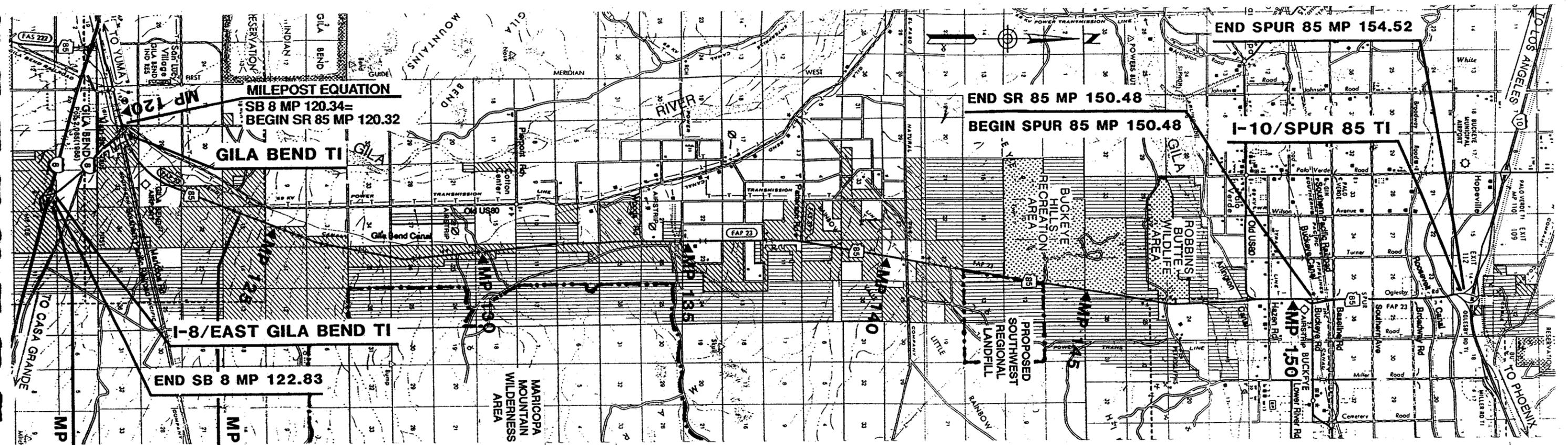
The following alternatives have been evaluated for Segment A and the typical sections for each alternative are shown on Figure 3, *Segment A Typical Sections*.

(1) *Alternative A-1* – Consists of a four lane divided roadway utilizing existing SB-8 and SR 85 as two lanes of the four lane divided highway as shown on Figure 4, *Segment A, Alternative A-1*. Since this alternative will utilize these existing roadways the following typical sections were developed for evaluation.

- *Alternative A-1A* – Construction of a parallel two lane southbound roadway offset to the west of the existing centerline. The existing roadway would be restricted to northbound traffic only and would be separated from the new roadway by a 46 foot rural median. Local access to these roadways would be via at-grade intersections.
- *Alternative A-1B* – Construction of a parallel two lane northbound roadway offset to the east of the existing centerline. The existing roadway would be restricted to southbound traffic only and would be separated from the new roadway by a 46 foot rural median. Local access to these roadways would be via at-grade intersections.
- *Alternative A-1C* – Construction of a parallel two lane southbound roadway offset to the west of the existing centerline. The existing roadway would be restricted to northbound traffic only and would be separated from the new roadway by a 84 foot rural median. Local access to these roadways would be via at-grade intersections.
- *Alternative A-1D* – Construction of a parallel two lane northbound roadway offset to the east of the existing centerline. The existing roadway would be restricted to southbound traffic only and would be separated from the new roadway by a 84 foot rural median. Local access to these roadways would be via at-grade intersections.

(2) *Alternative A-2* – Consists of a new four lane divided roadway from I-8 to MP 124.0 as shown on Figure 5, *Segment A, Alternative A-2*. Since this alternative will consist of a new four lane divided roadway the following typical sections were developed for evaluation.

- *Alternative A-2A* – Construction of a new four lane divided roadway with a 46 foot rural median. Local access to these roadways would be via at-grade intersections.
- *Alternative A-2B* – Construction of a new four lane divided roadway with an 84 foot rural median. Local access to these roadways would be via at-grade intersections.



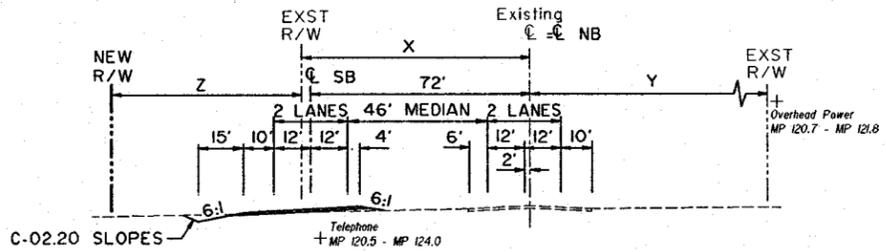
MP 122.83  
 Segment A\*  
 MP 124.00

\* See Figures 4, 5, 6, 7 and 8  
 For More Detail Regarding  
 Alternative Alignments  
 A-1, A-2, A-3, A-4 & A-5

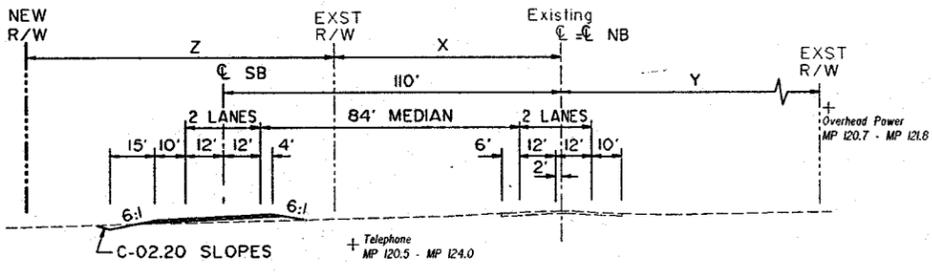
\*\* Typical Section Shown  
 Is For Alignment Outside  
 Of The Existing R/W

**LEGEND:**

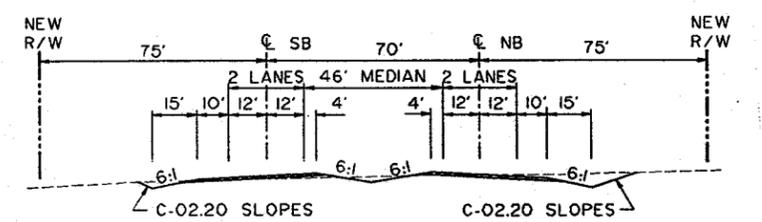
- BLM Lands
- State Lands
- 4f Lands



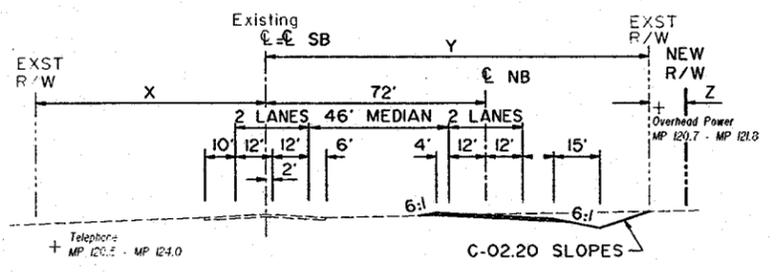
**ALT. A-1A, A-5A; 46' MEDIAN, C OFFSET WEST**  
 SB-8 MP 122.83 to MP 120.34 ; X=Var 50'-100', Y=Var 100'-160', Z=Var 0'-105'  
 SR85 MP 120.32 to MP 124.00 ; X= 75', Y= 125', Z= 70'



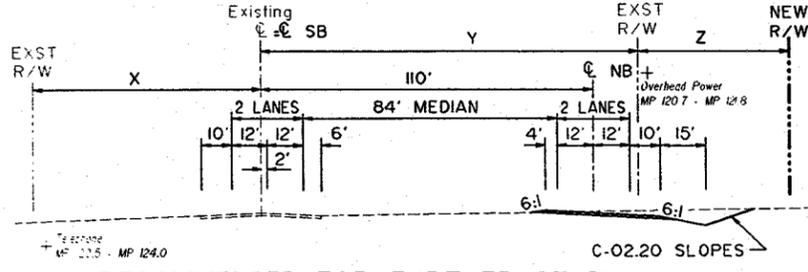
**RECOMMENDED FOR FURTHER STUDY**  
**ALT. A-1C, A-5C; 84' MEDIAN, C OFFSET WEST**  
 SB-8 MP 122.83 to MP 120.34 ; X=Var 50'-100', Y=Var 100'-160', Z=Var 0'-130'  
 SR85 MP 120.32 to MP 124.00 ; X= 75', Y= 125', Z= 105'



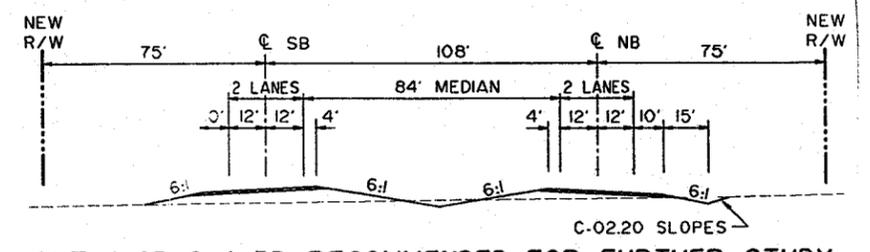
**ALT. A-2A, A-3A, A-4A; 46' MEDIAN**  
 I-8 to SR85 MP 124.00 \*\*



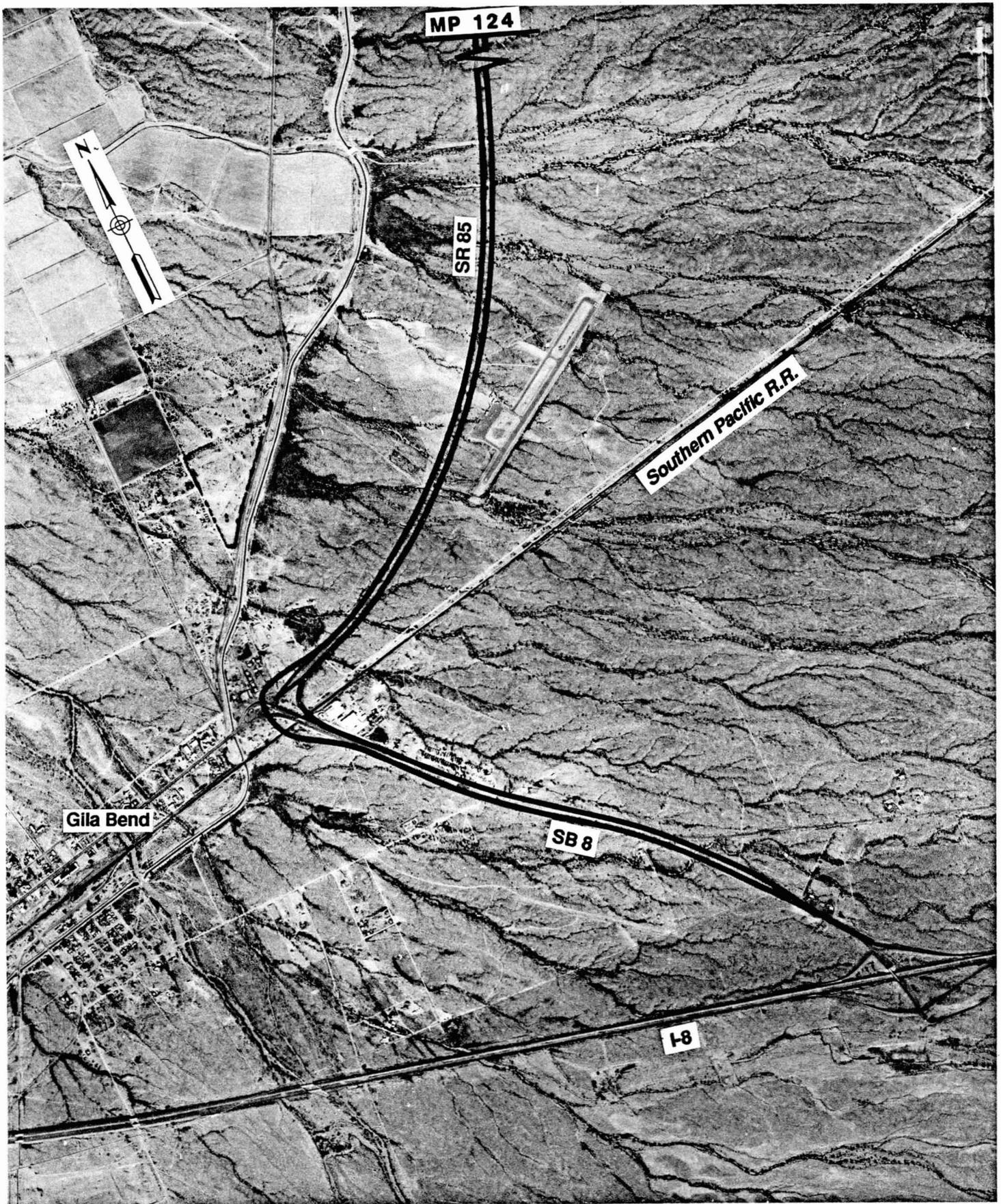
**ALT. A-1B, A-5B; 46' MEDIAN, C OFFSET EAST**  
 SB-8 MP 122.83 to MP 120.34 ; X=Var 50'-100', Y=Var 100'-160', Z=Var 0'-45'  
 SR85 MP 120.32 to MP 124.00 ; X= 75', Y= 125', Z= 20'



**RECOMMENDED FOR FURTHER STUDY**  
**ALT. A-1D, A-5D; 84' MEDIAN, C OFFSET EAST**  
 SB-8 MP 122.83 to MP 120.34 ; X=Var 50'-100', Y=Var 100'-160', Z=Var 0'-80'  
 SR85 MP 120.32 to MP 124.00 ; X= 75', Y= 125', Z= 55'



**ALT A-2B & A-3B RECOMMENDED FOR FURTHER STUDY**  
**ALT. A-2B, A-3B, A-4B; 84' MEDIAN**  
 I-8 to SR85 MP 124.00 \*\*



**SR 85** Corridor Study  
 Gila Bend to I-10

Figure 4  
 Segment A  
 Alternative A-1



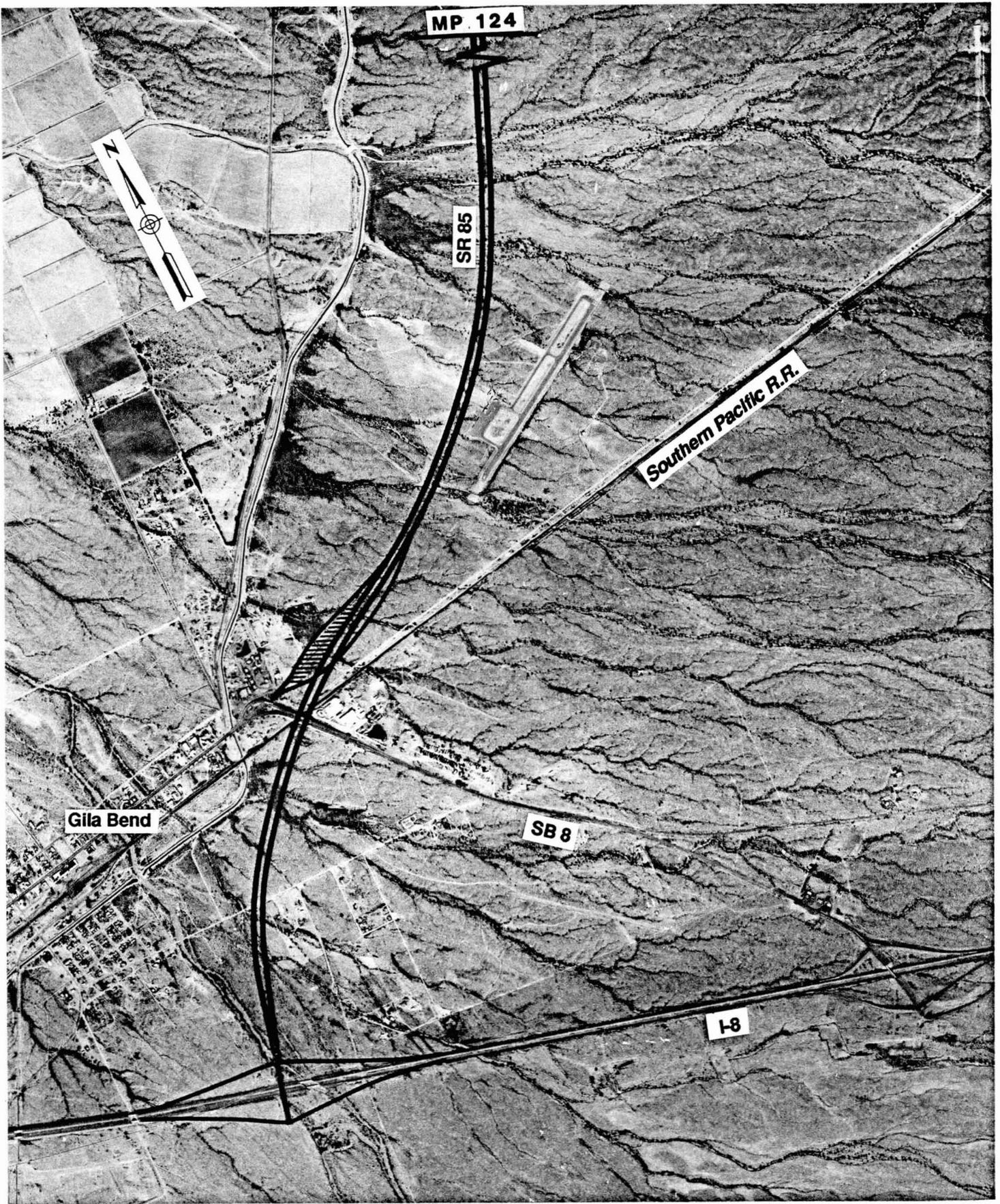


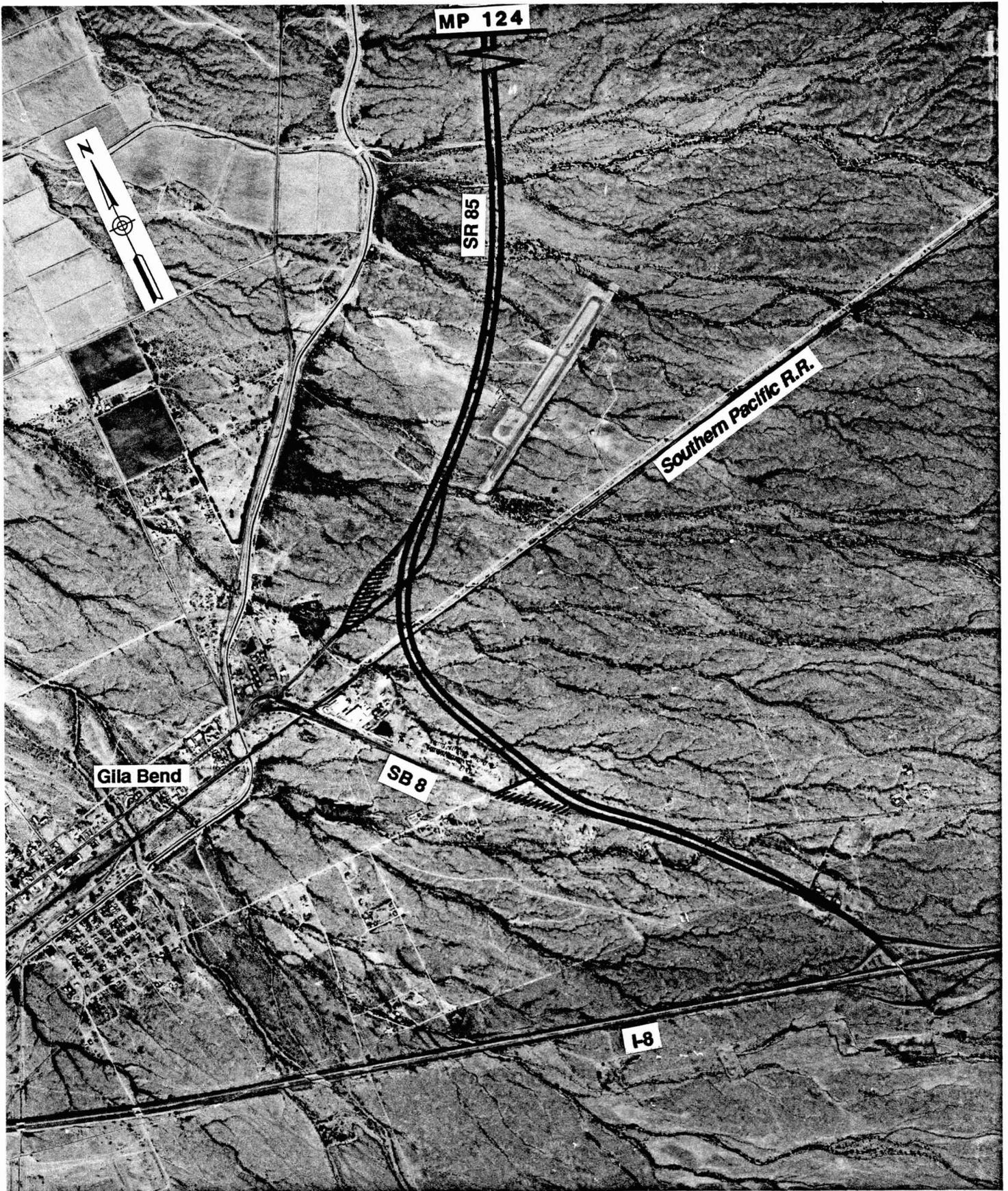
Figure 5  
Segment A  
Alternative A-2



**SR 85** Corridor Study  
Gila Bend to I-10



- (3) *Alternative A-3* – Consists of a new four lane divided roadway from I-8 to MP 124.0 as shown on Figure 6, *Segment A, Alternative A-3*. Since this alternative will consist of a new four lane divided roadway the following typical sections were developed for evaluation.
- *Alternative A-3A* – Construction of a new four lane divided roadway with a 46 foot rural median. Local access to these roadways would be via at-grade intersections.
  - *Alternative A-3B* – Construction of a new four lane divided roadway with an 84 foot rural median. Local access to these roadways would be via at-grade intersections.
- (4) *Alternative A-4* – Consists of a new four lane divided roadway from I-8 to MP 124.0 as shown on Figure 7, *Segment A, Alternative A-4*. Since this alternative will consist of a new four lane divided roadway the following typical sections were developed for evaluation.
- *Alternative A-4A* – Construction of a new four lane divided roadway with a 46 foot rural median. Local access to these roadways would be via at-grade intersections.
  - *Alternative A-4B* – Construction of a new four lane divided roadway with an 84 foot rural median. Local access to these roadways would be via at-grade intersections.
- (5) *Alternative A-5* – Consists of a four lane divided roadway from the Gila Bend TI to MP 124.00 as shown on Figure 8, *Segment A, Alternative A-5*. Since this alternative will utilize the existing SR 85 roadway for two lanes of the four lane divided highway, the following typical sections were developed for evaluation.
- *Alternative A-5A* – Construction of a parallel two lane southbound roadway offset to the west of the existing centerline. The existing roadway would be restricted to northbound traffic only and would be separated from the new roadway by a 46 foot rural median. Local access to these roadways would be via at-grade intersections.
  - *Alternative A-5B* – Construction of a parallel two lane northbound roadway offset to the east of the existing centerline. The existing roadway would be restricted to southbound traffic only and would be separated from the new roadway by a 46 foot rural median. Local access to these roadways would be via at-grade intersections.
  - *Alternative A-5C* – Construction of a parallel two lane southbound roadway offset to the west of the existing centerline. The existing roadway would be restricted to northbound traffic only and would be separated from the new roadway by an 84 foot rural median. Local access to these roadways would be via at-grade intersections.

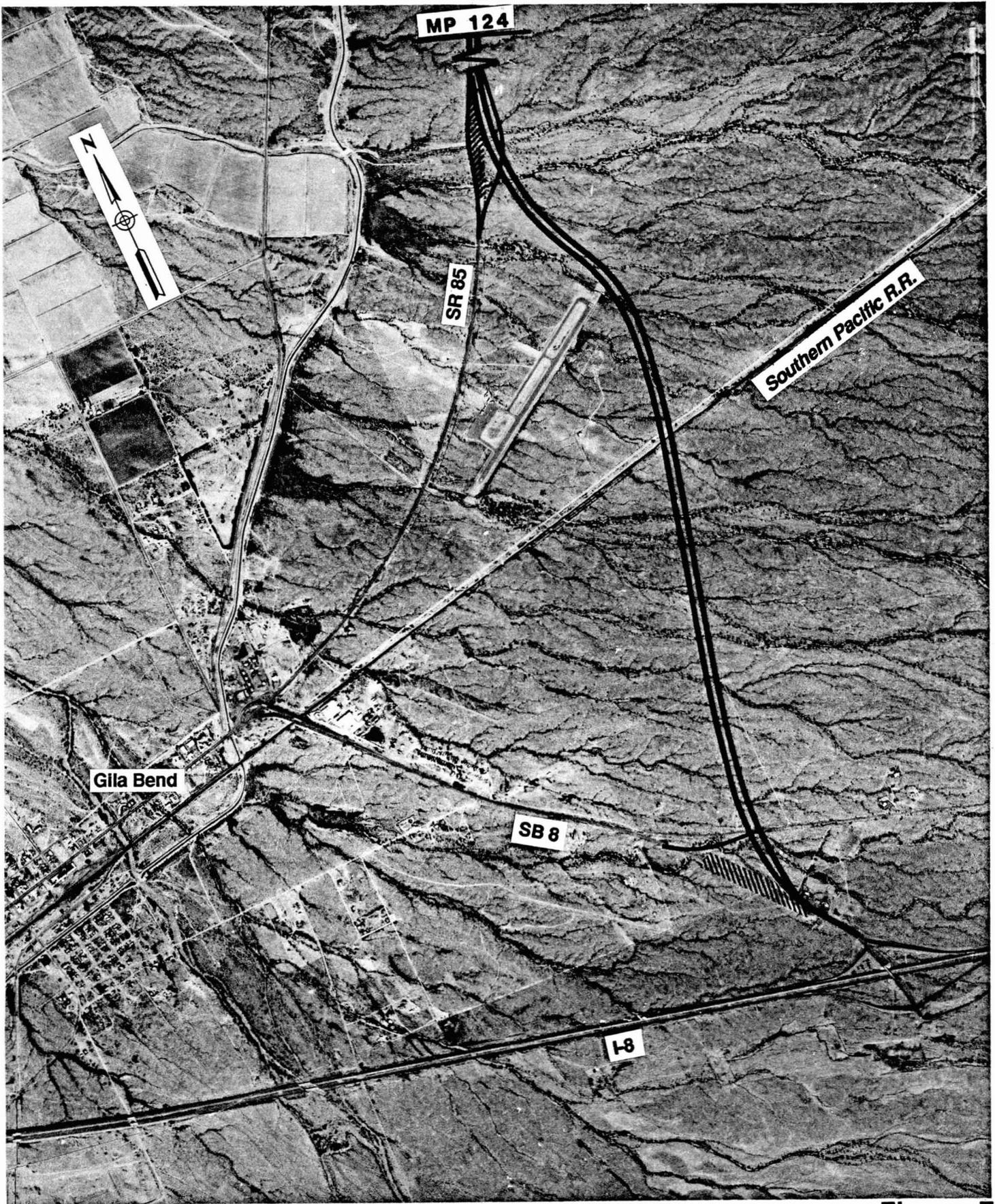


# SR 85 Corridor Study

Gila Bend to I-10

Figure 6  
Segment A  
Alternative A-3

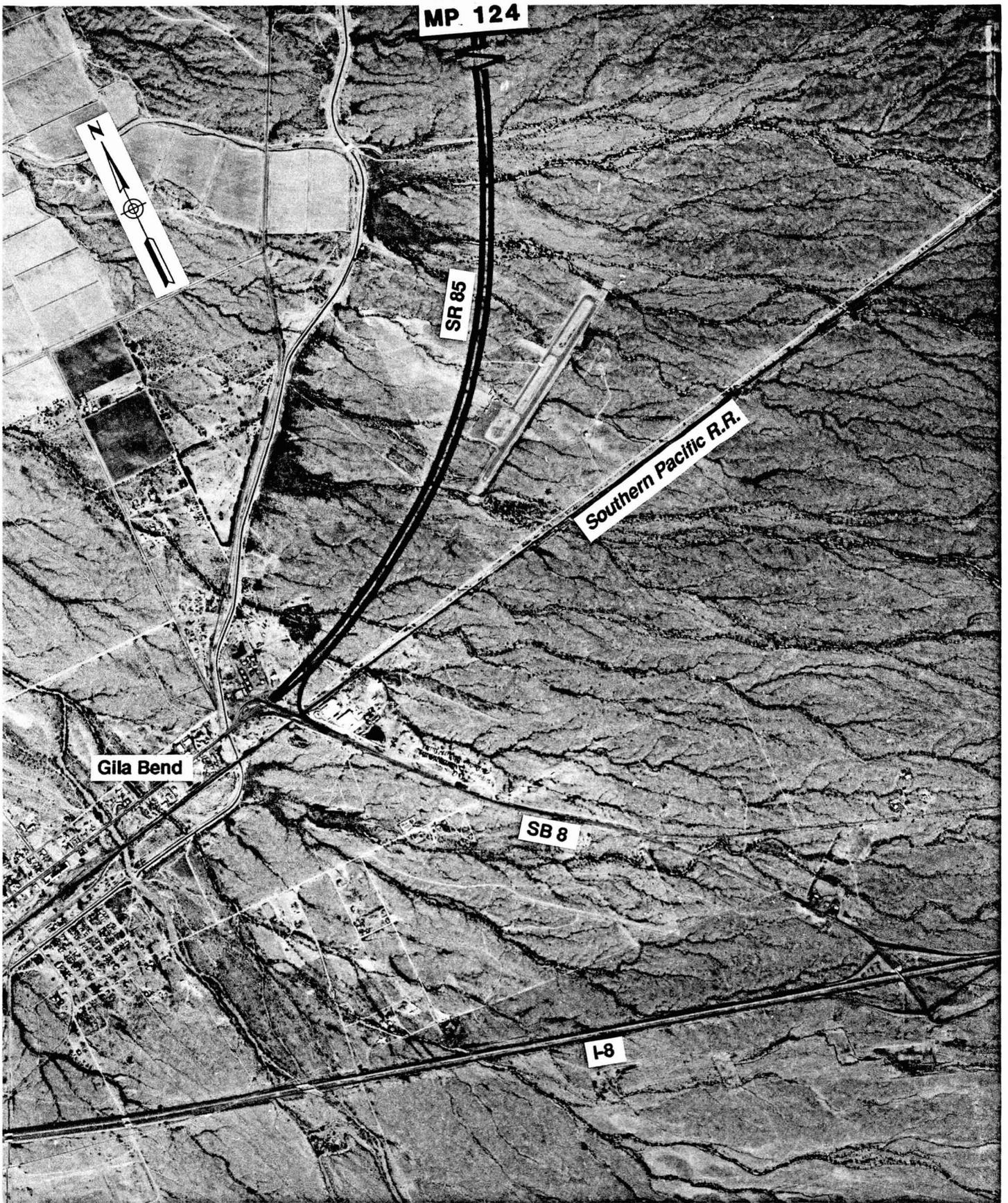




**SR 85** Corridor Study  
Gila Bend to I-10

Figure 7  
Segment A  
Alternative A-4





**SR 85** Corridor Study

Gila Bend to I-10

Figure 8  
Segment A  
Alternative A-5



- *Alternative A-5D* – Construction of a parallel two lane northbound roadway offset to the east of the existing centerline. The existing roadway would be restricted to southbound traffic only and would be separated from the new roadway by an 84 foot rural median. Local access to these roadways would be via at-grade intersections.

#### **4.2 Segment B (SR 85; MP 124.0 to MP 146.0)**

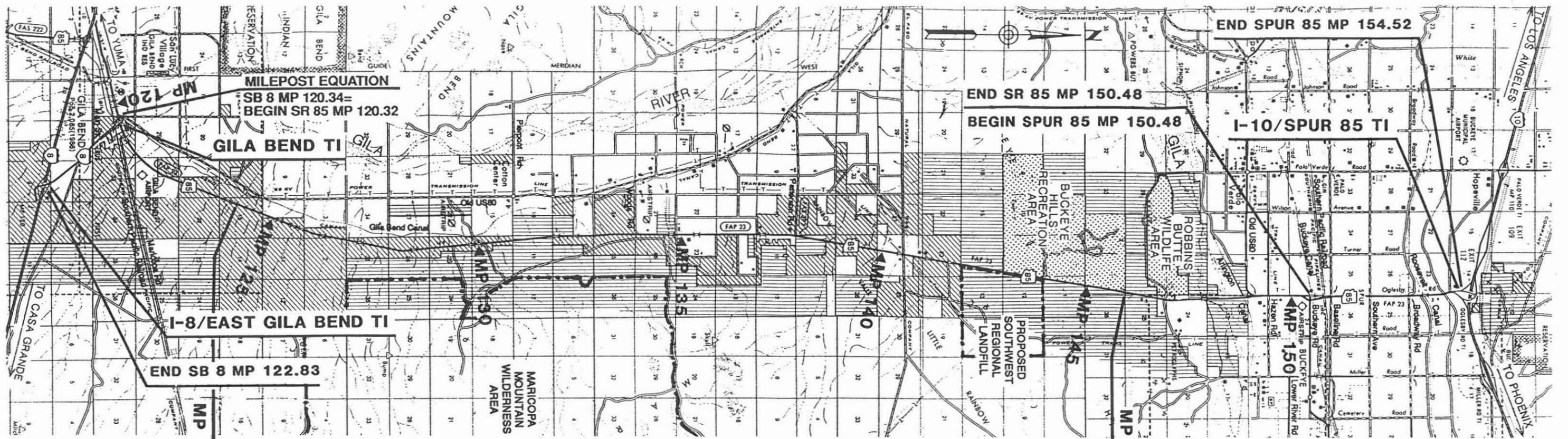
Segment B begins on SR 85 at MP 124.0 and traverses north to MP 146.0 near the beginning of the Gila River Bridge Project. This roadway segment currently consists of two 12-foot travel lanes with 8-foot shoulders.

The following alternatives have been evaluated for Segment B and the typical sections for each alternative are shown on Figure 9, *Segment B Typical Sections*.

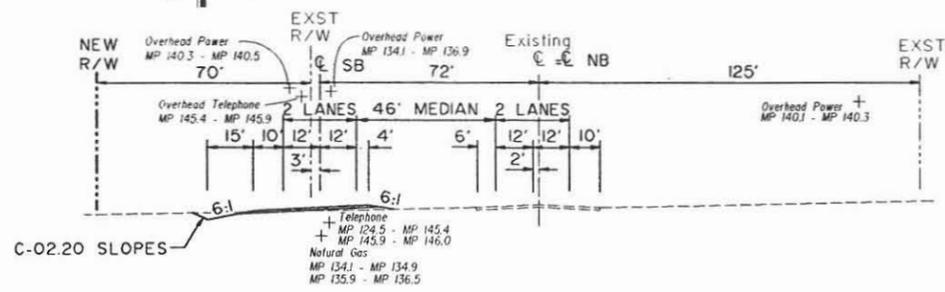
- (1) *Alternative B-1* – Construction of a parallel two lane southbound roadway offset to the west of the existing centerline. The existing roadway would be restricted to northbound traffic only and would be separated from the new roadway by a 46 foot rural median. Local access to these roadways would be via at-grade intersections.
- (2) *Alternative B-2* – Construction of a parallel two lane northbound roadway offset to the east of the existing centerline. The existing roadway would be restricted to southbound traffic only and would be separated from the new roadway by a 46 foot rural median. Local access to these roadways would be via at-grade intersections.
- (3) *Alternative B-3* – Construction of a parallel two lane southbound roadway offset to the west of the existing centerline. The existing roadway would be restricted to northbound traffic only and would be separated from the new roadway by an 84 foot rural median. Local access to these roadways would be via at-grade intersections.
- (4) *Alternative B-4* – Construction of a parallel two lane northbound roadway offset to the east of the existing centerline. The existing roadway would be restricted to southbound traffic only and would be separated from the new roadway by an 84 foot rural median. Local access to these roadways would be via at-grade intersections.

#### **4.3 Segment C (SR 85; MP 146.0 to MP 150.2)**

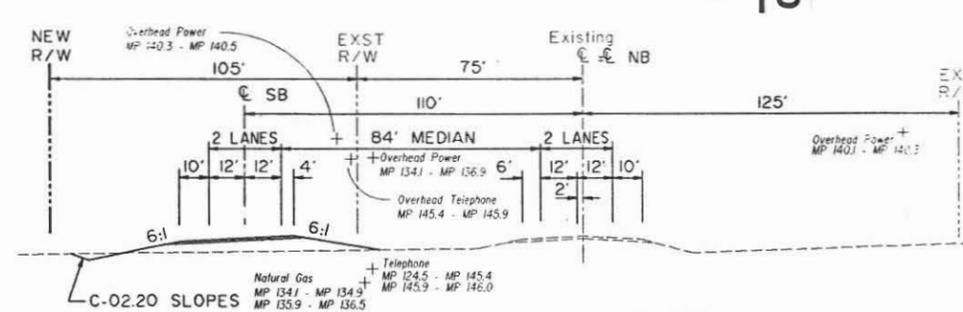
Segment C begins on SR 85 at MP 146.0 and traverses north over the Gila River to MP 150.2, coinciding with the construction of the New Gila River Bridge and its approaches. This roadway segment ultimately will be a 4-lane divided roadway consisting of two 12-foot travel lanes with 4-foot inside and 10-foot outside shoulders in each direction separated by a 46-foot rural median. A 46-foot median was utilized for this segment in order to minimize impacts to the existing Gila River wilderness area, wetlands, prime farm land and private lands.



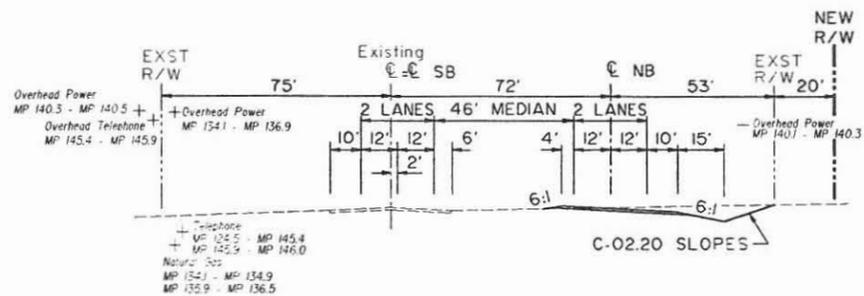
Segment B



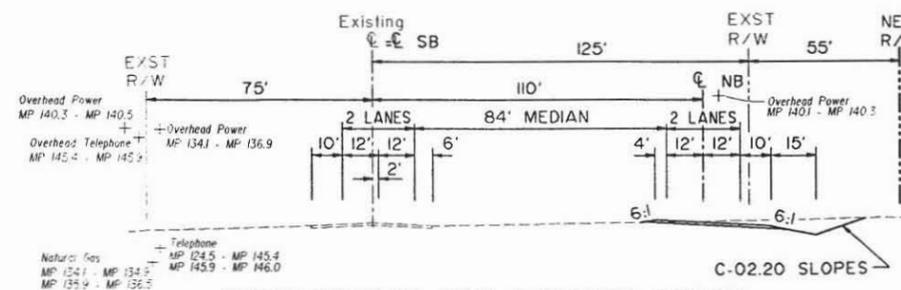
ALT. B-1; 46' MEDIAN, CL OFFSET WEST  
MP 124.00 to MP 146.00



RECOMMENDED FOR FURTHER STUDY  
ALT. B-3; 84' MEDIAN, CL OFFSET WEST  
MP 124.00 to MP 146.00



ALT. B-2; 46' MEDIAN, CL OFFSET EAST  
MP 124.00 to MP 146.00



RECOMMENDED FOR FURTHER STUDY  
ALT. B-4; 84' MEDIAN, CL OFFSET EAST  
MP 124.00 to MP 146.00

- LEGEND:
- BLM Lands
  - State Lands
  - 4f Lands



**SR 85** Corridor Study  
Gila Bend to I-10

Figure 9  
Segment B Typical Sections



No new alternatives need be evaluated for this segment since a previous ADOT project has studied and recommended a typical section for this location, and for which an Environmental Assessment has been approved. The approved typical section for this roadway segment is shown on Figure 10, *Approved Future Typical Section For Segment-C*.

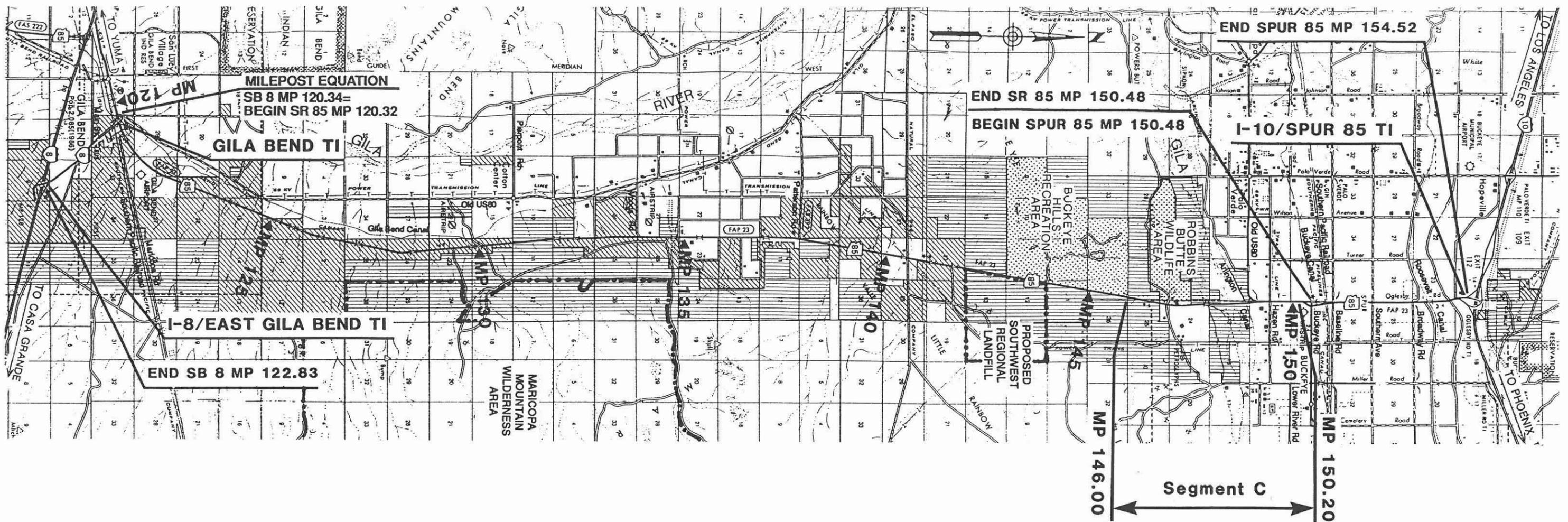
#### **4.4 Segment D (SR 85; MP 150.2 to MP 150.48) and (Spur 85; MP 150.48 to MP 154.52)**

Segment D begins on SR 85 at MP 150.2 and traverses north to the SR 85/MC 85 intersection (SR 85 MP 150.48 = Spur 85 MP 150.48). From the SR 85/MC 85 intersection Spur 85 continues in the northerly direction and terminates at the I-10/Spur 85 interchange at MP 154.52. The roadways within this segment are undivided and consist of two 12-foot travel lanes with 8-foot shoulders.

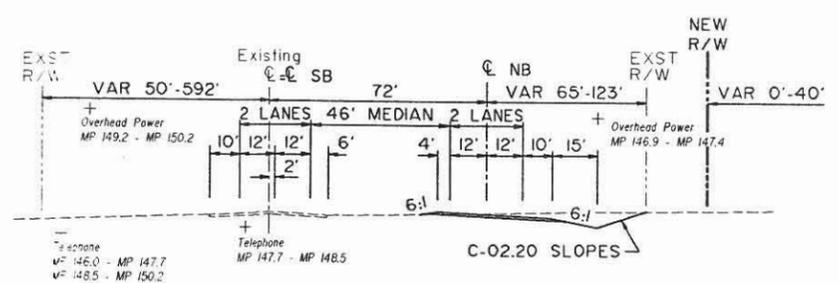
The following alternatives have been evaluated for Segment D and the typical sections for each alternative are shown on Figure 11, *Segment D Typical Sections*.

- (1) *Alternative D-1* – Construction of a parallel 2-lane southbound roadway offset to the west of the existing centerline. The existing roadway would be restricted to northbound traffic only and would be separated from the new roadway by a 46 foot rural median. Access to these roadways would be via at-grade intersections except for new grade separations over Baseline Road and the SPRR.
- (2) *Alternative D-2* – Construction of a parallel two lane southbound roadway offset to the west of the existing centerline. The existing roadway would be restricted to northbound traffic only and would be separated from the new roadway by a 84 foot rural median. Access to these roadways would be via at-grade intersections except for new grade separations over Baseline Road and the SPRR.
- (3) *Alternative D-3* – Construction of a parallel four lane divided roadway with a one way west frontage road offset to the west of the existing centerline. The existing roadway would become a one way east frontage road. The northbound and southbound roadways would be separated by a 84 foot rural median and have characteristics of a freeway, (i.e. TIs and Ramps). The mainline crossings of MC 85, SPRR, Baseline Road, Southern Avenue, Broadway Road and Lower Buckeye Road would be elevated. Access to the mainline roadways would be via interchanges located at MC 85, Southern Avenue and Broadway Road.
- (4) *Alternative D-4* – Construction of a parallel four lane divided roadway with a two-way west frontage road offset to the west of the existing centerline. The existing roadway would become a two-way east frontage road. The northbound and southbound roadways would be separated by a 84 foot rural median and have characteristics of a freeway, (i.e. TIs and Ramps). The mainline crossings of MC 85, SPRR, Baseline Road, Southern Avenue, Broadway Road and Lower Buckeye Road would be elevated. Access to the mainline roadways would be via interchanges located at MC 85, Southern Avenue and Broadway Road.

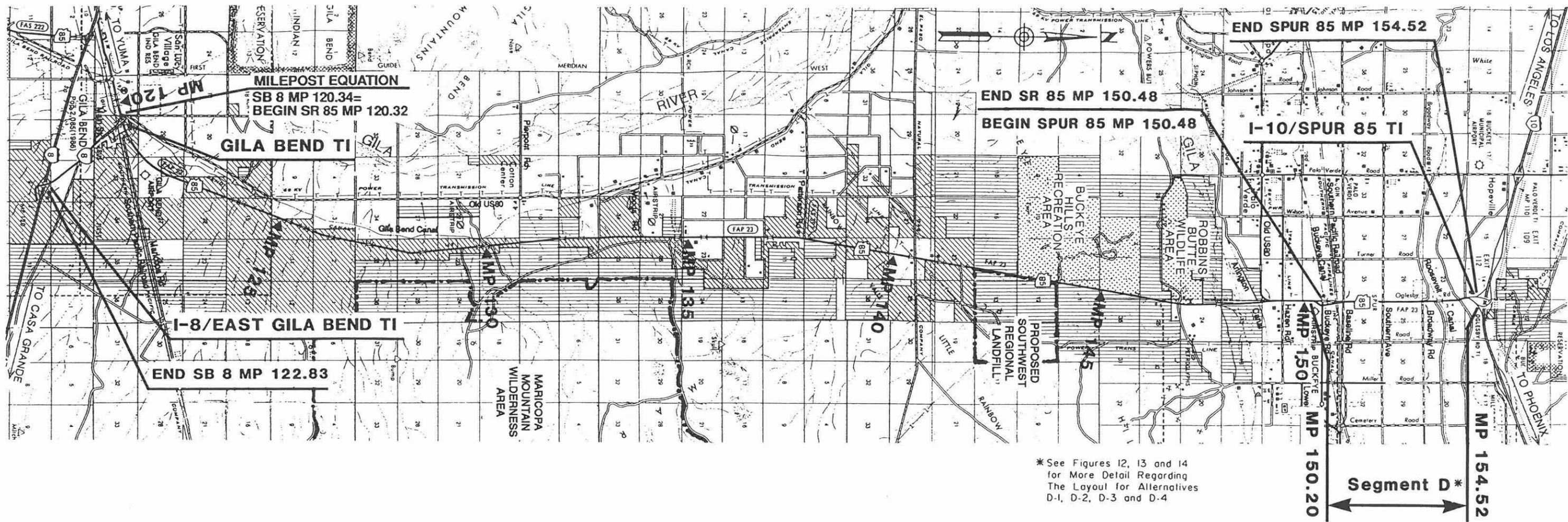
The at-grade intersections for alternatives D-1 and D-2 are shown on Figure 12 and the interchanges for alternative D-3 and D-4 are shown on Figure 13 and 14 respectively.



- LEGEND:**
- BLM Lands
  - State Lands
  - 4f Lands

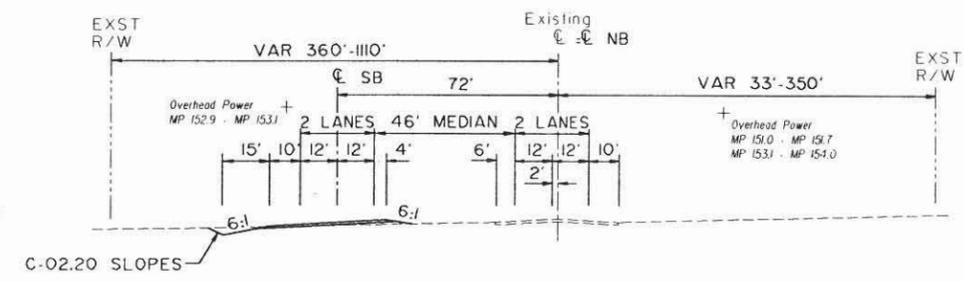


**RECOMMENDED FOR FURTHER STUDY**  
**46' MEDIAN**  
 MP 146.00 to MP 150.20

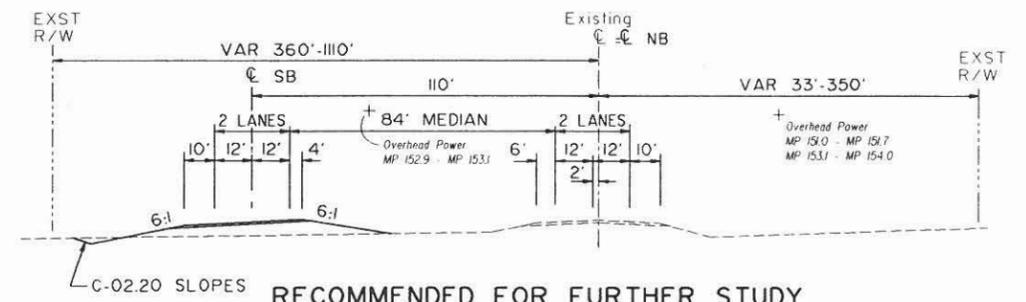


\* See Figures 12, 13 and 14 for More Detail Regarding The Layout for Alternatives D-1, D-2, D-3 and D-4

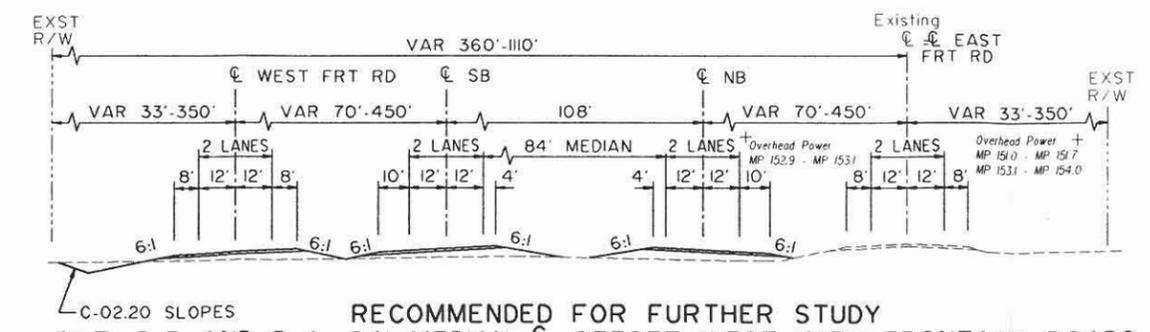
Segment D\*  
MP 150.20 to MP 154.52



ALT. D-1; 46' MEDIAN, CL OFFSET WEST  
MP 150.20 to MP 154.52



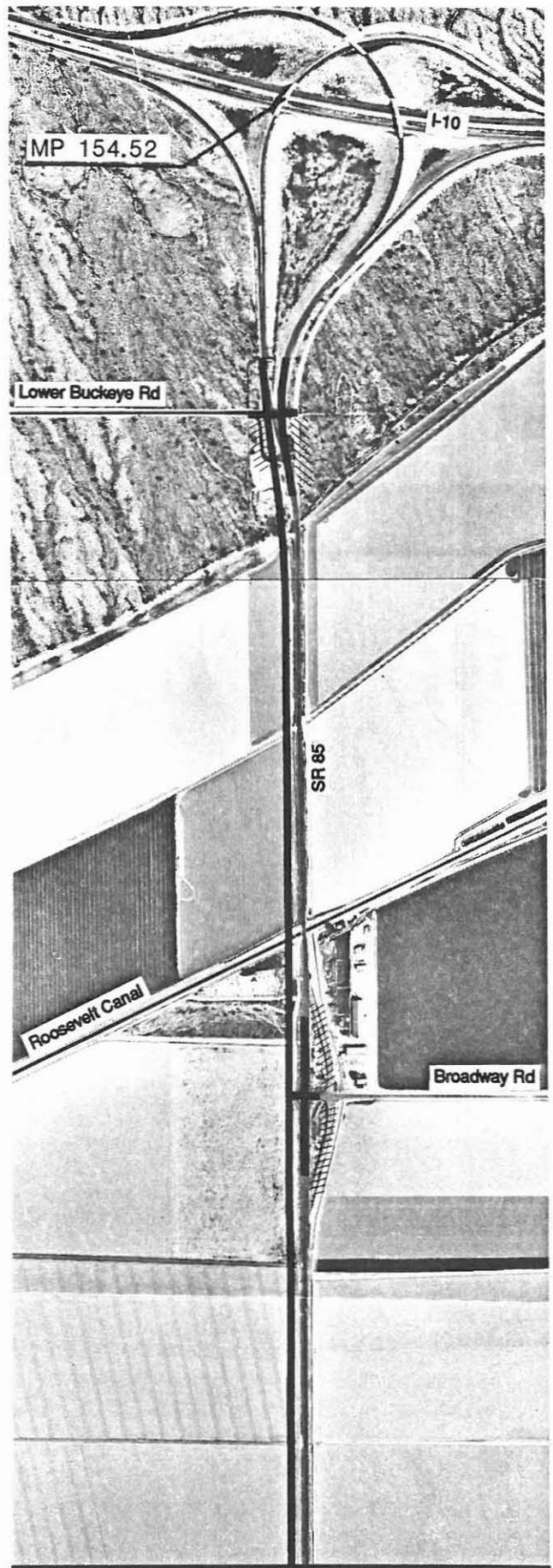
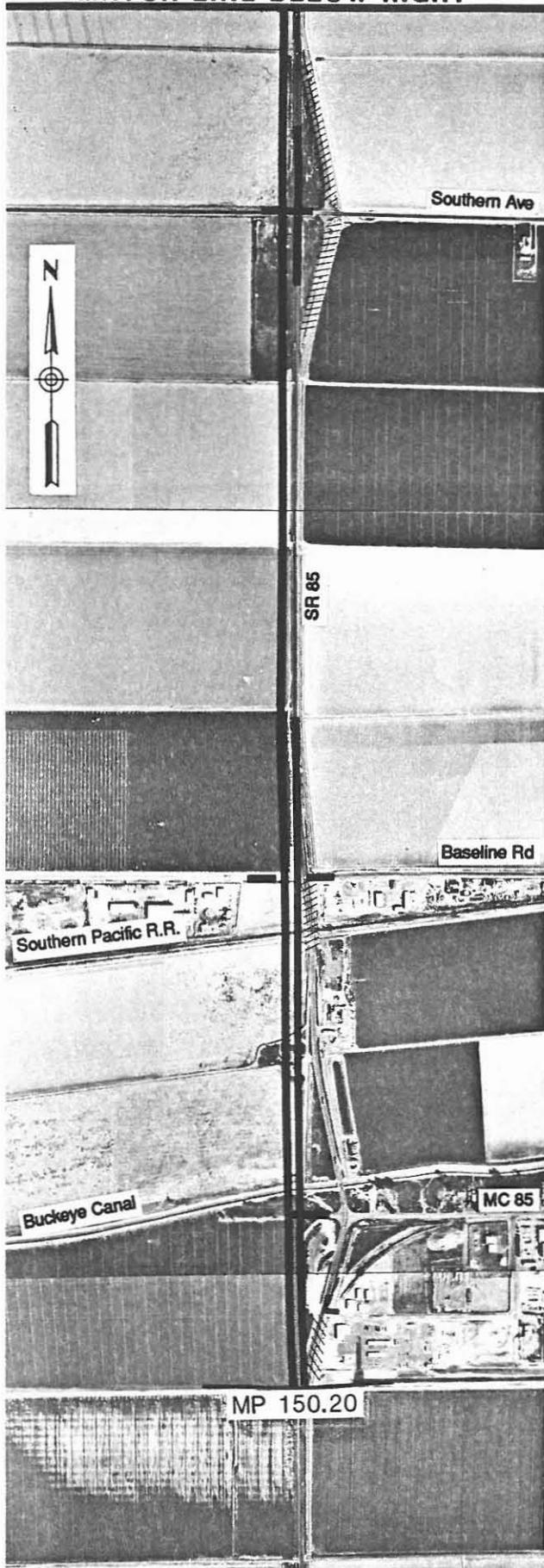
RECOMMENDED FOR FURTHER STUDY  
ALT. D-2; 84' MEDIAN, CL OFFSET WEST  
MP 150.20 to MP 154.52



RECOMMENDED FOR FURTHER STUDY  
ALT. D-3 AND D-4; 84' MEDIAN, CL OFFSET WEST WITH FRONTAGE ROADS  
MP 150.20 to MP 154.52

- LEGEND:
- BLM Lands
  - State Lands
  - 4f Lands

MATCH LINE BELOW RIGHT



MATCH LINE ABOVE LEFT

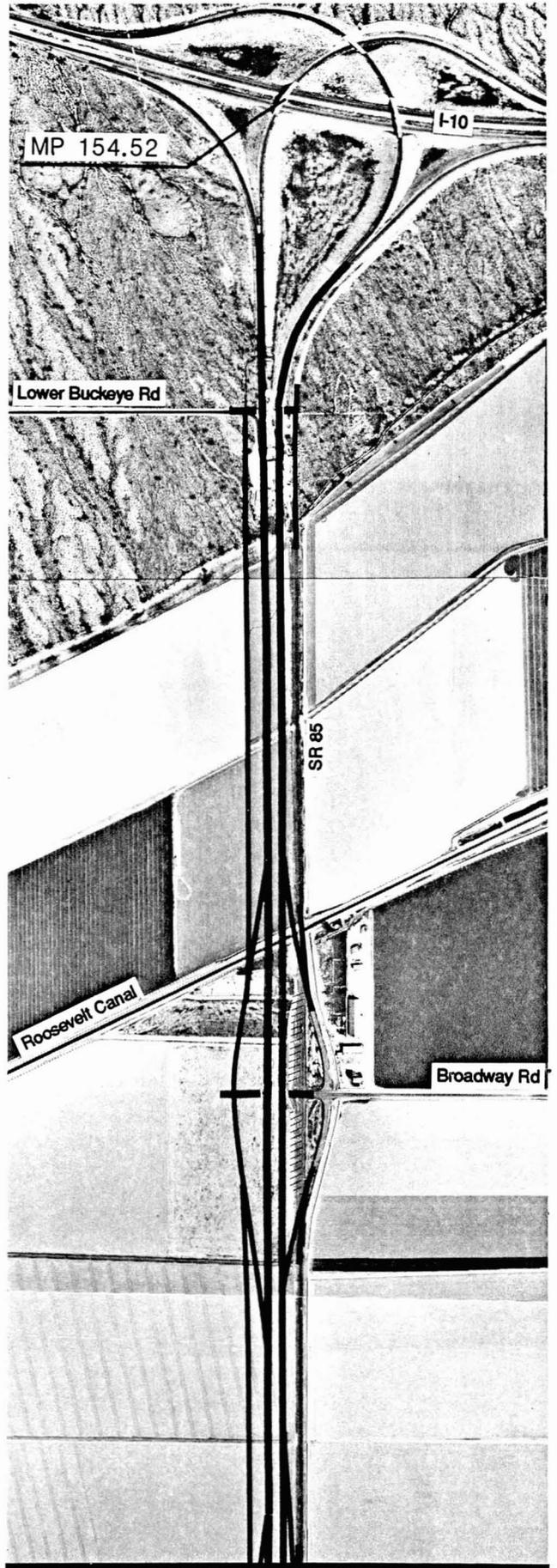
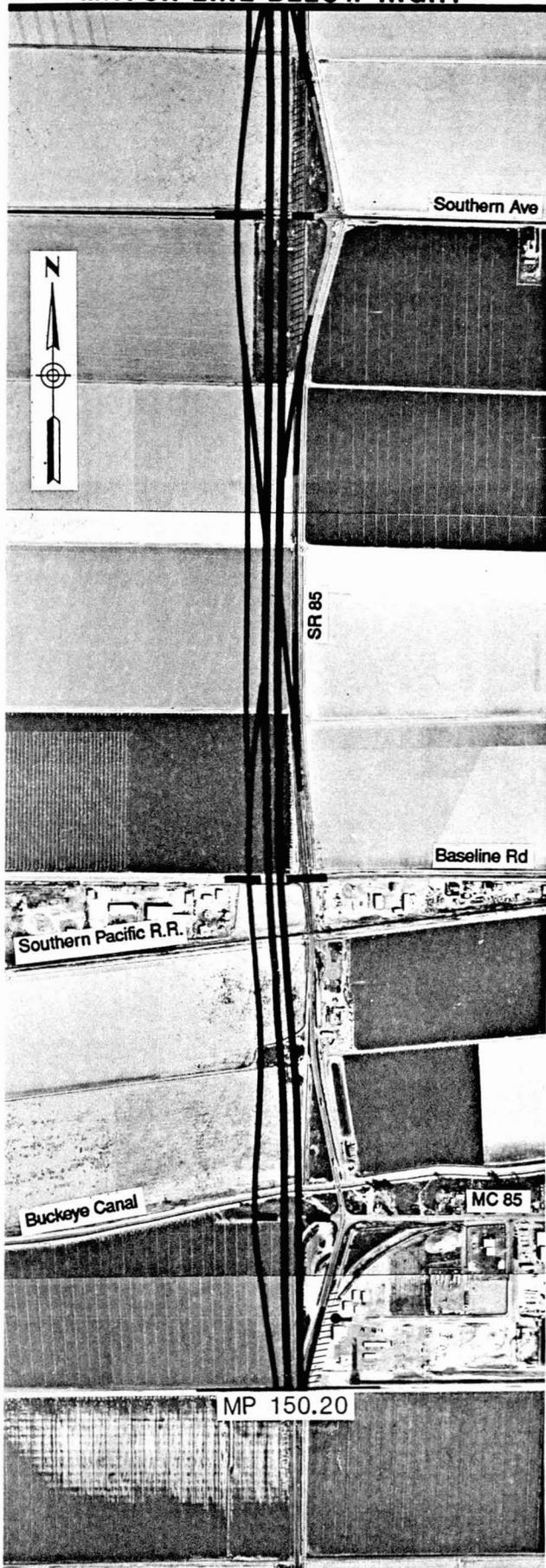
Figure 12  
Segment D  
Alternatives D-1, D-2



**SR 85** Corridor Study  
Gila Bend to I-10



MATCH LINE BELOW RIGHT



MATCH LINE ABOVE LEFT

Figure 13  
Segment D  
Alternative D-3

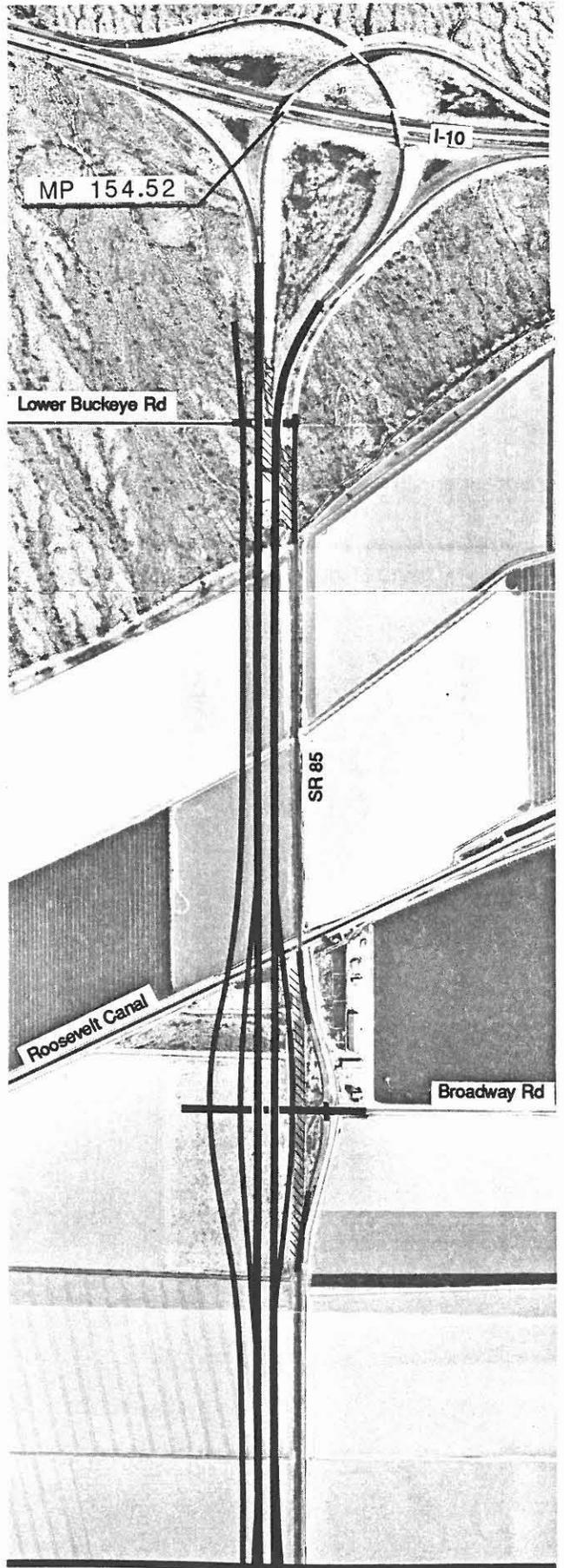
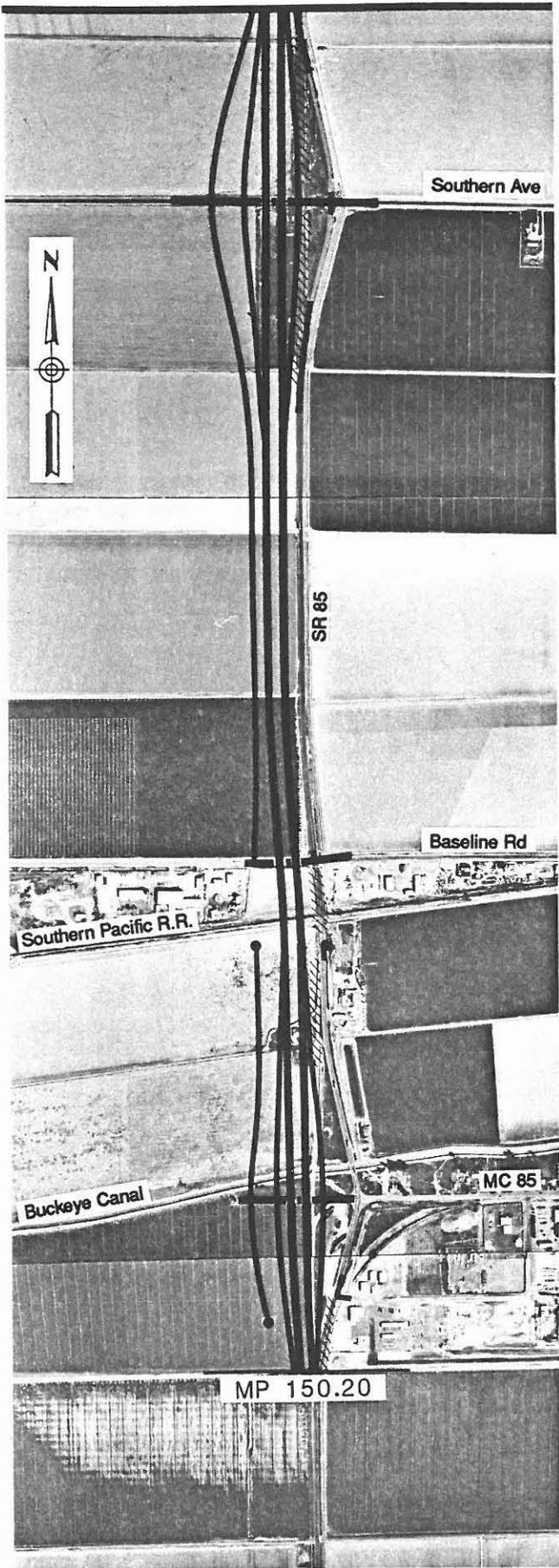


# SR 85 Corridor Study

Gila Bend to I-10



MATCH LINE BELOW RIGHT



MATCH LINE ABOVE LEFT

Figure 14  
Segment D  
Alternative D-4



# SR 85 Corridor Study

Gila Bend to I-10



## 5.0 Evaluation of Alternatives

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### 5.1 Evaluation Criteria

Six criteria have been employed to evaluate the potential impacts of the proposed SR 85 corridor improvement alternatives for Segments A, B, C and D. Each evaluation criterion is briefly described below.

- **Construction Cost** – This criterion rates each alternative based on construction cost. Costs of the alternatives have been determined using rough estimates consistent with the level of study to date.
- **Potential Environmental Considerations** – This criterion considers the preliminary social and economic considerations, amount of disturbance to developed areas and vegetation, potential noise impacts, and potential changes in visual character and quality. The need for federal regulatory permits is also included.
- **Drainage Impacts** – This criterion considers impacts on drainage and potential flooding problems in the corridor.
- **Right-of-Way Requirements** – This criterion evaluate each alternative based upon the amount of right-of-way required. Right-of-way needs have been tentatively estimated based upon the amount of right-of-way required for roadway and drainage construction. At this stage in the study, no additional width has been assumed for future utilities or pedestrian/bicycle amenities.
- **Traffic Separation/Protection** – This criterion evaluates the separation distance of opposing traffic on the mainline. In general, the wider the median the safer the roadway.
- **Utility Impacts** – This criterion evaluated each alternative on the basis of utility adjustments or relocations. The relocation or disruption of any utility entails an additional major cost to ADOT (if the utility has Prior Rights) or the utility company (if no Prior Rights exist). This item considers those parallel utilities that would be affected by construction. Utilities that simply cross the corridor do not, as a rule, affect the screening process because they are impacted equally by all alternatives.

### 5.2 Evaluation Matrix

Tables 2, 3, 4, 5, 6, 7, 8 and 9 are a matrix of preliminary evaluations of alternatives for segments A, B, C and D. The matrices are not intended to evaluate alternatives against the "No Build," but only to compare them with each other, since the "No Build" will be carried through the process regardless of the outcome of this preliminary evaluation. Each cell contains a description of the potential advantages and drawbacks of an alternative with respect to a specific criterion.

TABLE 2

Alternatives Evaluation: Segment A, Alternative A-1

Evaluation Criteria	Four-Lane Divided Roadway			
	A-1A 46' Median Offset West	A-1B 46' Median Offset East	A-1C 84' Median Offset West	A-1D 84' Median Offset East
<b>Construction Cost</b>	\$ 8,595,000	\$ 8,277,000	\$ 8,631,000	\$ 8,541,000
<b>Potential Environmental Considerations</b>	<ul style="list-style-type: none"> <li>● Potential disturbance to DPS office, ADOT yard and Elk's facility</li> <li>● Narrow median inhibits mitigation of visual character</li> <li>● Disturbs 78 acres of vegetation</li> <li>● Potential noise impacts to DPS housing and 1 dwelling</li> <li>● Potential Section 4(f) consultation regarding disturbance to railroad bridge</li> <li>● Commercial businesses at SB 85/I-8 and in Gila Bend not affected</li> </ul>	<ul style="list-style-type: none"> <li>● Potential disturbance to DPS office, ADOT yard and Elk's facility, and 1 dwelling</li> <li>● Narrow median inhibits mitigation of visual character</li> <li>● Disturbs 78 acres of vegetation</li> <li>● Higher density vegetation than west side</li> <li>● Potential noise impacts to mobile homes on SB8 and DPS housing and 2 dwellings</li> <li>● Potential Section 4(f) consultation regarding disturbance to railroad bridge</li> <li>● Commercial businesses at SB 85/I-8 and in Gila Bend not affected</li> </ul>	<ul style="list-style-type: none"> <li>● Potential disturbance to DPS office, ADOT yard and Elk's facility</li> <li>● Wider median enhances mitigation of visual character</li> <li>● Disturbs 103 acres of vegetation</li> <li>● Potential noise impacts to DPS housing and 1 dwelling</li> <li>● Potential Section 4(f) consultation regarding disturbance to railroad bridge</li> <li>● Commercial businesses at SB 85/I-8 and in Gila Bend not affected</li> </ul>	<ul style="list-style-type: none"> <li>● Eliminates 1 vacant building and parking area and 1 dwelling</li> <li>● Potential disturbance to DPS office, ADOT yard and Elk's facility and 1 dwelling</li> <li>● Wider median enhances mitigation of visual character</li> <li>● Disturbs 103 acres of vegetation</li> <li>● Higher vegetation density than west side</li> <li>● Potential noise impacts to mobile homes on SB8 and DPS housing and 2 dwellings</li> <li>● Potential Section 4(f) consultation regarding disturbance to railroad bridge</li> <li>● Requires relocating airplanes at entrance to airport</li> <li>● Commercial businesses at SB 85/I-8 and in Gila Bend not affected</li> </ul>
<b>Drainage Impacts</b>	● No impacts upstream east, minimal west	● Some increased ponding east, west okay	● No impacts upstream east, minimal west	● No impacts upstream east, minimal west
<b>Right-of-Way Requirements</b>	● 45 acres of new right-of-way required	● 15 acres of new right-of-way required	● 70 acres of new right-of-way required	● Some increased ponding east, west okay
<b>Traffic Separation/Protection</b>	<ul style="list-style-type: none"> <li>● 46 feet median provides minimal separation between opposing traffic</li> <li>● U-turns with some difficulty</li> </ul>	<ul style="list-style-type: none"> <li>● 46 feet median provides minimal separation between opposing traffic</li> <li>● U-turns with some difficulty</li> </ul>	<ul style="list-style-type: none"> <li>● 84 feet median provides ample separation of traffic</li> <li>● Affords easy U-turn movements at crossovers</li> </ul>	<ul style="list-style-type: none"> <li>● 84 feet median provides ample separation of traffic</li> <li>● Affords easy U-turn movements at crossovers</li> </ul>
<b>Utility Impacts</b>	● Displaces 31,000 LF buried telephone	● Could displace 5,800 LF overhead power	● Could possibly remain in median 31,000 LF buried telephone	● Displaces 5,800 LF overhead power

TABLE 3

Alternatives Evaluation: Segment A, Alternative A-2

Evaluation Criteria	Four-Lane Divided Roadway	
	A-2A 46' Median	A-2B 84' Median
<b>Construction Cost</b>	\$ 16,673,000	\$ 16,810,000
<b>Potential Environmental Considerations</b>	<ul style="list-style-type: none"> <li>● Eliminates 6 dwellings 4 mobile homes and a corral on South Street</li> <li>● Potential loss of economical benefit to existing commercial businesses bypassed</li> <li>● Potential increased land values and economic development at new T.I.</li> <li>● Narrow median inhibits mitigation of visual character. New overpass would dominate visual character/quality in the area</li> <li>● Disturbs 126 acres of vegetation</li> <li>● Potential noise impacts to remaining adjacent dwellings</li> <li>● C.O.E. permit and ADEQ certification will be required</li> </ul>	<ul style="list-style-type: none"> <li>● Eliminates 6 dwellings 4 mobile homes and a corral on South Street</li> <li>● Potential loss of economical benefit to existing commercial businesses bypassed</li> <li>● Potential increased land values and economic development at new T.I.</li> <li>● Wider median enhances mitigation of visual character. New overpass would dominate visual character/quality in the area</li> <li>● Disturbs 147 acres of vegetation</li> <li>● Potential noise impacts to remaining adjacent dwellings</li> <li>● C.O.E. permit and ADEQ certification will be required</li> </ul>
<b>Drainage Impacts</b>	<ul style="list-style-type: none"> <li>● Interchange located on Sand Tank Wash, extensive drainage facilities required</li> <li>● Four new crossings of additional washes including Bender Wash</li> <li>● Extensive encroachment fill within 100-year floodplain must meet FEMA requirements</li> <li>● Potential increased upstream flooding, east</li> </ul>	<ul style="list-style-type: none"> <li>● Interchange located on Sand Tank Wash, extensive drainage facilities required</li> <li>● Four new crossings of additional washes including Bender Wash</li> <li>● Extensive encroachment fill within 100-year floodplain must meet FEMA requirements</li> <li>● Potential increased upstream flooding, east</li> </ul>
<b>Right-of-Way Requirements</b>	<ul style="list-style-type: none"> <li>● 91 acres of new right-of-way required</li> </ul>	<ul style="list-style-type: none"> <li>● 112 acres of new right-of-way required</li> </ul>
<b>Traffic Separation/Protection</b>	<ul style="list-style-type: none"> <li>● 46 feet provides for minimal separation between opposing traffic</li> <li>● U-turns attainable with some difficulty</li> </ul>	<ul style="list-style-type: none"> <li>● 84 feet median provides ample separation between opposing traffic</li> <li>● Affords easy U-turn movements at crossovers</li> </ul>
<b>Utility Impacts</b>	<p>MP 121.2 to MP 124</p> <ul style="list-style-type: none"> <li>● 15,000 LF buried telephone on west side could be displaced</li> <li>● 5,800 LF overhead power on east side could be displaced</li> </ul>	<p>MP 121.2 to MP 124</p> <ul style="list-style-type: none"> <li>● 15,000 LF buried telephone on west side could possibly remain</li> <li>● 5,800 LF overhead power on east side could be displaced</li> </ul>

TABLE 4

Alternatives Evaluation: Segment A, Alternative A-3

Evaluation Criteria	Four-Lane Divided Roadway	
	A-3A 46' Median	A-3B 84' Median
<b>Construction Cost</b>	\$ 10,377,000	\$ 10,520,000
<b>Potential Environmental Considerations</b>	<ul style="list-style-type: none"> <li>● Commercial business at SB 85/I-8 not affected</li> <li>● Narrow median inhibits mitigation of visual character</li> <li>● Disturbs 106 acres of vegetation</li> <li>● Potential noise impacts to single family dwellings</li> </ul>	<ul style="list-style-type: none"> <li>● Commercial business at SB 85/I-8 not affected</li> <li>● Wider median enhances mitigation of visual character</li> <li>● Disturbs 129 acres of vegetation</li> <li>● Potential noise impacts to single family dwellings</li> </ul>
<b>Drainage Impacts</b>	<ul style="list-style-type: none"> <li>● Four new crossings of Rodeo Wash tributaries</li> <li>● Minimal encroachment fill within 100-year floodplain must meet FEMA requirements</li> <li>● Potential increased upstream flooding, east</li> </ul>	<ul style="list-style-type: none"> <li>● Four new crossings of Rodeo Wash tributaries</li> <li>● Minimal encroachment fill within 100-year floodplain must meet FEMA requirements</li> <li>● Potential increased upstream flooding, east</li> </ul>
<b>Right-of-Way Requirements</b>	<ul style="list-style-type: none"> <li>● 93 acres of new right-of-way required</li> </ul>	<ul style="list-style-type: none"> <li>● 116 acres of new right-of-way required</li> </ul>
<b>Traffic Separation/Protection</b>	<ul style="list-style-type: none"> <li>● 46 feet median provides for minimal separation between opposing traffic</li> <li>● U-turns attainable with some difficulty</li> </ul>	<ul style="list-style-type: none"> <li>● 84 feet median provides ample separation between opposing traffic</li> <li>● Affords easy U-turn movement at crossovers</li> </ul>
<b>Utility Impacts</b>	MP 121.2 to MP 124 <ul style="list-style-type: none"> <li>● 15,000 LF buried telephone on west side could be displaced</li> <li>● 5,800 LF overhead power on east side could be displaced</li> </ul>	MP 121.2 to MP 124 <ul style="list-style-type: none"> <li>● 15,000 LF buried telephone on west side could possibly remain</li> <li>● 5,800 LF overhead power on east side could be displaced</li> </ul>

TABLE 5

Alternatives Evaluation: Segment A, Alternative A-4

Evaluation Criteria	Four-Lane Divided Roadway	
	A-4A 46' Median	A-4B 84' Median
Construction Cost	\$ 11,470,000	\$ 11,635,000
Potential Environmental Considerations	<ul style="list-style-type: none"> <li>● Disturbs access to 3 commercial businesses at SB8/18 T.I.</li> <li>● Potential adverse economic impacts to downtown Gila Bend</li> <li>● Potential encroachment on airport runway expansion</li> <li>● Narrow median inhibits mitigation of visual character</li> <li>● Disturbs 126 acres of vegetation</li> </ul>	<ul style="list-style-type: none"> <li>● Disturbs access to 3 commercial businesses at SB8/18 T.I.</li> <li>● Potential adverse economic impacts to downtown Gila Bend</li> <li>● Potential encroachment on airport runway expansion</li> <li>● Wider median enhances mitigation of vegetation</li> <li>● Disturbs 146 acres of vegetation</li> </ul>
Drainage Impacts	<ul style="list-style-type: none"> <li>● At least twenty new crossings of washes including several large washes</li> <li>● Potential upstream ponding impacts, east</li> <li>● Minimal impacts downstream</li> </ul>	<ul style="list-style-type: none"> <li>● At least twenty new crossings of washes including several large washes</li> <li>● Potential upstream ponding impacts, east</li> <li>● Minimal impacts downstream</li> </ul>
Right-of-Way Requirements	<ul style="list-style-type: none"> <li>● 135 acres of new right-of-way required</li> </ul>	<ul style="list-style-type: none"> <li>● 157 acres of new right-of-way required</li> </ul>
Traffic Separation/Protection	<ul style="list-style-type: none"> <li>● 46 feet median provides for minimal separation between opposing traffic</li> <li>● U-turns attainable with some difficulty</li> </ul>	<ul style="list-style-type: none"> <li>● 84 feet median provides ample separation between opposing traffic</li> <li>● Affords easy U-turn movements at crossovers</li> </ul>
Utility Impacts	MP 122.8 to MP 124 <ul style="list-style-type: none"> <li>● 6,000 LF buried telephone on west side could be displaced</li> </ul>	MP 122.8 to MP 124 <ul style="list-style-type: none"> <li>● 6,000 LF buried telephone on west side could possibly remain</li> </ul>

TABLE 6

Alternatives Evaluation: Segment A, Alternative A-5

Evaluation Criteria	Four-Lane Divided Roadway			
	A-5A 46' Median Offset West	A-5B 46' Median Offset East	A-5C 84' Median Offset West	A-5D 84' Median Offset East
<b>Construction Cost</b>	\$ 3,751,000	\$ 3,662,000	\$ 3,802,000	\$ 3,746,000
<b>Potential Environmental Considerations</b>	<ul style="list-style-type: none"> <li>● Maintains economic benefit to commercial businesses in Gila Bend</li> <li>● Narrow median inhibits mitigation of visual character</li> <li>● Disturbs 50 acres of vegetation</li> </ul>	<ul style="list-style-type: none"> <li>● Maintains economic benefit to commercial businesses in Gila Bend</li> <li>● Narrow median inhibits mitigation of visual character</li> <li>● Higher vegetation density than west side</li> <li>● Disturbs 50 acres of vegetation</li> </ul>	<ul style="list-style-type: none"> <li>● Maintains economic benefit to commercial businesses in Gila Bend</li> <li>● Wider median enhances mitigation of visual character</li> <li>● Disturbs 65 acres of vegetation</li> </ul>	<ul style="list-style-type: none"> <li>● Eliminates 1 vacant building and parking</li> <li>● Maintains economic benefit to commercial businesses in Gila Bend</li> <li>● Wider median enhances mitigation of visual character</li> <li>● Higher vegetation density than west side</li> <li>● Disturbs 65 acres of vegetation</li> <li>● Requires relocating airplanes at entrance to airport</li> </ul>
<b>Drainage Impacts</b>	<ul style="list-style-type: none"> <li>● No impacts upstream, east</li> <li>● Minimal impacts downstream, west</li> </ul>	<ul style="list-style-type: none"> <li>● Somewhat increased ponding, east</li> <li>● Replace existing parallel ditches and dike system east of new roadway</li> </ul>	<ul style="list-style-type: none"> <li>● No impacts upstream, east</li> <li>● Minimal impacts downstream, west</li> </ul>	<ul style="list-style-type: none"> <li>● Somewhat increased ponding, east</li> <li>● Replace existing parallel ditches and dike system east of new roadway</li> </ul>
<b>Right-of-Way Requirements</b>	● 31 acres of new right-of-way required	● 9 acres of new right-of-way required	● 47 acres of new right-of-way required	● 25 acres of new right-of-way required
<b>Traffic Separation/Protection</b>	<ul style="list-style-type: none"> <li>● 46 feet median provides minimal separation of traffic</li> <li>● U-turns attainable with some difficulty</li> </ul>	<ul style="list-style-type: none"> <li>● 46 feet median provides minimum separation of traffic</li> <li>● U-turns attainable with some difficulty</li> </ul>	<ul style="list-style-type: none"> <li>● 84 feet median provides ample separation of traffic</li> <li>● Affords easy U-turn movement at crossovers</li> </ul>	<ul style="list-style-type: none"> <li>● 84 feet median provides ample separation of traffic</li> <li>● Affords easy U-turn movement at crossovers</li> </ul>
<b>Utility Impacts</b>	● Displaces 18,500 LF buried telephone	● Could displace 5,800 LF overhead power	● Could possibly remain in median 18,500 LF buried telephone	● Displaces 5,800 LF overhead power

**TABLE 7**  
**Alternatives Evaluation: Segment B**

Evaluation Criteria	Four-Lane Divided Roadway			
	B-1 46' Median Offset West	B-2 46' Median Offset East	B-3 84' Median Offset West	B-4 84' Median Offset East
<b>Construction Cost</b>	\$ 21,720,000	\$ 21,192,000	\$ 22,097,000	\$ 21,767,000
<b>Potential Environmental Considerations</b>	<ul style="list-style-type: none"> <li>● Eliminates 1 business and 2 dwellings</li> <li>● Loss of parking at roadside table</li> <li>● Narrow median inhibits mitigation of visual character</li> <li>● Disturbs 304 acres of vegetation</li> <li>● Potential noise impacts to 3 dwellings</li> <li>● Potential disturbance of an underground storage tank</li> <li>● Section 4(f) consultation required at Buckeye Hills Recreation Area</li> <li>● C.O.E. permit will be required</li> </ul>	<ul style="list-style-type: none"> <li>● Loss of roadside table and parking</li> <li>● Narrow median inhibits mitigation of visual character</li> <li>● Larger rock-cut slopes may reduce visual quality</li> <li>● Disturbs 325 acres of vegetation of higher density than west side</li> <li>● Potential noise impacts to 5 dwellings</li> <li>● C.O.E. permit will be required</li> </ul>	<ul style="list-style-type: none"> <li>● Eliminates 1 business, 2 dwellings and 1 vacant dwelling</li> <li>● Loss of parking at roadside table</li> <li>● Wider median enhances mitigation of visual character</li> <li>● Disturbs 397 acres of vegetation</li> <li>● Potential noise impacts to 3 dwellings</li> <li>● Potential disturbance of an underground storage tank</li> <li>● Section 4(f) consultation required at Buckeye Hills Recreation Area</li> <li>● C.O.E. permit will be required</li> </ul>	<ul style="list-style-type: none"> <li>● Loss of roadside table and parking</li> <li>● Wider median enhances mitigation of visual character</li> <li>● Larger rock-cut slopes may reduce visual quality</li> <li>● Disturbs 419 acres of vegetation of higher density than west side</li> <li>● Potential noise impacts to 5 dwellings</li> <li>● C.O.E. permit will be required</li> </ul>
<b>Drainage Impacts</b>	<ul style="list-style-type: none"> <li>● No impacts upstream, east</li> <li>● Minimal impacts downstream, west</li> </ul>	<ul style="list-style-type: none"> <li>● Somewhat increases ponding, east</li> <li>● Replace existing parallel ditch and dike system, east of new roadway</li> </ul>	<ul style="list-style-type: none"> <li>● No impacts upstream, east</li> <li>● Minimal impacts downstream, west</li> </ul>	<ul style="list-style-type: none"> <li>● Somewhat increases ponding, east</li> <li>● Replace existing parallel ditch and dike system, east of new roadway</li> </ul>
<b>Right-of-Way Requirements</b>	<ul style="list-style-type: none"> <li>● 187 acres of new right-of-way required</li> <li>● 10 acres of slope easement required</li> </ul>	<ul style="list-style-type: none"> <li>● 53 acres of new right-of-way required</li> <li>● 21 acres of drainage easement required</li> <li>● 11 acres of slope easement required</li> </ul>	<ul style="list-style-type: none"> <li>● 280 acres of new right-of-way required</li> <li>● 10 acres of slope easement required</li> </ul>	<ul style="list-style-type: none"> <li>● 147 acres of new right-of-way required</li> <li>● 21 acres of drainage easement required</li> <li>● 11 acres of slope easement required</li> </ul>
<b>Traffic Separation/Protection</b>	<ul style="list-style-type: none"> <li>● 46 feet median provides minimal separation of traffic</li> <li>● U-turns attainable with some difficulty</li> </ul>	<ul style="list-style-type: none"> <li>● 46 feet median provides minimal separation of traffic</li> <li>● U-turns attainable with some difficulty</li> </ul>	<ul style="list-style-type: none"> <li>● 84 feet median provides ample separation of traffic</li> <li>● Affords easy U-turn movement at crossovers</li> </ul>	<ul style="list-style-type: none"> <li>● 84 feet median provides ample separation of traffic</li> <li>● Affords easy U-turn movement at crossovers</li> </ul>
<b>Utility Impacts</b>	<ul style="list-style-type: none"> <li>● Displaces 113,000 LF buried telephone, 7,400 LF Natural Gas and 15,300 LF overhead power</li> </ul>	<ul style="list-style-type: none"> <li>● Displaces 1,000 LF of overhead power</li> </ul>	<ul style="list-style-type: none"> <li>● Displaces 15,300 LF overhead power</li> <li>● 5,000 LF buried telephone could possibly remain in median</li> </ul>	<ul style="list-style-type: none"> <li>● Displaces 1,000 LF of overhead power</li> </ul>

**TABLE 8**  
**Alternatives Evaluation: Segment C**

Evaluation Criteria	Four-Lane Divided Roadway
	46' Median
Construction Cost	\$ 11,000,000
Potential Environmental Considerations	<ul style="list-style-type: none"> <li>● Potential disturbance to 2 dwellings</li> <li>● Potential impacts to riparian habitat</li> <li>● Potential noise impacts to 3 dwellings</li> </ul>
Drainage Impacts	<p>MP 146.0 to MP</p> <ul style="list-style-type: none"> <li>● No impacts upstream, east</li> <li>● Minimal impacts downstream, west</li> <li>● Cross Arlington Canal</li> </ul> <p>MP 149.20 to MP 150.20</p> <ul style="list-style-type: none"> <li>● Construct new drainage channel, west side of road</li> <li>● Encroachment fill within Gila River 100-year floodplain must meet FEMA requirements</li> </ul>
Right-of-Way Requirements	<ul style="list-style-type: none"> <li>● 13 acres of additional new right-of-way required</li> </ul>
Traffic Separation/Protection	<ul style="list-style-type: none"> <li>● 46 feet median provides minimal separation between opposing traffic</li> <li>● U-turns with some difficulty</li> </ul>
Utility Impacts	<ul style="list-style-type: none"> <li>● Transition could affect 5000 LF each of buried telephone, overhead power and irrigation ditches on west side</li> </ul>

**TABLE 9**  
**Alternatives Evaluation: Segment D**

Evaluation Criteria	Four-Lane Divided Roadway			
	D-1 46' Median Offset West	D-2 84' Median Offset West	D-3 84' Median Offset West with One-Way Frontage Roads	D-4 84' Median Offset West with Two-Way Frontage Roads
<b>Construction Cost</b>	\$ 3,492,000	\$ 3,504,000	\$ 26,180,000	\$ 27,200,000
<b>Potential Environmental Considerations</b>	<ul style="list-style-type: none"> <li>No identified social or economic impacts</li> <li>Narrow median inhibits mitigation of visual character. New SPRR overpass would dominate visual character/quality</li> </ul>	<ul style="list-style-type: none"> <li>No identified social or economic impacts</li> <li>Wider median enhances mitigation of visual character. New SPRR overpass would dominate visual character/quality</li> </ul>	<ul style="list-style-type: none"> <li>Potential increased land values and economic development adjacent to frontage road</li> <li>Wider median enhances mitigation of visual character. New SPRR and crossroad overpass would dominate visual character/quality</li> </ul>	<ul style="list-style-type: none"> <li>Potential increased land values and economic development adjacent to frontage road</li> <li>Wider median enhances mitigation of visual character. New SPRR and crossroad overpass would dominate visual character/quality</li> </ul>
<b>Drainage Impacts</b>	<ul style="list-style-type: none"> <li>Construct new drainage channel, west side of road, along with siphons under irrigation canals</li> <li>Cross Buckeye and Roosevelt Canals</li> <li>Encroachment fills within small 100-year floodplains north of both irrigation canals must meet FEMA requirements</li> <li>NPDES requirements may require construction of roadway ditches to eliminate discharges into irrigation ditches</li> </ul>	<ul style="list-style-type: none"> <li>Construct new drainage channel, west side of road, along with siphons under irrigation canals</li> <li>Cross Buckeye and Roosevelt Canals</li> <li>Encroachment fills within 100-year floodplains north of both irrigation canals must meet FEMA requirements</li> <li>NPDES requirements may require construction of roadway ditches to eliminate discharges into irrigation ditches</li> </ul>	<ul style="list-style-type: none"> <li>Construct new drainage channel, west side of road, along with siphons under irrigation canals</li> <li>Cross Buckeye and Roosevelt Canals</li> <li>Encroachment fills within small 100-year floodplains north of both irrigation canals must meet FEMA requirements</li> <li>NPDES requirements may require construction of roadway ditches to eliminate discharges into irrigation ditches</li> </ul>	<ul style="list-style-type: none"> <li>Construct new drainage channel, west side of road, along with siphons under irrigation canals</li> <li>Cross Buckeye and Roosevelt Canals</li> <li>Encroachment fills within small 100-year floodplains north of both irrigation canals must meet FEMA requirements</li> <li>NPDES requirements may require construction of roadway ditches to eliminate discharges into irrigation ditches</li> </ul>
<b>Right-of-Way Requirements</b>	None	None	<ul style="list-style-type: none"> <li>None</li> </ul>	<ul style="list-style-type: none"> <li>None</li> </ul>
<b>Traffic Separation/Protection</b>	<ul style="list-style-type: none"> <li>46 feet median provides minimal separation of traffic</li> <li>U-turns attainable with some difficulty</li> </ul>	<ul style="list-style-type: none"> <li>84 feet median provides ample separation of traffic</li> <li>Affords easy U-turn movement at crossovers</li> </ul>	<ul style="list-style-type: none"> <li>84 feet median provides ample separation of traffic</li> <li>Separation of local traffic from through traffic provided</li> </ul>	<ul style="list-style-type: none"> <li>84 feet median provides ample separation of traffic</li> <li>Separation of local traffic from through traffic provided</li> </ul>
<b>Utility Impacts</b>	<ul style="list-style-type: none"> <li>Displaces 3,000 LF overhead power</li> </ul>	<ul style="list-style-type: none"> <li>Displaces 3,000 LF overhead power</li> </ul>	<ul style="list-style-type: none"> <li>Displaces 3,000 LF overhead power</li> <li>Potential disruption to 1 deep well (Irrigation)</li> </ul>	<ul style="list-style-type: none"> <li>Displaces 3,000 LF overhead power</li> <li>Potential disruption to 1 deep well (Irrigation)</li> </ul>

## **6.0 Recommendations For Further Study**

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### **6.1 Segment A (SB-8; MP 122.83 to MP 120.34) and (SR 85; MP 120.32 to MP 124.0)**

Alternatives A-1C, A-1D, A-2B, A-3B, A-5C and A-5D, are recommended for further study along with the No-Build Alternative. Fully controlled access will be evaluated for each of the recommended alternatives as the study progresses.

- The alternatives having an 84 foot median would provide a safer recovery zone and opportunity for additional travel lanes and left turn lanes.
- Alternative A-1C, A-1D, A-5C, and A-5D would have the potential to reduce the visual impacts of the roadway and would maintain economic viability of commercial businesses in Gila Bend.
- A-2B would provide a new four lane divided facility to I-8 and would have the potential to reduce the visual impacts of the roadway.
- A-3B would protect the commercial businesses at the I-8/East Gila Bend interchange and would have the potential to reduce the visual impacts of the roadway.
- The alternatives would avoid the 4(f) consultation associated with the historic bridge overpass.

Alternative A-1A, A-1B, A-2A, A-3A, A-4A, A-4B, A-5A and A-5B are not recommended for further study.

- Those alternatives with a narrow median were considered unnecessarily restrictive, especially where left turn lanes would be required.
- Both A-1A and A-1B would have the potential to disturb the DPS facility, the ADOT Maintenance Yard and the Elks building, as well as have potential noise impacts to DPS housing and dwellings along SB-8. The 46 foot median in each of these alternative alignments would inhibit mitigation of visual impacts of the roadway.
- Alternative A-2A was eliminated from further study due to the potential noise impacts to the mobile homes on South Street and its narrower, 46 foot median which would inhibit mitigation of the visual impacts of the roadway.
- Alternative A-3A was eliminated from further study due to the potential noise impacts to the single family dwellings and the narrower, 46 foot median, which would inhibit mitigation of the visual impacts of the roadway.

- Both alternatives A-4A and A-4B which veer northwest of the Gila Bend Airport from SR 85 were eliminated from further consideration. These alignments would pose potential adverse economic impacts to downtown Gila Bend, would disturb access to the three commercial businesses at SB-8/I-8 and would have the potential to encroach upon future airport runway expansion.
- Alternative A-5A and A-5B would inhibit the mitigation of the visual impacts of the roadway, and the narrower 46 foot median would displace a buried telephone line and potential displacement of overhead power.

## **6.2 Segment B (SR 85; MP 124.0 to MP 146.0)**

Alternatives B-3 and B-4 are recommended for further study in addition to the No-Build Alternative. Fully controlled access will be evaluated for each of the recommended alternatives as the study progresses.

- The alternatives having a wider median would provide a safer recovery zone and opportunity for additional travel lanes and left turn lanes.
- The alternatives are similar, both provide an 84 foot median that would allow for enhancement of the visual quality of the roadway. Both alternatives have comparable cost.
- The 4(f) property will be avoided in the B-3 alternative at MP 145.

Alternatives B-1 and B-2 were both eliminated from further consideration. The narrower 46 foot median would inhibit mitigation of visual impacts of the roadway and would provide a minimal separation of traffic in a segment that is not inhibited by development.

## **6.3 Segment C (SR 85; MP 146.0 to MP 150.2)**

A four lane divided roadway with a 46 foot median recommended in the Gila River Bridge Environmental Assessment will be studied further in addition to the No-Build Alternative. Fully controlled access will be evaluated for this recommended alternative as the study progresses.

- The recommended alternative will avoid the 4(f) property and would limit the impact to the private properties located near MP 148.
- A 46 foot median was utilized in this segment in order to minimize impacts to the existing Gila River Wilderness Area, wetlands, prime farmland and private lands. With a 46 foot median in the vicinity of the Gila River, transitions to a wider median will be needed at both ends to connect with Segments B and D.

#### **6.4 Segment D (SR 85; MP 150.2 to MP 150.48) and (Spur 85; MP 150.48 to MP 154.52)**

Alternatives D-2, D-3 and D-4 are recommended for further study along with the No-Build Alternative. Fully controlled access will be evaluated for each of the recommended alternatives as the study progresses.

- The alternatives having a wider median would provide a safer recovery zone and opportunity for additional travel lanes and left turn lanes.
- The 84 foot median would allow for enhancement of the visual quality of the roadway.
- Alternatives D-3 and D-4 have the potential to enhance economic development since frontage roads would be constructed.

Alternative D-1 was eliminated from further study since its 46 foot median width would inhibit mitigation of the visual impacts of the roadway and would provide minimal separation of traffic. Since Segment D has a minimum of 400 feet of right-of-way, the 46 foot median poses an unnecessary constraint on the roadway.