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TRANSPORTATION PLANNING DIVISION
2901 W. DURANGO STREET
PHOENIX, ARIZONA 85009

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FINAL ENVIRONMENTAL ASSESSMENT
for
GILA RIVER CROSSING STUDY
(115TH AVENUE - ESTRELLA PARKWAY)



AUGUST 1994

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MARICOPA COUNTY DEPARTMENT OF TRANSPORTATION
TRANSPORTATION PLANNING DIVISION
2901 W. DURANGO STREET
PHOENIX, ARIZONA 85009

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AUGUST 1994

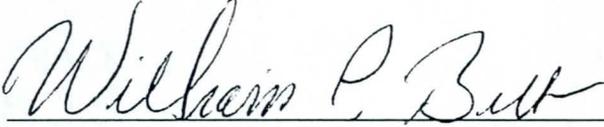
MARICOPA COUNTY DEPARTMENT OF TRANSPORTATION
TRANSPORTATION PLANNING DIVISION
2901 WEST DURANGO STREET
PHOENIX, ARIZONA 85009

FINAL ENVIRONMENTAL ASSESSMENT
PROJECT # MMA-0()
TRACS # 0000-MA-MMA-SS-345-O1D
GILA RIVER CROSSING STUDY
MARICOPA COUNTY, ARIZONA

APPROVED BY:


Greg R. Holverson, P.E., Acting Chief
Transportation Planning Division
Maricopa County Department of Transportation

Date: 8/3/94


William P. Belt, Manager
Environmental Planning Services
Arizona Department of Transportation

Date: 8/10/94

This Environmental Assessment has been prepared in accordance with the provisions and requirements of Chapter 1, Title 23 USC, CFR Part 771 relating to the implementation of the National Environmental Policy Act of 1969.

FEDERAL HIGHWAY ADMINISTRATION
FINDING OF NO SIGNIFICANT IMPACT
FOR
PROJECT STP-MMA-0()
SS-34501D
GILA RIVER CROSSING
115TH AVE-ESTRELLA PARKWAY
MARICOPA COUNTY, ARIZONA

The FHWA has determined that this project will not have any significant impact on the human environment. This Finding of No Significant Impact is based on the attached Environmental Assessment which has been independently evaluated by the FHWA and determined to adequately and accurately discuss the environmental issues and impacts of the proposed project. It provides sufficient evidence and analysis for determining that an Environmental Impact Statement is not required. The FHWA takes full responsibility for the accuracy, scope, and content of the attached Environmental Assessment.

8/12/94
Date

Dan E. Borders
For Division Administrator

GILA RIVER CROSSING STUDY
115th Avenue - Estrella Parkway

ENVIRONMENTAL ASSESSMENT
TABLE OF CONTENTS

<u>Section</u>	<u>Page</u>
LIST OF FIGURES	i
ENVIRONMENTAL MITIGATION MEASURES	ii
I. PROJECT LOCATION AND NEED	
A. Location of the Proposed Action	1
B. Need for the Project	1
II. PROJECT DESCRIPTION	
A. General Description	4
B. Traffic Data	5
C. Level of Service	5
D. Traffic Generators and Major Facilities	7
E. Accidents	8
F. Design Parameters and Major Features	8
1. Roadway Cross-section	8
2. Bridge Cross-section	9
3. Horizontal/Vertical Alignment	9
4. Hydrologic Data	9
5. Earthwork	9
6. Utilities	10
7. Traffic Control Plan During Construction	10
G. Right-of-way	10
H. Construction Schedule and Costs	11
III. ALTERNATIVES CONSIDERED	
A. Do Nothing	12
B. Baseline Road Extension	13
C. 115th Avenue	13
D. 116th Avenue	14
E. 117th Avenue	14
F. 119th Avenue	15
G. El Mirage Road	15
H. Dysart Road	16
I. Litchfield Road	16
J. Bullard Avenue	17
K. Estrella Parkway	17
L. Remote Parking and Shuttle Service(TDM)	18
M. Relocate Phoenix International Raceway	19

IV. EXISTING ENVIRONMENT	
A. Land Use and Ownership	20
B. Topography	21
C. Vegetation	22
D. Drainage	23
E. Wildlife	24
F. Cultural Resources	25

V. SOCIAL, ECONOMIC AND ENVIRONMENTAL IMPACTS	
A. Social and Economic Impacts	27
B. Water Quality	29
1. Section 404/401 of the Clean Water Act	29
2. Wetland/Riparian	30
C. Vegetation and Wildlife	30
1. Special Status Species	30
2. Special Wildlife Management Area	31
D. Cultural Resources	32
E. Section 4(f)	32
F. Floodplains	33
G. Hazardous Materials	34
H. Air Quality	35
I. Noise Impacts	37
J. Visual Impact	38
K. Farmlands	39
L. Other Transportation Modes	39

VI. PROJECT COORDINATION AND PUBLIC INVOLVEMENT	
A. Agency Coordination	40
B. Public Meeting/Hearing	42

APPENDICES	
A. Coordination Responses	
B. Public Comments	
C. References	
D. List of Preparers, Contributors	

LIST OF FIGURES

State Map

Figure 1 County Map

Figure 2 Location Map

Figure 3 Average Daily Traffic

Figure 4 Race Day Average Daily Traffic

Figure 5 Typical Section Roadway

Figure 6 Typical Section Bridge

Figure 7 Selected School Bus Routes

Figure 8 Alternatives Map

Figure 9 Preferred Alternative Map

Figure 10 Air Quality Non-Attainment Area

GILA RIVER CROSSING STUDY
115th Avenue - Estrella Parkway

ENVIRONMENTAL MITIGATION MEASURES

Standard Mitigation Measures

All relevant aspects of the "Uniform Standard Specifications for Public Works Construction", Maricopa Association of Governments (revised 1993) and the Maricopa County Department of Transportation (MCDOT) "General Site Regulations" (1993) shall be followed during the construction of this project. The specifications and site regulations include, but are not limited to the following:

1. If cultural resources are encountered during construction the contractor shall stop work at that location, and report promptly to the Arizona State Museum and the Contracting Agency (MCDOT). [Section 107.4 MAG Uniform Standard Specifications]
2. The contractor shall take whatever steps, procedures or means required to prevent any dust nuisance due to his operations. The dust control measures shall be maintained at all times to the satisfaction of the Engineer and in accordance with the requirements of the Maricopa County Bureau of Air Pollution Control Rules and Regulations. [Section 104.1.3 MAG Uniform Standard Specifications]
3. In the event unknown hazardous or suspect material is encountered during construction the contractor shall; call '911' in a life threatening situation, stop work in the affected area, prohibit unauthorized entry, notify MCDOT Safety Office and notify the appropriate emergency/regulatory agencies. [Section 7.3 MCDOT General Site Regulations]
4. A traffic control plan shall be developed and traffic maintained in accordance with Construction Specifications for this project and the County Traffic Engineer. The "Manual On Uniform Traffic Control Devices" (USDOT) shall be the contractors guideline in the preparation of the control plan. [Section 11.1 - 11.6 MCDOT General Site Regulations and Section 401 MAG Uniform standard Specifications]

Special Mitigation Measures

1. The Maricopa County Department of Transportation and the contractor shall conduct a Public "Construction Notice" Information Meeting prior to the commencement of the project. This meeting shall be held in the project vicinity during reasonable hours to insure adequate public attendance.

2. The bridge design will include a mitigation plan for the disturbed right-of-way (approximately 5 acres of riparian vegetation impacted by the proposed alignment). The plan will include implementation plans (selection of species, density and irrigation requirements), maintenance requirements and define an establishment period. The plans will be coordinated with the Arizona Game and Fish Department and Maricopa County Flood Control District and the U.S Fish and Wildlife Service.
3. The bridge plans will include a river channel design that maintains flows from the Wastewater Treatment Plant through the bridge structure corresponding to the existing or traditional flow line. Existing effluent flows will not be diverted or channelized such that moisture would be removed from the existing riparian corridor. Plans will be coordinated with the Maricopa County Flood Control District.
4. Access will be maintained to the Arizona Game and Fish Department property via a single gated entry/exit located at or near the northeast bridge abutment. The gated opening at the right-of-way line would accommodate pedestrian and equestrian access, not vehicular access (including motorcycles and off-highway vehicles). The remaining approach road rights-of-way at the north and south abutments will be fenced to preclude vehicular access to the river bed.
5. The existing 115th Avenue low flow crossing will be removed following completion of the bridge and the alignment will be revegetated corresponding (in vegetation type and density) to the habitat replacement needs identified in the mitigation plan. The revegetated area will be approximately 1.5 acres in size and include the area from the north levee, south to near mid-channel (location of the existing low flow channel).
6. The Maricopa County Department of Transportation (Real Estate Division) will acquire 28 acres of lease interest from the Harper Sand and Gravel Company. The acquisition of this lease interest will preclude the excavation of sand and gravel materials at that site for the remaining 15 years of the lease; thereby, removing the potential wildlife habitat losses or impacts associated with the materials operation. Acquisition of the lease will be coordinated with Arizona Game and Fish Department (property owner).

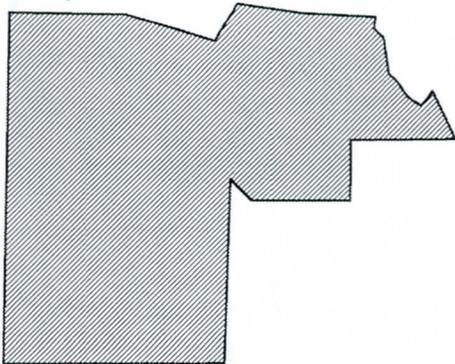
Mitigation Measures - Permits

1. A National Pollutant Discharge Elimination System(NPDES) stormwater permit will be required for this project. Under the provisions of the Environmental Protection Agency General Permit for Arizona, the contractor shall be designated the permittee, and shall take all measures to assure compliance.

The contractor shall prepare the Notice of Intent(NOI), Stormwater Pollution Prevention Plan(SWPPP) and Notice of Termination(NOT).

2. The Maricopa County Department of Transportation (Engineering Division) shall apply for a U.S. Army Corps of Engineers Section 404 Permit at the completion of 30% or equivalent plans development. It is expected that a combination of nationwide permits will be required.
3. The Maricopa County Department of Transportation (Engineering Division / Transportation Planning Division) will apply for an Arizona Department of Environmental Quality Section 401 State Water Quality Certification. Application will be prior to or at the completion of 30% plans or equivalent.
4. In compliance with the Arizona Native Plant Law the Maricopa County Department of Transportation or its contractor shall notify the Arizona Department of Agriculture at least 60 days prior to land clearing operations to allow for the salvage of native protected plants. Consideration will be given to incorporating salvaged plants in the mitigation plan.
5. The contractor shall obtain the necessary Maricopa County Bureau of Air Pollution Control permits for equipment operation and dust control (see Standard Mitigation Measure 2.).

STATE OF ARIZONA



**Gila River Crossing Study
Final Environmental
Assessment - State Map**

CHAPTER I

Project Location and Need

A. Location of the Proposed Action

The Gila River Crossing Study area is in Maricopa County in central Arizona approximately 15 miles west and five miles south of downtown Phoenix. The area encompasses Sections 32 through 36 of Township 1 North, Range 1 West and Sections 1 through 6 of Township 1 South, Range 1 West of the Gila and Salt River Base and Meridian and is adjacent to the Gila River Indian Community. The Study Area extends from and includes 115th Avenue on the east to Estrella Parkway on the west and from Indian Springs Road on the south to Southern Avenue on the north (see Figure 1 County Map, and Figure 2 Location Map). The study limits expand as needed to include new alignments or realignments to match existing roadways.

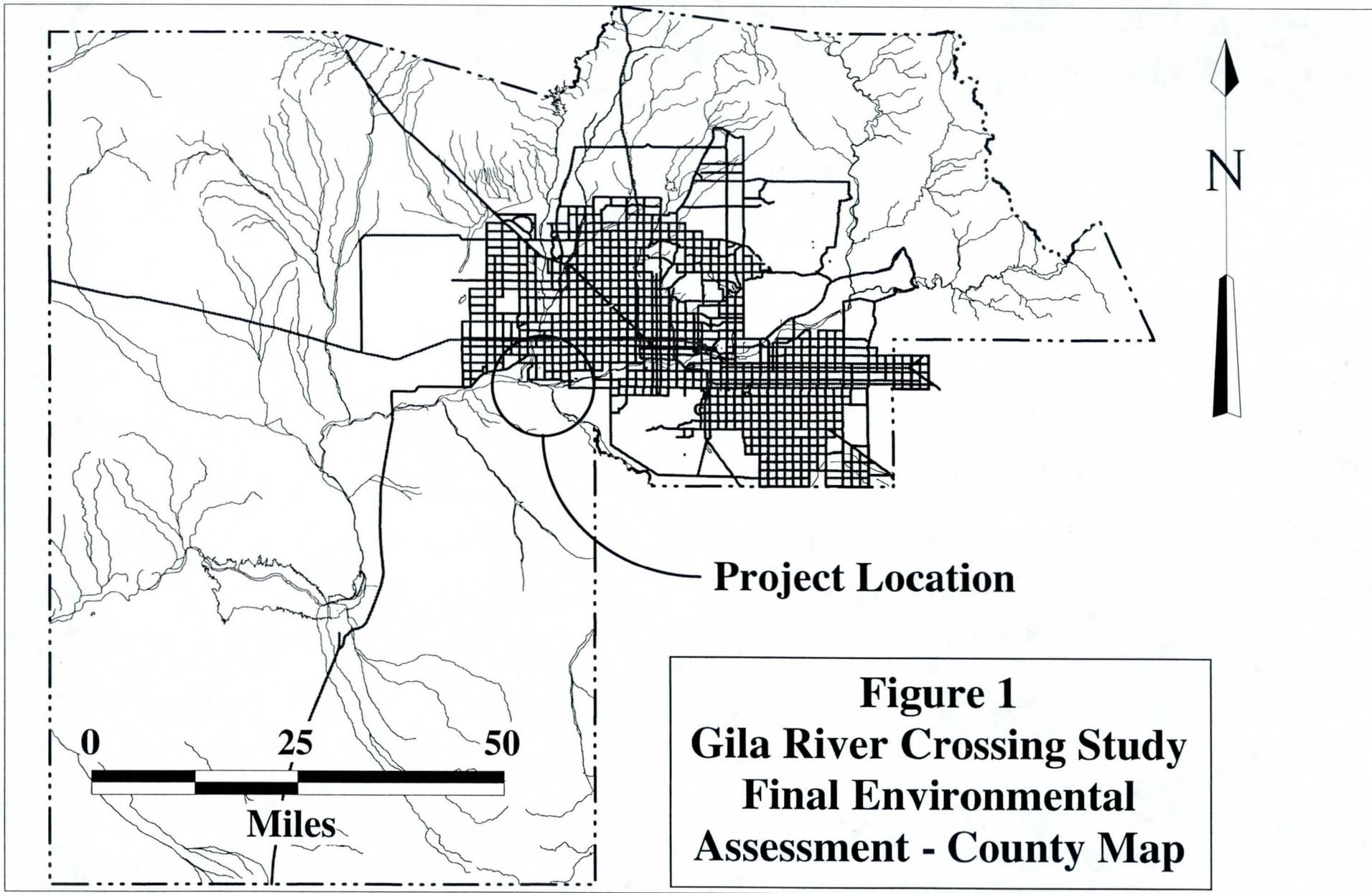
B. Need for the Project

Southwest Phoenix, Avondale, and Goodyear are confined by a lack of bridged crossings over the Salt/Gila Rivers between 51st Avenue and Bullard Avenue. From the bridged crossing at 51st Avenue to the bridge at Bullard Avenue, a distance of 12 miles, there are 4 unbridged or low flow crossings of the Salt/Gila Rivers. Two of the unbridged crossings are in the Study Area, 115th Avenue and El Mirage Road. Those two crossings provide access to Phoenix International Raceway and rural residential development south of the river (see Figure 2, Project Location Map).

The unbridged crossings are used by residents, school buses, park recreation traffic for Casey Abbot Recreation Area, Estrella Mountain Park and by visitors to Phoenix International Raceway (PIR). The 115th Avenue and El Mirage Road crossings are both piped and paved and are designed to handle river flows of 2000 cubic feet per second (cfs) or less. In the past 3 years river flooding has forced the closure of 115th and El Mirage for 320 days.

115TH AVENUE AND EL MIRAGE ROAD CROSSING CLOSURES

- * July 1990 for 4 days
- * August 1990 for 5 days
- * March-April 1991 for 34 days
- * March-May 1992 for 65 days
- * August-September 1992 for 30 days
- * January-July 1993 for 182 days



*Gila River Crossing Study
Project Location Map*

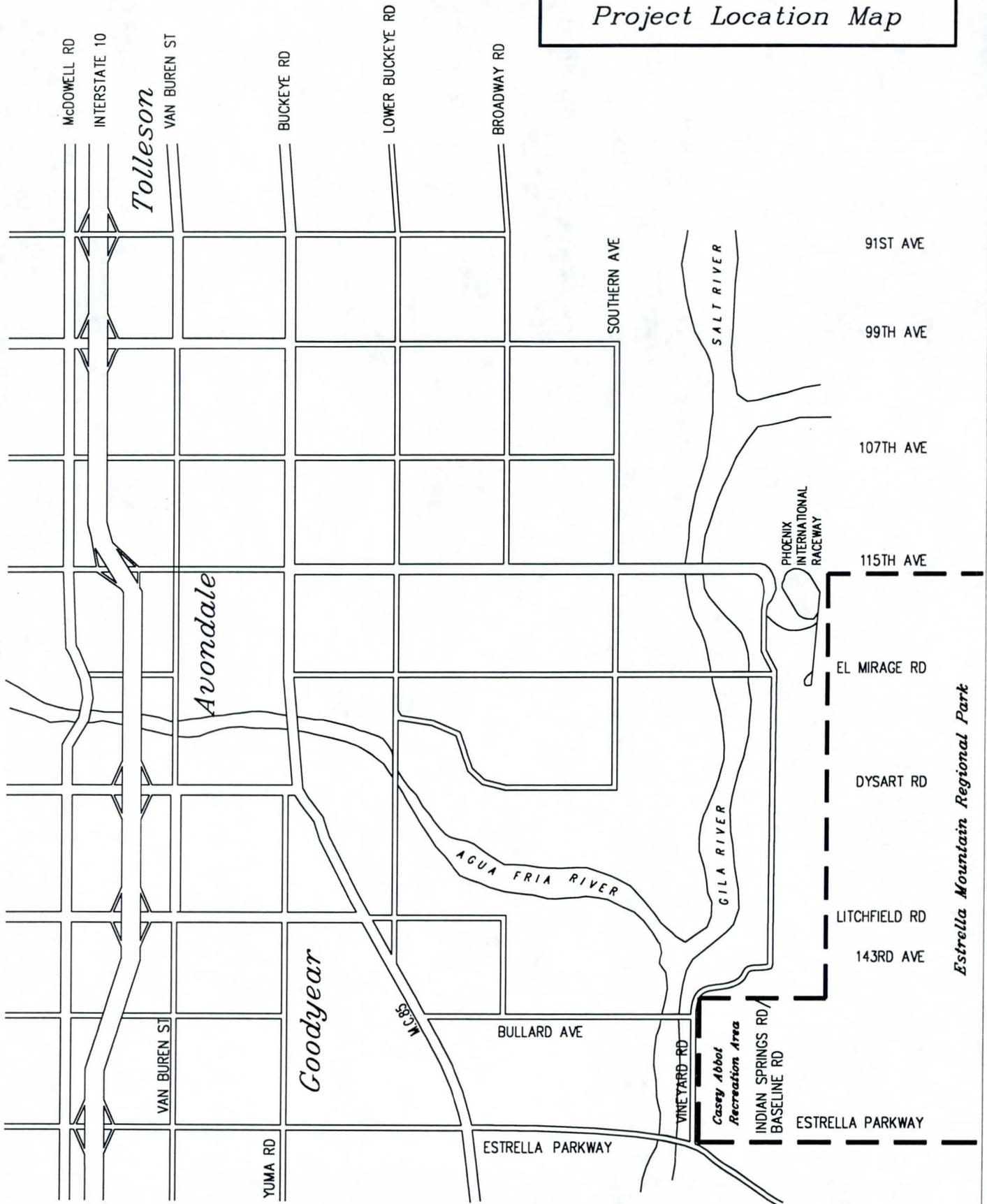


FIGURE 2

The County and Avondale have spent over \$850,000 repairing the 115th Avenue and El Mirage Road crossings after flood events over the past three years.

PIR attracts up to 87,000 fans per day(1993 NASCAR Slick 50 - 500), for seven three-day events per year. This facility is located on the south side of the Gila River, and all routes to the facility must cross the river. Currently the facility is served by one four-lane arterial (115th Avenue) and a two-lane collector El Mirage Road funneling into the recently widened Indian Springs Road (4 lanes).

The most direct route from Phoenix is I-10 to 115th Avenue, then via 115th south to the racetrack. 115th Avenue has a low flow culvert crossing of the river. The crossing is flooded when flows exceed 2000 cfs. The next shortest route detours west from 115th Ave to El Mirage Avenue, then south across the river. The El Mirage crossing also has culverts for 2000 cfs, but is only a two-lane road and is not armored to withstand flooding. The longest route to the track uses either Bullard Avenue or Estrella Parkway south across the river via two-lane bridge, then east 4 miles along Vineyard and Indian Springs Road. The use of Bullard or Estrella in addition to out of direction travel for most race fans, also encumbers public access to Casey Abbot Recreation Area, Estrella Golf Course and local residents. This results in several hour delays to local travelers attempting to visit the recreation area, take shopping trips, or work trips on race days.

The economic impacts to the metropolitan area due to out-of-direction travel to race events impacted by road closures; is estimated to be as much as \$2 million per year in delay costs(driving time, idling time). This is based on the four year average(1990 - 1993) of the El Mirage Road and 115th Avenue crossings being closed 82 days per year and the associated detour length and congestion delays (The Impact of 115th Avenue Bridge on the Local Phoenix Economy, MCDOT Transportation Planning, 1993).

In the late 1980's race day peak traffic flows began backing up on Interstate 10 at the off-ramp to 115th Avenue, causing Arizona Department of Public Safety to have deep concerns. PIR hired off duty Maricopa County Sheriff's officers to provide extra manual traffic control at the problem areas for each spectator event. In 1989, the Maricopa County Department of Transportation commissioned a traffic study (Phoenix International Raceway Study, October 1989) that made a total of sixteen short term traffic control recommendations between I-10 and Indian Springs Road and from 99th Avenue to Estrella Parkway. Those recommendations have been implemented and include variable message signs on I-10, reversible lanes(El Mirage and 115th Avenue), bus routing, incident response(stand-by tow trucks), public relations, law enforcement, park and ride lots, signage and lighting(after race pedestrian movement).

The study also made long term recommendations including road and new bridge construction, pedestrian improvements, increased use of shuttle busses and track operation times. Several improvements have already been made including the expanded use of shuttle busses, track operations (earlier opening on race days) and the addition of a pedestrian overpass near 115th Avenue and the south river bank. The Maricopa County Department of Transportation (MCDOT) has recently completed a widening of Indian Springs Road(1993) and has programmed roadway widening on El Mirage Road (from 2 to 3 lanes Indian Springs Road to Buckeye Road, year 2000) and 115th Avenue (2 to 4 lanes Buckeye Road to I-10, year 2000).

January 1993 floods washed out both the 115th Avenue and El Mirage Road crossings. The flooding forced PIR to postpone the Copper World Classic race to late February. The crossings were still closed for the rescheduled Copper World Classic and the April 1993 Indy car race. The flooding conditions have resulted in one drowning by an impatient fan attempting to cross the flooded roadbed after a concert. In addition, the Sheriff's office has had to rescue several individuals, and restrain others from attempting to cross the flooded river. These fans were trying to avoid the four to six hour delays exiting the site. The Sheriff's Office is very concerned about four to six hour delays causing fans to try crossing the flooded river; numerous car ramming incidents and resulting fist fights; and the inability to get emergency medical and fire equipment to the race track in the event of a large accident.

The MCDOT staff has been working with the City of Avondale and PIR staff for several years trying to find ways to alleviate the problems. The reasonable solution is the proposed construction of a bridge to provide reliable, safe access to PIR, improved access to Estrella Mountain Park and the local residents. The proposed bridge would provide capacity to handle projected traffic volumes and race day events.

A bridge over the Gila River is in the 1995 Capital Improvements Program(CIP) contingent on joint funding by Phoenix International Raceway, City of Avondale, Federal Highway Administration and Maricopa County Department of Transportation.

CHAPTER II

Project Description

A. General Study Area Description

The purpose of the study is to locate a bridge crossing of the Gila River. The Gila River flows from the east to the west through the study area. Two tributaries join the Gila within the Study Area. The Agua Fria River joins the Gila River 3/4 mile east of Bullard Avenue. The Salt River confluence with the Gila River is just east of 115th Avenue.

The City of Avondale, the City of Goodyear, State Land Department, Arizona Game and Fish Department and Maricopa County have jurisdiction over the lands within the study limits. There are several regulatory agencies that have responsibilities within the study limits. These include the United States Army Corps of Engineers, the United States Environmental Protection Agency, the United States Fish and Wildlife Service, the Arizona Department of Environmental Quality and the Maricopa County Flood Control District.

The land uses in the study area include agricultural, residential, commercial, and recreational. The residential uses are concentrated in corridors along the major roadways. Residential development lines 115th Avenue; and the area immediately east of El Mirage Road and south of Southern Avenue is developed with single family residences (known as Holly Acres). There is also a residential area south of Indian Springs Road south of the Gila River. Many of the single family residences are associated with area farming or are on acre or larger lots and include small farming or horse property activities.

The major commercial/recreational use is the Phoenix International Raceway located south of the Gila River where 115th Avenue curves into Indian Springs Road. The race track holds about 7 major Indy car or NASCAR type races each year and numerous smaller race events throughout the year. Concerts and other functions have been held at the facility. Other commercial uses include convenience marts, equestrian stables and farming/ranching related businesses north of the river.

The major recreational use in the area is the Estrella Mountain Regional Park and Casey Abbot Recreational Area. The recreation area is located south of the Gila River at Estrella Parkway and Vineyard Avenue. Casey Abbot is a Maricopa County Park and includes a golf course and rodeo arena in addition to family picnic, playground and sports facilities. The Estrella Regional Park is also a County park and covers 19,200 acres south of the Gila River, extending the full width of the study area.

There are four crossings of the Gila River within the study limits. Estrella Parkway and Bullard Avenue both have bridge crossings while 115th Avenue and El Mirage Road are low flow crossings that wash out during major river flows. There are no continuous east-west roadways within the study limits. Broadway Road is the nearest continuous road and it is one mile north of Southern Avenue. Interstate 10 is approximately three and one-half miles north of Broadway Road. Indian Springs Road is not continuous but it does connect by way of a curve with 115th Avenue on the east. It also connects by way of 143rd Avenue and Vineyard Avenue with Estrella Parkway on the west.

B. Traffic Data

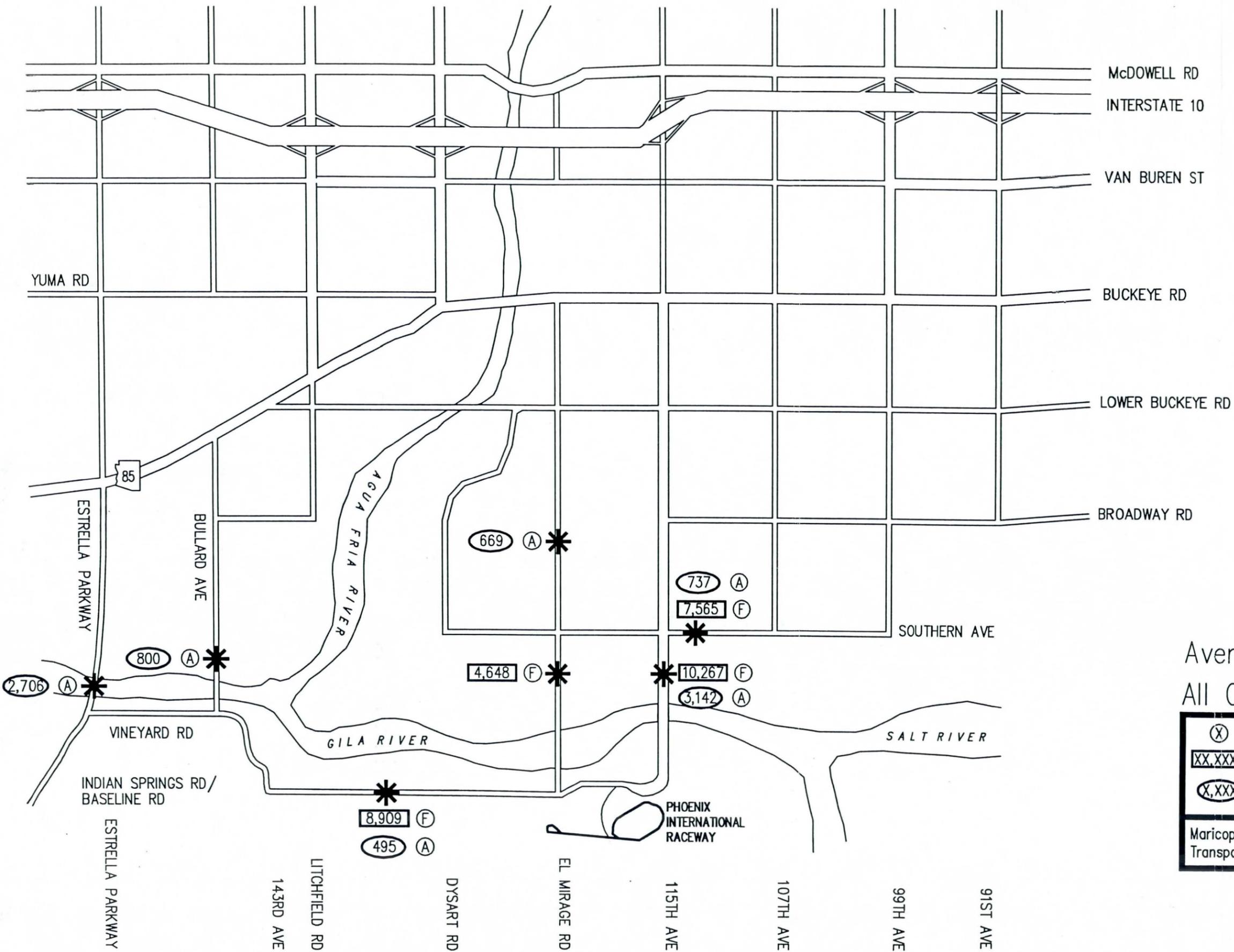
Traffic volumes on study area roads are generally low except on race days at Phoenix International Raceway. Traffic on raceday is spread out on all roads in the study area and is very congested both before and after the event. Traffic operations are modified, such as reversible lanes and one-way flow, to improve the service. Still, it takes up to two hours and more for the traffic service to return to acceptable levels when all crossings are open. Local residents find it difficult to leave or return to their homes at those times.

The problem is exacerbated when the river is flooded and particularly if either or both of the 115th Ave and El Mirage Road low flow crossings is closed. Traffic counts for non race event traffic ranges from 669 vehicles per day(vpd) on El Mirage Rd to 3142 vpd on 115th Avenue (see Figure 3, Average Daily Traffic). On race days the Average Daily Traffic (ADT) on 115th Avenue south of Southern Avenue to PIR is 4,000 - 6,000 vehicles on El Mirage Road and 10,000 - 15,000 vehicles on 115th Avenue (Phoenix International Raceway Traffic Study, 1989). Traffic counts taken for the April 2-4, 1993 race event when the 115th Avenue and El Mirage crossings were closed had volumes of 22,289 on Indian Springs Road with 16,187 on Bullard Avenue and 10,035 on Estrella Parkway (see Figure 4, Race Day Traffic Counts). The result is a level of service F on the project area roadways.

C. Level of Service

The roadway network in the area of the Gila River Crossing Study is composed of primarily rural two-lane roads on a grid of one mile spacing, with 115th Avenue having a four-lane cross section from MC 85(formerly State Route 85) to Baseline Road. The roadway network in the study area operates at a level of service A or B except during special events, such as races at Phoenix International Raceway.

Generally, levels of service A, B, and C are acceptable. Level of service D is generally tolerable, while levels E and F are definitely unacceptable. Level of service is the

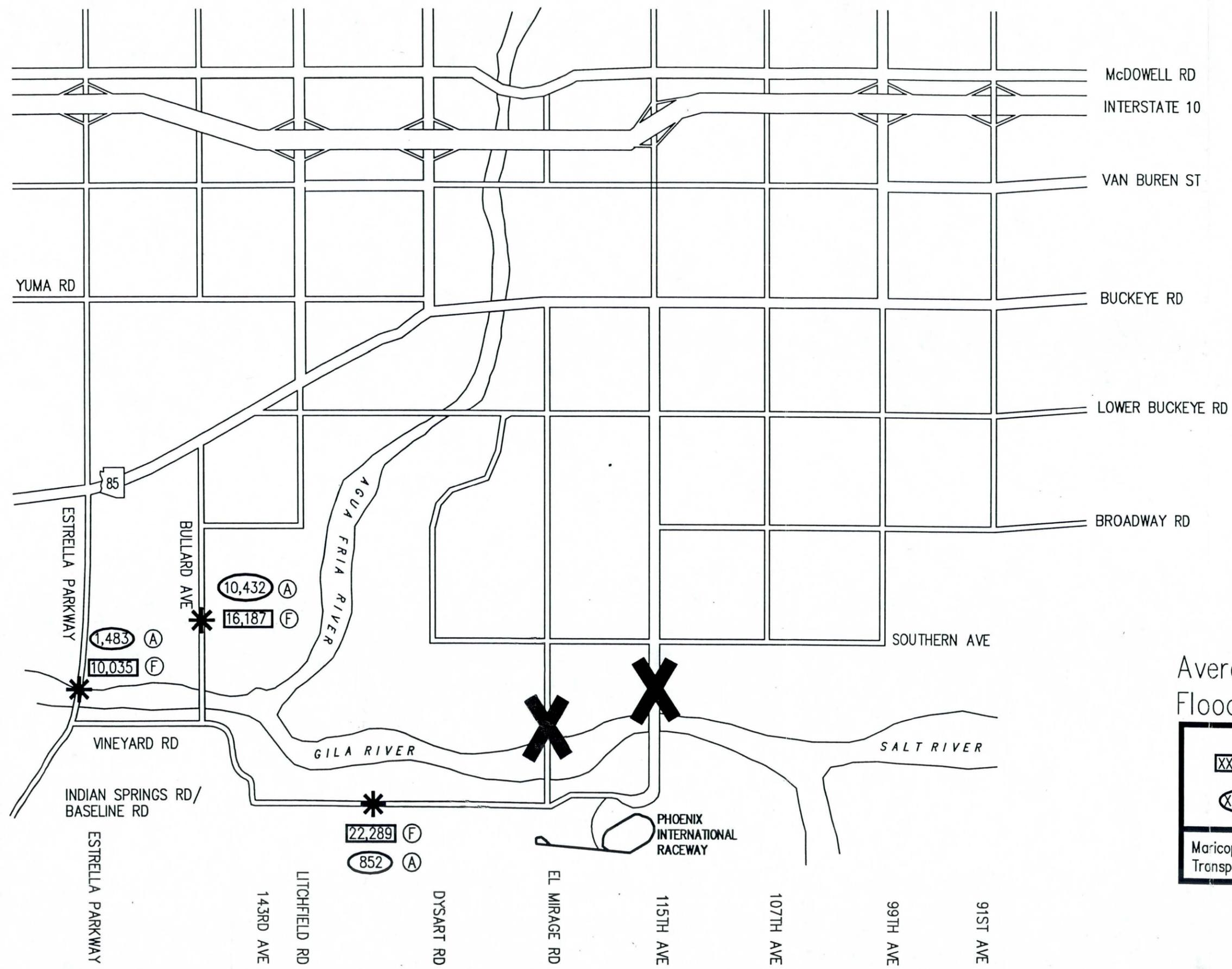


Average Daily Traffic With All Crossings Open

(X)	Level of Service during the peak hour
XX,XXX	race day traffic 11/02/92
(X,XXX)	non-race traffic (1993 ADT)

Maricopa County Department of Transportation
Transportation Planning Division

FIGURE 3



Average Daily Traffic During Flood Event - 1993

(X)	Level of Service
XX,XXX	race day traffic 04/02/93 (Sunday)
X,XXX	non-race traffic 04/11/93 (Sunday)
Maricopa County Department of Transportation Transportation Planning Division	

FIGURE 4

concept used by transportation officials to describe the amount of congestion on a roadway. Levels of service are graded A through F and are defined by the Highway Capacity Manual, Special Report 209, published by the Transportation Research Board, Washington, D.C., 1985.

- Level of service **A** represents free flow. Individual users are virtually unaffected by the presence of others in the traffic stream.
- Level of service **B** is in the range of stable flow, but the presence of other users in the traffic stream begins to be noticeable.
- Level of service **C** is in the range of stable flow, but marks the beginning of the range of flow in which the operation of the individual users becomes significantly affected by interactions with others in the traffic stream. The selection of speed is now affected by the presence of others, and maneuvering within the traffic stream requires substantial vigilance on the part of the user.
- Level of service **D** represents high density, but stable, flow. Speed and freedom to maneuver are severely restricted, and the driver or pedestrian experiences a generally poor level of comfort and convenience. Small increases in traffic flow will generally cause operational problems at this level.
- Level of service **E** represents operating conditions at or near the capacity level. All speeds are reduced to low, but relatively uniform value. Freedom to maneuver within the traffic stream is extremely difficult, and it is generally accomplished by forcing a vehicle or pedestrian to "give way" to accommodate such maneuvers. Comfort and convenience levels are extremely poor, and driver or pedestrian frustration is generally high. Operations at this level are usually unstable, because small increases in flow or minor perturbations within the traffic stream will cause breakdowns.
- Level of service **F** is used to define forced or breakdown flow. This condition exists wherever the amount of traffic approaching a point exceeds the amount which can traverse the point. Queues form behind such locations. Operations within the queue are characterized by stop-and-go waves, and they are extremely unstable. Vehicles may progress at reasonable speeds for several hundred feet or more, then be required to stop in cyclic fashion.

Currently, MCDOT, Maricopa County Sheriff's Office(MCSO), and ADOT employ special "race day" traffic control strategies to facilitate traffic flow to Phoenix International Raceway to prevent backups on I-10 and MC 85, which are the main route for visitors travelling to the area. These strategies employ reversible lanes, variable message signs, and law enforcement officers to maximize the available capacity of the roadway network to accommodate as many as 90,000 visitors per day (combined major PIR event and park use). Even with the implementation of the traffic control strategies, the roadway network in the study area is congested, operating at a level of service E/F.

Although a level of service E and F are considered unacceptable levels of service, the only times that this level of congestion is achieved is during large special events held south of the river. By employing special traffic control plans, the congestion is minimized to a couple of peak hours provided that all routes crossing the Gila River are open and passable. When the unbridged crossings over the Gila River are closed during flood events and a large special event takes place south of the river, only two access routes (Bullard Avenue and Estrella Parkway) exist to PIR; four to five miles west of PIR. Both Bullard Avenue and Estrella Parkway must use Indian Springs Road to Access PIR. In affect, there is only one access to PIR when flooding occurs.

As experienced during the last flood event in 1993, 6 to 10 mile long traffic detours were required for access to the track, and 8 mile traffic queues were experienced. Along with the time inconvenience experienced by the motorist, up to 2 hours to get to I-10, high levels of frustration were prevalent and emergency vehicle response was severely restricted due to the congestion.

D. Traffic Generators and Major Facilities

The major facilities in the Gila River Crossing Study area consist primarily of the Estrella Mountain Regional Park, Casey Abbot Recreation Area and Phoenix International Raceway. These facilities can contribute as many as 90,000 visitors on one day during large events. PIR is host to 7 major race events during the year, with the Indy Car and NASCAR events being the most popular. The park and recreation area also can generate significant traffic with the attraction of the facilities it has to offer including covered ramadas, lighted sports fields, rodeo arena and an 18 hole golf course.

In addition to these facilities, all-weather access is needed to the area to service a number of residences that reside south of the Gila River. Children that live south of the river off Indian Springs Road go to schools north of the river. Littleton Elementary School, Underdown Junior High School and Tolleson High School provide bus service to the residents south of the river. The 115th Avenue crossing is the normal bus route for all three schools. When flooding closes 115th Avenue the busses detour to Bullard Avenue causing additional mileage, cost and safety concerns; as the school children's trip distance nearly doubles.

Due to economic development underway and planned on the Gila River Indian Community (GRIC), including a resort casino and industrial park, the GRIC has requested access from the 115th Avenue and Indian Springs Road vicinity.

<u>School</u>	<u>Route</u>	<u>Distance</u>
Littleton	115th open - 115th to Indian Springs	4 miles
	115th closed - 115th to Lower Buckeye to MC85 to Bullard to Indian Springs	8 miles
Underdown	115th open - 107th to Lower Buckeye to 115th to Indian Springs	4.5 miles
	115th closed - 107th to Lower Buckeye to MC85 to Bullard to Indian Springs	8.5 miles
Tolleson	115th open - Van Buren to 99th to Southern to Indian Springs	7.5 miles
	115th closed - Van Buren to Bullard to Indian Springs	12 miles

(See Figure 7, Selected School Bus Routes)

E. Accidents

There are few accidents recorded by the Maricopa County Sheriff's Office on study area roads. There are none recorded on El Mirage Road, Dysart Road, Bullard Avenue, and Estrella Parkway; with only one on El Mirage Road, three on 115th Ave, and seven on Indian Springs Road. These roadways are multi-jurisdictional and there could be additional accidents not reported to the Sheriff's Office.

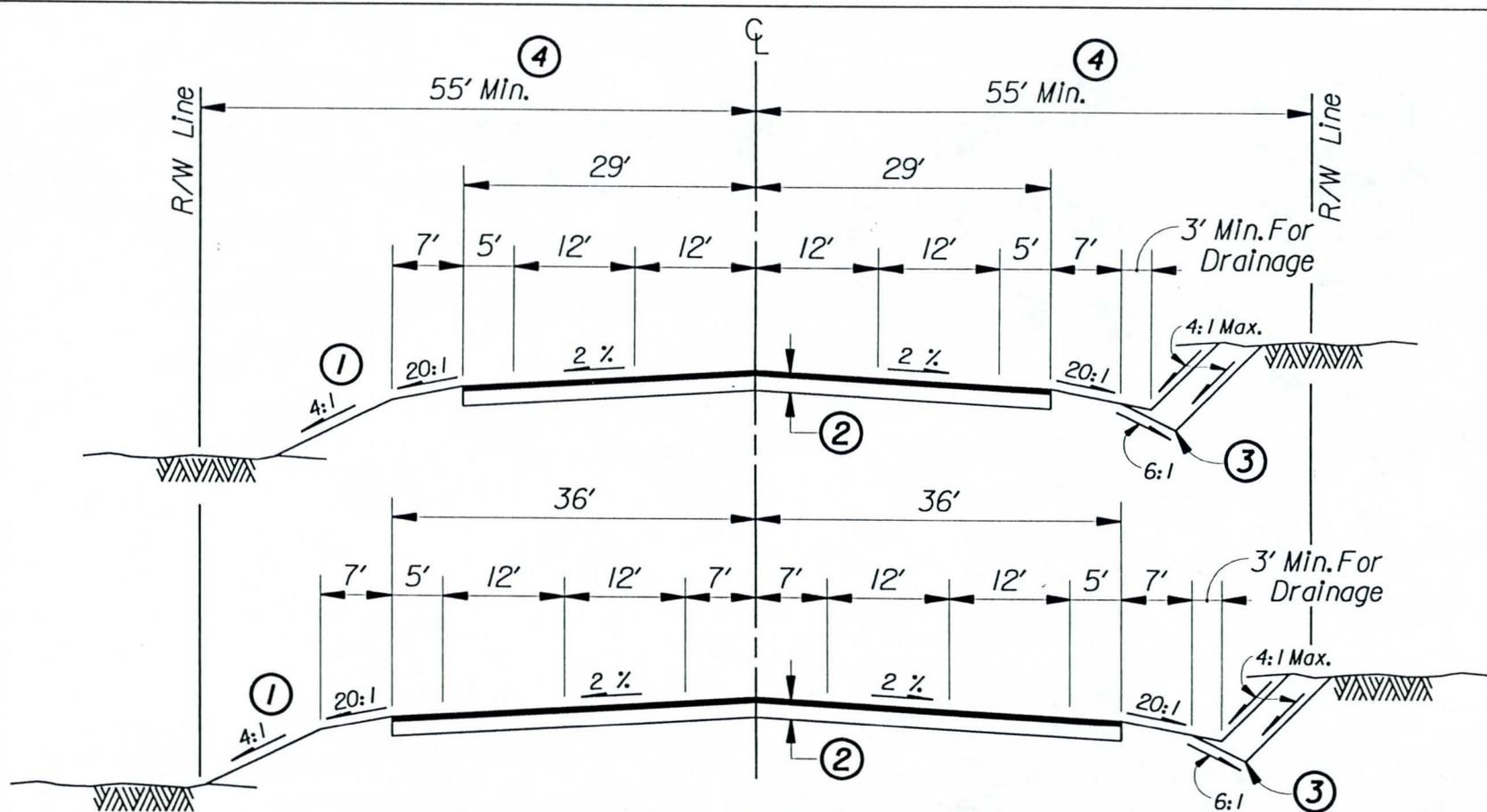
There have been 26 accidents on Southern Avenue in the same time period. Sixteen were at intersections and 10 were non-intersection accidents. There is not an obvious pattern and the accidents cannot necessarily be attributed to race day traffic. Reflecting the rural character of the area a number of accidents involve hitting horses cows or running off the road in the irrigation ditches.

F. Design Parameters and Major Features

1. Roadway Cross Section

The roadway cross section shall conform to the Rural Minor Arterial Road as shown on Figure 5(Procedure 5.1 of the MCDOT Roadway Design Manual). The pavement shall consist of four travel lanes at 12 feet each and five foot paved shoulders for bicycle use. The cross slope shall be 2% and the right-of-way shall be 110 feet.

FIGURE 5



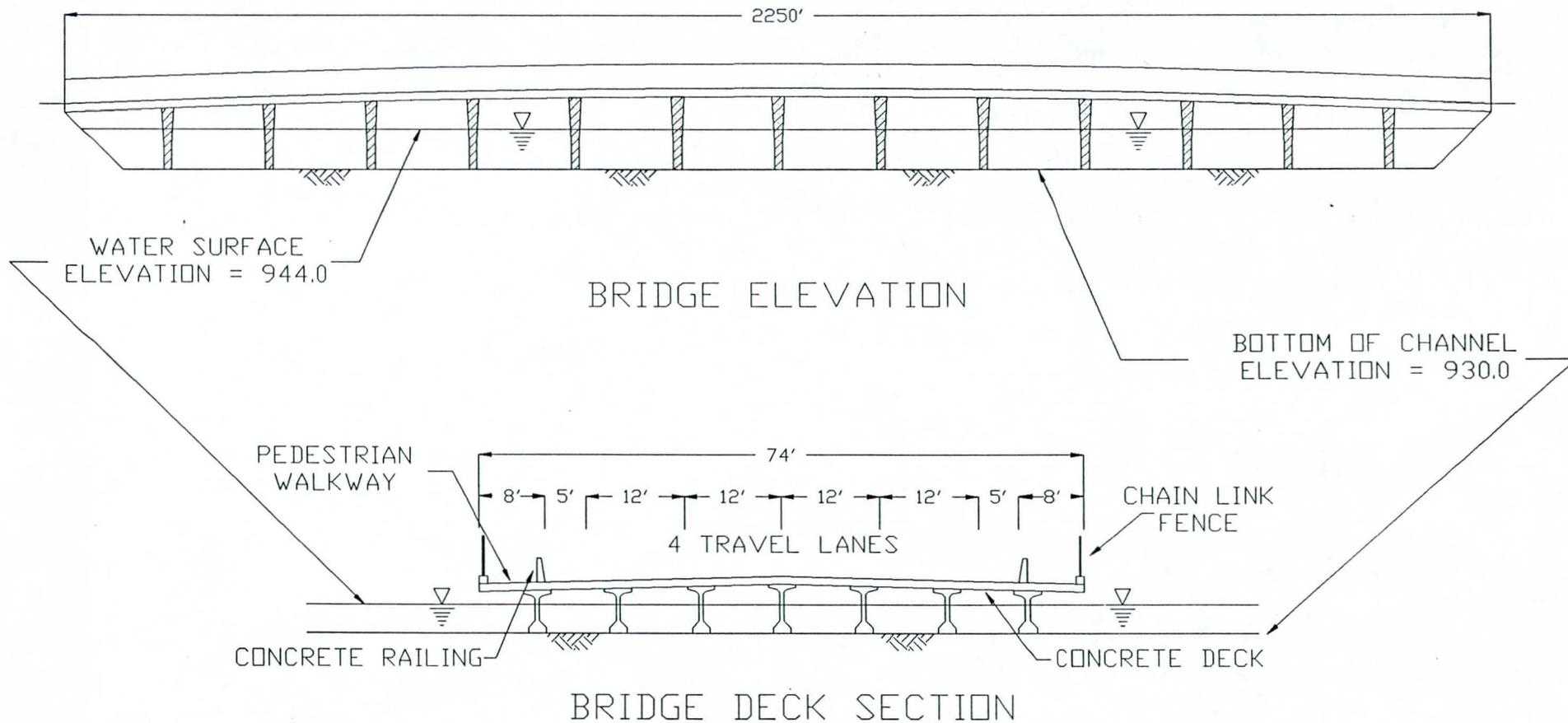
WIDENED SECTION FOR LEFT TURN LANE

N. T. S.

NOTE: THE WIDENED SECTION IS IS NOT APPLICABLE IN THE GILA RIVER CROSSING STUDY.

- ① For Guardrail Installation See MCDOT Std. Detail 2036 or 2037.
- ② 4" Min. A.C. Over 10" Min. A.B. or Approved Equivalent.

- ③ Special Drainage Ditch as Required.
- ④ Road of Regional Significance Alignment - 70' Typical Half-Width Min.



NOT TO SCALE

MARICOPA COUNTY
 DEPT. OF TRANSPORTATION
 PROJECT: GILA RIVER
 CROSSING - BRIDGE SECTION

FIGURE 6

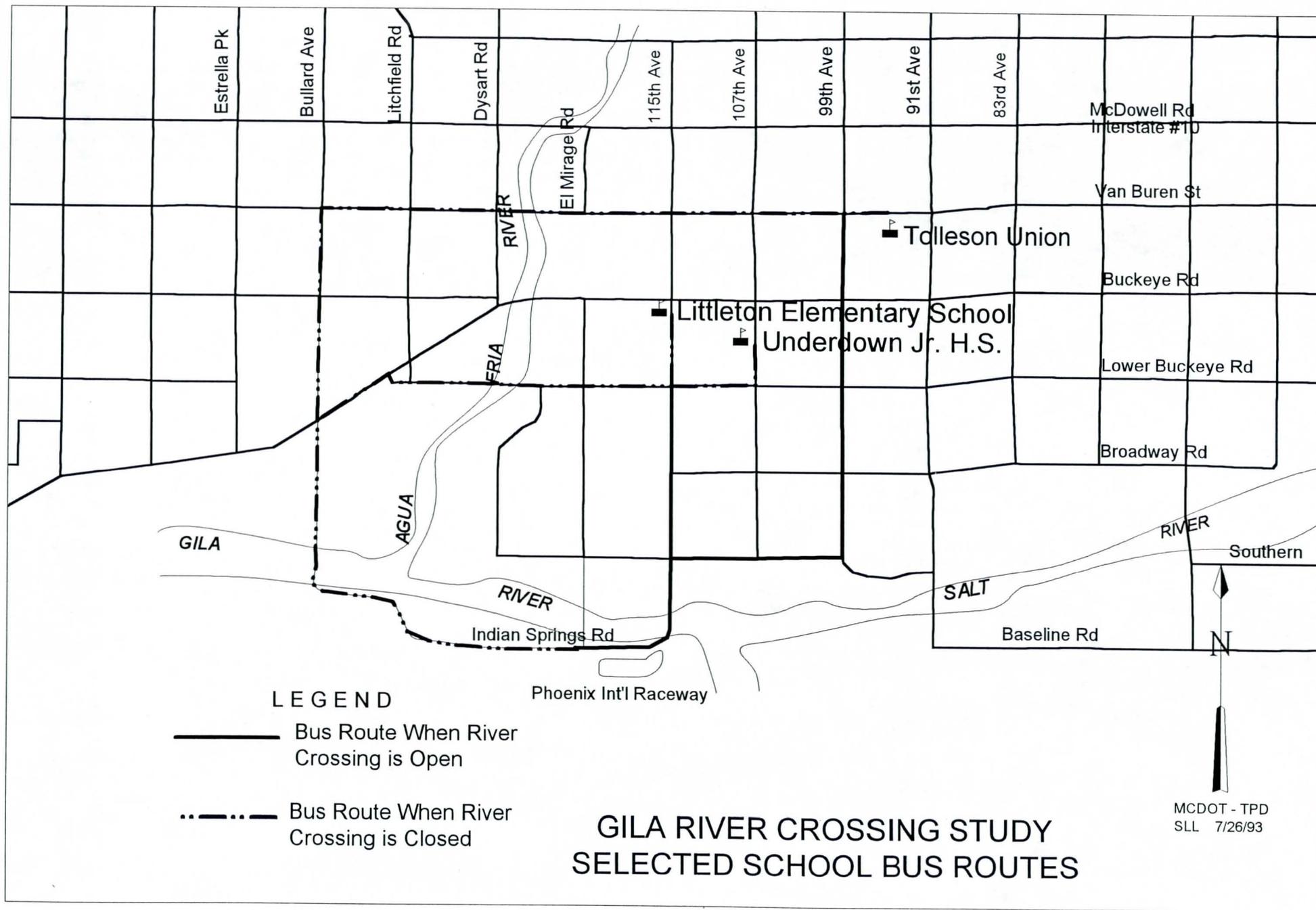


FIGURE 7

A wider cross-section with 8 foot paved shoulders was considered for distressed vehicles. However, as the average daily traffic flows (existing and projected) on non-race days are substantially less than the available capacity of the 4-lane roadway, distressed vehicles on non-race days would not create a traffic impairment. On race days a distressed vehicle on the bridge or between Southern Avenue and the bridge would impair traffic flow. As this is the existing condition without the project, the Maricopa County Sheriff's Office and PIR have employed three on-call tow trucks available to remove stalled or distressed vehicles during race events for the past several years. This practice is expected to continue. Given the limited need for a distress shoulder (during 7 major race events per year) and the existing contingency planning MCDOT determined 5 foot shoulders were adequate.

2. Bridge Cross Section

The bridge cross section shall be consistent with the road cross section. The deck shall consist of four travel lanes at 12 feet each and an additional five feet outside of the travel lanes for bike lanes. An additional eight feet shall be provided outside the bike lanes for a pedestrian way. The eight feet includes a concrete barrier to separate vehicular traffic from pedestrians (see Figure 6, Typical Bridge Section). As noted with the roadway cross section 8 foot paved shoulders were considered, but not deemed warranted. An additional concern with 8 foot shoulders was that motorists may attempt to use that 8 foot shoulder as a lane to illegally pass slow moving traffic. Right-of-way for the bridge section varies from 110 feet to 200 feet.

3. Horizontal/Vertical Alignment

The design speed shall be 55 mph for horizontal and vertical alignment for both the roadway and the bridge. The design speeds for the curves south of the bridge for the 115th Avenue alignments shall be 50 mph. Posted speed limits will be in accordance with Maricopa Association of Governments and MCDOT standards.

4. Hydrologic Data

The bridge opening shall be designed to produce less than a 1 foot increase in the backwater above the regulatory flood elevation during the 100-year flood. The 100 year event will be determined by the on going Flood Control District Floodplain Delineation Study. There shall be 3.5 feet of freeboard between the 100 year flood water surface elevation and the bottom chord of the bridge substructure. The levee in the vicinity of Holly Acres, extending from upstream of 115th Avenue to downstream of El Mirage Road, protects against a 20 year flood, approximately 135,000 cfs. The approach road on the north will match the elevation of the existing levee. The south bank approach will depart from the bridge at a 3% grade to meet the existing Indian Springs Road. The river bed shall be channelized only as necessary to efficiently direct flow through the bridge opening. The bridge abutments shall be protected by spur dikes.

5. Earthwork

Embankment is required for the approach roads to the bridge and for the spur dikes to protect the bridge abutments. Earthwork will be required in the river bottom in the vicinity of the bridge abutments and may be required for bank protection along the south bank. It is expected that the material in the river will serve as the borrow source for the embankment. Other earthwork required to shape the roadway prism and ditches will use native soils within the roadway alignment.

6. Utilities

There are utilities in the study area consistent with the rural setting of this project. Nothing unusual has been identified. The project requires relocation and crossing of irrigation delivery and tailwater ditches. The ditches are both earthen and concrete lined. Other utilities include water mains, telephone lines, and electric lines. There are major transmission towers south of Broadway Road that will not be impacted by the work but must be avoided.

7. Traffic Control Plan During Construction

115th Avenue and El Mirage Road can serve as detours during construction. Bridge crossings at Estrella Parkway and Bullard Avenue exist and can serve as detours when the river has flooded or washed out low flow crossings at 115th Avenue and/or El Mirage Road. Traffic control plans will be in place per the MUTCD during construction.

G. Right-of-Way

Maricopa County has rights-of-way on 115th Avenue, El Mirage Road and Bullard Avenues at the Gila River. No county right-of-way is in place at the river on the Litchfield Road, Dysart Road, 119th Avenue, or 117th Avenue alignments. Partial right-of-way is present for the 116th Avenue alignment.

Existing Bullard Avenue right-of-way is 100 feet wide except at the bridge approaches where the county has several acres for the spur dikes and embankment protection. El Mirage Road right-of-way at the river varies from 110 feet at the north bank to 95 feet across the channel and on the south bank. 115th Avenue right-of-way varies considerably between Southern Avenue and Indian Springs Road: at Southern the width is 66 feet; approximately 1400 feet south of Southern the width increases to 88 feet, approximately 2100 feet south of Southern the width is 205 feet, the 205 foot width is continuous across the river to near the south bank where the maximum right-of-way width of 240 feet is reached. Indian Springs Road has a right-of-way that varies from 80 to 110 feet. The 116th Avenue alignment has partial right-of-way as the alternative would utilize existing 115th Avenue right-of-way at the north and south bank approaches.

The desirable right-of-way width for a 4-lane bridge is 200 feet plus additional width for embankment protection or spur dikes. The alternative alignments vary in right-of-way requirements from 130 acres for a Dysart Road alternative to 7 acres for the 115th Avenue alternative. Relocations (residential and commercial) vary from 10 with the Dysart Road and Litchfield Road alternatives to none with the 115th and 116th Avenue alternatives. Any property acquisition by MCDOT would be in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (42 USC 4601-4665).

H. Construction Schedule and Costs

The planning cost estimate for the new bridge crossing is \$12,800,00 including planning, design, construction, and construction management.

The project is programmed for construction in 1995 in the MCDOT Capital Improvements Program, pending the necessary funding. Design is planned to begin in summer 1994 with a duration of 6 months. Right-of-way acquisition would begin in the 3rd quarter of 1994 and require approximately 9 months to complete. Construction would begin in the 1st quarter 1995 and would be a minimum of nine months to 1-year in duration.

CHAPTER III

III. Alternatives Considered

The Maricopa County Department of Transportation has investigated solutions to the traffic problems associated with the lack of a bridged crossing of the Gila River for several years. In 1989 MCDOT contracted with BRW, Inc. to specifically study PIR raceday events and propose traffic solutions. The solutions included short term, Traffic System Management(TSM) and long range, Traffic Demand Management (TDM) actions. The TSM and TDM alternatives plus 8 build alternatives and the no build alternative are discussed and evaluated in the following chapter (see Figure 8, Alternatives Map).

A. Do Nothing(No Build)

The existing roadway system will remain unchanged except for those projects in the Maricopa County Department of Transportation "Five Year Capital Improvements Program for Fiscal Year 1994 to Fiscal Year 1998." Those projects are:

115th Avenue (Buckeye Rd - I10) Reconstruct/widen 2 lanes to 4 lanes
El Mirage Rd(Indian Springs Rd - Buckeye Rd) Widen 2 lanes to 3 lanes

Routine maintenance and repair to the 115th Avenue and El Mirage low flow crossings would continue at an estimated cost of \$100,000 to \$200,000 per flood. Total repair costs for the past three years(1991 -1993) is over \$850,000.

The no build alternative does not solve traffic problems during flood events, does not reduce safety and emergency access concerns and has a substantial economic impact on the local and Maricopa County economy. Economic Impact Assessments by Maricopa County and Phoenix International Raceway place the economic impact of a race season at \$142,000,000 to \$217,000,000 per year(The Impact of the 115th Avenue Bridge on the Local Phoenix Economy; August 1993, M. Carmo Anselmo, MCDOT Transportation Planning Division and Economic Impact and the Case for Access and Egress Improvements; April 1993, PIR/Behavior Research Center).

The lack of reliable access to the race track has impacts on the local economy in terms of reduced attendance and the potential of the loss of certain race events. School district cost and child safety issues of lengthened bus routes are also not addressed by the no build alternative.



- ② - Baseline Road Extension
- ③ - 115th Avenue Alignment
- ④ - 116th Avenue Alignment
- ⑤ - 117th Avenue Alignment
- ⑥ - 119th Avenue Alignment
- ⑦ - El Mirage Road Alignment
- ⑧ - Dysart Road Alignment
- ⑨ - Litchfield Road Alignment
- ⑩ - Bullard Avenue Alignment
- ⑪ - Estrella Parkway Alignment

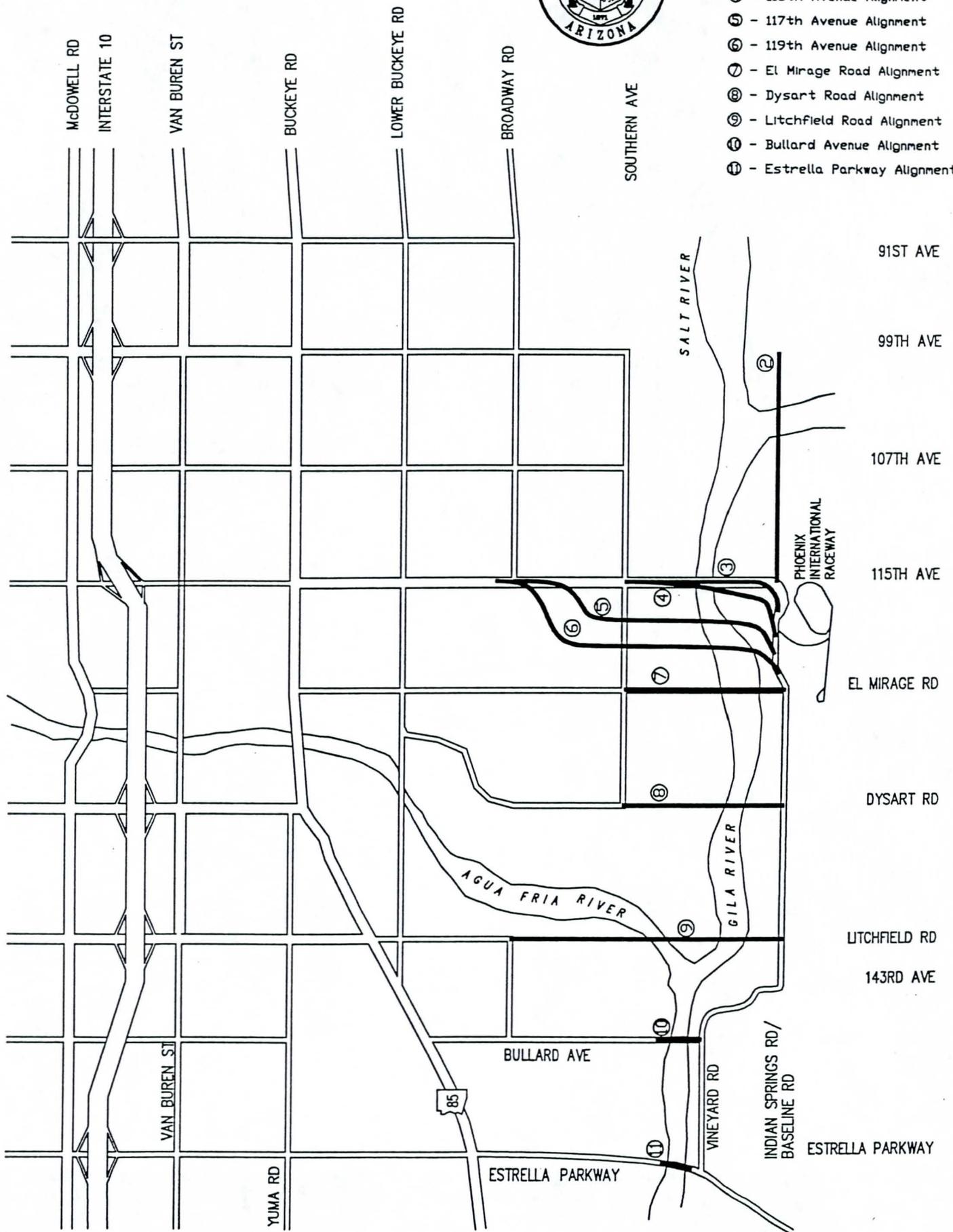


FIGURE 8 - ALTERNATIVES MAP

B. Baseline Road Extension (Alternative #2)

This alternative is primarily located on the Gila River Indian Community south of the Salt River. Baseline Road terminates two miles east of 115th Avenue at 91st Avenue. It is a continuous roadway east of 91st Avenue nearly to the Pinal County line. Extending Baseline Road west to 115th Avenue requires widening 12-miles of two lane roadway to four lanes plus a 5600 foot bridge crossing the Gila River immediately upstream of its confluence with the Salt River. The alignment of the roadway would be south of the section line (it parallels the Salt River) and require bank protection.

The connection at 115th Avenue must be aligned around Monument Hill, the Gila River, and Phoenix International Raceway. This is also a sensitive archaeological area and requires careful alignment. New right-of-way for this alternative would be in excess of 150 acres. The Gila River Indian Community indicated in a July 10, 1991 letter to MCDOT that they do not want Baseline Road extended through the Indian Reservation(see letter in Appendix A). This alternative has been dropped from further consideration.

C. 115th Avenue (Alternative #3)

115th Avenue is a section line road that crosses the Gila River by a combination culvert/dip section. It is a four lane paved roadway between Indian Springs Road and Buckeye Road (two miles). The remaining one and one-half miles between Buckeye Road and Interstate 10 is a paved two lane road(programmed for widening in FY 2000). There is an interchange between Interstate 10 and 115th Avenue.

Houses exist close to the pavement between the Gila River and Southern Avenue. Extensive farm lands adjacent to 115th Avenue and the residential lands are irrigated and drained by delivery and tailwater ditches. The existing right-of-way is narrow and contains conventional water, electric, and telephone utilities. This alternative requires the least amount of new right-of-way, 7 acres and would require no relocations of residential or commercial properties. A flood control levee protects local residents and farm land on the north side of the river. A 1989 traffic impact study of race day traffic recommended a bridge crossing at 115th Avenue.

This alignment requires a bridge opening to convey the 100 year flood and approach roads built on embankment to reach the bridge. All build alternatives have the same bridge characteristics of four travel lanes with bike lanes and pedestrian facilities. The bridge opening is approximately 2,000 feet and the approach roads cannot be raised above the levee grade because of potential backwater effects. This alternative was not recommended due to the

need to construct a more costly curved bridge and construction detour problems as the existing 115th Avenue crossing would have to be closed for nearly one-year during bridge construction.

D. 116th Avenue (Alternative #4)

This alternative is a variation of the 115th Avenue alternative. The 116th Avenue alternative diverts from 115th Avenue approximately 400 feet north of the existing levee. The alignment is slightly skewed westward, just north of the river to provide a straight (tangent) bridge to be built. The bridge will be approximately 2250 feet in length and intersect Indian Springs Road about 500 feet west of the current intersection. This alternative allows the existing low flow crossing to be used as a detour during construction. All other characteristics of the bridge design are the same as the 115th Avenue alternative. This alignment is the selected alternative (see Figure 9, Preferred Alternative).

The 116th Avenue alternative will require 18 acres of new right-of-way from private landowners, State Land Department and Arizona Game and Fish Department. No relocations will be required.

E. 117th Avenue (Alternative #5)

117th Avenue is a non-section line road alignment. It is one quarter of a mile west of 115th Avenue, which is a section line road. Currently no roadway exists along this alignment. This alternative would require a bridged crossing of the Gila River approximately 2620 feet long. It will also require approximately 1.4 miles of new four lane roadway construction. This new section of roadway would return to the 115th Avenue alignment via a reverse curve approximately 1,700 feet south of Broadway Road.

The farm lands are irrigated and are drained by a system of irrigation delivery and tailwater ditches. There is no existing right-of-way along this proposed alignment. The new roadway will cross existing water, electric and telephone utilities. The bridge opening will be sized to convey the 100-Year Flood with approach roads built on an embankment to reach the new bridge. This alignment would pass through cultivated farm lands, would require 28 acres of new right-of-way, is adjacent to two rural residential areas and would take one (possible two) residential parcels.

This alternative was dropped from further consideration as it provides no benefits over the 116th Avenue alignment and has substantially more impacts and costs.

F. 119th Avenue (Alternative #6)

119th Avenue is a non-section line road alignment approximately one half mile west of 115th Avenue. Currently no roadway exists along this proposed alignment. This alignment will require a bridged crossing of the Gila River approximately 2,660 feet long. It will require approximately 1.7 miles of new four lane roadway. This proposed alignment will pass through cultivated farm land, adjacent to four rural residential areas and through two (possibly three) residential parcels. This new section of roadway will return to the 115th Avenue alignment via a reverse curve on the north end approximately 1,700 feet south of Broadway Road.

The farm lands are irrigated and are drained by a system of irrigation delivery and tailwater ditches. There is no existing right-of-way along this proposed alignment. Approximately 32 acres of new right-of-way and 2 residential relocations are required. The new roadway will cross existing water, electric and telephone utilities. The bridge opening will be sized to convey the 100-Year Flood with approach roads built on an embankment to reach the new bridge.

This alternative was dropped from further consideration as it provides no benefits over the 116th Avenue alignment and has substantially more impacts and costs.

G. El Mirage Road (Alternative #7)

El Mirage Road is a section line road that crosses the Gila River by a combination culvert/dip section. It is a two lane paved roadway between Indian Springs Road and Buckeye Road (four miles). There is no roadway between Buckeye Road and Van Buren Street (one mile) and the one-half mile between Van Buren Street and Interstate 10 is a paved two lane roadway. There is neither an interchange nor a grade separation of El Mirage Road and Interstate 10.

Extensive farm lands adjacent to El Mirage Road are irrigated and drained by delivery and tailwater ditches. The existing right-of-way is narrow and contains conventional water, electric, and telephone utilities. A flood control levee protects local residents and farm land on the north side of the river. The existing road crosses a closed municipal landfill at the south half of the river channel.

This alignment requires a bridge opening of 3200 feet to convey the 100 year flood and approach roads built on embankment to reach the bridge. The alternative would have the same bridge characteristics of four travel lanes with bike lanes and pedestrian facilities as the 115th Avenue alternative. The north approach road cannot be raised above grade of the existing levee because of potential backwater effects. This alternative would require nearly 26 acres of new right-of-way and the relocation of 3 residential properties.

The El Mirage Road alternative was not recommended due to cost of the additional bridge length, need to widen El Mirage Road, lack of continuity with I-10 and construct and relocation impacts.

H. Dysart Road (Alternative #8)

Dysart Road is a discontinuous roadway between Southern Avenue and Interstate 10. There is no bridge or low flow crossing on Dysart Avenue as the roadway stops at Southern Avenue. The section line alignment requires crossings of both the Agua Fria River and the Gila River. It is a two lane paved roadway between Southern Avenue and Broadway Road (one mile). No roadway exists between Broadway Road and Buckeye Road due to no crossing of the Agua Fria River. The remaining one and one-half miles between Buckeye Road and Interstate 10 is a paved two lane section. Dysart Road does have a interchange with Interstate 10.

Extensive farm lands adjacent to Dysart Road are irrigated and drained by delivery and tailwater ditches. The existing right-of-way is narrow and contains conventional water, electric, and telephone utilities. Nearly 130 acres of right-of-way and 10 residential/commercial relocations would be required. This alignment requires bridge crossings of both the Agua Fria River and the Gila River. Dysart Road alternative requires three miles of new roadway to connect Indian Springs Road and Interstate 10. Due to the excessive cost, land use impacts, need for 2 bridges and 3 miles of new roadway the Dysart Road alternative was dropped from further consideration.

I. Litchfield Road (Alternative #9)

Litchfield Road does not exist between Indian Springs Road and Broadway Road. There is no bridge or low flow crossing on Litchfield Road at the Gila River. The section line alignment requires crossings of both the Agua Fria River and the Gila River. It is a two lane paved roadway between Broadway Road and Maricopa County Highway 85 (one and one-quarter miles). The remaining two and one-quarter miles between MC 85 and Interstate 10 is a

paved five lane section. Litchfield Road does have an interchange with Interstate 10.

Extensive farm lands adjacent to Litchfield Road are irrigated and drained by delivery and tailwater ditches. The existing right-of-way is narrow and contains conventional water, electric, and telephone utilities. Approximately 120 acres of right-of-way is needed and 10 residential relocations would be required. This alignment requires bridge crossings of both the Agua Fria River and the Gila River. Litchfield Road requires two miles of new roadway to connect Indian Springs Road and Interstate 10. Litchfield Road alternative is dropped from further consideration due to excessive costs, land use impacts, need for 2 bridges and 2 miles of new roadway.

J. Bullard Avenue (Alternative #10)

Bullard Avenue crosses the Gila River by a two lane bridge and continues to Broadway Road as a paved two lane roadway (one and one-third miles). Between Broadway Road and MC 85 it is a four lane paved road (three-quarters of a mile). Bullard Avenue does not exist between MC 85 and Yuma Road (one and one-quarter miles) because of the Phoenix-Goodyear Airport. Bullard Avenue is a paved two lane roadway between Yuma Road and Interstate 10 (one and three-quarter miles) and crosses beneath the interstate through an underpass.

Farm lands, airport and light industry facilities are located adjacent to or on the Bullard Avenue alignment. The existing right-of-way contains conventional water, electric, and telephone utilities. This alignment adds two lanes to the existing bridge crossing and widens Vineyard from two lanes to four lanes. The crossing would be approximately 2000 feet to convey the 100 year flood. New spur dikes and modification to existing bank protection would be required. Bullard Avenue cannot be extended straight to Interstate 10 due to the airport.

The Bullard Avenue alternative was dropped from further consideration due lack of service benefit. This alternative does not eliminate the 4-miles of out of direction travel, does not provide new access in times of high water, requires roadway widening on Vineyard Avenue and doe not have direct Interstate 10 access.

K. Estrella Parkway (Alternative #11)

Estrella Parkway crosses the Gila River by a two lane bridge and continues to Intestate 10 as a paved two lane roadway (five miles). There is an interchange between Estrella Parkway and the interstate.

Farm lands and sparse residential development is adjacent to Estrella Parkway. The existing right-of-way contains conventional water, electric, and telephone utilities. This alignment adds two lanes to the existing bridge crossing of the Gila River and requires widening Vineyard Avenue from two lanes to four lanes for approximately 2.25 miles. The existing crossing does convey a 100-year flood.

This alternative is at the fringe of the study area and does not support traffic needs of the Indian Springs Road, PIR area. During race events less than 6% of the race day traffic utilizes Estrella Parkway. Therefore this alternative was dropped from further consideration in this study. Due to growth issues in the Estrella Community a widened bridge may be required in the future, but it would not support the needs of this project.

L. Remote Parking and Shuttle Service(Traffic Demand Management)

Race day parking is concentrated on the south side of the Gila River near Phoenix International Raceway. Some private landowners along 115th Avenue north of the River provide parking at a charge. The 1989 Phoenix International Raceway Traffic Study recommended several Traffic Demand Management items to assist the effectiveness of the existing roadway system. The three primary techniques were shuttle buses, special lanes and earlier opening of the facility.

The PIR does provide a shuttle service from commercial parking areas remote from the raceway and publicity about the park and ride services. As many as 12,000 individuals utilized the service at the October 1993 Indy Car races. Through the Maricopa County Sheriffs' Office a traffic control plan that includes extensive use of reversible lanes has been in place for several years. Opening the facility earlier on race days has also been employed and has helped the inbound traffic.

The TDM techniques employed have helped traffic congestion when the river crossings are open, but when the El Mirage Road and 115th Avenue crossings are closed all the traffic must be funneled to Indian Springs Road including the buses. The TDM alternative is essentially employed currently and does not provide substantive relief to the exiting problem and emergency access problem. With the selected build alternative these TDM measures would continue to be utilized to assist traffic movement.

M. Relocate Phoenix International Raceway

The raceway is difficult to access because of its location south of the Gila River. This alternative totally relocates the raceway and its facilities to an undetermined location north of the Gila River. There is no need for a new bridge crossing with the relocation alternative. This alternative has substantial problems in addition to an estimated cost of \$41,000,000 to move the racetrack. Finding a suitable location with compatible land uses, adequate noise buffer from residential areas and an in-place transportation system would be a difficult task in the growing metropolitan area. Relocation of the facility was dropped from further consideration.

CHAPTER IV.

IV. Existing Environment

A. Land Use and Ownership

The Gila River Crossing Study Area includes lands within the City of Avondale, City of Goodyear and unincorporated Maricopa County. The area is primarily rural in character with the predominant land use being agricultural. Scattered single family homes and small neighborhoods are mixed throughout. Recreational facilities associated with the Estrella Mountain Park are present and commercial development in the study area is limited to the PIR facility, convenience market and farming services.

Area zoning is primarily Rural-43 which allows farm and residential development with a minimum of one-acre lot size. Within the City of Avondale the zoning is AG(Agricultural) with a Zone A-1 at the PIR facility. The undeveloped lands within the study area are in the Gila River floodplain or floodplain fringe.

Between southern Avenue and the river, single family houses are along El Mirage Road and 115th Avenue. Most of these homes are one acre or larger lots and include cultivated land or pasture land. North of the river those lands not in residential development are farmed. South of the river scattered single family homes are located off Indian Springs Road. No farming occurs south of the river due to the upland terrain.

Phoenix International Raceway occupies about 80 acres south of the river between 115th Avenue and El Mirage Road. This includes the race track, parking, and a test track. The facility hosts 7 Indy car and NASCAR type races per year with plans to increase events in the future. In addition to the major events the track hosts numerous smaller races. Concerts and other public events have been held in the past and would be expected to continue. As noted earlier PIR is a significant economic contributor to the metropolitan Phoenix and west valley communities. The continued economic vitality of the facility is important to Maricopa County, Avondale, Goodyear, Tolleson, Litchfield Park and Phoenix.

South of the river is the Estrella Mountain Park which includes the Casey Abbot Recreation Area and a golf course. This is a major regional park with a number of events in addition to the daily recreational use. The rodeo arena is used for several local competitions and club activities. The golf course is a 18-hole regulation public course.

A sand and gravel operation is located in the river bed just east of El Mirage Road. This business operates intermittently as river flows allow the use of about 28 acres leased from the Arizona Game and Fish Department. Access to the sand and gravel operation is currently off 115th Avenue near mid-channel of the river. Due to recent flows the operation has been inactive for the past 2 years. The owners have applied for a Floodplain Use Permit from the Flood Control District. A conditional approval was granted. Conditions in the form of locational limits and depth of excavation were imposed. Those conditions are to insure no impacts to the existing 115th Avenue crossing or a new bridge. The permit is expected to be issued for a 1 or 2 year period and require the operator to secure the necessary Section 404 and Section 401 permits. To date the operator has not picked up the permit.

Several locations between 115th Avenue and Bullard Avenue in the river bed have been used as authorized and unauthorized landfills. Avondale, Goodyear and Maricopa County operated a sanitary municipal landfill along the south half of the river channel at El Mirage Road in the 1970's. The landfill was closed in 1982 and covered with clean fill material according to records of the Maricopa County Solid Waste Department. PIR also operated a sanitary landfill along the south bank east of El Mirage Road in the 1970's. That former site is underneath a parking lot north of Indian Springs Road.

The sites are not known to have accepted hazardous materials. Records indicate construction rubble, tires, farm waste, tree trimmings and residential wastes were accepted. Lenses of waste are visible at the El Mirage site due to river erosion. No waste is visible at the PIR site, though material may be present below the existing grades.

Unauthorized dumping has occurred within the study limits. Unfortunately this kind of activity has occurred at numerous location along the Salt and Gila Rivers in metropolitan Phoenix and the rural areas. Historic aerial photo reviews have located two or three suspicious sites through the years(1958 - 1993). Current field reviews have found the normal array of residential debris; tree trimmings, tires, lumber, grass clippings and assorted food and beverage containers associated with casual use of the river bed. No dump site was noticed nor where hazardous or suspicious materials were discovered.

B. Topography

The Gila River Crossing Study (GRCS) study area is situated within and encompassed by the Basin and Range physiographic province of Arizona. Throughout the central and southern regions of Arizona, the basin and range landscape is characterized by multiple parallel mountain ranges separated by wide

and relatively flat valleys containing deep alluvial and colluvial fill. The elongated mountain ranges, steep or sharp-spined linear uplifts of volcanic or metamorphic rock, trend generally from the northwest to the southeast and become more widely separated as valley floors widen in the southwestern region of the state. These rugged mountain ranges tend to terminate abruptly, though some ranges have more extended sloping feet or colluvial pediments commonly called 'bajadas'.

The GRCS study area is situated adjacent to the floodplain of the Gila River. The study area abuts Monument Hill, a low northern terminus of the Sierra Estrella mountain range. The topography of the project area is relatively flat except for the shallow channel bottom of the Gila River and the minor rise of Monument Hill from above the surrounding plain. The elevation within the study area generally ranges between 940 ft to the east and 850 ft to the west, with the valley floor sloping gently from east to west at approximately 4 ft to 5 ft of gradient each quarter or half mile.

The study area is so relatively flat that it has been subjected to flooding during both the recent and historic past. Overbank flooding occurs despite channel downcutting and established levees and dikes that have raised the effective topography along several segments of the river. The 1993 flooding, largely a result of releases from upstream, remained mostly within the existing river channel and barely overflowed the river banks. Nonetheless, this level of flooding caused a tremendous disruption of traffic flow across the Gila River because of the loss of the unbridged crossings.

C. Vegetation

The Study Area at the foot of the Estrella Mountains is within the Sonoran Desertscrub - Lower Colorado River Subdivision biotic community (Brown and Lowe, 1977). Three distinct native vegetation communities are present between the 115th Avenue alternative on the east and the Estrella Parkway alternative on the west. Within the river corridor a wetland community and Sonoran Riparian Deciduous forest community are present. Outside the river corridor a desert upland community is present.

The desert upland community is characterized by a creosote-bursage association with a palo verde-sahauro association on the hillsides. Typical vegetation includes:

creosotebush(<u>Larrea tridentata</u>)	white bursage(<u>Ambrosia dumosa</u>)
saltbush(<u>Atriplex sp.</u>)	brittle bush(<u>Encelia farinosa</u>)
catclaw(<u>Acacia greggi</u>)	palo verde(<u>Cercidium sp.</u>)
sahauro(<u>Carnegiea gigantea</u>)	mesquite(<u>Prosopis sp.</u>)
ironwood(<u>Olneya tesota</u>)	desert broom(<u>Baccharis sp.</u>)

The mesquite and ironwood species are generally within or adjacent to the banks of the washes south of the Gila River. The palo verde and sahuaro species are generally found on the hills above the river. The upland habitat is in good condition as outside of the vegetative clearings for the PIR racetrack, parking lots and Indian Springs Road large undisturbed parcels of land remain south of the river. Residential development is sparse and there is not a proliferation of dirt roads or trails in the area south of the river.

Within and adjacent to the banks of the river, cottonwood-willow and velvet mesquite riparian associations are present. These associations are moisture dependent and are located relative to the perennial water from the 91st Avenue Waste Water Treatment Plant, near surface groundwater or areas of periodic flooding. The cottonwood(Populus fremontii) and willow(Salix gooddingii) trees are found along the channel corresponding to the effluent channel and backwater areas. The mesquite trees are generally in dense stands(bosque) above the low flow channels and extend to the banks on both the north and south sides of the river.

A substantial mesquite bosque of several hundred acres extends from just upstream of 115th Avenue at the confluence with the Salt River south through the Gila River Indian Community. Between 115th Avenue and the confluence of the Agua Fria River a nearly continuous stand of mesquite and salt cedar(Tamarix sp.) with cottonwoods/willows intermixed is present. The dense stands are absent at locations of recent(January-February 1993) high velocity flows, at 115th Avenue and El Mirage Road crossings and within a 1000-foot wide center channel clearing by the Maricopa County Flood Control District.

A wetland vegetative component is interspersed primarily along the north bank. Due to year around releases from the 91st Avenue Waste Water Treatment Plant(WWTP), surface water, saturated soils and water dependent plants(hydrophytes) are present at several locations. The U.S. Army Corps of Engineers determined wetlands are present in the 115th Avenue to El Mirage Road corridor, however specific locations were not mapped. The areas meeting the vegetation, soils and hydrologic conditions correspond to the effluent flow channel and small ponded or backwater areas.

D. Drainage

The Study Area encompasses the confluence of the Salt and Agua Fria Rivers with the Gila River. The Salt River and Agua Fria River are tributaries to the Gila. The Gila River originates in New Mexico and traverses westwardly across Arizona joining the Colorado River at Yuma, Arizona. Within the project area the Gila is perennial due primarily to effluent discharge at the City of Phoenix 91st Avenue WWTP on the Salt River. Additional water sources to the Gila include; irrigation tailwaters, Salt River Project(SRP) deliveries, rainfall, storm run-off and subsurface flows.

Through its' tributaries of the Salt and Agua Fria the Gila River drains the entire Metropolitan Phoenix area. Storm water run-off combined with upstream dam (Roosevelt Dam, Granite Reef Dam and Coolidge Dam) releases results in a 100-year flood event of approximately 235,000 cubic feet per second(cfs) through the study area. The winter of 1993 flows peaked at approximately 138,000 cfs. With the reconstruction of the Roosevelt Dam, scheduled to be completed by 1998 the 100-year event is expected to be 210,000 cfs.

The Bureau of Reclamation has studied an engineered wetland project from the 91st Avenue WWTP to the Agua Fria River along the Salt/Gila River. This study known as Tres Rios Wetlands was conducted to examine a possible procedure to meet water quality standards and provide tertiary treatment of the effluent. The study has not been concluded and no project has been proposed. The engineered wetland option was one of three alternatives; the others being to improve the 91st Avenue WWTP facility or a groundwater recharge option. Should a Tres Rios Wetland alternative be constructed it would pass through the Gila River Crossing Study Area.

E. Wildlife

Due to the varied vegetative communities, riparian/wetland habitats and predominately undisturbed lands south of the project area, a wide variety of wildlife species are expected. No site specific wildlife survey has been conducted, however the following species are expected to be present:

Upland Species	Riparian/Wetland Species
Mule deer	skunk
javelina	bats
coyote	raccoon
various rodents	amphibians
various reptiles	herons
Red-tailed hawk	rails
quail	egrets
doves	waterfowl

The federally listed endangered species Yuma Clapper Rail (Rallus longirostris yumanensis), is found along the Gila River. The species prefers marsh/cattail areas of which there are numerous locations along the Gila River. No marsh/cattail habitat is located within the selected alignment. Wetland habitat does occur in the vicinity of the 116th Avenue alignment.

The AGFD manages or owns three parcels of land within the project area; a parcel immediately east of 115th Avenue (known as the Base and Meridian Property), and two properties (Amator Property and Harper Property) west of 115th Avenue. While these areas are not "formal" wildlife areas or preserves, they are managed for wildlife purposes. One parcel was obtained from the Bureau of Land Management (Base and Meridian Property) and the US Fish and Wildlife Service provided funding assistance on the Harper Property. Due to the federal ties to the two properties, BLM and USFWS approvals or review of impacts and mitigation may be required.

F. Cultural Resources

Cultural resources are "*historic properties*" which may include historic buildings or structures, historic or prehistoric archaeological sites, traditional cultural properties, human remains and associated funerary objects, or artifacts. Very little is known about the cultural resources of the entire GRCS study area because of a lack of intensive archaeological survey and comprehensive site recording by professional archaeologists. Most of what is known is derived from work in areas adjacent to the study locale.

MCDOT obtained archival site file information for the GRCS study area from both the Arizona State Museum (ASM) and the State Historic Preservation Office (SHPO). MCDOT asked for known archaeological information for Sections 25-29 and 32-36, in Township 1 North, Range 1 West, Gila and Salt River Baseline and Meridian. ASM reported five survey projects in the area; these included: 1955-3, 1963-10, 1964-4, 1974-1, and 1991-204. ASM also reported four known prehistoric archaeological sites in the study area. These sites are: AZ T:11:3(ASM), AZ T:11:4(ASM), AZ T:11:11(ASM) and AZ T:11:13 (ASM). The SHPO information was nearly identical to the information provided by ASM.

ASM and SHPO records indicate the presence of archaeological sites in the area adjacent to the GRCS study area and the sections noted above. Multiple site numbers AZ T:11:6(MNA), AZ T:11:1(ASU), AZ T:11:39(ASM) and AZ T:11:24(ASM) record the well-known "Cashion Site", a large Hohokam pithouse community containing numerous trash mounds, canal segments, housing clusters, human remains and at least one ball court. The site is located immediately east of the study area. Utility corridor surveys and block (area) surveys by ASM and the Museum of Northern Arizona (MNA) also have resulted in the recording of prehistoric Hohokam sites). These include sites AZ T:11:10(MNA), AZ T:11:23(MNA), AZ T:11:29(ASM), AZ T:11:5(ASM), and AZ T:11:41(ASM).

The exact provenances (locational information) for the sites are not reported in this document because of the necessity to keep confidential such locations to protect sites. Site T:11:3 is a Patayan village site located in stabilized sand dunes on the banks of the Gila River. It covers approximately 25 acres. Site T:11:4 is a Hohokam rock

shelter (cave) site and covers approximately 10 square feet. Site T:11:11 consists of a scatter of surface sherds and bedrock grinding mortars in an area approximately 0.5 acres in size. And, Site T:11:13 is a 0.5 acre area containing scattered surface sherds and petroglyphs. These sites will not be affected by the bridge and road construction proposed by MCDOT as the sites are located from several hundred feet to over one-mile distant from the 116th Avenue alignment.

In April 1993, MCDOT through our consultant, conducted an archaeological survey of two alternative bridge locations situated within the GRCS study area. The consultant surveyed 56 acres along the 115th Avenue and 123rd Avenue (El Mirage Road) corridors and recorded one prehistoric site, AZ T:11:45(ASM), on Monument Hill. This site is a surface sherd scatter of unknown function. The consultant also noted on Monument Hill the presence of AZ T:11:25(ASM) and a cadastral brass cap marking the origination point for the Gila and Salt River Baseline and Meridian used throughout Arizona.

CHAPTER V.

V. SOCIAL, ECONOMIC AND ENVIRONMENTAL IMPACTS

A. Socioeconomic

The social and economic considerations for the proposed Gila River Crossing focuses on issues identified in the public scoping for the project and subsequent comments from the public. Because socioeconomic effects often extend beyond the immediate construction area, the project corridor used in this socioeconomic discussion extends from I-10 on the North, to the south side of Indian Springs Road on the south, and from 115th Avenue to Estrella Parkway for east and west limits.

Socioeconomic Setting

The Gila River Crossing is a minor arterial crossing, that is substantially impacted during race events at PIR. The corridor falls within Maricopa County and the City of Avondale. The Gila River Indian Community is located immediately south and east of 115th Avenue at the Gila River. Maricopa County is the most rapidly growing of the Arizona counties. Within the county, the West Valley has had slow, but steady growth in both population and land annexation during the past decade. Adjacent land uses are primarily agricultural and rural residential.

There are both developed and undeveloped residential, agricultural and commercial properties in the project area. Continued development is expected regardless of whether the project is or is not built. The major commercial property south of the Gila River, Phoenix International Raceway (PIR) is expected to decline if the project is not built. If the project is built, PIR is expected to continue to grow.

The economic benefits to business in the Phoenix area generated by PIR's Race activities have been estimated to be a 21% increase in 1992, 29% increase in 1993 and a 50% increase by 1997. The expected returns will be in one of four forms: monetary, non-monetary, tax-wages and public services. The actual value of economic benefits to business is shown in the table below.

Economic Benefits to Businesses	
Economic Impact in 1992	\$164,530,315
Expected Business Benefits for 1993	\$227,461,265
Expected Business Benefits within Five Years	\$379,102,108

Maricopa County has continued to be a major population center in Arizona, with approximately 60 percent of the total state population in the 1990 census (MAG 1992). Employment cycles since the mid-1980s have caused population shifts in the county and within the Phoenix metropolitan area. The population of the entire southwest valley (including Avondale, Goodyear, Litchfield Park, Estrella, and Tolleson) is expected to increase as it has over the past decade, reaching a population of 80,000 by 2010. The individual cities of Goodyear and Avondale will likely remain the focal growth areas within the southwest valley. The following table lists data for the project communities:

POPULATION IN THE PROJECT COMMUNITIES

	AVONDALE	GOODYEAR	PHOENIX
Total Population			
1980	8,186	2,747	789,704
1990	16,169	6,258	983,403
Percentage of Population Change			
1980-1990	98.0%	127.8%	24.5%
Annual Growth Rate (percent)	8.5%	9.6%	2.45%

Neighborhood Impacts

The 116th Avenue alignment has very little neighborhood impact, because the existing 115th Avenue is 4-lane. However, the bridge alignment will require some right-of-way on the north bank which would affect one or two residents (no relocations would be required) and two or three undeveloped parcels. The 116th Avenue roadway curves at the south riverbank to align with Indian Springs Road just east of PIR. Indian Springs Road is immediately north of the track facility and has a history of traffic/pedestrian problems. PIR parking facilities are north, west and south of the track. The existing corridor alternatives (115th Avenue and 116th Avenue) are expected to provide the least disturbance to existing properties.

If the project is not built, vehicles will experience increasing traffic congestion throughout the project area. Access will become increasingly difficult for residences and businesses, especially during race events.

No minority neighborhoods are located between Southern Avenue and Indian Springs Road in the study area. Hispanic and Native American populations are located in the general project vicinity(Avondale) and the adjacent Gila River Indian Community. However, the proposed alignment does not impact minority neighborhoods or require lands from the Gila River Indian Community. The bridge and approach road design at the south bank will not preclude a future roadway tie to the Gila River Indian Community.

B. Water Quality

1. Section 404/401 of the Clean Water Act

Water quality issues are administered by the U.S. Army Corps of Engineers(COE) and Arizona Department of Environmental Quality(ADEQ). The Gila River is perennial within the study area due primarily to releases of the Phoenix 91st Avenue Waste Water Treatment Plant and irrigation tailwater. The water table in the study area is approximately 25 feet below existing ground surface and flows to the west. Variations to the depth of water depending on groundwater pumping and distance from the river channel is expected.

The ADEQ classifies the Gila River in the project area as effluent dominated surface waters. Its designated uses are A&Weda(Aquatic and Wildlife effluent dominated waters), PBC(Partial Body Contact), FC(Fish Consumption), AgI(Agricultural Irrigation) and AgL(Agricultural Livestock watering).

Due to the scope of the proposed bridge crossing and attendant features the work will require a Corps of Engineers Section 404 Permit. The COE has delineated their area of jurisdiction(low flow channel) as an area corresponding to the 1000 foot clearing just east of 115th Avenue expanding to a width of approximately 2000 feet just east of El Mirage Road. The delineation included wetland areas, however they were not mapped by the COE (see letter Appendix A).

The Maricopa County Department of Transportation will apply for a Section 404 permit as design is advanced sufficiently to determine the activities within the jurisdictional area. It is expected that a combination of nationwide permits will be required. A Section 401 State Water Quality Certification will be required for the project. State Water Quality Certification requires that best management practices are utilized in the construction of the bridge to insure no degradation of water quality. MCDOT will apply for the Section 401 certification.

2. Wetland / Riparian

All alignments in the study area cross riparian habitats and through or near wetland components. A riparian corridor extends from well upstream of 115th Avenue down to the Gillespie Dam. Wetland locations are varied due to channel dynamics, ponding locations and manmade features (levees and groins). Impacts to riparian and wetland areas are the least on the existing crossing locations of El Mirage Road, 115th Avenue, Bullard Avenue and Estrella Parkway due to previous earthwork associated with the crossings. Therefore, new alignments have greater impacts.

Avoidance of any wetland or riparian habitat is only possible with the no build alternative. The river is perennial through the study area due to effluent releases and wetland components are found from well upstream of 115th Avenue to well below Estrella Parkway. Impacts will be minimized through the selection of an existing roadway corridor and placement of bridge piers.

The selected alignment of 116th Avenue would impact approximately 4 acres of riparian habitat. This impact is limited to areas of the north bank to mid-channel. South of the mid-channel the combination of the Flood Control District 1000 foot clearing and river scour have removed potential habitat. Specifically impacts would occur at the north abutment and spur dike, an area of about 1 acre. The bridge impact would be from the abutment south for about 1000 feet to the cleared channel, accounting for about 3 acres.

Wetland impact would be limited to less than one acre near the north approach on the 116th Avenue alignment. Small areas of backwater/ponded areas from the effluent flow and a tailwater outlet at the north approach are present. There are 3 or 4 such areas, each under 1/10 acre in size, located between mid-channel and the north levee. Potential impacts to these sites would be from the spur dikes protecting the north abutment or the bridge piers.

Through the design and Section 404 permit process mitigation measures will be developed. At the current level of design, detailed plans for mitigating the small sites can not be developed. MCDOT will include wetland mitigation/relocation plans in the project design. The plans will include plant specie selection, density, irrigation requirements, maintenance requirements and establishment period. The goal of the mitigation plan will be to replace function and values lost or disturbed as a result of the project.

C. Vegetation and Wildlife

1. Special Status Species

The federally listed endangered species Yuma Clapper Rail, is found in the general vicinity of the study area. Sightings within one-mile of 115th Avenue are recorded. The species prefers marsh/cattail habitat of which there are numerous locations along the Gila River. No marsh/cattail sites are found within to the 116th Avenue alignment. No recorded sightings of the rail have been made in the 115th/116th Avenue area. As suitable rail habitat occurs in the general vicinity, the mitigation plan will evaluate the potential to develop or enhance marsh/cattail habitat within reasonable limits of the project.

Coordination with the U. S. Fish and Wildlife Service indicates Section 7 Consultation is not required and they prefer the existing corridor for the bridge placement. Based on the lack of specific Yuma Clapper Rail habitat, no recorded sightings and the maintenance of continued flows downstream the USFWS expects to concur with a finding of no impact (personal communication with Ron McKinstry, USFWS).

2. Special Wildlife Area

The Arizona Game and Fish Department through acquisition and exchange own approximately 200 acres in the vicinity of 115th Avenue. These areas are known as the B and M Property(130 acres), Harper Property(28 acres), and Amator Property(40 acres). The land is both upstream and downstream of 115th Avenue, with the majority(B and M) being upstream of 115th.

The AGFD manages these lands for wildlife purposes as the area upstream of 115th Avenue was formerly a large ponded area supporting a variety of waterfowl and wildlife. The ponded area was backwater due to substantial vegetation growth at the confluence of the Salt and Gila Rivers. This growth impeded and held flows sufficiently to create a large pond/backwater situation. However in 1982, following significant area flooding partially attributed to the vegetation build-up, the County Flood Control District, AGFD and USFWS agreed to a 1000 foot vegetative clearing. This clearing, which extends for many miles both up and downstream of 115th Avenue substantially reduced the ponded water situation.

The area still supports a variety of wildlife and AGFD still manages the area to protect those resources. The MCDOT bridge project will have no effect on the B and M Property. No right-of-way from the B and M Property is required. Right-of-way would be required from the other 2 properties, a total of 7 acres is needed(4 acres from Amator, and 3 acres from Harper). The AGFD anticipates mitigation for the loss of wildlife habitat function and values will be required. Additionally the mitigation plans may have to be reviewed by the and U. S. Fish and Wildlife Service as the ownership of these lands passed through the federal agency.

Mitigation is expected to come from three areas; (1) minimize disturbance impacts to the 116th Avenue alignment during construction and revegetate disturbed areas, (2)

remove the existing 115th Avenue crossing and rehabilitate the roadway corridor and (3) acquire the 28 acre lease interest from the Harper Sand and Gravel Company, thereby removing the potential wildlife impacts for the remaining 15 years of the lease.

A gated entry/exit point will be provided off the north approach road to allow Arizona Game and Fish Department access. The fence/gate arrangement would allow for pedestrian, equestrian access but not vehicles (including motorcycles and off-road vehicles).

D. Cultural Resources

At least twelve (12) prehistoric sites and one (1) recent historic site are recorded in or near the GRCS study area. These sites carry the prefix "AZ T:11"-- sites 3,4,5,11,13,25,29,39,41 and 45(ASM); sites 10 and 23 (MNA); and the brass cap cadastral origination point on Monument Hill (no site number). Based on the preliminary survey information no sites are within the needed right-of-way for the 116th Avenue alignment. The nearest sites are located on Monument Hill and the preferred alignment relocates the roadway away from the hill.

MCDOT supplemented the April 1993 cultural resources survey report for the 115th Avenue Corridor with a specific 116th Avenue alignment survey by the MCDOT Archaeologist in January 1994. The report was forwarded to the SHPO and State Land Department. No sites were found within or adjacent to the proposed alignment. MCDOT received a determination of 'no effect' for historic properties for this project on July 11, 1994 (see attached SHPO letter in appendix).

As with any project the potential exists for new "discovery situations" during construction. In the event of such a discovery, MCDOT will follow standards prescribed by A.R.S. 41-844 and 41-865 for notifying the appropriate officials and to stop construction at that locale.

E. Section 4(f)

Section 4(f) of the Department of Transportation Act of 1966 applies to public parks, recreational areas and wildlife refuges, and to all historic sites of national, state or local significance. As stated in 23CFR 771.135, the Federal Highway Administration may not approve the use of those lands unless "there is no feasible and prudent alternative to the use of the land; and the action includes all possible planning to minimize harm to the property". There are several properties that qualify as Section 4(f) within the study area. None of those properties however will be impacted by the preferred alternative.

The Monument Hill cadastral survey brass cap and site is an historic property. The 116th Avenue alignment moves the roadway further from the hill, no direct or indirect impacts would occur. The Estrella Mountain Regional Park and Casey Abbot Recreation Area are Section 4(f) properties. However the proposed alignment is over three miles from Casey Abbot Recreation Area and the boundary of the Estrella Mountain Regional Park is about one-mile south of the river. No impacts would occur to those lands.

F. Floodplains

The project is located immediately downstream of the confluence of the Gila and Salt Rivers. A levee exists on the north bank and a channel clearing stretches from Gillespie Dam upstream through the study area to 91st Avenue.

The floodplain was mapped in the early 1980's by the United States Army Corps of Engineers for the national flood insurance program. This delineation is used by the Federal Emergency Management Agency (FEMA) to determine floodplains, floodway, regulatory flood flows, regulatory water surface elevations, and allowable backwater effects (or increases in the regulatory water surface elevation). Baker Engineers is currently delineating the floodplain under contract to the Maricopa County Flood Control District. The new delineation identifies changes because of changes to the river system.

There have been four major floods in the project vicinity since 1978.

1978 (Feb. 26 to March 6)	peak @ 138,000 cfs
1978 (Dec.)	peak @ 140,000 cfs
1980 (Feb.)	peak @ 170,000 cfs
1993 (Jan.)	peak @ 137,300 cfs @ Estrella Parkway

The Flood Control District estimates the 1993 flood to be a 20 year event.

The floodplain limits are Monument Hill (at 115th Ave.) or just south of Indian Springs Road (west of 115th Ave.) on the south side of the river and Roeser Road on the north side of the river. The floodplain is the land area that is covered during the 100 year flood event. The Flood Control District allows development (encroachment) at the edges of the floodplain provided the water surface in the 100 year flood would not increase more than one foot. The area that remains around the river that cannot accept encroachment is the floodway. The floodway limits are Monument Hill on the south side of the river and Southern Avenue on the north side of the river.

The Flood Control District constructed a levee north of the Gila River from El Mirage Road to 115th Avenue primarily for bank protection. It has a secondary benefit of flood protection.

Construction began in 1983 and continued through 1985. The levee extends from just upstream of 115th Avenue to just downstream of El Mirage Road. It protects against 115,000 cfs with a three foot freeboard although flows would breakout behind the levee before it is overtopped. The levee did protect against the 1993 floods when the top and ends were sandbagged. Groins that extend from the levee towards the river prevent parallel flows, catch sediment, and divert flows into the main channel.

The bridge length, spur dike configurations, approach roads and channelization design elements are being coordinated with the FCD. The Flood Control District will require that no flood elevation change result from the bridge project. The 2250 foot length of the preferred alignment reflects the bridge opening necessary to carry a 100-year flood event. The approaches will be designed at the current height of the levees to insure no additional flood hazard occurs. No additional flood hazard to the local residents is expected and no operational impacts to the existing levee are expected.

As noted earlier, the sand and gravel operation downstream of the bridge location may be allowed to operate under conditions imposed by the FCD. Those conditions were developed to insure no impacts to a future bridge. However as noted in Chapter V.B.2, MCDOT proposes to acquire the mining lease interest and thereby eliminate the potential floodplain impacts of an in-channel materials source operation.

G. Hazardous Materials and Solid Waste

Areas of the lower Salt River and Gila River have in the past been used for authorized and unauthorized landfill activities. Illegal landfills and surface wildcat dumping have been problems both in the river channel and along river banks. Much of the material dumped is solid waste from industrial, construction, household and personal use contexts. Used automotive tires and construction trash are the most prevalent forms of inappropriately dumped solid waste. Solid wastes in the channel also are derived from sources located upstream.

One known landfill is located within the GRCS study area. This landfill is located in the Gila River channel along either side of the 123rd Avenue (El Mirage Road) alignment. This site operated as a municipal landfill from 1973 through 1979. The landfill accepted municipal waste, construction debris and farm waste; no hazardous waste was accepted. The landfill was closed in May 1979, records indicate the landfill was covered with fill material. Recent flood events have exposed landfill materials including tires, concrete rubble, wood and tree trimmings/vegetative material. This type of material is consistent the type of waste generally disposed of while the landfill was operating.

Hazardous materials are generally unknown within the immediate GRCS study area. Fifty-five gallon steel drums and barrels occasionally are disposed of in rural areas like the GRCS study area. These barrels and drums can contain petroleum products, chemicals, pesticides and herbicides and residues. When these sources of hazardous waste are discovered, they are usually cleaned up by a response team from the County or State. No suspicious drums or materials were observed during numerous field visits to the 115th and 116th Avenue alignments. Additionally, other sources of hazardous pollution such as minor oil spills from automobiles and petroleum contaminated soils (PCS) from leaking underground storage tanks (USTs) are thought to be extremely small or non-existent.

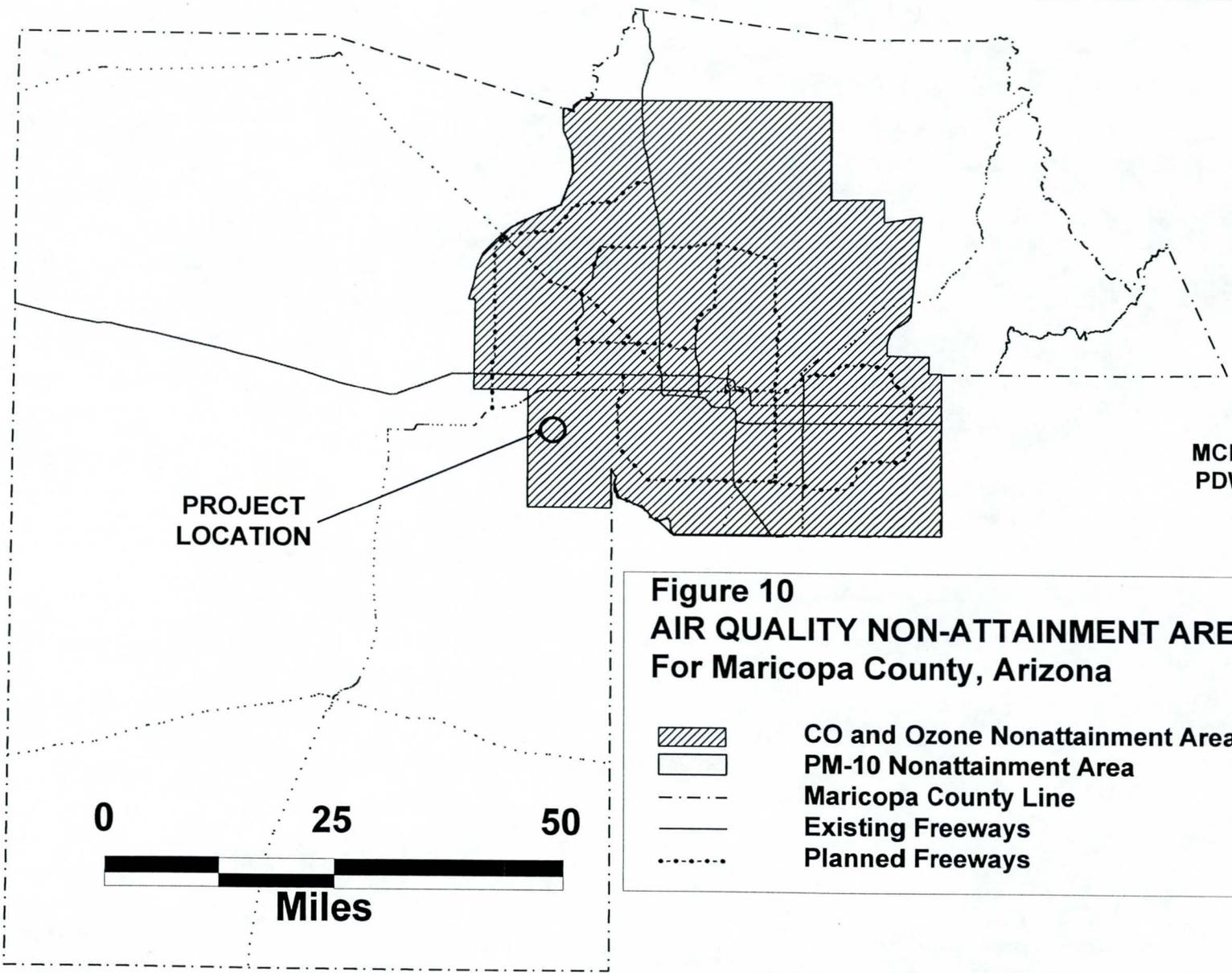
Arizona Department of Environmental Quality(ADEQ) records do not show registered UST's or Leaking Underground Storage Tanks(LUST) within or adjacent to the 115th/116th Avenue alignment. UST's are located off 115th Avenue north of Southern Avenue and above ground storage tanks are located at the PIR facility. No reported hazardous materials incidents(spills, releases) are located within one-mile of 115th Avenue. Aerial photo reviews from 1958 to 1993 show former landfill activities noted above. The photos do not indicate the presence of former gas stations, equipment storage yards, or commercial uses that would indicate potential hazardous materials use.

Both hazardous materials and solid waste problems are believed to be relatively minor elements within the selected alignment. Selection of the El Mirage Road or 119th Avenue alignments would have required a solid waste remediation plan. MCDOT has rated the problem negligible for the proposed bridge alignments situated between 115th and 117th Avenues. No systematic survey for hazardous materials or solid wastes has been performed within the GRCS study area, a Preliminary Initial Site Assessment (records review, photo review, pedestrian survey) has been conducted.. The construction of a bridge with access control and removal of the 115th Avenue low flow crossing will have the side benefit of reducing the probability of future illegal dumping.

H. Air Quality

Air Quality Standards

The EPA has established primary and secondary ambient air quality standards for six "criteria" pollutants. Primary standards for the protection of human health and secondary standards for the protection of human welfare have been established for carbon monoxide, ozone, inhalable particulates, nitrogen dioxide, sulfur oxides, and lead. National Ambient air Quality Standards for pollutants pertinent to the Phoenix area are shown in the table below:



MCDOT - TPD
 PDW 2/1/94

PROJECT
 LOCATION

Figure 10
AIR QUALITY NON-ATTAINMENT AREA
For Maricopa County, Arizona

-  CO and Ozone Nonattainment Area
-  PM-10 Nonattainment Area
-  Maricopa County Line
-  Existing Freeways
-  Planned Freeways

0 25 50

 Miles

NATIONAL AMBIENT AIR QUALITY STANDARDS

Pollutant	Averaging Time	Primary Standard	Secondary Standard
Carbon Monoxide	8-hour	9 ppm	same as primary
	1-hour	35 ppm	same as primary
Ozone	1- hour	0.12 ppm	same as primary
Particulate Matter	annual mean	50mg/m ³	same as primary
	24-hour average	150mg/m ³	same as primary

ppm= parts per million

mg/m³= micrograms per cubic meter

Existing Air Quality

When measured concentrations of a pollutant exceed the applicable standard, the area is designated as in "nonattainment" of federal standards by the EPA. Portions of the Maricopa County Planning Area have been designated as nonattainment for three criteria pollutants: carbon monoxide (CO), ozone (O₃), and PM₁₀ (particles 10 microns or less in diameter). In accordance with the requirements of the 1990 Clean Air Act Amendments, Maricopa County is classified as a moderate non attainment area for these three pollutants. See Figure 10 Maricopa County Non-Attainment Area, for a map of the project in relation to the non-attainment areas.

According to ADEQ (1991), motor vehicles are the major source of CO within Maricopa County. The highest concentrations of CO typically occur in the vicinity of congested areas, such as heavily traveled roadways and busy commercial centers (for example, central business districts, shopping malls, and large office complexes). As the distance from these areas increases, CO levels rapidly diminish. Within Maricopa County, CO concentrations are monitored at 10 locations including 5 sites in Phoenix, 3 in Scottsdale, and 1 each in Glendale and Mesa. According to the *ADEQ 1991 Annual Air Quality Report* (ADEQ 1991), CO levels within Phoenix have decreased steadily over the last 10 years. However, violations of the federal 8-hour standard have continued to occur: in 1992, four exceedences of the 8-hour standard were recorded.

Ozone, a very reactive form of oxygen, is formed in the atmosphere from a photochemical reaction involving volatile organic compounds (VOCs), oxides of nitrogen (NOx), and sunlight. Within Maricopa County, the presence of these precursor (VOCs and NOx) pollutants is primarily attributed to motor vehicles. Gasoline storage and dispensing sites and the use of organic solvents are also significant sources of VOCs. Secondary sources of nitrogen oxides include power plants and commercial boilers. In the Phoenix area, metropolitan area ozone monitoring data reflect a gradual decrease in concentrations from 1981 through 1989. However, in both 1990 and 1991, concentrations in excess of the federal

ozone standard were recorded at two monitors operated within Maricopa County by the state. In 1991, concentrations of 0.13 ppm were recorded at two locations including a monitor in Phoenix and a monitor in Scottsdale.

PM₁₀ includes small, inhalable particles from vehicle exhaust, re-entrained road dust, construction activities, and disturbed desert areas. The primary sources of PM₁₀ within Maricopa County are vehicle exhaust and re-entrained road dust, which includes andy particulate matter on a roadway that becomes suspended from moving vehicle turbulence. Similar to the trend for carbon monoxide, PM₁₀ levels have declined over the last decade. Currently, the three-year average of PM₁₀ levels remains slightly greater than the federal standard.

The nature of this project is to eliminate a bottleneck (the Gila River crossing) and to thereby reduce congestion. Construction of a bridge will have a substantive positive effect on automobile emissions. Based on race day traffic volumes and congestion delays it is estimated that 52,500 vehicle hours idling per year have occurred over the last 4 years. This is derived from a 4 year average of days the river crossing was closed(82 days or 22.5% of the time) and the vehicles delayed entering and leaving the race. The emissions equate to 9,600 kilograms of carbon monoxide and 1,100 kilograms of hydrocarbons per year due to traffic delays.

This project does not increase single occupancy vehicle(SOV) miles traveled or increase capacity as the existing low flow crossing; and approach roads are already four lanes. As noted above the bridge will reduce congestion due to river crossing closures and eliminate out of direction travel to Bullard Avenue or Estrella Parkway to get across the river during floods.

The bridge design will incorporate pedestrian walkways, and have a wide enough section to accommodate bike lanes if needed. Park-and-ride has already been established for race events to minimize traffic, and race event traffic has been observed to have vehicle occupancies of 2.8 persons per vehicle, substantially above average for traffic in Maricopa County. The project is in the MAG 1994-1998 Transportation Improvement Program (TIP) for 1995(ID# 486) and in the 1994-1996 State Transportation Improvement Program. The project is in conformity with the air quality State Implementation Plan (SIP).

I. Noise Impacts

The existing land use within the project area is rural agricultural and rural residential. The FHWA Noise Abatement criteria for acceptable hourly, A-weighted sound levels for these uses is 67 dBA(land use Category B). Noise impacts attributable to this project were estimated using the Federal Highways Traffic Noise Prediction Model(FHWA-RD-77-108).

Design Year(2015) Projections/Assumptions:

2500 ADT (average daily traffic, MAG)

300 DHV (design hourly volume)

5% Medium Trucks

5% Heavy Trucks

55 MPH Design Speed

150 feet - distance to nearest receptor

Model Prediction = 63 dBA(leq)

The 63 dBA projection is below the FHWA abatement criteria, no noise abatement measures are required for this project. The project alternatives are not expected to significantly change the roadway capacity, nor the traffic attracted to this route. Therefore, little change in noise impacts is anticipated. Non-race days traffic volumes are insufficient to cause a noise problem. The volumes on race days are sufficient to generate potential noise impacts, however those impacts occur today without the bridge and would not change with a bridge.

J. Visual Impacts

A visual inventory of the project area was conducted in October 1993. Data collection included field reconnaissance, photo documentation, and an examination of maps showing existing and future land uses. The predominant land uses in the project areas include agriculture, residential and vacant lands.

The 115th corridor extends .90 of a mile south of Southern Avenue to the Monument Hill curve. Within the corridor there is limited topographic change. Residential homes along both sides of the 115th alignment, 1/8 mile south of Southern, have landscape buffers, farm animals and small pasture areas adjacent to and visible from the roadway.

The 117th corridor extends 1.70 miles starting 1/4 mile south of Broadway to the curve that intersects with Indian Springs Road just North of the Phoenix International Raceway facility. This corridor consists largely of cultivated farmland, with a couple of residential receptors occurring 1/8 mile north of Southern and one on the Southwest corner of Southern along the proposed alignment. The views are expansive and are backdropped by the mountain ranges. Features that aesthetically detract from the visual quality of the area include a row of degraded residential lots one of which has been converted into a automobile and farm equipment parts junk yard.

The El Mirage corridor extends 1.09 miles south of Southern to the intersection of Indian Springs Road. This corridor alternative has the greatest level of development which consists of a solid block of residents on the East side along the length of the roadway from Southern south to the riparian corridor. Residential viewing conditions are orientated towards the road. The West side of this alignment is cultivated farmland.

There are outstanding natural features and unique visual resources in all the project corridors which include a broad vista of untouched hills, mountain ranges, and a riparian corridor. All alignments intersect with the riparian corridor north of Indian Springs Road. Features in the area that aesthetically detract from the include overhead transmission lines.

All residents along the 115th, 116th and El Mirage alignments have the opportunity for direct views of the corridor due to their locations and position of the viewers. Expanded or distant views exist in areas of minimal development, such as the cultivated fields and vacant lands. Currently the roadway corridors are not an obstruction to any of the residential viewers. The view of the project would be of an approach road, and a bridge. Some of the present views could be obstructed by the proposed roadway due to elevation build-up in the bridge approach area. On the other hand, a wider panoramic view, including Monument Hill would be visible to travellers from the elevated roadway. The views from the project would vary depending on the adjacent land use but may include scattered residential farm houses, cultivated fields, and a bridge. The project and it's surrounding area has not been designated as a special scenic corridor.

K. Farmlands

Prime farmland soils, as defined by the Soil Conservation Service (SCS), are those soils that are best suited for producing food, feed, forage, fiber, and oilseed crops due to soil quality, length of growing season, and moisture supply. These soils also must have properties that are favorable for the economic production of sustained high yields of crop. An adequate water supply and a sufficiently long growing season are also required. Prime farmland soils produce the highest yields with minimal inputs of energy and economic resources, and farming of these soils results in the least damage to the environment. Prime farmland is a valuable resource that is to be protected. Prime farmland is addressed as part of the Farmland Protection Policy Act of 1981, as amended (7 U.S.C. 4201-4209). Unique farmland and additional farmland of statewide importance have many of the same properties as prime farmland but do not meet the prime farmland criteria. Prime farmland is not committed to urban development or water storage.

There is prime and unique farmland in all the proposed alignment corridors. The primary crops grown in the project area consist of alfalfa and cotton which are crops of statewide importance. There are also scattered residential farmhomes adjacent to the project area. The proposed 115th alignment alternative would affect the least amount of farmland, roughly less than 1 acre. The selected alignment at 116th Avenue would affect less than 2 acres. Approximately 40 acres of cultivated farmland lie in the 117th and 119th Avenue alignments within a 110' right-of-way. The El Mirage proposed alignment would affect approximately 16 acres of farmland.

According to SCS, there are 280,000 acres of prime farmland in Maricopa County (1987 data). About 13,800 acres were removed from cultivation in Maricopa County between 1982

and 1987, resulting in a loss of 4.7 percent of the acreage (SCS 1992). There are no federal programs in this area to preserve prime farmland so that it is not converted to private development. Also, there currently are no aggressive efforts at the state or county level to preserve farmland.

Construction of the selected alignment would require minor irrigation modifications to one field at the northwest corner of 115th Avenue and the Gila River. This alternative would also result in the loss of approximately 1 acre of a 20 acre pasture.

L. Other Transportation Modes

The primary mode of travel to the study area is by automobile due to the relative remoteness of the study area. Currently, no daily transit service is provided to the area and alternate mode travel by bicyclist is of a recreational nature. Bus service is provided by the race track during large race events, utilizing a temporary park and ride lot at the Phoenix/Goodyear Airport.

CHAPTER VI.

VI. PROJECT COORDINATION AND PUBLIC INVOLVEMENT

A. Agency Coordination

MCDOT has coordinated this project with the appropriate federal, state and local officials. A Scoping letter was sent to the agencies noted below.

AGENCY	COMMENTS
U.S. Army Corps of Engineers Cindy Lester	COE delineation provided 9/28/93. Project will require Individual Permit.
AZ Dept. of Agriculture James McGinnis	A plant survey may be required to determine project impact on protected species.
U.S. Fish & Wildlife Service	Letter received 10/15/93. Noted the Yuma Clapper Rail and supported existing alignment.
Flood Control District	On-going member of planning team, comments on floodplain, levee and channel work.
Planning & Development Debra Starks	A Special Use Permit was issued for the PIR raceway. The permit records have been sent to Avondale after annexation. (Permit #s X-547, Z83-36, Z89-12).
AZ Game & Fish Ron Christoferson	Response letter 10/12/93. Noted Game and Fish ownership in the area, mitigation/compensation would be required for new R/W.
State Historic Preservation Office (SHPO) Andrew T. Black	3 recorded sites in the area. Recommend an archaeological survey.
ADEQ James Matt	Section 401 Permits may be required. Utilize BMP's during construction.
EPA	No response to letter.

BIA Bob Maxwell, Jr.	No response to letter. 115th Ave. alignment would best serve the Gila River Indian Community. (verbal)
Sheriff's Office Mary Reed	Supports the 115th Ave. alignment.
MAG	No response to letter.
Rural/Metro	No response to letter. Left msg. 10/8/93
City of Avondale, Community Development	Supports the existing alignment or 116th Avenue variation.
City of Avondale, Public Works	Supports the existing alignment or 116th Avenue variation.
Bureau of Reclamation Wayne Anderson	No response to letter.
Gila River Indian Community	Does not support Baseline alternative.
Maricopa Audubon Society Robert Witzeman	Recommends Bullard Avenue alternative.
Nature Conservancy, Government Relations	No response to letter.
Nature Conservancy, Director	No response to letter.
Buckeye-Roosevelt NRCD	No response to letter.
Maricopa County Parks & Recreation Cynthia Donald	Supports either 115th Ave. alignments.
AZ State Land Dept. V. Ottozawa	Doesn't see any problem with 115th or 116th Avenue alignment. Please submit conceptual design plans after we've determined alignment for further comments.
Bureau of Land Management	No response to letter.
Avondale Elementary District #44	This project doesn't directly affect them. Bridge would be helpful (verbal).
Federal Emergency Management Agency John Eldridge	Floodplain management ordinance prohibits floodplain encroachment unless it has been demonstrated that flood levels won't increase as a result of the project.

City of Goodyear	No response to letter. Requested expanding the study to include Estrella Pkway(verbal).
City of Tolleson Ralph Velez	No response to letter. They have no concerns. (verbal)
AZ Dept. of Water Resources Dan Lawrence	No response to letter.
Town of Laveen	No response to letter.

B. PUBLIC SCOPING MEETING

The scoping meeting was held at the Littleton Elementary School in Avondale on August 12, 1993, to solicit comments on the project to build the Gila River bridge crossing; and to obtain citizen input on where the County's resources can best be spent in resolving the traffic congestion and safety problems that occur on race days at the Phoenix International Raceway.

The Maricopa County Department of Transportation (MCDOT) provided a news release to the media. Notices of the meeting appeared in the Arizona Republic, the Phoenix Gazette, and the West Valley View. Attenders were invited by MCDOT through individual letters. The following letters were sent: 33 agency coordination letters, 130 letters to local residents, and flyers advertising the meeting were posted at local businesses. Sign-in sheets indicated attendance of 57 persons. Of that number, approximately 19 represented themselves; other attenders represented government agencies, engineering firms, or other groups.

The public scoping meeting was a combination open format with a presentation. Attenders were given a letter explaining the format of the hearing, a project description and status report, a map of the project area and a comment form. A presentation consisting of an overview of the project scope and area, a description of the alternatives to be evaluated, issues, concerns, and opportunities. The need for the project, approximations of engineering specifications, proposed design speeds, environmental considerations, physical constraints, project costs and an explanation of poster boards identifying the proposed alignments were also reviewed. Public input indicated that there was support for the El Mirage or 115th Avenue alignment. The Town of Goodyear and developers from the local community expressed an interest in expanding the study to Estrella Parkway. Safety issues were also voiced, there are traffic congestion problems before and after racing events.

Public Information Meeting

A public information meeting was held at the Littleton Elementary School in Avondale, on November 17th to present an update on the alternatives analysis and to solicit comments. The meeting was a combination presentation/workshop style public involvement. Staff presented a brief overview of the alternatives analysis: then the audience was divided into 3 work tables, each with a facilitator, comments recorder and full set of display graphics/maps; following group discussions the entire audience was pulled back together to review the conclusions of each table. The goal of the discussion effort was to reach a consensus on a preferred alternative(s). Sixty-two (62) individuals signed-in at the meeting, attendance was estimated at 75 including local officials.

The MCDOT presentation began with an overview of the project need and staff efforts since the August 12, 1993 Public Scoping Meeting. The focus then turned to narrowing the range of alternatives to those alignments between 115th Avenue and El Mirage Road. The task given to the 3 work tables was to discuss the alternatives and come to a table conclusion. Each of the tables was made up of 15 to 20 citizens and staffed by a facilitator, recorder and had "floating" specialists (i.e. R/W, Flood Control, Engineering, Environmental). The following issues were noted on flip charts:

- * Channelizing the river to keep the low flow in the center of the river.
- * Bank protection is needed along the southbank, but make sure that work does not force flows towards the northbank.
- * Access control to properties south of 115th Avenue.
- * Access for the Harper Sand and Gravel operation off 115th Avenue.
- * How much right-of-way needed from Southern Avenue to the river.
- * If 116th selected, keep 115th open for Harper and the 3 private parcels.
- * How much channelization need?
- * Restrict off-road access to limit illegal dumping.
- * Extend existing levee to the east.
- * 116th Alignment least expensive.
- * 116th Alignment could utilize 115th Avenue during construction and as local access later.
- * 115th or 116th Alignments would be best, others are too costly or have additional impacts to farming and properties.
- * El Mirage alternative puts additional traffic past neighborhood.

These topics were then discussed as a group, with answers provided or notations to follow-up were made. All the groups came to a consensus that 115th/116th Avenue alignment was the best and that MCDOT should concentrate it's efforts on the 116th Alignment and to partially retain 115th Avenue as local access to the river. The next public involvement activity was noted as the Public Hearing to be held shortly after the holidays.

Several citizens noted they appreciated the meeting style, the opportunity to comfortably discuss issues, be heard and to have a role in the decision process.

PUBLIC HEARING

After the Draft Environmental Assessment (EA) is approved a public notice was published to announce the availability of the Draft EA and the schedule for the public hearing. Notices for this hearing were published in the Arizona Republic, the Phoenix Gazette, and the West Valley View. The public hearing was held on April 14, 1994, to present the preferred alignment and the bridge design; and to seek further input from the local citizens.

The hearing at Littleton Elementary School was attended by about 35-40 citizens and local officials. As with the previous public meetings support for the project remained strong. Four letters or comment forms were received supporting the preferred alternative and three speakers supported the project. Three additional speakers supported the bridge project, however thought the proposal fell short of completely serving the area. Those speakers preferred the bridge project be expanded to provide additional flood control elements for residents along the river. At issue were the approach roads that are not proposed to be elevated or protected to the 100-year floodplain elevation.

MCDOT recognized that during an event of 135,000 cfs or more the approach roads would be closed. This however was considered to be a reasonable trade-off given that sustained flows of 135,000 cfs are rare and the work necessary to remedy the situation requires channelization or levee work well outside the scope of a bridge project. One of the solutions noted was extending the existing levee approximately 2 miles east to 91st Avenue. The Maricopa County Flood Control District and the local citizens have been evaluating such options for a number of years. MCDOT explained that it was not within the scope the bridge project to solve this on-going issue.

The hearing was closed with a commitment by MCDOT to involve the local residents in the actual bridge design activities. A public involvement component is an element within the design contract.

The comment period closed on April 23rd with no additional letters from citizens being received. Three agencies; Maricopa County Flood Control District, Maricopa County Parks and Recreation Department and Arizona Game and Fish Department commented on the Draft Environmental Assessment (letters in the appendix).

APPENDIX A



GILA RIVER INDIAN COMMUNITY

SACATON, AZ. 85247

DISTRICT #7
Rt. 1, BOX 186
LA VEEN, ARIZONA 85339

(602) 237-4780
(602) 237-3224
(602) 237-2107

July 10, 1991

Maricopa County Highway Dept.
3325 West Durango Street
Phoenix, AZ 85009

On April 22, 1991 during one of the local community meetings, our district (Maricopa Colony), disapproved your request to extend Baseline Road to 115th Avenue and more recently at a community meeting July 8 the community reaffirmed their position on this request.

The reasons the extension was denied are as follows:

1. Police Patrol: Our local tribal law enforcement is unable to monitor/patrol the reservation as a whole, because of the lack of funds.
2. Trespassing: The community now faces a major problem with trespassers. There is also a concern with the hunting of non-tribal members. Stolen, abandoned and stripped autos is also a problem where the proposed extension would be as well as heavy traffic during times of PIR activities.
3. Garbage/Trash Dumping: We now face a serious problem with illegal dumping of household garbage, off-reservation construction dumpings, as well as tire dumping.

All of the above are problems we are faced to deal with personally as well as a community. If the community did approve this request, it would only make matters worse for us.

Please try to understand our situations and cares for our people.

Thank you for your time and understanding.

Sincerely,

Cecelia Martinez,
Community Chairperson

cc: Governor Thomas White
Lt. Gov. Mary V. Thomas
Cecil Antone, Physical Resources
Roderick Sunn, D-7 Councilman

CM/dc



CITY OF AVONDALE

INCORPORATED 1946

525 NORTH CENTRAL AVENUE • AVONDALE, ARIZONA 85323 • PHONE: 932-2400

MAYOR
RAYMOND W. BEDOYA

VICE MAYOR
THOMAS F. MORALES, JR.

COUNCIL MEMBERS
LON MONTGOMERY
EARL D. COOPER
HENRY BELTRAN
DALE MOXON
ALBERT CARROLL, JR.

CITY MANAGER
CARLOS V. PALMA

CITY CLERK
LINDA M. TYLER

CITY ATTORNEY
FRANK L. ROSS

March 10, 1993

Mr. Greg Holverson
Environmental Multi-Modal Manager
Maricopa County Department of Transportation
2901 W. Durango Street
Phoenix, Arizona 85009

Dear Greg:

Per our conversation this morning; this letter is to confirm that the City of Avondale grants its permission to Maricopa County to make whatever improvements are practical to Indian Springs Road. The purpose of the improvements being to improve access to Phoenix International Raceway.

We certainly appreciate the County's assistance in accomplishing these improvements in such a short time frame. Thanks; and please don't hesitate to call if I can be of any assistance.

Sincerely,

Bill Bates, Public Works Director



AVONDALE
A Bicentennial
Community

BB:rpl/pirimp.adm

cc: Carlos Palma
Mike Springfield



Joseph M. Arpaio
Sheriff

OFFICE OF THE SHERIFF
Maricopa County

FILE



Russell K. Pearce
Chief Deputy

MEMORANDUM

DATE: June 4, 1993

TO: Jim Bruner, Chairman
Maricopa County Board of Supervisors

FROM: Joseph M. Arpaio
Maricopa County Sheriff

SUBJECT: **PROPOSAL TO BUILD A BRIDGE ACROSS THE GILA RIVER
AT 115TH AVENUE**

I asked Lieutenant Jim Mann to give me his opinion of the proposal to build a bridge across the Gila River at 115th Avenue, as he has been the Lieutenant who has been coordinating events at the Phoenix International Raceway (P.I.R.). He stated that if this proposal was approved, construction of a bridge would not only improve public access to Phoenix International Raceway, it would resolve many public safety issues associated with traffic management during events at P.I.R.

Six years ago, Lieutenant Mann was assigned the duty of coordinating the traffic management and emergency response during events at P.I.R. The coordination involves personnel and equipment from the Maricopa County Sheriff's Office, the Department of Public Safety, the Maricopa County Department of Transportation, the Arizona Department of Transportation, the Phoenix Transit System, the Avondale Police Department, the Goodyear Police Department, the Maricopa County Parks and Recreation Department, Avondale Fire Department, AirEvac and several medical care facilities, including ambulance services.

Lieutenant Mann identified four major public safety risks during Raceway events:

- * The first major risk is created when traffic comes to a stop on I-10 because the County roadways are unable to absorb the traffic. Traffic attempting to exit for the Raceway comes to a stop, while through traffic approaches from the rear at 65 mph, creating a potential for a disastrous chain reaction collision. Lieutenant Mann stated he has

JIM BRUNER, CHAIRMAN
PAGE TWO
JUNE 4, 1993

personally watched traffic stopped on the opposite side of a rise and observed as approaching tractor trailer trucks made emergency movements to avoid collisions. Warning signs are no substitution for maintaining the traffic flow on the freeway. When 115th Avenue is open across the Gila River, the freeway traffic can be dispersed between four exits. A bridge would ensure that we could maintain the optimum traffic dispersal.

- * The second major risk to the public is the pedestrian traffic walking on County roadways surrounding the Raceway, while a huge amount of vehicular traffic is trying to occupy the same space on the roadway. A bridge, coupled with appropriate raceway parking lot design, would greatly reduce this risk by allowing the separation of pedestrian and vehicular traffic.
- * The third major risk involves greatly increased emergency response times for ambulances, fire equipment and additional law enforcement personnel, not only to the Raceway, but to all of the major roads leading to and from the Raceway. On every occasion when water flow in the Gila River is above normal, we are faced with delayed emergency response. The extraordinary traffic management efforts taken to compensate for washed out roadways has at times exacerbated the emergency response delays and increased the need for those responses. A bridge would greatly enhance the safety of citizens attending the raceway events.
- * The fourth major risk to the public involves our ability to expedite traffic movement once the event is over. When the roadways are not available, it is not uncommon for a person to be forced to wait several hours in a parking lot. On occasion, the wait has created near riot situations (involving fights, rock throwing and vehicular ramming incidents) and medical emergencies (heat distress, assault injuries, pedestrian injuries, drowning, heart attacks and even one recent child birth). The risk to our deputies directing traffic increases when the drivers become uncooperative; it requires more officers to man intersections, thereby, reducing our ability to respond to medical emergencies. Traffic accidents increase and our ability to respond to traffic accidents decrease, thereby, further delaying traffic movement. This scenario can escalate to severe levels unless adequate roadways and river crossing are maintained. A bridge would help prevent these riotous situation.

As the Incident Commander of the public safety efforts during events at Phoenix International Raceway, Lieutenant Mann strongly recommends to me that consideration be given to the construction of a bridge across the Gila River at 115th Avenue. In fact, he recommends that an additional bridge be constructed at El Mirage across the Gila River or, at the very least, rebuild the washed out roadway. He stated he has heard many references to the economic

JIM BRUNER, CHAIRMAN
PAGE THREE
JUNE 4, 1993

benefits of building a bridge, however, he feels that the strongest argument in favor of building the bridge should be the reduction of risk involving injury or death to the citizens attending the events at Phoenix International Raceway.

At this time, I would like to say that I agree with the assessment made by Lieutenant Mann regarding this issue.

Your consideration in reviewing Lieutenant Mann's recommendations regarding this proposal is greatly appreciated. If you would like to discuss this matter further, I can be reached at 256-1801. Also, if you have any questions or need clarification on any statements contained in this memo, Lieutenant Mann can be reached at 256-1805.

Sincerely,



Joseph M. Arpaio
Maricopa County Sheriff

JMA:hsl

cc: Supervisor Tom Rawles, District 1
Supervisor Betsey Bayless, District 3
Supervisor Ed King, District 4
Supervisor Mary Rose Wilcox, District 5
Deputy Chief Jadel Roe
Lieutenant Jim Mann

C-514



DEPARTMENT OF THE ARMY

LOS ANGELES DISTRICT, CORPS OF ENGINEERS
ARIZONA-NEVADA AREA OFFICE
3838 NORTH CENTRAL AVENUE
PHOENIX, ARIZONA 85012-1938

REPLY TO
ATTENTION OF:

Office of the Chief
Regulatory Branch

JUL 20 1993

JUL 26 1993

Maricopa County Department of Transportation
Transportation Planning Division
ATTN: Mike Dawson
2901 West Durango Street
Phoenix, Arizona 85009

Dear Mr. Dawson:

It has come to our attention that you plan to construct a bridge in the Gila River in the vicinity of the Phoenix International Raceway, Maricopa County, Arizona.

This activity may require a U.S. Army Corps of Engineers Section 404 permit. A Section 404 permit is required for the discharge of dredged or fill material into the "waters of the United States," including adjacent wetlands. Examples of activities requiring a permit are placing bank protection, temporary or permanent stock-piling of excavated material, grading roads, grading (including vegetative clearing operations) that involves the filling of low areas or leveling the land, constructing weirs or diversion dikes, constructing approach fills, and discharging dredged or fill material as part of any other activity.

Enclosed you will find a permit application form and a pamphlet that describes our regulatory program. If you have any questions, please contact Cindy Lester of my staff at (602) 640-5385. Please refer to this letter in your reply.

Sincerely,

Robert J. Dummer
Acting Chief, Arizona Field Office
Regulatory Branch

Enclosures



ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

Fife Symington, Governor Edward Z. Fox, Director

July 27, 1993

JUL 20 1993

Mr. Thomas R. Buick, P.E., Chief
Transportation Planning Division
Maricopa County Department of Transportation
2901 West Durango Street
Phoenix, Arizona 85009

RE: GILA RIVER CROSSING STUDY

Dear Mr. Buick:

We have concluded our review of the referenced project relative to water quality impacts. Thank you for the opportunity to review your proposal during initial project planning. Since we have not been on site as a part of this review, our comments are limited to those which could be ascertained from the information you provide, our files and other available data sources. Our general comments follow:

Permits or approvals may be required by the county health department, Arizona Department of Environmental Quality (ADEQ), Arizona Department of Water Resources, U.S. Army Corps of Engineers or the U.S. Environmental Protection Agency if the overall project includes construction within a watercourse.

Runoff and seepage from roadways, embankments, and other alterations of the natural environment must not cause a violation of A.A.C. Title 18, Chapter 11, Article 1.(Arizona Water Quality Standards). It is our opinion that a bridge at El Mirage Road would be the least environmentally damaging and the least interruptive to area traffic during construction.

We appreciate the opportunity to provide our comments during initial project planning. If you have any questions, please call me at (602) 207-4502.

Sincerely,

A handwritten signature in cursive script that reads "James R. Matt".

James R. Matt, P.E.
Certification Engineer
Point Source and Monitoring Unit

JRM:afh



Joseph M. Arpaio
Sheriff

OFFICE OF THE SHERIFF
Maricopa County



Russell K. Pearce
Chief Deputy

MEMORANDUM

DATE: July 30, 1993

TO: Thomas Buick, Chief
Transportation Planning Division

FROM: Joseph M. Arpaio
Maricopa County Sheriff

SUBJECT: GILA RIVER CROSSING STUDY (115TH AVENUE NEAR P.I.R.)

I received your memo of July 20, 1993, regarding the possibility of building a bridge at the Gila River crossing in the vicinity of the Phoenix International Raceway (P.I.R.).

The prospect of building a bridge at this location has been discussed by my staff, as well as personnel within County government. On June 4, 1993, I sent a letter to Jim Bruner listing our concerns as outlined by Lieutenant Jim Mann of our Office. I have enclosed a copy of this memo for your information.

I will have Lieutenant Mann attend your planning meeting to be held on August 12, 1993, 4:00 p.m., at Littleton Elementary School, 1252 South 115th Avenue, Cashion.

If you have any questions regarding the attached memo, you may contact Lieutenant Mann at 256-1805.

Sincerely,

A handwritten signature in black ink, appearing to read "J. Arpaio".

Joseph M. Arpaio
Maricopa County Sheriff

JMA:RKP:hsl

Enclosure: (1)

C-537



Federal Emergency Management Agency

Region IX
Building 105
Presidio of San Francisco
San Francisco, California 94129

AUG 11 1993

AUG 9 1993

Mr. Thomas R. Buick, P.E.
Chief, Transportation Planning Division
Maricopa County
Department of Transportation
2901 West Durango Street
Phoenix, Arizona 85009

Dear Mr. Buick

This is in response to your letter dated July 20, 1993 concerning the construction of a bridge across the Gila River in the vicinity of the Phoenix International Raceway.

Unfortunately, we will be unable to attend the public meeting regarding this bridge on August 12, 1993. We do however have the following comments regarding this construction project. According to the current effective Flood Insurance Rate Map (FIRM), for Maricopa County, dated September 4, 1991, this area is designated as a floodway. The County's floodplain management ordinance and the National Flood Insurance Program regulations, (as specified in 44 CFR, Section 60.3(d)(3)), prohibits encroachments, including fill, new construction, substantial improvements, and other development within the adopted regulatory floodway unless it has been demonstrated through hydrologic and hydraulic analyses performed in accordance with standard engineering practice that the proposed encroachment would not result in any increase in flood levels within the community during the occurrence of the 100-Year base flood discharge.

If you have any questions or need further assistance, please do not hesitate to call Mr. Michael Shore of my staff at (415) 923-7180.

Sincerely,

for Raymond Itenberry
John W. Eldridge
Branch Chief
Flood Insurance Program
FEMA Region IX



Maricopa County
Planning and Development

August 9, 1993

AUG 11 1993

TO: Thomas R. Buick, P.E., Chief
Transportation Planning Division

From: Debra Stark, Planner III *DWS*
Current Planning

Subj: Gila River Crossing Study (115th Ave.- Bullard Ave)

This office appreciates the opportunity to review and comment on this proposed study. Before the Phoenix International Raceway was annexed into Avondale, we administered a Special Use Permit for the raceway. The Special Use Permit files contain several documents concerning traffic analysis. At the time of annexation, our office is required to forward our files to the annexing city. The city of Avondale Planning Department probably can provide you with information from the Special Use Permits. I believed that the Engineering Division of MCDOT also maintains information on these Special Use Permits. This Division may still have their file information as they do not have the same statutory requirements (to forward files to the annexing city). Those permit numbers included Z-547, Z83-36 and Z89-12.

We would like to be informed of this study as it progresses. Please contact me at 506-7163 if I can be of any help.





Arizona Department of Agriculture

1688 West Adams, Phoenix, Arizona 85007
(602) 542-4373 FAX (602) 542-0909
PLANT SERVICES DIVISION

August 12, 1993

Mr. Thomas R. Buick, P.E., Chief
Transportation Planning Division
Maricopa County
Department of Transportation
2901 West Durango Street
Phoenix, AZ 85009

RE: Gila River Crossing Study (115th Avenue - Bullard Avenue)

Dear Mr. Buick:

The Arizona Department of Agriculture has reviewed your letter of July 20, 1993 regarding the above referenced project.

A plant survey may be required to determine if the proposed project will have an impact on protected plant species.

The Department strongly recommends that, if plants are present, they be salvaged and the Maricopa County Department of Transportation notify us in writing at least sixty days before the work begins.

The Department will post and disseminate copies of the Notice to salvage operators or interested parties, and issue permits to donate, sell, salvage or harvest the plants.

If you need additional information, please call me at 542-3292.

Sincerely,

A handwritten signature in cursive script, appearing to read "James McGinnis".

James McGinnis
Native Plant Law Program Manager

JM:clw



January 3, 1994

Brian Kenny
Environmental Program Manager
Transportation Planning Division
Maricopa County Department of Transportation
2901 West Durango Street
Phoenix, Arizona 85009

RE: Maricopa County; Proposed Gila River Bridge Near Phoenix International Raceway, T1N R1W-1E & T1N-1S R1W, MCDOT WO#68832; MCDOT and ASLD

Dear Mr. Kenny:

Thank you for copying us on your letter to the Arizona State Lands Department (ASLD) regarding this project. I have reviewed the project pursuant to A.R.S. 41-864, and have the following comments:

1. I note that the project will involve State Trust lands. Therefore, the ASLD must first comment on the report, including comments on survey adequacy, site eligibility, and project effect before our office can officially review the report.

2. I note that Maricopa County Department of Transportation (MCDOT) is acting as lead agency for the project. Therefore, when comments are received from the ASLD, please forward them to us. After we receive the comments, we will officially review the report and project.

We appreciate your continued cooperation with this office in complying with the historic preservation requirements for undertakings on state managed lands. If you have any questions or concerns, please contact me or James W. Garrison, State Historic Preservation Officer, at 542-4009.

Sincerely,

Andrew T. Black
Archaeologist
State Historic Preservation Office

cc: Ken Rozen, ASLD

ARIZONA STATE PARKS

1300 W. WASHINGTON
PHOENIX, ARIZONA 85007
TELEPHONE 602-542-4174

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GOVERNOR

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STATE LAND COMMISSIONER

KENNETH E. TRAVOUS
EXECUTIVE DIRECTOR

CHARLES R. EATHERLY
DEPUTY DIRECTOR



August 16, 1993

AUG 18 1993

Thomas R. Buick
Transportation Planning Division
Maricopa County Department of Transportation
2901 West Durango Street
Phoenix, Arizona 85009

ATTN: Mike Dawson

RE: Avondale, Gila River Crossing Study, 115th Avenue to Bullard Avenue;
MCDOT

Dear Mr. Buick:

Thank you for sending us information on the above project. We have reviewed the documentation and have the following comments:

1. Our files indicate that there are at least three recorded archaeological sites within the study area, and several more are recorded in proximity to the area. Based on the location of the project on the banks of the Gila River, and the fact that most of the study area has not been surveyed for cultural resources, it is our professional opinion that other cultural resources will likely be located within the project area.
2. Thus, we recommend that the study area be surveyed by a qualified archaeologist in order to locate and evaluate any existing cultural remains. Enclosed is a list of consultants who can conduct the survey.
3. Once the survey has been completed, we would appreciate if a copy of the report by the archaeologist be sent to this office for review and comment. If prehistoric or historic sites are identified within the property, it may be necessary to have archaeological testing performed at these sites in order to evaluate their eligibility for the National or State Registers of Historic Places. If National or State Register properties cannot be avoided by project activities, then it may be necessary to implement a data recovery (excavation) program.
4. Also, please be aware that if there is involvement from the Federal Highway Administration, the project will be considered a Federal "undertaking", and thus subject to cultural resources review pursuant to Section 106 of the National Historic Preservation Act, as amended. If you are unfamiliar with the Section 106 process, please consult with Brian Kenny, MCDOT Environmental Planner/Archaeologist.

Your continued cooperation with this office in considering the impacts of projects on historic preservation is greatly appreciated. If you have any questions or concerns, please contact me or James Garrison, State Historic Preservation Officer, at 542-4009.

ARIZONA STATE PARKS

1300 W. WASHINGTON
PHOENIX, ARIZONA 85007
TELEPHONE 602-542-4174

FIFE SYMINGTON
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WILLIAM G. ROE
TUCSON

ROBERT A. FROST
SCOTTSDALE

DEAN M. FLAKE
SNOWFLAKE

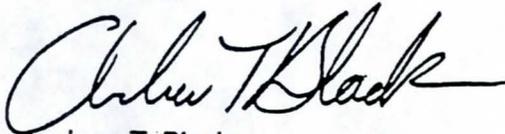
M. JEAN HASSELL
STATE LAND COMMISSIONER

KENNETH E. TRAVOUS
EXECUTIVE DIRECTOR

CHARLES R. EATHERLY
DEPUTY DIRECTOR

Thomas Buick
August 16, 1993
Page Two

Sincerely,

A handwritten signature in cursive script, appearing to read "Andrew T. Black". The signature is written in dark ink and is positioned above the printed name.

Andrew T. Black
Archaeologist

Enclosure

cc: Brian Kenny, MCDOT, Transportation Planning Division

William C. Scalzo
Director



PARKS AND RECREATION
DEPARTMENT

AUG 18 1993

MEMORANDUM

TO : Thomas R. Buick, P.E.
Chief, Transportation Planning Division

FROM : Cynthia A. Donald, L.A. *CAD*
Superintendent, Planning and Development

DATE : August 11, 1993

SUBJECT : Gila River Crossing Study (115th Avenue - Bullard Avenue)
Estrella Mountain Regional Park

We have reviewed your July 20, 1993 correspondence regarding a potential crossing of the Gila River at Bullard Avenue, Dysart Road, or 115th Avenue with great interest. The County Parks and Recreation Department supports a bridge crossing at either Dysart Road or 115th Avenue and the Gila River. On event days at PIR, we experience tremendous congestion at Estrella Mountain Regional Park. A bridge in either of these two locations will alleviate that congestion, and allow the public better access to events at PIR. We are concerned that a bridge at Bullard Avenue and the Gila River will exacerbate existing traffic and congestion problems on PIR event days, and for this reason do not support this alternative.

We appreciate your notification of this project, and will work with you as you deem appropriate. Please do not hesitate to contact me if you have any questions or need additional information.

js

c: WCS
RBH
ML
JR

P:\PLANNING\BUICK.MEM





OFFICE OF THE SHERIFF

JOSEPH M. ARPAIO
SHERIFF



MEMORANDUM

DATE: September 9, 1993

TO: Dan Sagramoso
Director, Maricopa County Department of Transportation

FROM: Joseph M. Arpaio
Maricopa County Sheriff

SUBJECT: **PROPOSAL TO BUILD A BRIDGE ACROSS THE GILA RIVER
AT 115TH AVENUE**

Access routes to and from Phoenix International Raceway are a major concern for the Maricopa County Sheriff's Office. We strongly recommend that the proposal to build a bridge across the Gila River at 115th Avenue be approved.

The construction of a bridge would improve public access and resolve many public safety issues associated with traffic management during events at Phoenix International Raceway. Limited access to the Raceway during high water flow in the Gila River has the potential to create a significant traffic and safety problem. Not only does the traffic congestion cause limited access for emergency vehicles, the resulting traffic delays in the past have been known to entice attendees to attempt dangerous and ill advised crossings of the flooded Gila River.

In an effort to provide a safe and more efficient access to Phoenix International Raceway, improvements have been made to the only existing alternate route and a shuttle bus program has been initiated. The alternate route, even with the improvement, is inadequate to provide safe and efficient traffic flow if the 115th Avenue crossing is closed due to high water in the Gila River.

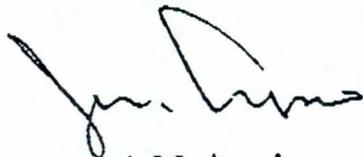
The Maricopa County Department of Transportation has responded to the Sheriff's Office concerns by proposing and pursuing funding sources for the construction of a bridge across the Gila River at 115th Avenue. The Maricopa County Sheriff's Office fully supports the proposal.

DAN SAGRAMOSO, DIRECTOR
PAGE TWO
SEPTEMBER 9, 1993

A bridged crossing of the Gila River at 115th Avenue is in the best interests of Maricopa County, the cities of Maricopa County, the Sheriff's Office, Phoenix International Raceway, the people living in the vicinity, and citizens attending Raceway events. Obvious public safety concerns are being effectively addressed by the proposal.

Thank you for your continued cooperation and assistance in this important matter.

Sincerely,



Joseph M. Arpaio
Maricopa County Sheriff

JMA:JCM

cc: Barbara Bommarito



DEPARTMENT OF THE ARMY

LOS ANGELES DISTRICT, CORPS OF ENGINEERS
ARIZONA-NEVADA AREA OFFICE
3636 NORTH CENTRAL AVENUE
PHOENIX, ARIZONA 85012-1936

REPLY TO
ATTENTION OF:

SEP 28 1993

Office of the Chief
Regulatory Branch

Maricopa County
Department of Transportation
ATTN: Mr. Thomas R. Buick, P.E.
2901 West Durango Street
Phoenix, Arizona 85009

File Number: 93-993-CL

Dear Mr. Buick:

Reference is made to your letter of May 24, 1993 in which you inquired as to the jurisdictional limits of the Clean Water Act, ordinary high water mark and/or wetland boundary, of Gila River at Sections 1 (T1S, R1W) and 36 (T1N, R1W), Avondale, Maricopa County, Arizona.

The Corps of Engineers has no permit authority under Section 404 of the Clean Water Act in the area(s) outside of the ordinary high water mark or outside wetlands designated on the enclosed aerial photograph or map. However, any activity that discharges dredged or fill material into the designated jurisdictional area(s) requires a Section 404 permit. This jurisdictional determination will remain in effect for three years from the date of this letter unless an unusual flood event occurs. After this three year period or after an unusual flood event alters stream conditions, the Corps of Engineers reserves the authority to retain the original jurisdictional limits or to establish new jurisdictional limits as conditions warrant.

Please include a copy of this letter and the corresponding jurisdictional delineation with any application to the Corps of Engineers for a Section 404 permit.

The receipt of your letter is appreciated. If you have any questions please contact Ron Fowler of my staff at (602) 640-5385.

Sincerely,

Cindy J Lester

Cindy J. Lester
Acting Chief, Arizona Field Office
Regulatory Branch

Enclosure(s)

MARICOPA COUNTY
DEPARTMENT OF
TRANSPORTATION

Transportation Planning Division

2901 West Durango Street
Phoenix Arizona 85009



(602) 506-4584
FAX (602) 506-4882

DATE: 10/8/93

TO: Robert Witzeman

FAX #: 8403001 PHONE #: _____

FROM: Sharon Cuevas

FAX #: 5064882 PHONE #: 5064608

OF PAGES (INCLUDING THIS COVER SHEET): 3

IF YOU HAVE ANY PROBLEMS WITH THIS FAX, PLEASE CALL:

NAME: _____ PHONE #: _____

COMMENTS: Pls fax comments. They
We do not wish to see more development
at Base + Meridian Wildlife area at 115th
115th is more attractive to wildlife for many
hydrologic reasons. We definitely recommend
you use Bullard Rd - the existing
bridge already an impacted situation.

D.E. SACRAMOSO, P.E.
Transportation Director

ROBERT A. WITZEMAN, M.D.
4619 E. Arcadia Ln.
Phoenix, AZ 85018



FAX TRANSMITTAL

DATE: 10-8-93

To: Sharon Cuevas

Company: MCDOT

FAX #: 506-4882

Phone #: 506-4608

From: Paul Walker

City of Goodyear

FAX #: (602) 932-1177

Phone # (602) 932-3910

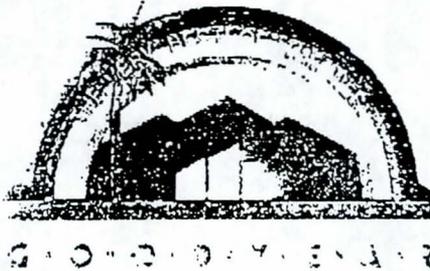
119 N. Litchfield Road

Goodyear, AZ 85338

Total Number of Pages (including this one):

3

<p>Message: Copy of portion of letter to Mr Schmitt. See item "A" regarding 115th Ave Bridge. As I stated, Estrella Parkway and Vineyard Road provides secondary access to PIR and will continue to do so. These streets will provide primary access during construction of the bridge. Paul.</p>
--



September 23, 1993

Mr. Louis Schmitt
Assistant County Manager
Public Works/Highways
2901 West Durango
Phoenix, AZ 85009

RE: TRANSPORTATION ISSUES IN CITY OF GOODYEAR

Dear Lou:

Thank you for the opportunity to discuss many transportation issues which impact the City and Maricopa County. I have summarized our discussion below.

A. 115th AVENUE BRIDGE

Thank you for expanding the study area for this bridge to include the Estrella Parkway. This corridor now and in the future has a significant role in serving the Phoenix International Raceway (PIR). Many visitors from California will continue to use the Parkway which is the only direct access to I-10 west of PIR.

B. CITY ANNEXATION OF COUNTY ROADS

The City is prepared to annex several County roads after County completion of drainage, shoulder and other repairs:

1. Litchfield Road

From McDowell north to Indian School Road, approximately two (2) miles. Needed County work includes upgrading shoulders to City standards and drainage, especially north of the Roosevelt Irrigation Canal (RID). Concerns have been voiced previously that there are some design issues with present realignment of Litchfield Road Bypass north of Thomas.

2. Indian School Road

From Litchfield Road Bypass west to PebbleCreek Parkway, approximately two and one-half (2.5) miles. Major drainage problems also exist west of Bullard Road to the

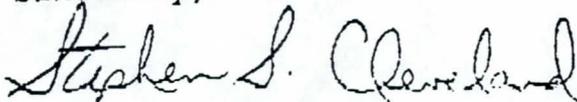
I. COUNTY TRANSPORTATION PLAN

The City would like to participate more closely with the County to develop a more definitive transportation planning program.

The ongoing EPA pressures to address air quality provide needed impetus. Road alignments, street standards, and cooperative, joint projects are just some of the issues to be addressed.

My staff is prepared to discuss the specifics of the above and other matters with you and your staff.

Sincerely,



Stephen S. Cleveland
City Manager

cc Lynn Kartchner, Public Works
Paul Walker, Community Development
Glenn Bush, Engineer
Chief Mark Gaillard, Fire Department
Chief Peter Nick, Police Department

M/CO/TR/TXTSTEPH/specproj



ARIZONA DEPARTMENT OF TRANSPORTATION



HIGHWAY DIVISION

206 South Seventeenth Avenue - Phoenix, Arizona 85007-3213

FIFE SYMINGTON
Governor

LARRY S. BONINE
Director

GARY K. ROBINSON
State Engineer

October 13, 1993

Sharon Cuevas
Transportation Planning Division
Maricopa County DOT

RE: Gila River Crossing Study

Dear Ms. Cuevas:

As Arizona Department of Transportation Environmental Planning Services project monitor for the Gila River Crossing Study, I have attended a progress meeting and reviewed the materials sent to me. I feel the environmental process, including public involvement and alternatives development have been progressing well and the necessary procedures have been followed. I look forward to receiving the draft environmental assessment for review. If you have any questions or would like to discuss any concerns, please call me at 255-8640.

Very truly yours,

Dee A. Bowling

DEE A. BOWLING
Environmental Planning Services

DAB:sf

3756



GAME & FISH DEPARTMENT

2221 West Greenway Road, Phoenix, Arizona 85023-4399 (602) 942-3000

Governor
Fife Symington

Commissioners:
Larry Taylor, Yuma, Chairman
Elizabeth T. Woodin, Tucson
Arthur Porter, Phoenix
Nonie Johnson, Snowflake
Michael M. Golightly, Flagstaff

Director
Duane L. Shroufe

Deputy Director
Thomas W. Spalding

October 12, 1993

Mr. Thomas R. Buick, P.E., Chief
Transportation Planning Division
Maricopa County Department of Transportation
2901 West Durango Street
Phoenix, Arizona 85009

OCT 18 1993

Dear Mr. Buick:

Re: Initial Scoping Comments; Proposal for a Bridged Crossing of
the Gila River, 115th Avenue

The Arizona Game and Fish Department (Department) has reviewed the concept information provided with your letter of July 20, 1993. We apologize for the delay in responding to your request. The following initial scoping comments are provided for your consideration.

Bridge construction or right-of-way acquisition in the vicinity of 115th Avenue and the Gila River is likely to involve lands owned or managed by the Department. We recommend early coordination with the Department to address matters involving these lands, as well as any potential impacts to wildlife resources which may result from the proposed project. We believe that a meeting between Department personnel and representatives of the Maricopa County Department of Transportation (MCDOT) should be pursued to address the following issues:

- Continued restriction of non-administrative vehicular access to lands managed by the Department, without eliminating administrative vehicular access.
- Avoidance, mitigation or compensation for the loss or potential loss of wildlife or wildlife habitat.
- Compensation for the acquisition of Department lands and associated appraisals.
- Joint consultation with the Bureau of Land Management (BLM) regarding acquisition of right-of-way(s) across patented lands managed by the Department for wildlife purposes.
- Clarification of Indian Reservation boundaries relative to Department lands and the project area.

Currently, the Department owns and/or manages three parcels of land in or adjacent to the Gila River floodplain in the project vicinity. These properties are briefly described as follows:

B and M Property

- East of the current 115th Avenue alignment, this land was acquired from the BLM by patent for wildlife purposes. Land uses that are not wildlife-oriented (i.e. easements) will require BLM approval along with Department concurrence.

Amator Property

- West of the current 115th Avenue alignment, this land is deeded to the Department.

Harper Property

- Also west of the current 115th Avenue alignment, this land was acquired by the Department with funding assistance from the U.S. Fish and Wildlife Service.

The Department anticipates that a mitigation plan for the loss of wildlife habitat functions and values will be required during the planning stages of the proposed project. We encourage MCDOT to initiate the development of such a plan as early as possible.

Thank you for the opportunity to comment on this project proposal. The Department looks forward to working closely with MCDOT in the future. As discussed above, we would like to meet with your staff to review and expand upon the issues of interest to the Department. If you have any questions, or wish to schedule such a meeting, please contact me at 789-3605.

Sincerely,



Ron Christofferson
Project Evaluation Coordinator
Habitat Branch

RAC:rc

cc: Kelly Neal, Regional Supervisor, Region VI, Mesa
Gene Sturla, Land Resources Program Manager, Habitat Branch



UNITED STATES
DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE
ARIZONA ECOLOGICAL SERVICES FIELD OFFICE
3616 West Thomas Road, Suite 6
Phoenix, Arizona 85019



Telephone: (602) 379-4720 FAX: (602) 379-6629

October 15, 1993

Thomas R. Buick, P.E., Chief
Transportation Planning Division
Maricopa County Department of Transportation
2901 West Durango Street
Phoenix, Arizona 85009

Dear Mr. Buick:

We have reviewed the information you provided on the Gila River Crossing Study (115th Avenue - Bullard Avenue) and have the following comments.

The Gila River in the area of the study supports a substantial amount of wetland and riparian habitat that supports nesting and migratory waterfowl, neotropical songbirds, wading birds, and shorebirds, including the Yuma clapper rail an endangered species listed under the Endangered Species Act of 1973 as amended. The area also provides habitat for a number of mammals, amphibians, and reptiles.

To protect this valuable habitat, we recommend that the new bridge be constructed at the present 115th Avenue crossing.

If you have any questions, or if we can be of any further assistance please contact Ron McKinstry or Don Metz.

Sincerely,



Thomas A. Gatz
Acting State Supervisor

cc: Regional Director, Fish and Wildlife Service, Albuquerque, New Mexico
(AES)
Director, Arizona Game and Fish Department, Phoenix, Arizona
Regional Supervisor, Arizona Game and Fish Department, Mesa, Arizona



GILA RIVER INDIAN COMMUNITY

SACATON, AZ. 85247

ADMINISTRATIVE OFFICES
P. O. Box 97
(602) 562-3311 or 963-4323

January 3, 1993

Mr. D.E. Sagramoso, P.E.
Maricopa County Department
of Transportation
2901 West Durango
Phoenix, Arizona 85009

Dear Mr. Sagramoso:

We appreciate you and Lou Schmitt taking time from your holiday weekend to give us an opportunity to ask questions and more fully understand the Gila River Bridge proposal at the northwest boundary of our community at 116th avenue.

As we stated, we were already aware of the positive economic impact of Phoenix International Raceway to this area. We have been working on an access issue with them during recent months. It appears we will have a positive solution to that issue.

More importantly, your proposal addresses the urgency of the early completion of this bridge. Our people in the district seven area suffer the same access difficulties as P.I.R. during times of flooding.

Additionally, we see future potential economic development benefits for the tribe which should enhance the surrounding jurisdictions, once the project is completed.

We fully support your request for funding this bridge project to ease this problem.

Sincerely,

GILA RIVER INDIAN COMMUNITY

Mary V. Thomas
12-31-93

Mary V. Thomas
Governor

cc: Cecil Antone, Lt. Governor, GRIC
Lou Schmitt, Assistant Maricopa County Mgr.

City of Litchfield Park

City Council

Derry R. Hubbard, Mayor
Richard W. Vasiloff, Vice Mayor
Len T. Briggs
J. Bart Mitchell
Candra J. Reagan
Peter S. Spaw
Bert Van Wagner

December 29, 1993

Raymond W. Bedoya, Mayor
City of Avondale
525 North Central Avenue
Avondale, Arizona 85323

Dear Bill:

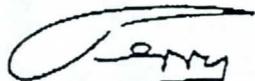
As you know, you have had, and will continue to receive, my full support for the proposed bridge spanning the Gila River at 116th Avenue. This bridge will go a long way in promoting a balanced growth in the valley. This area is in great need of sustainable economic attractions which send signals to investors, businesses, and developers that true profitable opportunities are on the Westside.

This bridge is the logical link to the Native American Reservations on the Westside and will provide for the human safety of regional users and Phoenix International Raceway customers.

I read daily of the many "investments" that different levels of government promote. I truly believe your project is deserving of the highest priority.

If I may be of assistance as the project progresses, please let me know.

Sincerely,



Perry R. Hubbard
Mayor



CITY OF AVONDALE

INCORPORATED 1946

525 NORTH CENTRAL AVENUE • AVONDALE, ARIZONA 85323 • PHONE: 932-2400

December 10, 1993

MAYOR

RAYMOND W. BEDOYA

VICE MAYOR

THOMAS F. MORALES, JR.

COUNCIL MEMBERS

LON MONTGOMERY
EARL D. COOPER
HENRY BELTRAN
ALBERT CARROLL, JR.
ORALIA C. CONTRERAS

CITY MANAGER

CARLOS V. PALMA

CITY CLERK

LINDA M. TYLER

CITY ATTORNEY

FRANK L. ROSS

Congressman Ed Pastor
332 East McDowell, Ste. 10
Phoenix, AZ 85004

Dear Congressman Pastor:

On behalf of the City of Avondale, I am requesting your support in obtaining federal financial assistance for the construction of a bridge at 115th Avenue and the Gila River.

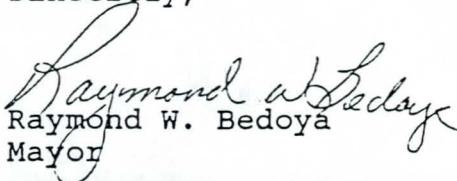
Avondale has supported Maricopa County in its efforts to secure funds necessary to build the bridge. The county has spent several years in this endeavor. By developing a partnership with local communities, the county has completed preliminary engineering. This public/private partnership has committed funding for one-half of the \$12 million needed for the bridge thus leaving a shortfall of \$6 million.

The bridge project is needed in order to address safety, health, and environmental problems associated with the current crossing. In addition, the bridge is critical to the economic stability of the western section of the county. Because of these issues, Maricopa County has rated the Gila River bridge as their number one bridge project.

The bridge project is located in Avondale's planning area and directly impacts the community. During periods of heavy run off, traffic must be rerouted 13 miles. The school bus route is normally four miles. The detour requires travel on a state highway and several railroad crossings. Emergency services are severely impacted during these times. During 1993, the river crossing was closed from mid January through May.

Your assistance in obtaining the balance of the funding for the project is desperately needed. In advance, thank you for all your help.

Sincerely,


Raymond W. Bedoya
Mayor

RWB/sec



ARIZONA

Department of Commerce

Fife Symington
Governor of Arizona

Sara Goertzen
Director

December 16, 1993

Mr. Louis A. Schmitt, P.E.
Assistant County Manager
Maricopa County
2901 West Durango
Phoenix, Arizona 85009

Post-It™ brand fax transmittal memo 7671		# of pages ▶
To <i>Greg Holverson</i>	From <i>UW</i>	
Co.	Co.	
Dept. <i>6008</i>	Phone # <i>506-7092</i>	
Fax #	Fax #	

Re: Support For Proposed Gila River Bridge Project

Dear Mr. Schmitt:

As the Director of the Arizona Department of Commerce, it is my responsibility to oversee economic development for state government in Arizona. It is for this reason that I would urge federal financial assistance be given for the proposed bridge to permit better access over the Gila River in the vicinity of the Phoenix International Raceway.

As you are probably aware, recent flooding of the Gila River has hampered access across the river and has adversely impacted not only commerce north and south of the river but the operations of the internationally known Phoenix International Raceway. The result is a potential loss of significant revenues that could be generated from both the raceway and other business activities.

It has come to my attention that Maricopa County has worked diligently to secure the funds for this project. For example, preliminary engineering has been completed with county and local community funding. Combined with commitments from private sources there is still a \$6 million shortfall out of the total project cost of \$12 million.

The Gila River bridge is Maricopa County's number one bridge project and is critically important in our view for the economic stability of the western portion of Maricopa County and to our efforts to assist with economic development in this part of the state. In addition to the economic development impact, the proposed bridge is crucial in order to address safety, health and environmental problems associated with existing infrastructure.

Please give this project your support in securing the necessary federal financial assistance.

Sincerely yours,

Sara Goertzen
Director

SG/DG:tt



ARIZONA DEPARTMENT OF TRANSPORTATION

TRANSPORTATION PLANNING DIVISION

206 South Seventeenth Avenue Phoenix, Arizona 85007-3213

FIFE SYMINGTON
GovernorHARRY A. REED
Division DirectorLARRY S. BONINE
Director

January 4, 1994

Mr. Louis A. Schmitt, P.E.
Assistant County Manager
Maricopa County
2901 West Durango Street
Phoenix, AZ 85009

Dear Mr. Schmitt:

I am writing in support of your quest to secure the remaining \$6 million for the construction of the Gila River Bridge on 115th Avenue. As the Assistant Director of Transportation Planning for the Arizona Department of Transportation, I understand the need for this safe, all-weather crossing and its importance to the economic vitality of the Gila River Indian Community. I have been advised that this project was programmed for fiscal year 95 by the Maricopa Association of Governments and is part of their approved Transportation Improvement Program (TIP) for the Metropolitan Planning Organization (MPO). The project was also recently made part of Arizona's approved Statewide Transportation Improvement Program (STIP).

This project certainly warrants the provision of federal funds over-and-above Arizona's regular apportionment of federal-aid highway funds. If approved by Congress, these funds would need to be made available until they are fully expended on this project.

I applaud your early completion of the preliminary engineering, your active solicitation of the first \$6 million of funding, and your sensitivity to the needs of our Native American population. I trust that the needed \$6 million of off-budget funds will be found to assist you in completing this worthy project.

If I, or my staff, can be of further assistance, please do not hesitate to contact me.

Sincerely,

HARRY A. REED
Assistant Director



MARICOPA ASSOCIATION OF GOVERNMENTS
1820 WEST WASHINGTON PHOENIX, ARIZONA 85007 (602) 254-6308

January 4, 1994

Mr. Louis A. Schmitt, P.E.
Assistant County Manager
Maricopa County
2901 West Durango Street
Phoenix, Arizona 85009

Dear Mr. Schmitt:

On July 28, 1993 the MAG Regional Council adopted the FY 1994-1998 Transportation Improvement Program (TIP). The TIP included a project to build a new bridge across the Gila River to the Phoenix International Raceway along the 115th Avenue alignment. This project is needed to provide improved all weather access across the Gila River and mitigate the potential safety problems that occur whenever public events are held at the raceway during times when the Gila River experiences moderate flows.

This project is also included in the State Transportation Improvement Program for FY 1995 which has been approved by both Arizona Department of Transportation and the Federal Highway Administration. It is our understanding that Maricopa County will be pursuing federal discretionary funds to pay for half of this project. These federal discretionary funds would be over and above the regular apportionment provided to ADOT and would be made available until they are expended. The remaining local funds are to be provided by Maricopa County and the Phoenix International Raceway.

If we can provide any additional information regarding this project please do not hesitate to call me at (602) 254-6308 or Christopher Plumb at (602) 506-4117.

Cordially,


John J. DeBolske
Secretary



GILA RIVER INDIAN COMMUNITY

SACATON, AZ. 85247

ADMINISTRATIVE OFFICES
P. O. Box 97
(602) 562-3311 or 963-4323

January 3, 1993

Mr. D.E. Sagramoso, P.E.
Maricopa County Department
of Transportation
2901 West Durango
Phoenix, Arizona 85009

Dear Mr. Sagramoso:

We appreciate you and Lou Schmitt taking time from your holiday weekend to give us an opportunity to ask questions and more fully understand the Gila River Bridge proposal at the northwest boundary of our community at 116th avenue.

As we stated, we were already aware of the positive economic impact of Phoenix International Raceway to this area. We have been working on an access issue with them during recent months. It appears we will have a positive solution to that issue.

More importantly, your proposal addresses the urgency of the early completion of this bridge. Our people in the district seven area suffer the same access difficulties as P.I.R. during times of flooding.

Additionally, we see future potential economic development benefits for the tribe which should enhance the surrounding jurisdictions, once the project is completed.

We fully support your request for funding this bridge project to ease this problem.

Sincerely,

GILA RIVER INDIAN COMMUNITY

Mary V. Thomas
12-31-93

Mary V. Thomas
Governor

cc: Cecil Antone, Lt. Governor, GRIC
Lou Schmitt, Assistant Maricopa County Mgr.

Phoenix International Raceway™

P.O. Box 13088 • Phoenix, Arizona 85002
Office: 1313 North Second Street, Suite 1300
Phoenix, Arizona 85004
602.252.3833 • FAX 602.254.4622

January 3, 1994

Mr. Dan Sagramoso
Maricopa County Department
of Transportation
2901 West Durango Street
Phoenix, AZ 85009

Dear Dan:

Phoenix International Raceway reaffirms its support of a bridge crossing the Gila River between 115th and 123rd Avenues, and applauds the work of the Maricopa County Department of Transportation staff in the planning for this bridge.

P.I.R. also reaffirms its commitment to providing up to 25% of the funding for this bridge, through a \$1 per ticket surcharge to be imposed until the funding commitment is met. Based upon current attendance figure and growth projections, I would estimate such surcharge would generate \$3 million in ten to twelve years.

Again, thanks to you and your staff for the good work on this vital project.

Sincerely,



Jim Haynes
Public Affairs

cc: Buddy Jobe



Home of the World's Fastest One-Mile Paved Oval • 115th Avenue & Baseline Road

APPENDIX B



GILA RIVER CROSSING STUDY PUBLIC SCOPING MEETING



MARICOPA COUNTY
DEPARTMENT OF TRANSPORTATION
LITTLETON ELEMENTARY SCHOOL / 115TH AVE & BUCKEYE RD
THURSDAY, AUGUST 12, 1993
5:30 P.M. - 8:30 P.M.

TELL US WHAT YOU THINK ABOUT THE PROPOSED PROJECT AND ALTERNATIVES:

Comments by Friday, August 20, 1993 will be appreciated

Please extend the study area westward to include Estrella Parkway. A comprehensive traffic study from I-10 down Estrella Parkway and Bullard, eastward on Indian Springs Rd, and back to I-10 via 115th Ave and/or El Mirage Rd. The interrelationships of the developing areas adjacent to the study area and the traffic counts on Estrella Parkway are critical data.

Even with an additional bridge over the Gila, PIR will continue to impact local traffic patterns to the west, whenever an event is held. Even if $\frac{2}{3}$ of the traffic uses 115th Ave, the other $\frac{1}{3}$ is still a significant impact! Further improvements to Indian Springs, 143rd Ave, and Vineyard Rd. should be made to serve both the PIR traffic surges, as well as to better serve residents and Estrella Mt. Park users.

(Please Print)

NAME: Lynn Kortchner PHONE #: (602) 932-
ADDRESS: 119 N. Litchfield Rd, Goodyear, Az ZIP: 85338

- Yes, I would appreciate a call from the MCDOT staff to further discuss my comments.
 Yes, I would appreciate a written response.

PHOENIX INTERNATIONAL RACEWAY
presentation to
MARICOPA COUNTY
DEPARTMENT OF TRANSPORTATION

August 12, 1993

Testimony by: **Jim Haynes**
Race Director &
Public Affairs Consultant
Phoenix International Raceway

The subject of a bridge over the Gila River is very near and dear to us at PIR. Let me tell you why, by way of a little background and a brief explanation of the business we are in.

Phoenix International Raceway was built in 1964, and has hosted amateur and professional motor sports of virtually every description since then. However, it is really since Buddy Jobe purchased the track in 1985 and began an ambitious development plan that the facility has experienced extraordinary growth. The track now has a schedule of five major racing series, which includes the Indy Cars, NASCAR stock cars, IMSA prototype sports cars, the American Motorcyclist Association, and the Copper World Classic, a home-grown event featuring four different types of cars. In addition, the track is leased to others who promote the annual Solar and Electric 500, a vintage car race, and numerous club and amateur events. At other times, it is used by manufacturers, race teams and camera crews for testing, movies and commercials. In all, the track should be used some 200 or so days in the coming year.

The facility is in the perfect location, in that it is relatively remote and has few neighbors to disturb with noise and other factors which prove bothersome with race tracks elsewhere in the country. The only drawback is access. There are only three ways into the track under perfect conditions: 115th Avenue, El Mirage Road, and Bullard/Indian Springs Road.

The problem is that the only one of these crossings which is impervious to the unpredictable behavior of the Salt, Verde and Gila rivers is Bullard, which as you know has a bridge rated at approximately 250,000 cfs. When the other two are washed out, as they were earlier this year for our Copper World, motorcycles and Indy Cars, the entire crowd is required to negotiate the one route. We employed all the means at our disposal, including a park and ride operation which worked well, but we still experienced excruciating delays. This is a hassle for our fans and for the competitors as well.

It gives the Valley a black eye, since all of our races are telecast nationally, and the Indy Car race was beamed to over 90 countries. This destroys one of the benefits to the community of having PIR here: the promotion of tourism. Also, you are familiar with the fact that Behavior Research Center calculated the economic impact of PIR in 1991 - when we only had three races - at \$217 million. This makes it a track with the impact of a Super Bowl, but one which is here every year. For our NASCAR and Indy Car programs, we estimate some 70% of the crowd is from outside Arizona, and this is where the real value to the community comes.

But I am here this evening to caution you that this entire program is at severe risk because of the flooding and the access problems we have experienced. Why? In automobile racing, the track can only promote races which a sanctioning body such as NASCAR agrees to schedule. We know that all our sanctioning bodies are watching our efforts to improve the situation. If improvements are not made, we are by no means certain to remain on the schedules. That is our predicament.

Now, let me address the four options being considered here tonight. First, the "no-build" option is not an option, as has just been explained. Second, another bridge at Bullard is not a viable option because of a myriad of problems with access roads leading to and from what would remain, in essence, the singular route into and out of the track. We have heard tonight about the problems the homeowners on Indian Springs Road and the people who use Estrella Park already have when the Bullard crossing is the only access route.

That leaves the area between 115th Avenue and El Mirage Road. While 115th is the clear favorite because it is a road which leads directly to the freeway, should engineering or archaeological studies find problems with a bridge in that location, one at El Mirage would be workable.

I cannot let pass the opportunity to publicly thank the County Transportation Department, as well as Supervisor Mary Rose Wilcox, for your work under severe time pressure to improve Vineyard and Indian Springs last Spring in time for the Indy Car race. Without that work, I am afraid we would have had a real disaster on our hands.

The next logical step is the bridge at 115th Avenue. We need to get on with it. For the economic impact to this community represented by Phoenix International Raceway, the relatively modest cost of a decent bridge will be a real bargain for the county.

Thank you very much for your efforts in the past and for your time here tonight.

PUBLIC COMMENT FORM

GILA RIVER CROSSING STUDY
PUBLIC SCOPING MEETING

MARICOPA COUNTY
DEPARTMENT OF TRANSPORTATION
LITTLETON ELEMENTARY SCHOOL / 115TH AV & BUCKEYE ROAD
WEDNESDAY, NOVEMBER 17, 1993
5:30 P.M. - 7:30 P.M.

TELL US WHAT YOU THINK ABOUT THE PROPOSED PROJECT AND ALTERNATIVES:
Comments by Tuesday, November 30, 1993 will be appreciated

1. ^{\$} 2,600,000 more for 115th than 16th
with no other advantages.

116th crossing is cheapest and
preferred.

2. Design must avoid any additional
area flooding and take into
account future plans for flood
control.

(Please Print)

NAME: EARL COOPER PHONE #: () 877-3974

ADDRESS: 3604 N. COPENHAGEN DR, AVONDALE ZIP: 85323

- Yes, I would appreciate a call from the MCDOT staff to further discuss my comments
- Yes, I would appreciate a written response

PUBLIC COMMENT FORM

GILA RIVER CROSSING STUDY PUBLIC SCOPING MEETING

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WEDNESDAY, NOVEMBER 17, 1993
5:30 P.M. - 7:30 P.M.

TELL US WHAT YOU THINK ABOUT THE PROPOSED PROJECT AND ALTERNATIVES:

Comments by Tuesday, November 30, 1993 will be appreciated

1. I LIVE OFF OF INDIAN SPRINGS WEST OF PIER AND AM CONCERNED WITH TRAFFIC FLOW PROBLEMS DURING RACING EVENTS ON INDIAN SPRINGS PREVENTING RESIDENTS IN MY AREA FROM ACCESS. I WOULD LIKE TO SUGGEST THE ALTERNATIVE THAT WOULD REMOVE THE GREATEST AMOUNT OF TRAFFIC FROM OUR "ONLY" ACCESS.

2. I WOULD ALSO LIKE TO REQUEST THAT THE BRIDGE DESIGN INCLUDE RESTRICTED ^{OR NO} ACCESS OFF THE ROAD ENTRANCES TO ELIMINATE THE PROBLEM OF PEOPLE BEING ABLE TO DRIVE DOWN TO THE RIVER AND DUMP. RECENT EFFORTS HAVE BEEN MADE TO CLEAN UP THE RIVER BOTTOM AREAS AND WE ARE INTERESTED IN KEEPING IT CLEAN.

(Please Print)

NAME: _____ PHONE #: () _____ - _____

ADDRESS: _____ ZIP: _____

- Yes, I would appreciate a call from the MCDOT staff to further discuss my comments
 Yes, I would appreciate a written response

Good meeting.

I liked the way it was divided
& also especially appreciate
the fact that the "people in
charge" are still listening
to the people of the community.

Alife Brown 936-9505
10209 W. Southern Ave,
Tolleson Az 85353

MAY 12 1994

THE STATE



OF ARIZONA

GAME & FISH DEPARTMENT

2221 West Greenway Road, Phoenix, Arizona 85023-4399 (602) 942-3000

Governor
Fife Symington

Commissioners:
Chairman Elizabeth T. Woodin, Tucson
Arthur Porter, Phoenix
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Michael M. Golightly, Flagstaff
Herb Guenther, Tacna

Director
Duane L. Shroufe

Deputy Director
Thomas W. Spalding

May 10, 1994

Mr. Michael R. Dawson, Acting Manager
Environmental Planning Branch
Maricopa County Department of Transportation
2901 West Durango Street
Phoenix, Arizona 85009

Re: Draft Environmental Assessment; Gila River Crossing Study
(115th Avenue - Estrella Parkway)

Dear Mr. Dawson:

The Arizona Game and Fish Department (Department) has reviewed the above-referenced Draft Environmental Assessment (EA), dated February, 1994, and the following comments are provided.

GENERAL COMMENTS

The project vicinity, including that of the designated preferred alternative, contains riparian habitat which has been classified as Resource Category I habitat by the Department (see enclosure). These riparian and wetland areas are of high value to wildlife, often providing habitat necessary for special status species.

Based on the relative potential to impact wildlife resources, the Department recommends adoption of either the Preferred Alternative (Alternative #4) or Alternative #3. If the Preferred Alternative is chosen, the Department encourages implementation of mitigation option 5a, as discussed in the EA's Recommended Special Mitigation Measures. Should it be necessary to implement option 5b, the Department recommends that additional mitigation measures be developed to reduce the significance of anticipated impacts to riparian habitat. If adequate mitigation cannot be achieved in the project vicinity, off-site habitat replacement opportunities should be incorporated into a detailed mitigation plan, as discussed below.

In addition to the Maricopa County Department of Transportation's (MCDOT) efforts to replace wildlife habitat values lost as a result of the proposed project, we would like to ensure that our coordinated efforts result in the removal of unwanted debris in and around the project boundaries.

Mr. Michael R. Dawson

May 10, 1994

2

SPECIFIC COMMENTS

Recommended Special Mitigation Measures

Item 2

The development of a detailed mitigation plan will be essential to document the means of reducing potential impacts to wildlife habitat, revegetating disturbed areas and any other habitat compensation that may be necessary. The Department recommends that the concept of a "vegetation restoration plan" be expanded into an actual mitigation plan that would be developed prior to finalization of the Sections 401 and 404 permitting process. We also recommend that MCDOT coordinate this plan with the U.S. Fish and Wildlife Service, in addition to the entities noted in the last sentence of the Item 2 paragraph.

Item 4

The Department would like to further discuss the means of gating the access point to our agency's property. Although we support wildlife-related recreational access, the Department is concerned that a design allowing equestrian access could allow off-highway vehicles (OHV), such as motorcycles, access as well.

Item 5a

The Department recommends that the reference to revegetation corresponding to adjacent lands be deleted. Instead, revegetation efforts should be determined by the habitat replacement needs identified in the mitigation plan.

Item 5b

Should this mitigation measure be implemented, the Department recommends that gating of the right-of-way be put in place, similar to that discussed in Item 4.

Item 6

The Department recommends that the relative value to wildlife of this mitigation measure be determined cooperatively with our agency and early in the development of a mitigation plan. A copy of the deed and Agreement for Exchange of Lands for the subject property is attached for your reference. The Department requests that any agreement or other legal action regarding this property be closely coordinated with the Department's Habitat Branch.

Other Mitigation Opportunities

The Department wishes to emphasize that avoidance of impacts to existing wildlife habitat should be the priority form of mitigation. Based on the mapping provided in the Draft EA, we believe that the Preferred Alternative will directly impact a portion of the Wildlife Area with some of the highest value to wildlife. This includes a wetland with cattails and open water. Avoidance of impacts to this type of habitat should be addressed when planning clearing operations and the placement of bridge structures.

Because it is likely that several bat species frequent the subject riparian area, the Department recommends that other mitigation opportunities be explored to enhance the project area for bats. Such opportunities include a design that provides roosting habitat as part of the bridge structure.

In cases where the fencing of an area would result in enhancement of the wildlife habitat values, the Department recommends that fencing be considered as a potential mitigation measure. As with portions of the subject property, restricting OHV access could result in such an enhancement by reducing or eliminating habitat damage from illegal OHV use.

Mitigation Measures - Permits

Item 4

The Department recommends that the salvage of native plants be incorporated into revegetation efforts in the project area.

Page 24, Wildlife

Although the species presented in this section are anticipated to occur in the project area, this information was not developed by a review of a Department database, nor should it be confused with the Department's Heritage Data Management System. The Department does not concur with the statement that "No marsh/cattail habitat is located in the vicinity of the preferred alignment. As noted above in our comments regarding other mitigation opportunities, we believe this type of wildlife habitat occurs within or very near the preferred alignment.

Page 30, Wetland / Riparian, paragraph 5

Although specific details of the mitigation plan will be pending until later stages of the project design, the Department requests that the EA clearly express the intent to replace the functions and values of the wildlife habitat being lost or disturbed as a result

Mr. Michael R. Dawson

May 10, 1994

4

of the proposed activities. Such intent provides an important portion of the foundation on which to base a Finding of No Significant Impact in accordance with the National Environmental Policy Act.

Page 31, Special Status Species

The Department notes that, although the **Yuma clapper rail** (Rallus longirostris yumanensis) has not been documented as occurring within the actual project boundaries, documentation does exist for an occurrence of this species within one mile of the 115th Avenue crossing of the Gila River. In addition, the Department believes that the project area may have suitable habitat for the clapper rail, as well as the potential to develop additional suitable habitat. Therefore, we recommend that the EA address the possibility of temporal or permanent loss of clapper rail habitat, and that of potential clapper rail habitat. Similarly, possible mitigation measures to replace any habitat values for clapper rail that may be lost as a result of the proposed activities also should be considered.

Thank you for the opportunity to review this Draft EA. The Department looks forward to continued involvement in this project as it progresses. If you have any questions, please contact me at 789-3605.

Sincerely,



Ron Christofferson
Project Evaluation Coordinator
Habitat Branch

RAC:rc

cc: Kelly Neal, Regional Supervisor, Region VI, Mesa
Sue Morgensen, Conservation Section Supervisor, Habitat Branch
Terry Johnson, Chief, Nongame Branch
Sam Spiller, State Supervisor, Az. ES State Office, USFWS
James McGinnis, Manager, Native Plant Law, ADA
Cindy Lester, U.S. Army Corps of Engineers, Phoenix
William Belt, Manager, Environmental Planning Services, ADOT
Edward Wueste, Div. Administrator, Fed. Highway Administration
Mary Butterwick, Environmental Protect Agency, San Francisco

Enclosures (2)

AGFD# 3-14-94(03)

William C. Scalzo
Director



PARKS AND RECREATION
DEPARTMENT

MEMO TO Michael R. Dawson, Acting Manager
Environmental Planning Section,
MCDOT Transportation Planning Division

FROM Cynthia A. Donald, L.A. 
Superintendent, Operations and Design

DATE March 15, 1994

SUBJECT Gila River Crossing Study - Draft Environmental Assessment (DEA)

The Parks and Recreation Department has received and reviewed the Draft Environmental Assessment for Gila River Crossing Study (115th Avenue-Estrella Parkway) and concurs with your recommendation of Alternative Number 4, bridge at 116th Avenue, as the preferred alternative for this project. A bridge in this location appears to be the most direct access from Interstate 10 to PIR and should alleviate much traffic congestion through Estrella Mountain Regional Park.

If, during the course of this project, plant material becomes available that would be suitable for transplant into Estrella Mountain Regional Park, please contact us as we are always looking for sources of plant material to beautify our parks. Additionally, we may have some lower areas which could accommodate excess material if any is generated by the project.

The Sun Circle Trail will be impacted by the bridge crossing at 115th Avenue as the alignment for this trail is within Flood Control District property along the Gila River. While no physical construction has yet been implemented for this portion of the trail, we request that design guidelines which include a minimum of 10-foot clear height under this bridge be accommodated to minimize negative impacts on trail users. Sun Circle Trail is a multiuse trail and is open to equestrian, hiking and bicycle usage.

Thank you for keeping us informed as to the progress of this river crossing project. We look forward to working with you and your consultant during the course of the project. Should you require additional information, please give me a call at 506-2930.

js
c: WCS
RBH
MHK
KWM
JR

p:\planning\environ\dawson.mem





ARIZONA DEPARTMENT OF TRANSPORTATION



HIGHWAYS DIVISION

206 South Seventeenth Avenue - Phoenix, Arizona 85007-3213

June 16, 1994



FIFE SYMINGTON
Governor

GARY K. ROBINSON
State Engineer

LARRY S. BONINE
Director

Mr. James Garrison
State Historic Preservation Officer
Arizona State Parks
1300 West Washington
Phoenix, AZ 85007

Re: Gila River Crossing
at 115th-116th Avenues

Dear Mr. Garrison:

Enclosed is a copy of two archaeological survey reports for a bridge construction project near Phoenix, Maricopa County, Arizona. The first report, "A Phase I Archaeological Reconnaissance of 56 Acres for the Gila River - Phoenix International Raceway Bridge, Maricopa County, Arizona", was prepared by Louis Berger and Associates, Inc. for the initial alignment proposed for the new bridge. The second report, "An Archaeological Survey of the Gila River Crossing Study Project Area", was prepared by the Maricopa County Department of Transportation due to modifications in the alignment that would impact previously unsurveyed areas. This is a federally-funded project located on Arizona State Land Department land.

Two archaeological sites were identified within the project area; however, both will be avoided by the proposed construction. As a result, the proposed bridge construction project will have no effect on any significant cultural resources. Please review the reports and provide us your concurrence. These reports are also being sent to the Arizona State Land Department for comments. For additional information, contact C.M. Hoffman or me.

Very truly yours,

BETTINA H. ROSENBERG
Historic Preservation Specialist
Environmental Planning Section

BHR:CMH:sf
Enclosure
4625

ARIZONA DEPT. OF TRANSPORTATION
HIGHWAYS DIVISION
ENVIRONMENTAL PLANNING SERVICES

JUL 14 1994

RECEIVED

We have reviewed the report and concur with your recommendation.

Signature for SHPO Concurrence

7/11/94
Date

APPENDIX C

GILA RIVER CROSSING STUDY
115th Avenue - Estrella Parkway

REFERENCES

Phoenix International Raceway Traffic Study, Phase 1 Report/ Phase 2 Report; BRW, Inc., 1989.

Phoenix International Raceway - Economic Impact and the Case for Access and Egress Improvements; Phoenix International Raceway and Behavior Research Center, 1993.

Responses to Investment Criteria for the 115th Avenue Bridge Project (prepared for the U.S. House of Representatives Appropriations Subcommittee on Transportation); Maricopa County Department of Transportation, 1993.

The Economic Impact of the 115th Avenue Bridge on the Local Phoenix Economy; Maricopa County Department of Transportation (M. Carmo Anselmo), 1993.

Gila River Crossing Study - Design Concept Report, Work Order #68832; Maricopa County Department of Transportation, 1994.

Gila River Crossing / Landfill Discovery (letter report); Maricopa County Solid Waste Department, 1993.

APPENDIX D

GILA RIVER CROSSING STUDY
115th Avenue - Estrella Parkway

LIST OF PREPARERS AND CONTRIBUTORS

The following individuals participated either as preparers, contributors or reviewers to this Draft Environmental Assessment.

Maricopa County Department of Transportation

Michael Dawson, Acting Manager - Environmental Planning Section

Kelly McMullen, Air Quality Analyst - Environmental Planning Section

Brian Kenny, Environmental Program Manager/Cultural Resources - Environmental Planning Section

Sharon Hansen, Planner II - Environmental Planning Section

Michael Sabatini, Manager - System Planning Section

Greg Holverson, Manager - Programming and Implementation Section

John Dickson, Transportation Planner, Programming and Implementation Section

Paul Ward, Civil Designer - Programming and Implementation Section

Paul Sullivan, Civil Engineer - Programming and Implementation Section

Dana Owsiany, Civil Designer - Programming and Implementation Section

Jay Davis, Acquisition Agent - Real Estate Division

Tony Chavez, Acquisition Agent - Real Estate Division

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Flood Control District

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Ron Nevitt, Flood Plain Representative - Floodplain Administration

Arizona Department of Transportation

Larry Yeager, Noise Analyst - Environmental Planning Services

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Mark Danelowitz, Local Government Engineer - State Project Management

Federal Highway Administration

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Steve Thomas, Environmental Coordinator

Ken Davis, District Engineer