



LOCAL GOVERNMENT FIVE-YEAR
HIGHWAY CONSTRUCTION PROGRAM
**PROJECT NOMINATION SHEET AND
MINI DESIGN CONCEPT REPORT**

Graham County
8th Avenue All Weather Crossing

INTRODUCTION

This project will improve the approach north of the Gila River, 8th Avenue Bridge to provide all weather access from the bridge to the Safford-Bryce Road and Airport Road.

The roadway is classified as a rural major collector and is the connection from Safford and US Hwy 70 to the area north of the Gila River. It provides access to some major businesses in Graham County including the Safford Mine, Open Loop Technology and two of the three material suppliers for the County area. Graham County residence on the north side of the Gila River also come to Safford by this route. The project is approximately 3200 feet in length. The project will raise the road in the Gila River flood plain to provide an all weather crossing from the new 8th Avenue Bridge north to the three legged intersection of Safford-Bryce Road, Airport Road and 8th Avenue. The project will also improve this intersection

The estimated construction cost is \$2,360,000.

Once the project is on the five year TIP the county will begin the design process, coordination of utility relocation and start the process of obtaining environmental clearance.

There is currently no all weather crossing from south side to north side of the Gila River from US Hwy 70 and the main population centers to north of the river when there are large flood events on the Gila River. The purpose of this project is to provide an all weather crossing during a 100 year event.

BACKGROUND

Much of the current roadway was constructed in approximately 1941. The most recent upgrade will be the new approaches to the 8th Avenue Bridge. Typical existing section is a 26' asphalt roadway with multiple chip seals, 2 inches of asphalt, 3 inches aggregate base course and 6 inches select material. There are no major structures in conflict with the project. It will cross an irrigation canal, the Graham Canal. It will cross the Gila River flood plain for approximately 3000 feet. The traffic at the intersection of Safford-Bryce Road, Airport Road and 8th Avenue will require stop signs or a roundabout design. There are no railroad crossings within the project limits. Some minor electrical and phone utility line relocation will be required. Safford-Bryce Road ADT is 2267, Airport Road ADT is 2132 and 8th Avenue ADT is 4254.



LOCAL GOVERNMENT FIVE-YEAR
HIGHWAY CONSTRUCTION PROGRAM
**PROJECT NOMINATION SHEET AND
MINI DESIGN CONCEPT REPORT**

The vertical alignment from the new bridge will be improved since the roadway will be raised reducing the amount of vertical difference between the end of the bridge and the roadway. Currently the roadway transitions approximately 17 feet from the end of the bridge down to the existing roadway. The new roadway will transition down 12 feet.

PROJECT SCOPE

The embankment will be constructed to eventually accommodate four lanes of traffic which will match the bridge cross section. The present goal for improvement would be to provide a two lane traffic all weather crossing, which would be one foot above the 100 year flood level of the Gila River.

The improvements would also include improvement of the intersection of the three roadways with either a T intersection or a roundabout design. The traffic currently must make a very tight angle turn to go from the Airport Road back toward the Safford Mine.

PROJECT DEVELOPMENT CONSIDERATIONS

1. *Environmental requirements as determined by the project scope.*
 - Potential Hazardous Waste sites, we are aware of none
 - 404 Permit requirements; the improvement will be outside the jurisdiction limits for the 404 as determined by the environmental clearance done for the 8th Avenue Bridge.
 - The land surrounding are agricultural lands but they are not considered Section 4f lands as determined by 8th Avenue Bridge Project.
 - The embankment will be an encroachment in the 100 year flood plain. The modeling of that encroachment was done during the plan preparation for the 8th Avenue Bridge. The encroachment will not increase the water surface elevation of the flood plain.
 - No wetlands within the project
 - This road is not a scenic or historic Route
 - Archeological investigation will be done to obtain an archeological clearance.
 - Social and economic impact for this project; it will prevent economic disruption during flood occurrences on the Gila River. It will also provide the local citizens with access back and forth to shopping, schools and other social connections.



LOCAL GOVERNMENT FIVE-YEAR
HIGHWAY CONSTRUCTION PROGRAM
**PROJECT NOMINATION SHEET AND
MINI DESIGN CONCEPT REPORT**

2. *Critical Outside Agency Involvement*

This project will involve the Graham Canal/Gila Valley Irrigation District to coordinate the canal crossing. No issues are contemplated.

3. *Right-of-Way Requirements*

The right-of-way for the roadway was obtained during the acquisition of the right-of-way for the 8th Avenue Bridge. It is anticipated that the County will need to purchase the right-of-way for the intersection improvements.

4. *Utility Relocation Requirements*

Power line relocation of approximately 5 poles will be required. Fire hydrant relocation will be required, gas line cover will be increased but no relocation anticipated.

5. *Seasonal Considerations*

The Graham Canal crossing will need to be constructed during the annual dry up which is typically November to February.

6. *Traffic Requirements*

The construction of a new intersection connecting to existing roads will require a traffic control plan. Connecting the existing bridge approaches will also require a traffic control plan. No traffic signals are anticipated.

7. *Design Concept Report Requirements*

The project will not impact the current hydraulic model shows the flood plain water surface elevation, this will need to be verified. The need for erosion protection on the new embankment will need to be evaluated. Options such as a "T" intersection versus a roundabout intersection should be evaluated.

8. *Design Criteria*

The design criteria for this project will incorporate AASHTO guidelines.



LOCAL GOVERNMENT FIVE-YEAR
HIGHWAY CONSTRUCTION PROGRAM
**PROJECT NOMINATION SHEET AND
MINI DESIGN CONCEPT REPORT**

F. OTHER REQUIREMENTS

The funding source for this project will be Federal funds. The desired bid advertisement date is _____. Construction start date will be _____. The project will be developed by the County. The County will perform the construction administration.

G. ESTIMATED COST

Describe the Project Cost by Category

- Design cost will be paid by local funding.
- The right-of-way costs are anticipated to be \$125,000 (\$25,000/acre X5) paid for by local funding.
- Utility relocation costs to be paid for by the utility company.
- Construction cost to be reimbursed with federal funds.
- Total cost of the project will be about \$2,479,647.

H. ITEMIZED ESTIMATE

An itemized estimate is attached to this report. (See page 5)

I. VICINITY MAP

A vicinity map is attached to this report. (See page 6)

J. TYPICAL SECTION SKETCH

A typical roadway section is attached to this report. (See page 7)



**LOCAL GOVERNMENT FIVE-YEAR
 HIGHWAY CONSTRUCTION PROGRAM
 PROJECT NOMINATION SHEET AND
 MINI DESIGN CONCEPT REPORT**

**8th Avenue All Weather Crossing
 PROJECT COST ESTIMATE**

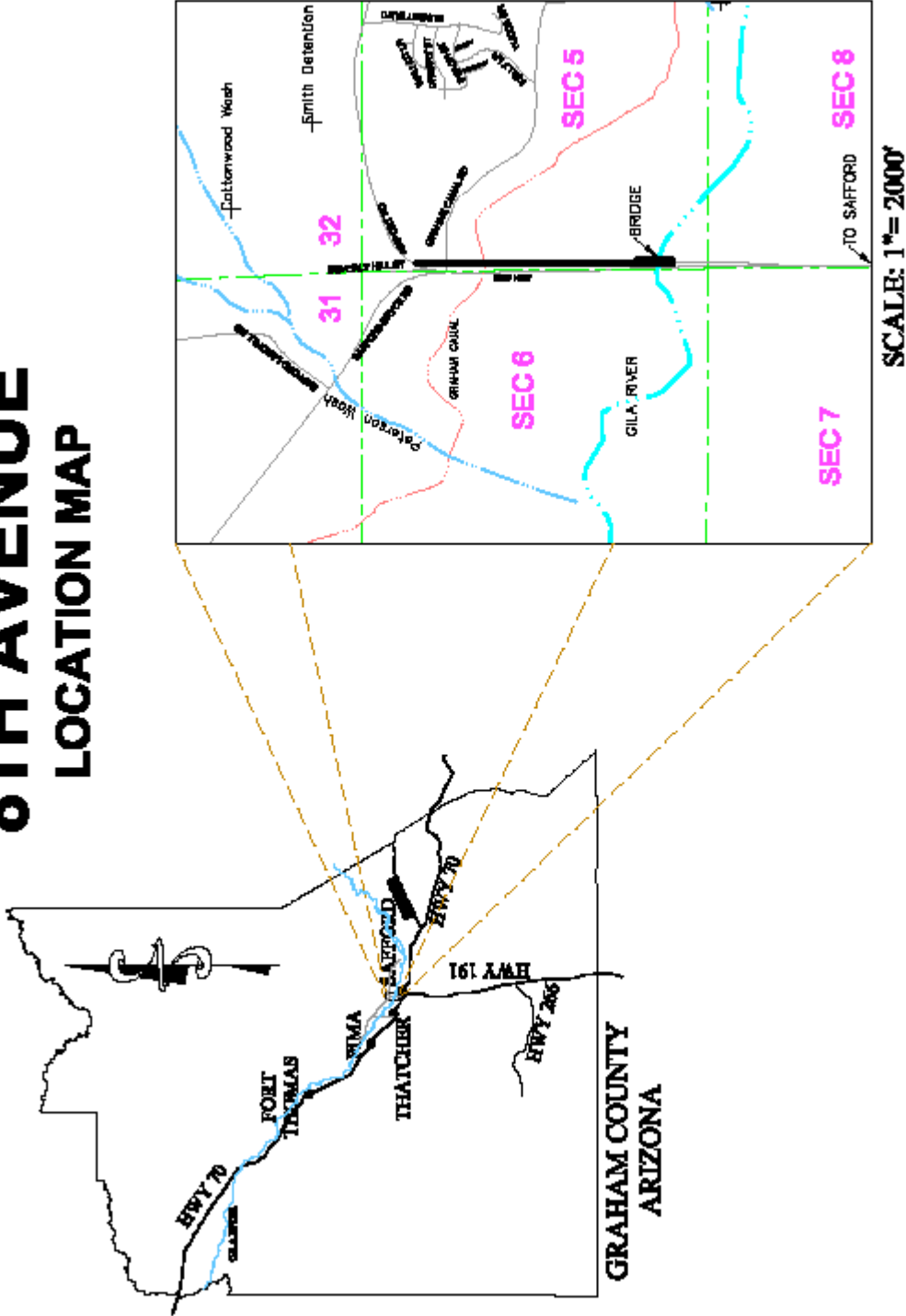
ITEM	UNIT	QTY	UNIT PRICE	TOTAL PRICE
Saw cutting	LF	200	\$2.00	\$400.00
Bituminous Tack	Ton	41	\$700.00	\$28,700.00
Apply Bituminous Tack	Hr.	48	\$300.00	\$14,400.00
Borrow	Cu. Yd.	33,420	\$12.50	\$417,750.00
Aggregate Base	Cu. Yd.	7402	\$32.00	\$236,864.00
Asphaltic Concrete (AC)	Ton	6830	\$72.00	\$491,760.00
Concrete Curb & Gutter	LF	2,028	\$18.00	\$36,504.00
SUBTOTAL ROADWAY				\$1,226,378.00
Construction Survey (1 -3%)*	L. Sum		\$36,791.00	\$36,791.00
Furnish Water Supply, Dust Palliative (1 - 2 %)*	L. Sum		\$24,528.00	\$24,528.00
Traffic Control (8%)*	L. Sum		\$98,110.00	\$98,110.00
Mobilization (10%)*	L. Sum		\$122,638.00	\$122,638.00
Quality Control (1 - 2%)*	L. Sum		\$24,528.00	\$24,528.00
Contingencies (15%)*	L. Sum		\$183,957.00	\$183,957.00
Construction Engineering (15%)*	L. Sum		\$183,957.00	\$183,957.00
Change Orders (5%)*	L. Sum		\$61,319.00	\$61,319.00
CONSTRUCTION TOTAL				\$1,962,206.00
INFLATION FACTOR (4% 5/YR) X Const. Total = Future Year Cost				\$2,354,647.00

* Percentages are averages based on past construction history for Arizona.



LOCAL GOVERNMENT FIVE-YEAR
HIGHWAY CONSTRUCTION PROGRAM
PROJECT NOMINATION SHEET AND
MINI DESIGN CONCEPT REPORT

8TH AVENUE LOCATION MAP





LOCAL GOVERNMENT FIVE-YEAR
HIGHWAY CONSTRUCTION PROGRAM
**PROJECT NOMINATION SHEET AND
MINI DESIGN CONCEPT REPORT**

8TH AVENUE

TYPICAL ROADWAY SECTION NTS

