



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

CITY OF SAFFORD
20th Avenue (Relation Street to Golf Course Road)

INTRODUCTION

The City of Safford is submitting for consideration our nomination into the Local Government Five-Year Highway Construction Program 20th Avenue from Relation Street to Golf Course Road here in Safford. This project would be the continuation of the improvement along 20th Avenue. The section between US 70 and Relation Street has just recently been completed as a joint venture between the City of Safford and the Town of Thatcher.

The roadway is classified as an Urban Arterial and is a portion of the bypass around Safford from US 70 to US 191. This roadway, 20th Avenue, is the major thoroughfare on the west side of the City and it is the route to the Mount Graham Regional Hospital and other health care professionals as well as major shopping centers in the area.

The project length, as contemplated, is 3,300 feet (0.63 miles). This project will widen an existing 36 feet facility to 66 feet. At present, this major roadway in the area as one way traffic in each direction with a continuous left turning lane between the through lanes. There is no curb and gutter on either side of the roadway. The proposed roadway would consist of 5 lanes of traffic; 2 way traffic on both sides with a continuous left turn lane, curb and gutter on both sides, and a 6' sidewalk also on both sides of the roadway the entire length of the project.

The estimate cost for this widening will be \$2.2 million and the funds we are request will come from SEAGO's STP funds. It is planned that construction will occur in fiscal year 2014 - 2015. Once this project has been granted on the 5-year program, the City will begin the design of the project and the utility relocations if needed.

The City is making this request at this time to widen this roadway, increase capacity, and improve the safety of this important Urban Arterial in Safford and the Gila Valley. As the entire valley grows in the future, 20th Avenue will become a very important roadway due to its vicinity to our regional hospital, professional health care providers, elderly care, major shopping in the area, High School, other future developments, and to relieve traffic congestion on US 70 through the City. Our project future study horizon year will be 30 years as we design this project.

BACKGROUND

This project will be constructed in FY 2014 - 2015. Earlier, the northern portion of 20th Avenue was widened as a joint project with the Town of Thatcher.



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The existing structure is 36 feet in width, which allows one-way traffic in each direction with a continuous left turning lane. The current roadway was built by the City in 1995. It is showing some distress in the base probably due to incomplete compaction and/or poor drainage.

There are no major traffic control items in the area. The intersection of Relation and 20th is controlled by a four-way stop. The street continues south from there with no interruptions in flows. The speed limit through the area is 35 mph, and then increases to 45 mph south of Golf Course Road. The roadway basically ends at Discovery Park Boulevard, which is an Urban Arterial which runs east and west to US 191.

Along this route the street crosses the Highline Canal, which is a major irrigation canal that provides irrigation throughout the entire valley. At the intersection of Relation Street, the City in 1995 constructed an underground stormwater sewer system that empties into a retention pond. It is anticipated that this system will remain and will be utilized to drain this project.

The City of Safford owns the water, gas, power, and sewer that are in the area. During design, it will be determined if relocation is necessary. The City of Safford will be able to relocate any of these utilities. Any other utility will be identified, located, and determined if relocation is necessary.

The project will not cross any railroads.

Accident history, which was obtained from the City's Police Department, shows three (3) injury accidents and eleven (11) non-injury accidents in the last five years within the termini of this project.

The current speed limit on this section of roadway is 35 mph and it is anticipated to remain at 35. The vertical and horizontal alignment will be such that there will be no sight distance concerns. The roadway will be constructed centered on the section line with a slope of about 1% throughout the project.

A traffic study was conducted by United Civil Group in 2007 and it shows the current ADT of this section of road to be about 6,300. The same report shows that at the present time this roadway is "at capacity". Under a "No Build" Scenario the projected level of service will be over capacity and the report predicts an ADT of 21,400. At that ADT, with a 5 lane facility, the report predicted the street would be under capacity.



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PROJECT SCOPE

The scope of this project will widen an existing 36 foot roadway with no curbs to a 66 foot roadway with curb and gutters and sidewalks on both sides of the street. The existing pavement will be removed and the existing base recompacted.

The widening will consist of excavating down about a foot, compacting the sub-grade, placing aggregate base material, construction of curb and gutters and sidewalks, and finally placing asphaltic concrete pavement the full width. It also consists of the installation of a traffic signal at the intersection of Relation Street and 20th Avenue. This work would be done from Relation Street on the north side of the project to Golf Course Road on the south side of the project.

PROJECT DEVELOPMENT CONSIDERATIONS

1. Environmental requirements as determined by the project scope.

- The potential for Hazardous Waste sites are minimal, but will be investigated.
- No 404 Permit will be required
- No Section 4(f) lands will apply
- Project will not encroachment in the Flood plain
- No wetlands within the project
- This road is not a scenic or historic Route
- The area will be cleared of any archaeological features
- This project will have positive social or economic impacts to our area. It will greatly improvement access to not only the Regional Hospital but also other health care providers and elderly care. It will also improve access to major shopping areas in the valley and to our High School. Since it is the main route on the western side of Safford, it will improve mobility in our city. With the anticipated increase in the amount of traffic that is projected to utilize this corridor, the existing three lane facility will not be adequate.

2. Critical Outside Agency Involvement

Since the City owns all the right of way for these improvements there will be no lengthy clearance procedures. We will be closing over a major irrigation canal, however, the road crosses this canal at the present time. The City owns all the utilities in the area so any relocation would be handled internally.

3. Right-of-Way Requirements

The City as 80' of right of way through this corridor at this time.



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4. *Utility Relocation Requirements*

Any utility relocation will be relocated by the City of Safford for utilities owned by the City. Any other relocations on City right of way will be handled on a case by case basis with the utility owner.

5. *Seasonal Considerations*

There will be survey work that will be accomplished prior to the work. We will also conduct soil testing to determine the pavement section and traffic analysis to determine anticipated ESALs. The construction season in Safford can be year round, however, we try to avoid construction during the winters.

6. *Traffic Requirements*

There will be need for a traffic control plan for this project. The construction will need to be constructed under traffic since the road is the only access to the regional hospital, other health care professional, and other improvement designations in the City. Care will need to be taken to ensure the traveling public can traverse the area and can get to where they need to be as quickly and safely as possible. The pavement markings will be applied by the City since the City has the equipment necessary to do this work, but there will be new signage that will be supplied and erected by the contractor. At the intersection of Relation Street and 20th Avenue a traffic signal will be installed as part of this project.

7. *Design Concept Report Requirements*

The Designer shall conduct soils testing and traffic analysis over a 20 year period to determine a pavement section for this project. After determining the pavement section the designer shall compare this section to the existing section and make a determination as to how to treat the existing section (ie, remove pavement only, remove entire section, etc.).

The Designer needs to determine the depth and location of all utilities within the project limits to determine if any relocation are required.

The Designer will need to take into account of all the driveways within the project limits and ensure a smooth transition from the street to the driveways.

All design and construction shall use the latest revisions of the MAG Standard Specifications and Drawings.

The Design shall do all the necessary surveys during design.

Research any easements that are in place within the right of way.

Conduct a drainage study to determine if existing drainage structures are adequate.



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8. *Design Criteria*

The design criteria to be used on this project will be criteria established by AASHTO and per the City of Safford criteria established by our City Council.

F. OTHER REQUIREMENTS

The funding source for this project will be _____. The desired bid advertisement date is _____. Construction start date will be _____. The project will be developed by a consulting firm that is on call for the City of Safford. The City will perform the construction administration.

G. ESTIMATED COST

Describe the Project Cost by Category

- Design cost will be paid by the City of Safford.
- There will be no right of way costs
- Utility relocation costs to be paid for by the City of Safford.
- Construction cost to be reimbursed with federal funds.
- Total cost of the project will be about \$2.2 million

H. ITEMIZED ESTIMATE

An itemized estimate is attached to this report.

I. VICINITY MAP

A vicinity map is attached to this report

J. TYPICAL SECTION SKETCH

A typical roadway section is attached to this report.

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PROJECT COST ESTIMATE**

ITEM	UNIT	QTY	UNIT PRICE	TOTAL PRICE
Site Clearing and grubbing	L. Sum	0	0.00	\$0.00
Roadway Excavation	Cu. Yd.	3,200	25.00	\$80,000.00
Drainage Excavation	Cu. Yd.	0	0.00	\$0.00
Borrow	Cu. Yd.	0	0.00	\$0.00
Aggregate Base	Cu. Yd.	2,120	45.00	\$95,400.00
Asphaltic Concrete (AC)	Ton	5,000	85.00	\$425,000.00
Pipe Culvert	L. Ft.	0	0.00	\$0.00
Guardrail	L. Ft.	0	0.00	\$0.00
Signing & Pavement Marking	Sq. Ft.	0	0.00	\$0.00
Sidewalk	Sq. Ft.	39,600	5.00	\$198,000.00
Curb and Gutter	L. Ft.	6,600	25.00	\$165,000.00
Subgrade Preparation	Sq. Yds.	3,200	1.50	\$4,800.00
Remove Existing Pavement	Sq. Yds.	6,600	1.75	\$11,550.00
Recompact Existing Base	Sq. Yds.	6,600	1.50	\$9,900.00
Traffic Signal	each	1	150,000.00	\$150,000.00
				\$0.00
				\$0.00
				\$0.00
				\$0.00
				\$0.00
SUBTOTAL ROADWAY				\$1,139,650.00

Construction Survey (1-3%)*	L. Sum	2%	\$1,139,650.00	\$22,793.00
Furnish Water Supply, Dust Palliative (1-2%)*	L. Sum	1%	\$1,139,650.00	\$11,396.50
Traffic Control (8%)*	L. Sum	8%	\$1,139,650.00	\$91,172.00
Mobilization (10%)*	L. Sum	10%	\$1,139,650.00	\$113,965.00
Quality Control (1-2%)*	L. Sum	2%	\$1,139,650.00	\$17,094.75
Contingencies (15%)*	L. Sum	15%	\$1,139,650.00	\$170,947.50
Construction Engineering (15%)*	L. Sum	15%	\$1,139,650.00	\$170,947.50
Change Orders (5%)*	L. Sum	5%	\$1,139,650.00	\$56,982.50
CONSTRUCTION TOTAL				\$1,794,948.75
INFLATION FACTOR (4%/YR) X Const. Total = Future Year Cost				\$2,153,938.50

Assume 4% inflation factor for 5 years (20%)

* Percentages are averages base on past construction history for Arizona