# **AGENDA**

3:00 P.M.

CITY OF SEDONA, SPECIAL CITY COUNCIL MEETING

WEDNESDAY, AUGUST 15, 2018

#### **NOTES:**

- Meeting room is wheelchair accessible. American Disabilities Act (ADA) accommodations are available upon request. Please phone 928-282-3113 at least two (2) business days in advance.
- City Council Meeting Agenda Packets are available on the City's website at:

www.SedonaAZ.gov

## GUIDELINES FOR PUBLIC COMMENT

#### **PURPOSE:**

- To allow the public to provide input to the City Council on a particular subject scheduled on the agenda.
- This is not a question/answer session.
- The decision to receive Public Comment during Work Sessions/Special City Council meetings is at the discretion of the Mayor.

#### **PROCEDURES:**

- Fill out a "Comment Card" and deliver it to the City Clerk.
- When recognized, use the podium/microphone.
- State your:
  - I. Name and
  - 2. City of Residence
- Limit comments to 3 MINUTES.
- Submit written comments to the City Clerk.

#### I. CALL TO ORDER/PLEDGE OF ALLEGIANCE/MOMENT OF SILENCE

ROLL CALL

#### 3. SPECIAL BUSINESS

LINK TO DOCUMENT =

**And** 

a. AB 2378 **Discussion/possible direction** regarding the Sedona In Motion transportation program.



b. **Discussion/possible action** on future meeting/agenda items.

#### 4. EXECUTIVE SESSION

If an Executive Session is necessary, it will be held in the Vultee Conference Room at 106 Roadrunner Drive. Upon a public majority vote of the members constituting a quorum, the Council may hold an Executive Session that is not open to the public for the following purposes:

- a. To consult with legal counsel for advice on matters listed on this agenda per A.R.S. § 38-431.03(A)(3).
- b. Return to open session. Discussion/possible action on executive session items.

#### 5. ADJOURNMENT

Posted:	
3y:	Susan L. Irvine, CMC City Clerk

Note: Pursuant to A.R.S. § 38-431.02(B) notice is hereby given to the members of the City Council and to the general public that the Council will hold the above open meeting. Members of the City Council will attend either in person or by telephone, video, or internet communications. The Council may vote to go into executive session on any agenda item, pursuant to A.R.S. § 38-431.03(A)(3) and (4) for discussion and consultation for legal advice with the City Attorney. Because various other commissions, committees and/or boards may speak at Council meetings, notice is also given that four or more members of these other City commissions, boards, or committees may be in attendance.

A copy of the packet with material relating to the agenda items is typically available for review by the public in the Clerk's office after 1:00 p.m. the Thursday prior to the Council meeting and on the City's website at www.SedonaAZ.gov. The Council Chambers is accessible to people with disabilities, in compliance with the Federal 504 and ADA laws. Those with needs for special typeface print, may request these at the Clerk's Office. All requests should be made forty-eight hours prior to the meeting.

CITY COUNCIL CHAMBERS
102 ROADRUNNER DRIVE, SEDONA, AZ

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## CITY COUNCIL AGENDA BILL

AB 2378 August 15, 2018 Special Business

Agenda Item: 3a

Proposed Action & Subject: Discussion/possible direction regarding the Sedona in

Motion transportation program.

**Department** Public Works Department

Time to Present 30 minutes
Total Time for Item 2 hours

Other Council Meetings March 27, 2018, June 13, 2018

**Exhibits** A. SIM-1 Design Concept Report – August 2018 version

City Attorney Approval	Reviewed 8/6/18 RLP	Expenditure Required	
Approval	Reviewed 6/6/16 RLP	\$ N/A	
		Amount Budgeted	
		\$ N/A	
	Discuss and provide direction on SIM projects	Account No. N/A (Description)	
	projecte:	Finance 🖂 Approval	
SUMMARY STATEME	SUMMARY STATEMENT		

#### **Background:**

The January 2018, City of Sedona Transportation Master Plan (TMP) evaluated citywide transportation needs and concluded with a set of recommended strategies to address congestion and mobility needs of residents, visitors, and commuters. These strategies have been developed into a system of capital improvement projects that collectively have been identified and promoted as the Sedona In Motion (SIM) program. The SIM program is a multimodal transportation initiative embracing Sedona's community values for improved traffic flow, community connections, business and tourism connections, economic vitality and diversity, environmental stewardship, walkability, and sense of place. Since the TMP was completed, we have made progress on many different projects as outlined below:

- SIM-1, Uptown Roadway Improvements: A design contract with Kimley-Horn was approved by Council on March 27, 2018. To date, the consultant has completed:
  - o aerial topography flight & field survey
  - o vehicular turning movement and volume counts
  - o analysis of signal timing/coordination for Forest Road and mid-block
  - renderings of Jordan roundabout and median.

Meetings with key property owners/stakeholders were held on June 13-14, and a public outreach meeting was held on June 25<sup>th</sup>. Considering the feedback that was received during these June meetings, Kimley-Horn has evaluated a number of different alternatives and has outlined the conclusions in the Design Concept Report. Staff requests Council direction before proceeding with the final design.

- SIM-2, Uptown Pedestrian Improvements: As part of Kimley-Horn's scope for SIM-1, they created a rendering of a pedestrian bridge crossing SR 89A at Wayside Chapel. This rendering was presented at the June outreach meetings to start to gauge public perception about aesthetics and potential viewshed impacts. A rendering at the Jordan Road location is still in process.
- SIM-3, Parking & Wayfinding: The next phase of vehicular wayfinding has begun for branded vehicular wayfinding throughout the entire City to indicate points of interest including parks and trailheads. A resubmittal to ADOT was sent in early August. A preliminary study of one-way streets in Uptown for Van Deren, Wilson, and Smith Roads has also been completed and is included in the Design Concept Report for SIM-1. An outreach effort with residents in this area would be initiated before this project would move forward.
- SIM-4, SR 179 Improvements: The first phase of this project provides for the addition
  of a separated right-turn lane to SR 179 South and the addition of separated right-turn
  lane to Uptown at the "Y" roundabout. The project has received the support of ADOT
  and the Northcentral District was awarded district minor funds, where the City has
  agreed to contribute 50% of the total project cost. A draft IGA is expected to be
  submitted to the City in mid-August.
- SIM-5, Major Roadway Connections: For the Portal/Ranger/Brewer Road Connection project, we have initiated key stakeholder meetings to identify public-private project opportunities. SWI is under contract to explore potential connection alignments and is underway with initial survey and field work.
  - For the Forest Road Connection, a feasibility study/conceptual design is 90% complete to date. Contact with property owners has been initiated, and feedback has been received from the majority of owners. Several owners have expressed concern, while three properties are in support of the connection. The initial scope considers three alignment alternatives, but a fourth alignment is also now being explored that turns south near the Hyatt tennis courts. Conversations with Hyatt representatives are pending.
- SIM-6, Neighborhood Street Connections: Outreach meetings were held with Morning Sun Condos and Northview HOA's in late April. Their position was made clear that there was near unanimous opposition to this connection being made. Staff has also received communication from residents near other potential connection locations expressing concern. Staff recommends shifting focus to other SIM projects unless partners for neighborhood connections can be identified.
- SIM-7, Enhanced Transit Service Tourism Focused: This project has received a \$160,000 grant through federal transit planning and \$10,000 funding from Coconino County. A contract with LSC Transportation Consultants out of Colorado Springs was approved by Council at the June 26th meeting. A kickoff meeting was held on July 17, and the consultant is underway with review of existing plans, conditions, and data.

They are also developing the community outreach and public involvement plan, with stakeholder interviews targeted in September.

 SIM-11, Bicycle and Pedestrian Improvements: The project is in process and currently exploring opportunities. Public Works staff is collaborating with Community Development staff to identify early projects and focus areas. A local consultant is under contract to provide construction plans for several high priority areas.

Another consultant is working on a proposal to explore the feasibility of pedestrian crossing improvement alternatives at the crosswalk on SR 179, east of Portal Lane. Tlaquepaque has committed to contributing the remaining \$18,000 held in escrow from the Tlaquepaque North development to supplement these projects.

Development of a design contract is underway with another consultant which will include adding parking at Posse Grounds Park and adding multi-use path connections to adjacent areas, including the Soldier Pass Trailhead.

 SIM-12, Traveler Information: The project is in process and currently exploring development of interactive camera installations and identifying installation locations and opportunities. Discussion with ADOT regarding travel informational technology planning for the I-17, SR 260, and SR 89A locations is ongoing. ADOT plans to launch a pilot program with temporary signage in the coming months. Staff is also pursuing a data collection platform through Verizon that will allow for ongoing travel time and origin-destination data collection. That contract is expected to be presented to Council in September.

#### Community Plan Consistent: Yes - No - Not Applicable

The Sedona In Motion program in general supports the six Vision Themes of the Sedona Community Plan.

- Environmental Stewardship: Conserves natural resources associated with wasteful vehicle operations due to congested travel time.
- Community Connections: Supports community connections through its emphases on public participation and involvement during design development and indirectly by improving mobility between gathering place in Uptown Sedona.
- Improved Traffic Flow: Reduces congestion and travel times and improves vehicle and pedestrian safety.
- Walkability: Reduces vehicle and pedestrian conflicts improving walkability and safety.
- Economic Diversity: Improves local resident and visitor access through multimodal transportation options and connections.
- Sense of Place: 1% of project expenditures will go towards the development of arts, cultural, or heritage. Projects will be built consistent with local codes and with intention on preserving or complimenting the natural and scenic beauty of Sedona.

Board/Commission Recommendation: Applicable - Not Applicab
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#### Alternative(s):

N/A.

## MOTION

I move to: for discussion/possible direction only.

## DRAFT DESIGN CONCEPT REPORT

### UPTOWN SEDONA ROADWAY IMPROVEMENTS STATE ROUTE 89A (SR 89A)

(NORTH OF SR 179 FROM FOREST ROAD TO APPROXIMATELY 1/4 MILE NORTH OF THE ART BARN ROAD INTERSECTION)

## **CITY OF SEDONA**

### CITY OF SEDONA PROJECT NO. SIM-1

## **Prepared For:**



**Prepared By:** 

Kimley»Horn

August 2018

List of Acronyms		IGA	Inter-Governmental Agreement
AADT	Annual Average Daily Traffic	JPA	Joint Project Agreement
AASHTO	American Association of State Highway and Transportation	KHA	Kimley-Horn and Associates, Inc.
	Officials	LOS	Level of Service
ADEQ	Arizona Department of Environmental Quality	MP	Milepost
ADOT	Arizona Department of Transportation	MPH, mph	Miles per Hour
ADT	Average Daily Traffic	MUTCD	Manual on Uniform Traffic Control Devices
AGFD	Arizona Game and Fish Department	NEPA	National Environmental Policy Act
APS	Arizona Public Service	RCBC	Reinforced Concrete Box Culvert
BLM	Bureau of Land Management	RDG	Roadway Design Guidelines
CFR	Code of Federal Regulations	R/W	Right-of-way
CGMR	Casa Grande Mountain Ranch, LP	SPT	Standard Penetration Test
CIP	Capital Improvement Plan	SATS	Small Area Transportation Study
CMP	Corrugated Metal Pipe	SSD	Stopping Sight Distance
COAR	Change of Access Report	T&E	Threatened and Endangered
DCR	Design Concept Report	TCE	Temporary Construction Easements
DPS	Department of Public Safety	TI	Traffic Interchange
FAA	Federal Aviation Administration	USACE	United States Army Corps of Engineers
FEMA	Federal Emergency Management Agency	USFWS	United States Fish and Wildlife Service
FHWA	Federal Highway Administration	vpd	Vehicles Per Day
FIRM	Flood Insurance Rate Map	· F ·	, s
HCS	Highway Capacity Software		
ICO	Issues, Concerns, and Opportunities		
IDCR	Initial Design Concept Report		

### **Executive Summary**

Kimley-Horn and Associates, Inc. (KH) is currently under contract with the City of Sedona (The City) to prepare a Design Concept Report (DCR) for the Uptown Sedona Roadway Improvements.

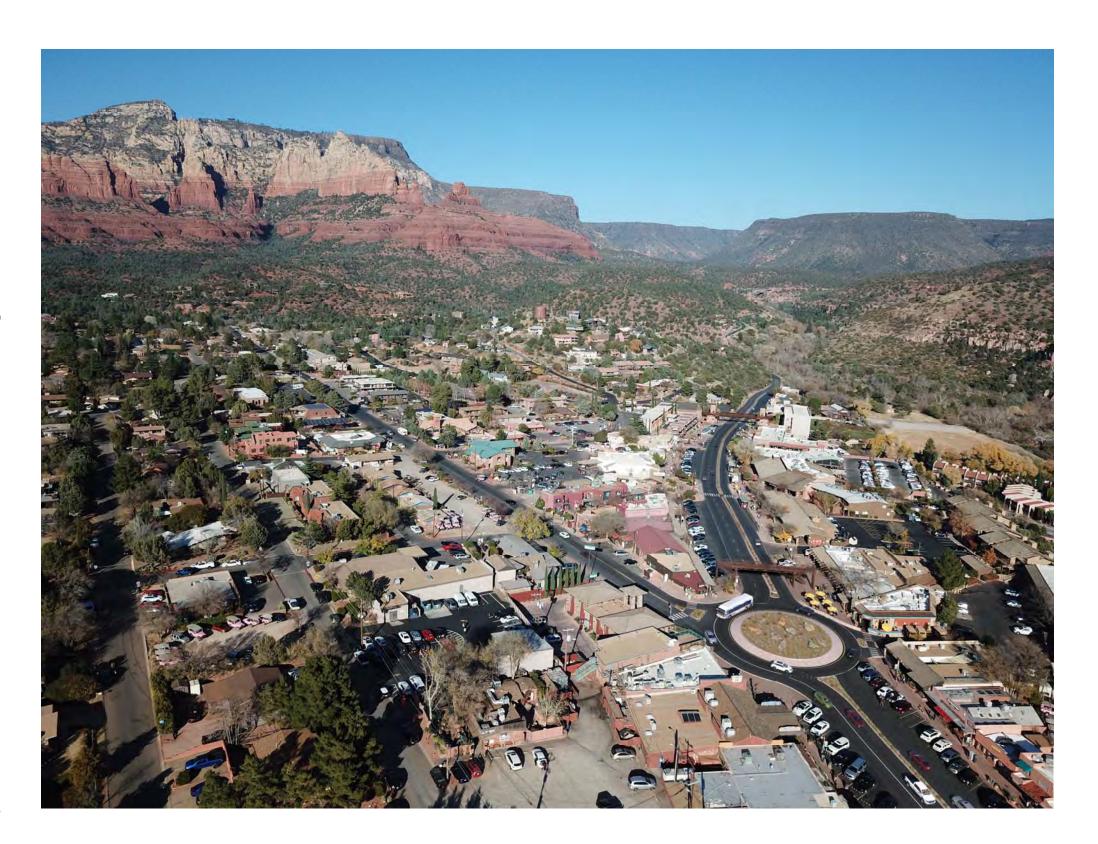
In January of 2018, The City completed the Transportation Master Plan (TMP) which ultimately defined a set of projects to be implemented over the next 10 years through the Sedona In Motion (SIM) program. The Uptown Sedona Improvements are SIM-1, which will alleviate congestion, improve safety and beautify this important corridor in the City of Sedona.

#### Design Concept Alternatives

The recommended improvements from the TMP are broken down into six (6) improvements:

- 1. Raised Median Restrict left turn movements, reduce pedestrian crossings and allow for additional aesthetic through Uptown Sedona.
- 2. Second Southbound Thru Lane Increase capacity and allow for thru traffic to avoid conflict with vehicles waiting for parking
- 3. Turnaround at Northern Project Limits Eliminating Left Turns throughout the project limits creates the need for a turnaround or roundabout at the northern limits
- 4. One-Way Access at Schnebly Road In combination with the northern turnaround, a one-way access up to Schnebly Road would allow for ease of access to Municipal Parking and reduce volume on SB SR 89A
- 5. Roundabout at Jordan Road Similar to the northern turnaround, the elimination of the left turns throughout the project require a turnaround at the southern limits of the project.
- 6. Traffic Signal Timing Coordinate the Forest Signal with the Midblock pedestrian crossing.

The Design Team recommends all improvements be implemented with this project.



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#### 1.0 Introduction

#### 1.1 Foreword

As Project 1 of the Sedona In Motion (SIM) program, the Uptown Sedona Improvements is one of the first of many projects to improve City of Sedona Transportation.

A project vicinity map is shown in **Figure 1.1** on page 2.

#### 1.2 Need for the Project

Traffic congestion in Uptown Sedona is a source of frustration for residents and visitors. State Route (SR) 89A through Uptown functions as a major arterial for through travelers coming from Oak Creek Canyon (OCC) and as a local street providing direct access to businesses in Uptown. The inability of SR 89A to serve both regional travelers and local visitors leads to congestion and delays that extend up Oak Creek Canyon.

A typical traffic lane under ideal conditions has a capacity of approximately 1,900 vehicles per hour, per the Highway Capacity Manual. Traffic signals, on-street parking, pedestrian crossings, and turning vehicles, all reduce roadway capacity.

The 2014 Uptown Sedona Pedestrian Crossing Study estimated that SR 89A has about 40% of the ideal capacity or about 760 vehicles per hour. Traffic volumes collected in April 2016 (Saturday, April 16, 2016) show northbound SR 89A traffic volumes at 1,002 vehicles per hour and southbound at 970 vehicles per hour, exceeding the capacity of the roadway.

In addition, traffic congestion in Uptown is a primary contributor to congestion in Oak Creek Canyon. As vehicles exit Oak Creek Canyon toward Uptown, they reach the queue of vehicles caused by pedestrians crossing the road, vehicles turning to and from on-street parking, etc. Vehicle speeds drop to 10 mph as they travel through Uptown.

#### 1.3 Project Objectives

The Uptown Sedona roadway improvements recommendations involve a multi-faceted approach to improving congestion and safety by providing additional capacity and reducing the conflicts between vehicles and pedestrians. Recommended roadway improvement projects in Uptown are:

- 1. Construct a raised median with decorative landscaping or decorative barrier to direct pedestrians to controlled crossings.
- 2. Construct an additional southbound travel lane on SR 89A through Uptown.
- 3. Construct a turnaround or roundabout at the north end (e.g. at Art Barn).
- 4. Construct a roundabout at the south end (Jordan Road) of Uptown on SR 89A.
- 5. Create one-way access from SR 89A to free parking via Schnebly Road.
- 6. Conduct a traffic signal timing analysis to coordinate midblock and Forest Road traffic signals

Based on the results in the Sedona Transportation Master Plan (TMP), if all of the recommended improvements are implemented travel time through Uptown would be reduced by over half.

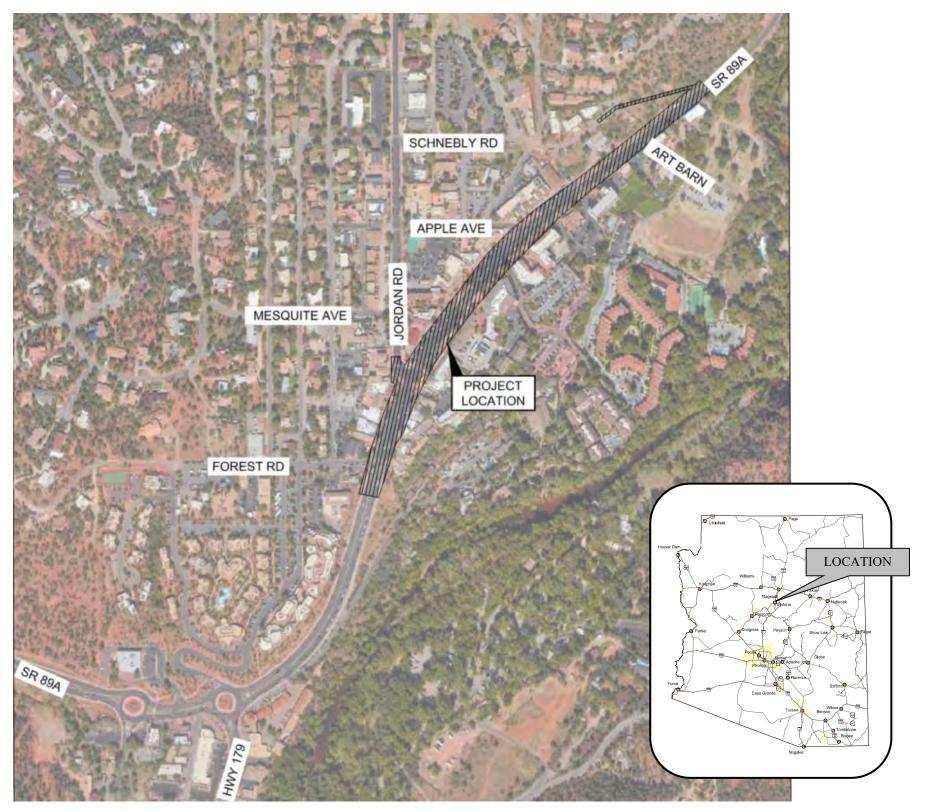


Figure 1.1 – Vicinity Map

#### 1.4 The Scoping Phase

The Design Concept or Scoping Phase for Uptown Sedona improvements is an expansion of the concepts developed in the TMP (See Appendix A). The study is a first step in constructing improvements in Uptown Sedona.

The Scoping Phase will consist of performing data collection, control/topographic survey, determination of existing right-of-way, utility impacts, geotechnical evaluation, environmental impacts, landscaping and overall evaluation/alternative development of the recommended improvements (current and future) including but not limited to:

- Landscaped Raised Median
- Southbound Travel Lane
- Turnaround/Roundabout at Northern Project Limits
- Roundabout Southern Project Limits (Jordan or Forest)
- One Way Access via Schnebly Road
- Traffic Signal Timing (Forest Road and Midblock Pedestrian Crossing)
- Miscellaneous Improvements Pavement, Cross Streets, Sidewalk, Ramps, Curb, etc.
- Future Improvements Pedestrian Bridge Crossings

Stakeholder meetings were held by the agency as part of the study for the Uptown Improvements. The following stakeholders are involved with the project:

- Local Business Owners
- Local Residents
- City Council
- City of Sedona

Completion of this phase will consist of recommended alternatives for each improvement with associated costs and benefits. The Design Concept Report will be reviewed by City Staff prior to City Council presentation anticipated in late August.

Final Design is scheduled to be complete in Early 2019, with construction starting in Spring 2019.

#### 1.5 Issues, Concerns, and Opportunities

During the scoping process, the following issues, concerns, and opportunities (ICOs) were identified:

- Impacts of the Roundabout at Jordan Road
- Roundabout option at Forest Road
- Alternative turn around options at the northern project limits
- Pedestrian access through uptown

#### 1.6 Characteristics of Corridor

#### 1.6.1 Existing Roadway



Figure 1.2 - Uptown Sedona (Existing)

SR89A in Uptown Sedona is classified as an arterial. The approximate width of the roadway is 37' from face of curb to face of curb where no on street parking is present. When on street parking is present the approximate width of roadway increases to 90'. The existing roadway is one 12' lane in each direction separated by a 11' striped median/two way

left turn lane. There is existing diagonal parking throughout the project limits. The existing roadway condition can be found in **Figure 1.2**.

The posted speed limit is 25 MPH

Uptown Highway 89A underwent roadway improvements in 2015/2016 as part of City of Sedona project number 2012-500. The project limits extended from Forest Road to Art Barn road and scope of work included new pavement and concrete features. **See Appendix E.** 

#### 1.6.2 Existing Right of Way

Existing Right-of-Way (R/W) along SR89A varies throughout the project limits. Existing R/W along Jordan Road varies from Uptown Highway 89A to Mesquite Road where it is a set 66 feet total, 33 feet eastbound and westbound from center. Existing R/W exists along Apple Road, were the total R/W is 40 feet. Existing R/W exists along Schnebly Road, were the total R/W is 45 feet.

The Existing Right of Way map is provided in **Figure 1.5.** 

#### 1.6.3 Utilities

No conflicts are anticipated with the existing utilities within the project limits. The Design Team will send plans to the utility companies at 60% to obtain a Utility Clearance Letter. Known utilities within the project are listed in the Table below.

**Table 1.1** lists the utilities on the project and their contact information.

**Table 1.1 – Utility Contacts** 

COMPANY	STATUS	PHONE
Sedona Wastewater	TBD	928-204-7205
APS Power	TBD	928-282-7128
Unisource Gas	TBD	877-837-4968
AZ Water Company	TBD	928-282-7092
Oak Creek Water Company	TBD	928-282-7092
Century Link	TBD	(520) 723-6208
Sudden Link	TBD	(520) 723-6203

#### 1.6.4 Drainage Characteristics

There is an existing storm drain system that captures runoff from the top of the canyon. The cross-sections of SR 89A vary throughout the project area, however, it is evident that water is conveyed from north to south through a series of curb openings and catch basins located along the roadway.

The project limits exist with Zone X, area determined to be outside of the 0.2% annual chance floodplain, per FEMA Flood Insurance Rate Map (FIRM) map number 04005c7657G, effective September 3<sup>rd</sup>, 2010. A floodway zone exists south of the project limits along Oak Creek. No FEMA floodplains are located within the project area; therefore, impacts to FEMA floodplains were not considered for this project.

#### 1.6.5 Topography

The project lies within the basin and range physiographic province of Arizona.

The study area is located south of Oak Creek Canyon and runs parallel along the west side of Oak Creek. Along the existing roadway corridor, a high point is present approximately 200' north of the Jordan Road SR89A intersection. The area south of the high point has a gradient to the southeast and rainfall-runoff washes across SR89A in the general direction toward Oak Creek. The area north of the high point has a gradient to the northeast and rainfall-runoff washes across SR89A in the general direction toward Oak Creek.

The soil characteristics are provided in the Geotechnical Report provided in **Appendix D.** 

#### 1.6.6 Land Use and Ownership

The land is in the City of Sedona jurisdiction.

The land adjacent to the project area is primarily C-1 General Commercial (Restaurant/Retail) and PD (Planned Development). The land located northwest and southeast of the project area along Highway 89A is zoned for residential. The areas located outside the project limits and directly north of Highway 89A are zoned for the National Forest and within ADOT Right of Way.

**Table 1.2** lists parcels adjacent to the project area **(bold indicates potentially impacted parcels)**, property owners, and the property type per the Coconino County Assessor's database. The parcels are shown in **Figure 1.5**.

Table 1.2 – Parcels and Property Owners

Parcel Number	Owner	Land Type
401-17-019K	SEDONA JAZZ COLLECTIVE LLC	C-1 GENERAL COMERCIAL (RESTAURANT)
401-17-015	SEDONA CHAMBER OF COMMERCE	C-1 GENERAL COMERCIAL (BUSINESS)
401-16-005	ATHENOUR LLC	C-1 GENERAL COMERCIAL (RETAIL)
401-16-006A	LINDE ARNOLD M TRUST	C-1 GENERAL COMERCIAL (RETAIL)
401-16-007	SEDONA CENTER DEVELOPMENT GROUP LLC	C-1 GENERAL COMERCIAL (RETAIL)
401-16-004	SEDONA CENTER DEVELOPMENT GROUP LLC	C-1 GENERAL COMERCIAL (RESTAURANT)
401-17-019W	SYNERGY INVESTMENTS 2 LLC	C-1 GENERAL COMERCIAL (UNDEVELOPED LAND)
401-12-026C	204 NORTH HIGHWAY 89A NVD LLC	C-1 GENERAL COMERCIAL (RESTAURANT/TOURS)
401-13-046	WOODARD FAMILY TRUST	C-1 GENERAL COMERCIAL (RETAIL)
401-16-003A	SYKES MAUREEN	C-1 GENERAL COMERCIAL (RETAIL)
401-16-002	CEDIC PLAZA LLC	C-1 GENERAL COMERCIAL (RETAIL)
401-13-047A	FELSOT FMLY LTD LIABILITY PTNRRSHIP	C-1 GENERAL COMERCIAL (RETAIL)
401-13-048A	MCNULTY-PHILLIPI LIMITED PARTNERSHIP	C-1 GENERAL COMERCIAL (RESTAURANT/RETAIL)
401-13-041	EARNSHAW INVESTORS LTD PARTNERSHIP	C-1 GENERAL COMERCIAL (RETAIL)
401-12-001A	DIAMOND ROCK AZ LA OWNER LLC	PD- PLANNED DEVELOPMENT (RESTAURANT)

Parcel Number	Owner	Land Type
401-13-036	ATHERTON VENTURERS LLC	PD- PLANNED DEVELOPMENT (RETAIL)
401-13-037F	CANYON PORTAL PROPERTIES	PD- PLANNED DEVELOPMENT (RETAIL/TOURS)
401-13-050	SORRELL SKY LLC	C-1 GENERAL COMERCIAL (RETAIL)
401-13-051A	SACAJAWEA PLAZA LLC	C-1 GENERAL COMERCIAL (RETAIL)
401-13-055C	SEDONA SILVERADO LLC	C-1 GENERAL COMERCIAL (RETAIL)
401-13-056A	BASES LOADED LLC	C-1 GENERAL COMERCIAL (RESTAURANT)
401-13-030A	SINAGUA PLAZA 3 LLC	PD- PLANNED DEVELOPMENT (RESTAURANT/RETAIL)
401-13-013C	HEINMAN LIMITED PARTNERSHIP NO 1	L- LODGING (RM-1)
401-13-014A	WAYSIDE CHAPEL SEDONA COMMUNITY CHURCH	C-1 GENERAL COMERCIAL
401-13-015	SANI HAMID & YOLANDA	C-1 GENERAL COMERCIAL (UNDEVELOPED LAND)
401-13-060E	SEDONA JL LLC	L- LODGING
401-13-029	SEDONA JL LLC	L- LODGING
401-13-061A	SEDONA JL LLC	L- LODGING
401-13-023	SEDONA JL LLC	L- LODGING
401-13-021	SEDONA JL LLC	L- LODGING
401-13-020	SEDONA ART CENTER	C-1 GENERAL COMERCIAL (RETAIL)
401-13-059	AXYS CAPITAL TOTAL RETURN FUND LLC	PD- PLANNED DEVELOPMENT (UNDEVELOPED LAND)
401-13-019	PONDER WELLNESS LLC	C-1 GENERAL COMERCIAL (RETAIL)
401-13-017	SRI GANESHA LLC	L- LODGING

Parcel Number	Owner	Land Type
401-13-016	LILLY INN LLC	C-1 GENERAL COMERCIAL (RETAIL)
401-14-015	AXYS CAPITAL TOTAL RETURN FUND LLC	PD- PLANNED DEVELOPMENT (UNDEVELOPED LAND)
401-14-016	AXYS CAPITAL TOTAL RETURN FUND LLC	PD- PLANNED DEVELOPMENT (UNDEVELOPED LAND)
401-14-017	AXYS CAPITAL TOTAL RETURN FUND LLC	PD- PLANNED DEVELOPMENT (UNDEVELOPED LAND)
401-14-075	AXYS CAPITAL TOTAL RETURN FUND LLC	PD- PLANNED DEVELOPMENT (UNDEVELOPED LAND)
401-14-018A	SRI GANESHA LLC	L- LODGING
401-08-006	AXYS CAPITAL TOTAL RETURN FUND LLC	PD- PLANNED DEVELOPMENT (UNDEVELOPED LAND)
401-08-005A	RERUCHA JACQUE M RECOVABLE LIVING TRUST	RM 2- HIGH DENSITY MULTI FAMILY RES.
401-08-004	SPAIN JANE D	RM 2- HIGH DENSITY MULTI FAMILY RES.
401-08-003B	SPAIN JANE D	RM 2- HIGH DENSITY MULTI FAMILY RES.

#### 1.7 Description of the Project

The Uptown Sedona Roadway Improvements will increase safety, reduce travel time and improve the overall aesthetic through Uptown Sedona. Recommended improvements from the TMP include a raised median, second southbound lane, turnaround/roundabouts at the southern and northern terminus, additional connections to municipal parking and signal timing/optimization.

Prior to moving the project into final design, alternatives must be evaluated to ensure support from local residents, business owners, tourists, city council and city staff. The Design Concept phase will evaluate these improvements based on overall improvements (safety/operational, etc.) vs impacts and costs.

Upon approval of the Design Concept Report, the team will move into Final Design with the goal of completing design and have ready for construction in early 2019.

#### 1.8 Project Length and Termini

The project limits are along 89A from Forest Road to Art Barn Road, approximately 2200'. The project limits and potential ultimate condition is shown in **Figure 1.4** 

#### 1.9 Typical Section and Lane Configuration

The existing and proposed typical sections are shown in **Figure 1.3** below top and bottom respectively.

#### 1.10 New Right-of-Way

The majority of improvements will fall within the existing right of way. The exception is the potential Jordan Roundabout and the Schnebly Road one-way access.

#### Jordan Roundabout Alternative

There are several restaurants and businesses within the corridor that are permitted to utilize the existing City Right of Way for outdoor patio/dining. Two restaurants at the Jordan intersection (Cowboy Club and 89 Agave) will be impacted if the Jordan Roundabout is implemented.

#### 1.11 Safety Improvements

The overall safety of the corridor will be improved with the reduction of pedestrian crossing and left turn movements which are two of the main causes of accidents within the project limits. A raised median with physical barriers to prevent illegal pedestrian crossing (jay walking) must be implemented

#### 1.12 Operational Improvements

Signal timing and synchronization will be reviewed and optimized at both the Forest

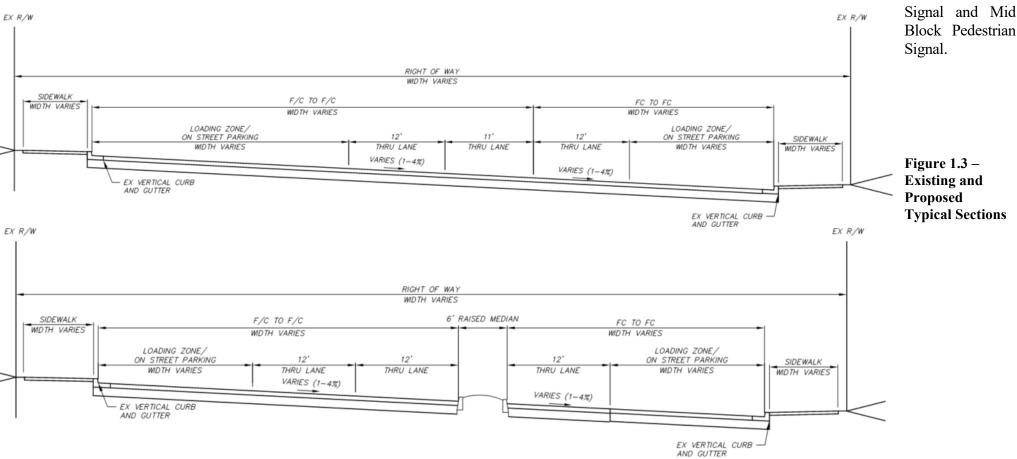
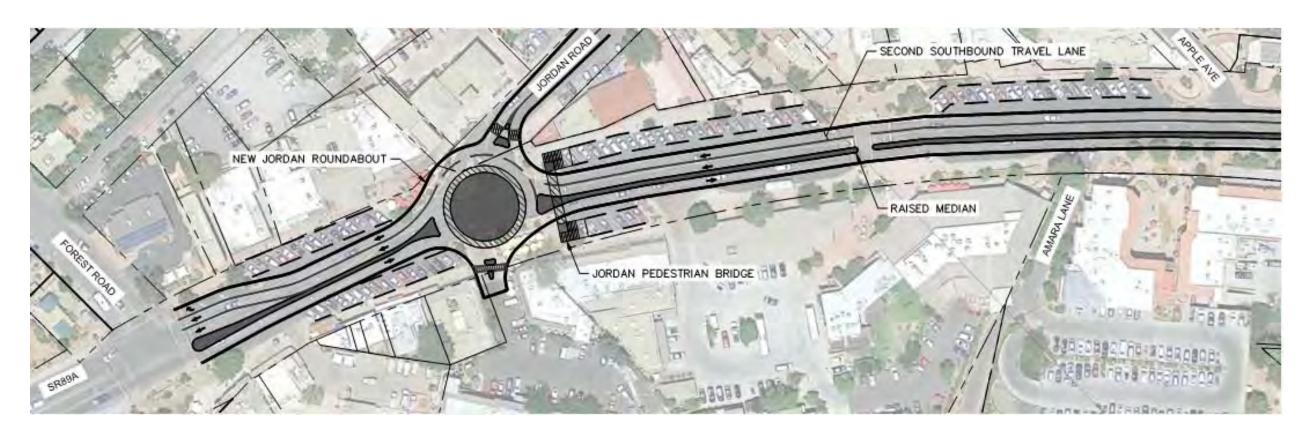


Figure 1.4 – Proposed Improvements



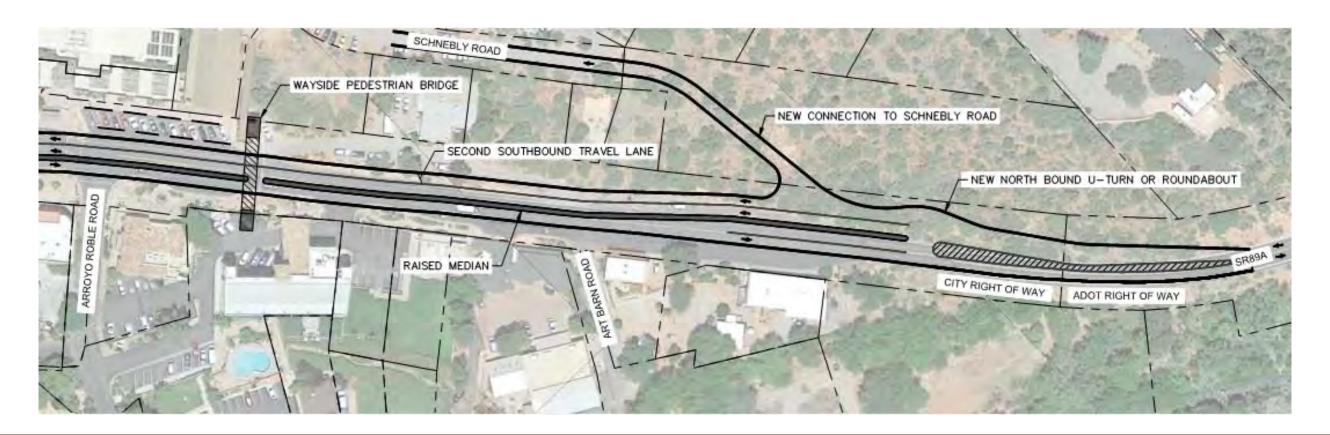
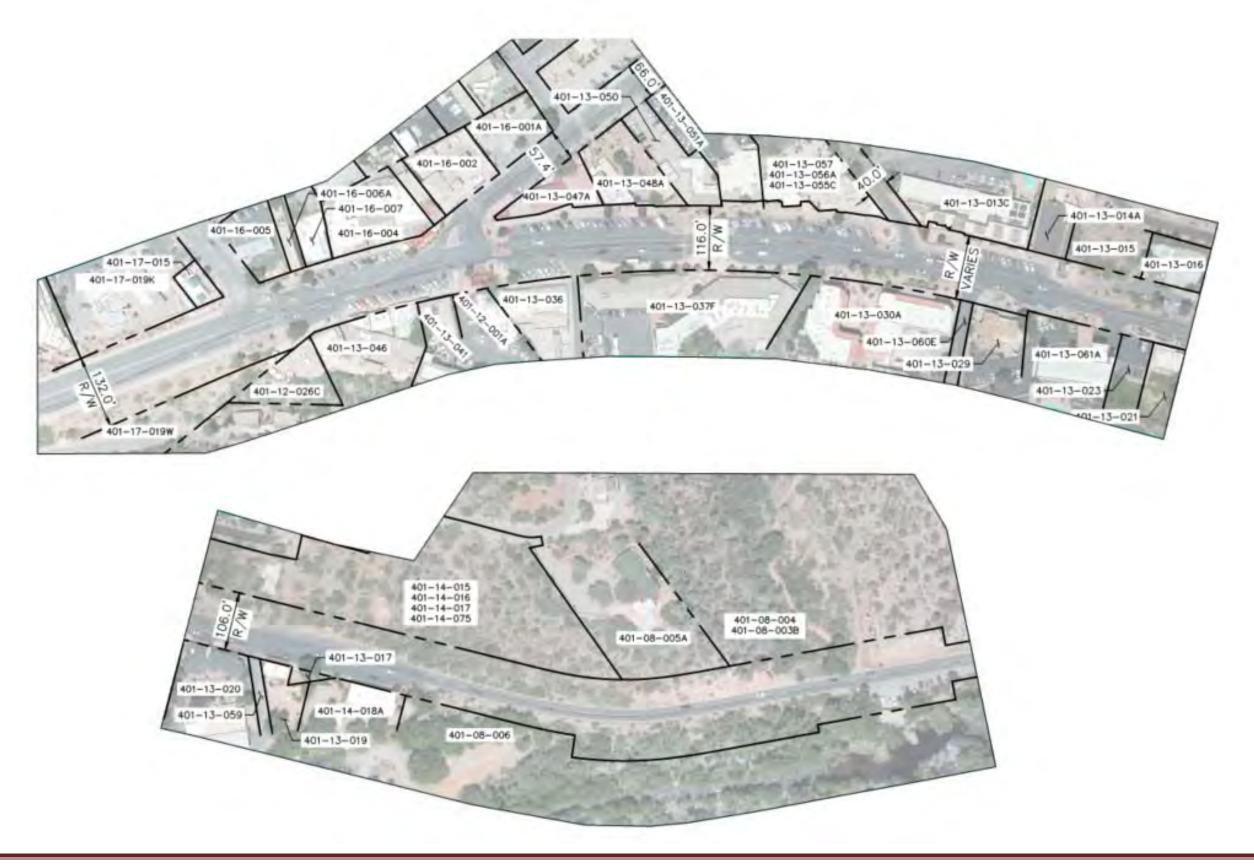


Figure 1.5 – Right Of Way Map



### 2.0 Controlling Design Criteria

#### 2.1 Introduction

The design standards used for the final design and construction of the improvements identified in this project will be in compliance with, but will not be limited to, the following:

- MAG Uniform Standard Specifications and Details for Public Works Construction
- 2009 Manual on Uniform Traffic Control Devices (MUTCD), Figure 33
- Arizona Supplement to the Manual on Uniform Traffic Control Devices for Streets and Highways
- AASHTO Policy on Geometric Design of Highways and Streets
- AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals
- AASHTO Roadside Design Guide
- ADOT Traffic Engineering Guidelines and Processes, Section 400 –
   Pavement Markings
- Americans with Disabilities Act
- U.S. Department of Transportation Federal Highway Administration (FHWA), Roundabouts: An Informational Guide
- Public Rights-of-Way Accessibility Guidelines
- 2015 FHWA Separated Bike Lane Planning and Design Guide
- 2014 NACTO Urban Bikeway Design Guide

#### 2.2 General Considerations

For design purposes, the terrain will be considered level. The design vehicle used will be a WB-67 (Urban Major Streets), taken from American Association of State Highway and Transportation Officials (AASTO) Guidelines.

#### 2.3 Design Speed

The design speed for the Uptown Sedona Improvements is 35 MPH.

#### 2.4 Lane Widths

Per AASHTO: A Policy on Geometric Design of Highways and Streets, lane widths are recommended to be ten to twelve feet. When a roadway is signalized and operates at speeds under 35 mph such is the case for the street corridors within the project limits.

The lane and widths for the street corridors within the project limits are as shown in **Table 2.1**.

Table 2.1 – Lane and Shoulder Widths

ROADWAY	LANES	REFERENCE			
Thru Lanes	12'	AASHTO Green Book: A Policy on Geometric Design of Highways and Streets			
Turn Lanes	12'	AASHTO Green Book: A Policy on Geometric Design of Highways and Streets			
Deliveries/Transit Stops	12'	Transit Cooperative Research Program Guidelines for the Location and Design of Bus Stops. Figure 5. Typical Bus Bay Dimensions.  AASHTO Guide for the Development of Bicycle Facilities (p23)			
60 Degree On-Street Parking	16.5'	City of Sedona Development Standards, Section 912, Off Street Parking AASHTO Green Book: A Policy on Geometric Design of Highways and Streets, Section 4.20 On Street Parking			

#### 2.5 Cross Slopes

Cross slopes throughout the project corridor shall vary. SR89A shall maintain a 2% super elevated cross slope sloping to the east.

#### 2.6 Roundabout

Per FHWA: Roundabouts: An Informational Guide, geometric configurations for a potential roundabout at Jordan and Road and Forest Road were considered. Given the constraints of the right of way, impacts to adjacent business and pedestrian access an outside-in design approach was chosen for the development of these features. The maximum available footprint for the roundabout was used to determine the fundamental design and operational elements. The basic design characteristics for each of the category of roundabout is shown in **Table 2.2.** 

Table 2.2 – Basic Design Characteristics for each of the six roundabout categories

DESIGN ELEMENT	MINI - ROUNDABOUT	URBAN COMPACT	URBAN SINGLE – LANE	URBAN DOUBLE – LANE
Recommended Maximum Entry Design Speed	15 mph	15 mph	20 mph	25 mph
Maximum Number of entering lanes per approach	1	1	1	2
Typical inscribed circle diameter	45' to 80'	80' to 100'	100' to 130'	150' – 180'
Splitter island treatment	Raised if possible, crosswalk cut if raised	Raised, with crosswalk cut	Raised with crosswalk cut	Raised with crosswalk cut

Given the basic design characteristics shown above and the available footprint the roundabout design of this project is to be refined as the project moves forward to minimize impacts while improving the overall safety.

#### 2.7 Pavement Structural Section

A Geotechnical Report was prepared by Vann Engineering Inc. in November of 2014 as part of the Pedestrian Improvements, City of Sedona Project Number 23317. The pavement structural sections are shown in **Table 2.3** – **2.5** and assumed that the information may be used for cross street recommendations (Apple, Jordan, etc.)

Table 2.3 - Light Vehicles or Low Volume Traffic Areas (Tire Pressures between 0 and 45 PSI)

ALTERNATE	PREPARED SUBGRADE (Inches)	ABC (Inches)	ASPHALTIC CONCRETE (Inches)	CONCRETE PAVEMENT (Inches)
$A^{A}$	9.0	4.0	2.5	
$\mathrm{B}^{\mathrm{A}}$	9.0		4.0	
$C_B$	9.0			5.0

Table 2.4 - Heavy Vehicle Areas (Tire Pressures between 45 and 90 PSI)

ALTERNATE	PREPARED SUBGRADE (Inches)	ABC (Inches)	ASPHALTIC CONCRETE (Inches)	CONCRETE PAVEMENT (Inches)
$A^A$	9.0	4.0	3.5	
$\mathrm{B}^{\mathrm{A}}$	9.0		5.0	
$C_B$	9.0			6.00

Table 2.5 - Very Heavy Vehicle Areas (Tire Pressure between 90 and 135 PSI)

ALTERNATE	PREPARED SUBGRADE (Inches)	ABC (Inches)	ASPHALTIC CONCRETE (Inches)	CONCRETE PAVEMENT (Inches)
$A^A$	9.0	4.0	4.5	
$\mathbf{B}^{\mathbf{A}}$	9.0		6.0	
$C_B$	9.0			7.5

A – 10 to 15 year design life, with typical maintenance

The pavement structural sections are shown in **Table 2.6** for Schnebly Road.

**Table 2.6 – Schnebly Road** 

ALTERNATE	PREPARED SUBGRADE (Inches)	ABC (Inches)	ASPHALTIC CONCRETE (Inches)	STRUCTURAL NUMBER
A	9.0	8.0	4.0	2.64
В	9.0	10.0	3.5	2.70

Additionally, a Geotechnical Report was prepared by Engineering and Testing Consultants Inc. in November of 2013 with an addendum issued in April of 2015 as part of the State Route 89A Improvements. The pavement structural sections are shown in **Table 2.7** for SR89A.

**Table 2.7 – ETC Recommendations** 

ALTERNATE	PREPARED SUBGRADE (Inches)	ABC (Inches)	ASPHALTIC CONCRETE (Inches)	CONCRETE PAVEMENT (Inches)
1	8	14	5	
2	8	10	6	
3A	8	9	5A	

A – Tensar Filter Fabric

Based on the Record Drawings for the SR89A project (**Appendix E**) the as-built was a minimum 6" AC on 10" of ABC (which meets the recommended section 2 from the Geotechnical Report.)

To meet the 20 year life cycle cost an additional 1" of AC will extend the pavement life through 2035 or 20 years after the 2015 improvements were completed.

#### 2.8 Earthwork

Shrink/swell factors and over-excavation limits will be per the geotechnical investigation and materials report.

<sup>&</sup>lt;sup>B</sup> – 20 year design life, with maintenance

### 3.0 Design Concept Alternatives

#### 3.1 Introduction

The Uptown Sedona roadway improvements involve a multi-faceted approach to improving congestion and safety by providing additional capacity and reducing the conflicts between vehicles and pedestrians. Recommended roadway improvement projects in Uptown are:

- Raised Median/Landscape Barrier
  - Reduce/Eliminate Left Turns
  - Reduce Pedestrian Crossings
    - Future Pedestrian Bridges (SIM-2)
  - Improve/Blend with Uptown Aesthetic
- Additional Southbound Travel Lane
  - Increase Southbound Capacity
- Turnaround at North Project Limits
  - Turnaround vs Roundabout
- Schnebly One Way Access
  - Direct Access to Municipal Parking Lots
- Roundabout at South Project Limits
  - Jordan Road or Forest Road
- Traffic Signal Timing
  - Optimization
  - Synchronization

The Six Improvements listed above are evaluated against benefits and impacts shown in **Table 4.1** – **Evaluation Matrix.** 

#### 3.2 Public Outreach

Recommended concepts from the TMP were presented to the public on the following dates:

- June 2016
- June 2017

At the onset of SIM 1, additional meetings with business owners and the public were held on.

- June 13<sup>th</sup>, 2018 Council Work Session
- June 13<sup>th</sup>, 2018 Stakeholder Meeting 1
- June 14<sup>th</sup>, 2018 Stakeholder Meeting 2 and 3
- June 28<sup>th</sup>, 2018 Public Open House

Notes and prioritization of the meetings are provided in **Appendix H** 

## 3.3 Conditions and Factors Impacting Alternative Development

Uptown Sedona is a dense mix of shopping and restaurants attracting tourists from around the world.

The metered parking along SR 89A is a consistent revenue stream for the City. The design alternative will need to minimize impacts to existing parking.

#### 3.4 Design Concept Alternatives Studied

The design team studied each of the six recommended improvements from the TMP and evaluated against right of way impacts, land use impacts, public support, earthwork, operational improvements, safety improvements, roadway geometry, constructability and traffic control, estimated construction cost, utility impacts, structures and connectivity and continuity. The analysis and approach for each improvement is summarized below and shown in **Table 4.1** – **Evaluation Matrix.** 

#### 3.4.1 Raised Median/Landscaping Barrier

A raised median reduces pedestrian movement/conflicts with vehicular traffic and left turns. Currently, pedestrians disobey traffic signals and cross at undesignated locations, impacting traffic flow, reducing safety, and increasing travel time.

The median must be of sufficient width to allow for planting and decorative walls to physically prevent pedestrians from jaywalking, a known issue in the Uptown area.

The team evaluated median width (4', 6', 16') and decorative treatment for the median to be both function and aesthetic. To summarize the analysis:

• 4' median – Minimal impact on the existing footprint but does not provide enough width to construct landscaping.

- 6' median Wide enough to build a gabion wall or establish median trees however does impact more of the outside curb and landscaping
- 16' median Too wide, significant impacts to outside landscaping and improvements.



Figure 3.1 - Uptown Sedona (Rendering)

The 6' median with decorative treatment is the preferred alternative. Based on the existing roadway widths, there is minimal impacts to the adjacent landscaping and allows for impactful landscape treatments. A rendering of this option can be seen in **Figure 3.1.** 

#### Pedestrian Crossings

There are currently 5 designated pedestrian crossings of SR 89A within the project limits (Forest, Jordan, Midblock, Arroyo Roble, Wayside). The design recommends two of the crossings be removed: Arroyo Roble and Jordan Road. Pedestrian studies have shown that in pedestrian friendly communities, the public is able/willing to walk 700' to the nearest designated crossing. Forest to Midblock is approximately 750' and Midblock to Wayside is 700'. In addition:

Arroyo Roble – Within 200' of the Wayside crossing which is currently being evaluated for an elevated crossing (SIM-2)

Jordan Road –Impacts to the safety/operations of the Jordan RAB. See additional discussion in **Section 3.4.5.** 

SIM-2 is currently evaluating the potential for elevated pedestrian crossings within the project limits. The locations include the Wayside crossing, where the elevator and platform have already been constructed on the north side of SR 89A. Jordan Road Pedestrian Bridge is also in the preliminary stages. The Design Team has evaluated the location to determine if there is sufficient width to construct the structure and provided renderings to show visual impacts to the surrounding. This is included in **Appendix F-Renderings** 

#### Landscaping/Aesthetic

The Design Team developed a plant list for use in the median and in the existing landscape areas that may be disturbed. This is included in **Appendix I – Plant Alternatives.** 

In addition to the plantings, large boulders and meandering gabion walls could be considered to blend with the surrounding while still providing the physical barrier to prevent pedestrian crossings. This is depicted in **Figure 3.1**.

Emergency Access, Deliveries and Transit services must also be maintained throughout the project.

#### 3.4.2 Additional Southbound Travel Lane

The second southbound lane improves traffic flow through Uptown and reduces travel time delays for vehicles coming out of Oak Creek Canyon.

The additional southbound lane essentially follows the existing twoway left turn lane that will be eliminated with the raised median. The starting location of the second southbound lane must be selected based on the location of the turnaround and impacts to the adjacent property.

The added roadway capacity and decreased travel time will increase vehicular speeds through the project. Adjustments must be made to pedestrian connections and parking to maintain safety. A rendering showing the second south bound lane can be seen in **Figure 3.1.** 

The pavement section recommended in the geotechnical report for SR 89A from Art Barn to Forest Road in 2015 is based on traffic volumes, which are consistent with the data from the TMP. As indicated in the as-builts for the SR 89A improvements, 6" AC on 10" ABC was constructed. This meets the 20 year life cycle from the design year of 2015. Should this project look to increase the life cycle from 20 years past the assumed completion date of 2020, an additional 1" of AC should be considered for both directions of travel.

#### 3.4.3 Turnaround at North Project Limits

A turnaround is necessary due to the elimination of left turns in Uptown. There is also the potential for a full roundabout, pending results of the concept plan.

The location of the turnaround must allow enough space for left turn storage and sufficient geometry to tie in with the one-way access road to the municipal parking. Our team has located the turnaround to place only the roadway tapers within ADOT right-of-way, easing the review and approval required for the encroachment permit. Three different turn around options were analyzed:

- Michigan Type with One Way Access (Figure 3.2) Utilizes available right of way
- Roundabout with Schnebly One Way Access (Figure 3.3) –
- Roundabout with raised median and no Schnebly One Way Access
   (Figure 3.4) Limits conflicting movements

#### 3.4.4 Schnebly One Way Access

Constructing a one-way access road to Schnebly allows access to free municipal lot parking a few blocks from Uptown and will reduce congestion on SR 89A.

Terrain, right-of-way, and safety when tying into a neighborhood street of 18 feet width and driveway at the roadway terminus. The alignment impacts one parcel, allowing for future development on both sides of the access road.

The parcels requiring right of way or easement acquisition are owned by Axys Capital (see Parcels and Property Owners **Table 1.2**). The City has been in discussion with the ownership group regarding the one-way access road and impacts/benefits to the

parcel. As this project moves forward, the Design Team, City Staff and Axys Capital will meet to discuss the viability of this alternative.

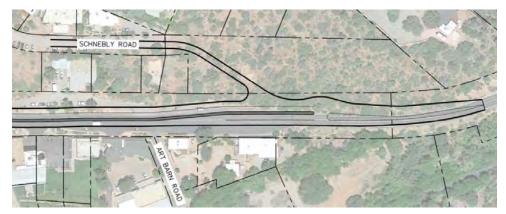


Figure 3.2 – Michigan Left with One Way Access

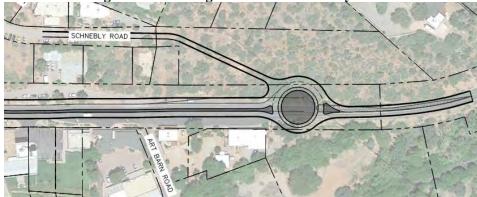


Figure 3.3 - Roundabout with Schnebly One Way Access



Figure 3.4 - Roundabout No Schnebly One Way Access

#### 3.4.5 Roundabout at South Project Limits

Similar to the northbound project terminus, the southbound limits require a roundabout to allow vehicles full access.

The Design Team evaluated the roundabout location at Jordan Road and at Forest Road based on geometric constraints and operational improvements or impacts.

#### Geometric

The roundabout at Jordan Road, **Figure 3.5**, is an Urban Compact Roundabout which requires 80 -100 feet of inside diameter. This allows for a single unit truck/bus (anticipated with future transit into Oak Creek Canyon) to navigate the roundabout using the outside lane, while minimizing impacts to the adjacent parcels/restaurants. The large delivery vehicles (WB-67 design) would occupy both lanes while making deliveries or passing through Uptown. *The figure below is a concept only. As the design stage progresses, the Design Team will look for alternatives to reduce the roundabout footprint while still providing safe and efficient travel through the intersection.* 

This concept has been reviewed by the public with the main questions/concerns being impacts the businesses (namely 89 Agave and the Cowboy Club) and changes to the overall aesthetic of the intersection.

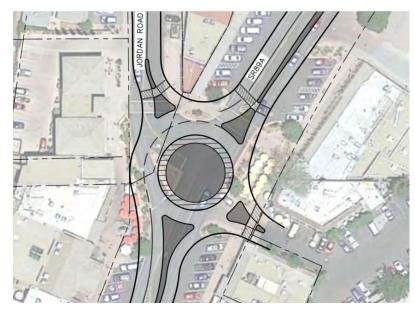


Figure 3.5 - Jordan RAB Alternative

The Roundabout at Forest is also horizontally laid out as an Urban Compact however the footprint is increased to two lanes throughout (Jordan only has one lane in the northbound direction of travel). As shown in **Figure 3.7** below, the Forest RAB concept impacts the businesses on all sides of the intersection and will require an engineered retaining wall on the southwestern portion to accommodate the outside lane.

Vertically the Jordan RAB location is optimum due to the existing slopes (3% average). FHWA recommends roundabouts be designed with no more than 4% longitudinal slope. The existing slope on Forest Road is approximately 6%. To meet FHWA guidelines, the existing roadway would require reprofiling, further impacting adjacent businesses and increasing costs for import/export of material.



Figure 3.6 - Forest RAB Alternative

#### **Operations**

The Design Team evaluated five different scenarios utilizing VISSIM software (**Appendix G**):

- RAB at Forest No Left at Jordan, Ped Crossing at Jordan
- RAB at Forest Lefts at Jordan, Ped Crossing at Jordan
- RAB at Jordan Signal at Forest, All Ped Crossings Remain
- RAB at Jordan No crossing at Arroyo/Apple
- RAB at Jordan No crossing at Arroyo/Apple and Jordan

#### In summary (See Table 3.1 on next page):

- The roundabout at Forest functions well for the majority of movements. However, with permitted lefts at Jordan, the delay for the EBL reaches 350s. This delay would likely push traffic to Forest/Smith (One Way Study) which would impact the LOS of that intersection.
- Without permitted left turns at Jordan the NBT and NBL delays increase as well as the EBL at Forest.
- The roundabout at Jordan with a pedestrian crossing of SR 89A at Jordan does not operate well. In both scenarios where the pedestrian movement is present, the NB delays are over 100 or 200s. The Design Team observed long NB queues during the simulation. The Jordan pedestrian crossing also causes the NB approach at Jordan to have longer delays than many other movements (30 to 40s range).
- The scenarios with Jordan as a roundabout without the Jordan Pedestrian crossing operates the best in terms of delays and queuing. There are only a couple of movements at Forest that have delays greater than 30s (NBT 35s and EBL 46s).
- SB travel times are generally longer than NB.
- There are two scenarios with pretty low and balanced travel times: Forest as roundabout with lefts at Jordan Road and Jordan as roundabout with no pedestrian crossing.
- Related to the current One Way Study Restricting lefts at Jordan Road will likely push more NBL traffic to Forest. The one way analysis conducted for the residential roads west of 89A does not take this into consideration. There were some movements along Forest with LOS B and C. So adding a significant number of vehicles on Forest Road and Van Deren Street would likely push some of those movements to LOS C or D, which is very different than how the intersections currently operate.

**Table 3.1 - Southern Roundabout Comparison** 

Intersection	Intersection			Movement Delay (sec)		Movement Delay (sec)		
#	Location/ Description	Approach	Movement	Roundabout at Forest-No Lefts at Jordan	Roundabout at Forest-Lefts at Jordan	Roundabout at Jordan-All Ped Crossings	Roundabout at Jordan-No Apple/Arroyo Crossing	Roundabout at Jordan-No Jordan Crossing
		NB	LT	41	4	111	114	19
		ND	TH	99	45	200	204	35
	Route 89A	SB	RT	6	4	19	18	22
1	and Forest	ab	TH	4	2	20	19	20
	Rd	ЕВ	LT	62	32	87	84	46
			RT	14	13	14	14	13
		Intersection		36	16	83	84	25
		NB	LT	-	2	31	32	12
			TH	16	15	42	42	14
	Route 89A	SB	RT	23	21	20	21	6
2	and Jordan	36	TH	17	16	21	20	7
	Rd	EB	LT	-	350	24	23	7
		EB	RT	13	152	6	6	6
		Intersection		16	31	27	27	10
	Route 89A	NB	TH	15	14	15	15	15
3	and Ped	SB	TH	27	27	23	23	24
	Crosswalk	Inters	ection	22	22	19	19	20

#### 3.4.6 Traffic Signal Timing

The Design Team discussed the coordination/synchronization of the Forest Road traffic signal with a mid-block pedestrian signal and found it both difficult to accurately model and likely far too impactful on the operation of the Traffic Signal. The addition of a likely roundabout at Jordan Road in between the traffic and pedestrian signals at Forest Road and Mid-Block, respectively, make it even more difficult to accurately model the system.

The Design Team focused on the operational efficiencies of the Forest Road signal as a standalone model and determined the following:

- Eliminating the southern pedestrian crossing of SR 89A at Forest Road allows for more NBL green time in the cycle.
- There is enough storage space for pedestrians on the north side of Forest Road to support a single pedestrian crossing on the northern leg of the SR 89A and Forest Road intersection.

It is recommended that removal of the southern pedestrian crossing of SR 89A at Forest Road be implemented as a standalone improvement that will not impact selection for the remaining alternatives. The pedestrian crossing on the northern leg will be maintained.

#### 3.5 Evaluation of Alternatives

The evaluation of alternatives was based on the issues, concerns, and opportunities gathered during the scoping phase and criteria established by the project team. The summary of the evaluation is presented in **Table 4.1**. The information received at the scoping meetings was reviewed and a list of evaluation factors developed.

Scoring is on a scale of 1-5 as follows:

- 1 Strong Disadvantage
- 2 Disadvantage
- 3 Neutral
- 4 Advantage
- 5 Strong Advantage

#### 3.6 Conclusion

It is recommended that all the improvements be implemented based on the analysis on the following pages. The Jordan Roundabout without the pedestrian crossing of SR 89A is recommended for the southern turnaround. Another potential alternative is to close the crossing during known peak travel times using a temporary barrier. This will be evaluated during final design. The northern turnaround is recommended to be the Michigan Left Type Turnaround based on the scoring criteria, however the public overwhelmingly prefer a roundabout. The final geometry is dependent on the One-Way Access.

**Table 4.1 – Alternative Evaluation Matrix** 

EVALUATION CRITERIA	RAISED MEDIAN	ADDITIONAL SOUTHBOUND LANE	NORTHERN TURNAROUND 1 – Michigan Type with One Way Access 2 – RAB with One Way Access 3-RAB median and No One Way Access	SCHNEBLY ONE-WAY ACCESS	SOUTHERN TURNAROUND 1 – Jordan RAB 2-Forest RAB	SIGNAL TIMING
Right-of-Way Needs (5%)	None.  Result: Neutral (3)	None. Southbound lane fits within the existing right of way  Result: Advantage (4)	1 – No Right of Way Required  Result: Advantage (4)  2 – Right of Way Required  Result: Disadvantage (2)  3 – Right of Way Required  Result – Disadvantage (2)	Right of Way Required from adjacent parcels. Parcel owners do not object to potential acquisition.  Result – Disadvantage (2)	1- No Right of Way required. TCE may be needed from several owners. Result: Advantage (4) 2 - Right of Way required to construct at Forest. Result: Disadvantage (2)	N/A
Land Use Impacts (5%)	Left Turn Movements reduced results in change of access to existing businesses.  Result: Disadvantage (2)	None.  Result: Strong Advantage (5)	1 – None Result: Neutral (3) 2 – None Result: Neutral (3) 3 – None Result – Neutral (3)	Impact to existing parcels, additional traffic on Schnebly through neighborhood. Opportunity to develop parcel with new access.  Result: Neutral (3)	1- Outdoor dining is severely impacted with proposed alternative.  Result: Disadvantage (2) 2 – Significant Impacts to all four corners of the intersection.  Result: Significant Disadvantage (1)	N/A
Public Outreach (15%)	Public Support  Result: Advantage (4)	Public Supports the 2 <sup>nd</sup> Southbound lane.  Result: Advantage (4)	1 – No support for this concept at Public Meetings  Result: Strong Disadvantage (1)  2 – Public Support for this alternative  Result: Advantage (4)  3 – Public Support for this alternative  Result – Advantage (4)	No objections to concept at Public Meetings.  Result: Advantage (4)	1- Businesses and Public not in favor of this alternative. Site impacts to pedestrian access and "hub" type feel of uptown tourism Result: Disadvantage (2) 2 – Public prefers Forest over Jordan RAB, several siting that a NB LT at Jordan is not necessary, could take Forest to Van Deren. Result: Advantage (4)	N/A
Earthwork (2.5%)	None.  Result: Neutral (3)	Retaining Wall and excavation near northern project limits will require haul off of material.  Result: Disadvantage (2)	1 – Reduces cuts into northern embankment slope. The improvements are within City Right of Way. Result: Advantage (4) 2 – Significant cuts/fills on north and south slopes Result: Disadvantage (2) 3 – Significant cuts/fills on north and south slopes Result – Disadvantage (2)	Significant Earthwork to cut in roadway slope.  Result: Major Disadvantage (1)	1- Widened Footprint of Jordan RAB will require subgrade prep and earthwork.  Result: Neutral (3) 2 – Significant Grade Changes required to meet approach and departure grades for a RAB.  Result: Disadvantage (2)	N/A
Operational Improvements (10%)	Enhance through traffic.  Result: Advantage (4)	2 <sup>nd</sup> Southbound Thru increase capacity of the roadway and ties into the two southbound lanes at Forest.  Result: Advantage (4)	1 – Provides turnaround for vehicles looking to access southbound parking and businesses. Storage for turnaround may be exceeded in peak times created backup into northbound travel.  Result: Disadvantage (2) 2 – Provides continuous movement for northbound and southbound travel. During peak times, NB to SB or One Way Access will conflict with SB travel from Canyon.  Result: Disadvantage (2) 3 – Combined with no One Way Access. The	Pulls traffic from 89A to directly access parking  Result: Advantage (4)	1- Jordan RAB without pedestrian crossing has the lowest delays through the corridor Result: Advantage (4) 2 – Forest RAB operates similar to Jordan RAB without ped crossing. May impact traffic on Van Deren when Jordan is no longer accessible. Result: Neutral (3)	Difficult to synchronize a mid block pedestrian crossing with a full traffic signal. Improvements to Forest recommended to include removal of south pedestrian crossing and optimized signal timing. Result: Advantage (4)

			roundabout separates the SB and NB travel with a raised median allowing for optimal operational			
			movement through RAB.  Result – Advantage (4)			
Safety Improvements (15%)	Reduces Left Turns and Pedestrian Crossings.	Increased traffic flow leads to higher speeds. Must be combined with median to	1 – Free Left with potential sight distance issues.  Result: Disadvantage (2)	No safety improvements	1- Reduces conflict movements and left turns.	Eliminates one conflict with pedestrians and left turns.
	Result: Advantage (4)	provide safe travel for multi-modal functions.	2 – Roundabout with yield conditions for cars entering the RAB.  Result: Disadvantage (2)	Result: Neutral (3)	Result: Advantage (4) 2 – RAB are in general safer than signals	Result: Advantage (4)
		Result: Disadvantage (2)	3 – No conflict between NB and SB entering the RAB.  Result – Advantage (4)		Result: Advantage (4)	
Roadway Geometry (5%)	4' Median does not create need to widen road, 6' and 16' impact existing outside curb. 6' preferred due to minimum impacts and ability to landscape.  Result: Neutral (3)	No geometric changes with southbound. Fits within the existing two way left turn and parking buffer.  Result: Advantage (4)	1 – Sight distance is a potential issue. Tapers run past City Right of Way requiring a Result: Disadvantage (2) 2 – Roundabouts have significant geometrical impacts Result: Disadvantage (2) 3 – Roundabouts have significant geometrical impacts Result – Disadvantage (2)	New Alignment. Vertical Geometry challenges to meet design criteria and minimize costs.  Result: Disadvantage (2)	1- Work with existing geometry and widened footprint.  Result: Advantage (4)  2 – Significant Geometry changes for Forest RAB to function.  Result: Disadvantage (2)	N/A
Constructability & Traffic Control (7.5%)	Median Constructability depends on detours/closures approved by public.	No constructability issues are anticipated. The new TI construction will have minimal traffic control impacts to I-8 that will be limited to single-lane closures.	1 – The majority of the construction occurs north of the existing roadway simplifying constructability and traffic control.  Result: Advantage (4)	Difficult terrain to construct. May require blasting.  Result: Major Disadvantage (1)	1- Constructability and Traffic Control will be challenging.  Result: Disadvantage (2)  1- Constructability and Traffic	Removal of crosswalk and ramp  Result: Neutral (3)
	Result: Disadvantage (2)	Result: Disadvantage	2 – Construction will impact both directions of travel  Result: Disadvantage (2)  3 – Construction will impact both directions of travel.  Result – Disadvantage (2)		Control will be challenging.  Result: Disadvantage (2)	
Estimated Construction Cost	TBD	TBD	1 – Least Expensive Result: Advantage (4)	Costly Construction.	1- Costly.  Result: Disadvantage (2)	High cost/benefit ratio
(approximate) Funding (10%)	Result: Neutral	Result: Neutral	2 – Most Expensive  Result: Disadvantage (2)  3 – Most Expensive  Result – Disadvantage (2)	Result: Disadvantage (2)	2 – Significant Cost Result: Major Disadvantage (1)	Result: Advantage (4)
	Eliminates Left Turns and illegal pedestrian crossings.  Result: Strong Disadvantage	Parking will need to be accessed from the outside lane. Signage will need to be posted to notify travelers.	1 – Provides turnaround access to southbound parking and municipal lots if one-way access is provided.  Result: Advantage (4)	Direct Access to Municipal Parking.  Result: Advantage (4)	1- For Jordan to full function, the pedestrian crossing needs to be eliminated.  Result: Disadvantage (2)	Eliminates a pedestrian crossing  Result: Advantage (4)
	Total Strong Distartinage	Result: Neutral	2 – Provides turnaround access to southbound parking and municipal lots if one-way access is provided.  Result: Advantage (4) 3 – Provides turnaround access to southbound parking but will not provide access to municipal lots (combined with No one way access)  Result – Neutral		2 – Forest Road RAB would eliminate Jordan RAB LT but allow for the pedestrian crossing. No space for bike lane at Forest RAB. Would require a reroute. Disadvantage (2)	
Utility Impacts (2.5%)	No impacts. New irrigation which will require water	Minimal impacts to utilities are expected.	1 – None Result: Neutral (3)	No known utilities in the area. Will require potholing and	1 – None Result: Neutral (3)	None
	service.	Result: Disadvantage	2 – None	mapping to determine	2 – No power requirements for	Result: Neutral (3)

			Result: Neutral (3)		RAB at Forest	
	Result: Neutral (3)		3 – None	Result: Disadvantage (2)	Result: Advantage (4)	
			Result: Neutral (3)			
Structures (2.5%)	To fully eliminate pedestrian	Retaining Wall likely needed at northern	1 – None	Retaining Wall will be required to	1- No structures required.	N/A
	conflicts need to accommodate	limits of 2 <sup>nd</sup> southbound lane	Result: Advantage (4)	construct One-Way Access.	Result: Advantage (4)	
	future pedestrian bridge.		2 – Retaining Wall may be required for fill/cut		2 – Impacts to existing structures	
		Result: Disadvantage (2)	slopes on each side of the RAB	Result: Disadvantage (2)	and 20' + tall retaining wall at	
	Result: Neutral (3)		Result: Disadvantage (2)		Forest.	
			2 – Retaining Wall may be required for fill/cut		Result: Major Disadvantage (1)	
			slopes on each side of the RAB			
			Result: Disadvantage (2)			
Connectivity and	Reduces connectivity	Provides continuous southbound lanes from	1 – NB to SB must yield to SB thru traffic.	Provides direct connection to	1- Full access remains at Jordan.	Allows for optimized traffic
Continuity (10%)		Forest to the Canyon.	Result: Disadvantage (2)	Municipal parking. Would	Pedestrian crossings moved to	signal at Forest.
	Result: Disadvantage (2)	•	2 – Yields required prior to entering the RAB.	conflict with NB/SB turnaround	Result: Neutral (3)	
		Result: Advantage (4)	Result: Disadvantage (2)	in RAB.	2 – Allows for Jordan Ped	Result: Advantage (4)
			3 – Continuous movement through RAB to		Crossing	
			Uptown. No access to Municipal Parking due to	Result: Neutral (3)	Result: Advantage (3)	
			median.			
			Result – Disadvantage (2)			
Summary	Raised median is required	2 <sup>nd</sup> SB lane will improve traffic flow,	No public support for turnaround however the	Costly improvements where	Jordan RAB is the most cost effective and fits within the	Focus should be on signal
	for this project to be successful. Width should be	especially in PM for traffic from Oak Creek Canyon.	RAB is more costly and impactful to public during construction.	impacts may outweigh benefits. Heavily dependent on	existing roadway footprint.	optimization and not synchronization.
	sufficient to allow planting	Creek Canyon.	during construction.		Forest offers ability to allow for	synchronization.
	aesthetic with minimal			developers and property owners.	pedestrian crossing at Jordan to	
	impacts to outside			owners.	remain but is significantly more	
	improvements.				costly.	
Scoring	2.975	3.25	1-2.675, 2-2.575, 3-2.975	2.9	1-2.9, 2-2.675	2.5
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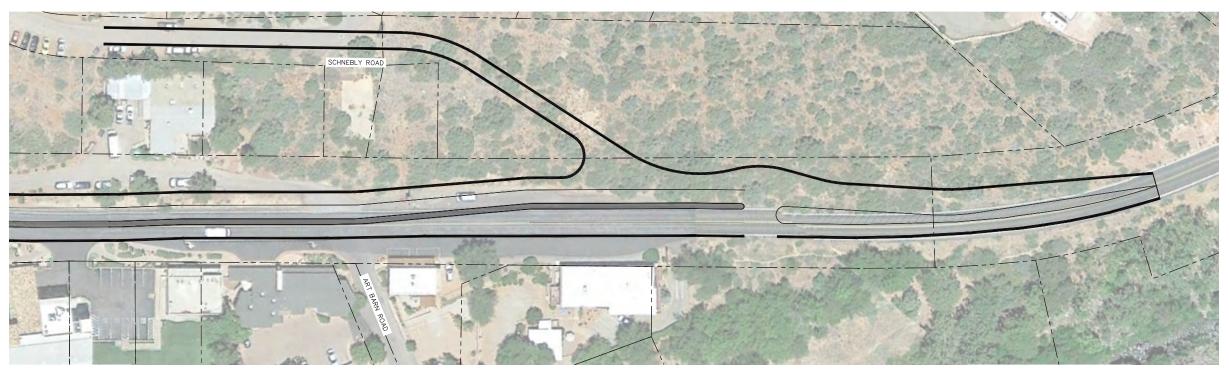
- **4.0 Opinion of Probable Cost Estimate** 
  - 4.1 To Be Provided with Final DCR Placeholder in Appendix

**APPENDIX F: Renderings** 

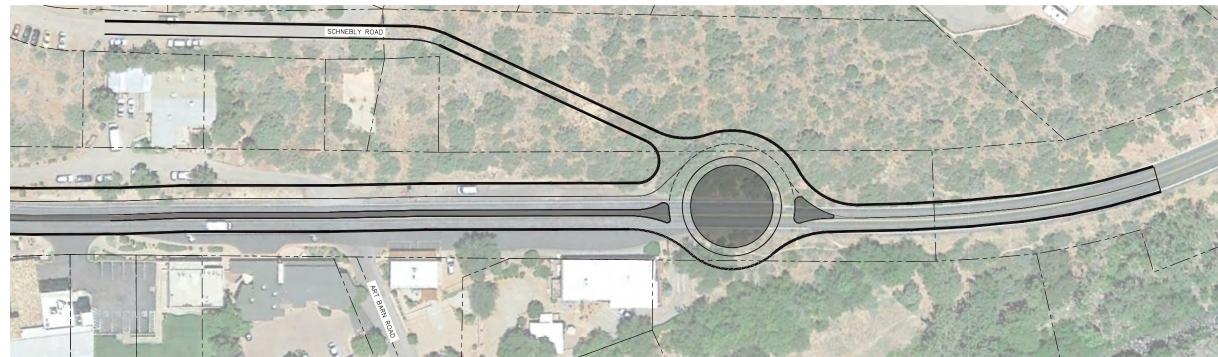








NORTHBOUND TURN AROUND ALTERNATIVE 1 SCALE: 1"=40'

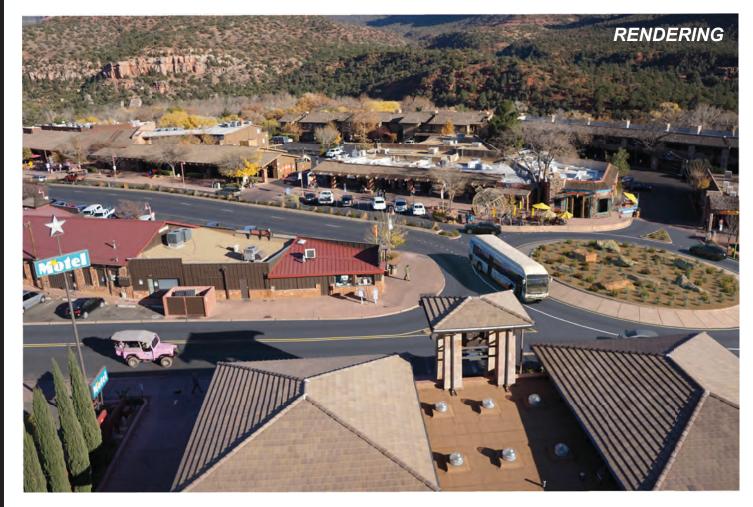




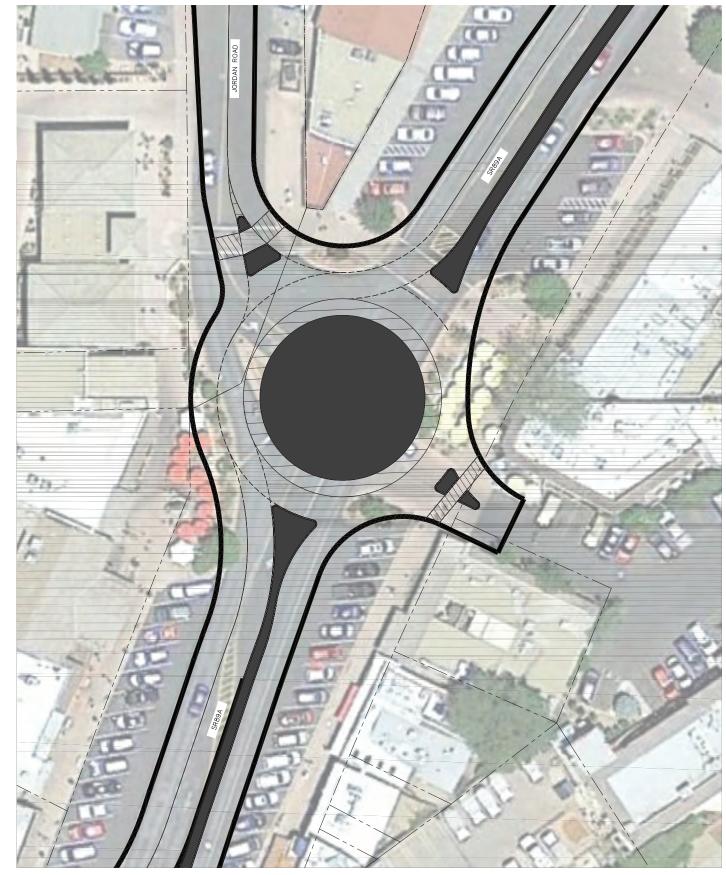


NORTHBOUND TURN AROUND /SCHNEBLY ROAD CONNECTOR













SEDONA MOTION WAYSIDE PEDESTRIAN BRIDGE





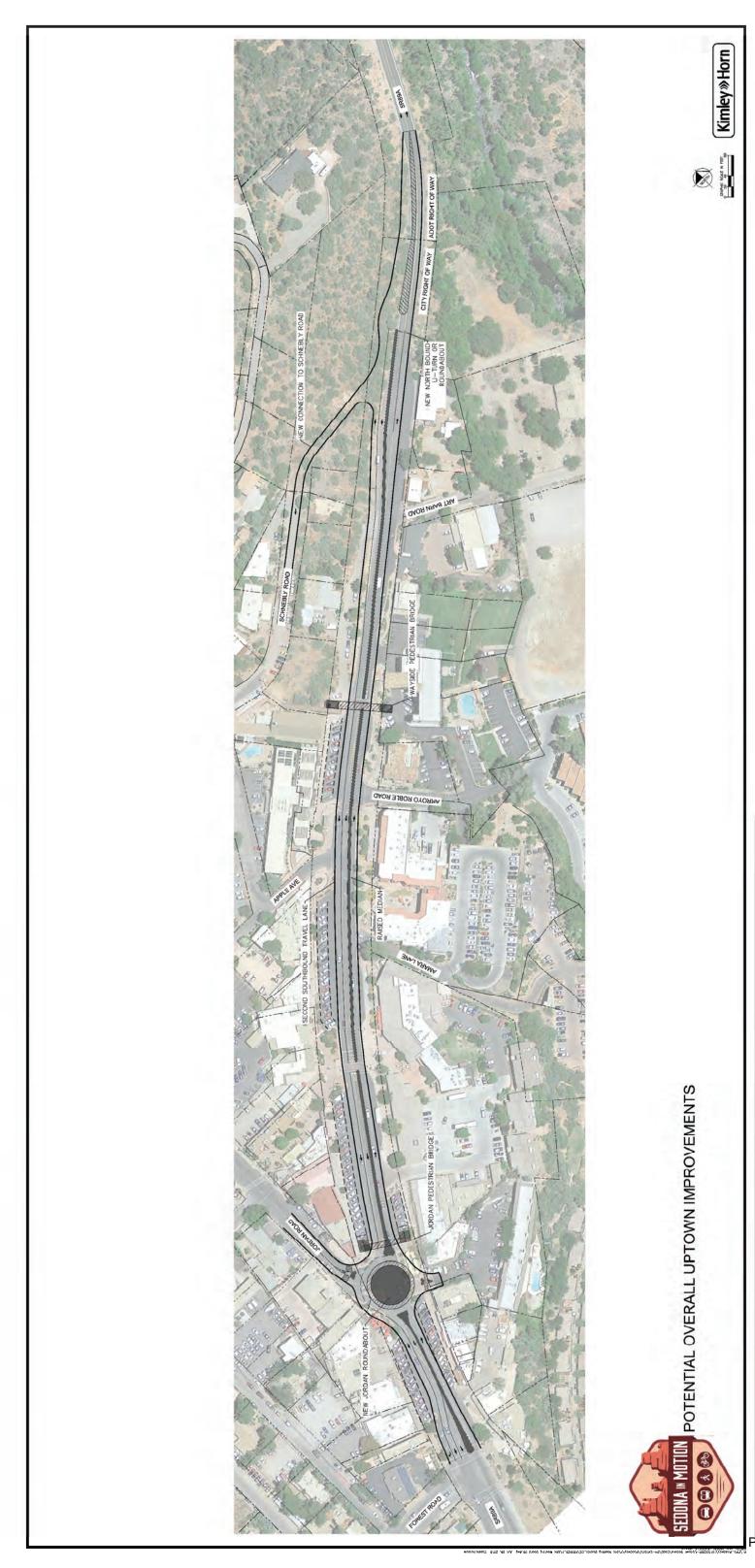


ONE WAY STREET IMPROVEMENTS (STUDY PHASE)





OVERALL UPTOWN WITH FUTURE PEDESTRIAN BRIDGES (CONCEPT)



Uptown Sedona Roadway Improvements – Draft Design Concept R	epor

**APPENDIX H: Public Meeting Notes Summary** 

No.	Feature	Comment	Sub-Category	Discussion
1		Will there be a roundabout at Forest Road	Forest Road	During the TMP it was expressed to keep left turns at Jordan Road.  Moving the RAB south to Forest would be a viable alternative due to - (a)  Traffic counts only show a peak of 86 vehicles making the NBLT movement to Jordan (b) Extending the median south through Jordan would enable the intersection to be designed to significantly simplify the pedestrian movement. How do we control PED movements (bridge, signalized ped crossing)?
2		More left turns onto Forest than Jordan.	Forest Road	
3		Vast majority of people that turn left, do so at Forest not Jordan.	Forest Road	
4		Reconsider roundabout at Jordan Road and look at whether it would work at Forest Road.	Forest Road	
5		I would love to help the City better asses and target roundabout at Forest Road. Everyone seems to agree aesthetically as well as practically. It would affect less businesses and could be a real statement.	Forest Road	
6	Jordan Roundabout	What is the impact of a roundabout on pedestrian crossing at Jordan Road.	Impacts - ROW	Current RAB is greatest impacts and we will minimize as much as possible and still hold safety and design intent.
7	Jordan Roundabout	Taking out all the seating and pedestrian space in front of 89 Agave and trading it for more vehicle space (trading critical business/pedestrian space for vehicles).	Impacts - ROW	
8		Can the footprint of a roundabout at Jordan Road be shrunk to reduce the impact on roadside pedestrian access? Keep the pedestrian areas maximized.	Impacts - ROW	
9		Jordan Road roundabout size	Impacts - ROW	
10		Safety issue w/roundabout at Jordan (i.e. errant vehicle onto sidewalk area)?	Safety	
11		Roundabout at Jordan, how will pedestrian crossings be handled?	Pedestrian Access	
12		Left turn onto Jordan Road from SR 89A necessary? (Previous COS proposal to restrict LT onto Jordan Road was adamantly opposed by businesses.)	Data	
1		Given the proposed median, it was suggested that a full roundabout at the north end would provide better functionality to turn most travelers back to the south;	Roundabout	
2	Northern Turn	Attendees were unanimous in their preference for a roundabout in lieu of the left turn lane arrangement.	Roundabout	Everyone is in favor of the RAB. The RAB impacts the free flow of SB traffic.
3	Around	All persons visiting the board preferred the Roundabout turn around as opposed the left turn lane configuration.	Roundabout	
4		What is the traffic basis for the roundabout, or LT-Turn lane at the north end of Uptown?	Data	

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1		Put at Mid-block	General	
2		Should be lower priority	General	
3		Must be ADA compliant	General	
4		Does the city have a count on the number people using the elevator at Wayside?	Data	
5	Pedestrian Overpass	It is absolutely necessary to build either and underpass or pedestrian bridge between Tlaquepaque and Tlaquepaque north as that is a huge back up problem. [Deb Sheahan, Sedona Resident].	Wayside	
6		Get pedestrians across 89 on overpasses. It will alleviate traffic as good as the traffic control officers, or better. It will turn in to a great picture/destination for tourists. And Add one at Tlaquepaque! And include Forest Road by-pass. I like all proposed improvements really.	Wayside	
7		Pedestrian bridge at Jordan Road is a good location;	Jordan	
1		If this is was an ADOT right-of-way would ADOT allow a pedestrian overpass?	General	
2	Dight of Mov	Are improvements being completed within the R.O.W.?	General	All improvements are in City ROW except for the taper at the northbound
3	Right of Way	Several said they heard rumors about eminent domain but felt that if homeowners were appropriately compensated or won property improvements because of projects, the overall benefit of these SIM projects were worth it.	General	turn around.
1	Crosswalks	Increasing cross walks?	General	Decreasing number of crosswalks
2		Tie all cross walks together so that traffic stops all at once pedestrians cross all at once.	General	Crossing at Midblock, Forest, and upper limits
3		Jordan/SR 89A serves as a kind of pedestrian hub and should be maintained without impact to roadside pedestrian areas.	Jordan	Optimum is to eliminate, but how much worse would it be if we allowed peds to cross? Per Andy Dickey, city could close crossing during peak periods.

1		Can we install 2 (two) southbound lanes without installing the median?	No Median	
2		Why not just stripe it?	No Median	
3	Median	Concern about how southbound traffic out of the canyon would be able to recognize how to get to or access the Sedona Arts Center (SAC contact – Vince Fazio) with the new raised median (no left turn option).	LT Movements	
4		Unless a barrier is built into the median that gives visual deterrence, people will still cross. Vegetation alone won't work;	Pedestrian	Use of gabion baskets or other large features to restrict pedestrian refuge
5		Need some ideas on how to keep tourists from running out in front of cars (jay walking) as this is a huge problem in Uptown. Need Clear Signs. [Deb Sheahan, Sedona Resident].	Pedestrian	in median.
1		Street side scaping impacted by roundabout.	Jordan RAB	RAB Impacts will be minimalized as much as possible.
2		Improve/maximize curbside pedestrian ways and appeal.	Streetscape	
	Landscaping	Make pedestrian crossing corners more attractive (a visual attraction that inspires pedestrians to want to	Characharana	
3		go there).	Streetscape	

1		Signage is critical for getting people to parking (i.e. L'auberge Lane);	Signage	
2		Signage will be critical for getting parking traffic up the proposed Schnebly access from the North turn around/roundabout;	Signage	
3		A small park area with a parking garage would be ideal for the area lying west of the north turn around (currently vacant property).	Parking	
4		If any future/proposed parking deck multi-level, then side facing residence should not look like a deck.  Parking Architecture should be pleasing to residents view and provide corridor landscaping. No exit or entry to deck onto Mountainview.	Parking	
5	Misc.	Residents requested ways to limit uncontrolled pedestrian crossings on Forest Road between 89A and the Hyatt, and suggested walls and/or sidewalks on the north side of Forest Road between SR89a and Smith Rd.	Pedestrian Access Forest	Out of scope, if we move the RAB to Forest look at adding sidewalk.
6		A number of residents requested "more bike lanes" and "make people, not cars" a primary emphasis. Residents were enthusiastic about the idea of multi-use trails.	Pedestrian Friendly	
7		The whole planet is going to no cars, while the City is going to more cars.	Pedestrian Friendly	
8		Improvements over the last 35 years are for more and more roadway, which is changing the character of Uptown to be a highway thoroughfare taking away from the pedestrian friendly walk area.	Pedestrian Friendly	
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1	Signal	Forest Road intersection and signal improvements needed.	Forest	Work in conjunction w/. Potential RAB changes
2	Improvements	Benefit of signal timing?	Forest	

1	Construction	Construction period.		
2		CONSTRUCTION – Communication during project construction will be essential for guests/visitors and merchants!		
1		Mountainview Dr. corridor of homes (now historical), suggest doing underground utilities in this area to improve the value of homes that will be impacted by new routed traffic to parking deck. Will help improve the beauty.	Utility	
2		All residents supported the concept of one way streets and limited parking for Smith, Wilson and Van Deren. One resident, who lives on Navihopi, did not like having to travel farther to reach Wilson or using Van Deren if he wished to go southbound without using 89A because he was used to taking Smith SB. Many residents felt that one-way streets would improve safety in the area.	Restrictions	
3	One Way (SIM 4)	Residents requested more sidewalks in Uptown in addition to the ones on 89A., and in particular on Smith, Wilson and Van Deren	Pedestrian Access	
4	One Way (SIM 4)	Some residents expressed concern about losing some property to sidewalks, but then ultimately stated that their desire for a sidewalk was greater than their concern about losing property.	Pedestrian Access	
5		Concerned about increased traffic flow on our very narrow streets and increased speed of tourist traffic. Would like speed limits set at 15 mph and speed bumps to slow cars. Also concerned about visitors parking in front of our homes, which is already changing the atmosphere and quality of life in our historic neighborhoods!	Speed Control	
6		Several residents requested speed humps, a lower posted speed limit of 15 mph on Smith, Wilson and Van Deren, and more police enforcement of speeding and illegal parking in general.	Speed Control	
1		Need bypass of traffic away from Uptown.		
2		The problem is SR 179 south from the "Y", need to widen the road there.		
3	Other SIM projects	I believe a prime priority for residents (not businesses of Uptown) is the Forest Road extension, which allows us to bypass the existing traffic circles and provides easier access to West Sedona. [BG Andy Smoak, 195 Apache Trail].		
4		Several people commented that they would like to see the Forest Road connection project constructed.		
5		Several side comments were received in support of the Forest Connection by Uptown residents.		